

Blower

Commonwealth of Pennsylvania.

REPORT

OF THE

Department of Mines

OF PENNSYLVANIA

Part 1—Anthracite

1911

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LETTER OF TRANSMITTAL

Department of Mines,

May 7, 1912.

To His Excellency, John K. Tener, Governor of Pennsylvania:

Sir: In compliance with the Act of Assembly of April 14, 1903, I beg to submit herewith, for transmission to the General Assembly, the report of the Department of Mines for the year ending December 31, 1911. Part I covers in detail the operations in the twenty-one Anthracite Districts, Part II the operations in the twenty-five Bituminous Districts, as returned by the Inspectors. Observations and suggestions are also offered relative to mining subjects.

Respectfully submitted,

JAMES E. RODERICK,

Chief of Department of Mines.



REPORT

OF THE

DEPARTMENT OF MINES

INTRODUCTION

The year 1911 was an unusually active one in the coal trade. In spite of the depression and uncertainty that surrounded many other lines of business it is evident from the great tonnage of the year that no matter how quiet or inactive other lines of business may be, there is nevertheless a great demand for fuel.

The anthracite tonnage for the year was the heaviest in the history of the industry, amounting to 90,917,176 net tons. This exceeds by about 4,000,000 tons the great production of 1907. The bituminous tonnage amounted to 142,189,329 net tons. The anthracite tonnage was not only proportionately greater than the bituminous, but the coal was marketed with a good profit. This industry is one of the most stable and successful in the country.

Generally the bituminous trade has been demoralized and discouraging, owing to faulty merchandizing, that is, the production is unrestricted and the great amount of coal on the market naturally keeps the prices at a low level. It is high time that the bituminous producers effect some regulation of their trade that will bring them more money for their coal; but how to do this is a problem. The business interests of the country are now so hedged about by restrictive laws regarding the making of price agreements that relief by this method is highly improbable. There is a generally expressed opinion among those interested in bituminous coal mining that legislation must be secured that will enable the producers to exercise a better control of the industry, under Federal supervision if need be. Such control seems essential too if real conservation, that is, maximum recovery with minimum waste, is to be accomplished.

There were no labor difficulties of consequence to interfere with the production in Pennsylvania and the supply therefore has been abundant throughout the year, except in the special sizes of anthracite.

The agreements in both regions expire April 1, 1912, and pending the adjustment of differences between the miners and operators and the adoption of new agreements the usual unsettled conditions will no doubt prevail.

Mining men generally are hopeful that a strike may be averted; this is particularly true in the anthracite region. A strike not only

interrupts the course of trade and causes demoralization, but it engenders a feeling of bitterness and causes a natural estrangement between the operator and the miner that are hard to overcome and may take months to obliterate.

Fortunately it is probable that nothing more than a suspension will take place while the differences that exist are being settled. This is the same and sensible arrangement now resorted to pending the settlement of differences and is frequently nothing more than a vacation period during which time amicable relations may be preserved between the operator and the miner.

A strike is a break-off definitely of all negotiations, while a suspension is a period in which the negotiators can keep in touch and arrange for a settlement. Both a strike and a suspension mean a cessation of work, but the former may be attended with feelings of active animosity and turbulence of action, while the latter is a do-nothing period during which the opposing forces may retain the most friendly relations.

A suspension of a few weeks would not be unwelcome to most of the operators. In the anthracite region the operators by reason of their control of the industry will no doubt readily adjust matters, but it will be more difficult for the bituminous operators not only because of the lack of cohesion in their ranks, but because both union and non-union districts contribute to the output. While some apprehension may be felt regarding the outcome in the bituminous region it is very probable that a cessation of work for a few weeks will be all that will mark the changes from the old to the new agreements.

The consumption of coal in various ways is constantly increasing. There is a great demand for its use in gas making, the production of electricity, railroad fuel and domestic consumption. It is probable from the indications at the close of the year that 1912 will be one of the greatest years as far as production is concerned. At least the outlook for the first six months is unusually good and it is hoped that the political excitement of the year will not affect the latter part.

Probably the American coal trade will be benefited by the opening of the Panama canal. It has been suggested that the opening of the canal may render feasible the establishment of a great American Station for supplying coal from the mines of the United States to the vessels of the world. An estimate prepared by the Bureau of Statistics, Department of Commerce and Labor, of the coal consumption on the oceans of the world shows the amount to be approximately 75,000,000 tons a year, valued at over \$250,000,000. An impetus may thus be given to export trade that will mean a great deal to the American shipper. Coal exports have shown a steady and gratifying increase during the last ten or twelve years and the amount now sent abroad is about three times as great as in 1900.

COAL PRODUCTION IN PENNSYLVANIA

The table herewith shows the average number of days worked in each district during 1911, the production of each district, the average production per day in each district, and the estimated production on a basis of 280 working days, or an average of 19½ days each month; also the total production, the total average production per day and the total estimated production of 280 days.

Districts	Average number of days worked in breaker	Production	Average production per day*	Estimated production of 280 days*
First,	229	2,773,079	10,894	3,050,230
Second,	227	5,286,459	21,992	6,157,760
Third,	212	4,628,658	20,282	5,678,960
Fourth,	214	4,071,876	16,668	4,667,040
Fifth,	225	3,910,238	16,173	4,528,440
Sixth,	252	5,064,682	20,098	5,627,440
Seventh,	204	5,469,319	25,285	7,079,800
Eighth,	233	3,966,457	16,616	4,652,480
Ninth,	203	5,794,137	25,526	7,147,280
Tenth,	225	4,423,682	18,177	5,089,560
Eleventh,	249	5,785,654	23,180	6,490,400
Twelfth,	261	3,043,787	11,662	3,265,360
Thirteenth,	241	3,447,275	12,644	3,540,320
Fourteenth,	243	2,476,989	10,191	2,853,480
Fifteenth,	240	3,439,314	14,330	4,012,400
Sixteenth,	239	2,908,339	11,561	3,237,080
Seventeenth,	273	4,671,704	16,144	4,520,320
Eighteenth,	233	2,866,067	12,301	3,444,280
Nineteenth,	262	3,173,221	11,623	3,254,440
Twentieth,	226	2,364,683	8,770	2,455,600
Twenty-first,	216	1,611,630	7,461	2,089,680
Totals and averages,	234	81,176,050	331,578	92,841,840

*Production from washeries not included.

INCREASE IN THE NUMBER OF MINE INSPECTORS

The policy of the Department of Mines has always been to place every possible safeguard around the vast army of miners that labor in the great coal fields of Pennsylvania. This large body of workers, numbering more than 350,000 and supporting directly at least 1,000,000 persons and indirectly supporting and influencing a far greater number, are engaged in work characterized by peculiar dangers and discomforts. To alleviate this condition as much as possible, the State has very wisely and considerably from time to time enacted legislation designed to promote the welfare of the miners in regard to their safety and comfort.

It is the province of this Department to enforce these laws, and in order that they may yield the greatest efficiency and do the most good the Department has deemed it wise to increase gradually the number of Mine Inspectors. This policy has resulted in the increase of Inspectors in the Bituminous region from 15 in 1903 to 25

in 1911, and in the Anthracite region from 15 in 1903 to 21 in 1911. The result of this action of the Department has been to give much more careful supervision to the mines and in that way make possible safer and more healthful conditions for the mine workers.

WORK OF THE MINE INSPECTORS

The work of the Inspectors has been very satisfactory during the year. They have made every effort to secure strict compliance with the mining laws, and the result has been such as to commend their work to the Chief of the Department of Mines.

During the year they spent 3,172½ days inspecting mines; 132½ days inspecting machinery and plants, 458 days investigating accidents; 118½ days attending inquests; 1,141 days at office work, 37 days inspecting maps and plans; 348½ days in consultation on mining matters; 1 day in consultation on legal matters; 158 days traveling on duty; 353 days on sick list; 116 days legal holidays; 59 days attending court; 37½ days at mine fires; 227½ days on Mine Foremen's Examining Boards; 19 days attending Mining Congress; 31 days attending funerals; 12 days on account of deaths in families; 4 days sickness in families; 98 days on vacation; 178 days on private business; a total of 6, 702 days, or about 319 days a year for each Inspector.

ANTHRACITE LAW REVISION

An act was passed by the Legislature and approved June 14, 1911, creating a Commission to revise and codify the present Anthracite Laws of the State.

The act provides that three of its members shall be selected from the operators, managers and superintendents of the Anthracite region, three from among the mine workers of the region, one shall be a member of the Senate, one a member of the House of Representatives and one a person versed in the art of mining. Governor John K. Tener appointed on the Commission the following persons: Messrs. W. R. Reinhardt, Shamokin, Operator; W. G. Robertson, Scranton, Operator; W. D. Owens, West Pittston, Operator; Martin A. Nash, Glen Carbon, Mine Worker; H. C. Morgan, Scranton, Mine Worker; Peter J. O'Donnell, Wilkes Barre, Mine Worker; Sterling R. Catlin, Wilkes-Barre, State Senator; Edwin E. Jones, Harford, Member of the House of Representatives; James E. Roderick, Hazleton, Chief of the Department of Mines.

The act provides that the Commission shall hold its meetings in the city of Wilkes Barre where all persons who are interested in the revision and codification of the laws may appear and give expression to their views. The Commission is authorized to call into consultation any person who in its opinion may be able to give information that will assist in the work of revision.

The Commission met to take up the work imposed upon it, but in a short time found that very little progress could be made by so large a body and it was decided to entrust the preparation of the preliminary work to a sub-committee of three. The Chairman of the Commission, Senator Catlin, named James E. Roderick, W. D. Owens and P. J. O'Donnell to act as members of the sub-committee. Hon. W. W. Hall, of Pittston, was elected Secretary for both the Commission and the sub-committee. The work is now progressing rapidly and it is expected that the Commission will be ready to submit the new code to the Legislature in 1913, as required by the Act creating it. No doubt many changes will be made in the laws governing this great industry, as Chief Roderick has for many years advocated new legislation to meet the demands of the new conditions.

A STATE COAL MINE

In this connection it is interesting to observe that an experiment in the operation of a coal mine on State land and under State control is being tried in Colorado. A representative of the State has been granted a lease on coal land, and the "State mine" will be operated under contract, subject to certain restrictions. Any attempt to sell out to a trust or extort unreasonable returns from the people will result in forfeiture of the lease.

The mine is located near Como. The contract with the operator stipulates that "the coal mined must be sold at a profit not to exceed fifty cents per ton, and that no combination may be entered into to keep up the price of coal. The operator's books must be open to inspection by the State Land Board to make sure that the operator lives up to the letter of his contract."

This is the first attempt at State control of coal-mine operation and price regulation in the United States, and, in consideration of the controversy regarding governmental leasing of coal lands and operation of coal mines, the outcome of the experiment will be watched with interest.

EDUCATION OF MINERS

It is a recognized fact that one of the greatest elements of physical danger to the industrial workers of the United States is to be found in the inability of the many workers from Continental Europe to understand the English language. The Department of Mines has appreciated the gravity of this condition, particularly as pertaining to the workers in the coal mines, and has for the past ten or twelve years made an effort to have the Miners' Examining Boards live up to the provisions of the law in the issuance of certificates to miners. The Act of 1897, amendatory of the Act of 1889, requires that each miner before receiving a certificate of qualification shall have answered

twelve questions intelligently in the English language. We regret to admit the failure of the effort on the part of the Department; the Examining Boards have continued in their illegal and nefarious practice of giving out certificates indiscriminately, and today the mines are filled with workers who cannot speak and, in many cases, cannot even understand the English language.

It is gratifying to know that other industries are awakening to this menace to the safety of employes and that efforts are being made to improve the conditions. Some of the manufacturers in New England have taken up this matter recently and are making the study of English compulsory on the part of their employes. Notices were posted at the mills to the effect that six months' time would be allowed for the acquisition of this knowledge. The task, as may be imagined, was not an easy one.

The Iron Age in speaking of this movement says:

"The campaign had to be carried beyond the works. The clergy of the city, whose congregations include the men and women in question, were called into the conference. The services of many churches are conducted in foreign tongues, so that their parishioners receive no education in English from this source. Most of the clergy have seen the wisdom of the effort and are assisting so far as is within their power. Night schools were established in the works, stenographers acting as instructors. One of the plants employs a physician who is in frequent contact with every employe. The test of a knowledge of English is largely through him, in the ability of employes to understand his words and to answer him intelligently."

The results thus far have been eminently satisfactory and if the system could be extended and enforced wherever foreign workers are employed in large numbers, it would undoubtedly tend to the safety of the employes.

It is unfortunate that many of the foreigners who come to this country, particularly to the mining region, have no intention of remaining. Their stay is prolonged only long enough to amass a considerable sum of money and then they depart to their native homes where they can live among their own people under conditions more congenial to them. Having the feeling that they are not to make this country a permanent residence, they take no interest in our institutions or our civic life and make no effort to learn the language. It is to be hoped that this compulsory method will become general. If it could be applied to the mine workers of the country there would be a material lessening of the dangers pertaining to mining and, no doubt, a very desirable improvement in the conditions generally that surround the mining occupation.

The American mine operator and the English-speaking miners appreciate this need of education on the part of their foreign co-laborers. The danger to be apprehended from workers who are not only unskilful and inexperienced, but ignorant of the English language and therefore incapable of understanding the rules and instructions, can scarcely be overestimated.

During recent years this danger has increased with the great increase in the number of foreign workers, and the realization of the menace these men are to themselves and their fellow-workmen has

led to the adoption of educational means by many of the operators. It is very gratifying to know that this work is producing most beneficent results and will have a direct effect in minimizing or reducing the dangers of mining.

In this connection we refer to the work of the Mining Institute in the Anthracite region, the purpose of which is to extend to the mine workers opportunity for the acquiring of knowledge on various subjects in addition to the English language.

The subjects taught in the Mining School are as follows: Mine Law, Mine Gases, Ventilation, Air Compression, Haulage, Drainage, Mine Mathematics, Mine Surveying, Mechanics, Timbering, Pumping, Electricity and Magnetism, Track Work, Preparation of Anthracite.

The Institute has at present 1,562 members and the Mining School proper 67 students. The Institute held six meetings during the year, with an average attendance of 265 men.

In connection with the meetings a question box is placed at the door and the men who are too timid to ask questions in person are led to drop many questions into the box and these questions are later taken up by the Board of Directors and answered by some competent person. The utmost freedom of speech and opinion is allowed in connection with the public meetings of the Institute. The membership includes all classes of the mining fraternity from the door boys to the presidents of some of the companies. The superintendents and mine foremen make special effort to develop intelligent interest on the part of men and boys in their employ.

The Institute is affiliated with the Young Men's Christian Association and works in perfect harmony with that Institution.

ECONOMY AND MINE ACCIDENTS

A great deal has been said in recent years regarding the relation of economy to mine accidents. Some of the more radical thinkers advance the theory that if the mine operators were compelled to pay for the destruction of human life, say, from one thousand to five thousand dollars for each fatal accident, the amount, of course, to be determined by the degree of neglect charged against the superintendent, foreman, assistant foreman or fire boss, as the case may be, there would be much greater efforts made to reduce the fatalities. Such a method, it is asserted, would compel or at least induce managers and general superintendents to insist upon more care and precaution on the part of all persons connected with the operation of the mines, and as far as possible all unnecessary risks of mining and transportation would be eliminated.

I do not fully agree with this view. In my opinion the person directly responsible for an accident (if not the victim) should be held strictly to account and punished for his neglect or carelessness. It is extremely difficult to fix the punishment for such acts of neglect or carelessness, but as a general rule it would be nothing more than just that the miner who neglects to secure the working place over

which he has charge should, if his neglect results in the loss of life, be punished by imprisonment for at least five days. A similar punishment should be meted out to mine foremen, assistant mine foremen and fire bosses whose carelessness and negligence result in fatalities.

A superintendent whose neglect of duty results in fatalities to those under his charge, directly or indirectly, should suffer a longer term of imprisonment, say, ten days.

While, as stated before, I do not believe in imposing penalties upon the operators for the accidents that may occur in the mines through the neglect of their officials, I am very decided in my opinion that in all cases of accident the victim, if seriously injured, should be taken care of by the operator until he recovers, or in case of death those dependent upon him should be compensated as liberally as possible.

I am also of the opinion that in alleviating the sorrow and contributing to the personal needs of those who are left dependent, there should be no distinction on account of the manner in which the bread winner was removed, whether by his own rash act or the act of some one else. Some day in the not far distant future the rules as applied by the various governments to the men in their armies and navies will be made applicable to the men in the mines and in other dangerous industrial pursuits. It will then be not a question as to how the man was killed or injured, but the fact that he was killed will be all that is necessary to bring to his dependents a compensation that will place them beyond want.

Coal companies have frequently been criticised for what has been designated as inordinate greed in their efforts to increase their tonnage at the expense of the safety of the employes. This opinion is erroneous, for while all managers and superintendents make every effort to increase the production of coal they, as a rule, bear in mind while doing so the welfare and safety of the employes. In fact many of the largest companies have adopted as their motto, "Safety First," and they hold their superintendents, foremen and fire bosses who have charge of the mines to close account for any loss of life.

COMPENSATION FOR MINE ACCIDENTS

A question that has always been close to the Department of Mines is the question of rendering financial assistance to mine workers and those dependent upon them in case of death. The Chief of the Department has for years, ever since he wrote his first report as inspector in 1881, urged the adoption of some method of taxation or of fixed contributions that would relieve the immediate wants of those affected by accidents, give proper support to those who are rendered incapable of continuing work and also provide for the widows and children of those who are killed.

It is a gratifying fact that the welfare of injured mine workers and the families who may be left destitute by the death of husbands and fathers is receiving more attention now than ever before. This

beneficent work has been taken up by the United States Government, and also by some of the State Governments, and its scope has been greatly enlarged by including workers in all industries. In Pennsylvania, under authority bestowed by the last session of the Legislature, Governor Tener sometime ago appointed what is termed An Industrial Accidents Commission. The Commission consists of the following members: David A. Reed, Pittsburgh, Chairman; J. B. Colaban, Jr., Philadelphia; John J. Cushing, Monessen; Francis Feehan, Pittsburgh; George C. Hetzel, Chester; Morris Williams, Philadelphia; Francis H. Bohlen, Philadelphia, Secretary. This Commission has given a great deal of attention to the subject and has held numerous meetings in various parts of the State in order that they might arrive as nearly as possible at the actual conditions. Testimony was taken from experts and workmen in industrial pursuits, and the Commission has now prepared for presentation to the Governor a tentative draft, the main point of which is the collection of damages for injury or death by legal procedure, and presents what is described as an elective schedule of compensation, under which the employer pays automatically to the employe if injured, or to his heirs if he is killed, the amount set forth in the schedule. Nothing can interfere with the operation of the schedule if the employe elects to work under it at the time he accepts employment, and it is so arranged that the compensation paid is divided into weekly payments on the plan of weekly wages, rather than paid in a lump sum.

This proposed Act will, of course, make great changes in the present Pennsylvania statutes dealing with compensation to workmen for industrial accidents. One striking departure from the present law is that "the right to compensation shall not be defeated upon the ground that the injury was caused in any degree by the negligence of a fellow-employe or that the injured or deceased employe assumed the risks inherent or incidental to or arising out of his employment or arising from the failure of the employer to provide and maintain safe premises or suitable appliances or competent employes, which said grounds of defence are hereby abolished."

If this bill should be enacted at the next legislature, it will become effective July 1, and will be known as the "Workmen's Compensation Law of 1913."

In the various articles that have appeared from time to time in the annual report of this Department on the subject of compensation, the opinion has been expressed that in case of a total disability the employe should receive compensation as long as he lives, widows should receive compensation as long as they live or until they remarry, and children should be provided for until they arrive at the employment age.

ELECTION OF MINE INSPECTORS

It has always been the opinion of the Chief of the Department of Mines that the election of mine inspectors by the people was an unwise, dangerous and pernicious practice, and it is gratifying to have this opinion corroborated by two eminent authorities on mining questions—the Coal Age and Mines and Minerals.

In a comprehensive and well written article the former journal, after reviewing at length the various legislative acts passed for the regulation of the Anthracite Industry and presenting interesting details to show their beneficent effect in reducing fatalities, takes up the matter of the election of mine inspectors and discusses it with an intelligence and vigor that should impress any reader with the grave defects inherent in this method. The latter journal confines its remarks entirely to the question of the election of the inspectors and portrays the evils of the system in unanswerable logic. We quote as follows (from *Coal Age*):

THE ANTHRACITE MINE INSPECTORS' ELECTION LAW, 1901

There is another feature of the anthracite law, enacted in 1901, that has operated quietly to undermine and destroy, during the past decade, all that the law had previously accomplished. This enactment is the law requiring the election of the anthracite mine inspectors by popular vote of the people. The law has well been described as pernicious, seductive and destructive, as opposed to all that is wholesome, ingenuous and constructive. In his annual report for the year 1903, James E. Roderick, Chief of the Department of Mines, in Pennsylvania, refers to this law as the work of 'a few interested persons' who succeeded in inducing the anthracite miners, assembled in convention, to pass a resolution calling upon the legislature to amend the mining law so as to provide for the election of the anthracite mine inspectors by the people.

The reason given for this demand was that it would place in the hands of the voters in each district, the choice of the inspector for that district and remove all cause of complaint growing out of the appointment of an inspector who might prove objectionable to the miners of the district. The reasoning was seductive; it was seemingly a just and fair proposition to allow the people to choose, by direct vote, their own inspector. Thinking men, however, saw the inevitable result of granting this demand voiced by a few men whose judgment was temporarily blinded by the rehearsal of some supposed wrongs ascribed to an alleged objectionable inspector. The sequel has proved the unwisdom of the law, and to-day the demand among intelligent people for its repeal is even more urgent than that for its passage ten years ago.

EFFECT OF THE LAW ON MINE INSPECTORS

The mine-inspection service of the state is a thankless service. The men charged with its duties are officers of the law, whose business it is to enforce its provisions. To transgressors and violators of law, these men are often 'objectionable.' To place the choice of the inspector in the control of the voters of a district where the votes are practically dictated by a few men who desire to be unmolested and to make their own interpretation of the laws to suit their individual cases, would be to surrender the law to its violators.

What is law, when the officer charged with its execution is helpless in the hands of would-be violators of law? What is mine inspection when the inspector must close his eyes as he goes through the

mines and seal his mouth when he comes to the surface? But this is the logical result and what must be expected under the anthracite mine inspectors' election law. The inspector becomes the servant of the officials of the mines he inspects, instead of the servant of the people and an officer of the law.

On the inspector's side, the effect of this law is no less baneful. His conscience is stultified, his dignity degraded and his usefulness to the state forfeited. In some instances the inspector, in the anthracite region, has proved a mere figure head. It is true he has collected some valuable statistics of mining and drawn his salary. In other instances he has even made suggestions, some of which may have been carried out. Few indeed are the cases where there has been any serious contention on the inspector's part, who has generally refrained from making suggestions that would be at variance with the company's wishes.

EFFECT OF THE LAW ON EXAMINING BOARDS

One of the most harmful effects of the mine inspectors' election law is the influence exerted by the other members of the examining board for mine foremen to force the inspector into line, in reference to the desired recommendation of a candidate whose examination before the board has shown him to be wholly incompetent to hold the position of mine foreman, but whose political influence, backed by the expressed wishes of his company, demands recognition by the board. The mine inspector is an *ex-officio* member of the board of examiners for mine foremen, the other members of the board being two miners and one mine operator, superintendent or owner. The inspector is generally in a position better qualified to judge of the competency and fitness of a candidate to fill the position of mine foreman than any of the other members of the board. In most cases, however, he is compelled to set aside his own convictions and join with the rest in recommending the candidate and signing his certificate of competency. The refusal to do this would probably jeopardize his chances in the next election, and no one realizes this better than the inspector himself.

EFFECT OF THE LAW ON MINERS

Instead of this law working to the advantage of miners, as they had been led to believe it would, by placing in the hands of each miner a vote for the man of his choice, it has operated much to their disadvantage. In many instances the miner's vote is not his own but is cast in compliance with the dictation of bosses, which limits his choice of inspector to their selection of the man for whom he must vote.

The working of the law with respect to examining boards for mine foremen has proved a menace to the safety of mines, by the certification of many incompetent men for that position, by reason of which the lives of miners have been endangered.

The same law has also proved a hindrance to many ambitious, deserving miners, who have studied to fit themselves for foremen and assistant foremen. Their knowledge of theoretical and practical mining will, in many cases, surpass that of the man who secures his

certificate by other means than proving his competency in examination. Too often the worthy and competent miner is pushed aside by one whose only hope is through the employment of dishonest means to secure the necessary certificate.

REPEAL THE MINE INSPECTORS' ELECTION LAW

There is probably no law on the statute books of Pennsylvania, the repeal of which is more urgently demanded by intelligent mining men of all classes, from the miner who advocated the law, to the mine inspector who has most keenly felt its burden. Let the miners, who are responsible for the enactment of this election law, do their part to wipe it off the books, recognizing what is a fact, that it is a disgrace to honest mining, the work of grafters and wire pullers, and subserves no good purpose but rather is a menace to life and property and a hindrance to the merited advancement of ambitious and competent miners.* * *

The appointment of both the examining boards and the mine inspectors should be, confessedly, as far removed from politics and the influence of wire pullers as it is possible to have them.

The work of mine inspection is a most important work. It is and should be a subsidiary part of the state government and subject to its control, as far as its work is concerned. Owing, however, to the peculiar relations that the inspector must bear to the mine operator and miner, as custodian of the mine law, his position should only be assailable through the courts, by process of law.

There are strong reasons why the appointment of mine inspectors should be for a long period of years, say, 20 or 30 years, or good behavior with a time limit.

One of the most important of these reasons is the fact that a good inspector becomes more efficient and valuable each year. His growing familiarity with the mines and district in his charge and his knowledge of local conditions and requirements make his service more effective each succeeding year. He knows each mine as a mother knows her child. He understands better the whims and habits of both operators and men as time improves his acquaintance. A short term of office and the frequent change of inspectors is both troublesome and costly. Owing to the lack of a full appreciation of conditions, and, in part, to the desire of a new man to do something worth while and to make his presence felt, changes in the mine work or equipment are often urged that a longer acquaintance with the mine would show unnecessary and perhaps even harmful. The need of longer term appointments is more urgent in mine-inspection work than in any other calling, owing to the expense and danger incurred by ill advised changes in methods or equipment in and about mines.

A careful consideration of these and other facts, in the same connection, should impress any thinking man with the inadvisability of the mine inspectors' election law."

Mines and Minerals stigmatizes the election of inspectors as the worst feature of the mining law. We quote as follows:

"Even when, as in the present Anthracite Mine Law of Pennsylvania the nominees for the office must be men who have passed a satisfactory examination, the plan is a vicious one.

It lowers the standard of the office and tends to make the incumbent, even if technically competent, truckle to the opinions of politicians, saloon keepers, and others whose influence should have absolutely no weight in his selection. It deters many men of superior qualifications from seeking the office, because as political candidates they must contribute heavily to their party's campaign fund, and then run the risk of being defeated, even if their qualifications are superior to those of their opponents. Besides, the position is one whose duties require all the time of the incumbent of the office, and if faithful to his duty he has no time to devote to campaigning from the time he registers as a candidate at the primaries, or earlier, till after the regular election. If he enforces the law and holds certain mine officials responsible for violations, he incurs their enmity and loses their votes and the votes of all they can in any way influence. If he compels working miners to observe the law, and prosecutes flagrant violations, he is accused of persecuting the workmen, and that charge is used with telling effect against him at the polls. Every intelligent miner knows that the mine laws are frequently violated by mine workers, who not only recklessly endanger their own lives, but those of their fellow workers as well. Every intelligent miner also knows that there are violations of the law by some mine foremen and fire bosses, and that the overlooking of such violations encourages others. If a mine inspector does his full duty regardless of whom the penalty hits, he has very little chance for re-election.

Unfortunately there are many mine workers unable to understand English, and in no sense well informed technically, who can be easily influenced against the candidacy of an able and conscientious inspector, and be led to work and vote against the man whose services would be most valuable to them. Therefore, if he does his full duty, his chances of filling the office for more than one term are comparatively small. If, on the other hand, he truckles to both sides, and simply makes a show of doing his work, he is a good fellow, and can be reasonably sure of re-election, if he supports his party machine, and makes himself solid with the saloon keepers, bartenders, and others who exert an influence in general elections, even if they are absolutely unqualified to pass on the merits of a candidate for State Mine Inspector.

As far as the farmer vote is concerned, he will get that portion of it that belongs to the party on whose ticket he is a candidate. They won't assume to vote for a Mine Inspector on merit. Knowing practically nothing of the qualifications required, farmers will vote for their party's nominee. It is claimed that the United Mine Workers favor the election of mine inspectors. This may be true as far as a majority of that organization is concerned, but we do not believe a majority of the more intelligent skilled miners will favor such a policy when they seriously consider its evils and the chances it offers for the selection of inspectors who are not competent to, or who for selfish reasons will not, faithfully perform their duties.

The system is a bad one, even when men aspiring for the nominations have passed examinations showing their technical ability. It is infinitely worse when no examination or a less rigid examination is required.

In the foregoing we have no intention of reflecting on the ability and faithfulness of the present body of State Mine Inspectors for the anthracite regions of Pennsylvania. As a whole they are able and conscientious men, but there have been some for whom this cannot be said.

It is safe to say that of the present body, there isn't one, regardless of his party affiliations, who does not believe the former system of the Governor appointing inspectors from among those who had proved their competency, is the best way to secure efficiency in every respect.

There isn't one of the present Anthracite Mine Inspectors who would hesitate very long in resigning to accept a mine managership at the same salary he is receiving from the State, because such a position would be good for life or good behavior, and would not be subject to the chances of an election every four years with its attending annoyances and evils.

When the former and better plan of selecting inspectors was in force, there were no politics considered. Republican governors appointed Democrats, and Governor Pattison, who was the only Democratic Governor of Pennsylvania in many years, appointed Republicans. The question of partisan politics was not considered. Character and efficiency were the requirements. Under the old law every inspector who did his duty, and who kept abreast with the increase of knowledge pertaining to coal mining knew he would be reappointed and kept in office as long as he was physically able to perform its duties. Naturally every year of service added to his efficiency. If a corporation, recognizing his ability, desired to employ him, it had to offer him a considerable increase in salary and other substantial inducements to get him. The State should have the best. But it cannot keep the best, if the conditions are such as to force men, for their own good, to leave the service of the State for the service of private corporations."

With most of the denunciation in these articles we heartily agree. There is no doubt about the benefits that would accrue to the service by a return to the system that was in vogue from 1870 to 1900, or the system now in vogue in the bituminous region. It is sincerely to be hoped that the code now being prepared by the commission appointed by Governor Tenner, for presentation to the legislature in 1913, will embody this necessary reform.

The views of the Chief of the Department on this subject were expressed in his annual report for 1903 as follows:

"During late years considerable dissatisfaction was manifested regarding the inspectors, especially in Schuylkill county, and this feeling was intensified against one of them who, from mistaken judgment as to his duty, committed an act that, while not a violation of the law, was repugnant to the miners. This antagonistic feeling against the inspectors was encouraged and kept alive to such an extent by a few interested persons, that the miners finally assembled in convention and passed resolutions calling upon the Legislature to amend the mining law so that the anthracite inspectors could be elected by the people. They believed that this would do away with all objectionable inspectors and remove all causes of complaint, and that it would also open an avenue for ambitious miners to become inspectors. The

fact is, however, that the office of inspector has always been open to all miners qualified to fill it; but in all the years from 1870 to 1903 only one miner passed a successful examination before an examining board in the anthracite region. (The word 'miner' as used here means a man actually employed in cutting coal.) The reason for this is found in the fact that the operators have always advanced the most intelligent miners to be foremen and fire bosses, and many of them have become superintendents and general managers of large corporations. One of them has recently attained the presidency of one of the most prominent coal companies. It is from the class of miners who were foremen or superintendents that the anthracite inspectors, with one exception, have generally been selected, after a rigid competitive examination before a board composed of three miners and two mining engineers. With but one or two exceptions, the anthracite inspectors from 1870 to 1900 have been men of good moral character and practically and theoretically proficient. All the anthracite laws (1870, 1885 and 1891) have favored the miners in the formation of examining boards, as they have always had three-fifths of the membership of each board. They have therefore been able to control the actions of the boards, (and invariably the miners on these boards have acted as upright intelligent citizens as they are).

In compliance with the demands of the miners, the Legislature in 1901 amended Article II of the Anthracite Law of 1891, providing that after a certain date all inspectors should be elected by the people under the general election law of the State, after first having passed an examination and answered ninety per centum of the questions propounded. The election of mine inspectors by the people is unheard of in any other State in the Union, except Kansas, or in any other country of the world. * * * It is a most pernicious practice, as it brings the applicant for an office created for the preservation of life and property into the vortex of political intrigue, and I sincerely hope the time will soon come when both the miners and operators will demand the repeal of this *part* of the law. * * * The evil effects of the election of inspectors may reach even to the selection of mine foremen and assistant mine foremen. The inspector is an ex-officio member of each examining board and there is reason to fear that in many cases poorly qualified candidates who possess some political influence may be treated with leniency not only discreditable to the board, but inimical to the interest of the miners and operators. Incompetency in the office of mine foreman or fire boss is a menace to the lives of the miners and the property of the operators. Upon the vigilance, care and efficiency of the mine foreman and assistant mine foreman depends largely the welfare of the mining interests, and I note with regret that during the past year certificates of qualification have been granted to men regarding whose incompetency there can be little doubt."

In the report of 1907 the question was again referred to as follows:
"Since the above article was written in 1903 the fears entertained at that time have been more than realized. The inspectors have allowed the Examining Boards to pass scores of unfit men to act as

foremen, the great majority of them to act as foremen in gaseous mines. The climax was capped in 1907, when one of the boards passed 92 out of 95 applicants. The other members of the board can always outvote the inspector, it is true, but if he is firm in his determination to pass only competent persons, it is probable that the other members would not insist upon granting certificates to those who were not competent. Unfortunately, however, the inspectors are deterred from exercising their independence and from acting as justly as they might desire in the matter, because of the fear they have that the other members of the board and the applicants and their friends may at some future time use their influence to defeat them for re-election.

I wish to state here that the clause in the law that provides for the election of inspectors should be annulled, and thereafter the men passing the examination for certificates as foremen and fire bosses would undoubtedly be more competent to care for the safety of the lives of the miners and of the property of the operators. It may properly be mentioned here that, as Chief of the Department of Mines, I have no authority to withhold a certificate from any person who is recommended by an examining board as competent, even though I have ample proof in the examination papers that he should not be rated as answering correctly more than forty per centum of the questions asked, instead of over ninety as required.

There is no valid reason why the inspectors of the Anthracite counties of this Commonwealth should not be treated as the Bituminous inspectors are treated, and therefore it is greatly to be desired that the present provision in the anthracite law be repealed and that the Governor be empowered to appoint one board of examiners for the Anthracite counties to meet once every four years to examine applicants for inspectors, who shall be declared qualified upon answering correctly ninety per centum or over of the questions propounded, and the persons having the highest percentages then to be selected to fill the positions. Vacancies that may occur thereafter shall be filled by the selection of those candidates having the next highest averages. In case a vacancy should occur and there be no person on the eligible list, the board could meet again and hold a special examination.

The Anthracite inspectors, smarting under the injustice of the present anthracite law relating to the election of inspectors, prepared a bill providing for the appointment of inspectors by the Governor. This bill was codified from the Bituminous Mine Law and prepared for introduction in the Legislature during the session of 1909."

GENERAL REMARKS ABOUT MINE FIRES

Such fires as the one that occurred at the Pancoast mine, referred to elsewhere in this report, are greatly to be deplored not only on account of the loss of life and the destruction of property that in-

evitably result, but also on account of the erroneous impression that prevails regarding the conditions that cause them. The often unfair and always exaggerated reports of mine accidents and the unjust and indiscriminate condemnation of the management, the State inspectors and the Department of Mines, naturally lead those unfamiliar with the facts to the conclusion that nowhere but in the United States of America could such catastrophes occur. However, they do occur, even in Great Britain, where mining is an old art and one most closely supervised, as will be seen by the following quotation from an English paper:

"At about noon on December 14, 1911, a fire broke out at the Old Hednesford pit, five men losing their lives. At the time of the outbreak being discovered, about 100 men were in the pit, and so rapidly did the fire spread that they had to run to a place of safety. With five exceptions all the men reached the pit shaft and were quickly drawn up to the surface. The fire originated in a lamp house about 20 or 30 yards from the bottom of the downcast shaft, many of those who managed to reach the cage in safety having very narrow escapes.

At the inquiry the under manager (our assistant mine foreman) at the pit described the measures adopted in order to rescue the entombed men and to extinguish the flames. He said that he gave instructions for the doors to be closed, but admitted that the question of stopping the fan did not occur to him.

The mine manager (our mine foreman) said that it had never occurred to him that the bottom of the downcast pit was the wrong place for this shukey house (oil house). The fire, he thought, might have been caused by a lighted wick having been thrown down. The manager further said, if a team had gone in and found the men alive it would have been impossible to bring them out, unless some form of apparatus was carried by the rescuers to put on the rescued, and the latter knew how to use it.

Mr. Morgan, the deputy coroner, in summing up said he was afraid it would never be discovered how the fire originated. It appeared that the fire started near the shukey house, and by reason of the fact that oil lay on the floor around, it spread rapidly. If the lighted wick had been thrown down, the fire would run along the ground involving everything in its way, and in a short space of time the tubs (cars) would be ablaze."

If the men in this English mine had been working under the same conditions as the men at the Pancoast mine, not many of the 100 employes would have escaped. We find the same bad habit practiced abroad that we condemn in the American mines, that is, the habit of throwing on the ground or in some other place, the piece of lighted wick taken from the lamp when a new wick is placed in it. The piece of lighted wick is retained to furnish light while the new wick is being adjusted.

A further quotation is taken from an English Journal to show that they are just as likely to make mistakes in the English mines as we are in the mines of this country.

"At a mine fire at the Jammage pit, November 25, 1911, when six persons lost their lives, the point was raised, 'What about the rescue

brigade?" It was stated that the brigade went down the pit within two and one half hours after being notified, but it was too late to rescue the victims. The managers agreed with the inspector that if there had been a rescue brigade among their own men who could have entered the pit within twenty minutes of the accident probably no lives would have been lost."

This corroborates my opinion that no helmet brigade can be of any practical use in rescuing entombed men after an explosion unless they are on the ground at the time and are familiar with the workings of the mine. A matter of half an hour's time may mean life or death to the entombed persons. The helmet brigades should be sent in as soon as possible after an explosion; if it is necessary to wait an hour or two for a brigade to come from a distance it may be too late to rescue the men if any are alive. Again, if the rescue corps, say, of five persons enters a mine half an hour after an explosion, and finds two or three men alive half a mile away from the entrance, what can they do towards rescuing them? They cannot carry more than one out at a time; it is doubtful if they can do that. It is very evident, therefore, that too much dependence is placed on the rescue crew. I have never yet personally known of any one being rescued from a mine in this State by a helmet corps.

I have no criticism to make on this method of effecting rescues, but the corps to be of real service should be composed of the officials of the mine with other young men of the mine that can be drilled for the work. The officials would be familiar with the physical conditions of the mine and they would not be at the same disadvantage as strangers in finding their way into the various parts. Again, in the accident at the Jammage pit, the evidence brought out the fact that the fire boss was lost in the explosion and that the books were left in a wooden shanty which was blown to bits by the force of the explosion and carried to the sump with the water. Such a thing as that could not have happened in this Commonwealth under our present law.

DANGER FROM TIMBERING IN CASE OF MINE FIRES

The mine fire at the Pancoast and the mine fire at the D. & H. mine at Plymouth has brought to my attention the scores of miles of gangways, airways and chutes in the Anthracite mines that are closely double timbered and closely lagged and are as dry as punk. The danger existing under such conditions is apparent. The danger was not apparent at the Pancoast or the Plymouth.

Can these gangways, airways and chutes be made safe? Or must they be abandoned? If they can be made safe, how shall it be done? It is doubtful if they can be made ordinarily safe except by substituting steel, iron, concrete or some other incombustible material

instead of wood, and whether or not that is feasible or practical is a question that must be left to the general managers and general superintendents.

Under the mine law, all places should be made safe for men to work in. Is a gangway half a mile or a mile in length, closely double timbered and lagged, and dry as punk, safe for men to work in? How can they escape in case of a fire, say half a mile from the face, if the fire is not discovered at the start? Under such circumstances they would be as bad off as the men in the China Vein of the Pancoast mine.

To replace timber with steel, iron or concrete in many of the gangways opened in the Mammoth vein in many of the counties would add an additional dollar a ton to the cost of production. Can the coal companies bear this expense at the present price of coal? While this danger exists and has existed for fifty years very few lives have been lost by fire in gangways, airways and chutes. But a disastrous accident of this kind may occur any day, and the purpose of this article is to call attention to this matter so that preventive measures may be taken.

The Avondale disaster and the Pancoast disaster are not parallel cases. A disaster such as Avondale can never occur again, as every shaft and every slope now has a second opening. Yet there is some danger from fire in breakers that were built over or near the shafts before the law was enacted, or were rebuilt since its enactment under a favorable ruling of the court on the subject.

An accident of this kind occurred at the shaft of the Pennsylvania Coal Company, where the breaker was destroyed. Luckily the shaft had second openings available through the outcrop openings by which all the employes escaped.

MINE FIRE AT THE PANCOAST MINE

A very disastrous fire occurred in the engine house in the China vein of the Pancoast mine of the Price-Pancoast Coal Company, April 7, 1911. Disasters of this kind are very rare, but they may be very destructive both to life and property, as was the case in this instance. Not since the Avondale mine fire in September, 1869, has there been any similar disaster of equal magnitude.

This engine house (if it can be properly designated as such) consisted of an open space excavated in the coal about 30 feet long and 10 feet wide, with twelve sets of ten-inch round timber, the collars between notches being 10 feet and the height being 8 feet. The engine was placed on the floor resting on two square stringers and fastened to the bottom rock. The platform on which the engine rested was 5 x 8 feet and made of two-inch plank. From the engine house a small opening about 6 x 6 feet was made through the coal to the passing branch that leads to the tunnel. The engine had been in use for about six years and had never at any time caused any apprehension on the part of the inspector, superintendent, mine foreman, fire boss or any of the employes as to the possibility of danger from fire, and, in my opinion, judging from personal observation, no one would have

deemed it possible that a fire could occur in the engine house that would be of such serious consequences. The unexpected happened in this instance.

As can be seen from the tracing herewith submitted, the engine house was placed about 50 feet off the double track branch leading into the tunnel that cuts the China vein and on this branch twelve empty cars were standing. The veins at this point form a small basin and the tunnel is driven through the top rock of the China vein, penetrating the vein at a distance of 300 feet. The engine was placed at this point to hoist the coal.

After the fire was ignited in the engine house the heat and smoke therefrom were carried by the air current to the double track branch directly opposite, setting the cars on fire and thence to the tunnel and through it to the workings of the China vein on the other dip and into the workings, as can be seen on the map, to the men at their working places in the several gangways.

It is my opinion, as stated at the inquest, that it was impossible for any of the men to escape, except those in Perry's and Bolton's gangways. As corroborative of this opinion, it may be stated that Mr. Perry, who drove the gangway and knew the connections better than any other man, lost his life while endeavoring to guide the people from his gangway to a place of safety. However, sixteen persons escaped from Perry's and Bolton's gangways under the guidance of drivers and runners.

A few of the jurors at the inquest criticised the method of fighting this fire, but they did so without cause. It is very easy to criticise, but if the critics had been there it is hardly probable that they could have used any better method than that employed by Superintendent Birtley. The fire was extinguished, unfortunately too late to save the lives of other persons in the mine; but these persons could not have been rescued in any way after the fire was discovered. Even if the fan had been stopped, as suggested by a juror, the heat from the fire would have created a sufficient volume of air to carry the poisonous smoke from the burnt wood and coal to the men.

Ordinarily about 25,000 cubic feet of air per minute entered the tunnel, and it can be assumed that the heat from the fire increased that amount, so that 50,000 cubic feet of poisoned air per minute passed into the tunnel. Assuming the area of the tunnel to be 60 feet, the velocity of the air would have been about 800 lineal feet per minute, which means that the air traveled at the rate of a mile in about $6\frac{1}{2}$ minutes. That being the case, how could any of the persons (except those in Perry's or Bolton's gangways who were notified of the fire by telephone) have escaped, or how could any person from outside have given them any assistance? Even Harvey, the man that received the telephone message, lost his life while endeavoring to notify his co-employees of their danger. Men could not breathe the poisonous-laden smoke from the burning coal and wood and live more than a very few minutes.

A great deal was said about there being no second openings from this tunnel; that the opening was merely a blind tunnel. Upon seeing this statement in the newspapers, I made a personal investigation of this particular place and found two second openings or avenues that the men could have escaped through if they had had a chance. However, while these second openings were probably not up to the re-



A. COMPANY
PANCAST MINI
SHEET NO. 1

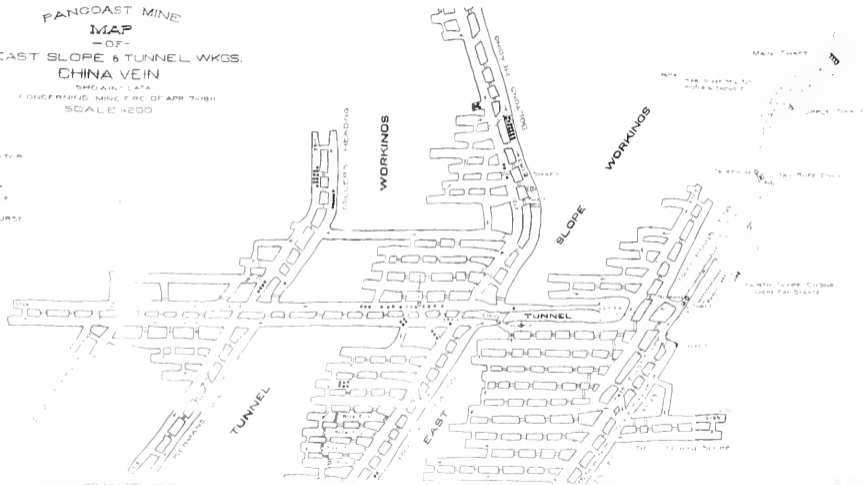


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lic
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PANCOAST MINE
 MAP
 -OF-
 EAST SLOPE & TUNNEL WKGS.
 CHINA VEIN
 SHOWING LATA
 CONCERNING MINE FIRE OF APR 7-1911
 SCALE 1:200

LEGEND

- REGULATOR
- OPEN
- ▢ WALL
- ▭ CANAL
- ▭ BRATTLE
- END
- A. R. COURSE



quirements of the law as being always safe and available, no loss of life can be attributed to their condition. Even if the victims had been instructed how to escape, in case of accident by a gas explosion or a mine fire, none of them could have reached the second openings through the poisoned atmosphere, except those from Perry's or Bolton's gangways. Under existing conditions, when the engine house took fire the fate of a majority of the men in the China vein was sealed.

The second opening through the East slope was available to the employes in Perry's and Bolton's gangways and was a safe outlet to those who made their escape without delay. It was not, however, available as a safe outlet to the other employes, because they were unable to reach it through the poisoned atmosphere. The openings to the vein above would have been available as a safe outlet from a cave-in or possibly a slight explosion of gas, but in this instance they were useless, as they could not be reached in time.

The accident at the Pancoast mine has been the means of calling the attention of the Legislature to the danger of fires in coal mines and will and has brought about the enactment of measures that will, no doubt, do much to prevent the recurrence of such accidents.

A synopsis of the testimony of the witnesses at the inquest, which continued for a period of eight days, is given herewith, together with the report of the inspector of the district, the report of the coroner's jury and the verdict of the jury.

TESTIMONY OF WITNESSES AT INQUEST

David Birtley, superintendent of the Pancoast colliery, testified in part as follows: "On the morning of April 7, 1911, I was sitting in the mine office, at about 25 minutes to 9, when the headman came in and said, 'Mr. Birtley, you are wanted inside in the Dummore vein.' I said, 'All right.' I jumped up, the cage was waiting, and I got on the cage and went down. When I reached the foot of the shaft the footman said, 'Mr. Birtley, the North slope engine house is on fire.' I rushed in of course. When I reached the engine house I met Leo Winters, I think, and said, 'Leo, have the men been notified to come out?' He said, 'Yes, John Evans has gone to the West slope and notified the men, and Walter Knight and the fire boss have gone into the tunnel.' With these facts before me I pitched for the fire. They had one stream of water on the fire at that time, and we got another stream on it from another plug and shortly the fire began to diminish in the engine house. In the course of about half an hour, or it may be a little longer, we got the fire under control.

I was then at the engine, and Henry Simpson and, I think, William Baker were putting out the fire in the little alley that leads from the engine house to the gangway where the cars were standing on the passing branch. I went out of this passageway towards the road that leads to the North slope. There I met the driver boss and said, 'Leo, we have got the fire under control again. We have got it about out.' He said, 'Come here.' I went around the corner. He said, 'All those mine cars are on fire.' 'Oh,' I said, 'I didn't know that,' and he didn't know it before; and there was a stream of fire I don't know how long. There were 14 or 15 mine cars standing there, some of them were burning and some were not. I said, 'The best thing we

can do now is to get the hose from the surface, the Hose Company's hose, so as to get another stream on the fire.' So I went out and got the hose and I said to Mr. Jones, 'You better phone down for the rescue car and notify the Mine Inspector.' * * * I returned to the mine and about half past two the fire in the gangway was under control.

The engine house had been there eight years. We had a fire plug at the engine house, with $1\frac{1}{2}$ inch hose attached, with water always on. The hose was tested every morning by the engineer. We had two other water plugs and hose convenient. We had 30 or 40 men fighting the fire. We had all the men that could work at the fire, and all the men needed for standing props.

We got the water to fight the fire from a three-inch pipe connected with the tank on the surface to the foot of shaft. There it was reduced to a two inch pipe and conducted along all the gangways and a branch opposite every or nearly every chamber. We had about 1,600 feet of one and one-half inch hose in several gangways; at about every 500 feet we had a roll of hose always ready for an emergency. We could have used four hose on this fire, but on account of the limited space two hose were all that could be used to advantage. We had great pressure, about 800 feet, the depth of the shaft. No person could go in past the trap-door on Perry's heading to notify the men to come out on account of the dense smoke which would be fatal to breathe in a few minutes. Henry Simpson and George Simons were the two men that discovered the fire first."

James J. Moran, engineer at North slope, testified in part as follows: "I am the engineer for both the China and Dummore veins. The morning of the fire, the rope rider, James Caswell, and I came in together to the engine house. I opened the cupboard and gave Caswell a lamp full of oil and lit the lamp in the engine house. I just ran down one trip that morning and pulled it back up. I then looked around and saw everything was all right and I turned down the lamp and started for the other slope engine. In about half an hour or so I started to smell smoke, and in about five minutes more I started back to the north engine house and found it full of smoke and on fire. But before I reached the engine house Frank Shantis told me the engine house was on fire. I couldn't get into the engine house on account of the heat and smoke. I saw Micheson, the engineer, at the tail rope where the telephone is. He said that he had telephoned to the men in the tunnel to come out."

Engineer Moran was emphatic in stating that he didn't throw any matches or anything else around that caused the fire at the engine house. He said that he was told that Hank Simpson saw the fire first.

George Simons testified in part as follows: "I am a company man and do odd jobs all over the mine, or rather in the Dummore vein where the fire was. When the fire started I was inside about two hundred feet from the fire towards the tunnel. My buttty said, 'Do you smell anything?' I said, 'I smell something burning like rubber.' Then after a little while I said, 'I believe that is a brake band kind of hot.' In five or six minutes I saw the big smoke coming, so we started out through the smoke from the engine house. I ran as fast as I could to the other engine house and told a fellow named Micheson to telephone up to the mountain to get the men out as quick as possible.

He asked, 'What is the matter?' I said, 'The engine house is on fire.' After that I went back to get the hose to try to put the fire out. Hank Simpson, my butty, and myself were the first two to fight the fire. Then Parfrey came and a fellow named Croup and his butty came, and I don't know who else came after that. At this time it was about a quarter to nine. Mr. Birtley came in, but I can't say what time he came in. When I first saw the engine room it was full of blaze and smoke, and the blaze seemed to be right on the floor. I passed the cars on the branches; I believe there were 12 empty cars on one road and possibly 15 loaded cars on another road. I passed between them and went right out to the tail rope engine house. I am not sure whether the engineer telephoned to the office or not, but he went to the telephone, as I left at once to get the hose on the fire. Simpson and myself carried the hose, which was in 50 foot lengths, to the water plug, which was about 400 feet away from the fire. We couldn't connect with the plug in the engine house on account of heat and smoke. It took us from ten to fifteen minutes to make connections and get water on the fire. I first saw the fire about 8:35." In answer to the question, "You saw what was on fire?" He said, "Yes, sir, and it was dangerous for everybody inside of it. Nobody could get in through that with safety to get the men out. The smoke was too strong. I saw Knight and Daves going in, but it was before we smelled the smoke and they knew nothing of the fire then."

William Micheson testified in part as follows: "I am the tail rope engineer. About half past eight that morning Henry Parfrey came and told me to telephone to the tunnel workings that there was a fire in the North slope engine house. I telephoned the old nipper tending gate on Perry's heading that he should get John Bray and see if the mine foreman was inside; that they should tell the men to get out as quick as they could, as there was a fire in the North Slope engine house, and he answered 'All right.' I then went over to where the fire was and met Leo Winters, the driver boss, who told me to telephone for Mr. Birtley, which I did right away. I phoned Mr. Birtley right after I phoned to the tunnel. The telephone to the tunnel was always in good condition, as we had to use it as high as a dozen times a day, and often more, to see whether the coal in there would be ready to be pulled out. The telephone has not been out of order for a year and a half, since I have been working there."

Harry Simpson testified in part as follows: "I am the pipe line man. On the morning of the fire while on our way out from the tunnel junction we smelled smoke. 'There must be fire somewhere,' I said. My partner said, 'No, I don't think so; it is the brake band. They use graphite on that and in running you can smell it.' I said, 'No, it isn't that; it smells like rubber and I will go back.' He said, 'All right. I will go back too.' We started down the branch; the smoke was pretty strong. We got by there and reported; gave the alarm. The first men I saw were Leo Winters and Hank Parfrey. I told them that the North slope engine house was on fire and that they should go to the tail rope engine house and telephone the men to come out."

Henry Parfrey testified in part as follows: "I have been employed at Pancoast six years. My duty is to attend the junction for the tail rope engine. That morning I met George Simons coming down the tunnel road. He said, 'You have a fire here,' and we said 'Where?'

At that time Leo Winters was coming up the foot branch, and he said, 'In North slope engine house.' Then Leo and I ran in, but couldn't get there on account of the smoke coming down from the water level branch. Simons told me to go and phone to Bray to get the men out right away, and I did so. Jake Bray came to the phone. He asked me what was the matter. I told him there was a fire in the North slope engine house and to go and get the men out. He said, 'There is always something the matter.' I went back to the fire then, and by that time they had the hose connected and we started to fight the fire. I telephoned from the tail rope engine house; it was about eight o'clock, as we had three trips then up the plane.

F. G. Wolfe testified in part as follows in answer to questions given by juror Blewitt: "I am chief engineer of the Pancoast Coal Company. The surveys are made by our mine corps; the notes are sent to the office; there they are calculated, checked and plotted on the map. As soon as the plotting is completed I go over it myself on the original map. The Dummore No. 2 vein, which lies immediately above the China, has almost completed first mining; the China vein lying so close beneath the Dummore No. 2 it is necessary that each chamber in the China be driven directly underneath the chamber above it, and that each pillar be placed directly above the pillar underneath that in order to keep up the roof and mine the coal." In answer to a question he said, "The distance that Moran had to travel between the two engine houses in which he worked is 1,450 feet."

Thomas Cook testified in part as follows: "As a rule I am rope and pulley man, that is, company man. The first thing that morning my butty and I went to the plane and while going towards the tunnel a car got off, so we helped to put it on. Just at this time Walter Knight and Isaac Dawes came along and they helped us to put the car on the track. Then they went into the tunnel, and we fixed one pulley, and I went to the old engine house for two more pulleys. When I got there a fellow called Crambow said, 'There is smoke down there, Tom.' As soon as he said that I ran down to the East slope, and found the smoke was coming over the dip back out from the tunnel and going down the slope. I said, 'My God! the tunnel men must know about this or they will be lost.' I ran to the engine room and said to Micheson, 'Phone into the tunnel; Knight has gone in there and phone to him to get the men out; there is a big fire.' Micheson said, 'I have notified them in there.' He must have telephoned because my boy who was in there said they had a telephone message." In answer to the question, "Your boy said he got a message from Micheson?" he said, "Yes, sir. They got the message and got out, or they would be there."

John Wrobel testified in part as follows: "I am a miner's laborer; the miner's number was 280. I worked in Perry's gangway. On this morning a runner came with the driver and said it was 'all over.' That means quit work. One of the men that said 'all over' was Arthur Gresham. I think it was half past eight or nine o'clock when we were told 'all over.' There was plenty of smoke, but always more coming. We were told by a runner named John Mahalki that the engine house was on fire. We sat down in the airway about half an hour; then with other fellows went out."

Arthur Gresham testified in part as follows: "I am a driver in the China vein in Perry's gangway. I was up in the heading and a driver named William Kerris came running up and said it was 'all

over.' After a little while the runner came running up and said, 'Hurry up and get the men out,' and we got the men in a row, and went in the heading and got Perry and he led us down that way as far as the smoke and he left us. So we went back to the heading again and we went down the manway again, down as far as the smoke. We came up again, and couldn't go up, and we went up again and down the manway to try to get out; went up around and down again, and tried it for the fourth time. We rushed through it some way; I don't know how we got through. We were only notified by the runner, who was down at the branch, and the smoke came down on him and he came running up. Then we called, 'Come, hurry up, miner, laborer, come down; there is something on fire, or you can't get out.'"

John Mahalki testified in part as follows: "I am a runner in Perry's gangway. About half past eight, while eating, this old man the nipper, his name is Mike, came up and said, 'John there is lots of smoke here.' Then I got up and looked and saw the smoke right behind me. I asked him, 'Is your gate on fire, Mike, or any canvas anywhere on fire?' He said, 'No.' 'Well, what is the matter?' I said. Then he told me that a party telephoned that the engine house was on fire. When he said the engine house was on fire I stopped a driver, who was about 100 feet from me, and told him to go up and tell all the men it was all over. I then went through the slope to the telephone to find how we could get out. I tried the phone three times, but got no answer. I then went to Jake Perry and told him there was lots of smoke, and I said, 'Jake, you take us out; you know the way.' So we went down the airway, the bottom of the airway, where there are two trap gates from the airway into the branch again, and he took us all into that smoke. I stayed behind. I wouldn't go in, but all the others went in. I called on them to come back. In about five minutes they came back. I said, 'Come on, boys, let us get out.' Then we met two drivers running from the East slope. I asked, 'Do you know the way through here?' They said they did, but that they were afraid to go that way on account of gas. I said, 'You may as well die of gas as of smoke.' We kept the lights down as low as we could while going through a cross-cut to a chamber and found a miner and laborer at work. I said, 'Drop your tools and go out.' We went down through the chambers, got on the main road, and Joe Gall, the runner from the East slope, was there and directed us through. We went to the East slope and had to go through a little smoke. We went up the slope and then beat it to the foot of the shaft. As we got to the foot Mr. Birtley came down the shaft. That is all I know."

Leo Winters testified in part as follows: "I am the driver boss. I was sitting near the tail rope engine house about half past eight, I think, when Simons and Simpson came out hollering 'Fire! the slope engine house is on fire.' So we went up to the engine house and tried to get to the hose connection in the alley way leading to the engine house, but the smoke was coming out so strong that we couldn't get to it. So I sent word to the tail rope engine house to get the men out. Mr. Birtley came in about nine o'clock, and asked me if the men in the tunnel had been notified and I said they had been notified by phone. The engineer came in shortly after I sent him word, and I asked him if he had got an answer over the phone, and he said he had got an answer

from Mike Kozey. The engineer's name is William Micheson, and he came to the fire before Birtley came in. I worked all day putting out the fire. I started to help take the bodies out at half past seven in the evening and remained until they had all been taken out, about ten or eleven o'clock the next day."

Mike Kozey testified in part as follows: "I am a nipper (door tender), tending to the doors and also tending to the telephone in case anything was wanted. I went to Perry's road to find if the trip was ready, and saw Jack Bray run to the telephone, and then from the telephone he came and told me there was a big fire and that I should run to Perry's road and tell all the fellows to look out for the fire. I went and told the runner, John Mahalki, to hurry and tell all the miners to go out, that there was a big fire, and I went back to the door I was tending, but there was too much smoke. I was within ten feet of Bray when he was talking over the phone and all I heard him say was 'All right.' Bray went to the mountain to notify the other men. When Bray told me to notify the men you could hardly notice the smoke, but later it came in big volumes. After that we went to Jake Perry's heading, and there found four miners, three laborers, two nippers and two drivers. We were all in a group, but without a light, and a miner by the name of Rubal gave us oil. Then we went to the airway where Jim Reed has a gate (a trap door) or a door or something tending." Then he explained how they went out, about the same way as the others did.

Paul Bright testified in part as follows: "I am a mine foreman in the upper veins called Diamond Nos. 2 and 3. About twenty minutes to ten in the morning I was informed that there was a fire in the Dummore vein. I then went down to the Dummore vein through No. 2 shaft and was told that the North engine room was on fire. So I went there at once. I saw Mr. Birtley and he asked me to make an effort to get in to the men in the tunnel. I made several attempts, but failed on account of the heat and smoke; it was impossible to go and live. It was then about ten o'clock, so I came back and informed Mr. Birtley that I could not go in through the smoke, and then began to help fight the fire to get it out as quick as possible, and I employed the men around there to stand timbers, to keep every one safe while fighting the fire. After the fire was out we went into the tunnel and soon after entering we came to the body of Dawes, the fire boss, and then we went right on in the tunnel until we came to the body of Knight, the mine foreman, half way between entrance and bodies of dead; then we retreated back to the foot of the shaft." Then he recited how they got the bodies out.

REPORT OF INSPECTOR

This disaster occurred on the morning of April 7, about 8:30 o'clock. A fire in some way was started in the North slope engine house in the No. 2 Dummore vein and the flames were communicated to the props and double timber and a trip of twenty empty mine cars standing on the head of the slope along side of the engine house on the intake airway. Two streams of water were immediately brought to play

on the fire and the men inside of the fire were notified as soon as possible, but the smoke from the fire was carried to and through the tunnel that was driven from the No. 2 Dummore vein to the No. 1 Dummore vein, or China vein, before the men could make their escape through the second openings. The result was that seventy-two of them were overcome with the smoke from the fire and died before the fire could be extinguished. The fire was under control at 2 p. m., of the same day. I was away from home at the time and did not hear of the fire until late in the afternoon. I arrived at the mine at 4 o'clock in the afternoon and found several officials of other coal companies there along with the Government First Aid Corps.

I at once went into the mine with Superintendent W. L. Allen of the Scranton Coal Company, Superintendent Henry G. Davis, Assistant Superintendent Henry E. Harris, and William E. Watkins of the Delaware, Lackawanna and Western Railroad Company, Daniel Young, District Superintendent of the Scranton Coal Company, and Superintendent Joseph V. Birtley and Mine Foreman Paul Bright of the Pancoast Colliery. We found that Joseph Evans of the Government Rescue Corps was overcome by smoke while trying to rescue some of the men and Doctor J. E. Jacob and myself and some of the Government Rescue Corps worked continually on him for over an hour and a half trying to save him, but he had inhaled too much of the smoke and could not recover. He died without regaining consciousness.

We then proceeded down the slope and through the East tunnel into the China vein to search for the bodies of the unfortunate victims. The first body was that of Fire Boss Isaac Dawes, who was found on the main gangway road just inside of the tunnel and about three hundred yards from the burning engine house, with his face pointing outward as if in the act of coming out to see what was wrong. The body of Mine Foreman Walter Knight was found in the middle of the track at the extreme end of the main gangway road with his face pointing inward indicating that he was trying to reach the men who were working on the inside end of the gangway. Twenty-one victims were found in one group in the middle of the gangway junction of Perry's gangway all with their faces pointing outward indicating that they all fell while trying to escape. The others were found along the different gangways right and left of the main gangway road. After finding all of the victims we at once organized several parties of men with stretchers and blankets and proceeded to carry out the dead. Those that were identified were immediately taken in charge by the different undertakers and prepared for burial. The unidentified were taken to the carpenter shop on the outside which was turned into a temporary morgue and laid side by side until they could be identified by their families or friends. At 7 o'clock the next morning all of the dead bodies had been taken out of the mine. When the recovery of the bodies had been completed, little work was required to put the mine in condition for operation, except cleaning up the roof that had fallen when the supporting timbers burned away and removing the remains of the twenty mine cars that were left but a twisted mass of iron. I notified Doctor James E. Salfry, Coroner of Lackawanna County, by phone, Sunday morning, April 9, to proceed at once to hold an inquest to ascertain who, if any, was at fault.

REPORT OF CORONER'S JURY

To James F. Saltry, M. D.,
Coroner, Lackawanna County, Pa.

Dear Sir:—

The Coroner's Jury empanelled to investigate the cause of the death of seventy-three persons in the Pancoast Mine of Price-Pancoast Coal Company, Throop, Pa., on the morning of April 7, 1911, beg leave to report as follows:

Immediately upon being sworn we endeavored to gain entrance to the mine to familiarize ourselves with the various lifts of the China vein and that portion of No. 2 Dummore vein, wherein the fire occurred in the engine house which is directly responsible for the death of the men from smoke. Our desire in this direction was not gratified for the reason that the fan was out of condition and under repair. As soon as the fan had been adjusted and in working order, we again visited the mine making a thorough examination of the site of the burned engine house and the surrounding headings and airways, besides visiting on the same day, the tunnel leading from the No. 2 Dummore vein to the China vein; Perry's and Bolton's headings; the East slope and the North slope and the second engine house at the lead of the North engine house. This visit did not enable us to inspect the entire mine, so we subsequently returned and examined all the other portions of the China vein not explored on our former visit.

Between these visits to the mine we began the taking of testimony in court room No. 2 in the Court House in the City of Scranton, Pa., and were continuously at work every day, either taking testimony or examining same from stenographic notes. We feel that we made as thorough investigation of this accident as our ability would permit and if we failed in any respect, it was not in any way due to inactivity or lack of binding obligation to procure all the facts pertaining to the case.

The accident was an unfortunate one, serious beyond all comprehension and the greatest which has occurred in the Northern Anthracite field in over a generation. We cannot refrain from saying that we believe the loss of life might have been much less serious, or possibly all the men might have escaped if an engineer had been stationed permanently at the engine house where the fire started. As to the fire itself the officials of the company maintain they did not think it would be serious and that they could extinguish it in a comparatively short time, without injury to the men or loss of time to them or the colliery. Subsequently, however, it proved their error of judgment and as a result the men probably went to their graves through the overconfidence of the management who did not realize the seriousness of the situation.

It has been contended by many witnesses that the fire had been burning quite a length of time before it was discovered and that in all probability many, if not all, of the men were dead before it was extinguished. Be this as it may, the fact remains that the jury can-

not condone the apathy of the management in centering all their efforts on the fire instead of also immediately notifying all the men of their danger when the fire was discovered. We are also of the opinion that the fire might have been fought on entirely different lines with better results from the gangway side and that if such had been done, the loss of life would not have occurred, or in any event would not have been so serious; this mistake was a serious one.

The investigation of this terrible catastrophe has impressed the jury that the mining laws are lax. Here is a mine which old and experienced mining men and mine inspectors swore was the best managed and laid out colliery in the valley, practically complying with the letter of the law; nevertheless, this catastrophe has proven that the mining laws are inadequate and susceptible of many necessary and vital amendments. We are convinced that sufficient inspection was not given this mine by the constituted state representative, namely the mine inspector.

It appears to us from our investigation that many innovations may be introduced for the health and safety of the men employed in and about the mines with but little cost and great permanent beneficial results. We suggest the Governor recommend to the Legislature without delay, or call it in special session, for the enactment of a law or laws, which will compel the elimination of all combustible buildings or material, including coal oil or kerosene lamps in engine rooms and pump rooms, in all coal mines or collieries; that the engineer at every engine house in or about a colliery be compelled to remain on duty continuously during his day's work; that steel mine timbers should be used wherever directed by the mine inspector; that the number of competent and aggressive mine inspectors should be increased to guarantee inspection and enforcement of the law; that they should be selected from those holding mine foreman certificates and elected on a nonpartisan ballot by the qualified voters employed in and about the Anthracite mines; that telephones be used in all the mines and that the wires of the same be extended to the most remote parts of the mine wherein men are employed; that danger alarms and danger signals be erected for the further safety of the men; that there be employed in each vein at least one man to superintend these devices and keep them in constant repair, besides being compelled to make the men working in the lifts of the veins familiar with their object and their general application and that this employe also be authorized to compel all new employes to familiarize themselves with ways of exits in case of disaster; that every colliery should have relief corps, each member of which could be conveniently called to a central point in a minimum time, to take charge of mine in case of accidents and offer relief and succor to the injured or those who might be in imminent danger of loss of life through such catastrophe as the above and that the Department of Mines insist on its inspectors doing their full duty under penalty of immediate dismissal, and exercise a more rigid supervision over their conduct.

Verdict of the Jury

The verdict of this jury is, That John Baravalla, Louis Korman, Lawrence Reitz, et al. came to their death on the morning of April 7,

1911, through inhalation of carbon monoxide, the direct cause of which was the burning of a hoisting engine house at the head of the North slope in the No. 2 Dunmore vein of the Pancoast colliery, the flames from which communicated with contiguous timbers in the entrance to the engine house and communicated from thence to the roof supports and cars in the main haulage way, causing vast volumes of smoke to be driven into the China vein by the great velocity of the air current from the fan. We declare that the cause of the fire is unknown and have no hesitation in saying that we believe overzealousness of the management to put out the fire in the engine house, and forgetfulness to a degree for the safety of the men in the mine contributed largely to making this accident so appalling.

Edward F. Blewitt,
Foreman of the Jury.

Enoch Williams,
Robert Gillard,
John P. McDonough,
William E. Lewis,
James Grady.

Scranton, Pa., May 8, 1911.

MINE FIRE AT THE GIPSY GROVE BREAKER

A very unusual accident occurred at the Gipsy Grove breaker. A coal chute in the breaker caught fire in some unknown way and two of the employes at the top were killed. As several other persons were at the top when the alarm of fire was given and made their escape, it is presumed that the men who lost their lives could have escaped also if they had availed themselves of the opportunity afforded them and not delayed too long. An inquest was held in connection with the accident at which many witnesses were examined.

Some of the testimony is given herewith, together with the report of the Inspector of the district, the report of the Coroner's jury and the verdict of the jury.

TESTIMONY OF WITNESSES AT INQUEST

John Taylor testified in part as follows: "I am the hoisting engineer at Gipsy Grove mine and have been since 1871. The first I heard about the fire was when the headman, Michael Walsh, whistled down and said, 'There is a little fire down in the breaker somewhere.' I walked to the window and saw some smoke away back at the rear end of the breaker. I looked on possibly a minute or two, and telephoned down to the footman. 'You may as well take the car off the cage and come up to the landing with the other footman, as there

was a little fire in the breaker, not much, and they should not get excited.' He said, 'All right.' While waiting two, three or four minutes for the footman to ring to me, he had already rung that he was going to get the men out, somebody whistled from the head to let them down. I said, 'All right, boys! Just as soon as I get the bell from the bottom.' So I waited probably not half a minute, when they whistled again to send up the cage. I said, 'All right,' and rang down to the footman, and while I was ringing to the footman, the headman and two or three others ran in. The headman said, 'It is all up;' another hollered that I should tell the men in the mine to get out the other way, through No. 1. I called then on the men in the bottom vein, and again to the men in the second vein; then called to the men in the top vein that they should go out through No. 1. By the time I got through talking to the men in the mine, the whole thing was in a blaze and I had to clear out myself. In my opinion, from the time I was notified of the fire, it was not more than five or six minutes before the fire reached the head house."

Floyd Munson, the outside foreman, testified in part as follows:

"About 4.15 P. M. one of the men ran and told me that the breaker was on fire, and I ran and hollered to the engineer to have him whistle that the breaker was on fire, and I went on with the rest of the boys and got the hose, started the water on, and we ran it, I should judge, about three or four minutes, when I saw the fire was getting the best of me; and then I ran and told Mr. Taylor, the engineer, to notify the men in the mine that the breaker was on fire. When I used the hose I hollered to the headmen, Dykes and Early, (they stood at the window) that the breaker was on fire, and as I saw four or five of the headmen come down, I thought Dykes and Early had come down along. One of the headmen, McHale, came down and helped with the hose. There was only one hose connection on the ground, with 150 feet of hose in three lengths of 50 feet each. There was another hose connection in the breaker, and about 80 common fire extinguishers in the breaker and there were men trained to handle them; besides, there were nine barrels of water inside the breaker. There were nine men working on the top and seven of them escaped; they walked down the steps. The men that lost their lives could have escaped, as the other men did, had they started in time."

Harry Miller, weighmaster at the top of the breaker, testified that he had worked as a weighmaster at Gipsy Grove about one year, and that he was not at work on the day of the fire. He said: "There were five exits from the head of the breaker. I knew four of them, that is, besides the trap door. There was one down along the lump coal chute, one on each side of the screen room; the other way was down by the cage in the shaft. I considered all of these exits in case of emergency such as this fire."

Michael Walsh, a headman, testified in part as follows: "While I was working I saw two men running to the breaker, and I asked Tony Battiste what was the matter. He said 'Fire.' Tony pushed a car off the cage and ran over to the hose, and I told the hoisting engineer that we would not be ready for a little while, as there was a fire somewhere outside, but I did not know where. Then I went to the office to see John Dykes and was going back to the shaft to get

two pails to help quench the fire. When I was running back to the office young Stephens came up and hollered 'Mike! Mike! let us down!' I then telephoned the engineer to let us down, and the engineer hoisted the cage off the fan, and we all got on the cage. No sooner did we get on than we had to get off again, as the fire came on us. We all ran to the window, and three of us got stuck in the window. I caught a timber and pulled myself in and climbed down on the timbers inside the breaker and down to the ground. I never thought of the trap door, as I was very much excited. From the time we heard of the fire until we tried to get through, I think it was no more than two minutes."

John Dykes testified in part as follows: "I was weighing coal that day on the head, and I heard a little excitement outside and looked out of the window and saw Floyd Munson and Charley Engle pulling out the hose. I said to John Early, 'I believe there is fire somewhere.' Both of us stepped out of the door and around the corner, and we could see a little smoke rising from the lump coal chute. I said, 'John, we will take our sheets down in case there is a bad fire.' So we grabbed our sheets off the table when Harry Stevens ran up and said, 'Come on! The place is on fire.' We all rushed to the carriage waiting for us and the headman gave the signal. The heat was so strong we were driven off the carriage towards the window where three of us got stuck. Then John Early, Battiste and I turned around, and as we did the fire took our breath away. So I followed John Early, who was trying to screen his head by a board, and then saw Battiste fall back against the shaft and let himself fall on a trap door there. I then caught hold of the shaft rope, and put my legs around and slid down until I struck the carriage at the foot of the middle vein and rolled off. My head and hands were badly burned and I was choked up with the smoke. With others I went out through No. 1. I knew of the trap door and had gone down that way, but as the carriage was there I naturally thought it would be the best way to go down. I was familiar with the fire apparatus in the breaker and was a member of the fire company."

Gerald Mellale testified in part as follows: "I run the engine on the head. The first I knew of the fire, I happened to look out of the window and saw a railroad conductor run into the office. The men there ran over to the pump house and started to pull out the hose, and at once I saw some smoke. I ran over to the barrel and filled a water pail and ran down to the fire and threw it on. By that time the fire started to rush in on me, so I went down the steps to the ground and started up through the breaker, up the other way, to help pull out the other hose in the screen room. When I got into the screen room, I couldn't go any farther, as the smoke was rushing in on me, so I had to turn around and go to the ground again. I did not notify the men at the head of the fire when I saw it first, or they could have gone down as I did, but I didn't think the fire would amount to as much as it did."

Harry Stevens, oiler, testified in part as follows: "I was sitting in the shanty looking out of the window and heard somebody holler 'Fire!' on the outside, and I ran down and got a pail of water and ran on the roof and threw the water on the roof. Then there was only a little blaze. All at once it shot up and drove me back off the roof, and I ran into the plates, and as I was going up the steps I met Tony

Mack and I hollered 'Tony, go back.' We all ran back and the fire was right after us, and we got on the cage and Mike Walsh gave the signal to lower the cage, but the engineer didn't let us down. We were on the cage about twenty seconds when we were driven off by the blaze. We then ran for the window and Mike Walsh got out first. I hollered to Tony Mack to get out of the way and I jumped out of the window head first. I am sixteen years past."

Tony Mack testified in part as follows: "I am sixteen years of age. I pushed the truck on the head. When the fire started I was at McHale's engine until some one, I think it was McHale, ran for a pail of water; so he hollered to me 'Fire!' so I ran to the hose and turned the valve. Then I saw smoke and flame coming and Harry Stevens came and said: 'Come on back, there is a fire!' So Mike Walsh called us back to the carriage. He phoned the engineer to let us down and he said 'All right,' but the cage didn't move. Then Walsh said: 'Come on, Tony; let us jump out of the window.' I followed him and we got stuck in the window, two or three of us, and we had to jump to get out."

David Gilgallon testified in part as follows: "I am the breaker engineer at Gipsy Grove. Some one came to me and told me to blow the whistle for fire. I blew the whistle five times and I could hear the whistle just as plain as I ever heard it. I don't know how soon after the fire started I blew the whistle, but I blew it when Jerry McHale notified me and he is one of the employes at the head. I have been a breaker engineer here for fifteen or sixteen years and am well acquainted with the lower part of it, but am not familiar with the head house part."

Jacob Gromlich testified in part as follows: "I am the foreman at No. 1 breaker and happened to be on the outside and I saw a little fire there, and I telephoned to No. 1 shaft that Gipsy Grove breaker was on fire, and then went up to Gipsy. The fire was pretty well under headway when I got there. The distance I covered was about 2,500 feet. By the time I reached the breaker the hose was burned and there was no water being put on the fire."

Dominic Lally testified in part as follows: "I used to drop light cars and weigh them. On this day I was at my work weighing cars when somebody hollered 'Fire!' and George Engle came and said, 'Munson, there is fire in the lump coal chute.' We ran for the hose in the pump house. When the hose was stretched, Munson said, 'Lally, you take hold of the hose, and I will go over to the engineer and tell him to stop the breaker and blow the whistle,' and in about a minute afterward I heard the whistle blow. The water was on in about two minutes after we discovered the fire."

Seth Watrous testified in part as follows: "I am a carpenter at Gipsy Grove. I was down at No. 1 shaft when I saw the fire in the lump coal chute. I went over to the breaker at once, but it took me possibly ten minutes to walk that distance, and when I reached there the fire had reached the head. There was no water being put on when I reached the breaker. The hose had been burnt."

In answer to a question, Watrous said: "There are four pairs of stairs going down out of the breaker that I know of, besides the carriage way. There was one at the lower end of the lump coal chute, one on each side of the breaker and one down just under the plates."

Charles Engle testified in part as follows: "I am a carpenter at Gipsy Grove. I was in the shop when I heard some one holler 'Fire!' and I ran out to the pump house to help get the hose out. When I got there Munson and Lally were there. I went to the pump house and found the pump working all right. I stood watching the fire about a minute and said: 'Boys, she has got the best of us,' so I went back to the shop to gather up my tools. I don't think it could have been more than a minute and a half after I discovered the fire before we got the water on the fire."

REPORT OF THE INSPECTOR

This breaker took fire from a spark from a railroad locomotive which was passing with some loaded cars from No. 1 colliery about 4 15 P. M. Thursday, April 27, 1911. I arrived on the scene at 5.20 in the afternoon. Having gone through the Pancoast affair I was anxious about the workmen inside, but the officials assured me that the men were all safe, except two that were missing in the breaker. I noticed that the fire had burned the pump room down and disconnected the pipe line and put the pump out of commission. At that time they were working on a line of hose from the washery pump at the No. 1 colliery some distance away. I could see that there was not sufficient hose. So I went and phoned to Chief H. F. Ferber of the Scranton Fire Department and asked him if he could send me some hose. He very kindly responded by sending three of the men of the Scranton Fire Department and three thousand feet of hose with instructions that they were to remain at the fire until they were discharged by me. We worked all night and got the fire out near the opening to the shaft. With some of the mine officials I then went inside to investigate the conditions surrounding the foot of the shaft, and while doing so we found some human bones in the sump, which we believe were those of Tony Battiste judging from their size. About two o'clock the next afternoon while we were investigating around the top of the shaft at the surface we came across some more human bones which we believe were those of John Early. The only way we could identify them was that Early was small and Battiste large.*

REPORT OF THE CORONER'S JURY

James F. Saltry, M. D.,

Coroner, Lackawanna County, Pa.

Dear Sir:—

We, your jury, empanelled to investigate the cause of the death of three men from a fire which destroyed the breaker of the Gipsy Grove Colliery of the Pennsylvania Coal Company in Dunmore Borough, Pa., April 27, 1911, submits its report as follows:

This jury was sworn Friday, May 12, 1911, and the following day, Saturday May 13, went to the site of the destroyed breaker in company with Mine Inspector D. T. Williams to obtain knowledge as to the location of the breaker, fire hydrants, pump house, shafts and engine house and such information as would enable the jury to intelligently understand the testimony of the witnesses sworn at subsequent hearings. The jury has insistently and conscientiously endeavored to the best of its ability to ascertain all information which might enable

*Peter Clapp, headman, jumped from burning breaker at time of fire and died April 30. Early was not an employe of the company.

the jury to arrive at a fair and honest conclusion based solely upon the facts as established by the evidence of the witnesses subpoenaed and who testified in this case.

At the outset this jury unhesitatingly declares that the preponderance of the evidence plainly discloses that the three men who perished should not have lost their lives in the breaker fire; their deaths were, we believe, avoidable. As to the cause of the fire neither the officials of the colliery nor the workmen summoned as witnesses before the inquest have been able to explain. From their sworn testimony the jury has only ascertained that the fire was discovered at the end of the lump coal chute and that the flames spread with startling and fatal rapidity to the top of the breaker where the victims of the fire were employed. But the cause of the fire must be unexplained.

It has been testified by the witnesses that the fire was permitted to gain destructive headway before the customary fire alarm was sounded from the breaker engine house whistle. This circumstance, standing of itself, would point convincingly to negligence on the part of the officials.

Early, Battiste and Peter Clapp were notified of the fire and had they started from the breaker at that time they could have escaped in safety.

Verdict of the Jury

The verdict of this jury is that John Early, Tony Battiste and Peter Clapp came to their death through their misunderstanding the probable seriousness of the fire. That they were apprised of the fire in time to have left their place of work is shown by the weight of the evidence adduced at this inquest. It has been established that at least three of their co-workers employed in the same part of the breaker knew of the fire even before the fire whistle blew, and that these three co-workers escaped from the breaker. The uncontradicted testimony of John Dykes, Gerald McHale and Harry Stevens is that they were aware of the fire, and had seen it from their place of work at the time it started, and that Early and Battiste were notified of the fire and that had they started from the breaker at that time they would have escaped in safety.

The jury feels, however, that severe censure is merited by Gerald McHale for his conduct in leaving the breaker without warning his co-workers of the fire, and that Harry Stevens should be criticised for failing in a duty, which like McHale, he owed to his fellow employes.

	Thomas Genil,
	W. J. Costello,
	W. P. Cronin,
Jury:	Thomas Allison,
	John Ruane,
	Patrick Murry.

MINE FIRE AT THE BOSTON MINE

The fire at the Boston mine, Plymouth No. 5 Colliery, of the Delaware and Hudson Company, May 10, was the third one to occur within a month. The first was at the Pancoast, April 7, and the second at the Gipsy Grove breaker, April 27.

The number of lives lost in the Boston mine was five. Fortunately the fire occurred on the night shift or the loss of life would probably have been much greater.

In the verdict of the coroner's jury it is said that "the fire was started by some person or persons unknown to the jury and that it was of incendiary origin." If the evidence submitted warranted this verdict the authorities of Luzerne county, through the district attorney and county detective, should spare no effort or expense to find the guilty person and see that proper punishment is inflicted, as a fire of this kind may be started in almost any mine and may endanger the lives of hundreds of employes. I am not aware that any effort has been made or is being made by the authorities of Luzerne county or by the coal company to apprehend the guilty person or persons, but I hope that some effort of that kind is being made.

To my personal knowledge this is the first fire of incendiary origin inside of a coal mine, but several such fires have occurred on the surface.

According to the report of Inspector D. T. Davis, the fire occurred at the mouth of man-way on Red Ash Vein Crop. "About half a dozen sets of hard wood timber, especially selected and suitably prepared, bark peeled, with lagging composed of three inch plank on top and sides over-lying the timber were used in order to prevent the clay from rushing in and obstructing the passage-way. Beyond and in close proximity to this a portion of the man-way was driven through the rock on an angle of approximately twenty degrees, which penetrated the vein. The volume of air entering through this opening, which was the in-take, was from 40,000 to 50,000 cubic feet per minute. The velocity of the current was so great that sparks were conveyed to the coal and the ignition was almost instantaneous. The products of combustion, both complete and incomplete, producing carbon monoxide and carbon dioxide gases, were conveyed with the air and circulated to all portions of 13 Vein workings. This portion of the mine is non-gaseous, but, in order to further safeguard the lives of the persons employed therein, a fire boss was on duty constantly. The east and west side of this plane was ventilated by two separate currents. Those employed on the east side escaped with much difficulty as the smoke entered the workings in such a dense volume as to make it utterly impossible for them to see in what direction they were going. They were compelled to grope and feel their way until No. 8 tunnel, Top split of Red Ash Vein, had been reached and an independent current of air from a portion of the Upper Split was encountered. The persons employed on the west side of 13 plane were less fortunate, as their bodies were found in the face of Two West airway, at which

place they were engaged at work. It seems that according to the condition of the bodies, for their dinner pails were found by their sides, they must have made a great effort to reach a place of safety, but not being able to do so on account of the density of the smoke, retreated to the face of their working place, at which place their bodies were discovered.

The bodies of the driver and door boy were found on the plane, at the entrance to a lift on the east side. The officials of the mine did all in their power to rescue the victims. Several persons were engaged in making an effort to smother the fire and others were inside the mine changing the course of the current so as to send fresh air to the section of the mine to where the victims were employed.

The workings of 13 plane are so arranged that the ventilating fan, located at the main hoist shaft, about a mile from the surface entrance to the man-way, controls the currents circulating through the mine.

Doors had been erected and thrown back, so that in case of emergency they could be immediately closed with the desired effect of reversing the current in the interior of the mine. The officials and miners were greatly surprised that the fire should do so much damage in a place that was least expected, and at such a peculiar time, but the smoke, instead of gradually becoming more dense, entered the mine in great volumes, overcoming the employes who had perfect knowledge of the means of ingress and egress of this portion of the mine. In order to ascertain in what manner the fire originated, I instructed D. W. Dodson, Coroner of Luzerne County, to hold an inquest."

2

The following verdict was rendered by the jury:

"That the said William Anglanicz came to his death on the 10th day of May, 1911, at the Boston Colliery, D. & H. Coal Company, from being suffocated by smoke in said colliery. John Russbuski, Jacob Kurrilla, John Malast and George Fender all lost their lives at the same time and place, and from the same cause. William Anglanicz was a laborer. The evidence shows that all these deceased men were working on the night shift, and that about ten o'clock in the evening a fire broke out at the opening of the man-way, and the smoke from this fire in great quantities penetrated the part of the mine in which they were working and suffocated them almost immediately. Six men working in another part of the mine were able to work their way out through one of the other openings. The evidence shows that the said mine had three avenues of escape. The manway, through which the men made their way into the mine, has several sets of timber at the opening, and it was at this point that the fire originated. This manway also served as an intake for air. Fifty thousand cubic feet of air passed in per minute. The jury visited the mine in order to inspect it, and from this inspection, as well as from the evidence, we find that the fire was started by some person or persons unknown to the jury, and that it was of incendiary

origin. We believe that all inflammable material whatsoever should be eliminated from the mines wherever and whenever it is possible to do so.

(Signed)

Thomas J. Hatton,
John J. Boney,
James Williams,
Thomas D. Lloyd,
Wm. I. Williams,
David Phillips."

The mine fire at the Pancoast mine created such an excitement among the mining population that the legislature passed an act which I have no doubt will prevent the recurrence of such catastrophes. The act reads as follows:

"No. 788

AN ACT

To safeguard life in the coal mines of the Commonwealth of Pennsylvania, and to protect and preserve the property connected therewith, by providing that all inside buildings shall be constructed of incombustible material; and providing penalties for failure to comply with the terms of this act, and making a violation thereof by mine superintendents a misdemeanor.

Section 1. Be it enacted, &c., That within six months after the approval of this act, all buildings inside of any coal mine in Pennsylvania, including engine houses, pump houses, stables, et cetera, shall be constructed of incombustible material, approved in writing by the Chief of the Department of Mines: Provided, however, That the time may be extended by the Chief of the Department of Mines, for a period not exceeding six months, upon sufficient cause shown by any person, firm or corporation, of inability to comply with the provisions of section one as to the time therein specified.

Section 2. Any company failing to comply with section one of this act shall be subject to a penalty of five hundred dollars, to be recoverable by the Commonwealth as debts of like amount are now by law recoverable. Any superintendent of a coal mine failing to comply with section one of this act shall be deemed guilty of a misdemeanor, and upon conviction shall be sentenced to pay a fine of one hundred dollars, or undergo imprisonment in the county jail for a period of ten days, or both, at the discretion of the court.

Section 3. The fines collected for violation of this act shall be paid to the Department of Mines, and the Department of Mines shall pay the same into the Treasury of the Commonwealth.

Section 4. All acts or parts of acts inconsistent with the provisions of this act be and the same are hereby repealed.

Approved—The 15th day of June, A. D., 1911.

JOHN K. TENER."

It is the hope of the Department that on the 15th day of June, 1912, when the period of one year from the date of approval of the act shall have expired, the stables, pump-houses, engine-houses and all other buildings in the coal mines of this Commonwealth will be made of incombustible material.

CAUSES AND LOCATION OF FATAL ACCIDENTS

The records for the year show that as usual the two principal causes of fatal accidents in the anthracite mines were (1) falls of coal, slate and roof, and (2) cars. The total number of inside fatal accidents was 615, of which 253 or 41.14 per cent. were caused by falls of coal, slate and roof, and 92 or 14.96 per cent. by cars. The other causes were explosions of gas, 34 or 5.53 per cent.; explosions of powder and dynamite, 21 or 3.42 per cent.; electricity, 2 or .32 per cent.; blasts, 67 or 10.89 per cent.; falling into shafts, suffocation by gas and miscellaneous causes, 146 or 23.74 per cent.

The accidents by falls of coal occurred as follows: At face of workings, 36; at pillar work, 13; on gangways, 2; back in chambers, 5; in old workings, 1; in chutes, 1; total, 58 or 22.92 per cent. By falls of slate at face of workings, 28; at pillar work, 10; on gangways, 5; back in chambers, 6; a total of 49 or 19.37 per cent. By falls of roof at face of workings, 102; at pillar work, 21; on gangways, 13; in chambers, 4; on slopes, 1; in crosscuts, 2; in tunnel, 1; in strange chamber, 2; total, 146 or 57.71 per cent.

The total number of accidents by falls of coal, slate and roof at face of workings was 166 or 65.61 per cent.; at pillar work, 44 or 17.39 per cent.; on gangways, 20 or 7.90 per cent.; in chambers 15 or 5.92 per cent.; on slopes 1 or .40 per cent.; in crosscuts, 2 or .79 per cent.; in tunnel, 1 or .40 per cent.; in strange chamber, 2 or .79 per cent.; in old workings 1 or .40 per cent.; in chute 1 or .40 per cent.

To reduce the number of accidents from falls at or near the face of rooms, systematic propping should be adopted in every mine to suit the height of roof or slate. The foreman and superintendent should decide on the distances between props in the mines and the foreman or assistant should insist on strict compliance with the decision thus made. When this is done no person but the miner himself can do anything more to safeguard life at the face of workings, except the fire boss, assistant foreman or foreman who may happen to visit a place at a critical period and be able to warn the men of the impending danger. As the miner is alone at the face about ninety per cent. of the time during the day, he must be taught how to protect his own life. In all mines eternal vigilance must be exercised by the workmen and a close watch must be kept of all dangerous working places by the fire boss, assistant foreman and foreman.

Ninety-two persons were killed by cars, 47 of whom were killed on gangways, 18 on slopes and 27 at other places. This great loss of life is utterly inexcusable. The roads should be kept in safe condition, free of refuse and drained, and should be of sufficient width to enable persons to pass by the cars. There should also be safety holes at proper intervals. If these precautions were taken and proper discipline insisted upon, there is no reason why the accidents from cars should not be reduced one-half.

Fifty-nine persons were killed by explosions of blasts at face of workings and 8 persons by explosions of blasts at other places. Explosions of powder and dynamite on gangways and at other places killed 21 persons.

Of the accidents on the surface, 25 or 30.95 per cent. were caused by cars; 22 or 26.19 per cent. by machinery, and 36 or 42.86 per cent. by other causes. The outside accidents should also be reduced one-half.

The table submitted herewith shows the accidents in each inspection district by falls and other causes.

In addition to the analysis made of the causes of accidents inside the mines, statistics are given herewith from the reports of the inspectors relative to the number of each class of employes killed inside the mines.

The inspectors in making their reports to the Department are required to give a brief explanation of fatal and serious accidents, and to state whether in their opinion they were unavoidable or caused by carelessness on the part of the victims or on the part of others. If an accident was caused by a fall of coal, slate or roof, they state where it occurred, whether at or near the face of workings, and give the name of the vein and thickness at that point. If an accident occurs by an explosion of gas, they state the time when it occurred.

These reports show 151 miners killed by falls; 101 or 66.89 per cent. were killed at face of workings, 33 or 21.86 per cent. while removing pillars, 4 or 2.65 per cent. on gangways, 10 or 6.62 per cent. back from the face in chambers, 1 or .66 per cent. in chutes, 1 or .66 per cent. in tunnels, and 1 or .66 per cent. in crosscuts. Of the 151 fatalities, 94 or 62.25 per cent. were due to the carelessness of the victims, 4 or 2.65 per cent. to the carelessness of others, 53 or 35.10 per cent. were unavoidable.

Seventeen miners killed by mine cars, 9 or 52.94 per cent. of whom were killed on gangways, 3 or 17.65 per cent. in chambers, 4 or 23.53 per cent. on slopes and 1 or 5.88 per cent. at bottom of slope. Of the 17 fatalities, 14 or 82.35 per cent. were due to the carelessness of victims, 1 or 5.88 per cent. to the carelessness of others, and 2 or 11.77 per cent. were unavoidable.

Fifteen miners killed by explosions of gas, 3 or 20.00 per cent. of whom were killed on gangways, 9 or 60.00 per cent. in chambers, 1 or 6.67 per cent. in old workings, and 2 or 13.33 per cent. in headings. Of the 15 fatalities, 11 or 73.33 per cent. were due to the carelessness of the victims, 1 or 6.67 per cent. to the carelessness of others, 3 or 20.00 per cent. were unavoidable.

Fifteen miners killed by powder and dynamite, 4 or 26.67 per cent. of whom were killed at face of workings, 9 or 60.00 per cent. of whom were killed on gangways, and 2 or 13.33 per cent. in crosscuts. Of the 15 fatalities, 11 or 93.33 per cent. were due to the carelessness of the victims, and 1 or 6.67 per cent. was unavoidable.

Fifty-seven miners killed by blasts, 49 or 85.97 per cent. of whom were killed at face of workings, 1 or 1.75 per cent. on gangways, 1 or 1.75 per cent. while robbing pillars, and 6 or 10.53 per cent. in headings. Of the 57 fatalities, 47 or 82.46 per cent. were due to the carelessness of the victims, 1 or 1.75 per cent. to the carelessness of others, 9 or 15.79 per cent. were unavoidable.

One miner killed by falling into shaft, accident due to carelessness of victim.

Four miners killed by falling down slopes; 2 or 50.00 per cent. by carelessness of the victim, and 2 or 50.00 per cent. were unavoidable.

Five miners suffocated by gas; 1 or 20 per cent. by carelessness of victim, 2 or 40 per cent. by carelessness of others, and 2 or 40 per cent. were unavoidable.

Twenty-six miners killed by suffocation by smoke, by carelessness of others.

Three miners killed, crushed at batteries, 2 or 66.67 per cent. by carelessness of the victims, and 1 or 33.33 per cent. was due to carelessness of others.

Two miners killed by rush of coal, accidents were unavoidable.

One miner killed, falling off cage into shaft, accident due to carelessness of the victim.

One miner killed, struck by piece of coal falling down shaft, accident was unavoidable.

Two miners killed, struck by piece of rock, accident due to carelessness of the victim.

Three miners killed by falling timber; 1 or 33.33 per cent. due to carelessness of the victim, 2 or 66.67 per cent. were unavoidable.

One miner killed by rush of gob, accident due to carelessness.

One miner killed by falling, accident due to the carelessness of victim.

One miner killed, drowned in sump, accident due to carelessness of the victim.

The total number of miners killed was 306, 193 or 63.07 per cent. of whom were killed through their own carelessness, 40 or 13.07 per cent. through the carelessness of others, 73 or 23.86 per cent. of the accidents were unavoidable.

Ninety-three laborers killed by falls, 64 or 68.82 per cent. of whom were killed at face of workings, 10 or 10.75 per cent. while removing pillars, 6 or 6.45 per cent. by falls in chambers, 10 or 10.75 per cent. on gangways, 1 or 1.08 per cent. in crosscuts, 1 or 1.08 per cent. in old workings, and 1 or 1.07 per cent. on slope. Of the 93 fatalities, 34 or 36.56 per cent. were due to the carelessness of the victims, 19 or 20.43 per cent. to the carelessness of others, and 40 or 43.01 per cent. were unavoidable.

Fifteen laborers killed by cars, 7 or 46.66 per cent. of whom were killed on gangways, 2 or 13.33 per cent. in chambers, 3 or 20.00 per cent. on slopes, 1 or 6.67 per cent. in tunnel, 1 or 6.67 per cent. at bottom of slope, and 1 or 6.67 per cent. at bottom of shaft. Of the 15 fatalities, 10 or 66.67 per cent. were due to the carelessness of the victims, and 5 or 33.33 per cent. were unavoidable.

Seven laborers killed by explosions of gas, 1 or 14.29 per cent. of whom was killed on gangway, 2 or 28.57 per cent. in chambers, 2 or 28.57 per cent. in old workings, and 2 or 28.57 per cent. in headings. Of the 7 fatalities, 3 or 42.86 per cent. were due to the carelessness of the victims, 4 or 57.14 per cent. to the carelessness of others.

Nine laborers killed by explosions of blasts at face of workings, 7 or 77.78 per cent. of whom were due to carelessness of victims, 1 or 11.11 per cent. was due to carelessness of others, and 1 or 11.11 per cent. was unavoidable.

Four laborers killed by explosions of powder and dynamite, 2 or 50 per cent. of whom were killed at face of workings, and 2 or 50 per cent. on gangways. Of the 4 fatalities, 3 or 75 per cent. were due to carelessness of the victims, and 1 or 25 per cent. to carelessness of others.

Three laborers suffocated by gas, 1 or 33.33 per cent, was due to carelessness of the victim, 1 or 33.33 per cent, to the carelessness of others, and 1 or 33.34 per cent, was unavoidable.

Four laborers killed by falling downslopes; 2 or 50 per cent, were due to carelessness of the victims, and 2 or 50 per cent, were unavoidable.

Five laborers killed by falling into shafts; 3 or 60 per cent, were due to carelessness of the victims, and 2 or 40 per cent, to the carelessness of others.

Three laborers killed by falling off cage into shafts; 1 or 33.34 per cent, was due to the carelessness of the victim, 1 or 33.33 per cent, was due to the carelessness of others, and 1 or 33.33 per cent, unavoidable.

Twenty-four laborers suffocated by smoke, by carelessness of others.

One laborer killed by machinery, accident due to carelessness of victim.

One laborer killed by being struck by piece of coal, accident was unavoidable.

One laborer killed, strained by pushing mine car, accident unavoidable.

One laborer killed by falling timber, due to carelessness of the victim.

One laborer killed by rush of coal on gangway, due to carelessness of the victim.

One laborer killed by being crushed at battery, accident due to carelessness of the victim.

Two laborers killed by electricity on gangway, 1 or 50 per cent, was due to carelessness of the victim and 1 or 50 per cent, was unavoidable.

One laborer killed by falling from chute, accident was unavoidable.

The total number of laborers killed was 176, 69 or 39.21 per cent, of whom were killed through their own carelessness, 53 or 30.11 per cent, through the carelessness of others, 54 or 30.68 per cent, of the accidents were unavoidable.

Forty-five drivers killed. Of this number 15 or 33.34 per cent, were killed by cars on gangways, 5 or 11.11 per cent, on slopes, 6 or 13.33 per cent, in chambers, 1 or 2.22 per cent, on planes, and 1 or 2.22 per cent, in tunnel, 1 or 2.22 per cent, by explosion of gas on gangway, 2 or 4.45 per cent, by explosions of powder and dynamite on gangway, 3 or 6.67 per cent, kicked by mules, 1 or 2.22 per cent, suffocated by gas, 6 or 13.33 per cent, suffocated by smoke, 1 or 2.22 per cent, by falling on sharp edge of tie, 1 or 2.22 per cent, by clothing catching fire, and 2 or 4.45 per cent, by causes unknown. Of the 45 fatalities, 31 or 68.89 per cent, were due to the carelessness of the victims, 1 or 2.22 per cent, was due to carelessness of others, 13 or 28.89 per cent, were unavoidable.

Fourteen company men killed. Of this number, 1 or 7.14 per cent, was killed by a fall at pillar work, 2 or 14.29 per cent, by explosions of gas on gangway, 1 or 7.14 per cent, suffocated by gas, 9 or 64.29 per cent, suffocated by smoke, and 1 or 7.14 per cent, by machinery. Of the 14 fatalities, 11 or 78.57 per cent, were due to the carelessness of the victims, 2 or 14.29 per cent, to the carelessness of others, 1 or 7.14 per cent, was unavoidable.

Seventy-four other persons killed, including 15 doorboys, 2 assistant mine foremen, 5 fire bosses, 5 brakemen, 4 loaders, 1 hitcher, 1

compler, 3 engineers, 2 motormen, 1 poleboy, 8 bottommen, 3 roadmen, 3 rockmen, 2 bratticemen, 1 repairman, 3 pumpmen, 3 timbermen, 1 siltman, 1 bellman, 1 mason, 1 dumpman, 3 machine-runners, 2 shaftmen, 1 batteryman, 1 slopeman, and 1 chargeman. Of the 74 fatalities, 42 or 56.76 per cent. were due to the carelessness of the victims, 5 or 6.76 per cent. to the carelessness of others, 27 or 36.48 per cent. were unavoidable.

Of the 615 accidents that occurred inside the mines, 337 or 54.80 per cent. are attributed to the carelessness of the victims themselves, 45 or 7.31 per cent. to the carelessness of others, 233 or 37.89 per cent. to unavoidable accidents.

CAUSES AND LOCATION OF FATAL ACCIDENTS BY DISTRICTS, 1911—Continued

	Districts																					Totals
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	
outside																						
Struck by pole,													1									1
Struck by frozen culm,														1								1
Struck by rock in stripping,																						1
Struck by clay in stripping,																			2			2
Fall of coal in stripping,																				1		1
Jumping from stripping,			2																			2
Jumping from breaker,			1																			1
Burned in breaker fire,			1																			1
Breaker floor gave way,															1							1
Rush of culm,																			1			1
Totals,	5	4	6	1	3	2	6	2	12	5	4	5	6	2	7	3	6	1	2	2	81	
Grand totals inside and outside,	22	53	110	97	25	39	58	42	43	32	33	27	32	14	21	26	33	25	29	24	8	689

ACCIDENT TABLES

TABLE 1.—Number of minor children killed inside and outside the mines, 1911

Districts	Inside					Outside					Totals Grand totals inside and outside				
	Boys 20 years	Boys 19 years	Boys 18 years	Boys 17 years	Boys 16 years	Totals	Boys 20 years	Boys 19 years	Boys 18 years	Boys 17 years		Boys 16 years	Boys 15 years	Boys 14 years	Totals
First,			1			1					1	1		2	3
Second,	3	1	2	2	1	9								1	10
Third,	12	5	3	1	2	23								1	24
Fourth,		1				1									1
Fifth,				1		1									1
Sixth,		2				2	1		1					2	5
Seventh,			1			1	1							1	2
Eighth,		3	2			5								2	7
Ninth,		4	1	1		6			1			1		2	8
Tenth,	1	1				2								2	4
Eleventh,	1		1	1		3	2		1	1				4	7
Twelfth,								12						12	12
Thirteenth,									1					1	1
Fourteenth,			1			1		1						2	2
Fifteenth,	1					1	1			1	1			3	6
Sixteenth,	1	1				2		2		1	1			4	6
Seventeenth,		1	2	2		5					1			1	6
Eighteenth,					1	1								1	1
Nineteenth,														1	1
Twentieth,	2	1		1		4	1				1			1	5
Twenty-first,							1							1	1
Totals,	11	20	14	10	5	60	7	7	5	4	5	1		29	89

TABLE 2.—Number and causes of fatal accidents inside the mines, production, employes, lives lost per 1,000 employes, production per life lost, lives lost per 1,000,000 tons produced, 1911

Counties	Fatal Accidents Inside				Totals	Production	Employes inside	Lives lost inside per 1,000 employes	Tons of coal produced per life lost inside	Lives lost inside per 1,000,000 tons produced
	By falls	By cars	By explosions of gas	By miscellaneous causes						
Luzerne,	92	30	18	65	205	31,304,984	46,863	4.37	152,707	6.55
Lackawanna,	73	27	3	110	218	29,177,155	31,069	6.40	92,555	10.20
Schuykill,	53	18	6	41	118	17,173,613	26,015	4.51	145,539	6.87
Northumberland,	16	10	5	7	39	6,347,353	10,772	3.62	102,700	6.11
Totals,	239	85	32	221	580	75,003,105	117,719	4.08	129,316	7.73
Carbon,	6	5	1	6	18	2,957,574	3,607	4.99	161,389	6.08
Columbia,	1			1	1	1,065,856	1,473	.68	1,065,826	.94
Dauphin,	4	2	1	3	10	845,503	1,530	6.00	84,550	11.80
Susquehanna,				1	1	600,536	962	1.01	600,536	1.07
Sullivan,	2			2	4	610,562	662	6.04	160,111	6.21
Wayne,	1				1	62,634	84	11.90	62,634	15.97
Totals,	11	7	2	12	35	6,172,615	8,318	4.21	176,301	5.67
Grand totals and averages,	253	92	34	236	615	81,176,050	126,037	4.88	131,993	7.57

TABLE 3.—Nationality by birth of employes killed by falls, 1911

Districts

Nationality	Districts																				Totals	Percentages		
	First	Second	Third	Fourth	Fifth	Sixth	Seventh	Eighth	Ninth	Tenth	Eleventh	Twelfth	Thirteenth	Fourteenth	Fifteenth	Sixteenth	Seventeenth	Eighteenth	Nineteenth	Twentieth			Twenty-first	
American,	4	1	1	1	2	2	1	1	2	2	1	1	1	2	1	2	3	1	4	4	2	35	13.83	
English,	1	3	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	8	3.16	
Welsh,	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	5	1.98	
Irish,	1	1	1	1	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	6	2.37	
German,	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	3	1.18	
Polish,	3	8	3	8	4	7	3	10	5	7	2	1	7	3	4	1	1	3	1	1	1	82	32.41	
Hungarian,	1	4	1	1	3	1	1	4	1	1	2	1	1	1	1	1	1	1	1	1	1	5	1.98	
Italian,	1	1	1	1	1	1	1	4	1	1	1	1	1	1	1	1	1	1	1	1	1	18	7.11	
Slavonian,	1	1	1	1	1	1	1	2	1	1	4	1	1	2	1	1	2	1	1	1	1	19	7.51	
Lithuanian,	1	1	2	2	2	2	1	6	2	1	1	5	4	1	1	1	2	2	3	1	1	38	15.02	
Austrian,	1	1	1	1	1	1	1	2	1	1	1	1	1	1	1	1	1	1	1	1	1	10	3.95	
Russian,	1	4	2	1	1	1	1	1	1	1	1	1	1	1	1	2	1	1	1	1	1	21	8.30	
Swedish,	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	.40
Tyrolean,	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	.40
Horwat,	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	.40
Totals,	11	23	14	14	17	13	14	25	11	15	13	6	17	4	6	10	7	9	12	9	3	233	100.00	

TABLE 4.—Nationality by birth of employes killed by falls, 1911

Districts	Foreigners				Americans*				Grand totals
	By falls at or near face	By falls while taking out pillars	By falls on gangway going to or from work	Totals	By falls at or near face	By falls while taking out pillars	By falls on gangway going to or from work	Totals	
First,	3	2		5	4	2		6	11
Second,	19			19	3		1	4	23
Third,	11	1		12	12			24	14
Fourth,	10	1		11	1	2		3	14
Fifth,	4	6		10	5	2		7	17
Sixth,	7	4		11	1	1		2	13
Seventh,	10		2	12	1		1	2	14
Eighth,	15	2		17	1			1	18
Ninth,	7		1	8	3			3	11
Tenth,	12		1	13	1		1	2	15
Eleventh,	3	4	4	11		2		2	13
Twelfth,	5	1		6					6
Thirteenth,	14			14	2		1	3	17
Fourteenth,	1	1		2	1	1		2	4
Fifteenth,	4	1		5	1			1	6
Sixteenth,	5	2		7	2	1		3	10
Seventeenth,	2	1		3	2	1	1	4	7
Eighteenth,	6	1	1	8	1			1	9
Nineteenth,	6	2		8	2	2		4	12
Twentieth,	4	1		5	4			4	9
Twenty-first,	1			1	2			2	3
Totals,	149	30	16	195	39	14	5	58	253

*English-speaking employes, including Americans, English, Scotch, Irish, Welsh and Germans.

Table 5—Part 1—Number and causes of fatal accidents inside the mines, employees, and lives lost per 1,000 employees, in the Northern, Middle and Southern Coal Fields, 1911

Districts	Fatal Accidents Inside By										
	Employees	Falls	Lives lost by falls per 1,000 employees	Cars	Lives lost by cars per 1,000 employees	Explosions of gas	Lives lost by explosions of gas per 1,000 employees	Suffocation by gas, etc.	Lives lost by suffocation of gas, etc., per 1,000 employees	Explosions of powder and dynamite	Lives lost by explosions of powder and dynamite per 1,000 employees
Northern Coal Field											
First,	4,613	11	2.38	3	.65	2	.32			1	.22
Second,	9,226	33	2.49	10	1.08		.42			1	.11
Third,	8,647	14	1.62	4	.81	1	.12	.72	8.33		
Fourth,	6,890	14	2.03	4	.58						
Fifth,	5,932	17	3.22	3	.57						
Sixth,	8,355	13	1.56	3	.36	5	.60	1	.12	4	.48
Seventh,	14	14	1.72	2	.25	7	.82	1	.12	2	.25
Eighth,	6,869	25	3.65	9	1.31	1	.15			2	.29
Ninth,	7,819	11	1.40	9	1.15	1	.13	5	.64	2	.25
Tenth,	7,161	15	2.09	3	.42	4	.56	1	.14	1	.11
Twenty-first,	2,999	3	1.36							2	.31
Totals and averages,	75,266	100	2.13	53	.70	21	.28	80	1.06	15	.20
Middle and Southern Coal Fields											
Eleventh,	7,431	13	1.75	1	.54						
Twelfth,	5,111	6	1.18	2	.39	1	.20			3	.59
Thirteenth,	4,985	17	3.41	4	.80			1	.26	1	.20
Fourteenth,	3,215	4	1.23		.31	1	.31	2	.62		
Fifteenth,	5,717	6	1.03	6	1.03						
Sixteenth,	4,965	10	2.00	4	.80	5	1.00			2	.40

*Pancoast disaster.

Seventeenth,	5,643	7	1.24	8	1.42	4	.51	3	.65
Eighteenth,	4,617	9	1.95	5	.65	1	.22		
Nineteenth,	4,873	12	2.46	3	.62				
Twentieth,	4,153	9	2.17	4	.96	1	.24		
Totals and averages,	50,831	65	1.83	39	.77	13	.26	6	.12
Grand totals and averages,	126,037	253	2.00	92	.73	34	.27	86	.68
								21	.17

TABLE 5.—Part 1—Continued

Districts	Fatal Accidents Inside By					Total number of fatal accidents in- side	Lives lost per 1,000 employes	Production in tons of 2,000 pounds	Lives lost per 1,000,000 tons pro- duced	Tons of coal produced per life lost	Tons of coal produced per employe
	Electricity	Lives lost by electricity per 1,000 employes	Miscellaneous causes	Lives lost by miscellaneous causes per 1,000 employes	Total number of fatal accidents in- side						
Northern Coal Field											
First,	1	.22	1	.22	17	3.09	3,105,848	5.47	182,697	673	
Second,	5	.33	1	.12	49	5.31	5,920,844	8.58	120,833	642	
Third,	1	.12	1	.12	104	12.03	5,184,067	20.06	49,874	590	
Fourth,	1	.15	1	.15	57	3.32	4,500,301	3.32	108,507	662	
Fifth,	1	.19	1	.19	24	4.34	1,373,467	3.48	182,478	825	
Sixth,	1	.12	1	.12	56	4.32	5,672,111	6.35	137,568	681	
Seventh,	1	.12	1	.12	36	4.43	6,125,637	5.88	170,167	731	
Eighth,	1	.11	1	.11	42	6.11	4,442,432	9.45	105,772	647	
Ninth,	1	.11	1	.11	57	4.71	6,189,433	5.70	175,390	827	
Tenth,	1	.11	1	.11	50	4.71	4,954,234	6.06	165,151	692	
Twenty-first,	6	.72	1	.16	6	2.72	1,865,026	3.32	300,838	817	
Totals and averages,	1	.07	9	.12	408	5.43	52,630,243	7.55	129,020	700	
Middle and Southern Coal Fields											
Eleventh,	1	.13	1	.13	21	2.82	6,473,332	3.24	308,518	872	
Twelfth,	1	.20	1	.20	18	3.52	5,400,011	4.28	180,351	667	
Thirteenth,	2	.60	1	.30	28	5.62	5,806,948	7.25	137,891	775	
Fourteenth,	1	.21	1	.21	9	2.77	2,773,556	3.24	308,173	855	
Fifteenth,	1	.25	1	.25	15	2.60	5,822,432	3.80	256,892	667	
Sixteenth,	2	.40	1	.20	24	4.89	3,257,340	7.37	135,723	652	
Seventeenth,	4	.71	1	.22	26	4.61	5,252,308	4.97	261,243	927	

Eighteenth,	1	.21	1	.22	20	4.32	3,269,955	6.23	100,500	695
Nineteenth,	1	.21	1	.22	23	4.72	3,554,008	6.47	351,222	729
Twentieth,	1	.21	3	.72	23	5.54	2,617,773	8.09	115,077	554
Totals and averages,	1	.62	15	.35	207	4.07	38,276,463	5.41	184,973	757
Grand totals and averages,	2	.62	27	.21	615	4.88	90,917,176	6.76	147,831	721

TABLE 5.—Part 2—Number and causes of fatal accidents outside the mines, employes, lives lost per 1,000 employes, in the Northern, Middle and Southern Coal Fields, 1911

Districts	Fatal Accidents Outside By												Fatal accidents inside and outside	Lives lost inside and outside per 1,000 employes				
	Employes	Cars	Lives lost by cars per 1,000 employes	Machinery	Lives lost by machinery per 1,000 employes	Suffocation in chutes, etc.	Lives lost by suffocation in chutes, etc., per 1,000 employes	Boiler explosions	Lives lost by boiler explosions per 1,000 employes	Electricity	Lives lost by electricity per 1,000 employes	Miscellaneous causes			Lives lost by miscellaneous causes per 1,000 employes	Total number of fatal accidents outside	Lives lost per 1,000 employes	Number of employes inside and outside
Northern Coal Field																		
First,	1,403	2	1.25	2	1.25	1	.62							5	3.12	6,216	22	3.54
Second,	2,847	3	1.05									1	.35	4	1.40	12,073	53	4.39
Third,	2,181	1	.46			1	.46					4	1.83	6	2.75	10,831	110	10.16
Fourth,	1,822													1	.52	7,213	27	3.10
Fifth,	1,931			1	.52									1	.52	7,213	27	3.10
Sixth,	2,703			3	1.11									2	.82	11,058	30	3.32
Seventh,	2,437	1	.41	1	.41									2	.82	10,562	38	3.60
Eighth,	2,150													6	2.53	9,028	42	4.65
Ninth,	2,373	1	.42	1	.42	1	.42					3	1.26	6	2.53	10,292	43	4.21
Tenth,	2,956	1	.44											2	.80	9,417	32	3.40
Twenty-first,	846	1	1.18	1	1.18									2	2.36	3,655	8	2.02
Totals and averages,	23,161	10	.43	9	.30	2	.69	1	.04	1	.04	8	.35	31	1.34	98,367	439	4.46
Middle and Southern Coal Fields																		
Eleventh,	3,535	4	1.13	3	.82	5	1.41							12	3.39	10,669	33	3.01
Twelfth,	2,680	1	.48	1	.48									3	1.14	7,200	23	3.15
Thirteenth,	2,996	2	.67											2	.67	7,979	32	4.01
Fourteenth,	1,772	1	.56	3	1.69	1	.56							5	2.82	5,017	14	2.77
Fifteenth,	2,965	3	1.32	2	.88									6	2.65	8,042	21	2.61
Sixteenth,	2,111			1	.47	1	.47							1	.47	7,106	26	3.66
Seventeenth,	3,604	3	1.09	2	.67	1	.33							7	2.33	8,647	33	3.82

TABLE 6.—Number and causes of fatal accidents, production, employees, lives lost per 1,000 employees, production per life lost, lives lost per 1,000,000 tons produced, 1899-1911 inclusive

Years	Fatal Accidents By											
	Falls		Cars		Explosions of Gas		Explosions of Powder and Dynamite		Blasts, Premature and Otherwise		Falling Into Shafts, Etc.	
	Number	Percentages	Number	Percentages	Number	Percentages	Number	Percentages	Number	Percentages	Number	Percentages
1899	226	58.10	51	13.11	28	7.20	11	2.88	27	6.94	16	4.11
1900	175	48.88	60	16.76	38	10.01	11	3.31	29	8.10	19	5.31
1901	226	51.25	69	15.65	33	7.48	15	3.40	36	8.16	15	3.44
1902	116	47.35	42	17.14	20	8.16	19	7.75	13	5.31	24	5.31
1903	210	49.30	70	16.47	26	6.10	17	3.99	38	8.92	31	7.28
1904	288	47.98	71	14.31	30	6.05	35	7.06	34	6.86	26	5.24
1905	295	53.54	82	14.88	33	5.99	16	2.91	44	7.99	43	7.80
1906	214	46.93	67	14.69	43	9.43	28	6.14	53	11.62	29	4.89
1907	279	46.42	88	14.64	44	7.82	17	2.83	70	11.65	25	4.16
1908	284	47.65	90	15.10	57	9.56	23	3.86	69	11.58	22	3.69
1909	254	51.84	71	14.49	28	5.71	22	4.49	47	9.79	18	3.67
1910	253	49.71	92	18.62	20	3.95	22	4.32	60	11.79	19	3.77
1911	253	41.14	92	14.96	34	5.55	21	3.42	67	10.89	31	5.42
Totals and percentages	3,023	48.97	945	15.31	434	7.63	260	4.21	587	9.51	297	4.81

TABLE 6.—Continued

Years	Fatal Accidents By				Total number of fatal accidents inside	Total number of fatal accidents outside	Grand total of fatal accidents inside and outside	Number of employees inside and outside	Production in tons of 2,000 pounds	Lives lost per 1,000 employees	Tons of coal produced per life lost	Lives lost per 1,000,000 tons produced
	Electricity		Miscellaneous Causes									
	Number	Percentages	Number	Percentages								
1889	---	---	30	7.71	389	72	461	140,604	60,518,331	3.28	131,276	7.62
1900	---	---	23	6.43	358	53	411	143,824	57,363,306	2.86	139,570	7.16
1901	---	---	38	8.62	441	72	513	147,651	67,034,065	3.47	137,803	7.65
1902	---	---	22	8.98	245	55	267	148,139	41,340,935	2.63	137,803	7.26
1903	---	---	33	7.74	426	92	518	151,827	75,292,585	3.41	145,237	6.89
1904	---	---	62	12.50	496	99	595	161,330	73,594,369	3.69	133,685	8.68
1905	---	---	36	6.53	551	93	644	168,254	78,647,020	3.83	129,133	8.19
1906	---	---	31	6.80	456	101	557	166,175	72,139,510	3.35	129,514	7.72
1907	---	---	3	5.0	601	107	708	168,774	86,036,412	4.20	121,519	8.35
1908	---	---	50	8.39	596	82	678	174,503	83,643,243	3.88	133,220	8.12
1909	---	---	44	8.90	490	77	567	171,195	80,223,853	3.31	141,488	7.67
1910	---	---	6	1.32	569	92	601	168,179	83,683,994	3.57	139,241	7.18
1911	---	---	2	0.32	615	84	669	173,338	90,917,176	4.63	130,067	7.69
Totals and percentages	18	3.29	609	9.87	6,173	1,079	7,252	2,083,780	950,355,460	3.48	131,047	7.63

NOTE: This table shows the accidents by years from 1889 to 1911, inclusive, a period of thirteen years, during which time the present Chief of the Department of Mines has been in charge of the Department. In 1889, 3.28 lives were lost for every 1,000 persons employed, and 7.62 lives lost for every 1,000,000 tons produced. The average percentage of fatalities for the thirteen years was 3.48 for every 1,000 persons employed, an increase over 1889 of 20. Even this small increase is to be deplored, but it has occurred in spite of the fact that the Chief of the Department of Mines has during the period named performed his full duty, as have the inspectors in charge of the various districts. In another part of this report it is shown that at least 60 per cent. of the accidents are due to carelessness or ignorance. In 1889 there were 140,604 employees working in and about the mines and 8 mine inspectors had supervision of the region. The number of employees in 1911 was 173,338, an increase of about 23 per cent., while the number of inspectors, of whom there have been 21 in service for several years, shows an increase of over 162 per cent. It is known to every mine official and mine worker that there are two inspections made at present to every one that was made several years ago.

TABLE 7.—Number of mines in operation, production, number of inside employes, number of lives lost inside, production per life lost inside and number of lives lost inside per 1,000,000 tons produced in each district, 1911

Districts	Mines in operation	Production in tons of 2,000 pounds	Inside employes	Lives lost inside	Production per life lost inside	Lives lost per 1,000,000 tons produced
First,	31	3,165,848	4,613	17	182,697	5.47
Second,	35	5,920,834	9,226	49	120,833	8.28
Third,	24	5,184,067	8,647	104	49,874	20.06
Fourth,	29	4,560,501	6,890	27	168,907	5.92
Fifth,	32	4,379,467	5,282	24	182,478	5.48
Sixth,	37	5,672,444	8,335	36	157,568	6.35
Seventh,	49	6,125,637	8,125	36	170,157	5.88
Eighth,	25	4,442,432	6,849	42	105,772	9.45
Ninth,	32	6,489,433	7,849	37	175,390	5.70
Tenth,	39	4,954,524	7,161	30	165,151	6.06
Eleventh,	87	6,479,932	7,134	21	308,568	3.24
Twelfth,	15	3,409,041	5,111	18	189,391	5.28
Thirteenth,	34	3,860,948	4,983	28	137,891	7.25
Fourteenth,	22	2,773,556	3,245	9	308,173	3.24
Fifteenth,	30	3,852,032	5,777	15	256,892	3.89
Sixteenth,	45	3,257,340	4,995	24	135,723	7.37
Seventeenth,	41	5,232,308	5,643	26	201,243	4.97
Eighteenth,	43	3,209,935	4,617	20	160,500	6.23
Nineteenth,	44	3,554,068	4,873	23	154,522	6.47
Twentieth,	26	2,647,773	4,153	23	115,077	8.69
Twenty-first,	13	1,805,026	2,299	6	300,838	3.32
Totals and averages,	733	50,917,176	126,037	615	147,831	6.76

TABLE 8.—Causes of fatal accidents inside the mines and production per accident, by counties, 1899-1911 inclusive

Years	Counties	Number of mines	Number of inside employees	Production in tons of 2,000 pounds	Fatal accidents by falls	Fatal accidents by explosions of gas	Total fatal accidents inside	Production in tons per fatal accident inside	Lives lost per 1,000,000 tons produced
1899	Luzerne	156	33,078	22,287,711	98	16	144	154,776	6.46
1900		152	34,476	21,481,122	57	17	135	159,119	6.23
1901		148	36,019	23,963,809	95	22	182	131,670	7.59
1902		229	35,491	14,280,332	36	7	93	153,552	6.51
1903		233	38,370	26,797,659	75	15	169	158,566	6.30
1904		256	41,603	26,794,072	106	8	200	133,970	7.49
1905		254	43,109	28,200,791	122	14	215	131,208	7.02
1906		271	41,643	26,612,192	84	27	194	137,176	7.29
1907		243	42,022	30,853,087	105	19	223	138,355	7.23
1908		243	46,302	31,728,997	116	34	258	122,981	8.13
1909		241	45,121	30,692,306	112	16	202	153,427	6.52
1910		250	44,383	32,106,978	96	12	215	149,335	6.70
1911		281	46,863	35,061,582	92	18	205	171,032	5.85
Totals and averages			528,480	351,169,698	1,194	225	2,435	141,218	6.93
1899	Lackawanna	76	22,314	14,838,823	71	2	108	137,397	7.28
1900		83	23,907	13,755,961	55	8	89	154,561	6.47
1901		80	26,207	17,258,125	63	4	109	158,331	6.31
1902		118	25,931	9,647,425	23		43	224,359	4.45
1903		114	27,755	18,457,647	59	3	107	172,591	5.89
1904		115	30,500	17,070,437	62	7	115	148,439	6.73
1905		126	30,853	17,917,376	82	2	127	141,682	7.09
1906		137	31,196	18,840,560	70	4	112	168,219	5.94
1907		155	32,444	22,433,408	87	16	174	128,928	7.75
1908		162	32,296	21,631,995	80	3	141	153,418	6.52
1909		157	33,764	20,489,212	73	1	129	158,831	6.29
1910		157	33,285	21,182,921	87	3	139	152,335	6.56
1911		151	34,069	22,598,414	78	3	218	103,662	9.65
Totals and averages			384,521	236,122,304	800	56	1,611	146,568	6.82
1899	Schuylkill	83	20,474	13,691,170	43	8	90	132,157	6.57
1900		82	19,952	12,998,899	32	11	82	158,523	6.31
1901		76	20,115	15,277,658	39	6	93	164,276	6.09
1902		76	20,876	7,886,235	37	3	60	131,437	7.61
1903		76	26,114	16,389,505	44	6	88	186,244	5.37
1904		106	22,272	15,738,763	43	8	107	147,091	6.80
1905		132	25,716	17,339,422	60	11	126	127,196	7.84
1906		153	25,365	16,376,538	32	7	94	174,218	5.74
1907		140	25,181	20,160,970	48	3	123	163,916	6.30
1908		179	26,625	18,196,714	54	17	121	150,356	6.65
1909		178	25,749	16,794,597	35	7	88	190,848	5.21
1910		188	25,302	17,696,013	41	4	94	188,255	5.31
1911		185	26,015	19,234,447	53	6	118	163,604	6.13
Totals and averages			391,086	207,783,931	561	97	1,291	160,575	6.23
1899	Northumberland	28	9,739	1,860,293	19	2	23	211,517	4.73
1900		27	9,741	1,690,944	15	1	23	142,150	7.03
1901		27	9,867	5,430,991	21	1	26	159,861	6.63
1902		28	9,670	2,124,259	10	10	34	91,896	10.88
1903		26	9,312	5,596,038	21	2	35	157,313	6.36
1904		52	9,248	5,359,028	15	6	39	137,411	7.28
1905		54	9,823	5,373,061	21	5	42	127,929	7.82
1906		70	9,585	5,567,497	17	3	32	167,734	5.96
1907		60	10,653	6,695,292	23	5	45	148,120	6.75
1908		68	10,639	6,667,741	23	3	49	123,831	8.08
1909		67	10,361	5,987,835	25	3	46	130,170	7.68
1910		73	10,665	6,324,318	17		32	197,635	5.06
1911		55	10,772	7,109,371	16	5	39	182,292	5.49
Totals and averages			130,075	71,866,768	243	46	485	148,179	6.75

TABLE 8.—Continued

Years	Counties	Number of mines	Number of inside employees	Production in tons of 2,000 pounds	Fatal accidents by falls	Fatal accidents by explosions of gas	Total fatal accidents inside	Production in tons per fatal accident inside	Lives lost per 1,000,000 tons produced
1899	Carbon,	11	2,025	1,826,266	2	-----	10	182,627	5.48
1900		11	2,052	1,863,636	1	-----	3	621,212	1.61
1901		10	2,265	1,858,519	3	-----	10	155,852	5.38
1902		10	2,242	1,651,926	1	-----	4	262,682	3.80
1903		15	2,120	2,133,637	2	-----	13	164,125	6.03
1904		20	2,381	2,253,512	2	-----	7	321,930	2.11
1905		23	2,400	2,476,406	-----	-----	9	275,156	3.63
1906		23	2,740	2,246,823	2	1	6	374,470	2.67
1907		30	2,989	2,762,523	3	1	14	197,323	5.07
1908		22	3,531	2,784,946	4	-----	9	309,438	3.23
1909		28	3,492	2,652,967	3	1	16	165,812	6.03
1910		33	3,575	3,214,169	3	1	15	214,278	4.67
1911	31	3,607	3,312,483	6	1	18	184,027	5.43	
Totals and averages, -----		-----	35,479	30,437,843	32	5	134	227,148	4.40
1899	Columbia,	6	1,346	1,002,468	2	-----	5	200,494	4.99
1900		7	1,163	980,720	3	-----	5	136,144	5.10
1901		5	714	1,369,859	2	-----	4	302,165	3.31
1902		6	1,438	230,870	-----	-----	3	76,957	12.99
1903		5	1,454	1,353,904	-----	-----	3	451,301	2.22
1904		10	1,419	1,151,624	7	-----	10	115,462	8.68
1905		9	1,567	1,229,697	2	-----	7	175,671	5.69
1906		7	1,403	969,065	3	1	7	138,438	7.22
1907		8	1,468	1,188,268	1	-----	4	297,067	3.37
1908		9	1,559	1,182,326	2	-----	5	236,465	4.22
1909		8	1,568	1,093,103	1	-----	2	546,551	1.83
1910		11	1,176	960,145	1	-----	1	900,145	1.04
1911	7	1,473	1,193,736	1	-----	1	1,193,736	.84	
Totals and averages, -----		-----	17,748	13,745,785	25	1	57	241,154	4.15
1899	Dauphin,	2	1,583	817,327	1	-----	8	102,166	9.75
1900		2	1,608	779,135	2	1	8	97,392	10.27
1901		2	1,562	830,572	3	-----	7	118,653	8.43
1902		2	1,120	423,341	-----	-----	1	423,341	2.36
1903		2	1,256	732,969	3	-----	5	146,594	6.82
1904		9	1,269	723,415	-----	-----	*11	65,765	15.21
1905		10	1,350	723,126	1	1	5	144,625	6.91
1906		10	1,422	734,723	3	-----	3	244,308	4.08
1907		12	1,393	829,980	2	-----	5	165,966	6.02
1908		12	1,481	848,065	1	-----	9	94,223	10.61
1909		12	1,419	932,323	1	-----	2	466,197	2.15
1910		11	1,446	886,192	1	-----	8	110,774	9.03
1911	11	1,530	946,963	4	1	10	94,696	10.56	
Totals and averages, -----		-----	18,439	10,208,141	22	4	82	124,489	8.03
1899	Susquehanna,	2	911	609,020	-----	-----	-----	-----	-----
1900		2	964	556,001	-----	-----	-----	-----	-----
1901		2	1,101	713,153	-----	-----	-----	-----	-----
1902		2	1,086	452,758	2	-----	2	226,378	4.42
1903		2	1,061	800,773	4	-----	6	133,462	7.49
1904		2	1,102	692,440	2	-----	6	115,407	8.67
1905		2	1,026	680,146	6	-----	6	113,358	8.82
1906		3	1,028	562,102	2	-----	6	93,684	10.67
1907		3	970	644,688	9	-----	12	53,674	13.63
1908		1	1,005	487,960	2	-----	2	243,950	4.10
1909		2	953	589,836	2	-----	3	196,612	5.09
1910		2	971	628,898	4	-----	4	157,902	6.36
1911	3	962	672,600	-----	-----	1	672,600	1.49	
Totals and averages, -----		-----	13,116	8,209,580	33	-----	48	171,033	5.85

*Williamstown disaster.

TABLE 8.—Continued

Years	Counties	Number of mines	Number of inside employes	Production in tons of 2,000 pounds	Fatal accidents by falls	Fatal accidents by explosions of gas	Total fatal accidents inside	Production in tons per fatal accident inside	Lives lost per 1,000,000 tons produced
1899	Sullivan,	2	322	183,182	1	—	1	183,182	5.46
1900		2	337	235,113	3	—	3	78,371	12.76
1901		2	281	152,505	—	—	—	—	—
1902		3	623	409,017	3	—	5	81,803	12.23
1903		3	455	293,442	3	—	3	146,721	6.82
1904		3	443	294,305	1	—	1	294,305	3.40
1905		4	331	310,496	1	—	2	155,248	6.44
1906		4	414	358,627	1	—	2	179,313	5.58
1907		4	459	433,101	1	—	1	433,101	2.31
1908		4	583	550,713	2	—	2	275,356	3.63
1909		4	661	641,216	2	—	2	320,608	3.12
1910		4	614	632,874	—	—	—	632,874	1.58
1911	4	662	777,429	2	—	4	179,357	5.60	
Totals and averages,		6,085	5,212,020	10	—	26	260,462	4.98	—
1899	Wayne,	1	253	300,070	—	—	—	—	—
1900		1	11	21,862	—	—	—	—	—
1901		1	589	369,462	—	—	—	—	—
1902		—	—	—	—	—	—	—	—
1903		1	125	68,355	—	—	—	—	—
1904		1	125	76,353	—	—	—	—	—
1905		1	136	67,608	—	—	—	—	—
1906		3	262	71,381	—	—	—	—	—
1907		3	270	85,594	—	—	—	—	—
1908		2	212	63,966	—	—	—	—	—
1909		2	184	50,328	—	—	—	—	—
1910		2	125	51,576	—	—	—	—	—
1911	2	84	70,150	1	—	1	70,150	14.26	
Totals and averages,		2,416	1,305,095	1	—	1	1,305,095	.77	—

TABLE 9.—Number of miners and miners' laborers employed in the mines; number killed and ratio of each class killed per 1,000 employes; average number of days worked by breakers; average production per day worked by breakers; 1881-1911, inclusive

Years	Number of miners employed	Number of miners killed	Number of miners killed per 1,000 employes	Number of miners' laborers employed	Number of miners' laborers killed	Number of miners' laborers killed per 1,000 employes	Average number of days worked by breakers	Average production per day worked by breakers, gross tons
1881,	22,809	114	4.99	16,726	70	4.19	221	138,181
1882,	22,843	135	5.91	15,229	56	3.68	218	143,581
1883,	25,319	136	5.37	16,879	67	3.97	232	145,272
1884,	27,100	132	4.87	19,606	81	4.13	192	169,590
1885,	28,305	160	5.65	20,128	86	4.27	204	167,331
1886,	25,970	131	5.04	17,068	68	3.98	196	177,437
1887,	29,558	102	3.45	17,548	57	3.25	208	189,981
1888,	34,547	169	4.89	21,952	87	3.96	218	191,002
1889,	30,504	194	6.36	19,368	79	4.08	197	197,837
1890,	28,936	146	5.05	18,620	95	5.10	210	191,268
1891,	30,552	180	5.89	19,590	119	6.07	213	208,539
1892,	30,779	180	5.84	22,130	111	5.02	202	226,428
1893,	32,881	195	5.93	22,853	108	4.73	202	233,562
1894,	32,357	218	6.74	22,912	91	3.80	175	260,035
1895,	34,553	179	5.18	21,678	115	4.67	187	271,969
1896,	37,003	204	5.51	26,530	134	5.09	170	282,790
1897,	36,932	210	5.69	27,277	99	3.63	151	310,310
1898,	36,377	176	4.84	24,060	124	5.15	151	312,220
1899,	36,421	189	5.16	23,946	114	4.75	179	301,867
1900,	36,822	181	4.99	24,413	95	3.86	176	291,067
1901,	37,804	224	5.92	26,265	122	4.64	195	307,210
1902,	36,392	114	3.15	25,443	62	2.44	*116	318,213
1903,	36,823	204	5.49	27,593	110	4.00	211	318,350
1904,	39,848	253	5.85	31,217	145	4.64	213	308,494
1905,	42,078	308	7.32	31,967	148	4.63	208	337,599
1906,	41,801	226	5.41	29,652	133	4.48	206	312,671
1907,	43,035	309	7.18	29,981	136	4.54	227	338,485
1908,	44,310	313	7.05	32,853	154	4.68	211	353,517
1909,	44,675	264	5.91	32,232	126	3.91	205	349,407
1910,	43,651	254	5.82	32,040	147	4.59	212	352,443
1911,	45,324	306	6.75	32,905	176	5.35	234	346,906

*Strike during the year.

†Washeries worked during the strike. The time was not computed in the average days worked.

NOTE: The above table shows that in 1881, 22,809 miners and 16,726 miners' laborers were employed, an average of 221 days, and that 138,181 tons of coal were produced each day worked. In 1891, 30,552 miners and 19,590 miners' laborers were employed, an average of 213 days, and 208,539 tons were produced each day worked. The increase in the number of miners and miners' laborers was 26.83 per cent., while the increase in production per day was 50.77 per cent. In 1901, 37,804 miners and 26,265 miners' laborers were employed an average of 195 days and 307,210 tons were produced each day worked. The increase in the number of miners and miners' laborers was 27.77 per cent., while the increase in the production per day was 47.45 per cent. During 1911, 45,324 miners and 32,905 miners' laborers were employed, an average of 234 days, and the production per day was 346,906 tons. The increase in the number of miners and miners' laborers over 1901 is 22.10 per cent., while the increase in the production per day is only 12.92 per cent. The number of miners and miners' laborers in 1891 was 50,142; in 1911 the number was 78,229, an increase of 56.01 per cent., while the increase in production of coal per day was 66.51 per cent.

TABLE 10.—Number of employees inside and outside the mines, number of fatal accidents per 1,000 employees, number of tons of coal mined per fatal accident 1881-1911, inclusive

Years	Inside				Outside			Number of lives lost inside and outside per 1,000 employees
	Employees	Fatal accidents	Lives lost per 1,000 employees	Production of coal in tons of 2,000 pounds for each life lost	Employees	Fatal accidents	Lives lost per 1,000 employees	
1881,	45,619	234	5.13	146,165	30,412	39	1.25	3.53
1882,	50,764	254	4.92	140,230	31,436	41	1.30	3.54
1883,	56,268	274	4.87	137,764	35,153	49	1.39	3.53
1884,	61,922	286	4.62	127,513	39,151	46	1.17	3.28
1885,	62,301	290	4.61	131,834	37,419	42	1.12	3.31
1886,	63,920	236	3.69	165,046	39,114	43	1.10	2.71
1887,	67,716	270	3.99	156,153	38,801	46	1.19	2.97
1888,	78,688	317	4.03	147,114	45,530	47	1.08	2.98
1889,	71,178	339	4.77	128,763	45,486	58	1.28	3.32
1890,	73,613	323	4.39	139,276	46,306	55	1.19	3.15
1891,	76,569	372	4.86	133,606	46,339	56	1.20	3.47
1892,	82,088	361	4.40	141,903	48,212	57	1.18	3.21
1893,	86,287	388	4.49	136,188	51,682	68	1.32	3.30
1894,	87,901	368	4.19	138,497	52,038	78	1.50	3.19
1895,	89,251	354	3.97	160,872	54,454	67	1.23	2.93
1896,	94,798	430	4.54	125,217	55,290	72	1.30	3.34
1897,	95,812	372	3.88	141,347	53,745	51	.95	2.83
1898,	91,171	360	3.95	146,674	51,249	51	.99	2.89
1899,	92,167	389	4.22	155,574	48,437	72	1.49	3.28
1900,	94,140	358	3.80	160,233	49,684	53	1.07	2.86
1901,	98,434	411	4.48	152,142	49,217	72	1.46	3.47
1902,	98,377	245	*2.49	168,739	49,762	55	1.11	2.63
1903,	102,055	426	4.17	176,602	49,772	92	1.85	3.41
1904,	110,362	496	4.49	148,376	50,968	90	1.94	3.69
1905,	116,371	551	4.73	142,735	51,883	93	1.79	3.83
1906,	114,938	456	3.97	141,250	51,177	101	1.98	3.35
1907,	117,849	601	5.10	143,189	50,925	107	2.10	4.20
1908,	124,233	596	4.79	140,173	50,270	82	1.63	3.88
1909,	123,272	490	3.98	163,722	47,923	77	1.61	3.31
1910,	121,542	509	4.19	164,409	46,633	92	1.97	3.57
1911,	126,037	615	4.88	147,833	47,301	84	1.78	4.03

*Year of the big strike, when an average of only 116 days was worked by the collieries.

COMPARISON OF PRODUCTION AND FATAL ACCIDENTS INSIDE THE MINES, 1908-1911, INCLUSIVE

To the following table the attention of persons in charge of mines and persons who work in the mines is especially directed. The table is subdivided into groups. The first group comprises 8 of the largest companies, whose production during the four years averaged from 10,000,000 to 46,000,000 tons. The average production per life lost was 159,755 tons. The average number of fatalities per 1,000,000 tons was 6.26. The Lehigh Coal and Navigation Company, the Delaware and Hudson Company and the Philadelphia and Reading Coal and Iron Company have the best record. The second group comprises 11 companies, whose production during the four years averaged from 3,000,000 to over 9,000,000 tons. The average production per life lost was 121,585 tons. The average number of fatalities per 1,000,000 tons produced was 8.22. In this group the Kingston Coal Company, Coxe Brothers and Company and the Hillside Coal and Iron Company have the best record. The third group comprises 9 companies, whose production during the four years averaged from 1,500,000 to 2,900,000 tons. The average production per life lost was 153,528 tons. The average number of fatalities per 1,000,000 tons produced was 6.51. In this group Pardee Brothers and Company, Midvalley Coal Company, St. Clair Coal Company and A. Pardee and Company are conspicuous for their good record. The fourth group comprises the companies that produced from 1,000,000 tons to 1,500,000 tons. The average production per life lost was 184,125 tons. The average number of fatalities per 1,000,000 tons produced was 5.43. The following companies in this group have a most favorable record: Connell Anthracite Mining Company, Alden Coal Company, Pine Hill Coal Company and Estate A. S. Van Wickle. The fifth group comprises companies that produced from 700,000 to over 1,000,000 tons. The average production per life lost was 217,585 tons. The average number of fatalities per 1,000,000 tons produced was 4.60. The following companies deserve special mention: Dolph Coal Company, Hazle Mountain Coal Company, Maryd Coal Company, Upper Lehigh Coal Company, Enterprise Coal Company, Harwood Coal Company and Dodson Coal Company. The sixth group comprises the companies that produced from 100,000 to nearly 695,000 tons. The average production per life lost was 121,188 tons. The average number of fatalities per 1,000,000 tons produced was 8.25. In this group favorable mention is also made of the O'Boyle-Foy Anthracite Coal Company, Raub Coal Company, W. R. McTurk Company, Green Ridge Coal Company and Trevorton Colliery Company. The 30 companies not included in these groups produced during the four years 2,768,613 tons with an average production per life lost of 60,187 tons and an average number of fatalities per 1,000,000 tons produced of 16.61. The total production of all the companies for the four years covered by this table was 331,779,805 tons. The number of lives lost was 2,210. The production per life lost was 150,127 tons, and the average number of fatalities for each 1,000,000 tons produced was 6.66. These statistics are given in the hope that they will create an ambition on the part of the companies whose records are a proper subject of criticism to make a strenuous endeavor to reduce the loss of life, and on the part of the companies whose records are to be commended to make still greater efforts to protect the lives of their employees.

TABLE 11.—Comparison of production and fatal accidents inside, 1908-1911—inclusive

Names of Companies	1908		1909		1910		1911		Total production in tons of 2,000 pounds	Total number of fatal accidents in-side	Number of tons produced per life	Fatal accidents per 1,000,000 tons produced
	Production in tons of 2,000 pounds	Number of fatal accidents inside	Production in tons of 2,000 pounds	Number of fatal accidents inside	Production in tons of 2,000 pounds	Number of fatal accidents inside	Production in tons of 2,000 pounds	Number of fatal accidents inside				
Philadelphia and Reading Coal and Iron Co.,	11,929,856	80	11,256,043	66	11,063,293	61	12,303,179	62	46,617,371	269	173,299	5.77
Delaware, Lackawanna and Western Railroad Co.,	3,720,357	61	9,346,954	59	9,426,240	62	9,840,388	56	38,232,939	238	160,647	6.23
Lehigh Valley Coal Co.,	6,588,745	38	6,255,528	37	7,436,690	45	9,000,559	44	29,281,522	184	159,139	6.28
Delaware and Hudson Co.,	7,446,775	36	6,117,629	25	6,068,516	36	6,746,457	53	26,918,996	150	179,460	5.67
Pennsylvania Coal Co.,	5,108,193	38	5,413,452	46	5,618,507	41	6,101,405	38	23,301,557	163	136,819	7.31
Lehigh and Wilkes-Barre Coal Co.,	5,292,486	29	4,776,283	29	4,944,809	48	5,524,611	30	30,538,189	143	141,613	7.06
Lehigh Coal and Navigation Co.,	3,397,421	12	3,370,889	20	4,148,468	22	4,539,724	22	15,456,362	76	303,375	4.92
Seranton Coal Co.,	2,786,801	23	2,628,614	24	2,651,731	18	2,342,864	23	10,410,010	88	118,286	8.45
Totals and averages,	32,330,634	337	49,065,392	306	51,808,304	333	56,463,806	337	209,738,136	1,313	159,755	6.26
Kingston Coal Co.,	2,202,256	13	2,281,692	15	2,509,638	6	2,431,464	13	9,474,450	47	201,584	4.96
Susquehanna Coal Co.,	1,325,048	41	1,745,393	13	1,803,173	11	1,902,020	10	8,775,832	75	117,011	8.55
Hillside Coal and Iron Co.,	1,539,856	7	1,483,103	8	1,585,169	8	2,014,960	8	6,628,028	34	194,795	5.13
Hudson Coal Co.,	796,796	7	1,410,354	8	1,707,611	8	2,410,880	14	6,325,641	37	170,963	5.83
Mineral Railroad and Mining Co.,	593,634	8	1,770,194	24	1,791,006	12	2,019,648	18	6,175,682	62	99,508	10.04
Coxe Brothers and Co., Incorporated,	1,479,828	9	1,154,275	5	1,371,570	7	1,644,955	7	5,650,638	28	201,808	4.96
G. B. Markle and Co.,	1,155,325	9	1,256,820	8	1,214,764	7	1,364,955	6	4,991,864	30	166,395	6.01
Temple Iron Co.,	986,942	20	1,967,740	15	1,016,967	11	1,364,955	6	4,991,864	30	166,395	6.01
Summit Branch Mining Co.,	848,065	9	922,393	2	886,192	8	946,963	10	3,970,979	46	86,326	11.58
West End Coal Co.,	808,801	8	696,571	5	735,833	7	845,187	3	3,613,553	29	124,665	8.03
Price-Panconst Coal Co.,	730,872	7	783,337	6	800,416	4	761,120	80	3,086,452	23	134,194	7.45
Totals and averages,	14,467,423	141	15,484,002	169	15,421,669	89	16,332,162	169	61,765,194	508	121,585	8.22

*Now Forty Fort Coal Co., and Mt. Lookout Coal Co.

TABLE 11.—Continued

Names of Companies	1908		1909		1910		1911		Total production in tons of 2,000 pounds	Total number of fatal accidents in- side	Number of tons produced per life lost	Fatal accidents per 1,000,000 tons produced
	Production in tons of 2,000 pounds	Number of fatal accidents inside	Production in tons of 2,000 pounds	Number of fatal accidents inside	Production in tons of 2,000 pounds	Number of fatal accidents inside	Production in tons of 2,000 pounds	Number of fatal accidents inside				
Jermyn and Co.,	648,244	7	854,701	6	725,134	8	701,867	7	2,920,940	28	104,641	9.55
Purdie Brothers and Co.,	552,263	3	580,366	3	765,367	1	755,284	1	2,591,870	7	570,267	2.70
A. Purdee and Co.,	562,635	4	613,467	2	578,135	4	684,698	1	2,438,465	11	221,721	4.51
St. Clair Coal Co.,	552,496	3	477,780	1	495,824	3	439,807	1	1,965,967	7	280,844	3.56
Farrish Coal Co.,	531,189	1	451,012	1	480,878	9	370,087	4	1,829,166	17	108,186	9.24
Mill Creek Coal Co.,	739,700	8	648,645	5	143,894	2	153,253	2	1,683,492	17	39,147	10.09
Plymouth Coal Co.,	414,867	8	403,530	4	387,474	4	336,690	1	1,602,471	17	94,263	10.61
Plymouth Coal Co.,	485,895	3	359,482	1	396,383	1	424,079	1	1,695,740	5	323,150	3.00
Midvalley Coal Co.,	423,559	1	356,122	1	387,819	1	382,753	5	1,550,278	10	135,928	6.45
Lytle Coal Co.,	4,910,753	39	4,745,105	27	4,303,498	32	4,398,458	21	18,249,814	119	153,928	6.51
Totals and averages,	442,345	5	482,576	4	549,049	3	540,175	5	1,531,546	13	117,813	8.49
Lackawanna Coal Co., Limited,	385,973	6	398,012	2	556,342	1	381,468	2	1,315,270	13	116,560	8.58
Thomas Colliery Co.,	356,875	1	308,012	2	354,928	1	348,164	5	1,427,379	6	237,896	4.20
Estate A. S. Van Winkle	284,007	2	351,925	2	345,859	1	365,266	4	1,347,607	2	673,893	1.48
Connell Anthracite Mining Co.,	312,356	3	251,914	2	351,905	1	409,282	4	1,354,487	9	148,387	6.74
C. M. Dodson and Co.,	365,829	3	310,582	2	325,909	2	328,573	2	1,320,487	2	663,243	1.30
Alden Coal Co.,	609,686	5	494,643	4	79,981	1	633,043	3	1,322,710	8	163,339	6.03
Sternek Creek Coal Co.,	307,494	3	296,984	1	329,478	1	374,777	1	1,313,392	2	262,678	3.81
Pine Hill Coal Co.,	362,897	2	326,984	1	283,149	4	303,159	2	1,228,180	9	136,465	7.33
Elhott McClure and Co.,	290,282	1	270,717	1	280,080	1	303,149	7	1,210,228	8	151,278	6.61
Oak Hill Coal Co.,	266,772	1	282,197	1	269,163	1	319,511	3	1,167,643	5	233,528	4.28
Excelsior Coal Co.,	3,925,169	29	2,849,381	7	3,378,690	12	4,376,587	32	14,729,967	80	184,125	5.43
Totals and averages,												

Operated by Temple Iron Co.

Lantz Coal Co.,	354,280	3	304,400	---	1	450,292	2	1,119,081	5	223,816	4.47	
Harwood Coal Co.,	279,281	2	274,859	---	1	230,765	---	1,082,687	4	270,659	3.69	
Greenough Red Ash Coal Co.,	233,364	1	262,025	---	3	277,339	3	1,070,809	5	214,162	4.67	
Dodson Coal Co.,	219,240	2	253,015	---	1	284,845	1	1,033,453	4	258,363	3.87	
Red Ash Coal Co.,	211,725	---	231,484	---	1	241,834	2	464,088	2	190,036	5.26	
Back Run Coal Co.,	181,241	3	196,847	---	1	264,904	---	367,181	4	226,828	4.41	
MC. Jessup Coal Co.,	165,352	1	188,436	---	1	248,365	---	292,312	1	904,645	4.42	
Maryd Coal Co.,	108,178	1	226,252	---	2	289,080	1	930,659	4	300,290	3.33	
Upper Lehigh Coal Co.,	280,388	1	294,934	---	3	204,191	2	884,062	3	974,677	8.39	
Enterprise Coal Co.,	225,026	---	135,906	---	3	245,184	---	814,003	5	162,849	6.14	
Colonial Collieries Co.,	128,243	---	224,334	---	3	267,583	---	897,177	4	201,132	4.97	
Dolph Coal Co.,	254,958	1	193,322	---	2	191,953	---	185,045	2	804,529	6.14	
East Boston Coal Co.,	159,106	---	213,200	---	2	246,558	---	251,503	1	133,430	7.49	
Northwest Coal Co.,	176,876	4	215,880	---	1	188,088	---	224,913	1	111,108	9.90	
Shipping Coal Co.,	101,222	---	175,803	---	2	245,720	3	774,658	7	181,031	5.62	
Forty Fort Coal Co.,	142,588	---	155,382	---	1	193,555	---	299,976	1	178,375	5.61	
Moosic Mountain Coal Co.,	172,735	1	183,401	---	1	182,149	---	172,565	1	355,455	2.81	
Totals and averages,												
	3,357,830	21	3,680,935	15	4,289,863	19	4,564,134	19	15,883,732	73	217,585	4.60
Northern Anthracite Coal Co.,	154,190	---	174,298	2	166,459	1	139,194	3	694,171	6	115,695	8.64
Girard Mammoth Coal Co.,	173,556	2	102,545	---	177,349	---	235,010	1	688,460	3	229,187	4.36
People's Coal Co.,	290,437	5	192,526	5	125,729	2	137,086	2	615,768	14	48,271	20.72
Truman M. Dodson Coal Co.,	169,679	2	220,232	1	220,750	2	610,681	5	122,136	8.19	122,136	8.19
Clear Spring Coal Co.,	271,345	5	96,361	2	148,440	3	56,730	2	572,876	12	47,740	29.95
Raub Coal Co.,	134,966	---	116,922	1	150,948	1	162,621	---	565,457	2	282,728	3.54
John S. Wentz and Co.,	130,536	1	157,343	1	120,128	---	136,359	1	564,666	3	188,222	5.31
W. R. McTurk Co.,	148,702	---	122,332	---	149,357	---	147,963	2	563,884	2	281,942	3.55
Green Ridge Coal Co.,	132,545	2	133,404	---	145,970	---	132,871	---	544,730	2	273,365	3.67
M. S. Kemmerer and Co.,	115,688	1	106,702	---	93,292	1	149,611	---	465,269	2	232,640	4.30
O'Boyle-Foy Anthracite Coal Co.,	106,833	---	104,968	---	108,403	---	142,523	1	462,627	1	357,963	18.04
Mt. Lookout Coal Co.,	197,861	2	181,544	1	---	---	387,193	7	126,408	3	126,408	7.91
Stevens Coal Co.,	66,949	1	82,892	---	115,323	1	110,622	---	379,465	3	187,848	5.32
George F. Lee Coal Co.,	---	4	65,575	---	167,725	---	116,842	2	279,192	2	139,506	4.16
Darkwater Coal Co.,	---	---	67,432	---	90,110	---	119,523	1	472,309	1	272,369	3.65
Trevorton Colliery Co.,	---	---	---	---	59,357	---	---	---	197,343	2	197,343	5.07
Allegheny Coal Co.,	4,400	1	14,366	---	---	---	175,574	2	153,574	2	87,787	11.39
Allegheny Coal Co.,	---	---	---	---	---	---	128,944	1	128,944	1	128,944	7.81
Harleigh-Brookwood Coal Co.,	---	---	---	---	---	---	---	---	---	---	---	---
Totals and averages,												
	2,048,621	22	1,969,322	13	1,937,800	11	2,651,136	25	8,694,349	71	121,188	8.25
Miscellaneous companies,	579,231	7	582,276	13	936,764	14	670,742	12	2,768,613	46	60,187	16.61
*Operated by Temple Iron Co. †Idle. §Now Lehigh Valley Coal Co. ¶Now Alliance Coal Co.												

TABLE 12.—Companies that had no fatal accidents, 1908-1911, inclusive

Names of Companies	1908	1909	1910	1911
	Production in 2,000 pounds of tons	Production in 2,000 pounds of tons	Production in 2,000 pounds of tons	Production in 2,000 pounds of tons
Buck Ridge Coal Co.,	48,568	143,072	152,334	158,770
Humbert Coal Co.,	73,294	21,857	54,033	86,303
Wolf Coal Co.,				*67,728
Pittston Coal Mining Co.,	70,643	91,946	99,929	61,029
E. S. Stackhouse Coal Co.,				*55,851
Miners Mills Coal Mining Co.,	†	†	†	44,212
John H. Davis Co.,	36,191	32,651	40,451	38,278
Clearview Coal Co.,	4,116	39,580	41,252	35,004
E. White and Co.,	34,280	1,230	15,437	32,983
Yost Mining Co.,	†	†	15,624	31,902
Rissinger Brothers and Co., Incorporated,				*24,064
Schuylkill Lehigh Coal Co.,				*19,301
Bright Coal Co.,	5,376	14,000	11,333	18,474
W. R. McCready,				*12,095
Clinton Falls Coal Co.,	7,171	3,864	4,413	9,296
Lincoln Hill Coal Co.,				*6,571
Thomas R. Reese and Sons,	4,517	6,237	4,023	5,821
Dreshman Coal Co.,	3,283	2,849	2,409	5,814
Outlook Coal Co.,	†	7,049	4,983	5,063
William Niswenter,	†	8,034	5,658	4,651
McCauley Coal Co.,				*3,166
Black Heath Co.,	†	†	3,309	2,212
Moosic Coal Co.,				*1,959
Carleton Coal Co.,				*426

*New operation.

†Not reported.

TABLE 13.—Table showing the average number of days worked by breakers, total production and average production per day for the years 1899-1911, inclusive

Years	Average number of days worked	Production	Average production per day	Production from washeries
1899,	179	54,034,224	301,867	942,344
1900,	176	51,217,318	291,007	1,623,306
1901,	195	59,905,951	307,210	1,794,521
1902,	*116	36,911,549	318,203	2,648,029
1903,	211	67,171,951	318,350	3,677,909
1904,	213	65,709,258	308,494	3,071,804
1905,	208	70,220,554	337,599	3,480,079
1906,	206	64,410,277	312,671	4,257,502
1907,	227	76,836,082	338,485	5,026,997
1908,	211	74,592,181	353,517	4,139,217
1909,	205	71,628,422	349,407	4,618,716
1910,	212	74,717,852	352,443	4,882,292
1911,	234	81,176,050	346,906	4,067,372

*Strike during the year.

†Washeries worked during the strike. The time was not computed in the average days worked.

TABLE AA Part 1.—Number of gross tons of coal mined, number of days worked, number of persons employed, number killed and injured, quantity of explosives used, etc., 1909-1911, inclusive

	Number of tons of coal shipped to market	Number of tons used at collieries for steam and heat	Number of tons sold to local trade and used by employes	Total production in gross tons	Average number of days worked	Number of employes	Number of fatal accidents	Number of non-fatal accidents	Explosives			Number of horses and mules
									Number of pounds of powder used	Number of pounds of dynamite used	Number of pounds of permissible explosives used	
First,	2,498,150	240,656	54,323	2,773,079	227	6,216	22	38	2,179,660	252,076	18,352	521
Second,	4,683,108	549,654	63,237	5,286,439	227	12,073	53	77	5,371,040	1,048,678	28,172	369
Third,	4,131,288	345,691	131,766	4,428,658	212	10,851	110	52	6,916,375	293,370	.....	421
Fourth,	3,793,784	126,011	132,081	4,071,876	214	8,712	27	85	4,653,925	238,195	3,527	779
Fifth,	3,610,682	255,444	44,112	3,910,238	225	7,213	25	36	3,429,250	61,869	35,261	477
Sixth,	4,544,417	479,533	40,732	5,064,682	252	11,638	39	60	4,616,475	238,326	146,445	1,127
Seventh,	4,651,189	575,405	242,715	5,469,319	204	10,562	38	51	3,385,725	450,148	257,520	1,281
Eighth,	3,433,689	418,858	209,177	3,996,437	203	9,628	42	75	2,704,390	1,093,989	47,333	1,070
Ninth,	5,175,192	418,858	209,177	5,794,137	203	10,922	43	46	3,290,538	283,503	63,576	1,139
Tenth,	4,005,431	264,379	53,672	4,423,682	225	9,417	32	43	2,516,900	346,681	428,247	1,376
Eleventh,	4,881,673	753,460	156,521	5,785,654	241	10,369	33	42	1,659,550	1,713,643	295,603	1,065
Twelfth,	2,614,839	378,768	30,240	3,043,787	261	7,290	23	25	1,435,955	522,113	11,619	702
Thirteenth,	2,967,396	400,661	79,818	3,447,275	241	7,379	22	43	829,925	547,046	115,394	617
Fourteenth,	2,136,033	305,210	35,146	2,476,389	243	8,042	14	51	253,850	763,893	117,698	433
Fifteenth,	3,046,996	347,620	44,758	3,439,314	240	8,912	21	16	975,225	1,322,871	42,111	700
Sixteenth,	2,533,263	248,391	68,685	2,968,339	239	7,166	26	63	1,612,595	313,591	4,280	637
Seventeenth,	3,981,373	529,264	158,067	4,671,704	273	8,647	33	40	166,125	1,734,544	500	372
Eighteenth,	2,453,463	375,265	37,269	2,866,067	233	6,878	25	84	715,235	963,412	103,779	630
Nineteenth,	2,635,380	439,411	38,539	3,173,221	262	7,310	29	54	513,390	797,150	251,750	640
Twentieth,	1,946,533	381,686	35,814	2,364,083	236	5,823	24	64	485,450	458,821	54,248	566
Twenty-first,	1,470,968	129,221	29,411	1,631,639	216	3,655	8	20	1,459,725	75,139	93,189	253
Totals, 1911,	71,327,687	8,171,494	1,776,820	81,176,660	234	173,338	699	1,124	47,846,483	13,369,056	2,122,264	15,625

TABLE AA Part 1.—Continued

	Number of tons of coal shipped to market	Number of tons used at collieries for steam and heat	Number of tons sold to local trade and used by employes	Total production in gross tons	Average number of days worked	Number of employes	Number of fatal accidents	Number of non-fatal accidents	Explosives			Number of horses and mules
									Number of pounds of powder used	Number of pounds of dynamite used	Number of pounds of permissible explosives used	
Totals, 1910.	65,552,457	7,497,228	1,668,187	74,717,852	312	168,175	691	1,650	45,112,322	11,171,478	1,506,140	15,847
Totals, 1905.	62,781,079	7,235,545	1,611,860	71,628,422	305	171,165	567	1,034	41,191,857	10,724,616	966,827	16,129
Totals, 1908.	65,631,537	7,428,040	1,523,044	74,522,181	241	174,505	678	1,170	1,875,232	10,766,245	—	16,837
Totals, 1907.	67,980,950	7,336,969	1,518,133	76,836,082	227	168,171	568	1,369	1,905,468	10,544,781	—	17,125
Totals, 1906.	56,624,052	6,426,911	1,339,334	64,410,277	296	196,175	537	1,212	1,614,683	7,890,753	—	16,972
Totals, 1905.	62,441,134	6,359,280	1,429,140	70,220,554	298	198,254	644	1,289	1,902,820	8,333,594	—	17,500
Totals, 1904.	58,158,288	6,171,748	1,379,222	65,700,258	213	161,370	515	1,047	1,791,192	6,519,312	—	17,083
Totals, 1903.	60,231,104	5,710,341	1,239,566	67,171,951	211	158,827	518	1,225	1,701,176	5,317,422	—	16,872
Totals, 1902.	51,551,813	4,424,779	934,957	56,911,549	116	148,141	300	641	815,117	2,120,965	—	16,139
Totals, 1901.	53,447,902	5,279,375	1,178,674	59,905,951	195	147,651	513	1,213	1,520,804	4,155,085	—	16,059
Totals, 1900.	45,271,608	4,880,332	1,064,778	51,217,318	171	143,826	411	1,057	1,257,180	3,454,641	—	15,798

TABLE AA—PART 2, 1911

Districts	Boilers				Locomotives			Number of steam engines of all classes	Total horse power	Number of pumps delivering water to surface	Capacity in gallons per minute	Quantity delivered to surface per minute—gallons	Number of electric dynamos	Number of air compressors
	Cylindrical	Tubular	Horse power	Total horse power	Steam	Air	Electric							
First,	24	876	12,020	12,896	20	42	216	16,270	46	58,465	17,650	18	7	
Second,	71	2,518	26,320	28,838	40	35	374	33,422	65	61,104	29,516	22	21	
Third,	21	1,813	18,480	20,293	13	36	261	18,302	43	29,536	19,264	11	5	
Fourth,	22	2,065	18,202	20,297	9	83	255	29,044	43	45,525	30,160	39	6	
Fifth,	11	720	15,110	15,830	13	63	296	14,288	33	46,620	25,700	8	2	
Sixth,	4	1,000	26,370	27,370	25	13	54	27,196	48	53,000	28,687	14	25	
Seventh,	48	486	148,827	32,313	14	15	538	51,365	49	41,366	21,020	13	28	
Eighth,	2	600	151,908	31,588	13	5	373	28,321	68	62,810	42,840	19	11	
Ninth,	54	1,320	298,375	29,725	14	5	406	41,475	37	44,617	23,983	16	21	
Tenth,	33	1,155	223,757	24,912	28	15	227	28,008	30	29,188	17,500	17	20	
Eleventh,	48	1,560	314,425	52,585	94	16	456	50,147	100	118,476	58,716	12	26	
Twelfth,	149	21,550	21,550	21,550	14	13	287	40,334	32	60,538	14,334	3	11	
Thirteenth,	159	27,230	27,230	27,230	44	5	383	41,962	35	44,483	18,080	3	13	
Fourteenth,	30	1,431	16,492	17,923	31	15	233	27,342	26	37,126	22,649	4	8	
Fifteenth,	12	369	21,950	22,310	21	3	283	32,616	43	50,340	27,168	9	11	
Sixteenth,	16	512	18,267	18,779	23	18	275	29,360	43	43,133	18,036	6	13	
Seventeenth,	6	1,011	33,386	34,397	46	2	208	42,046	34	57,790	14,880	9	17	
Eighteenth,	79	2,550	191,285	30,645	36	8	229	31,705	53	57,069	29,702	4	19	
Nineteenth,	155	27,550	27,550	27,550	29	13	369	41,444	39	51,388	19,318	11	11	
Twentieth,	7	1,010	21,700	22,800	18	25	261	38,406	17	28,195	8,453	9	11	
Twenty-first,	26	797	5,655	6,452	14	25	109	7,622	17	8,309	4,295	8	1	
Totals,	496	21,844	504,739	536,643	673	148	635	671,892	901	929,245	490,291	249	298	

TABLE A.—Number of each class of employes in each district, 1911

Occupations of Employes	Districts										
	First	Second	Third	Fourth	Fifth	Sixth	Seventh	Eighth	Ninth	Tenth	Eleventh
Inside											
Mine foremen,	19	22	25	21	17	28	28	25	22	13	39
Assistant mine foremen,	16	31	25	14	26	69	56	48	30	25	68
Fire bosses and assistants,	1,672	3,080	2,872	2,391	1,914	2,857	2,940	2,815	2,555	2,546	3,075
Miners,	1,599	3,197	2,866	2,310	1,806	2,623	2,670	2,537	2,357	2,366	1,772
Miners' laborers,	612	1,133	1,148	508	411	1,033	970	962	946	553	1,116
Drivers and runners,	96	156	234	150	86	90	301	161	272	190	125
Doorboys and helpers,	28	91	41	53	37	65	78	115	100	100	631
Pumpmen,	392	863	782	522	454	668	242	661	749	739	631
Company men,	176	678	601	867	506	826	1,357	558	778	665	1,032
All other employes,	4,613	9,226	8,047	6,800	5,282	8,335	8,125	6,869	7,849	7,161	7,431
Totals,	10	6	11	4	4	5	3	6	7	4	13
Outside											
Superintendents,	19	21	24	24	13	14	28	17	24	13	28
Foremen,	92	173	143	98	130	265	110	162	187	145	279
Blacksmiths and carpenters,	181	377	195	265	160	381	381	292	350	306	488
Engineers and firemen,	186	382	445	373	417	382	315	251	229	276	325
Slatepickers (boys),	207	464	251	71	168	242	141	186	229	111	245
Slatepickers (men),	32	39	46	49	32	34	50	44	40	47	64
Bookkeepers and clerks,	816	1,385	1,069	968	1,007	1,535	1,409	1,170	1,237	1,254	2,063
All other employes,	1,063	2,817	2,184	1,822	1,931	2,703	2,437	2,159	2,373	2,356	3,555
Totals,	6,216	12,073	10,831	8,712	7,213	11,038	10,562	9,028	10,222	9,417	19,969
Grand totals inside and outside,											

TABLE A.—Continued

Occupations of Employees	Districts												Grand totals inside and outside
	Twelfth	Thirteenth	Fourteenth	Fifteenth	Sixteenth	Seventeenth	Eighteenth	Nineteenth	Twentieth	Twenty-first	Grand totals		
Inside													
Mine foremen,	11	17	18	15	17	22	17	17	13	13	10	117	
Assistant mine foremen,	66	78	45	57	45	25	32	30	65	13	13	884	
Fire bosses and assistants,	48	13	10	33	42	56	28	39	19	19	19	762	
Miners,	1,648	1,453	769	2,601	2,136	1,985	1,740	1,967	1,485	840	840	45,324	
Miners' laborers,	1,637	1,265	721	869	803	862	791	853	437	722	722	32,963	
Drivers and rammers,	346	391	178	446	325	223	303	228	270	181	181	11,676	
Doorboys and helpers,	70	46	77	64	59	72	63	55	55	66	66	2,421	
Doorbays and helpers,	29	48	30	84	62	19	48	40	35	25	25	1,161	
Pumpmen,	730	807	504	459	630	1,114	655	748	491	215	215	13,296	
Company men,	1,046	855	893	1,149	876	1,263	940	776	1,263	131	131	17,391	
All other employees,	5,111	4,983	3,245	5,777	4,395	5,645	4,017	4,873	4,153	2,309	2,309	126,467	
Totals,													
Outside													
Superintendents,	1	9	4	5	4	4	13	13	3	5	5	121	
Foremen,	20	31	19	18	17	27	26	26	16	16	8	133	
Blacksmiths and carpenters,	80	194	59	129	106	181	134	156	117	47	47	3,006	
Engineers and firemen,	258	394	227	338	303	279	330	335	285	285	285	6,078	
Slatpickers (boys),	446	402	247	511	404	338	296	345	371	94	94	6,905	
Slatpickers (men),	135	121	63	87	113	139	86	172	18	139	139	3,448	
Bookkeepers and clerks,	41	54	23	53	50	47	37	55	29	15	15	889	
All other employees,	1,066	1,731	1,066	1,124	1,114	2,089	1,339	1,368	1,031	450	450	26,455	
Totals,	2,680	2,936	1,772	2,965	2,111	3,004	2,201	2,437	1,670	816	816	47,331	
Grand totals inside and outside,	7,200	7,919	5,017	8,612	7,106	8,647	6,878	7,310	5,823	3,625	3,625	173,338	

TABLE B.—Causes of fatal accidents in and about the mines, and number attributable to each cause; number of wives made widows and children made orphans by reason of such accidents, 1911

Causes of Fatal Accidents	Districts															
	First	Second	Third	Fourth	Fifth	Sixth	Seventh	Eighth	Ninth	Tenth	Eleventh	Twelfth	Thirteenth	Fourteenth	Fifteenth	Sixteenth
Inside																
Falls of coal, slate and roof,	11	23	14	14	17	13	14	25	11	15	13	6	17	4	6	10
Mine cars,	3	10	7	4	3	3	2	9	9	3	4	2	4	1	6	4
Explosions of gas,		2	1			5	7	1	1	4		1	1	1		3
Suffocation by gas, etc.,			72			1	1		5	1			1	2		5
Explosions of powder and dynamite,	1	1				4	5	2	2	1		3	1			2
Blasts, premature and otherwise,	1	9	7	7	2	7	5	4	5	5	1	2	1	1	1	1
Falling into shafts, slopes, etc.,		1	1	1	1	1	1	1	4		1	2	2			
Crushed at batteries,							2				1	1				
Kicked by mules, etc.,							1									
Machinery,			1	1		1										
Electricity,									1							
Miscellaneous,	1	3	1	1	1	1	1			1		1	3	1	2	2
Totals,	17	49	104	57	24	36	35	42	57	59	21	18	28	9	15	24
Outside																
Cars,	2	3	1				1		1	1	4	1	2	1	3	
Machinery,	2					3	1		1		3	1		3	2	1
Suffocation in chutes, etc.,	1						1		1	5						
Boiler explosions,																
Electricity,										1						
Miscellaneous,		1	4						3			3	2	1	1	1
Totals,	5	4	6		1	3	2		6	2	12	5	4	5	6	2
Grand totals inside and outside,	22	53	110	27	25	39	38	42	43	62	33	23	32	14	21	26

Widows, 437.
Orphans, 1,034.

TABLE C.—Causes of non-fatal accidents in and about the mines, and number attributable to each cause, 1911

Causes of Non-Fatal Accidents	Districts														Totals	Percentages							
	First	Second	Third	Fourth	Fifth	Sixth	Seventh	Eighth	Ninth	Tenth	Eleventh	Twelfth	Thirteenth	Fourteenth			Fifteenth	Sixteenth	Seventeenth	Eighteenth	Nineteenth	Twentieth	Twenty-first
Inside																							
Falls of coal, slate and roof,	13	23	12	24	15	21	13	34	10	9	26	7	8	7	5	18	5	16	14	19	10	309	32.46
Mine cars,	11	24	16	34	2	17	15	14	10	12	24	1	7	6	5	8	4	11	9	7	3	230	24.16
Explosions of gas,	2	2	2	2	2	6	8	7	2	7	7	5	9	11	---	4	11	13	11	17	---	117	12.29
Explosions of powder and dynamite,	1	6	1	6	4	4	1	1	2	5	5	6	2	2	1	1	3	4	4	---	2	41	4.31
Blasts, premature and otherwise,	1	10	8	12	6	8	5	9	6	7	5	4	2	1	2	7	2	4	7	3	2	111	11.66
Falling into shafts, slopes, etc.,	1	1	1	1	1	1	1	1	1	1	1	1	1	3	---	3	1	4	1	1	1	19	1.99
Crushed at batteries,	1	3	1	1	2	1	1	1	2	3	3	1	1	1	---	1	1	---	---	---	---	4	.42
Kicked by mules, etc.,	1	3	1	1	2	2	1	1	2	3	3	1	1	1	---	1	1	---	---	---	---	14	1.47
Machinery,	1	1	1	1	1	1	1	1	1	1	1	1	1	1	---	1	1	---	---	---	---	12	1.26
Electricity,	1	1	1	1	1	1	1	1	1	1	1	1	1	1	---	1	1	---	---	---	---	95	9.98
Miscellaneous,	3	6	1	4	1	3	9	3	10	4	8	7	3	3	1	5	4	13	3	4	---	95	9.98
Totals,	29	69	43	74	25	63	45	70	43	39	78	25	36	55	14	48	32	65	45	56	18	932	100.00
Outside																							
Cars,	4	2	1	1	5	2	2	---	4	7	---	---	---	2	2	9	3	5	4	5	---	62	36.05
Machinery,	1	1	1	4	2	1	2	2	2	2	2	1	6	6	---	1	2	2	3	---	---	31	18.02
Boiler explosions,	1	1	1	1	1	1	1	1	1	1	1	1	1	1	---	1	1	---	---	---	---	5	1.74
Electricity,	4	4	4	6	4	4	3	3	1	5	5	6	8	8	---	5	3	9	2	3	2	76	41.19
Miscellaneous,	4	4	4	6	4	4	3	3	1	5	5	6	8	8	---	5	3	9	2	3	2	76	41.19
Totals,	9	8	9	11	11	6	6	5	3	4	11	---	---	7	16	2	15	8	19	9	8	172	100.00
Grand totals inside and outside,	38	77	52	85	36	69	51	75	46	43	92	25	43	51	16	63	40	81	54	64	20	1,124	-----

TABLE D.—Number of gaseous and non-gaseous mines in operation, number of foremen, assistants and fire bosses; production and percentage of production in gross tons from gaseous and non-gaseous mines and washeries, by districts, 1911

District	Gaseous Mines						Non-Gaseous Mines						Production from washeries	Percentage of production from non-gaseous mines	Percentage of production from washeries
	Number of gaseous mines in operation	Number of mine foremen	Number of assistant mine foremen	Number of fire bosses	Number of non-gaseous mines in operation	Number of mine foremen	Number of assistant mine foremen	Number of fire bosses	Production from gaseous mines	Production from non-gaseous	Production from washeries				
First.	1	1	1	1	30	15	15	86,821	2,467,669	278,259	3.13	86.84	10.03		
Second.	21	18	17	55	14	14	14	3,471,877	1,520,337	294,245	65.07	28.76	5.57		
Third.	14	16	18	18	52	10	10	3,757,981	541,825	228,832	81.19	11.71	7.10		
Fourth.	16	16	11	54	13	5	3	2,839,676	727,260	504,940	69.74	17.86	12.40		
Fifth.	13	8	11	25	19	9	15	2,115,294	1,223,649	271,275	54.10	38.96	6.94		
Sixth.	16	16	49	26	19	12	20	1,883,485	1,883,485	311,266	62.81	37.19	5.69		
Seventh.	46	26	54	63	3	2	2	4,887,762	270,411	89,377	89.37	4.94	5.69		
Eighth.	17	22	35	42	3	3	3	3,296,531	665,072	94,854	80.81	16.77	2.39		
Ninth.	19	18	21	67	13	4	9	1,671,840	1,109,476	612,321	70.37	19.16	10.57		
Tenth.	31	12	20	74	8	1	5	3,626,791	663,634	137,827	81.69	14.39	3.02		
Eleventh.	35	24	34	16	52	15	34	2,725,446	2,976,354	13,874	48.32	51.44	3.4		
Twelfth.	13	11	66	48	7	2	2	3,013,787	288,725	339,922	100.00	8.38	11.00		
Thirteenth.	28	15	73	13	7	1	1	2,778,598	5,191	288,725	99.79	2.21	2.39		
Fourteenth.	21	17	45	10	10	1	8	2,471,198	5,191	288,725	99.79	2.21	2.39		
Fifteenth.	12	7	22	33	18	3	3	1,482,165	1,482,165	145,144	56.91	43.09	4.99		
Sixteenth.	19	6	27	42	26	11	18	1,627,569	1,435,686	264,520	55.96	13.29	5.66		
Seventeenth.	12	8	27	56	22	5	5	3,786,358	620,826	942,258	81.05	32.88	4.03		
Eighteenth.	19	21	20	28	20	5	18	1,623,829	942,258	127,406	67.12	32.88	4.03		
Nineteenth.	22	15	45	39	13	2	7	2,541,620	503,635	127,406	80.10	15.87	16.16		
Twentieth.	25	13	55	19	13	1	13	1,881,887	1,611,730	382,015	80.83	16.16	16.16		
Totals and percentages.	425	294	646	762	304	133	398	56,133,691	20,879,759	4,163,200	69.15	25.72	5.13		

TABLE F.—Quantity of coal produced by each company that produced 300,000 or more tons, and the number of persons employed, 1911

Names of Companies	Inspection Districts	Production of coal in gross tons	Employees
Philadelphia and Reading Coal and Iron Company, -----	Twelfth, Thirteenth, Fourteenth, Fifteenth, Sixteenth, Eighteenth, Nineteenth, Twentieth, -----	11,043,016	27,827
Delaware, Lackawanna and Western Railroad Company, -----	Second, Third, Fourth, Fifth, Eighth, Ninth, Tenth, -----	8,786,062	18,689
Lehigh Valley Coal Company, -----	Fifth, Sixth, Seventh, Eighth, Eleventh, Twelfth, Thirteenth, Fourteenth, Fifteenth, Eighteenth, Twentieth, -----	8,036,314	14,658
Delaware and Hudson Company, -----	Third, Second, Sixth, Seventh, Ninth, -----	6,023,281	12,341
Pennsylvania Coal Company, -----	Seventeenth, -----	5,447,683	11,350
Lehigh and Wilkes-Barre Coal Company, -----	Seventh, Ninth, Tenth, Eighteenth, -----	4,922,688	9,308
Lehigh Coal and Navigation Company, -----	Eighth, Ninth, -----	4,053,325	7,454
Hudson Coal Company, -----	Twelfth, Thirteenth, -----	2,215,363	3,334
Kingson Coal Company, -----	Fourth, Fifth, Sixth, Twenty-first, -----	2,152,371	4,860
Saratoga Coal Company, -----	First, Second, Third, Fourth, -----	2,091,843	5,619
Mineral Railroad and Mining Company, -----	Fifth, Sixth, Seventh, Eighth, Ninth, -----	1,863,257	4,701
Hillsdale Coal and Iron Company, -----	First, Second, Third, Fourth, -----	1,739,071	3,554
Susquehanna Coal Company, -----	Fifteenth, Sixteenth, -----	1,608,232	4,169
Coxe Brothers and Company, Incorporated, -----	First, Fifth, Sixth, Twenty-first, -----	1,478,714	2,721
G. B. Markle and Company, -----	Tenth, Thirteenth, -----	1,218,710	2,073
Summit Branch Mining Company, -----	Eleventh, Seventeenth, Eighteenth, -----	845,563	2,280
West End Coal Company, -----	Twentieth, -----	754,651	1,550
Prairie-Peacocks Coal Company, -----	Tenth, -----	679,371	1,469
Pardee Brothers and Company, -----	Third, -----	674,361	1,026
Frederic Fort Coal Company, -----	Eighth, -----	640,598	1,588
Jermy and Company, -----	Fifth, -----	626,067	1,000
A. Pardee and Company, -----	Second, -----	611,333	1,440
Sterrick Creek Coal Company, -----	Second, -----	563,217	1,047
Lackawanna Coal Company, Limited, -----	Second, -----	482,359	968
St. Clair Coal Company, -----	Nineteenth, -----	392,685	709
Midvalley Coal Company, -----	Fourth, -----	378,642	610
C. M. Dodson and Company, -----	Eleventh, -----	365,430	776
Plymouth Coal Company, -----	Eighth, Ninth, -----	354,107	838
Thomas Colliery Company, -----	Thirteenth, -----	349,543	550

TABLE E.—Continued

Names of Companies	Inspection Districts	Production of coal in Gross tons	Employees
Mt. Lookout Coal Company,	Eighth,	346,422	751
Lytle Coal Company,	Nineteenth,	341,771	781
Pine Hill Coal Company,	Nineteenth,	334,622	690
Parrish Coal Company,	Ninth,	330,435	1,051
Connell Anthracite Mining Company,	Twenty-first,	326,130	492
Oak Hill Coal Company,	Nineteenth,	324,240	719
Estate A. S. Van Winkle,	Seventeenth,	310,861	677
Totals, .....	.....	72,811,268	152,871

The 36 companies named in this table, out of 130 companies in the region, produced 72,811,268 tons, or 89.70 per cent. of the total output, 81,176,050 tons.

TABLE G.—Number and causes of fatal accidents in and about the mines, by decades, 1870-1911, inclusive

Causes of Fatal Accidents	1870-1879		1881-1889		1890-1899		1900-1909		1910-1911		Grand totals	Percentages for 42 Years
	Number	Percentages	Number	Percentages	Number	Percentages	Number	Percentages	Number	Percentages		
Inside												
Falls of coal, slate and roof,	627	46.44	1,351	50.37	1,928	51.87	2,291	49.16	506	45.02	7,003	49.39
Mine cars,	263	13.18	470	17.52	535	14.89	710	15.23	184	16.37	2,162	15.25
Explosions of gas,	243	12.17	250	9.32	399	10.74	352	7.55	54	4.80	1,298	9.15
Explosions of powder and dynamite,	76	3.81	82	3.06	117	3.15	296	6.42	43	3.83	524	3.69
Blasts, premature and otherwise,	124	6.21	132	6.79	280	7.53	435	9.34	127	11.39	1,148	8.10
Falling into shafts, slopes, etc.,	100	5.01	117	4.36	178	4.79	241	5.17	40	3.56	676	4.77
Crushed at batteries,	12	.60	5	.19	12	.32	17	.37	8	.71	54	.38
Mules,	16	.80	8	.30	44	1.18	37	.79	4	.36	109	.77
Suffocation,	53	2.66	10	.37	114	3.07	163	3.51	106	9.41	380	2.68
Electricity,							10	.22	5	.44	15	.11
Miscellaneous causes,	182	9.12	207	7.72	110	2.96	278	5.94	53	4.71	810	5.71
Totals and percentages,	1,476	100.00	2,682	100.00	3,717	100.00	4,660	100.00	1,124	100.00	14,179	100.00
Outside												
Cars,	76	30.16	167	39.11	199	31.74	316	38.03	66	37.50	824	35.63
Machinery,	66	26.19	110	25.76	127	20.26	212	25.51	47	26.70	562	24.30
Suffocation in chutes, etc.,	14	5.56	3	.70	33	5.26	54	6.50	10	5.68	114	4.92
Boiler explosions,	21	8.33	59	6.79	36	5.74	9	1.08	1	.57	96	4.15
Electricity,							3	.36	1	.57	4	.17
Miscellaneous causes,	75	29.76	118	27.64	232	37.00	267	38.32	51	28.98	713	30.83
Totals and percentages,	352	100.00	427	100.00	627	100.00	831	100.00	176	100.00	2,313	100.00
Grand totals inside and outside,	2,248		3,109		4,344		5,491		1,300		16,492	

TABLE H.—Nationality of employes killed or fatally injured in and about the mines, 1892-1911, inclusive

Nationality	1892-1895	1896-1900	1901-1905	1906-1910	1911
American,	310	404	617	618	140
English,	124	132	94	78	26
Welsh,	154	176	122	122	19
Scotch,	8	21	12	9	.....
Irish,	287	332	212	159	28
German,	93	97	97	80	14
Totals,	976	1,162	1,154	1,606	227
Polish,	420	609	609	926	184
Hungarian,	195	186	163	89	9
Italian,	67	68	142	246	50
Slavonian,	30	42	151	200	61
Lithuanian,	17	36	152	321	83
Austrian,	20	39	84	77	22
Russian,	7	39	88	150	43
Greek,	5	15	9	13	6
Swedish,	3	10	4	5	1
French,	1	2	2	.....	.....
Tyrolean, .....	.....	3	9	13	1
Bohemian, .....	.....	1	.....	3	2
Assyrian, .....	.....	.....	1	.....	.....
Canadian, .....	.....	.....	2	.....	.....
Montenegrian, .....	.....	.....	.....	2	.....
Horwat, .....	.....	.....	.....	.....	2
Magyar, .....	.....	.....	.....	.....	5
Hebrew, .....	.....	.....	.....	.....	2
Syrian, .....	.....	.....	.....	.....	1
Totals,	765	1,050	1,416	2,045	472
Grand totals,	1,741	2,212	2,570	3,111	699

NOTE: During the four years, 1892-1895, more English-speaking employes were killed than foreigners. During the five years, 1896-1900, the number was about the same, but in the five years, 1901-1905, more foreigners were killed, and in the six years, 1906-1911, there were about twice as many foreigners killed. This indicates clearly the change in the character of the mine workers during the years mentioned, there being a constant increase of the foreign element.

TABLE I.—Production of coal; production per employe inside; quantity of explosives used, and production per each pound of explosives used, 1892-1911, inclusive

Years	Production (in tons of 2,000 pounds)	Average number of tons of coal produced per employe inside	Explosives			Average number of tons of coal produced for each pound of explosives used
			Number of pounds of black powder used	Number of pounds of dynamite used	Number of pounds of permissible explosives used	
1892	51,226,977	624	30,981,875	1,092,190		1.59
1893	52,841,110	611	31,723,771	1,324,142		1.60
1894	50,966,920	589	30,555,450	1,713,235		1.57
1895	56,948,756	638	32,766,775	1,797,494		1.65
1896	53,843,249	568	32,117,959	1,733,970		1.59
1897	52,581,036	549	31,894,950	2,415,650		1.54
1898	52,892,394	579	30,670,160	3,025,015		1.57
1899	60,518,331	656	34,317,275	3,649,417		1.59
1900	57,363,396	609	30,929,500	3,454,641		1.67
1901	67,094,665	682	38,020,160	4,155,685		1.59
1902	41,340,935	482	21,128,675	2,130,965		11.77
1903	75,292,585	737	42,529,400	5,317,422		1.57
1904	73,594,369	667	41,779,800	6,519,312		1.43
1905	78,647,020	676	47,570,500	8,353,594		1.41
1906	72,139,510	627	40,352,075	7,980,733		1.41
1907	86,056,412	739	47,636,700	10,550,191		1.48
1908	83,543,243	672	49,380,800	10,766,245		1.39
1909	80,223,833	651	41,191,857	10,724,616	666,827	1.53
1910	83,483,994	689	45,112,322	11,171,458	1,506,110	1.45
1911	90,917,176	721	47,846,483	13,369,056	2,122,264	1.44

The ton of 2,000 pounds is used so that a comparison can be made with the bituminous production per pound of powder used.

*This decrease in production per employe inside was caused by the small number of days worked on account of the strike.

†The increase in production per pound of powder used was caused by the production of the washeries during the strike.

‡The increase in production per employe was due to the large production of the washeries.

TABLE J.—Number of employes in and about the mines, by counties, 1899-1911, inclusive

Counties	1899	1900	1901	1902	1903	1904	1905	1906	1907	1908	1909	1910	1911
Carbon,	3,393	4,242	4,305	3,805	4,051	4,457	4,840	4,469	4,782	5,522	5,155	5,302	5,223
Columbia,	2,302	2,033	2,329	2,839	2,236	2,192	2,368	2,246	2,265	2,412	2,393	1,812	2,006
Dauphin,	2,250	2,577	2,333	1,945	2,140	2,113	2,167	2,233	2,124	2,294	2,213	2,229	2,860
Lackawanna,	30,885	32,811	34,798	35,333	37,470	40,675	40,839	41,439	42,742	43,418	44,213	43,214	43,991
Luzerne,	14,057	15,105	13,280	12,706	15,639	19,136	16,734	14,441	15,795	16,090	16,500	15,395	16,880
Northumberland,	33,292	33,259	33,007	34,350	33,443	35,979	40,268	40,289	39,870	40,775	39,437	15,133	15,143
Schuykill,	465	521	434	752	648	665	536	634	719	875	963	920	962
Sullivan,	1,210	1,250	1,459	1,386	1,363	1,392	1,397	1,320	1,275	1,302	1,227	1,267	1,313
Susquehanna,	466	11	380	.....	253	396	370	384	463	225	194	190	160
Totals,	140,694	143,824	147,651	148,139	151,827	161,330	168,254	166,165	168,774	174,503	171,105	168,175	173,338

TABLE K.—Production of coal in tons, by counties, 1899-1911 inclusive

Counties	1899	1900	1901	1902	1903	1904	1905	1906	1907	1908	1909	1910	1911
Carbon,	1,629,595	1,403,961	1,659,392	986,127	1,919,662	1,659,392	986,127	986,127	1,919,662	1,919,662	2,012,064	2,012,064	2,211,677
Columbia,	855,061	875,643	1,080,231	658,901	1,298,843	1,080,231	658,901	658,901	1,298,843	1,298,843	1,028,236	1,028,236	1,097,944
Dauphin,	729,757	835,656	741,582	377,983	654,437	741,582	377,983	377,983	654,437	654,437	645,906	645,906	645,904
Lackawanna,	13,248,947	12,282,108	15,409,040	10,581,401	17,898,333	15,409,040	10,581,401	10,581,401	17,898,333	17,898,333	16,971,086	17,397,408	17,397,408
Luzerne,	19,860,742	19,179,573	21,846,312	13,016,026	24,891,394	21,846,312	13,016,026	13,016,026	24,891,394	24,891,394	24,739,864	24,739,864	24,739,864
Northumberland,	4,339,547	4,188,343	4,819,090	2,823,273	4,927,304	4,819,090	2,823,273	2,823,273	4,927,304	4,927,304	4,925,578	4,875,639	4,875,639
Schuykill,	12,229,938	11,606,160	13,640,706	7,668,306	14,633,487	13,640,706	7,668,306	7,668,306	14,633,487	14,633,487	14,440,820	16,049,250	16,049,250
Sullivan,	163,925	204,922	156,165	365,194	202,692	156,165	365,194	365,194	202,692	202,692	403,772	277,229	277,229
Susquehanna,	624,125	496,432	663,487	404,248	714,576	663,487	404,248	404,248	714,576	714,576	618,230	607,253	607,253
Wayne,	275,955	19,520	329,377	.....	61,513	329,377	.....	.....	61,513	61,513	68,172	39,829	39,829
Totals,	54,634,224	51,217,318	59,963,951	36,911,549	67,171,951	59,963,951	36,911,549	36,911,549	67,171,951	67,171,951	65,709,258	70,220,354	70,220,354

TABLE K.—Continued

Counties	1906	1907	1908	1909	1910	1911
Carbon,	2,006,092	2,466,538	2,486,539	2,908,747	2,869,794	2,937,374
Columbia,	865,237	1,000,334	1,035,618	975,985	887,272	1,065,836
Dauphin,	696,063	741,054	777,147	852,494	791,243	845,908
Lackawanna,	16,821,929	20,929,829	19,314,381	18,293,939	18,013,822	20,377,155
Luzerne,	23,700,686	27,547,399	28,329,492	27,671,702	28,666,945	31,391,984
Northumberland,	4,792,468	5,951,243	5,417,626	5,346,281	5,046,712	6,347,653
Schuylkill,	14,621,069	18,000,866	16,247,066	14,995,176	15,800,012	17,173,613
Sullivan,	220,293	186,097	491,708	572,514	565,066	640,592
Susquehanna,	501,877	575,079	435,025	526,639	561,436	600,526
Wayne,	63,733	76,423	37,039	44,945	46,030	62,634
Totals,	64,410,277	76,820,082	74,582,181	71,628,422	74,717,852	81,176,050

TABLE L.—Fatal accidents per 1,000 employes in and about the mines, and production in tons per fatal accident, by decades, 1870-1911, inclusive

Years	Employes	Fatal accidents	Fatal accidents per 1,000 employes	Production in tons of 2,000 pounds	Production per fatal accident	Fatal accidents per 1,000,000 tons produced
1870,	55,000	211	5.93	11,172,004	67,166	14.89
1871,	37,488	210	5.60	15,532,252	73,963	13.32
1872,	41,745	223	4.98	15,567,973	69,811	14.32
1873,	48,109	264	5.48	21,901,521	79,551	12.57
1874,	53,402	231	4.33	19,530,240	86,278	11.59
1875,	69,966	238	3.40	23,402,646	98,330	10.17
1876,	70,474	228	3.24	23,430,606	102,840	9.73
1877,	66,842	194	2.90	24,727,213	127,160	7.82
1878,	63,984	187	2.92	20,980,966	111,770	8.95
1879,	68,847	262	3.81	31,636,600	118,460	4.88
Totals and percentages,	559,527	2,248	4.02	209,712,681	93,288	10.72
1880,	73,373	202	2.75	27,974,532	138,488	7.22
1881,	76,031	273	3.59	34,292,558	125,284	7.58
1882,	82,200	291	3.54	35,657,430	130,472	8.37
1883,	91,421	323	3.53	37,747,363	116,805	8.56
1884,	101,673	332	3.28	36,408,738	109,846	9.16
1885,	100,324	332	3.31	38,232,155	115,157	8.68
1886,	103,014	279	2.71	38,950,932	139,609	7.16
1887,	106,517	316	2.97	42,156,300	133,406	7.59
1888,	122,218	364	2.98	46,625,037	128,118	7.81
1889,	119,964	397	3.32	43,650,768	109,952	9.03
Totals and percentages,	977,161	3,109	3.18	381,075,819	122,572	8.16
1890,	119,919	378	3.15	41,989,286	119,011	8.40
1891,	123,368	428	3.47	49,701,322	116,125	8.61
1892,	130,390	418	3.21	51,226,978	122,553	8.16
1893,	138,069	456	3.30	52,811,110	115,880	8.63
1894,	139,939	416	3.19	50,966,920	114,276	8.75
1895,	143,705	421	2.93	56,948,756	135,270	7.29
1896,	150,688	502	3.34	53,843,250	107,257	9.29
1897,	149,557	423	2.83	52,581,636	124,305	8.04
1898,	142,120	411	2.89	52,812,675	128,498	7.78
1899,	140,604	461	3.28	60,518,331	131,276	7.62
Totals and percentages,	1,377,960	4,344	3.15	526,426,664	121,185	8.23
1900,	143,824	411	2.86	57,363,396	139,570	7.16
1901,	147,651	513	3.47	67,694,665	130,789	7.65
1902,	148,139	390	2.63	41,340,935	137,803	7.28
1903,	151,827	518	3.41	75,232,593	145,237	6.59
1904,	161,220	505	3.09	73,591,369	123,688	8.68
1905,	168,254	614	3.65	78,647,020	122,423	8.15
1906,	166,175	557	3.35	72,139,510	129,511	7.72
1907,	168,774	708	4.20	86,056,412	121,619	8.25
1908,	171,593	678	3.88	83,513,243	123,220	8.12
1909,	171,195	567	3.31	80,223,833	141,688	7.07
Totals and percentages,	1,601,672	5,491	3.42	715,235,946	130,256	7.68
1910,	166,175	601	3.57	83,683,994	139,241	7.18
1911,	173,328	699	4.05	90,917,176	130,667	7.69
Totals and percentages,	339,513	1,300	3.83	174,601,170	269,908	7.15
Grand totals and percentages,	4,856,782	16,492	3.40	2,007,651,680	121,699	8.21



ANTHRACITE DISTRICTS



FIRST DISTRICT

LACKAWANNA COUNTY

Carbondale, Pa., February 21, 1912.

Hon. James E. Roderick, Chief of Department of Mines:

Sir: I have the honor to transmit herewith my report as Inspector of Mines for the First Anthracite District, for the year ending December 31, 1911.

Respectfully submitted,

P. J. MOORE, Inspector.

SUMMARY OF STATISTICS

Number of collieries,	17
Number of mines,	31
Number of mines in operation,	31
Number of tons of coal shipped to market,	2,198,120
Number of tons used at mines for steam and heat,	210,636
Number of tons sold to local trade and used by employes,	34,323
Number of tons produced,	2,775,079
Number of tons produced by compressed air machines, .....	.....
Number of tons produced by electrical machines, .....	.....
Number of persons employed inside of mines,	4,613
Number of persons employed outside,	1,603
Number of fatal accidents inside of mines,	17
Number of fatal accidents outside,	5
Number of non-fatal accidents inside of mines,	29
Number of non-fatal accidents outside,	9
Number of tons of coal produced per fatal accident inside,	153,122
Number of persons employed per fatal accident inside,	271
Number of persons employed per fatal accident outside,	321
Number of persons employed per non-fatal accident inside,	159
Number of persons employed per non-fatal accident outside,	178
Number of wives made widows,	10
Number of children made orphans,	29
Number of steam locomotives used inside of mines,	1
Number of steam locomotives used outside,	19
Number of compressed air locomotives used inside, .....	.....
Number of compressed locomotives used outside, .....	.....
Number of electric motors used inside,	42
Number of electric motors used outside, .....	.....
Number of fans in use,	27
Number of furnaces in use, .....	.....
Number of gaseous mines in operation,	1
Number of non-gaseous mines in operation,	30
Number of new mines opened, .....	.....
Number of old mines abandoned,	1

TABLE A

PRODUCTION OF COAL

Names of Operators	Tons
Delaware and Hudson Company,	1,940,756
Hillside Coal and Iron Company,	232,450
Northwest Coal Company,	197,770
Scranton Coal Company,	142,893
Archbald Coal Company,	106,464
Humbert Coal Company,	77,059
Carbondale Coal Company,	24,012
Moss Hill Coal Company,	21,974
West Mountain Coal Company,	15,177
Lincoln Hill Coal Company,	5,867
Outlook Coal Company,	4,520
Fall Brook Coal Company,	4,137
Total,	<u>2,773,079</u>

Production by Counties

Lackawanna,	$\begin{array}{r} 2,773,079 \\ \hline 5 \quad / \quad \hline 554616 \end{array}$
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TABLE B.—Fatal and non-fatal accidents inside and outside of mines; number of tons of coal produced per accident; number of persons employed; number employed per accident

Name of Operator	Fatal Accidents		Non-Fatal Accidents		Total	Tons of coal produced per fatal accident inside	Tons of coal produced per non-fatal accident inside	Number of employees inside	Number of employees outside	Total number of employees	Number of employees inside per fatal accident	Number of employees outside per fatal accident	Number of employees inside per non-fatal accident	Number of employees outside per non-fatal accident
	Inside	Outside	Total	Inside											Outside
Beaver and Hudson Co.,	2	1	13	16	26	12,172	12,145	2,824	859	3,683	253	820	110	123
Hillside Coal and Iron Co.,	2	1	3	3	3	15,256	7,482	297	137	434	104	137	69	103
Northwest Coal Co.,	1	1	2	3	4	107,770	65,023	326	71	413	332	77	113	77
Serpentine Coal Co.,	1	1	2	3	3	112,863	47,631	681	282	963	654	282	253	77
Arden Coal Co.,	1	1	1	1	1	202	202	84	84	286	84	84	84	84
West Mountain Coal Co.,	1	1	1	1	1	15,117	21,974	26	12	45	35	12	71	71
Miss Hill Coal Co.,	1	1	1	1	1	74	74	74	113	112	112	113	112	113
Miscellaneous Companies,	1	1	1	1	1	253	253	253	113	367	113	113	112	113
Totals and averages for district,	17	5	22	29	38	103,417	95,423	4,013	1,003	6,216	241	321	179	173

TABLE C.—Classification of Fatal Accidents Inside and Outside of Mines

	Months												Percentages	
	January	February	March	April	May	June	July	August	September	October	November	December		Totals
Causes of Accidents Inside														
Falls of roof,	2		1	3	1		1	1	1	1			11	64.71
Mine cars,							1				2		3	17.65
Explosions of powder and dynamite,										1			1	5.88
Blasts, premature and otherwise,									1				1	5.88
Miscellaneous,											1		1	5.88
Totals,	2		1	3	1		2	1	2	2	3		17	100.00
Causes of Accidents Outside														
Cars,							1	1					2	40.00
Machinery,		1			1								2	40.00
Suffocated by sulphur fumes,	1												1	20.00
Totals,	1	1			1		1	1					5	100.00
Grand totals inside and outside,	3	1	1	3	2		3	2	2	2	3		22	

TABLE D.—Classification of Non-Fatal Accidents Inside and Outside of Mines

	Months												Percentages	
	January	February	March	April	May	June	July	August	September	October	November	December		Totals
Causes of Accidents Inside														
Falls of coal,		1								1	2		4	13.79
Falls of roof,	1			1	3	1	1		1	1			9	31.03
Mine cars,	2	2	1				2			3			11	37.93
Blasts, premature and otherwise,							1						1	3.45
Mules,	1												1	3.45
By timber falling on him,				1		1							2	6.90
By man falling on him,		1											1	3.45
Totals,	4	4	1	2	3	2	4		5	3	1		29	100.00
Causes of Accidents Outside														
Cars,						1				2			4	44.45
Machinery,								1	1				2	22.22
Scalded by steam,									1				1	11.11
By lever striking him,								1					1	11.11
By piece of boiler falling on him,									1				1	11.11
By falling,										1			1	11.11
Totals,						1		1	3	2	2		9	100.00
Grand totals inside and outside,	4	4	1	2	3	3	4	1	8	5	1		38	

TABLE E.—Occupations of Persons Killed or Fatally Injured Inside and Outside of Mines

	Months												
	January	February	March	April	May	June	July	August	September	October	November	December	Totals
Inside													
Miners,	1				1			1	1	2	1		7
Miners' laborers,	1		1				1		1				7
Drivers and runners,							1				2		3
Totals,	2		1	3	1		2	1	2	2	3		17
Outside													
Slatepickers (boys),		1											1
Slatepickers (men),					1								1
Laborers,	1												1
Drivers,								1					1
Brakemen,						1							1
Totals,	1	1			1		1	1					5
Grand totals inside and outside,	3	1	1	3	2		3	2	2	2	3		22

TABLE F.—Occupations of Persons Injured Inside and Outside of Mines

	Months												
	January	February	March	April	May	June	July	August	September	October	November	December	Totals
Inside													
Miners,		1		1	1	1	3			2	1		10
Miners' laborers,	1	3			2	1	1			2	2		12
Drivers and runners,	3		1	1						1			6
Company men,												1	1
Totals,	4	4	1	2	3	2	4			5	3	1	29
Outside													
Blacksmiths and carpenters,										1			1
Slate pickers (boys),									1				1
Drivers,					1						1		2
Laborers,								1	2				3
Loaders,											1		1
Company men,										1			1
Totals,						1		1	3	2	2		9
Grand totals inside and outside,	4	4	1	2	3	3	4	1	3	7	5	1	38

TABLE G.—Nationality of Persons Killed or Fatally Injured Inside and Outside of Mines

	Months												Totals
	January	February	March	April	May	June	July	August	September	October	November	December	
American,	1	1		1			2			1	2		8
English,			1										1
Irish,					1								1
German,	1						1						2
Polish,	1			1					1				4
Italian,					1					1	1		3
Austrian,									1				1
Russian,				1			1						2
Totals,	3	1	1	3	2		3	2	2	2	3		22

TABLE H.—Nationality of Persons Injured Inside and Outside of Mines

	Months												Totals
	January	February	March	April	May	June	July	August	September	October	November	December	
American,	1		1					1	2	4			9
English,	1	1				1							3
Irish,				1					1				3
Polish,	1	1		1	3	1	1				2	1	10
Italian,	1				1					2	2		6
Austrian,		1				1	1			1			4
Russian,		1					1				1		3
Totals,	4	4	1	2	3	3	4	1	3	7	5	1	38

TABLE I.—Operators and mines, kind of openings, type and size of fans, size of furnaces, volume of air produced by fan or furnace per minute, number of splits of air currents and number of persons employed inside

Names of Operators and Mines	Kind of opening	Gasous or non-gasous	Method of ventilation	Diameter of fan in feet and inches	Width of blades in feet and inches	Depth of blades in feet and inches	Number of revolutions per minute	Water gauge developed—in inches	Name of fan	Power used	Area of furnace bars in square feet	Number of splits of air currents	Number of cubic feet of air per minute entering the mine at inlet	Total quantity of air per minute circulating in all the splits in cubic feet	Number of cubic feet per minute passing out at outlet	Number of persons employed inside
Delaware and Hudson Co.																
Coal Brook Colliery:																
Coal Brook No. 1	Tunnel			20 a	5	6	75	1.7				2	37,000	36,000	38,000	100
Coal Brook No. 1 Grassy	Pit			17 b	4.5	4.5	90	1.2				4	87,000	85,000	88,000	135
Coal Brook No. 2 Grassy	Tunnel			20 a	5	6	75	1.7				1	35,000	32,000	47,000	125
Coal Brook No. 3 Grassy	Tunnel			10 c	3	3	90	.6				1	22,000	18,000	24,000	80
Coal Brook, Wilcox	Tunnel			17 b	4	5	75	1.6				3	60,000	50,000	65,000	175
Coal Brook, Wilson	Tunnel	Non-gas.	Fan	20.5d	5	6	90	1.9	Gubbal.	Electricity.		5	110,000	100,000	118,000	348
Coal Brook No. 1, Patents	Tunnel			20.5d	5	6	90	1.9				2	24,000	22,000	26,000	80
Coal Brook No. 3, Patents	Tunnel			20.5d	5	6	90	1.9				1	15,000	12,000	18,000	50
Powderly Colliery:																
Powderly	Tunnel		(Natural,									1	50,000	48,000	52,000	75
Powderly	Slope		Fan	17	4	5	70	.5	Gubbal.	Steam.		4	46,000	42,000	48,000	228
Powderly No. 1	Slope	Non-gas.		10	4	4	160	.4	Gubbal.	Electricity.		3	50,000	45,000	52,000	170
Powderly No. 1	Tunnel		(Fan,	10	7.5	2.66	140	.8	Gubbal.	Electricity.		4	100,000	98,000	114,000	187

*Coal Brook has four fans a, b, c, d.

Jermyn Colliery:	Shaft.....	Non-gas., 2 Fans, ..	[30 17]	5 5	6 6	78 75	1.5 1.5	Guibal, ..	Steam,	10	309,740	190,000	225,000	695
White Oak Colliery:														
White Oak No. 11, Tun-	Tunnel, ..	Non-gas., Fan,	17	5	5	50	1.0	Guibal, ..	Steam,	2	95,000	90,000	93,000	323
White Oak No. 6, Tun-	Tunnel, ..	Non-gas., Fan,	10	3	2	100	.8	Buffalo, ..	Electricity,	2	41,000	40,000	45,000	145
Hillside Coal and Iron Co.														
Emp. Colliery:	Shaft.....	Non-gas., 2 Fans, ..	[12 24]	4 6	4 5	85 75	.6 .8	Guibal, ..	Electricity, ..	3	60,700	55,000	70,000	207
Northwest Coal Co.														
Northwest Colliery:	Slope, ..	Non-gas., Fans,	[13 30]	1 5	5 6	80 70	1.5 1.5	Guibal, ..	Electricity, ..	5	100,000	88,000	120,000	336
Seranton Coal Co.														
Riverside Colliery:	Shaft.....	Gascons, Fan,	20	1	6	90	.6	Guibal, ..	Steam,	3	49,300	38,000	45,000	140
Raymond Colliery:														
Raymond,	Shaft.....	Non-gas., Fan,	18	5	5	75	1.0	Guibal, ..	Steam,	4	70,000	68,000	75,000	278
Raymond No. 3,	Slope, ..	Non-gas., Fan,	11	6	5	85	.75	Guibal, ..	Steam,	2	25,000	22,000	28,000	101
Raymond No. 2,	Slope, ..	Non-gas., Natural, ..									12,000	10,000	14,000	46
Raymond, Japan,	Slope, ..	Non-gas., Fan,	18	5	5	75	1.0	Guibal, ..	Steam,	2	45,000	40,000	48,000	103
Black Diamond Colliery:														
Black Diamond,	Drift,	Non-gas., Fan,	12	4	4	120	.7	Guibal, ..	Steam,	1	12,000	10,000	14,000	20
Archbold Coal Co.														
Tappans Colliery:	Slope, ..	Non-gas., Fan,	16	5	6	65	.25	Guibal, ..	Steam,	4	60,000	50,000	70,000	202
Humbert Coal Co.														
Sunnyside Colliery:	Tunnel, ..	Non-gas., Fan,	6	5	4	90	.6	Guibal, ..	Steam,	2	26,000	20,000	27,000	130
Stunyside,														
Carbondale Coal Co.														
Polands Colliery:	Slope, ..	Non-gas., Fan,	10	3	3	65	.1	Guibal, ..	Steam,	1	12,000	11,000	14,000	76
Morse Hill Coal Co.														
Morse Hill Colliery:	Slope, ..	Non-gas., Fan,	12	3	3	75	.7	Guibal, ..	Steam,	2	22,000	20,000	24,000	74

TABLE I—Continued

Names of Operators and Mines	Kind of opening	Gasous or non-gasous	Method of ventilation	Diameter of fan in feet and inches	Width of blades in feet and inches	Depth of blades in feet and inches	Number of revolutions per minute	Water gauge developed in inches	Name of fan	Power used	Area of furnace bars in square feet	Number of splits of air currents	Number of cubic feet of air per minute entering the mine at inlet	Total quantity of air per minute circulating in all the splits in cubic feet	Number of cubic feet per minute passing out at outlet	Number of persons employed inside
West Mountain Coal Co. West Mountain Colliery: West Mountain	Drift	Non-gas.,	Fan,	12	3	3	75	.7	Gulbal, --	Steam, .....	.....	1	37,000	32,000	42,000	33
Lincoln Hill Coal Co. Bartons Colliery: Bartons	Drift	Non-gas.,	Fan,	8	4	3	200	.7	Gulbal, --	Steam, .....	.....	1	9,000	8,000	10,000	58
Outlook Coal Co. Outlook Colliery: Outlook	Drift	Non-gas.,	Fan,	6	3	4	90	.6	Gulbal, --	Steam, .....	.....	1	6,600	4,000	7,000	16
Fall Brook Coal Co. Murriss Colliery:	Drift	Non-gas.,	Natural, .....	.....	.....	.....	.....	.....	.....	.....	.....	1	4,000	3,000	5,000	13

TABLE I.—Operators, location of collieries, railroads, etc.

Names of Operators and Collieries	County	Name of General Superintendent	Post Office	Name of Superintendant	Post Office	Railroad to Mine
Delaware and Hudson Co.						
Coal Brook,						
Powderly,						
Jermy,						
White Oak,						
Jermy Washery,						
Racket Brook Washery,						
Hillside Coal and Iron Co.						
Erie,	Lackawanna,	W. A. May,	Seranton,	W. W. Inels,	Seranton,	Erie
Northwest Coal Co.						
Northwest,	Lackawanna,	F. Homelright,	Jermy,	T. Jenkins,	Carbondale,	N. Y. O. and W.
Scranton Coal Co.						
Riverside,						
Raymond,						
Black Diamond,	Lackawanna,	J. R. Bryden,	Seranton,	W. L. Allen,	Peckville,	N. Y. O. and W.
Archbald Coal Co.						
Tappan,	Lackawanna,	J. Hughes,	Wilkes-Barre,			Delaware and Hudson
Humbert Coal Co.						
Sunnyside,	Lackawanna,	V. L. Petersen,	Seranton,			Erie
West Mountain Coal Co.						
West Mountain,	Lackawanna,	John A. Komara,	Jermy,			N. Y. O. and W.
Carbondale Coal Co.						
Bolands,	Lackawanna,	John Boland,	Dunmore,			Delaware and Hudson
Morss Hill Coal Co.						
Morss Hill,	Lackawanna,	George Gilles,	Carbondale,			Erie

*Abandoned.

TABLE 1—Continued

Names of operators and offices	County	Name of General Superintendent	Post Office	Name of Superin- tendent	Post Office	Railroad to Mine
Outlook Coal Co. Catskill	Lackawanna	J. H. Bittenbender	Scranton			N. Y. O. and W.
Fall Brook Coal Co. Murrins	Lackawanna	Frank Murfin	Carbondale			Local sales
Lincoln Hill Coal Co. Bartons	Lackawanna	Thomas Perry	Carbondale			Bedaware and Hudson

TABLE 2.—Number of tons of coal mined, number of days worked, number of persons employed, number killed and injured, quantity of powder, dynamite and permissible explosives used, etc.

Names of Operators and Collieries	County	Number of tons of coal shipped to market	Number of tons used at collieries for steam and heat	Number of tons sold to local trade and used by employes	Total production of coal in tons	Number of days worked	Number of employes	Number of fatal accidents	Number of non-fatal accidents	Explosives		
										Number of pounds of powder used	Number of pounds of dynamite used	Number of pounds of permissible explosives used
Delaware and Hudson Co.												
Coal Brook,*	Lackawanna	539,517	21,173	.....	580,690	257	1,389	5	1	503,660	16,766	.....
Powderly,	.....	489,849	28,532	.....	468,401	282	878	4	1	183,750	23,070	.....
Jennyn,	.....	391,774	16,269	4,019	418,002	268	732	2	10	356,225	12,470	16
White Oak,	.....	170,635	21,389	3,139	185,404	231	458	2	5	228,690	39,439	828
Totals,	.....	1,507,795	87,384	7,178	1,692,497	.....	3,657	13	26	1,471,355	111,276	844
Washeries:												
Jennyn,	Lackawanna	126,216	29,481	.....	156,097	183	16	.....	.....	.....	.....	.....
Racket Brook,	.....	109,678	29,894	.....	121,562	270	30	.....	.....	.....	.....	.....
Totals,	.....	236,894	41,375	.....	277,659	.....	46	.....	.....	.....	.....	.....
Hillside Coal and Iron Co.												
Erie,	Lackawanna	1,801,679	128,889	7,178	1,937,746	.....	3,683	13	26	1,471,355	111,276	844
Northwest Coal Co.												
Northwest,	Lackawanna	266,971	24,653	1,426	292,450	218	331	3	3	165,225	.....	1,508
Totals,	.....	179,362	17,327	871	197,470	298	473	2	4	27,279	19,359	.....

*The inside workings under Delaware and Hudson Co. The outside workings under Hudson Coal Co.

TABLE 2—Continued

Names of Operators and Collieries	County	Number of tons of coal shipped to market	Number of tons used at collieries for steam and heat	Number of tons sold to local trade and used by employees	Total production of coal in tons	Number of days worked	Number of employees	Number of fatal accidents	Number of non-fatal accidents	Explosives			Number of horses and mules
										Number of pounds of powder used	Number of pounds of dynamite used	Number of pounds of permissible explosives used	
Seranton Coal Co.													
Riverside	Laekawanna	66,136	20,075	500	86,821	212	210	1	1	74,500	1,100	---	57
Raymond		29,360	35,940	383	55,683	32	720	1	2	30,625	17,000	---	67
Black Diamond		269	120	69	389	2	50	---	---	---	---	---	---
Totals		95,725	46,125	1,033	142,893	---	966	2	3	105,125	18,100	---	91
Archbald Coal Co.													
Tappan	Laekawanna	99,864	6,128	472	106,464	229	286	1	1	96,250	90,000	---	24
Humbert Coal Co.													
Sunnyside	Laekawanna	69,562	7,500	257	77,659	242	190	---	---	80,375	3,700	---	23
Carbondale Coal Co.													
Bolands	Laekawanna	10,427	3,650	9,635	24,012	250	79	---	---	32,750	3,000	---	12
Morse Hill Coal Co.													
Morse Hill	Laekawanna	14,649	2,900	4,425	21,974	156	112	---	1	1,700	4,000	---	16
West Mountain Coal Co.													
West Mountain	Laekawanna	10,211	1,065	3,871	15,177	237	45	1	---	1,310	3,650	---	4

Lincoln Hill Coal Co., Bartons,	Lackawanna, ---	4,386	799	672	5,807	133	51	10,250	2,400	3
Outlook Coal Co., Outlook,	Lackawanna, ---	2,304	1,900	316	4,520	215	29	1,850		2
Fall Brook Coal Co., Murrins,	Lackawanna, ---		250	3,887	4,137	198	18	3,650		3
Grand totals,		2,408,120	240,636	34,323	2,773,079		6,216	38 2,179 600	252,076	18,352
										521

TABLE 2.—Part 2

Names of operators	County	Number of Boilers					Locomotives				Total horse power	Number of steam engines of all classes	Total horse power	Number of pumps delivering water to surface	Capacity in gallons per minute	Quantity delivered to surface per minute—gallons	Number of electric dynamos	Number of air compressors
		Cylindrical	Horse power	Tubular	Horse power	Total horse power	Steam	Air	Electric	Steam									Air	Electric
Delaware and Hudson Co.,		1	18	66	6,300	6,486	10		85	112	7,049	27	70,100	10,800		11	1	
Hillside Coal and Iron Co.,		1	1	1	1,425	1,425		5	21	4,255	4	1,134	1,500		2			
Northwest Coal Co.,		1	1	1	160	160	3		17	1,320	3				1			
Serauton Coal Co.,		1	19	19	2,280	2,280	2	2	58	2,396	9	6,132	4,990		3	1		
Archbald Coal Co.,		1	50	3	300	340	2		9	530	1	209	235					
Humbert Coal Co.,	Lackawanna,	3	213		295	240	1		4	155	4	100	60					
Carbondale Coal Co.,				2	275	275			5	160						1		
Morse Hill Coal Co.,		2	100		100	100			2	110								
West Mountain Coal Co.,				1	15	15			1	10								
Lincoln Hill Coal Co.,				2	150	150	1		3	150	1	30	15					
Outlook Coal Co.,				1	150	150			2	165								
Fall Brook Coal Co.,																		
Totals,		24	876	78	12,020	12,896	20	42	216	16,270	46	58,445	17,670		18	7		

TABLE 3.—Number of each class of employees inside and outside of mines

Names of operators	County	Inside										Outside										
		Mine foremen	Assistant mine foremen	Fire bosses and assistants	Miners	Miners' laborers	Drivers and runners	Doorbays and helpers	Pumpmen	Company men	All other employees	Total inside	Superintendents	Foremen	Blacksmiths and carpenters	Enginers and firemen	State pickers (boys)	State pickers (men)	Bookkeepers and clerks	All other employees	Total outside	
Delaware and Hudson Co.,	5	11	.....	961	1,014	286	65	11	270	101	2,824	.....	6	34	56	46	191	12	474	859	3,682
Hillside Coal and Iron Co.,	1	2	.....	75	60	20	3	3	42	1	267	.....	2	14	10	13	5	2	91	137	344
Northwest Coal Co.,	1	1	.....	127	119	31	10	5	42	.....	336	.....	1	9	9	2	15	2	33	77	413
Scranton Coal Co.,	1	5	.....	276	221	92	14	9	.....	661	684	2	3	18	40	74	22	4	119	282	966
Arebald Coal Co.,	1	1	.....	85	70	26	5	.....	14	.....	992	1	1	6	10	14	8	3	41	84	286
Humbert Coal Co.,	1	.....	.....	56	41	20	.....	.....	12	.....	130	1	1	6	3	16	17	2	14	60	193
Carbondale Coal Co.,	1	.....	.....	21	20	8	.....	.....	2	.....	56	1	1	2	3	3	3	2	6	93	70
Morris Hill Coal Co.,	1	.....	.....	32	21	18	.....	.....	.....	.....	74	1	1	1	2	3	.....	1	24	38	112
West Mountain Coal Co.,	1	.....	.....	15	9	5	.....	.....	.....	.....	33	1	1	1	3	.....	.....	1	4	12	45
Lincoln Hill Coal Co.,	1	.....	.....	14	14	3	.....	.....	.....	.....	38	1	1	2	4	2	1	1	2	13	51
Outlook Coal Co.,	1	.....	.....	6	6	1	.....	.....	.....	.....	16	1	1	1	2	3	.....	.....	2	13	29
Fall Brook Coal Co.,	1	.....	.....	4	4	3	.....	.....	.....	.....	13	.....	.....	1	.....	.....	.....	.....	1	5	14
Totals,	19	16	.....	1,672	1,580	612	99	28	392	176	4,643	19	19	32	181	186	367	32	816	1,603	6,216

TABLE 3.—Part 2

Average Number of Days Worked in Breaker

Names of Operators	County												Total
	January	February	March	April	May	June	July	August	September	October	November	December	
Delaware and Hudson Co.,	24	23	25	22	33	33	17	25	21	23	23	22	271
Hillside Coal and Iron Co.,	18	18	21	18	18	18	17	19	18	18	17	18	218
Northwest Coal Co.,	30	21	25	21	24	23	22	25	22	24	21	22	278
Seranton Coal Co.,	17	15	16	16	18	18	17	18	18	15	17	17	202
Archbald Coal Co.,	21	16	20	18	20	23	23	21	21	23	23	21	231
Humbert Coal Co.,	22	23	22	17	14	25	21	19	21	22	20	18	212
Carbondale Coal Co.,	24	24	22	23	20	16	22	22	21	21	23	23	279
Morse Hill Coal Co.,	23	24	21	20	25	26	17	20	21	18	19	17	180
West Mountain Coal Co.,	25	20	21	22	18	16	17	17	17	18	17	17	227
Lynch Hill Coal Co.,	18	18	18	18	18	18	18	18	18	18	18	17	183
Outlook Coal Co.,	22	22	21	22	22	22	22	22	22	24	23	23	215
Fall Brook Coal Co.,	23	22	21	22	17	8	.....	4	21	20	23	22	198
Lackawanna.													

TABLE I.—Fatal accidents inside and outside of mines

Date of accident	Name of person	Nationality	Occupation	Age	Married or single	Number of widows	Number of orphans	Name of Colliery	County	Nature and Cause of Accident in Brief
Jan. 4	Richard Duggan,	American,	Miner,	38	M.	1	3	Powderly,		Fatally injured by fall of roof near face of chamber while trying to take it down.
18	Joseph Teller,	German,	Laborer,	62	S.			Riverside,		Suffocated by inhaling sulphur fumes on ash bank while he was lying down, apparently resting. Outside.
21	Alex Glineski,	Polish,	Laborer,	38	M.	1	1	Raymond,		Fatally injured by fall of roof while visiting in another chamber.
Feb. 6	Francis Kearney,	American,	Slatepicker,	16	S.			Talpaus,		Partly injured by being caught by revolving shaft in breaker about 7.45 in the morning before time for commencing work. Outside.
Mar. 8	Silas Moon,	English,	Laborer,	40	M.	1	5	West Mountain,		Fatally injured by fall of roof near face of heading while shoveling coal into car.
April 13	Edward Minen,	American,	Laborer,	23	S.			Coal Brook,	Lackawanna,	The piece was "saddle" shaped. Instantly killed by fall of roof while shoveling coal back from a pillar that was being robbed.
	Joseph Kazany,	Polish,	Laborer,	21	S.			Coal Brook,		Killed by fall of roof while shoveling coal back from a pillar that was being robbed.
25	Michael Bogu-ky,	Russian,	Laborer,	21	S.			Northwest,		Fatally injured by fall of roof at face of rock plane while loading a car with rock.
May 3	Bartley Cogelias,	Irish,	Miner,	48	S.			White Oak,		Fatally injured by fall of roof at face of chamber before commencing his day's work. He should have taken the piece down the day previous.
4	Daniel Corda,	Italian,	Slatepicker,	50	M.	1	2	Frip,		Fatally injured by breaker machinery while sweeping the breaker in some unknown manner his clothing was caught by a set screw. Outside.

TABLE 4—Continued

Date of accident	Name of person	Nationality	Occupation	Age	Married or single	Number of widows	Number of orphans	Name of Colliery	County	Nature and Cause of Accident in Brief
July 12	Edward Kane	American	Brakeman	17	S.	.....	.....	Coal Brook	.....	Fatally injured by being squeezed between mine cars while coupling them together, outside.
25	John McDonnell	American	Laborer	46	S.	.....	.....	White Oak	.....	Fatally injured by fall of roof at face of pillar that was being "robbed," while he was hauling down some loose coal from the end of pillar.
29	Stanley Klonskie	Russian	Driver	18	S.	.....	.....	Powderly	.....	Fatally injured by being run over by mine car. The car tipped over on him while running it from a chamber. Died August 11th.
Aug. 7	Lawrence Musial	Polish	Miner	44	M.	1	5	Erle	Lackawanna	Fatally injured by fall of roof back from the face of chamber while running away from a shot he was firing. The rock that fell was in the shape of a roll and hard to detect.
24	James Gall	German	Driver	30	S.	.....	.....	Northwest	.....	Fatally injured by being thrown under mine car. He was riding on the bumper of a loaded rock car with one foot sliding along the rail, when his foot was caught against joint and he was thrown under the car. Outside.
Sept. 2	Paul Kanash	Austrian	Miner	39	M.	1	3	Powderly	.....	Fatally injured by flying coals from a blast fired by another miner in a cross-cut near the face of heading while he was near the face of airway.
11	Philip Colabro	Italian	Laborer	24	S.	.....	.....	Coal Brook	.....	Fatally injured by fall of roof near pillar where he and his father were laying a piece of track preparatory to taking out the pillar.

Fatally injured by dynamite powder. While preparing a cartridge for a blast the powder exploded in some unknown manner. Instantly killed at face of heading by fall of roof. After firing a blast he was barring down loose pieces when a large piece fell.

Compound fracture of leg below the knee by being caught between motor and car. He was sitting on the front end of motor when pushing a car in on a chain-bee track when the car jumped off the head end and raised the other end and caught him against the motor. Died in the hospital December 6th, after an operation.

Fatally injured by being thrown under mine car in his chamber. He was standing in front of the car, which was being loaded by two laborers, when the gob in front of the car rushed against the car and forced it down the track and Horan was knocked under car. Skull fractured in an unknown manner while working as driver. The verdict of the coroner's jury at the inquest held December 6, is as follows: "We, the undersigned, after hearing the testimony of the witnesses, came to the conclusion that Anthony Cristo died at Emergency Hospital December 3, as the result of injuries sustained in the Coal Brook Colliery November 25, 1911."

Oct. 6	John Reichart,	Polish,	Miner,	49	M. 1	5	Erie,
12	Michael Irving,	American,	Miner,	44	M. 1	3	Jermyn,
Nov. 18	Wm. McDonough,	American,	Bumper,	31	S.	Jermyn,	
23	Patrick Horan,	American,	Miner,	65	M. 1	.....	Powderly,
25	Anthony Cristo,	Italian,	Driver,	23	M. 1	2	Coal Brook,
							Lackawanna,

TABLE 5.—Non-fatal accidents inside and outside of mines

Date of accident	Name of person	Nationality	Occupation	Age	Married or single	Name of Colliery	County	Nature and Cause of Accident in Brief
Jan. 13	Frank Sharples,	English,	Driver,	18	S.	Raymond,		Leg fractured by being caught between spreader of mule and a water pipe on main haulage road.
16	Joe Moncavage,	Polish,	Laborer,	24	S.	Raymond,		Shoulder blade fractured by fall of roof at face of chamber while loading car.
	Edward Burke,	American,	Driver,	16	S.	Powderly,		Arm fractured while coupling cars near foot of slope. A trip jumped off on the slope and struck the cars he was coupling.
20	Abek Freudente,	Italian,	Driver,	20	S.	Riverside,		Right thigh broken by falling off mining car while riding on bumpers coming out of the heading.
Feb. 13	Alfred Ganzenwelder,	Austrian,	Laborer,	21	M.	White Oak,	Lackawanna,	Ribs fractured by another man falling on him while they were riding down a slope on a truck.
14	Joul Morcom,	English,	Miner,	18	M.	Jermyn,		Arm fractured by fall of coal when he returned to face of chamber after firing a blast.
25	Paul Sayfer,	Russian,	Laborer,	41	M.	Erie,		Leg fractured by a prop that was discharged along side of heading road by a trip of cars.
March 28	Andrew Boffuski,	Polish,	Laborer,	19	S.	Erie,		Leg fractured.
	Raymond Oakley,	American,	Driver,	17	S.	Jermyn,		Injured by being caught between cars and side planking while crossing between a trip of cars near head of slope. His light went out. The engineer started the trip to get the water out of the cylinders.

April 5	Thomas Gilbrooley,	Irish,	Driver,	23	S.	Jermyn,	Left arm fractured by a prop that he was assisting the timberman to stand. The rail broke on which he was standing and he fell and the prop fell on him.
11	George Melan,	Polish,	Miner,	40	M.	Moss Hill,	Hip and abdomen bruised by fall of roof at face of chamber while preparing to fire a blast.
May 3	Edward Kosary,	Polish,	Laborer,	28	S.	White Oak,	Leg fractured by fall of roof at face of chamber before commencing his day's work. He had just entered the face of chamber, when the roof fell.
11	Luegi Phillips,	Italian,	Miner,	40	M.	Powderly,	Skull slightly fractured by fall of roof near face of chamber, after returning from firing a blast.
13	Michael Vilmont,	Polish,	Laborer,	42	M.	Powderly,	Leg fractured by a piece of roof falling on him while sitting down near face of chamber.
June 2	John Harrison,	Russian,	Miner,	26	M.	Northwest,	Back injured by fall of roof at face of chamber while about to put a cross-timber up.
5	William Leoon,	Polish,	Laborer,	25	S.	Powderly,	Skull slightly fractured by being struck by a prop that he discharged with a rock that he threw back.
5	Alfred Morecom,	English,	Driver,	19	S.	Jermyn,	Two toes taken off by being caught between bumper of car and top of rail while riding on bumper of car that jumped off the track.
July 14	William Hofsommer,	Austrian,	Laborer,	20	S.	White Oak,	Left collar bone broken by mine car he was running down a "run," when the car jumped off the track.
21	Michael Eshmjsky,	Polish,	Miner,	30	S.	Powderly,	Hand and side bruised by flying coal from a blast while passing through a cross-cut from the chamber he was working in to another.
22	Aken Sauce,	Russian,	Miner,	35	M.	Northwest,	Back injured by fall of roof at face of chamber while drilling a hole.
29	Patrick Cleary,	Irish,	Miner,	35	M.	Powderly,	Hand badly bruised while blocking a car at face of chamber. The wheels ran over the block. Two fingers had to be amputated.
Aug. 14	Michael Kolly,	American,	Laborer,	46	M.	White Oak,	Jaw bone fractured by being struck by lever while putting car on track on rock dump. Outside.
Sept. 5	Cyrus Jenkins,	American,	Laborer,	45	M.	Northwest,	Thigh and leg scalded by steam escaping. While he was repairing a steam pipe, an elbow broke. Outside.
10	Henry Miller,	American,	Laborer,	26	S.	White Oak,	Leg fractured near ankle by being caught between boiler and rail of track while loading a boiler on a truck. Outside.

Lackawanna,

TABLE 5—continued

Date of accident	Name of person	Nationality	Occupation	Age	Married or single	Name of Colliery	County	Nature and cause of Accident in Brief
Sept. 19	Joseph Lavelle,	Irish,	Slatepoker,	14	S.	Tappans,		Foot crushed by railroad cars at breaker. During the noon hour the boy jumped on a trip of cars and slipped under them. Outside.
Oct. 4	John Donash,	Austrian,	Laborer,	36	M.	Jermyn,		Leg fractured by fall of roof while helping the miner to tamp a lobe at face of chamber.
11	Richard Walsh,	American,	Miner,	30	S.	Jermyn,		Right shoulder dislocated by mine cars toppling over while pounding a curve coming on to heading road from chamber.
22	Lafayette Matthews,	American,	Carpenter,	36	M.	Jermyn,		Two ribs fractured by being caught against timber in shaft while putting a new carriage into place in shaft. Outside.
23	Michael Solisky,	American,	Driver,	18	S.	Powdery,	Lackawanna,	Compound fracture of arm. He was bumped between cars on a passing branch while unhooking his mule.
24	Frank Walsh,	American,	Company man,	19	S.	Jermyn,		Injured by falling. While helping the electrician to wire the mule barn he fell from the place where he was standing, three feet from the floor. Outside.
26	George Montoro,	Italian,	Laborer,	40	M.	White Oak,		Back injured and one rib fractured by being caught by mine car at face of chamber. The mule's harness caught the side of car while passing and pulled the car over the head block in the chamber.
28	Anthony Pira,	Italian,	Miner,	31	M.	White Oak,		Leg fractured by fall of coal at face of chamber, while barring cut a shot.

8	A. H. Jacobs	Mediator,	Italian,	Driver,	17	S. Coal Brook,
9	Stephen Covanina	.....	Russian,	Car loader,	25	S. Jernya,
10	Frank Koposch	.....	Italian,	Miner,	25	M. White Oak,
11	John Czynitski	.....	Polish,	Laborer,	25	S. Jernya,
12	John Lusasko	.....	Polish,	Laborer,	25	S. Northwest,
13	John Sovak	.....	Polish,	Company laborer, 40	M. Erie, .....	.....

Lackawanna,

Arm fractured at wrist by falling off a culm car and the car running over it. Outside.

Foot cut off at ankle joint. While harring railroad car another car ran into him. Outside.

Collar bone broken and body injured by fall of coal. After firing a blast in face of chamber he was harring down some loose coal when it fell on him.

Ribs broken by fall of coal at face of chamber while loading car.

Leg fractured below the knee by fall of coal while working at face of chamber.

Left leg fractured below knee by being caught by car. He was waiting along side of track for an empty car into which he was going to load sand when the car jumped on the track.

CONDITION OF COLLIERIES

DELAWARE AND HUDSON COMPANY

Coal Brook.—Ventilation, drainage and general condition good.

Powderly.—Ventilation, drainage and general condition good.

Jermyn.—Ventilation, roads and drainage fair; condition as to safety good.

White Oak.—Ventilation good; drainage fair; other conditions good.

HILLSIDE COAL AND IRON COMPANY

Eric.—Ventilation and general condition good.

SCRANTON COAL COMPANY

Riverside.—Ventilation and general condition fair.

Raymond.—Ventilation and general condition good.

Black Diamond.—Ventilation and general condition fair.

NORTHWEST COAL COMPANY

Northwest.—Ventilation, roads and drainage fair; other conditions good.

MORSS HILL COAL COMPANY

Morss Hill.—Ventilation and general condition fair.

CARBONDALE COAL COMPANY

Bolands.—Ventilation and general condition fair.

HUMBERT COAL COMPANY

Sunnyside.—Ventilation bad; other conditions fair.

ARCHIBALD COAL COMPANY

Tappans.—Ventilation and other conditions fair.

FALL BROOK COAL COMPANY

Murrins.—Ventilation and other conditions good.

OUTLOOK COAL COMPANY

Outlook.—Ventilation and other conditions fair.

WEST MOUNTAIN COAL COMPANY

West Mountain.—Ventilation and general condition good.

LINCOLN HILL COAL COMPANY

Cartons.—Ventilation and general condition fair.

IMPROVEMENTS

DELAWARE AND HUDSON COMPANY

Coal Brook Colliery. The electric power plant was enlarged by the addition of a brick building 67x51 feet, and the installation of a 1000 K. W. generator, driven by a Corliss compound engine 24x44x 42 inches. A Guibal fan, 12 feet in diameter, driven by a 30 H. P. electric motor was installed. A rock slope, 300 feet in length and

7 feet x 12 feet in area, was driven from Bottom to Third vein and equipped with a 65 H. P. electric hoist. A rock plane, 150 feet in length and 7x12 feet in area, was driven from Top to Grassy vein to improve ventilation. A drift, 7 feet x 12 feet in area and 200 feet in length, was driven from the surface to Third vein, and a 10 foot diameter fan installed driven by electricity.

Powderly Colliery.—At No. 1 tunnel a fan 10 feet in diameter, driven by a 35 H. P. electric engine, was installed for ventilating Third vein. A tunnel, 7 feet x 12 feet in area and 150 feet in length, was driven through a fault in the Top vein. The haulage 1,200 feet in length was converted into an electric motor road. A fan 10 feet in diameter, driven by electricity, was installed to ventilate No. 1 Slope. A 21-ton electric motor transports the coal from No. 1 Carbondale to Powderly breaker. 3,500 feet of rope haulage operated by a 12x15 double drum engine installed for Eastside coal.

Jermyn Colliery.—Norwalk air compressor transferred from Coal Brook. Rock plane, 500 feet in length and 7 feet x 12 feet in area, driven from Bottom to Top Split Grassy vein. Rock slope from surface to Clark vein 7x12 feet in area and 180 feet in length.

White Oak Colliery.—Foundations for new breaker completed. Brick boiler house 88 feet x 50 feet, containing 4 Sterling 300 H. P. boilers, was finished. Built blacksmith shop 36 feet by 24 feet; car shop 48 feet x 30 feet; and supply house 20 feet x 40 feet. No. 6 engine plane extended 500 feet, operated by 14-inch x 20-inch engine. Drove manway for No. 3 Slope 200 feet and concreted top, bottom and sides.

HILLSIDE COAL AND IRON COMPANY

Erie Colliery.—A new culm scraper line has been installed between Erie washery and the old Keystone culm bank, for the purpose of conveying the same to the washery for preparation.

A new concrete building has been erected for storing lime, cement, feed and hay.

Two air compressors have been installed within a corrugated iron building, adjoining the fire room, the compressed air to be used for drilling the rock in New County vein.

A new concrete mule barn of twenty stalls, feed room, etc., has been constructed near the foot of Erie shaft, replacing the outside barn on West Side.

A Sullivan undercutting coal machine has been installed in the New County vein, East Side. Several new counter headings have been completed in this section, doing away with less satisfactory haulage roads.

Considerable culm has been slushed into the Clark vein workings underneath the Lackawanna River.

SCRANTON COAL COMPANY

Riverside Colliery.—Two large locomotive type boilers were installed, displacing nine old cylinder boilers.

Raymond Colliery.—Breaker burned down January 22, 1911, and replaced by a modern breaker of 1,000 tons capacity. The new breaker, which resumed operations December 4, is equipped with the latest improved machinery for the preparation of coal, and has an annex where all the smaller sizes down to No. 3 buck is prepared.

It is lighted by electric lamps, a small engine and dynamo being installed for that purpose. A large water tank has been erected, capacity 50,000 gallons, and connected to the water main. A powerful pump is connected to the tank, and pipes carried to every part of the breaker and annex. This pump is continually under steam, and by simply turning a valve can flood every department of the breaker in a few minutes. A rock slope was driven from the Clark vein to the surface, a distance of 300 feet, on a pitch of 33 degrees. This concentrates the pumping plant at this point and also furnishes an additional second opening.

Black Diamond Colliery. -Abandoned January 19, 1911, the coal being exhausted. The breaker was torn down and the machinery removed to other collieries.

BREAKERS DESTROYED BY FIRE DURING THE YEAR

The production of coal in the First District for the year 1911 was reduced somewhat, owing to the destruction by fire of three breakers. The Raymond breaker of the Scranton Coal Company, was destroyed by fire January 22, and the colliery—a large producer— was idle until December 4.

The Morss Hill breaker of the Morss Hill Coal Company, was destroyed by fire July 27, which left the colliery idle the balance of the year. The company has not commenced to erect a new breaker to take the place of the one destroyed by fire, but expects to do so in the near future.

The Sunset breaker of the Ainsley Coal Company was destroyed by fire May 17, and no steps have been taken to erect a new one. This colliery is a small operation and did not ship any coal during the year.

The Spring Hill Colliery of the Spring Hill Coal Company shut down the first of January, and later on was leased to Watkins and Sons, who have been doing some developing of the property and operating on a small scale at intervals during the year.

SECOND DISTRICT

LACKAWANNA COUNTY

Scranton, Pa., February 19, 1912.

Hon. James E. Roderick, Chief of Department of Mines:

Sir: I have the honor to transmit herewith my report as Inspector of Mines for the Second Anthracite District, for the year ending December 31, 1911, as required by the Act of April 14, 1903.

Respectfully submitted,

L. M. EVANS, Inspector.

SUMMARY OF STATISTICS

Number of collieries,	13
Number of mines,	36
Number of mines in operation,	35
Number of tons of coal shipped to market,	1,683,168
Number of tons used at mines for steam and heat,	540,054
Number of tons sold to local trade and used by employes,	63,237
Number of tons produced,	5,286,459
Number of tons produced by compressed air machines, .....	.....
Number of tons produced by electrical machines, .....	.....
Number of persons employed inside of mines,	9,226
Number of persons employed outside,	2,847
Number of fatal accidents inside of mines,	49
Number of fatal accidents outside,	4
Number of non-fatal accidents inside of mines,	69
Number of non-fatal accidents outside,	8
Number of tons of coal produced per fatal accident inside,	107,887
Number of persons employed per fatal accident inside, ..	188
Number of persons employed per fatal accident outside, ..	712
Number of persons employed per non-fatal accident inside, ..	134
Number of persons employed per non-fatal accident outside, ..	356
Number of wives made widows,	29
Number of children made orphans,	83
Number of steam locomotives used inside of mines,	4
Number of steam locomotives used outside,	36
Number of compressed air locomotives used inside,	49
Number of compressed air locomotives used outside, .....	.....
Number of electric motors used inside,	35
Number of electric motors used outside, .....	.....
Number of fans in use,	33
Number of furnaces in use, .....	.....
Number of gaseous mines in operation,	21
Number of non-gaseous mines in operation,	14
Number of new mines opened, .....	.....
Number of old mines abandoned, .....	.....

TABLE A

PRODUCTION OF COAL

Names of Operators	Tons
Delaware and Hudson Company (Inside),	1,895,055
Hudson Coal Company (Outside),	
Scranton Coal Company,	901,149
Delaware, Lackawanna and Western Railroad Company, ..	800,576
Sterrick Creek Coal Company,	565,217
Lackawanna Coal Company, Limited,	482,299
Mount Jessup Coal Company, Limited,	269,913
Moosic Mountain Coal Company,	205,336
Dolph Coal Company, Limited,	166,914
Total,	5,286,459

Production by Counties

Lackawanna,	5,286,459
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~~5,286,459~~
 4,132,161 6

TABLE B.—Fatal and non-fatal accidents inside and outside of mines; number of tons of coal produced per accident; number of persons employed; number employed per accident

Names of operators	Fatal Accidents				Non-Fatal Accidents				Tons of coal produced per non-fatal accident inside	Number of employees inside	Number of employees outside	Total number of employees	Number of employees inside per fatal accident	Number of employees outside per fatal accident	Number of employees inside per non-fatal accident	Number of employees outside per non-fatal accident
	Inside	Outside	Total	Total	Inside	Outside	Total	Total								
Delaware and Hudson Co. (inside).....	25	1	24	35	32	3	35	82,363	69,220	3,223	869	4,122	133	869	110	300
Hudson Coal Co. (outside).....	11		11	9	9		9	81,923	100,127	1,559	719	2,578	112		173	
Seranton Coal Co.....																
Delaware, Lackawanna and Western Railroad Co.....	5		5	6	6		6	160,115	135,129	1,509	261	1,770	302		252	
Sterrick Creek Coal Co.....	3		3	2	2		2	188,406	282,600	846	201	1,047	282		423	
Lackawanna Coal Co., Limited.....	5		6	11	9	2	11	96,490	53,589	713	195	908	143	195	79	97
Mount Jessup Coal Co., Limited.....	1		2	5	5		5	269,913	53,983	434	300	774	434	300	87	
Moosic Mountain Coal Co.....	1		2	5	4	1	5	295,336	51,334	983	47	470	383	97	96	47
Dolph Coal Co., Limited.....				4	2	2	4		83,457	259	265	461			129	163
Totals and averages for district.....	49	4	53	60	60	8	77	167,887	76,615	9,296	2,847	12,673	138	712	134	356

TABLE C.—Classification of Fatal Accidents Inside and Outside of Mines

	Months												Percentages	
	January	February	March	April	May	June	July	August	September	October	November	December		Totals
Causes of Accidents Inside														
Falls of roof,	4		4	3	3	3	3	1		1		1	23	46.94
Mine cars,		1						1	4	1	1	2	10	20.41
Explosions of gas,										1	1		2	4.08
Explosions of powder and dynamite,	1												1	2.04
Blasts, premature and otherwise,	1			2	1			2	1		1	1	9	18.37
Falling into shafts,			1										1	2.04
By falling,		1											1	2.04
Struck by wooden rail,						1							1	2.04
Clothing caught fire,							1						1	2.04
Totals,	6	2	5	5	4	4	3	5	5	3	3	4	49	100.00
Causes of Accidents Outside														
Cars,			2			1							3	75.00
By falling,				1									1	25.00
Totals,			2	1		1							4	100.00
Grand totals inside and outside,	6	2	7	6	4	5	3	5	5	3	3	4	53	

TABLE D.—Classification of Non-Fatal Accidents Inside and Outside of Mines

	Months												Percentages	
	January	February	March	April	May	June	July	August	September	October	November	December		Totals
Causes of Accidents Inside														
Falls of coal,		1											1	1.45
Falls of roof,	1	6			1	3	3	1	1	3			22	31.88
Mine cars,	1	1	1	3	2		3	3	2	3	3		24	34.78
Explosions of gas,				1						1			2	2.90
Blasts, premature and otherwise,							3	2		1	2		10	14.40
Falling into shafts,		1											1	1.45
Mules,						1					2		3	4.85
Caught by door,			1										1	1.45
Struck by piece of rock,								1	1				2	2.90
Struck by piece of coal,									1				1	1.45
By falling,		1							1				2	2.90
Totals,	2	10	2	4	3	4	9	8	4	9	9	5	69	100.00
Causes of Accidents Outside														
Cars,	1		1		1								3	37.50
Machinery,		1											1	12.50
Struck by timber,					1								1	12.50
By mules,										1			1	12.50
By falling,				1							1		2	25.00
Totals,	1	1	1	1	2						1	1	8	100.00
Grand totals inside and outside,	3	11	3	5	5	4	9	8	4	9	10	6	77	

TABLE E.—Occupations of Persons Killed or Fatally Injured Inside and Outside of Mines

	Months												Totals
	January	February	March	April	May	June	July	August	September	October	November	December	
Inside													
Miners,	3		2	4	1			3	3	1		2	19
Miners' laborers,	3	1	2	1	4	1	2	1	1	1	3		20
Drivers and runners,		1								1		2	5
Doorboys and helpers,						1			1				1
Rockmen,			1										2
Brakemen,							1						1
Bellmen,						1							1
Totals,	6	2	5	5	4	4	3	5	5	3	3	4	49
Outside													
Slatepickers (boys),				1									1
Dumpers,			1										1
Miners,			1			1							2
Totals,			2	1		1							4
Grand totals inside and outside,	6	2	7	6	4	5	3	5	5	3	3	4	53

TABLE F.—Occupations of Persons Injured Inside and Outside of Mines

	Months												Totals
	January	February	March	April	May	June	July	August	September	October	November	December	
Inside													
Miners,	1	6			1		3	5	3	4	3	2	28
Miners' laborers,	1	4				3	3		2	3	3	1	17
Drivers and runners,			1	2	1	1	1	3	1		2	1	13
Doorboys and helpers,			1							1			4
Company men,					1					1	1	1	4
Surveyors,				1									1
Motormen,				1									1
Footmen,										1			1
Totals,	2	10	2	4	3	4	9	8	4	9	9	5	69
Outside													
Slatepickers (boys),												1	1
Brakemen,			1		1								2
Headmen,				1									1
Laborers,	1	1			1						1		4
Totals,	1	1	1	1	2						1	1	8
Grand totals inside and outside,	3	11	3	5	5	4	9	8	4	9	10	6	77

TABLE G.—Nationality of Persons Killed or Fatally Injured Inside and Outside of Mines

	Months												Totals	
	January	February	March	April	May	June	July	August	September	October	November	December		
American,				1			1	1	1				1	6
English,	1													1
Welsh,		1							1	1				3
Irish,				1										1
Polish,	4		2	1	2	1			1		2	1		14
Italian,			1	2			1	1		1	1			7
Slavonian,	1		1		1									3
Lithuanian,		1	1						2	1		1		6
Austrian,							1							1
Russian,			2	1	1	2		2						8
Totals,	6	2	7	6	4	5	3	5	5	3	3	4		53

TABLE H.—Nationality of Persons Injured Inside and Outside of Mines

	Months												Totals	
	January	February	March	April	May	June	July	August	September	October	November	December		
American,		1	2	3	1		1	1						10
English,	1	1		1	1	1	1			3	2			11
Welsh,								1	1	1				3
Scottish,									1					1
Irish,								1						1
German,					1		1			1				3
Polish,		1	1	1			3	3	2	1				14
Italian,	1	4			1			2			5			13
Slavonian,						3	1							4
Lithuanian,	1	1			1					3				5
Austrian,								1			1	1		3
Russian,			3				1				2	1		7
Totals,	3	11	3	5	5	4	9	8	4	9	10	6		77

TABLE I.—Operators and mines, kind of openings, type and size of fans, size of furnaces, volume of air produced by fan or furnace per minute, number of splits of air currents and number of persons employed inside

Names of Operators and Mines	Kind of opening	Gaseous or non-gaseous	Method of ventilation	Diameter of fan in feet and inches	Width of blades in feet and inches	Depth of blades in feet and inches	Number of revolutions per minute	Water gauge developed—in inches	Name of fan	Power used	Area of furnace bars in square feet	Number of splits of air currents	Number of cubic feet of air per minute entering the mine at inlet	Total quantity of air per minute circulating in all the splits in cubic feet	Number of cubic feet per minute passing out at outlet	Number of persons employed inside
Delaware and Hudson Co. (Inside), Hudson Coal Co. (Outside)																
Olyphant Colliery																
Miles Slope,	Slope,	Gaseous,	Fan,	20	5.0	4.00	90	2.00	Gaubal,	Steam,		4	93,590	83,200	93,500	206
Grassy Island No. 1,	Shaft,	Non-gas,	Fan,	18	5.00	4.00	70	1.0	Gaubal,	Steam,		3	64,400	58,000	75,840	196
Grassy Island No. 2,	Slope,	Gaseous,	Fan,	28	7.00	8.00	70	3.50	Gaubal,	Steam,		5	127,410	111,703	133,356	231
Grassy Island No. 2,	Slope,	Gaseous,	Fan,	28	7.00	8.00	70	3.50	Gaubal,	Steam,		5	107,490	101,235	113,356	300
Eddy Creek Colliery:																
Olyphant,	Shaft,	Gaseous,	Fan,	22	5.00	5.00	96	2.20		Steam,		8	180,750	123,015	247,700	387
No. 4,	Shaft,	Gaseous,	Fan,	8	3.00	2.50	125	2.00		Steam,		2	42,510	33,240	101	
Birdseye, N. C. Vein,	Drift,	Non-gas,	Fan,	8	3.00	2.00	200	2.00		Electricity,		2	31,150	25,165	35	
Birdseye, County Vein,	Drift,	Non-gas,	Fan,	10	3.50	2.00	200	1.00	Gaubal,	Electricity,		2	49,730	34,410	100	
Leggett Creek Colliery:																
No. 1,	Shaft,	Gaseous,	Fan,	20	6.00	6.00	80	2.00		Steam,		5	169,460	99,370	122,520	240
No. 2,	Shaft,	Gaseous,	Fan,	20	6.00	6.00	75	2.50		Steam,		5	71,150	64,810	89,210	139
No. 3,	Shaft,	Gaseous,	Fan,	22	6.00	5.00	90	4.0		Steam,		4	105,890	119,390	174	

*Taken from air reports.

†Ventilated by fan at Grassy Island No. 2 Slope.

Marvine Colliery:													
Shaft,	Gascones,	Fan,	20	6.00	6.00	66	1.10	Guibal, ..	Steam, ..	200,200	193,700	231,800	300
Clark Vein,	Gascones,	Fan,	20	6.00	6.00	80	1.10	Guibal, ..	Steam, ..	164,320	94,000	107,000	88
Dummore,	Gascones,	Fan,	28	7.00	8.00	80	1.10	Guibal, ..	Steam, ..	202,440	191,040	210,890	263
Scranton Coal Co.													
Ontario Colliery:													
Tunnel, ..	Non-gas, ..	Fan,	14	4.25	3.50	90	1.00	Guibal, ..	Steam, ..	60,000	56,600	71,300	141
Klondyke, ..	Non-gas, ..	Fan,	12	3.25	3.50	100	1.00	Guibal, ..	Steam, ..	66,100	58,800	71,600	156
Sturgess, ..	Non-gas, ..	Fan,	20	6.00	6.25	65	1.20	Guibal, ..	Steam, ..	72,650	63,430	81,120	257
Blue Ridge, ..	Non-gas, ..	Fan,	15	4.50	4.00	100	.70	Guibal, ..	Steam, ..	47,200	31,000	62,000	96
Blue Ridge, ..	Non-gas, ..	Natural, ..						Guibal, ..	Steam, ..	20,000	13,700	31,400	57
Scranton Coal Co.													
Johnson Colliery:													
No. 1,	Gascones, ..	Fan,	20	10.00	8.00	55	2.00	Guibal, ..	Steam, ..	209,070	141,040	206,300	120
No. 2,	Gascones, ..	Fan,	18	5.00	6.00	110	2.00	Guibal, ..	Steam, ..	78,075	25,350	90,125	132
No. 3,	Non-gas, ..	Fan,	10	3.00	3.00	130	.60	Guibal, ..	Electricity, ..	30,355	Robbing,	33,660	78
Richmond No. 3 Colliery:	Gascones, ..	Fan,	30	10.00	10.00	35	.90	Guibal, ..	Steam, ..	25,500	24,800	36,000	40
Delaware, Lackawanna and Western Railroad Co.													
Storrs Colliery:													
No. 1,	Gascones, ..	Fan,	16	4.00	3.25	108	1.20	Guibal, ..	Steam, ..	170,163	151,686	195,245	413
No. 2,	Gascones, ..	Fan,	16	6.00	4.00	120	1.60	Guibal, ..	Steam, ..	178,957	159,287	201,946	470
No. 3,	Gascones, ..	Fan,	24	8.00	6.00	62	1.30	Guibal, ..	Steam, ..	123,828	98,403	122,562	355
Sterrick Creek Coal Co.													
Sterrick Creek Colliery:													
Dummore Vein, ..	Non-gas, ..	Fan,	20	4.50	4.50	70	1.30	Guibal, ..	Steam, ..	57,400	41,200	58,500	106
Dummore Vein, ..	Gascones, ..	Fan,	25	5.00	5.50	65	.50	Guibal, ..	Steam, ..	83,700	73,100	90,000	180
Clark Vein,	Gascones, ..	Fan,	10	3.50	3.50	175	.40	Guibal, ..	Steam, ..	57,615	48,085	64,380	259
Lackawanna Coal Co., Limited													
Lackawanna Colliery:													
No. 1,	Gascones, ..	Fan,	20	5.00	4.00	75	2.00	Guibal, ..	Steam, ..	46,550	49,250	65,000	127
No. 4,	Gascones, ..	Fan,	22	10.00	8.00	65	3.00	Guibal, ..	Steam, ..	81,300	72,150	90,350	244
Mount Jessup Coal Co., Limited													
Mt. Jessup Colliery:													
Peck's Shaft,	Gascones, ..	Fan,	18	6.00	4.50	100	1.80	Guibal, ..	Steam, ..	52,000	39,500	68,500	103

TABLE 1.—Operators, location of collieries, railroads, etc.

Names of Operators and Collieries	County	Name of General Superintendent	Post Office	Name of Super-Intendent	Post Office	Railroad to Mine
Delaware and Hudson Co. (Inside), Hudson Coal Co. (Outside)	Lackawanna,	C. C. Rose,	Scranton,	E. R. Pettebone, ..	Dorranceton,	D. and H.
Olyphant,						
Fddy Creek,						
Legitts Creek,						
Maryine,						
Legitts Creek Washery,						
Scranton Coal Co.						
Ontario,	Lackawanna,	William L. Allen, ..	Peckville,	John K. Berkheiser, Inside,	Olyphant,	N. Y. O. and W.
Johnson,						
Richmond No. 3,						
Ontario Washery,						
Delaware, Lackawanna and Western Railroad Co.						
Storrs Washery,	Lackawanna,	R. A. Phillips,	Scranton,	Walter Reese,	Scranton,	D. L. and W.
Storrick Creek Coal Co.						
Storrick Creek,	Lackawanna,	Frank Hemelright, ..	Scranton,	Joseph Reese,	Olyphant,	Erie
Lackawanna Coal Co., Limited						
Lackawanna,	Lackawanna,	Frank Hemelright, ..	Scranton,	Joseph Reese,	Olyphant,	D. L. and W.
Mount Jessup Coal Co., Limited						
Mount Jessup,	Lackawanna,					
Moosle Mountain Coal Co.						
Marshwood,	Lackawanna,	Charles P. Ford, ..	Marshwood,	Charles P. Ford, ..	Marshwood,	D. and H., D. L. and W. and N. Y. O. and D. L. and W.
Dolph Coal Co., Limited						
Dolph,	Lackawanna,	W. G. Robertson, ..	Scranton,	W. G. Robertson, ..	Scranton,	Erie

TABLE 2. --Number of tons of coal mined, number of days worked, number of persons employed, number killed and injured, quantity of powder, dynamite and permissible explosives used, etc.

Names of operators and Collieries	County	Number of tons of coal shipped to market	Number of tons used at collieries for steam and heat	Number of tons sold to local trade and used by employes	Total production of coal in tons	Number of days worked	Number of employes	Number of fatal accidents	Number of non-fatal accidents	Explosives				Number of horses and mules
										Number of pounds of powder used	Number of pounds of dynamite used	Number of pounds of permissible explosives used		
Dedaware and Hudson Co. (Inside), Hudson Coal Co. (Outside)														
Olyphant,		591,475	191,412	10,175	503,092	248	1,573	10	13	836,885	26,889	15,825		65
Eddy Creek,	Lackawanna,	507,668	3,039	38	510,706	248	1,226	4	7	645,450				60
Legitts Creek,		9,725	368,481	9,725	368,296	212	811	3	3	476,075	21,419			77
Marvine,		251,719	35,479	3,487	291,176	233	733	9	12	406,159	23,125			71
Legitts Creek Washery,	Lackawanna,	1,641,334	139,924	33,925	1,813,180	-----	4,403	24	35	2,418,510	71,433	15,825		273
Totals,		1,641,334	221,736	23,925	1,895,055	-----	4,122	21	35	2,418,510	71,433	15,825		273
Scranton Coal Co.														
Ontario,		328,335	43,462	2,005	375,692	359	1,058	4	5	398,875	192,160			117
Johnson,	Lackawanna,	257,338	45,986	3,535	307,079	176	980	6	4	372,589	37,399			96
Richmond No. 3,		41,513	11,432	37	52,482	193	175	1	1	92,781	16,256			3
Ontario Washery,	Lackawanna,	627,896	109,889	6,467	735,153	-----	2,211	11	9	673,875	239,960			216
Totals,		151,132	14,069	382	165,996	214	67	-----	-----	-----	-----	-----	-----	-----
Totals,		779,419	114,880	6,829	901,119	-----	2,278	11	9	673,875	239,900			216

Delaware, Lackawanna and Western Storrs, Railroad Co.		66,504	58,470	5,228	754,202	239	1,702	5	6	953,350	52,852	135
Storrs, Washery,	Lackawanna,	40,374			46,374	67	7					
Total,		736,878	58,470	5,228	800,576		1,770	5	6	953,350	52,852	135
Storrick Creek Coal Co.	Lackawanna,	520,221	34,310	4,686	565,217	294	1,037	3	2	518,525	199,675	113
Lackawanna Coal Co., Limited	Lackawanna,	433,452	40,150	8,097	482,299	298	908	6	11	397,150	175,370	70
Mount Jessup Coal Co., Limited	Lackawanna,	226,729	34,200	8,984	269,913	247	734	2	5	236,750	367,198	56
Moosic Mountain Coal Co.	Lackawanna,	190,343	11,243	3,815	205,386	249	470	2	5	215,000	254,000	38
Dolph,	Lackawanna,	149,892	25,090	1,022	166,914	143	464		4	165,700	19,250	38
Grand totals,		4,083,168	540,054	63,237	5,286,459		12,073	53	77	5,374,000	1,048,078	959

TABLE 2.—Part 2

Names of Operators	County	Number of Boilers					Locomotives				Number of steam engines of all classes	Total horse power	Number of pumps delivering water to surface	Capacity in gallons per minute	Quantity delivered to surface per minute—gallons	Number of electric dynamos	Number of air compressors
		Cylindrical	Horse power	Tubular	Horse power	Total horse power	Steam	Air	Electric								
Delaware and Hudson Co. (E. side), Hudson Coal Co. (O. side), Seranton Coal Co., Delaware, Lackawanna and Western Railroad Co., Sterrick Creek Coal Co., Lackawanna Coal Co., Limited, Mount Jessup Coal Co., Limited, Moosic Mountain Coal Co., Dolph Coal Co., Limited,		40 25	1,113 655	46 35	9,950 4,300	11,063 4,855	10 9	49	5	169 84	11,530 11,787	19 15	24,800 10,680	8,100 7,650	3 6	16 2	
Totals,		71	2,513	138	20,320	28,398	40	49	85	374	33,422	65	61,104	29,516	22	24	

TABLE 3.—Number of each class of employes inside and outside of mines

Names of operators	County	Inside											Outside						Grand total inside and outside			
		Mine foremen	Assistant mine foremen	Fire bosses and assistants	Miners	Miners' laborers	Drivers and runners	Doorboys and helpers	Pumpmen	Company men	All other employes	Total inside	Superintendents	Foremen	Blacksmiths and carpenters	Engineers and firemen	Statepickers (boys)	Statepickers (men)		Bookkeepers and clerks	All other employes	Total outside
Delaware and Hudson Co. (Inside), Hudson Coal Co. (Outside),		6	8	26	1,105	1,293	465	42	21	463	57	3,523	8	44	139	40	138	11	469	839	4,422	
Scranton Coal Co.,		5	10	7	533	434	255	39	29	.....	277	1,559	2	4	104	90	189	5	288	719	2,278
Delaware, Lackawanna and Western Railroad Co.,	Lackawanna,	3	3	11	494	556	125	93	10	180	104	1,509	2	12	36	75	4	132	261	1,170		
Sterrick Creek Coal Co.,	Lackawanna	2	5	3	301	304	106	18	5	64	28	846	1	1	13	15	35	19	4	114	201	1,017
Lackawanna Coal Co., Limited,		1	2	4	245	248	55	17	13	90	38	713	1	1	19	17	26	32	4	95	195	968
Mount Jessup Coal Co., Limited,		1	1	4	144	172	54	9	7	42	.....	434	1	3	16	26	68	3	174	300	734
Moosic Mountain Coal Co.,		2	.....	.....	141	140	59	8	3	13	17	383	1	1	11	16	.....	2	36	67	450
Dolph Coal Co., Limited,		2	2	.....	157	63	34	.....	3	11	7	359	1	1	21	24	48	27	77	205	464
Totals,		22	31	55	3,080	3,197	1,153	156	91	863	578	9,226	6	21	173	377	382	454	39	1,385	2,817	12,073

TABLE 3.—Part 2

Average Number of Days Worked in Breaker

Names of Operators	County	Average Number of Days Worked in Breaker												Total	
		January	February	March	April	May	June	July	August	September	October	November	December		
Delaware and Hudson Co. (Inside), Hudson Coal Co. (Outside),	Lackawanna,	17	18	22	18	21	21	14	22	20	21	20	21	21	215
Seranton Coal Co.,		18	16	20	16	18	17	14	11	10	14	13	12	179	
Delaware, Lackawanna and Western Railroad Co.,		21	15	14	17	22	23	21	22	21	21	21	21	21	239
Sterrick Creek Coal Co.,		23	23	27	21	25	26	24	26	24	25	25	25	25	291
Lackawanna Coal Co., Limited,		24	23	27	33	25	26	34	27	35	24	25	24	25	368
Mount Jessup Coal Co., Limited,		21	20	31	19	21	22	20	21	21	21	21	21	21	247
Moosic Mountain Coal Co.,		19	20	22	18	21	22	21	22	21	22	21	21	20	247
Dolph Coal Co., Limited,		13	13	15	11	12	12	9	12	11	11	12	12	12	143

TABLE 4.—Fatal accidents inside and outside of mines

Date of accident	Name of Person	Nationality	Occupation	Age	Married or single	Number of widows	Number of orphans	Name of Colliery	County	Nature and Cause of Accident in Brief
Jan. 3	Martin Pietavage,	Polish,	Miner,	27	M. 1	1	1	Johnson,		Killed by powder near face of chamber. He placed some powder in a tin can and held a light under it to thaw it, when it exploded.
16	Peter Recklee,	Polish,	Miner,	30	S.			Storrs,		Killed by premature blast in face of chamber. A squib missed fire and he returned to light another, and just as he was turning away, the charge exploded.
17	Joseph Drust,	Polish,	Laborer,	25	S.			Olyphant,		Killed by fall of slip roof, in face of chamber.
21	George Brenski,	Polish,	Laborer,	24	S.			Johnson,		Killed by fall of bell roof in face of chamber.
	Griffith Griffiths,	English,	Miner,	40	S.			Olyphant,	Lackawanna,	Killed by fall of slip roof in face of chamber.
25	Joseph Mattis,	Slavonian,	Laborer,	45	M. 1	3		Ontario,		Killed by fall of slip roof in face of chamber.
Feb. 1	Joseph Kerpavitz,	Lithuanian,	Laborer,	27	S.			Marvine,		Killed by cars on slope. The breaking of a rope hook caused a trip to run away into the mainway, where the victim was sitting.
9	Fred Howell,	Welsh,	Driver,	17	S.			Richmond No. 3,		Fatally injured by falling on the sharp edge of a tie on gangway road, while running after car to sprag it.
Mar. 10	John Robber,	Russian,	Rockman,	36	M. 1	3		Olyphant,		Killed by falling into shaft. The noise of ice falling in the shaft frightened him and he jumped off the cage.
	Andrew Masebeck,	Slavonian,	Dumper,	37	M. 1	4		Mt. Jessup,		Killed by cars. He was dumping a swivel rock car and did not take his head far enough out of the way when he was taking the body of the car back, outside.

TABLE 4—Continued

Date of accident	Name of Person	Nationality	Occupation	Age	Married or single	Number of widows	Number of orphans	Name of Colliery	County	Nature and Cause of Accident in Brief
Mar. 13	Joseph Kowalinis, ...	Lithuanian, ...	Miner, ...	52	M.	1	3	Marvine, ...		Killed by fall of slip roof in face of chamber.
22	Nicholas Koleschuck, ...	Russian, ...	Miner, ...	43	M.	1	3	Marshwood, ...		Leg fractured by fall of slip roof in face of chamber. Died in hospital April 13.
27	George Slonekon, ...	Polish, ...	Laborer, ...	45	M.	1	2	Eddy Creek, ...		Killed by fall of roof in face of working place. He kneeled out a prop because it was in his way to load a car, and the roof fell on him.
31	Simon Haraisos, ...	Polish, ...	Laborer, ...	48	M.	1	2	Olyphant, ...		Killed by fall of slip roof in face of chamber.
	Frank Patruchi, ...	Italian, ...	Miner, ...	34	M.	1	2	Marshwood, ...		Fatally injured by falling off cars in getting off the work train. Outside.
April 6	George M. Mardon, ...	American, ...	Slatepicker, ...	16	S.			Olyphant, ...	Lackawanna,	Killed by falling over high chute in breaker. He was climbing up and slipped on the sheet iron. Outside.
	Berrizo Luetta, ...	Italian, ...	Miner, ...	38	M.	1	3	Ontario, ...		Killed by fall of roof in face of chamber. He had just removed a small pillar, causing a fall of roof, and when he returned to examine conditions the second fall occurred.
7	Comfack Sidora, ...	Italian, ...	Miner, ...	38	M.	1	4	Lackawanna, ...		Killed by fall of bell roof in face of chamber.
15	Vola Wernetizo, ...	Polish, ...	Laborer, ...	29	S.			Legitts Creek, ...		Killed by fall of slip roof in face of chamber.
19	Thomas Walsh, ...	Irish, ...	Miner, ...	42	M.	1	5	Eddy Creek, ...		Killed by blast in face of chamber. He fired two charges at the same time. He thought he heard both shots go off, and returned to examine when the other shot went off.

April 25	Joseph Sotrocko, ---	Russian, ---	Miner, ---	31	M. 1	2	Marvine, ---	Killed by blast in face of chamber. He went back to what he thought was a missed squib just as the shot exploded.
May 2	Paul Dominick, ---	Russian, ---	Laborer, ---	35	M. 1	12	Olyphant, ---	Killed by fall of bell rock in face of chamber.
4	Roma Stabura, ---	Polish, ---	Laborer, ---	42	M. 1	3	Johnson, ---	Killed by fall of bell roof in face of chamber.
8	Wladisof Andrejski, --	Polish, ---	Laborer, ---	21	S. ---	---	Marvine, ---	Killed by fall of bell roof in face of chamber.
22	Frank Ewua, ---	Slavonian, ---	Laborer, ---	23	S. ---	---	Eddy Creek, ---	Killed by blast near face of chamber. He went around the pillar to notify the miner next to him that they were going to fire in the crosscut, and he stood directly where the blast broke through.
June 9	George Prones, ---	Polish, ---	Miner, ---	51	M. 1	3	Lackawanna, ---	Killed by falling under cars, while riding between cars from the shaft to the breaker on his way home. Outside.
10	Charles Mincher, ---	English, ---	Bellman, ---	57	M. 1	---	Olyphant, ---	Fatally injured by a wooden rail that he allowed to project into the shaft while a cage was passing.
23	John Opelnick, ---	Russian, ---	Laborer, ---	30	M. 1	---	Mt. Jessup, ---	Killed by fall of bell roof in face of chamber.
26	Ephraim Blackman, --	English, ---	Miner, ---	43	M. 1	2	Olyphant, ---	Killed by fall of roof in face of chamber. He failed to take down dangerous roof as ordered by the foreman.
July 18	Anthony Witliack, ---	Russian, ---	Rockman, ---	45	M. 1	6	Olyphant, ---	Killed by fall of bell roof in face of chamber.
19	Edward Williams, ---	American, ---	Brakman, ---	20	S. ---	---	Storrs, ---	Killed by fall of roof on gangway road, while lifting it to the track a slab of roof fell on him.
19	John Petrara, ---	Austrian, ---	Laborer, ---	21	S. ---	---	Lackawanna, ---	A derailed car discharged a prop, and while cleaning up to stand a prop under it.
27	James Romanach, ---	Italian, ---	Laborer, ---	25	M. 1	1	Sterrick Creek, ---	Killed by fall of roof in face of chamber while assisting his miner to take it down.
Aug. 2	John Prone, ---	Italian, ---	Miner, ---	30	S. ---	---	Ontario, ---	Fatally injured by blasting in face of chamber while running away from blast.
8	Joseph Lukitz, ---	Russian, ---	Miner, ---	40	M. 1	2	Lackawanna, ---	Killed by cars on gangway road. A motor was pushing a trip of cars when the first car became derailed and squeezed him against the rib.
19	Veteled Kolaba, ---	Russian, ---	Laborer, ---	28	S. ---	---	Lackawanna, ---	Killed by blast in face of chamber. He was assisting his miner, who was seriously injured to tamp a hole when it exploded.

Lackawanna,

TABLE 4—Continued

Date of accident	Name of Person	Nationality	Occupation	Age	Married or single	Number of widows	Number of orphans	Name of Colliery	County	Nature and Cause of Accident in Brief
Aug. 23	John E. Jones,	American,	Runner,	19	S. ....	.....	.....	Olyphant, .....	.....	Fatally burned by fire. A spark from his lamp set fire to his clothing.
26	William Bahnbidge,	English,	Miner,	26	M. 1 .....	.....	.....	Sterrick Creek, .....	.....	Killed by fall of bell roof in face of chamber.
Sept. 12	John Zaboter,	Lithuanian,	Miner,	35	M. 1 2 .....	.....	.....	Marvick, .....	.....	Killed by cars on the Dummore rock slope. They were walking down the slope, when the rope broke, causing a run-away.
	Paul Tyasta,	Polish,	Miner,	32	S. ....	.....	.....	
	Alex Kencvits,	Lithuanian,	Laborer,	35	M. 1 3 .....	.....	.....	
14	Thomas Prosser,	American,	Doortender,	16	S. ....	.....	.....	Lackawanna, .....	.....	Killed by falling under motor on gangway road. He was riding on the motor and in some way fell off.
22	Thomas Astin,	Welsh,	Miner,	35	M. 1 2 .....	.....	.....	Lackawanna, .....	.....	Killed by premature blast in face of chamber while tamping a hole.
Oct. 2	William Kropas,	Lithuanian,	Driver,	18	S. ....	.....	.....	Storts, .....	.....	Killed by cars on gangway road. He was falling on the bumper of a car going through a door. The auto pushed the door open with its nose, which caused the door to rebound and threw the victim under the car.
			
13	John Jambellonia,	Italian,	Laborer,	20	S. ....	.....	.....	Sterrick Creek, .....	.....	Killed by fall of slip roof in face of chamber.
17	Frank Etheberingham,	English,	Miner,	40	M. 1 2 .....	.....	.....	Johnson, .....	.....	Fatally burned by an explosion of fire-damp. He went into some abandoned workings and lit a pocket of gas.
Nov. 7	Joseph Grubowski,	Polish,	Laborer,	44	S. ....	.....	.....	Johnson, .....	.....	Fatally injured by cars on slope. He attempted to get on the trip after the signal had been given the engineer to lower the trip.
15	Anthony Perloski,	Polish,	Laborer,	20	S. ....	.....	.....	Storts, .....	.....	Fatally burned by explosion of fire-damp in abandoned workings. He went beyond the danger signal.

Nov. 22	August Mashie,	Italian,	Laborer,	21	S.	Ontario,	Killed by blast in face of chamber. He was loading a car while the miner was tamping a hole, and the hole exploded.
Dec. 3	Tufel Swatski,	American,	Driver,	17	S.	Johnson,	Killed by cars on top of plane. He attempted to get on a trip of cars as they were coming over the head. The car became derailed, and he was squeezed between prop and car.
5	Stanley Bersbeck,	Polish,	Miner,	36	M. 1	Eddy Creek,	Killed by fall of bell roof in face of chamber.
15	Peter Komar,	Lithuanian,	Miner,	40	M. 1	Marvine,	Killed by blast near face of chamber. The blast went off while he was getting out of the way.
30	James Coyte,	American,	Runner,	18	S.	Marvine,	Killed by cars on gangway road. He was standing along side of track waiting to sprag cars when the cars became derailed in passing.

Lackawanna,

TABLE 5.—Non-fatal accidents inside and outside of mines

Date of accident	Name of Person	Nationality	Occupation	Age	Married or single	Name of Colliery	County	Nature and Cause of Accident in Brief
Jan. 3	James Pickson,	English,	Miner,	39	M.	Marshwood,		Leg fractured by fall of bell rock in face of chamber.
14	Frank Candie,	Italian,	Laborer,	42	M.	Olyphant,		Leg amputated by cars. He was getting down from a car when it was bumped from the rear and he fell under it. Outside.
17	Michael Loftus,	Lithuanian,	Laborer,	25	S.	Marvine,		Collar bone broken by falling under cars on gangway road while riding on the bumper.
Feb. 3	Peter Havzavage,	Russian,	Miner,	34	M.	Lackawanna,		Arm and nose broken by fall of roof in face of chamber while examining after a blast.
	George Mardon,	Polish,	Laborer,	21	S.	Lackawanna,		Legs fractured by falling into shaft. He signaled for the cage, and while waiting for the cage, stumbled into the shaft.
6	Peter Valtz,	Russian,	Loader,	23	M.	Lackawanna,	Jackawanna,	Leg fractured by machinery. His clothing was caught in a rope that was used to pull cars over the scales, and he was drawn under the drum. Outside.
5	Touss Mashala,	Italian,	Miner,	35	M.	Mt. Jessup,		Injured by fall of slip rock in face of chamber.
	Andrew Baldine,	Italian,	Laborer,	29	S.			Back broken by fall of slip coal in face of chamber.
9	Julius Bertilio,	Italian,	Laborer,	22	S.	Sterrick Creek,		Leg fractured by fall of slip roof in face of chamber.
17	John Kowala,	Russian,	Miner,	37	S.	Olyphant,		Leg fractured by falling on gangway road.
20	Peter Boland,	American,	Miner,	32	M.	Olyphant,		Leg fractured by falling on gangway road.
	Edward Williams,	English,	Miner,	53	M.	Olyphant,		Leg fractured by fall of slip roof in face of chamber.
23	John Chemeschelski,	Lithuanian,	Laborer,	42	M.	Marvine,		A car that became derailed by bumping the head-block fell on him.

Feb. 25	Charles Cardoni,	Italian,	Miner,	24	S.	Mt. Jessup,	Leg fractured by fall of roof in face of chamber while barring it down.
Mar. 2	William Davis,	American, ..	Brakeman, ..	18	S.	Lackawanna,	Foot crushed by cars. While running ahead to turn the switch he stumbled and fell under the motor. Outside.
9	Charles McAllister, ...	American, ...	Driver,	18	S.	Storrs,	Legs fractured by cars on gangway road. He was riding on the bumper of a car, which became derailed and fell on him. Arm fractured by a door. While he was opening a door a sudden pressure came against it and squeezed his arm between door and frame.
27	Stanley Novak,	Polish,	Boortender, ..	17	S.	Lackawanna,	Wrist fractured by falling over trestle. He was running after a car to take off a ticket and stumbled. Outside.
April 6	Leroy Walter,	English,	Headman,	16	S.	Marshwood,	Shoulder fractured by cars on gangway road. He stumbled while walking by the side of the mule and fell under the cars.
14	James Coleman,	American, ...	Driver,	18	S.	Storrs,	Leg fractured by cars on gangway road. He was riding on the bumper of a car, which became derailed and fell on him. Burned by explosion of gas in abandoned workings. He was surveying and lit a pocket of gas.
24	Anthony Stevetski, ..	Polish,	Driver,	18	S.	Storrs,	Arm fractured by cars on gangway road. His arm was caught while coupling cars in motion.
27	Allen Stone,	American, ...	Surveyor,	19	S.	Lackawanna,	Ankle fractured by prop falling on it while unloading props from the cars. Outside.
29	Frederick Hartman, ..	American, ...	Motorman, ...	18	S.	Olyphant,	Leg fractured by being caught by cars while uncoupling them. Outside.
May 9	Bascelo Rich,	Italian,	Laborer,	27	S.	Eddy Creek,	Hip fractured by fall of ship rock in face of chamber.
10	John Fanning,	American, ...	Brakeman,	19	S.	Dolph,	Leg fractured by cars on gangway road. His clothing caught while spragging a car.
11	Joseph Grueski,	Lithuanian, ..	Miner,	35	M.	Outario,	Leg fractured by cars on gangway road. When last seen he was sitting by the track. He was unable to explain how the accident occurred, so it is supposed he fell asleep.
23	Archibald Allison, ...	English,	Runner,	19	S.	Dolph,	Jaw fractured by kick from mule on gangway road.
27	John Reis,	German, ...	Company man, ...	43	M.	Johnson,	Skull fractured by fall of slip roof in face of chamber.
June 8	John Dobranski,	Slavonian, ..	Runner,	17	S.	Olyphant,	
14	Metro Gozelok,	Slavonian, ..	Laborer,	30	M.	Eddy Creek,	

TABLE 5—Continued

Date of accident	Name of person	Nationality	Occupation	Age	Married or single	Name of Colliery	County	Nature and Cause of Accident in Brief
June 15	George Barres,	English,	Laborer,	35	M.	Eddy Creek,		Leg fractured by fall of slip roof in face of chamber.
22	Joseph Barilka,	Slavonian,	Laborer,	52	M.	Olyphant,		Leg fractured by fall of slip roof in face of chamber.
July 15	Joseph Shenbaris,	Polish,	Miner,	35	M.	Ontario,		Arm and eye injured by premature blast. He was forcing powder into the hole when it exploded.
	Joseph Dixon,	English,	Door-tender,	59	M.	Maavine,		Leg fractured by cars on gangway road. He failed to get out of the way of a car that was being run out of a chamber.
19	Mike Lisbko,	German,	Miner,	36	M.	Storrs,	Lackawanna,	Foot crushed by cars in face of chamber. The mule's harness caught in the car, and threw it over on victim's foot.
	Anthony Semelick,	Russian,	Laborer,	22	S.	Olyphant,		Leg fractured by blast in face of chamber. The powder exploded while he was tamping the hole.
30	Victor Chaniel,	Polish,	Miner,	35	M.	Ontario,		Arm fractured by blast in face of chamber. He thought the squib missed, and when he returned it exploded.
25	Edward White,	American,	Runner,	23	M.	Johnson,		Arm fractured by fall of slip roof on gangway road.
26	Walter Krovitz,	Austrian,	Door tender,	16	S.	Lackawanna,		Leg fractured by cars on top of plane. Two cars came together while he was passing between them.
27	Michael Zoak,	Slavonian,	Laborer,	30	M.	Sterrick Creek,		Leg fractured by fall of slip roof in face of chamber.
	Barney Sherlenski,	Polish,	Laborer,	23	S.	Storrs,		Leg fractured by fall of slip roof in face of chamber.

Aug. 1	Walter Reese,	Welsh,	Runner,	19	S.	Marvine,	Hand crushed by cars on gangway road. He was sanding the rails and in some manner his hand was caught between the cars.
5	William Simpson,	Italian,	Miner,	33	M.	Dolph,	Skull fractured by blast in face of chamber. The miner next to him warned him that he was firing in the crosscut, but for some reason Simpson walked back and stood where the crosscut broke through.
	George Sasfire,	Polish,	Miner,	35	M.	Eddy Creek,	Collar-bone broken by being squeezed between car and pillar on gangway road. While getting out of the way of a kicking mule.
	Peter Patrissi,	Italian,	Miner,	23	S.	Marshwood,	Leg fractured by cars on gangway road. A trip of cars in passing struck a piece of plank on which he was standing.
9	John Isaacs,	American,	Runner,	24	S.	Marshwood,	Feet fractured by cars on gangway road. He was standing by car on turnout, when a passing trip became derailed and crushed him against the pillar.
19	Peter Hesavice,	Polish,	Miner,	38	M.	Lackawanna,	Seriously injured by blast in face of chamber. He and his laborer were tampering a hole when it exploded. The laborer was killed.
21	Patrick Gallagher,	Irish,	Miner,	31	S.	Legitts Creek,	Leg fractured by fall of roof in face of chamber while standing a prop under it.
25	Brunick Machnick,	Polish,	Driver,	16	S.	Marshwood,	Leg fractured by cars on gangway road. While walking by his team he stumbled and fell under cars.
Sept. 5	John B. Malcedo,	Scottish,	Miner,	47	M.	Marvize,	Leg fractured by fall of slip rock on tunnel road.
13	Frank Tutkowsky,	Polish,	Miner,	30	M.	Marvine,	Seriously injured by trip of runaway cars on rock slope. He was walking down the slope in company with three other men, who were killed, when the rope broke.
23	Michael Macovitch,	Polish,	Driver,	20	S.	Lackawanna,	Skull fractured by cars on chamber road. He was riding on head end of car, which became derailed.
29	Benjamin Lewis,	Welsh,	Miner,	76	M.	Olyphant,	Arm broken by being struck by a piece of rock. His partner was breaking rock with a hammer.
Oct. 2	George Sanders,	American,	Miner,	38	M.	Marvine,	Leg fractured by fall of slip roof in face of chamber.
5	Joseph J. Barret,	American,	Footman,	22	M.	Legitts Creek,	Leg fractured by piece of coal falling down the shaft, while he was lifting on a derailed car.

TABLE 5—Continued

Date of accident	Name of Person	Nationality	Occupation	Age	Married or single	Name of Colliery	County	Nature and Cause of Accident in Brief
Oct. 10	Adam Bosack,	Austrian, ..	Laborer, ..	25	M.	Olyphant, ..		Leg fractured. He stumbled while walking along the chamber road.
11	Martin Thomascheng,	Lithuanian, ..	Miner, ..	45	M.	Marvine, ..		Rib fractured by blast. The miner in the next place warned him that he was going to fire, but the victim refused to get out of the way.
14	Jacob Petrowski,	Polish,	Miner,	48	M.	Marvine, ..		Pelvis fractured by fall of roof in face of chamber. He failed to bar down a piece of roof and then started to work under it.
17	John Dobner,	German,	Miner,	66	M.	Olyphant, ..		Ribs fractured by ears on slope. He tried to get out of ear after the signal had been given the engineer to start.
18	John Gallagher,	American, ..	Company man, ..	41	M.	Johnson, ..	Lackawanna, ..	Leg fractured by piece of rock falling off the 50B in face of chamber.
26	Thomas Price,	Welsh,	Door-tender, ..	26	M.	Marvine, ..		Arm fractured by ears on gangway road. The lever slipped while he was assisting to block a derailed car.
27	John Marcus,	Lithuanian, ..	Laborer, ..	34	M.	Legitts Creek, ..		Leg fractured by fall of slip roof in face of chamber.
Nov. 3	Marshella Lutena,	Italian,	Miner,	28	M.	Ontario, ..		Eyes injured by blast in face of chamber. He was placing Atlas powder in the hole when it exploded.
8	Anthony Slead,	Italian,	Laborer, ..	22	S.	Eddy Creek, ..		Leg fractured by fall of slip roof in face of chamber.
16	John Somerenski,	Russian,	Laborer, ..	37	M.	Lackawanna, ..		Skull fractured by blast in face of chamber. While the miner was tamping a hole it exploded.
20	Daniel Tapp,	American, ..	Runner, ..	17	S.	Marvine, ..		Arm fractured by a mule's trace on gangway road. The mule started up suddenly, causing the trace to swing around.

Nov.	21	Patrick H. Maloucy, American, Laborer, Eddy Creek, M.	47	Eddy Creek, M.	Leg fractured by kick from mule. Outside, near repair shop.
		Marks Centralia, Italian, Laborer, Mt. Jessup, S.	20	Mt. Jessup, S.	Leg fractured by fall of slip roof in face of chamber.
	27	Baldo Manarzo, Italian, Miner, Mt. Jessup, M.	29	Mt. Jessup, M.	Burned by explosion of fire-damp in face of chamber. A fall in an abandoned chamber forced a body of gas to where he was working.
	28	John Krovicks, Austrian, Miner, Lackawanna, M.	45	Lackawanna, M.	Leg fractured by fall of roof at face of chamber. He was replacing a prop that had been discharged by a blast.
	29	Harry Stack, Italian, Driver, Ontario, S.	18	Ontario, S.	Arm fractured by kick from mule on gangway road.
	30	Michael Polchick, Russian, Company man, Eddy Creek, M.	30	Eddy Creek, M.	Wrist fractured by cars on plane. He was riding on a car that became derailed.
Dec.	5	Michael Bogenski, Polish, Miner, Johnson, M.	28	Johnson, M.	Eye destroyed by blast in face of chamber while tamping a hole.
	8	Joseph Risk, English, Company man, Olyphant, M.	51	Olyphant, M.	Leg fractured by being struck by a derailed car at foot of shaft while sitting on a head-block.
	9	Johu Uchack, American, Slatepicker, Delph, S.	16	Delph, S.	Leg fractured by falling from breaker window. He climbed up on a beam to close the window and fell. Outside.
	15	Theodore Witovitch, Russian, Laborer, Olyphant, M.	35	Olyphant, M.	Leg fractured by cars in chamber. He was running a car out, which became derailed at head-block.
	16	George Sullivan, American, Runner, Marvine, S.	19	Marvine, S.	Leg fractured by cars on chamber road. He was running a car, which became derailed at head-block.
	21	John Shimish, Polish, Miner, Storrs, M.	53	Storrs, M.	Ribs fractured by blast in face of chamber. The charge exploded while he was running away.

CONDITION OF COLLIERIES

DELAWARE AND HUDSON COMPANY, (INSIDE)

HUDSON COAL COMPANY, (OUTSIDE)

Olyphant.—Safety conditions, ventilation and drainage good.

Eddy Creek.—Safety conditions, ventilation and drainage good.

Legitts Creek.—Safety conditions and ventilation good; drainage fair.

Marvine.—Safety conditions and ventilation good; drainage fair.

SCRANTON COAL COMPANY

Ontario.—Safety conditions, ventilation and drainage good.

Johnson.—Safety conditions and ventilation good; drainage fair.

Richmond No. 3.—Safety conditions and ventilation good; drainage fair.

DELAWARE, LACKAWANNA AND WESTERN RAILROAD COMPANY

Storrs.—Safety conditions, ventilation and drainage good.

STERRICK CREEK COAL COMPANY

Sterrick Creek.—Safety conditions and ventilation good; drainage fair.

LACKAWANNA COAL COMPANY, LIMITED

Lackawanna.—Safety conditions, ventilation and drainage good.

MOUNT JESSUP COAL COMPANY, LIMITED

Mount Jessup.—Safety conditions and ventilation good; drainage fair.

MOOSIC MOUNTAIN COAL COMPANY

Marshwood.—Safety conditions and ventilation good; drainage fair.

DOLPH COAL COMPANY, LIMITED

Dolph.—Safety conditions and ventilation good; drainage fair.

MINE FOREMEN'S EXAMINATIONS

The annual examination of applicants for certificates of qualification as mine foremen and assistant mine foremen was held in Guernsey Hall, Scranton, April 3 and 4. The Board of Examiners was composed of the following persons: L. M. Evans, Mine Inspector, Scranton; Frank G. Wolfe, Engineer, Scranton; W. F. Malloy, Miner, Carbondale; David Evans, Miner, Olyphant.

The following persons passed a satisfactory examination and were granted certificates:

Mine Foremen

John B. Shepherd, Forest City; Frank B. Newlands, Throop; Richard Evans, Olyphant; Edward F. Munley, Archbald; Thomas Thomas, Jr., James F. Watkins, Edward M. Jones, Lewis A. Jones, Andrew Meixner, Scranton.

Assistant Mine Foremen

Thomas Stratford, Forest City; Patrick A. Dean, Winton; Frank Clark, Throop; Edwin Daniels, Olyphant; Frank Panchison, Vandling; Peter J. McClymer, Dunmore; Patrick J. O'Rourke, Archbald; Daniel Mathias, William H. Parfitt, David R. Watkins, Thomas Goodfellow, Edwin Smith, Hugh Davis, Frank Harmer, Scranton.



THIRD DISTRICT

LACKAWANNA COUNTY

Scranton, Pa., February 5, 1912.

Hon. James E. Roderick, Chief of Department of Mines:

Sir: I have the honor of transmitting herewith my report as Inspector of Mines for the Third Anthracite District for the year ending December 31, 1911, as required by the Act of April 14, 1903.

Respectfully submitted,

D. T. WILLIAMS, Inspector.

SUMMARY OF STATISTICS

Number of collieries,	19
Number of mines,	24
Number of mines in operation,	24
Number of tons of coal shipped to market,	4,131,288
Number of tons used at mines for steam and heat,	345,604
Number of tons sold to local trade and used by employes, Number of tons produced,	151,766 4,628,658
Number of tons produced by compressed air machines, ...	.....
Number of tons produced by electrical machines, .....	.....
Number of persons employed inside of mines,	8,647
Number of persons employed outside,	2,184
Number of fatal accidents inside of mines,	104
Number of fatal accidents outside,	— 6
Number of non-fatal accidents inside of mines,	43
Number of non-fatal accidents outside,	9
Number of tons of coal produced per fatal accident inside, ...	44,506
Number of persons employed per fatal accident inside, ...	83
Number of persons employed per fatal accident outside, ...	364
Number of persons employed per non-fatal accident inside, ...	201
Number of persons employed per non-fatal accident out- side,	243
Number of wives made widows,	74
Number of children made orphans,	182
Number of steam locomotives used inside of mines,	1
Number of steam locomotives used outside,	12
Number of compressed air locomotives used inside, .....	.....
Number of compressed air locomotives used outside, .....	.....
Number of electric motors used inside,	36
Number of electric motors used outside, .....	.....
Number of fans in use,	24
Number of furnaces in use, .....	.....
Number of gaseous mines in operation,	14
Number of non-gaseous mines in operation,	10
Number of new mines opened, .....	.....
Number of old mines abandoned, .....	.....

TABLE A

PRODUCTION OF COAL

Names of Operators	Tons
Delaware, Lackawanna and Western Railroad Company, . . .	1,056,976
Pennsylvania Coal Company,	998,755
Scranton Coal Company,	787,985
Hudson Coal Company,	704,772
Price-Pancoast Coal Company,	679,571
Green Ridge Coal Company,	118,635
Nay Aug Coal Company,	81,392
North End Coal Company,	39,696
Economy Light, Heat and Power Company,	39,250
Carney and Brown Coal Company,	37,632
A. D. and F. M. Spencer Coal Company,	32,007
Clearview Coal Company,	31,254
Pulls Head Coal Company,	20,733
Total,	<u><u>4,628,658</u></u>

Production by Counties

Lackawanna,	4,628,658
	<u>771,393</u>

TABLE B.—Fatal and non-fatal accidents inside and outside of mines; number of tons of coal produced per accident; number of persons employed; number employed per accident

Names of Operators	Fatal Accidents			Non-Fatal Accidents			Total	Tons of coal produced per fatal accident inside	Tons of coal produced per non-fatal accident inside	Number of employees inside	Number of employees outside	Total number of employees	Number of employees outside per		Number of employees inside per	
	Inside	Outside	Total	Inside	Outside	Total							fatal accident	non-fatal accident	fatal accident	non-fatal accident
Delaware, Lackawanna and Western Railroad Co.,	4	1	5	0	5	11	264,244	176,163	2,202	479	2,781	479	575	479	383	96
Pennsylvania Coal Co.,	6	3	9	6	4	10	166,459	166,459	1,871	569	2,440	569	312	170	312	127
Seranton Coal Co.,	7	2	9	8	8	8	112,669	98,498	1,335	333	1,748	333	199	176	174	77
Hudson Coal Co.,	6	—	6	14	—	14	117,462	50,341	1,080	242	1,322	242	180	—	169	—
Price-Pancoat Coal Co.,	80	—	80	7	—	7	8,495	97,681	1,186	283	1,469	283	13	—	169	—
Green Ridge Coal Co.,	—	—	—	1	—	1	8,495	118,685	213	85	298	85	—	—	213	—
Gay Aug Coal Co.,	1	—	1	1	—	1	81,392	81,392	57	57	276	57	219	—	219	—
Miscellaneous Companies,	—	—	—	—	—	—	—	—	381	206	587	206	—	—	—	—
Totals and averages for district,	104	6	110	43	9	52	44,506	107,643	8,647	2,184	10,831	2,184	83	364	391	243

TABLE C.—Classification of Fatal Accidents Inside and Outside of Mines

	Months												Totals	Percentages	
	January	February	March	April	May	June	July	August	September	October	November	December			
Causes of Accidents Inside															
Falls of coal,											1		1	.96	
Falls of roof,	1	2		2	1	1	3					3	13	12.50	
Mine cars,		1		2				2	2				7	6.73	
Explosions of gas,					1								1	.96	
Suffocation by gas, etc.,				2									2	1.96	
Blasts, premature and otherwise,	1	1		1		1	1	1	1				7	6.73	
Falling into shafts,							1						1	.96	
Machinery,											1		1	.96	
Scalded by water,												1	1	.96	
Totals,	2	4		7	2	2	5	3	3		2	4	104	100.00	
Causes of Accidents Outside															
Cars,		1											1	16.67	
Boiler explosions,										1			1	16.67	
Falls of coal in stripping,											2		2	33.33	
By jumping,				1									1	16.67	
Burned by fire,				1									1	16.67	
Totals,	1	2								1		2	6	100.00	
Grand totals inside and outside,	2	5		7	2	2	5	3	3	1	2	6	110		

TABLE D.—Classification of Non-Fatal Accidents Inside and Outside of Mines

	Months												Totals	Percentages	
	January	February	March	April	May	June	July	August	September	October	November	December			
Causes of Accidents Inside															
Falls of coal,					1					2			3	6.97	
Falls of roof,		2				1		1		1	1	2	9	20.93	
Mine cars,	3		1	2	2			2	2	2	2		16	37.20	
Explosions of gas,								2					2	4.65	
Explosions of powder and dynamite,		1											1	2.33	
Blasts, premature and otherwise,	2	1					1	1					3	18.60	
Struck by iron rail,										1			1	2.33	
Struck by piece of coal,	1												1	2.33	
Struck by piece of ice,			1										1	2.33	
Foot caught in guard rail,											1		1	2.33	
Totals,	8	4	2	2	4	1	1	9		6	4	2	43	100.00	
Causes of Accidents Outside															
Cars,			1										1	11.11	
Machinery,		1											1	11.11	
Boiler explosions,									3				3	33.34	
Struck by frozen culm,		1											1	11.11	
Burned by fire,				1									1	11.11	
By jumping,				2									2	22.22	
Totals,	2	1	3							3			9	100.00	
outside,	8	6	3	5	4	1	1	9		9	4	2	52		

TABLE E.—Occupations of Persons Killed or Fatally Injured Inside and Outside of Mines

	Months												
	January	February	March	April	May	June	July	August	September	October	November	December	Totals
Inside													
Mine foremen,				1									1
Fire bosses and assistants,				1									1
Miners,	2	3		29	2	1	3	1			1	1	42
Miners' laborers,		1		25		1	3		1	1		2	33
Drivers and runners,				7				1	1				10
Doorboys and helpers,				5									5
Company men,				9									9
Engineers,												1	1
Roadmen,								1	1				2
Totals,	2	4		77	2	2	5	3	3		2	4	104
Outside													
Headmen,				2									2
Ashmen,									1				1
Laborers,		1									2		3
Totals,	1			2					1		2		6
Grand totals inside and outside,	2	5		79	2	2	5	3	3	1	2	6	110

TABLE F.—Occupations of Persons Injured Inside and Outside of Mines

	Months												
	January	February	March	April	May	June	July	August	September	October	November	December	Totals
Inside													
Miners,	4	12		1	12		1					2	19
Miners' laborers,	12	12	1			1				12	1		11
Drivers and runners,	1				2			12	12	12	1		3
Doorboys and helpers,	1												1
Timbermen,											1		1
Roadmen,			1	1									2
Blacksmiths,											1		1
Totals,	8	1	1	2	4	1	1	9		6	4	2	43
Outside													
Blacksmiths and carpenters,				1									1
Engineers and firemen,									1				1
Slatepickers (boys),		1		1									2
Masons,									1				1
Helpers,									1				1
Others,				1									1
Laborers,		1	1										2
Totals,		2	1	3						3			9
Grand totals inside and outside,	8	6	3	5	4	1	1	9		9	4	2	52

TABLE G.—Nationality of Persons Killed or Fatally Injured Inside and Outside of Mines

	Months												Totals
	January	February	March	April	May	June	July	August	September	October	November	December	
American,		2					1	1		1		1	6
English,		1		11									12
Welsh,				1									1
Irish,	1								1				2
German,				1									1
Polish,		2		39	1	1	1	1	2		1	3	51
Hungarian,							1	1					2
Italian,				2			1					1	4
Slavonian,				12							1		13
Lithuanian,	1				1							1	10
Russian,				1		1	1						3
Magyar,				5									5
Totals,	2	5		70	2	2	5	3	3	1	2	6	110

TABLE H.—Nationality of Persons Injured Inside and Outside of Mines

	Months												Totals
	January	February	March	April	May	June	July	August	September	October	November	December	
American,			1	2	1					2	2		3
Welsh,	1	1		1								1	4
Scotch,	1							2					3
Irish,			1										1
Polish,	3		1	1	1			3		1	1		5
Hungarian,		2											11
Italian,		1		1	1			1		2	1	1	3
Slavonian,		1				1							2
Lithuanian,	3	1											4
Austrian,								1					1
Russian,										2			2
Totals,	8	6	3	5	4	1	1	0		9	4	2	52

TABLE I.—Operators and mines, kind of openings, type and size of fans, size of furnaces, volume of air produced by fan or furnace per minute, number of splits of air currents and number of persons employed inside

Names of Operators and Mines	Kind of opening	Gaseous or non-gaseous	Method of ventilation	Diameter of fan in feet and inches	Width of blades in feet and inches	Depth of blades in feet and inches	Number of revolutions per minute	Water gauge developed—in inches	Name of fan	Power used	Area of furnace bars in square feet	Number of splits of air currents	Number of cubic feet of air per minute entering the mine at inlet	Total quantity of air per minute circulating in all the splits in cubic feet	Number of cubic feet per minute passing out at outlet	Number of persons employed inside
Delaware, Laekawanna and Western Railroad Co.																
Diamond No. 1 Colliery:	Shaft.....	Gaseous,	2 Fans, ..	14	4	4	100	1.2	Open running,	Steam, .....	.....	4	33,35.0	70,700	194,980	215
Diamond No. 2 Colliery:	Shaft.....	Gaseous,	Fan,	14	4	4	96	1	Open running,	Steam, .....	.....	9	179,330	122,350	196,042	232
Diamond Tripp,	Shaft.....	Non-gas,	Fan,	16	6	6.5	104	1.5	Open running,	.....	.....	3	35,580	33,380	41,800	174
Diamond,	Drift,	Non-gas,	Fan,	14	4	4	96	1	Open running,	.....	.....	10	131,440	118,435	197,320	420
Brisbit Colliery:	Shaft,	Gaseous,	Fan,	14	4	4	144	1.8	Open running,	.....	.....	10	143,510	118,417	173,232	369
Brisbit Colliery:	Shaft,	Gaseous,	Fan,	12	3.5	4	148	1.3	Open running,	.....	.....	10	217,890	186,000	247,540	300
Cayuga Colliery:	Shaft,	Gaseous,	2 Fans, ..	30	6	5.5	85	1.5	Centrifugal,	.....	.....	10	.....	.....	.....	.....
Cayuga Colliery:	Shaft,	Gaseous,	2 Fans, ..	30	6	5.5	90	1	Centrifugal,	.....	.....	10	.....	.....	.....	.....
Manville,	Shaft,	Gaseous,	2 Fans, ..	30	6	5.5	85	1.5	Centrifugal,	.....	.....	10	.....	.....	.....	.....
Manville,	Shaft,	Gaseous,	2 Fans, ..	30	6	5.5	90	1	Centrifugal,	.....	.....	10	.....	.....	.....	.....
Pennsylvania Coal Co.																
Pennsylvania No. 1 Colliery:	Shaft.....	Gaseous,	Fan,	17.5	5	4.5	65	1.2	Centrifugal,	.....	.....	9	190,130	125,040	152,210	425
Pennsylvania No. 2 Colliery:	Drift,	Non-gas,	Fan,	13	5	4.5	60	.6	Centrifugal,	.....	.....	6	95,000	85,600	103,800	330
Pennsylvania No. 5 Colliery:	Shaft.....	Gaseous,	Fan,	20	6.5	5	75	1.2	.....	.....	.....	7	120,150	85,400	122,100	225
Pennsylvania No. 5 Colliery:	Shaft.....	Gaseous,	Fan,	20	6.5	5	75	1.2	.....	.....	.....	7	120,150	85,400	122,100	225
Gipsy Grove Colliery:	Shaft,	Non-gas,	Fan,	18	5	4.5	70	.8	.....	.....	.....	*	.....	.....	.....	.....
Gipsy Grove,	Shaft,	Non-gas,	Fan,	18	5	4.5	70	.8	.....	.....	.....	*	.....	.....	.....	.....

*Idle since April 27. Breaker destroyed by fire.

TABLE I—Continued

Name of Operators and Mines	Kind of opening	Gaseous or non-gaseous	Method of ventilation	Diameter of fan in feet and inches	Width of blades in feet and inches	Depth of blades in feet and inches	Number of revolutions per minute	Water gauge developed—in inches	Name of fan	Power used	Area of furnace bars in square feet	Number of splits of air currents	Number of cubic feet of air per minute entering the mine at inlet	Total quantity of air per minute circulating in all the splits in cubic feet	Number of cubic feet per minute passing out at outlet	Number of persons employed inside
Bulls Head Coal Co. Bulls Head Colliery:	Slope, ---	Non-gas.,	Natural,	-----	-----	-----	-----	-----	-----	-----	-----	2	30,000	9,000	32,000	40
Clearview Coal Co. Clearview Colliery:	Drift, ----	Non-gas.,	Fan, -----	7	2.5	2	50	.4	Sturdevant,	Electricity,	----	1	28,340	16,230	30,210	34

TABLE 1.—Operators, location of collieries, railroads, etc.

Names of Operators and Collieries	County	Name of General Superintendent	Post Office	Name of Superintendent	Post Office	Railroad to Mine
Delaware, Lackawanna and Western Railroad Co.	Lackawanna,	C. E. Tobey,	Seranton,	Walter Reese,	Seranton,	D. L. and W.
Diamond,						
Brisbin,						
Cayuga,						
Manville,	Lackawanna,	W. W. Ingalls,	Dunmore,	Jesse Palmer,	Dunmore,	Erie
Cayuga Washery,						
Pennsylvania Coal Co.						
Pennsylvania No. 1,						
Pennsylvania No. 5,	Lackawanna,	W. L. Allen,	Peckville,	[Daniel Young,	Seranton,	O. and W.
Gipsy Grove,						
Seranton Coal Co.						
Pine Brook,						
Mount Pleasant,	Lackawanna,	John R. Bryden,	Seranton,	Joseph V. Birtley,	Seranton,	D. L. and W. and O.
West Ridge,						
Panecoast,						
Panecoast Washery,						
Price-Panecoast Coal Co.	Lackawanna,	C. C. Rose,	Seranton,	Finley Ross,	Seranton,	D. and H.
Panecoast,						
Panecoast Washery,						
Hudson Coal Co.						
Von Storch,	Lackawanna,	W. L. Connell,	Seranton,	Arthur Widowfield,	Seranton,	O. and W.
Von Storch Washery,						
Green Ridge Coal Co.						
Green Ridge,						
North End Coal Co.	Lackawanna,	William Y. Moffatt,	Seranton,	George Watson,	Seranton,	Erie
North End,						
Nay Aug Coal Co.						
Nay Aug,						

TABLE 1—Continued

Names of Operators and Collieries	County	Name of General Superintendent	Post Office	Name of Superintendent	Post Office	Railroad to Mine
A. D. and F. M. Spitzer Coal Co.	Lackawanna,	F. M. Spence,	Scranton,	H. M. Spence,	Dunmore,	Erie and D. L. and W.
Spencer Washery,						
Carney and Brown Coal Co.	Lackawanna,	John Carney,	Dunmore,	John Brown,	Dunmore,	D. L. and W.
Carney and Brown,	Lackawanna,	David Spruks,	Scranton,	Jonathan Vipond,	Scranton,	O. and W.
Bulls Head Coal Co.	Lackawanna,	Louis Landau,	Scranton,	Hugh Dawson,	Scranton,	
Bulls Head,	Lackawanna,	R. Van O'Linda,	Scranton,			
Clearview Coal Co.						
Economy Light, Heat and Power Co.						
Economy Washery,	Lackawanna,		Scranton,			

TABLE 2.—Number of tons of coal mined, number of days worked, number of persons employed, number killed and injured, quantity of powder, dynamite and permissible explosives used, etc.

Names of Operators and Collieries	County	Number of tons of coal shipped to market	Number of tons used at collieries for steam and heat	Number of tons sold to local trade and used by employes	Total production of coal in tons	Number of days worked	Number of employes	Number of fatal accidents	Number of non-fatal accidents	Explosives				Number of horses and mules
										Number of pounds of powder used	Number of pounds of dynamite used	Number of pounds of permissible explosives used	Number of pounds of powder used	
Delaware, Lackawanna and Western Railroad Co.														
Diamond,	Lackawanna,	398,548	14,817	.....	413,365	216	1,005	1	5	536,450	30,935	.....	153	
Brisbin,	Lackawanna,	306,608	20,356	4,000	291,624	268	767	3	3	359,275	26,351	.....	55	
Cayuga,	Lackawanna,	146,455	21,020	6,069	173,124	265	503	1	2	181,975	49,834	.....	44	
Manville,*	Lackawanna,	74,462	16,506	761	91,729	165	491	.....	1	134,825	9,083	.....	56	
Totals,	Lackawanna,	885,053	72,699	12,090	969,842	.....	2,756	5	11	1,242,535	112,155	.....	297	
Cayuga Washery,	Lackawanna,	87,134	.....	.....	87,134	298	25	.....	.....	.....	.....	.....	.....	.....
Totals,	Lackawanna,	972,187	72,699	12,090	1,056,976	.....	2,781	5	11	1,342,525	112,155	.....	297	
Pennsylvania Coal Co.														
Pennsylvania No. 1,	Lackawanna,	584,524	28,435	2,130	615,089	298	1,273	1	3	669,675	17,499	.....	95	
Pennsylvania No. 5,	Lackawanna,	308,355	9,308	13,794	331,457	294	714	4	3	378,175	9,704	.....	66	
Gipsy Grove,	Lackawanna,	32,269	.....	.....	52,809	93	393	4	4	70,875	1,431	.....	41	
Totals,	Lackawanna,	945,088	37,743	15,924	998,755	.....	2,380	9	10	1,118,735	28,634	.....	202	

*Worked every alternate month by Hudson Coal Company.

TABLE 2—Continued

Names of Operators and Collieries	County	Number of tons of coal shipped to market	Number of tons used at collieries for steam and heat	Number of tons sold to local trade and used by employes	Total production of coal in tons	Number of days worked	Number of employes	Number of fatal accidents	Number of non-fatal accidents	Explosives			Number of horses and mules
										Number of pounds of powder used	Number of pounds of dynamite used	Number of pounds of permissible explosives used	
Scranton Coal Co.													
Pine Brook,	Lackawanna,	417,109	46,000	4,481	467,641	225	978	6	2	691,000	21,900	.....	98
Mount Pleasant,		191,466	24,020	2,563	218,229	173	451	2	3	383,875	15,550	.....	45
West Ridge,		89,406	9,856	1,839	102,115	333	319	1	1	194,853	28,400	.....	33
Totals,		698,262	79,880	9,963	787,985	.....	1,748	9	8	1,239,750	65,850	.....	176
Hudson Coal Co.													
Von Storch,	Lackawanna,	467,398	14,794	8,517	490,709	244	1,245	0	14	918,500	59,056	.....	114
Manville,		73,649	29,689	949	95,278	113	.....	.....	.....	182,160	.....	.....	.....
Totals,		541,048	35,483	9,466	585,987	.....	1,245	0	14	1,100,660	59,056	.....	114
Von Storch Washery,	Lackawanna,	78,671	40,114	.....	118,785	533	47	.....	.....	.....	.....	.....	.....
Totals,		619,709	75,597	9,466	704,772	.....	1,292	6	14	1,100,660	59,056	.....	114
Price-Pancoast Coal Co.													
Pancoast,	Lackawanna,	536,696	54,750	4,532	595,888	248	1,427	80	7	906,215	19,100	.....	705
Pancoast Washery,		83,683	.....	.....	83,683	153	42	.....	.....	.....	.....	.....	.....
Totals,		620,289	54,750	4,532	679,571	.....	1,479	80	7	906,215	19,100	.....	705
Green Ridge Coal Co.													
Green Ridge,	Lackawanna,	65,978	8,455	43,102	118,685	221	298	.....	1	107,425	6,400	.....	32

Nay Aug Coal Co.	Lackawanna, ---	78,142	3,250	-----	81,392	198	276	1	130,300	1,460	-----	28	
North End, -----	Lackawanna, ---	29,045	7,000	-----	4,051	194	108	-----	33,750	3,500	-----	7	
Economy Light, Heat and Power Co.	Lackawanna, ---	37,550	1,700	-----	39,250	225	15	-----	-----	-----	-----	-----	
Carney and Brown Coal Co.	Lackawanna, ---	50,305	80	-----	11,247	192	96	-----	45,025	2,525	-----	15	
A. D. and P. M. Spencer Coal Co.	Lackawanna, ---	33,359	4,000	-----	4,648	112	126	-----	13,750	2,060	-----	17	
Clearview Coal Co.	Lackawanna, ---	8,848	450	-----	21,956	552	78	-----	22,825	1,000	-----	4	
Bulls Head Coal Co.	Lackawanna, ---	8,486	-----	-----	12,247	305	104	-----	20,125	750	-----	14	
Grand totals, -----	-----	4,131,283	345,694	-----	151,766	4,628,658	10,881	110	52	6,010,975	293,370	-----	921

TABLE 3.—Number of each class of employees inside and outside of mines

Names of Operators	County	Inside										Outside										
		Mine foremen	Assistant mine foremen	Fire bosses and assistants	Miners	Miners' laborers	Drivers and runners	Doorboys and helpers	Pumpmen	Company men	All other employees	Total inside	Superintendents	Foremen	Blacksmiths and carpenters	Engineers and firemen	Statefakers (boys)	Statefakers (men)	Bookkeepers and clerks	All other employes	Total outside	
Delaware, Lackawanna and Western Railroad Co.,		6	2	18	779	822	271	41	12	242	109	2,302	---	5	28	54	94	30	13	255	479	2,781
Pennsylvania Coal Co.,		4	12	1	682	674	204	28	5	256	85	1,871	1	3	47	20	94	35	5	284	599	2,880
Seranton Coal Co.,		4	3	10	476	369	240	57	15	---	191	1,255	---	3	21	29	90	76	4	130	333	1,748
Hudson Coal Co.,		4	3	11	366	321	166	32	2	158	19	1,080	---	3	11	38	16	28	6	110	217	1,292
Price-Pancoat Coal Co.,		2	3	10	345	366	141	71	7	93	148	1,186	1	2	16	27	58	46	4	133	283	1,467
Green Ridge Coal Co.,		2	1	1	68	76	53	3	---	6	4	213	1	1	7	17	---	4	48	85	298	
Nay Aug Coal Co.,	Lackawanna,	1	1	---	80	90	25	1	---	---	11	219	1	1	2	3	24	4	1	21	57	276
North End Coal Co.,	Lackawanna,	1	1	1	30	29	12	1	---	5	30	109	1	1	4	6	18	9	2	18	59	168
Economy Light, Heat and Power Co.,		1	---	---	19	19	14	---	---	---	---	---	1	1	1	3	---	---	---	8	15	15
Carney and Brown Coal Co.,		1	---	---	---	---	---	---	8	---	4	65	1	1	2	2	11	---	1	13	31	90
A. D. and F. M. Spencer Coal Co.,		1	---	---	24	28	11	---	13	---	---	77	1	1	1	5	5	8	1	62	49	126
Clearview Coal Co.,		1	1	---	17	15	2	---	15	---	---	53	2	1	2	3	8	---	---	9	25	78
Bulls Head Coal Co.,		1	---	---	35	16	9	---	16	---	---	77	1	1	2	10	---	---	2	8	27	104
Totals,		26	25	52	2,872	2,856	1,148	2.4	41	782	101	8,647	11	24	143	195	445	251	46	1,069	2,184	10,821

TABLE 3.—Part 2

Average Number of Days Worked in Breaker

Names of Operators	County												Total
	January	February	March	April	May	June	July	August	September	October	November	December	
Delaware, Lackawanna and Western Railroad Co.,	16	16	12	18	17	22	15	23	17	21	16	21	214
Pennsylvania Coal Co.,	24	23	26	22	17	17	16	18	17	16	16	16	228
Scranton Coal Co.,	17	16	20	17	17	18	17	19	21	16	17	16	211
Hudson Coal Co.,	21	11	20	9	20	11	15	12	20	11	19	10	179
Price-Panocoast Coal Co.,	23	21	24	8	21	23	21	22	22	22	21	20	248
Green Ridge Coal Co.,	18	18	19	17	19	19	17	20	18	19	19	18	221
May Aug. Coal Co.,	22	20	21	18	14	13	14	16	14	15	15	16	198
North End Coal Co.,	21	19	18	15	17	15	13	15	11	14	12	14	184
Garney and Brown Coal Co.,	18	15	16	16	16	17	17	17	13	15	16	16	192
A. D. and F. M. Spencer Coal Co.,	10	8	8	7	7	7	2	11	13	15	12	12	112
Clearview Coal Co.,	25	24	28	25	23	26	2	26	21	26	27	27	252
Bulls Head Coal Co.,	26	24	26	25	26	25	26	26	25	25	26	25	305

Lackawanna.

TABLE 4.—Fatal accidents inside and outside of mines

Date of accident	Name of Person	Nationality	Occupation	Age	Married or single	Number of widows	Number of orphans	Name of Colliery	County	Nature and Cause of Accident in Brief
Jan. 25	James Yetconice,	Lithuanian,	Miner,	30	M.	1	1	Von Storch,		Fatally injured by fall of roof at face of chamber in Four Foot vein, while examining after a blast.
	Martin Flannery,	Irish,	Miner,	38	M.	1	3	Pine Brook,		Killed by flying coal from a blast near face of chamber while firing two holes at one time.
Feb. 1	James Richardson, ...	English,	Miner,	61	M.	1	2	Pine Brook,		Killed by fall of roof at face of chamber in the Clark vein while gathering up his tools after firing a blast.
6	Martin Olick,	Polish,	Miner,	31	M.	1	2	Brisbin,		Killed at face of chamber while putting a down some loose roof after firing a blast.
8	Alfred Venk,	American, ..	Driver,	17	S.	.....	.....	Von Storch,	Laekawanna,	Killed by being caught between mine car and bar on side of gangway road.
17	Albert Smith,	American, ..	Laborer,	58	M.	1	.....	Gipsy Grove,		Killed by being run over by a trip of loaded culm cars that was being run from under the breaker, outside.
22	William Tulzkie,	Polish,	Miner,	31	S.	.....	.....	Pine Brook,		Fatally injured by premature blast at face of chamber in China vein. Died next day.
April 5	Thomas Krinsky,	Slavonian, ..	Runner,	22	M.	1	.....	Gipsy Grove,		Killed by falling under a trip of loaded mine cars that was being hauled up a slope in the No. 3 Dunmore vein.
7	Walter Knight,	Welsh,	Mine foreman,	40	M.	1	1			Suffocated by smoke from mine fire. (See account in preliminary part of report.)
	Isaac Daves,	English,	Pipe boss, ..	35	M.	1	3			
	John Bartholes,	Slavonian, ..	Company man	38	M.	1	7			
	Louis Korman,	Slavonian, ..	Miner,	42	M.	1	3			
	Lawrence Reitz,	German,	Doorman, ..	70	M.	1	.....	Pancost,	Laekawanna,	
	Kobmen Voros,	Hungary,	Miner,	32	M.	1	4			
	Mike Gal,	Slavonian, ..	Driver,	16	S.	.....	.....	
	Stefan Ostrosky,	Polish,	Driver,	16	S.	.....	.....	
	William H. Lucas,	English,	Runner,	18	S.	.....	.....	
	Stef Neureth,	Hungary,	Laborer,	24	S.	.....	.....	

TABLE 4—Continued

Date of accident	Name of Person	Nationality	Occupation	Age	Married or single	Number of widows	Number of orphans	Name of Colliery	County	Nature and Cause of Accident in Brief
April 7	James L. Wallace, ..	English, ..	Company man	39	M.	1	1			
	Julius Varga, ..	Hungarian, ..	Laborer, ..	42	W.	1	1			
	John Molner, ..	Hungarian, ..	Miner, ..	46	M.	1	3			
	Charles Lutwince, ..	Polish, ..	Laborer, ..	20	S.	1	1			
	Albert Hera, ..	Polish, ..	Miner, ..	36	M.	1	2			
	Stanley Kurkoyiak, ..	Polish, ..	Laborer, ..	35	M.	1	3			
	Adolf Caspak, ..	Polish, ..	Laborer, ..	26	M.	1	1			
	George Balog, ..	Slavonian, ..	Laborer, ..	29	M.	1	3			
	Adam Pasko, ..	Slavonian, ..	Miner, ..	28	M.	1	2			
	W. John May, ..	English, ..	Company man	49	M.	1	3			
	Kasztanz Sawiecky, ..	Polish, ..	Miner, ..	36	M.	1	5			
	Joseph Szpak, ..	Polish, ..	Laborer, ..	58	M.	1	1			
	John Plopijs, ..	Polish, ..	Laborer, ..	24	S.	1	1			
	Mike Baltefsky, ..	Polish, ..	Miner, ..	30	S.	1	1			
	Adam Zesularsky, ..	Lithuanian, ..	Miner, ..	33	M.	1	1			
	Jacob Sznak, ..	Slavonian, ..	Company man	40	M.	1	1			
	Stanley Majewski, ..	Polish, ..	Company man	26	S.	1	4			
	Adam Zesularsky, ..	Polish, ..	Laborer, ..	37	M.	1	2			
	Joseph Adronowicz, ..	Polish, ..	Laborer, ..	30	M.	1	7			
	Andrew Grutowski, ..	Polish, ..	Miner, ..	42	M.	1	5			
	Peter Kalkosky, ..	Polish, ..	Miner, ..	50	M.	1	2			
	Anthony Lucosky, ..	Lithuanian, ..	Doorman, ..	35	M.	1	2			
	John Bilek, ..	Slavonian, ..	Miner, ..	20	S.	1	5			
	John Stozak, ..	Slavonian, ..	Driver, ..	40	M.	1	5			
	John Dzurisin, ..	Slavonian, ..	Driver, ..	19	S.	1	1			
	Kotantz Cebuka, ..	Polish, ..	Laborer, ..	23	M.	1	1			
	Voulsen Yannehefsky, ..	Lithuanian, ..	Laborer, ..	36	M.	1	1			
	Joseph Kavalavage, ..	Polish, ..	Doorman, ..	45	S.	1	1			
	Joseph Yodbasz, ..	Slavonian, ..	Doorman, ..	40	M.	1	5			
	George Poklemba, ..	Slavonian, ..	Company man	58	M.	1	3			
	Joseph Klemansky, ..	Lithuanian, ..	Laborer, ..	19	S.	1	1			

Pancost L. Lackawanna, Sulfocated by smoke from mine fire.

April 7	Mike Puzkis,	Lithuanian,	Miner,	32	M.	1	1			
	Andrew Dulzek,	Polish,	Miner,	38	M.	1	5			
	Emil Waszczeniuk,	Polish,	Miner,	32	M.	1	5			
	John Waszczeniuk,	Polish,	Miner,	25	S.					
	Vikto Waszczeniuk,	Polish,	Laborer,	19	S.					
	Lowen Posivina,	Polish,	Laborer,	19	S.					
	John Czernagorsky,	Polish,	Runner,	19	S.					
	William Gregson,	English,	Company man,	50	M.	1	4			
	Edward Hart,	English,	Company man,	30	M.	1	3			
	Hilari Zazieky,	Polish,	Laborer,	47	M.	1	1			
	Martin Strykowski,	Polish,	Miner,	22	S.					
	Andrew Gibarsky,	Magyar,	Laborer,	32	M.	1	3			
	Anthony Biecko,	Polish,	Miner,	36	M.	1	2			
	John Milonis,	Lithuanian,	Miner,	43	M.	1	3			
	Stanoy Osiecki,	Polish,	Miner,	40	M.	1	3			
	John Parry,	English,	Miner,	46	M.	1				
	John Michinson,	English,	Company man,	22	S.					
	John Bray,	English,	Company man,	50	M.	1	2			
	Charles Podurgil,	Polish,	Miner,	50	M.	1				
	Thomas McWaters,	English,	Miner,	41	M.	1	4			
	Frank Szaldis,	Polish,	Laborer,	22	S.					
	Leid Dvorakosky,	Polish,	Miner,	23	M.	1				
	Henry Rothwell,	English,	Miner,	35	M.	1	1			
	Stanoy Opekis,	Polish,	Miner,	24	S.					
	Joseph Wisniewski,	Polish,	Laborer,	48	M.	1	4			
	Charles Trudlosky,	Polish,	Laborer,	29	S.					
	Bolas Grutsky,	Polish,	Laborer,	23	S.					
	Andrew Suogorsky,	Polish,	Laborer,	25	M.	1	2			
	Unidentified,	Polish,	Laborer,							
	Unidentified,	Polish,	Laborer,							
	Unidentified,	Polish,	Laborer,							
12	Joseph Smith,	Polish,	Miner,	35	M.	1	3			Brisbin,
18	Adam Brunits,	Russian,	Miner,	39	M.	1	3			Von Storch,
27	Michael Wzuskas,	Lithuanian,	Miner,	35	M.	1	1			Von Storch,
	(Tony Battista,	Italian,	Headman,	32	M.	1	4			Gipsy Grove,
29	Peter Clapp,	Italian,	Headman,	50	M.	1	2			
	Caustic Poybysky,	Polish,	Laborer,	26	S.					Nay Aug,

Suffocated by smoke from mine fire.

Pancoast, Lackawanna,

Killed by fall of roof at face of chamber while drilling a hole.

Fatally injured by being caught between a trip of empty mine cars and rib on tail rope line in Four Foot vein.

Killed by blast at face of chamber in No. 2 Dunmore vein while tamping a rock hole.

Burned to death in breaker fire. Outside.

Fatally injured by jumping 60 feet from burning breaker. Died in Hospital April 30. Outside.

Killed by fall of roof while sitting down at face of chamber in No. 1 Dunmore vein.

TABLE 4—Continued

Date of accident	Name of Person	Nationality	Occupation	Age	Married or single	Number of widows	Number of orphans	Name of Colliery	County	Nature and Cause of Accident in Brief
May 5	Joseph Lewain,	Lithuanian,	Miner,	30	M. 1	2	2	Von Storch,		Killed by an explosion of gas. His lighted lamp came in contact with some gas cozing through a separation door between Legitts Creek and Dickson workings.
24	Frank Sinoski,	Polish,	Miner,	35	M. 1	2	2	Brisbin,		Killed by fall of roof after firing a blast in his chamber he went into the next chamber to have a smoke and he was sitting down near the face when a portion of the roof fell upon him.
June 10	Victor Pernasky,	Polish,	Miner,	27	M. 1	2	2	Pine Brook,		Killed by flying coal from a blast at face of chamber in No. 1 Dunmore vein.
29	Mike Chirchrop,	Russian, ...	Laborer,	22	S. ....	....	....	West Ridge,		Killed by fall of roof at face of chamber while loading car of coal.
July 6	Catal Raymon,	Italian,	Laborer,	21	M. 1	1	1	Penna. No. 5,	Lackawanna,	Killed by falling down shaft from surface landing to the bottom.
13	Victor Nitupski,	Polish,	Miner,	38	M. 1	....	....	Pancoast,		Killed by flying coal from a blast near face of chamber in China vein.
18	Charles Ashman,	American, ...	Miner,	29	M. 1	3	3	Pancoast,		Killed by fall of roof. He was in the act of putting the drill over a dangerous piece of roof at face of heading to pull it down, when he slipped and the roof fell upon him.
19	Mike Lock,	Russian, ...	Laborer,	21	S. ....	....	....	Penna. No. 5,		Killed by fall of roof. He went back to the face of chamber before the miner had time to examine the roof after firing a blast, and a piece of roof fell upon him.
24	Mike Hagadish,	Hungarian, ...	Laborer,	41	M. 1	4	4	Pancoast,		Killed by fall of roof at face of chamber while cleaning a place to restand a prop that had been discharged by a blast.

Aug. 10	{ John Gibbons, ----- American, ---	Tracklayer, -	36	M. 1	3	{ Pancoast, -----
	{ Joe Kojinski, ----- Polish, -----	Driver, -----	18	S. -----		
16	{ John Farkas, ----- Hungarian, -----	Miner, -----	28	M. 1	1	{ Pancoast, -----
Sept. 1	{ Joe Mitchel, ----- Polish, -----	Driver, -----	18	S. -----		{ Cayuga, -----
15	{ Thomas Healey, ----- Irish, -----	Tracklayer, -	56	M. 1	3	{ Von Storch, -----
28	{ Stanley Muermanki, - Polish, ----	Laborer, -----	35	S. -----		{ Mount Pleasant, ---
Oct. 5	{ William Reap, ----- American, ---	Ashman, -----	21	S. -----		{ Diamond Boiler Plant, -----
Nov. 16	{ Edward Rafalko, ----- Polish, ----	Laborer, -----	40	M. 1	3	{ Penna. No. 1, -----
28	{ Andrew Donlock, ----- Slavonian, -----	Miner, -----	35	M. 1	1	{ Penna. No. 5, -----
Dec. 1	{ Valentine Grant, ----- Polish, ----	Miner, -----	46	M. 1	1	{ Mount Pleasant, -
16	{ Paul Blakes, ----- Lithuanian, -----	Laborer, -----	28	S. -----		{ Penna. No. 5, -----
	{ Joe Dunea, ----- Italian, ----	Laborer, -----	44	M. 1	5	{ Pancoast, -----
19	{ Joseph Hamilton, ----- American, ---	Engineer, -----	22	S. -----		{ Pancoast, -----
26	{ Mike Scriber, ----- Polish, -----	Laborer, -----	38	M. 1	4	{ Pine Brook, -----
	{ Nick Suzuki, ----- Polish, -----	Laborer, -----	30	M. 1	2	

{ Killed by car. While they were helping to replace a derailed car on the track at foot of slope, the engineer started the engine, pulling the car over them. Killed by flying coal from a blast at face of chamber while going to a place of safety.
 Killed by being crushed between loaded rock car and an empty trip of mine car on gangway road in five Foot vein.
 Killed by being run over by an empty trip of mine cars on tail rope line. He was standing on the branch and walked directly in front of the trip.
 Killed by flying coal from a blast. He was 230 feet away from face of chamber when struck.
 Fatally injured by being scalded by steam and hot water due to the bursting of a mud drum. Died October 10. Outside.
 Killed by being caught between cage and roof at foot of shaft. He attempted to get on cage after the signal had been given the engineer to hoist.
 Killed by fall of coal in No. 2 Dunmore vein while robbing pillars.
 Killed by fall of roof at face of chamber in Three Foot vein while drilling.
 Killed by fall of roof at face of chamber while shoveling coal back from face.
 Killed by fall of roof at face of chamber in Diamond vein.
 Fatally scalded by hot water when a gate valve on engine burst. Died December 29.
 Killed by fall of coal while taking some coal from the surface strappings. Outside.

Lackawanna,

TABLE 5.—Non-fatal accidents inside and outside of mines

Date of accident	Name of Person	Nationality	Occupation	Age	Married or single	Name of Colliery	County	Nature and Cause of Accident in Brief
Jan. 3	Anthony Lackaunb, -	Lithuanian,	Miner,	45	M.	Manville,	Lackawanna,	Laceration of arm and contusion of head and body by flying coal from blast near face of chamber.
4	Joseph Cuslouskie, --	Lithuanian,	Laborer,	27	S.	Von Storch,	Lackawanna,	Leg fractured by being caught against rib when car became derailed in chamber by striking head block.
7	Josepá Yeknowth, ----	Lithuanian,	Runner,	28	S.	Von Storch,	Lackawanna,	Back squeezed by trying to pass a car on narrow side in a chamber.
13	Joseph Couhiski, ----	Polish, ----	Miner,	46	M.	Pine Brook,	Lackawanna,	Leg fractured by flying coal from blast near face of chamber.
19	John Hollow, -----	English, ----	Miner,	62	M.	Gipsy Grove,	Lackawanna,	Skull fractured by being caught between car and floor on gangway.
25	John Krosnal, -----	Polish, ----	Doorman,	55	M.	Pancoast,	Lackawanna,	Knee cap fractured by being caught by car that jumped the track on gangway road.
26	John Slubia, -----	Polish, ----	Laborer,	24	S.	Diamond,	Lackawanna,	Leg fractured by a piece of coal falling on it.
27	David Williams, -----	Welsh, ----	Miner,	48	M.	Von Storch,	Lackawanna,	Collar bone fractured by being caught between car and rib near face of chamber.
Feb. 6	Vincent Toth, -----	Hungarian,	Laborer,	29	S.	Von Storch,	Lackawanna,	Pelvis fractured by fall of coal at face of chamber.
	Ignitz Harney, -----	Hungarian,	Laborer,	30	M.	Von Storch,	Lackawanna,	Ankle fractured by fall of roof at face of chamber.
7	John Panap, -----	Lithuanian,	Miner,	33	M.	Von Storch,	Lackawanna,	Face, neck and hands burned. He ignited a cartridge of powder while withdrawing it from hole.
17	John Tarr, -----	English, ----	Miner,	42	M.	Green Ridge,	Lackawanna,	Injured by flying coal from blast near face of chamber.
	George Bodiek, -----	Slavonian,	Slatepicker,	15	S.	Brisbin Breaker,	Lackawanna,	Skull fractured by being caught by machinery in breaker. Outside.

Feb. 28	Tony Bernoud,	Italian,	Laborer,	37	M.	Cayuga,	Leg and ankle fractured by being struck by a piece of frozen timber that rolled down the dump. Outside.
Mar. 7	William Scott,	Scotch,	Laborer,	32	M.	Von Storch,	Back broken by being struck by two empty mine cars while standing on gangway.
14	William Gillsky,	Polish,	Laborer,	21	S.	Penna. No. 1,	Leg fractured by falling under trip of empty mine cars while riding to work in the morning. Outside.
April 3	James Morgan,	American,	Tracklayer,	30	M.	Von Storch,	Head injured by falling ice while working on top of cage in shaft.
3	Patrick Gillgallon,	American,	Brakeman,	25	M.	Cayuga,	Leg fractured by being caught between two mine cars on gangway road.
6	Steve Borriah,	Polish,	Miner,	38	M.	Brisbin,	Leg fractured by being caught between two empty mine cars on gangway road.
6	Tony Meeca,	Italian,	Slatepicker,	17	S.	.....	Arm broken by jumping 60 feet from burning breaker. Outside.
27	John Dykes,	English,	Carpenter,	25	S.	Gipsy Grove,	Face and head burned in breaker fire. Outside.
	Harry Stevens,	American,	Oiler,	17	S.	.....	Back injured by jumping from burning breaker. Outside.
May 1	Joseph Myers,	American,	Driver,	20	S.	Mount Plesant,	Arm fractured while blocking a car.
4	Michael Morris,	Irish,	Runner,	24	M.	Pine Brook,	Hip fractured by trying to hold back a car going down grade.
5	Frank Summa,	Italian,	Miner,	29	M.	Penna. No. 5,	Leg fractured by fall of coal at face of chamber.
24	Frank Gregos,	Polish,	Miner,	36	S.	Brisbin,	Back fractured by fall of roof at face of gangway while pitching back coal.
June 12	John Fabian,	Slavonian,	Laborer,	26	M.	Penna. No. 1,	Injured by fall of roof at face of chamber.
July 1	John Velgh,	Hungarian,	Miner,	50	M.	Pancoast,	Compound fracture of leg by flying coal from blast near face of chamber.
Aug. 3	Fred Sebank,	Italian,	Runner,	22	S.	.....	Head, face and shoulders burned by igniting a body of gas in an old chamber in China vein.
4	James Miekolovitch,	Austrian,	Driver,	19	S.	.....	Injured internally. While tamping a hole at face of chamber it exploded.
	Felix Ublan,	Polish,	Miner,	25	S.	Mount Pleasant,	Face and body burned. While tamping a hole at face of chamber it exploded.
	Benj. Weawotsky,	Polish,	Laborer,	27	M.	.....	Foot amputated by being run over by empty mine car on gangway road.
7	John Dempsey,	Irish,	Laborer,	45	M.	Penna. No. 5,	Head, face and body cut by flying coal from blast at face of chamber.
12	Roland Owens,	Welsh,	Miner,	54	M.	Von Storch,	Shoulder fractured and hip dislocated by being squeezed between car and narrow side on gangway road.
15	John Scottone,	Polish,	Miner,	37	M.	Von Storch,	Four ribs fractured and face cut by fall of roof at face of chamber.
22	John Garrity,	Irish,	Miner,	49	M.	Von Storch, .....	.....

TABLE 5—Continued

Date of accident	Name of Person	Nationality	Occupation	Age	Married or single	Name of Colliery	County	Nature and Cause of Accident in Brief
Aug. 29	James Lewis,	Welsh,	Miner,	68	M.	West Ridge,		Ankle broken by being struck by flying coal from blast near face of chamber.
Oct. 5	Edward Walters,	American,	Runner,	23	M.	Von Storeh,		Arm fractured by being struck by rear end of car when it struck a head block in chamber.
	James O'Hara,	Irish,	Mason,	44	M.	Diamond Boiler Plant, Penna. No. 5,		(Face and hands scalded by escaping steam and hot water. Outside.
	Edward Cuff,	Irish,	Fireman,	26	S.			Skull fractured by fall of top coal at face of chamber.
	Levi Williams,	American,	Helper,	30	S.			Arm fractured by being caught between car and narrow side of gangway.
	John Maholschek,	Russian,	Miner,	35	M.			Ankle broken by fall of roof at face of chamber while loading car.
11	Sam Spance,	Italian,	Laborer,	34	M.	Nay Aug,		Leg and arm fractured and hip dislocated by fall of top coal at face of chamber.
27	Joseph Carman,	Italian,	Laborer,	29	M.	Mount Pleasant,	Lackawanna,	Leg fractured by an iron rail that he was hauling out of an old chamber.
28	Charley Mauloble,	Russian,	Miner,	36	M.	Pancoast,		Leg fractured by being caught between two mine cars on gangway road.
Nov. 1	John Ritgo,	Polish,	Driver,	23	S.	Mount Pleasant,		Ankle fractured by being caught between guide rail and road rail in chamber.
2	Maurie Larcoline,	Italian,	Blacksmith,	51	M.	Penna. No. 1,		Leg fractured by fall of roof at face of chamber.
3	John Kennehan,	American,	Runner,	35	S.	Von Storeh,		Jaw and three ribs fractured by being squeezed between car and rib while replacing car on track.
3	Adam Siminsky,	Polish,	Laborer,	37	M.	Diamond,		Ankle fractured by fall of roof at face of chamber.
27	Hugh Davis,	American,	Timberman,	48	M.	Pancoast,		Leg and arm fractured by fall of roof on gangway road while blasting down roof.
Dec. 16	Mike Ouchplin,	Italian,	Miner,	61	M.	Pancoast,		
30	Thomas Soulsby,	English,	Miner,	67	M.	Von Storeh,		

CONDITION OF COLLIERIES

DELAWARE, LACKAWANNA AND WESTERN RAILROAD COMPANY

Diamond:

Diamond No. 2 shaft.—Ventilation, roads, drainage and general condition as to safety, good.

Diamond drift.—Ventilation, roads and general condition as to safety, good. Drainage fair.

Diamond Tripp shaft.—Ventilation fair. Roads, drainage and condition as to safety, good.

Brisbin.—Ventilation, roads, drainage and general condition as to safety, good.

Cayuga.—Ventilation, roads, drainage and condition as to safety, good.

Manville.—Ventilation, roads, drainage and general condition as to safety, good.

PENNSYLVANIA COAL COMPANY

Pennsylvania:

Pennsylvania No. 1.—Ventilation, roads, drainage and condition as to safety, good.

Pennsylvania No. 2 drift.—Ventilation, roads, drainage and condition as to safety, good.

Pennsylvania No. 5.—Ventilation, roads, drainage and condition as to safety, good.

Gipsy Grove.—Ventilation, roads, drainage and condition as to safety, good.

SCRANTON COAL COMPANY

Pine Brook.—Ventilation, roads, drainage and condition as to safety, good.

Mount Pleasant:

Mount Pleasant Main shaft.—Ventilation, roads, drainage and condition as to safety, good.

Mount Pleasant Little shaft.—Ventilation and roads good. Drainage fair. Condition as to safety, good.

West Ridge.—Ventilation, roads, drainage and condition as to safety, good.

HUDSON COAL COMPANY

Von Storch.—Ventilation, roads and drainage fair. Condition as to safety, good.

Dickson.—Ventilation, roads, drainage and condition as to safety, good.

PRICE-PANCOAST COAL COMPANY

Pancoast.—Ventilation, roads and drainage good. General condition as to safety, good.

GREEN RIDGE COAL COMPANY

Green Ridge.—Ventilation, roads and drainage fair. Condition as to safety, good.

NORTH END COAL COMPANY

North End.—Ventilation, roads and drainage fair. Condition as to safety, good.

NAY AUG COAL COMPANY

Nay Aug.—Ventilation, roads and drainage fair. Condition as to safety, good.

A. D. AND F. M. SPENCER COAL COMPANY

Spencer.—Ventilation good. Roads and drainage fair. Condition as to safety, good.

CARNEY AND BROWN COAL COMPANY

Carney and Brown.—Ventilation, roads and drainage fair. Condition as to safety, good.

BULLS HEAD COAL COMPANY

Bulls Head.—Ventilation, roads and drainage fair. Condition as to safety, good.

CLEARVIEW COAL COMPANY

Clearview.—Ventilation, roads, drainage and condition as to safety, good.

IMPROVEMENTS

DELAWARE, LACKAWANNA AND WESTERN RAILROAD COMPANY

Diamond Colliery.—Concrete and fireproof barns erected in both the Rock and No. 2 Dunmore veins at Diamond Tripp Shaft. Erected a new annex to the breaker to prepare the finer sizes of coal.

Brisbin Colliery.—Erected concrete fireproof barns in the Four Foot, Five Foot and Clark veins. Installed a new Scranton Duplex steam mine pump, capacity 1,500 gallons per minute.

Cayuga Colliery.—A rock tunnel 7x12x271 feet long on a pitch of 22 degrees was driven through fault from Clark vein to Clark vein. A rock slope 7x10x300 feet on a pitch of 25 degrees was driven from Dunmore No. 1 to Dunmore No. 3 vein for a second opening. A rock slope 7x12x429 feet long on a pitch of 15 degrees was driven from Clark vein to Dunmore vein. Erected concrete and fireproof barns in the Big, Clark and Four Foot veins. Erected a new brick wash-house with shower baths and lockers. Installed one new Duplex Scranton steam pump, capacity 1,500 gallons per minute.

All pump-rooms, engine houses, emergency hospitals, foremen offices inside of the mines are made of incombustible material as required by law.

PENNSYLVANIA COAL COMPANY

Pennsylvania Colliery:

Pennsylvania No. 1.—Added to boiler plant outside two batteries of B. and W. boilers, 300 horsepower each. Added one 250 K. V. A. alternating current 2,300 volt generator to electric plant. Installed one 18-foot fan to ventilate Clark vein slope, housed in building constructed of brick, and one 7-foot Stine fan to ventilate Marcy vein, one 20-foot fan at No. 1 shaft to ventilate Dunmore No. 2, Clark and Fourteen Foot veins. Wooden tower at No. 1 shaft replaced by steel tower. Installed first motion hoisting engines 22x48 at No. 1 shaft, housed in building constructed of brick. New engine house constructed of corrugated iron on surface and old hoistings installed to handle coal in Second and Third Dunmore veins. All mule barns, engine houses, emergency hospitals, foremen offices inside of the mines are made of incombustible material.

Pennsylvania No. 5 Colliery.—Erected new hay barn on the outside constructed of corrugated iron. One Duplex slushing pump 24x8x36 installed in a building constructed of corrugated iron on the outside; one 21x20 automatic engine with connections to a 240 K. W. and D. C. generator; one 8x10 McEwen generator with 100 ampere for lighting purposes. Installed on the surface in a building constructed of corrugated iron, one electric hoist, 30 H. P., to handle coal in the No. 1 Dummore vein in the old No. 2 shaft section. At old No. 2 shaft one 18-foot fan was installed in a building constructed of corrugated iron, to ventilate the Clark No. 1 and No. 3 Dummore veins. One electric hoist, 25 H. P., installed in No. 1 Dummore vein to handle coal on slope. One electric hoist, 25 H. P., installed in No. 3 Dummore vein to handle coal on slope.

Gipsy Grove Colliery.—Old Gipsy Grove breaker destroyed by fire on April 27, 1911. Erected a new head frame and constructed coal pockets of concrete and corrugated iron, from which the coal from the Gipsy Grove mine will be dumped and conveyed to the Pennsylvania No. 1 breaker. Erected a new engine house, carpenter shop and wash-house of wood on the surface.

SCRANTON COAL COMPANY

Pine Brook Colliery.—A rock tunnel 6x12x92 feet long on a pitch of 45 degrees was driven through fault from Dummore No. 2 vein connecting Dummore No. 2 vein. A rock tunnel 7x12x240 feet long on a pitch of 2 degrees was driven from Dummore No. 2 vein connecting Dummore No. 1 vein. Sunk a shaft for second opening 10x10x30 feet deep from Dummore No. 1 to Dummore No. 2 vein. Erected concrete fireproof barn. All pump-rooms, engine houses, emergency hospitals and foremen offices inside of mines are of incombustible material.

Mount Pleasant Colliery.—Erected new fireproof barn of iron and concrete. All pumprooms, engine houses, emergency hospitals and foremen offices inside of mines are of incombustible material.

West Ridge Colliery.—Erected a new second opening provided with 360 feet of steps to be used in an emergency in case the steam plant is put out of commission. Cleaned up and provided a new return airway along side of slope, 2,000 feet long, as a traveling way for men and mules.

Also added during the year fire escapes to the breaker, beginning in the tower and continuing down on the outside of the breaker to the ground; also installed other escapeways from the screen rooms making two escapes from this point.

PRICE-PANCOAST COAL COMPANY

Pancoast Colliery.—All barns, engine houses, pump-rooms and air-bridges have been made absolutely fireproof. Fire escapes have been built on both sides of the breaker. A tunnel has been driven from Dummore No. 4 vein connecting with Dummore No. 2 vein as an additional outlet from both veins and traveling way. Two 6-inch bore holes have been sunk from the Surface to the Clark vein 430 feet deep for slushing culm into the old workings. One new No. 10 Knowles pump has been installed at the No. 2 Dummore vein to help take care of the extra water caused by slushing.



FOURTH DISTRICT
-----LACKAWANNA COUNTY

Scranton, Pa., February 15, 1912.

Hon. James E. Roderick, Chief of Department of Mines:

Sir: I have the honor to transmit herewith my report as Inspector of Mines for the Fourth Anthracite District, for the year ending December 31, 1911, as required by the Act of April 14, 1903.

Respectfully submitted,

S. J. PHILLIPS, Inspector.

SUMMARY OF STATISTICS

Number of collieries,	14
Number of mines,	29
Number of mines in operation,	29
Number of tons of coal shipped to market,	3,793,784
Number of tons used at mines for steam and heat,	126,011
Number of tons sold to local trade and used by employes,	152,081
Number of tons produced,	4,071,876
Number of tons produced by compressed air machines, ..	.....
Number of tons produced by electrical machines,	12,355
Number of persons employed inside of mines,	6,890
Number of persons employed outside,	1,822
Number of fatal accidents inside of mines,	27
Number of fatal accidents outside, .....	.....
Number of non-fatal accidents inside of mines,	74
Number of non-fatal accidents outside,	11
Number of tons of coal produced per fatal accident inside, ..	150,810
Number of persons employed per fatal accident inside, ..	255
Number of persons employed per fatal accident outside, ..	.....
Number of persons employed per non-fatal accident inside, ..	93
Number of persons employed per non-fatal accident out- side,	166
Number of wives made widows,	18
Number of children made orphans,	39
Number of steam locomotives used inside of mines, .....	.....
Number of steam locomotives used outside,	9
Number of compressed air locomotives used inside, .....	.....
Number of compressed air locomotives used outside, .....	.....
Number of electric motors used inside,	83
Number of electric motors used outside, .....	.....
Number of fans in use,	24
Number of furnaces in use, .....	.....
Number of gaseous mines in operation,	16
Number of non-gaseous mines in operation,	13
Number of new mines opened,	1
Number of old mines abandoned,	2

TABLE A

PRODUCTION OF COAL

Names of Operators	Tons
Delaware, Lackawanna and Western Railroad Company, . . .	3,379,329
Hudson Coal Company,	274,651
Seranton Coal Company,	259,816
Peoples Coal Company,	122,398
Marian Coal Company,	18,291
Minooka Coal Company,	9,493
South Side Coal Company,	5,549
Thorne-Neal Washery Company,	1,969
Carleton Coal Company,	380
	<hr/>
Total,	4,071,876
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Production by Counties

Lackawanna,	4,071,876
	<hr/> <hr/>

TABLE B.—Fatal and non-fatal accidents inside and outside of mines; number of tons of coal produced per accident; number of persons employed; number employed per accident

Names of Operators	Fatal Accidents		Non-Fatal Accidents		Total	Tons of coal produced per fatal accident inside	Tons of coal produced per non-fatal accident inside	Number of employees inside	Number of employees outside	Total number of employees	Number of employees inside per fatal accident	Number of employees outside per fatal accident	Number of employees inside per non-fatal accident	Number of employees outside per non-fatal accident
	Inside	Outside	Inside	Outside										
Delaware, Lackawanna and Western Railroad Co.,	17		52	7	59	108,784	64,087	5,530	1,208	6,798	325		106	181
Hudson Coal Co.,	3		5	2	7	91,550	54,680	646	228	874	215		129	114
Seranton Coal Co.,	4		12	1	13	64,954	21,651	514	113	627	129		43	113
Peoples Coal Co.,	2		5	1	6	61,199	24,480	172	100	272	86		34	100
Minooka Coal Co.,	1				1	9,493		14	11	25	14			
Miscellaneous Companies,								14	102	116				
Totals and averages for district,	27		74	11	85	150,810	55,025	6,890	1,822	8,712	255		93	166

TABLE C.—Classification of Fatal Accidents Inside and Outside of Mines

	Months												Percentages	
	January	February	March	April	May	June	July	August	September	October	November	December		Totals
Causes of Accidents Inside														
Falls of roof,			1	4		3		2	1		1	2	14	51.85
Mine cars,	1		1	1		1							4	14.82
Blasts, premature and otherwise,			1	1	1			1				1	7	25.93
Machinery,							1						1	3.70
Falling timber,					1								1	3.70
Totals,	1		3	6	2	5	1	3	1		2	3	27	100.00
Causes of Accidents Outside (No Accidents)														

TABLE D.—Classification of Non-Fatal Accidents Inside and Outside of Mines

	Months												Percentages	
	January	February	March	April	May	June	July	August	September	October	November	December		Totals
Causes of Accidents Inside														
Falls of coal,							1	1	5	2	1	4	22	20.73
Falls of roof,	1	1	2	2	1	1	2	5	5	4	1	3	34	32.44
Mine cars,	2	1	1	1	2	2	2			2			17	16.22
Explosions of gas,							1				1		2	2.70
Explosions of powder and dynamite,					1			1			2	2	6	5.81
Blasts, premature and otherwise,	1	1		2	1		1	3			1	2	12	11.55
Mules,							1						1	1.35
Machinery,						1					1		2	2.70
By falling,							1						2	2.70
Struck by rope,		1							1				2	2.70
Totals,	4	4	1	3	7	5	5	10	10	7	6	12	74	100.00
Causes of Accidents Outside														
Cars,											1		1	9.09
Machinery,		1					1	1				1	4	38.37
By falling,	1							1			1		3	27.27
Struck by timber,								1					1	9.09
Struck by rope,								1					1	9.09
Struck by bridge,									1				1	9.09
Totals,	1	1					1	4	1		2	1	11	100.00
Grand totals inside and outside,	5	5	1	3	7	5	6	14	11	7	8	13	85	

TABLE E.—Occupations of Persons Killed or Fatally Injured Inside and Outside of Mines

	Months												Totals
	January	February	March	April	May	June	July	August	September	October	November	December	
Inside													
Miners,				5	2	2		1			2	2	14
Miners' laborers,			2			2		1				1	6
Drivers and runners,	1			1		1							3
Company men,									1				1
Footmen,			1				1						2
Bratticemen,							1						1
Totals,	1		3	6	2	5	1	3	1		2	3	27
Outside (No Accidents)													

TABLE F.—Occupations of Persons Injured Inside and Outside of Mines

	Months												Totals
	January	February	March	April	May	June	July	August	September	October	November	December	
Inside													
Assistant mine foremen,		1											1
Miners,		1	1	1	1	3		2	5		2	7	26
Miners' laborers,	1			1	5	1	3	1	3		3	3	27
Drivers and runners,						1	2	2		3	1	3	12
Doorboys and helpers,	1							1		1			3
Company men,				1									1
Footmen,		1											1
Brakemen,					1								1
Pipemen,								1					1
Road cleaners,										1			1
Totals,	1	4	1	3	7	5	5	10	10	7	6	12	74
Outside													
Foremen,								1					1
Blacksmiths and carpenters,												1	1
Slatepickers (boys),	1										1		2
Slatepickers (men),							1	1					2
Laborers,		1									1		2
Machinists,								1					1
Teamsters,									1				1
Totals,	1	1					1	4	1		2	1	11
Grand totals inside and outside,	5	5	1	3	7	5	6	14	11	7	8	13	85

TABLE G.—Nationality of Persons Killed or Fatally Injured Inside and Outside of Mines

	Months												Totals	
	January	February	March	April	May	June	July	August	September	October	November	December		
American,	1		1	1			1							4
Welsh,					1			1					1	3
Irish,						1			1					1
German,				1		1	3					1	2	10
Polish,			1			1								3
Italian,				1				2						3
Slavonian,				1								1		3
Lithuanian,			1	1										3
Totals,	1		3	6	2	5	1	3	1		2	3		27

TABLE H.—Nationality of Persons Injured Inside and Outside of Mines

	Months												Totals	
	January	February	March	April	May	June	July	August	September	October	November	December		
American,	1	1		1	2	1	3	1	1	2		4		17
English,								2						3
Welsh,								1		2		1		4
Irish,	1	2							1		2	2		6
German,				1	5	2	3	1						12
Polish,	2	1	1					5	4	3	2	4		24
Hungarian,				1										1
Italian,	1							3	2		1	2		9
Slavonian,		1												1
Lithuanian,						1			3		2			6
Russian,							1							1
Totals,	5	5	1	3	7	5	6	14	11	7	3	13		85

TABLE I.—Operators and mines, kind of openings, type and size of fans, size of furnaces, volume of air produced by fan or furnace per minute, number of splits of air currents and number of persons employed inside

Names of operators and Mines	Kind of opening	Gasous or non-gasous	Method of ventilation	Diameter of fan in feet and inches	Width of blades in feet and inches	Depth of blades in feet and inches	Number of revolutions per minute	Water range developed—in inches	Name of fan	Power used	Area of furnace bars in square feet	Number of splits of air currents	Number of cubic feet of air per minute entering the mine at inlet	Total quantity of air per minute circulating in all the splits in cubic feet	Number of cubic feet per minute passing out at outlet	Number of persons employed inside
Delaware, Lackawanna and Western Railroad Co.																
Archbald Colliery:	Shaft	Gaseous,	Fan,	21	8	6	66	1.7	Guibal,	Steam,	.....	20	199,550	197,100	238,845	764
Continental Colliery:	Shaft	Gaseous,	Fan,	21	8	6	70	2.1	Guibal,	Steam,	.....	9	187,895	177,885	295,625	513
Hyde Park Colliery:	Shaft	Gaseous,	Fan,	24	8	6	64	1.4	Open,	Steam,	.....	13	189,413	195,000	211,540	509
Hyde Park,	Slope	Non-gas.,	Fan,	14	4.5	4	57	3.4	Guibal,	Electricity,	.....	3	30,280	21,300	35,100	86
Hampton Colliery:	Shaft	Gaseous,	Fan,	12	4	4	102	1.1	Open,	Steam,	.....	5	59,650	44,320	59,900	173
Sloan Colliery:	Shaft	Gaseous,	Fan,	24	8	6	70	2.1	Guibal,	Steam,	.....	10	164,475	129,375	198,000	440
Sloan (Surface),	Shaft	Non-gas.,	Fan,	24	8	6	70	2.1	Guibal,	Steam,	.....	3	23,400	22,280	31,720	109
Central Colliery:	Shaft	Gaseous,	Fan,	24	8	6	70	2.1	Guibal,	Electricity,	.....	7	138,220	126,190	148,800	371
Bellevue Colliery:	Shaft	Gaseous,	2 Fans,	16	4.6	4	112	6	Guibal,	Steam,	.....	7	101,000	93,000	111,000	394
Bellevue,	Slope	Gaseous,	Fan,	14	4	4	112	5	Guibal,	.....	.....	5	61,355	53,625	79,755	139
Dodge Colliery:	Shaft	Gaseous,	Fan,	14	4	4	112	5	Guibal,	.....	.....	5	74,720	66,065	84,250	130
Dodge,	Slope	Gaseous,	Fan,	25	8	7	51	1.1	Guibal,	Steam,	.....	6	106,135	92,833	103,757	498
Dodge,	Slope	Gaseous,	Fan,	14	3.5	3.5	112	5	Open,	Steam,	.....	4	46,337	37,956	49,395	165

Holden Colliery:	Shaft	Gaseous,	Fau.	25	2	6	55	1.1	Guibal,	Steam,	6	132,400	125,000	145,264	413
National Colliery:	Shaft	Gaseous,	Fau.	15	4	4	120	1.5	Guibal,	Steam,	8	110,000	95,300	121,700	465
National,	Drift	Non-gas.,	Natural,									121,700	112,900	163,000	47
Greenwood Colliery:															
Greenwood New No. 1,	Shaft	Gaseous,	Fau.	17	5	5	75	.4	Guibal,	Steam,	2	29,000	27,500	32,450	112
Greenwood Old No. 1,	Shaft	Non-gas.,	Fau.	17	5	5	80	.4	Guibal,	Steam,	2	29,000	27,100	33,300	91
Greenwood No. 2,	Slope	Non-gas.,	Fau.	14	4	4	75	.4	Guibal,	Steam,	2	29,800	27,900	31,900	115
Greenwood No. 12,	Drift	Non-gas.,	Natural,									32,700	30,700	34,000	44
Greenwood No. 8,	Drift	Non-gas.,	Natural,									18,400	17,400	19,100	80
Greenwood No. 11,	Drift	Non-gas.,	Natural,									9,000	8,500	10,200	30
Greenwood No. 2, No. 14,	Drift	Non-gas.,	Natural,	19	3.3	2.5	75					9,000	8,250	11,700	29
Greenwood No. 3, No. 13,	Drift	Non-gas.,	Fau.	19	3.3	2.5	70	.3	Guibal,	Steam,		11,800	10,080	13,050	6
Greenwood No. 2, No. 16,	Drift	Non-gas.,	Fau.	11	3.25	2.3	70	.3	Guibal,	Steam,		15,000	14,040	16,500	37
Greenwood No. 2, No. 16,	Shaft	Gaseous,	Fau.	17	5	5	75	.7	Guibal,	Steam,	2	45,700	40,800	52,880	102
Scranton Coal Co.															
Capouse Colliery:	Shaft	Gaseous,	2 Fauis,	30	5	5	75	1	Guibal,	Steam,	9	140,000	135,000	152,500	514
Capouse,				18	5.6	5	80	1							
Peoples Coal Co.															
Oxford Colliery:	Shaft	Gaseous,	Fau.	16	6	5	95	.7	Vulcan,	Steam,	9	95,000	95,000	110,000	172
Minooka Coal Co.															
Minooka Colliery:	Slope	Non-gas.,	Natural,									16,000	10,000	25,000	14
Capleton Coal Co.															
National Colliery:	Drift	Non-gas.,	Natural,									14,000	6,500	15,000	14
National,															

*It is difficult to measure the air owing to the many connections in the old workings together with cave holes.

TABLE 1.—Operators, location of collieries, railroads, etc.

Names of Operators and Collieries	County	Name of General Superintendant	Post Office	Name of Superintendent	Post Office	Railroad to Mine
Delaware, Lackawanna and Western Railroad Co.	Lackawanna	C. E. Tobey	Scranton	T. J. Williams	Scranton	D. L. and W.
Archbald						
Continental						
Hyde Park						
Hampton						
Sloan						
Bellevue						
Dodge						
Holden						
National						
Washeries	Lackawanna	C. E. Tobey	Scranton	T. J. Williams, T. J. Williams, G. J. Wethers, E. J. Evans	Scranton	D. L. and W.
Archbald						
Hyde Park						
Hampton						
Bellevue						
Hudson Coal Co.	Lackawanna	C. C. Rose	Scranton	E. R. Petiteboue	Dorranceeton	D. and H.
Greenwood Washery						
Scranton Coal Co.	Lackawanna	W. L. Allen	Peckville	Daniel Young, Inside, J. F. Cummings, Outside	Scranton	O. and W.
Capouse						
Peoples Coal Co.	Lackawanna	John G. Hayes	Scranton			D. L. and W.
Marian Coal Co.	Lackawanna	W. P. Boland	Scranton	Mantice Sullivan	Scranton	D. L. and W.
Marian Washery						
Minooka Coal Co.	Lackawanna	M. J. Rafferty	Scranton	Thomas F. Quinn	Scranton	
Minooka						

South Side Coal Co. South Side Washery,	Lackawanna,	Richard Bradley, ..	Scranton,	D. and H.
Thorne-Neal Washery Co. Thorne-Neal Washery,	Lackawanna,	James B. Neale, ...	Minersville,	D. and H.
Carleton Coal Co. National,	Lackawanna,	John Gibbons,	Scranton,	

TABLE 2.—Part 2

Names of Operators	County	Number of Boilers				Locomotives			Number of steam engines of all classes	Total horse power	Number of pumps delivering water to surface	Capacity in gallons per minute	Quantity delivered to surface per minute—gallons	Number of electric dynamos	Number of air compressors
		Cylindrical	Horse power	Tubular	Horse power	Total horse power	Steam	Air								Electric
Delaware, Lackawanna and Western Railroad Co.,		15	495	50	14,752	14,752	5	83	148	24,708	26	33,350	22,410	21	2
Hudson Coal Co.,			9	1,575	1,580	1,580	4		68	1,966	9	5,000	2,500	1	1
Seranton Coal Co.,			7	1,075	1,075	1,500			12	1,150	5	5,700	4,500		
Peoples Coal Co.,			5	1,500		1,500			14	850	3	1,575	750	2	1
Marian Coal Co.,			1	150	2	160	310		3	55					
Mingo Coal Co.,	Lackawanna,		1	40	1	40	40		3	110					
South Side Coal Co.,			1	40		40			7	235				1	
Thorne-Neal Washery Co.,														4	
Carleton Coal Co.,				6	600	600								1	
Totals,		22	2,695	75	18,202	20,297	9	83	255	29,044	43	45,525	30,100	30	6

TABLE 3.—Number of each class of employees inside and outside of mines

Names of Operators	County	Inside											Outside											Grand total inside and outside
		Mine foremen	Assistant mine foremen	Fire bosses and assistants	Miners	Miners' laborers	Drivers and runners	Doorboys and helpers	Pumpmen	Company men	All other employees	Total Inside	Superintendents	Foremen	Blacksmiths and carpenters	Engineers and firemen	State pickers (boys)	State pickers (men)	Bookkeepers and clerks	All other employees	Total outside			
Delaware, Lackawanna and Western Railroad Co.,		15	10	44	1,869	1,869	343	121	43	486	700	5,330	17	61	143	286	36	32	693	1,203	6,798			
Hudson Coal Co.,		2	1	3	377	218	58	1	2	23	61	646	1	15	37	15	7	4	149	228	874			
Seranton Coal Co.,		1	1	4	163	198	84	21	6	10	106	514	1	8	11	31	17	2	43	113	627			
Peoples Coal Co.,		1	1	3	72	85	20	7	2	10	172	1	1	7	8	14	10	6	53	160	272			
Marian Coal Co.,																								
Minooka Coal Co.,	Lackawanna,	1			5	5	2			1	14					2	5	1	1	11	25			
South Side Coal Co.,																								
Thorne-Neal Washery Co.,																								
Carleton Coal Co.,		1			5	5	1			2	14													
Totals,		21	14	54	2,391	2,310	608	100	53	522	807	6,890	4	24	68	305	373	71	49	998	1,822	8,712		

TABLE 4.—Fatal accidents inside and outside of mines

Date of accident	Name of Person	Nationality	Occupation	Age	Married or single	Number of widows	Number of orphans	Name of Colliery	County	Nature and Cause of Accident in Brief
Jan. 17	Gwilym Evans,	American, ..	Driver,	19	S.	.....	.....	Capouse, .....	.....	Instantly killed between ear and rib 100 feet from face of chamber.
Mar. 3	John McDonough,	American, ..	Footman,	23	S.	.....	.....	Continental, .....	.....	Finger slightly injured by ears at foot of shaft. Died from lock-jaw March 13.
15	John Arkfirst,	Polish,	Laborer,	38	M.	1	4	Continental, .....	.....	Instantly killed by fall of roof at face of chamber.
27	Ignatz Demski,	Lithuanian, ..	Laborer,	47	M.	1	.....	Capouse, .....	.....	Leg fractured by a blast fired in a cross-cut near face of chamber. Died April 1.
April 3	Norman Managzi, ..	Italian,	Miner,	35	M.	1	.....	Sloan, .....	.....	Killed by blast at face of chamber. He failed to heed the warning given.
7	Michael Folan,	American, ..	Driver,	16	S.	.....	.....	Greenwood, .....	.....	Killed by cars 135 feet from face of chamber. He probably got in the dark.
22	Frank Mashieski,	Polish,	Miner,	49	M.	1	2	Dodge, .....	.....	Instantly killed by fall of rock in face of chamber.
24	Adam Kenner,	German,	Miner,	50	M.	1	6	Archbald,	Lackawanna,	Instantly killed by fall of rock at face of pillar.
26	William Smith,	Lithuanian, ..	Miner,	29	M.	1	1	Capouse, .....	.....	Instantly killed by fall of roof at face of pillar.
27	Peter Lipka,	Polish,	Miner,	32	M.	1	2	Hyde Park, .....	.....	Instantly killed by fall of roof at face of chamber.
May 1	Thomas Jenkins,	Welsh,	Miner,	40	M.	1	2	Archbald, .....	.....	Instantly killed by a blast at the face.
29	Stanley Vabpiski,	Polish,	Miner,	38	M.	1	3	Continental, .....	.....	Killed by falling collar near face of gangway.
June 1	Mike Vinoski,	Slavonian, ..	Driver,	21	S.	.....	.....	Holden, .....	.....	Fatally injured by falling from the front bumper of a moving car 150 feet from face of chamber. Died a few hours later.
8	Peter Alco,	Polish,	Laborer,	34	M.	1	2	Bellevue, .....	.....	Fatally injured by fall of roof in face of chamber. Died a few hours later.

TABLE 4—Continued

Date of accident	Name of Person	Nationality	Occupation	Age	Married or single	Number of widows	Number of orphans	Name of Colliery	County	Nature and Cause of Accident in Brief
June 10	John Estok,	Slavonian,	Miner,	30	S.	.....	.....	Holden, .....	.....	Fatally injured by a blast in face of chamber. Died a few hours later.
21	Joseph Vladorick, ..	Polish,	Miner,	34	S.	.....	.....	Archbald, .....	.....	Instantly killed by fall of roof at face of chamber.
	Joseph Shaught,	Polish,	Laborer,	48	M.	1				
July 18	James J. Walsh,	American,	Footman,	30	S.	.....	.....	Greenwood, .....	.....	Instantly killed by being caught between cage and roof.
Aug. 12	Ergo Monarelli,	Italian,	Laborer,	23	S.	.....	.....	National, .....	.....	Instantly killed by premature blast at face of chamber.
21	Frank Proetti,	Italian,	Miner,	35	S.	.....	.....	Oxford, .....	.....	Instantly killed by fall of roof in cross-cut near face.
26	David Davis,	Welsh,	Bratticeman,	51	M.	1	.....	Bellevue, .....	.....	Instantly killed by fall of roof 25 feet from air-shaft.
Sept. 18	Michael Quinn,	Irish,	Company man	44	M.	1	5	Minooka,	Lackawanna,	Instantly killed by fall of roof at face of pillar.
Nov. 18	Anthony Gavek,	Polish,	Miner,	42	M.	1	4	Continental, .....	.....	Fatally injured by premature blast at face of chamber. Died a few hours later.
22	John Krotski,	Lithuanian,	Miner,	25	M.	1	2	Capouse, .....	.....	Instantly killed by fall of roof at face of chamber.
Dec. 3	Leo Yepsblm,	Polish,	Miner,	42	M.	1	4	Oxford, .....	.....	Instantly killed by fall of roof at face of chamber.
20	Ignatz Koshinski,	Polish,	Laborer,	30	M.	1	.....	Sloan, .....	.....	Fatally injured by fall of roof in face of chamber. Died in hospital a few hours later.
23	Hugh Oliver,	Welsh,	Miner,	33	M.	1	2	Greenwood, .....	.....	Fatally injured by flying coal from a blast. Died in hospital a few hours later.

TABLE 5.—Non-fatal accidents inside and outside of mines

Date of accident	Name of Person	Nationality	Occupation	Age	Married or single	Name of Colliery	County	Nature and Cause of Accident in Brief
Jan. 4	John Varnito,	Polish,	Miner,	42	M.	Sloan,	Lackawanna,	Injured by flying coal from blast at face of chamber.
9	Leo Zailow,	Italian,	Slatepicker,	14	S.	Dodge,		Leg broken by sliding in chute in breaker. Outside.
13	Charles Johnson,	American,	Doorboy,	17	S.	Capouse,		Injured by jumping on mine cars on main road.
17	Thomas Durkin,	Irish,	Miner,	38	M.	Hampton,		Slightly injured while replacing derailed car at face.
21	Ignatz Laboski,	Polish,	Laborer,	40	S.	Sloan,		Injured by fall of roof at face of chamber.
Feb. 2	Frank McDonnell,	Irish,	Miner,	57	M.	Bellevue,		Leg fractured by fall of roof at face after a blast had been fired.
8	Thomas Langan,	Irish,	Assistant foreman,	53	M.	Oxford,		Injured by being struck by haulage rope at foot of inside slope.
15	John Rubcoski,	Polish,	Miner,	35	M.	Greenwood,		Head and body injured by blast at face.
20	Mike Sotok,	Slavonian,	Footman,	22	M.	Archbald,		Leg fractured by cars at foot of shaft.
21	Patrick Healy,	American,	Laborer,	16	S.	Greenwood,		Seriously injured in breaker machinery. Outside.
Mar. 3	Joe Visendki,	Polish,	Miner,	37	M.	Hampton,		Knee injured by cars on gangway road.
April 18	Mike Yencavitch,	Hungarian,	Laborer,	21	S.	Archbald,		Foot crushed by fall of rock at face of chamber.
19	John Keeley,	American,	Company man,	41	S.	Capouse,		Slightly injured by cars on gangway road.
20	Andrew Yovnich,	Polish,	Miner,	30	M.	Oxford,		Leg fractured by fall of rock at face of chamber.
12	John Ornut,	Polish,	Laborer,	26	M.	Sloan,		Injured by fall of roof at face of chamber.
18	Stephen Biercyta,	Polish,	Miner,	23	M.	Greenwood,		Injured by blast while charging a hole in the face of chamber.
24	Julian Ruzalo,	Polish,	Laborer,	22	S.	Hyde Park,		Legs and skull fractured by fall of roof at face of chamber.
	Sylvester Sokoskie,	Polish,	Laborer,	24	S.			

TABLE 5--Continued

Date of accident	Name of Person	Nationality	Occupation	Age	Married or single	Name of Colliery	County	Nature and Cause of Accident in Brief
May 24	Victor Moreski,	Polish,	Laborer,	25	M.	Continental,	Laekawanna,	Ribs fractured by derailed car on gangway road.
25	Joseph King,	American,	Laborer,	21	S.	Greenwood,	Laekawanna,	Hands and face burned by explosion of powder at a point near crop.
27	Eugene Ingalls,	American,	Brakeman,	21	M.	Archbald,	Laekawanna,	Leg fractured by cars on gangway road.
June 1	Frank Gallagher,	American,	Rumper,	18	S.	Greenwood,	Laekawanna,	Two fingers crushed by cars.
5	Adolph Tech,	Lithuanian,	Miner,	32	M.	Hyde Park,	Laekawanna,	Injured by fall of roof at face of chamber.
17	Frank Mokski,	Polish,	Laborer,	26	S.	Dodge,	Laekawanna,	Leg fractured by car at face of chamber.
20	Joseph Stancavidge,	Polish,	Miner,	40	M.	Capouse,	Laekawanna,	Injured by falling while retreating from a blast at face of chamber.
27	William Kanobka,	Polish,	Miner,	28	M.	Sloan,	Laekawanna,	Slightly injured by blast at face of chamber.
July 10	Ralph Singer,	American,	Driver,	17	S.	Hyde Park,	Laekawanna,	Kicked in abdomen by mule at face of gangway.
15	Benjamin Sanders,	American,	Driver,	18	S.	Hyde Park,	Laekawanna,	Leg broken by falling under car on gangway road.
18	John Kubacki,	American,	Statepicker,	14	S.	Greenwood,	Laekawanna,	Instep of left foot burned by coming in contact with machinery in breaker, Outside.
24	Lewis Nowiek,	Polish,	Laborer,	31	S.	Capouse,	Laekawanna,	Left arm broken by fall of roof at face.
31	John Kakurka,	Polish,	Laborer,	28	S.	Sloan,	Laekawanna,	Arms and face slightly burned by gas at face.
Aug. 5	Stanley David,	Polish,	Laborer,	23	S.	Continental,	Laekawanna,	Foot injured by fall of roof while sitting in chamber.
8	Edward Smith,	English,	Driver,	30	S.	Hampton,	Laekawanna,	Finger crushed between car bumpers on main road.
	Frank Constant,	Polish,	Miner,	24	M.	Bellevue,	Laekawanna,	Leg fractured while starting engine that had stopped on center, Outside.
								Leg fractured while running car into his chamber.

Aug.	9	Paul Joel,	Polish,	Staplecker,	18	S.	Dodge,	Concussion of brain. Fell from chute in breaker. Outside.
	11	Harry Yasandri,	Italian,	Laborer,	31	S.	Oxford,	Leg fractured by fall of roof at face.
	12	Feversta O. Nible,	Italian,	Miner,	35	M.	National,	Head and arm injured by premature blast at face.
	19	Steven Stimmerhüll,	English,	Laborer,	61	M.	Hyde Park,	Ankle dislocated by being struck by slope rope. Outside.
	21	Henry de Hout,	German,	Mason foreman,	44	M.	National,	Thumb of left hand crushed while removing timber in engine-house. Outside.
	23	Dan Matthias,	Welsh,	Pipeman,	35	M.	Bellevue,	Ankle injured by slipping while walking in old workings.
	24	Arnando Bartolli,	Italian,	Laborer,	23	S.	National,	Left leg fractured by top coal falling off rib at face.
	25	Andrew Kopak,	Polish,	Doorboy,	18	S.	Haupton,	Leg fractured by falling under cars on main road.
	26	Carl Carson,	American,	Driver,	17	S.	Capouse,	Leg broken. Mine car on main road became derailed and caught him.
	29	Iren Yanco,	Russian,	Laborer,	26	S.	Holden,	Left leg fractured by cars at face of chamber.
	31	Charles Bohm,	Polish,	Laborer,	25	S.	National,	Compound fracture of right leg by fall of roof at face of pillar.
Sept.	1	John Heffron,	Irish,	Miner,	55	M.	National,	Injured by flying coal from blast at face.
		Chesri Gitzzy,	Italian,	Laborer,	27	S.	National,	Back injured by fall of roof at face of chamber.
		Louis Nolan,	Italian,	Laborer,	18	S.	National,	Ankle fractured by fall of roof at face of chamber.
	5	John Rekeys,	Lithuanian,	Miner,	26	M.	Capouse,	Back injured by fall of roof at face of chamber.
		William Boboch,	Polish,	Laborer,	21	S.	Continental,	Ankle fractured by fall of roof at face of chamber.
	8	Alvin Whiting,	American,	Teamster,	28	M.	Oxford,	Back injured by being squeezed between bridge and load of hay. Outside.
	11	Joseph Rofkofski,	Polish,	Miner,	33	M.	Hyde Park,	Leg, scalp and ankle injured by fall of roof at face.
	12	Adam Dink,	Lithuanian,	Laborer,	36	S.	Capouse,	Top of left thumb cut off by fall of roof at face.
	13	Charles Slack,	Lithuanian,	Miner,	39	M.	Capouse,	Collar-bone broken and chest bruised by fall of coal off skip in chamber.
	14	John Publeski,	Polish,	Miner,	44	S.	Bellevue,	Head, hands and body injured by explosion of powder. He stumbled on way to prepare hole for firing.
	26	Stanley Nebeski,	Polish,	Laborer,	23	S.	Sloan,	Compound fracture of leg by fall of roof at face.
Oct.	4	Frank Mno,	Polish,	Laborer,	31	S.	Capouse,	Hip and hand slightly bruised by fall of roof at face.
	7	Martin Meuck,	American,	Driver,	18	S.	Hyde Park,	Foot crushed by cars in chamber.
	9	Moses Howells,	American,	Rimmer,	20	S.	Continental,	Arm fractured by cars on gangway road.
	10	Thomas Jones,	Welsh,	Road-cleaner,	56	S.	Archbald,	Clavicle fractured by fall-ropes on main road.
	12	Harry Cobb,	Polish,	Driver,	16	S.	National,	Body lacerated and back contused while firing on car bumper on gangway road.

Lackawanna, ---

TABLE 5—Continued

Date of accident	Name of Person	Nationality	Occupation	Age	Married or single	Name of Colliery	County	Nature and Cause of Accident in Brief
Oct. 26	Harry Williams, ----	Welsh, ----	Motor-helper, ----	24	M.	Bellevue, ----		Right side bruised by cars on main road.
27	John Kilrosa, ----	Polish, ----	Laborer, ----	35	M.	Dodge, ----		Arm broken by fall of roof at face.
Nov. 14	Patrick Haggerty, --	Irish, ----	Laborer, ----	38	M.	Capouse, ----		Left hip bone fractured by being squeezed between mine car and breaker beam. Outside.
17	Charles Mocarukus, --	Lithuanian, --	Laborer, ----	23	S.	Capouse, ----		Four ribs broken by fall of roof at face.
18	John Shoustky, ----	Lithuanian, --	Driver, ----	19	S.	Capouse, ----		Hip and back bruised while riding on car bumper on main road.
27	Joseph Goulda, ----	Polish, ----	Laborer, ----	17	S.	Oxford, ----		Face and hands burned by gas at face.
29	Richard Brown, ----	English, ----	Miner, ----	56	M.	Bellevue, ----		Femur and tibia fractured by premature blast at face.
	Adelmo Bucarie, ----	Italian, ----	Slatepicker, ----	16	S.	National, ----	Lackawanna, --	Face injured by falling from chute in breaker. Outside.
	Michael Hogan, ----	Irish, ----	Miner, ----	50	M.	Sloan, ----		Instep injured by being caught by derailed car on gangway road.
Dec. 6	Eddie Sabiski, ----	Polish, ----	Laborer, ----	25	S.	Sloan, ----		Back, head and leg injured by fall of roof at face.
	Howard Hopkins, ----	American, --	Driver, ----	18	S.	Capouse, ----		Two ribs broken while riding on bumper of cars on main road.
8	Llewellyn Davis, ----	Welsh, ----	Miner, ----	56	M.	Continental, ----		Nose, leg and arm injured by premature blast at face.
11	John Coggins, ----	American, --	Driver, ----	18	S.	Dodge, ----		Face and hands burned by powder at face.
14	Mike Curry, ----	Irish, ----	Miner, ----	50	S.	Oxford, ----		Right arm lacerated by fall of roof at face.
15	Peter Pattola, ----	Italian, ----	Miner, ----	48	M.	Sloan, ----		Face and left arm cut by flying coal from blast in cross-cut near face.
20	Julius Labosky, ----	Polish, ----	Laborer, ----	35	S.	Sloan, ----		
	Roman Simonsky, ----	Polish, ----	Miner, ----	23	S.	Sloan, ----		
21	Alex. Shifzick, ----	Polish, ----	Miner, ----	42	M.	Holden, ----		

Dec. 26	William Duffy, -----	American,--	Blacksmith helper, 33	M. Bellevue, -----	Scalp wounded and back sprained on cage near sheave-wheel. Outside.
27	(Patrick Mulderig, ---- Paul Duda, -----)	(Irish,----- Polish,-----)	(Miner,----- Laborer,-----)	(62 M. } Archbald, - - - - - 23 S. } Hyde Park, -----)	(General contusions. Fall of roof at face.
30	John M. Jones, -----	American,--	Driver, -----	Lackawanna, --	Body badly lacerated by being struck at foot of shaft by piece of "Fan," which broke and fell from tower of breaker.
	Memio Parotti, -----	Italian, ----	Miner,-----	24 M. National, -----	Right leg fractured by mine car 25 feet from face.

CONDITION OF COLLIERIES

DELAWARE, LACKAWANNA AND WESTERN RAILROAD COMPANY

Archbald.—Ventilation, drainage and condition as to safety, good.

Continental.—Ventilation, drainage and condition as to safety, good.

Hyde Park.—Ventilation, drainage and condition as to safety, good.

Hampton.—Ventilation, drainage and condition as to safety, good.

Sloan.—Ventilation in Sloan Surface vein is only fair. A new air-shaft is being sunk to improve this condition. Otherwise, the ventilation, drainage and condition as to safety are good.

Bellevue.—Ventilation, drainage and condition as to safety, good.

Dodge.—Ventilation, drainage and condition as to safety, good.

Holden.—Ventilation, drainage and condition as to safety, good.

National.—Ventilation, drainage and condition as to safety, good.

HUDSON COAL COMPANY

Greenwood.—The ventilation where fans are in use is good. In the openings where natural causes are depended upon the quantity is a variable one, but sufficient to maintain a healthy condition. Drainage fair; condition as to safety, good.

SCRANTON COAL COMPANY

Capouse.—Ventilation, drainage and condition as to safety, good.

PEOPLES COAL COMPANY

Oxford.—Ventilation and drainage fair; condition as to safety, good.

MINOOKA COAL COMPANY

Minooka.—Ventilation, drainage and condition as to safety, good.

CARLETON COAL COMPANY

National.—Ventilation, drainage and condition as to safety, good.

IMPROVEMENTS

DELAWARE, LACKAWANNA AND WESTERN RAILROAD COMPANY

Archbald Colliery.—All the inside buildings reconstructed of incombustible material.

Continental Colliery.—The 12'x4'x1' ventilating fan was replaced by a new 24'x8'x6' fan, which was put into operation March 20. All the inside buildings reconstructed of incombustible material.

Hyde Park Colliery.—A 7'x12' tunnel, 220 feet long, was driven from the Rock to the Diamond vein. All the inside buildings reconstructed of incombustible material.

Hampton Colliery.—All the buildings reconstructed of incombustible material.

Sloan Colliery.—The new air-shaft was sunk a distance of 336 feet during the year.

Bellevue Colliery.—New annex to breaker under construction. Two Triplex Plunger pumps installed. Two low vein coal-cutting machines installed. New concrete mule barn inside.

Dodge Colliery.—New locomotive house. (Outside.) One additional electric locomotive installed. One new 750 gallon fire-pump installed. New concrete mule barn inside. New wash-house.

Holden Colliery.—One additional electric locomotive installed. One additional boiler installed. New wash-house. New concrete barn inside.

National Colliery.—Rock tunnel, No. 2 to No. 1 Dummore vein. New wash-house. New concrete barn inside.

This Company is to be commended for its efforts in educating its non-English speaking employes. Colonel R. A. Phillips, the General Manager, conceived the idea of having pictures taken in the mines showing how accidents occur and how they are prevented. Two hundred of these pictures appear in book form with simple statements. The book was prepared under the direction of Colonel Phillips and Mr. C. E. Tobey, Superintendent of the Coal Mining Department, and ten thousand copies have been printed and will be distributed to groups known as extension schools in the various mining communities.

The company is promoting this educative work through the local branch of the Young Men's Christian Association.

SCRANTON COAL COMPANY

Capouse Colliery.—All inside buildings reconstructed of incombustible material.

PEOPLES COAL COMPANY

Oxford Colliery.—New mule barn inside constructed of incombustible material.

New breaker was erected south of the site of the old breaker with a capacity of 1,500 tons daily, equipped with the most modern machinery of every kind.

CARLETON COAL COMPANY

National Colliery.—New breaker erected, capacity 100 tons daily. Began operations December 12.

MINE FOREMEN'S EXAMINATIONS

The annual examination of applicants for certificates of qualification as mine foremen and assistant mine foremen was held in the City Hall, Scranton, April 15 and 16. The Board of Examiners was composed of the following persons: H. O. Prytherch, Mine Inspector, Scranton; John P. Corcoran, Superintendent, Rendham; William J. Jenkins, Miner, Scranton; James W. Reese, Miner, Scranton.

The following persons passed a satisfactory examination and were granted certificates:

Mine Foremen

Thomas W. Jones, John J. Lavelle, David R. Gibbs, Eleazer E. Morgans, Scranton; Henry Edwards, Thomas J. Corcoran, Old Forge; John D. Price, Rendham; Thomas H. Galbraith, Moosic; Benjamin Jenkins, Taylor.

Assistant Mine Foremen

Reese Jones, David Beacham, Evan Jones, John Griffiths, Steve Martin, Oliver P. Clark, Benjamin G. Isaacs, John Jones, Scranton.

FIFTH DISTRICT

LACKAWANNA AND LUZERNE COUNTIES

Rendham, Pa., February 21, 1912.

Hon. James E. Roderick, Chief of Department of Mines:

Sir: I have the honor to transmit my report as Inspector of Mines for the Fifth Anthracite District, for the year ending December 31, 1911, as required by Act of April 14, 1903.

Respectfully submitted,

AUGUSTUS McDADE, Inspector.

SUMMARY OF STATISTICS

Number of collieries,	12
Number of mines,	32
Number of mines in operation,	32
Number of tons of coal shipped to market,	3,610,682
Number of tons used at mines for steam and heat,	255,444
Number of tons sold to local trade and used by employes,	44,112
Number of tons produced,	3,910,238
Number of tons produced by compressed air machines, .....	.....
Number of tons produced by electrical machines, .....	.....
Number of persons employed inside of mines,	5,282
Number of persons employed outside,	1,931
Number of fatal accidents inside of mines,	24
Number of fatal accidents outside,	1
Number of non-fatal accidents inside of mines,	25
Number of non-fatal accidents outside,	11
Number of tons of coal produced per fatal accident inside,	162,926
Number of persons employed per fatal accident inside,	220
Number of persons employed per fatal accident outside,	1,931
Number of persons employed per non-fatal accident inside,	211
Number of persons employed per non-fatal accident outside,	175
Number of wives made widows,	17
Number of children made orphans,	34
Number of steam locomotives used inside of mines,	1
Number of steam locomotives used outside,	12
Number of compressed air locomotives used inside, .....	.....
Number of compressed air locomotives used outside, .....	.....
Number of electric motors used inside,	63
Number of electric motors used outside, .....	.....
Number of fans in use,	22
Number of furnaces in use,	3
Number of gaseous mines in operation,	13
Number of non-gaseous mines in operation,	19
Number of new mines opened,	1
Number of old mines abandoned, .....	.....

TABLE A

PRODUCTION OF COAL

Names of Operators	Tons
Pennsylvania Coal Company,	1,404,361
Delaware, Lackawanna and Western Railroad Company,	1,093,934
Jermyn and Company,	626,667
Hillside Coal and Iron Company,	342,271
Elliott McClure and Company,	270,678
Hudson Coal Company,	152,056
Lehigh Valley Coal Company,	18,522
Moosic Coal Company,	1,749
Total,	<u>3,910,238</u>

Production by Counties

Lackawanna,	2,826,600
Luzerne,	1,083,638
Total,	<u>3,910,238</u>

TABLE B.—Fatal and non-fatal accidents inside and outside of mines; number of tons of coal produced per accident; number of persons employed; number employed per accident

Names of Operators	Fatal Accidents			Non-Fatal Accidents			Tons of coal produced per fatal accident inside	Tons of coal produced per non-fatal accident inside	Number of employees inside	Number of employees outside	Total number of employees	Number of employees inside per fatal accident	Number of employees outside per fatal accident	Number of employees inside per non-fatal accident	Number of employees outside per non-fatal accident
	Inside	Outside	Total	Inside	Outside	Total									
	5	1	5	3	1	4									
Pennsylvania Coal Co., -----	5	-----	5	3	1	4	280,272	468,120	1,629	713	2,342	326	-----	543	713
Delaware, Lackawanna and Western Railroad Co., -----	7	-----	7	7	3	10	156,276	156,276	1,640	446	2,086	234	-----	234	149
Jermyn and Co., -----	7	1	8	2	1	3	80,524	313,333	822	238	1,040	117	288	411	238
Hillside Coal and Iron Co., -----	1	-----	1	3	3	6	342,271	114,000	314	234	548	314	-----	104	78
Elliott McClure and Co., -----	2	-----	2	2	2	10	135,339	33,834	530	159	689	265	-----	66	79
Hudson Coal Co., -----	2	-----	2	2	1	3	76,028	76,028	273	125	418	146	-----	116	125
Miscellaneous Companies, -----	-----	-----	-----	-----	-----	-----	-----	-----	54	16	70	-----	-----	-----	-----
Totals and averages for district,	24	1	25	25	11	36	162,926	136,409	5,282	1,981	7,213	220	1,931	211	175

TABLE C.—Classification of Fatal Accidents Inside and Outside of Mines

	Months												Totals	Percentages	
	January	February	March	April	May	June	July	August	September	October	November	December			
Causes of Accidents Inside															
Falls of coal,								1						1	4.16
Falls of slate,	1	1												1	4.17
Falls of roof,	1		1	2	6		2			2			1	15	62.50
Mine cars,		2								1				3	12.50
Blasts, premature and otherwise,					1					1				2	8.33
Falling into shafts,			1											1	4.16
By falling,						1								1	4.17
Totals,	1	3	2	2	7	1	2	1		4		1	24	100.00	
Causes of Accidents Outside															
Machinery,				1										1	100.00
Totals,				1									1	100.00	
Grand totals inside and outside,	1	3	2	3	7	1	2	1		4		1	25		

TABLE D.—Classification of Non-Fatal Accidents Inside and Outside of Mines

	Months												Totals	Percentages	
	January	February	March	April	May	June	July	August	September	October	November	December			
Causes of Accidents Inside															
Falls of coal,	1				1									2	8.00
Falls of roof,		1	1	1	1			3	2		3	1	13	52.00	
Mine cars,						1		1					2	8.00	
Blasts, premature and otherwise,						3		2		1			6	24.00	
Mules,					1								1	4.00	
By falling,				1									1	4.00	
Totals,	1	1	1	2	3	4		5	3	1	3	1	25	100.00	
Causes of Accidents Outside															
Cars,			1					1		1		2	5	45.46	
Machinery,		1	1										2	18.18	
Struck by timber,		1											1	9.09	
By mules,			1										1	9.09	
Scalded by steam,									2				2	18.18	
Totals,	2	3						1		3		2	11	100.00	
Grand totals inside and outside,	1	3	4	2	3	4		6	3	4	3	3	36		

TABLE E.- Occupations of Persons Killed or Fatally Injured Inside and Outside of Mines

	Months												Totals
	January	February	March	April	May	June	July	August	September	October	November	December	
Inside													
Miners,	1	1	1	2	5	1	1	1	...	4	...	1	18
Miners' laborers,		1	1		2		1		...				5
Brakemen,		1							...				1
Totals,	1	3	2	2	7	1	2	1	...	4	...	1	24
Outside													
Laborers,				1									1
Totals,				1									1
Grand totals inside and outside,	1	3	2	3	7	1	2	1	...	4	...	1	25

TABLE F.- Occupations of Persons Injured Inside and Outside of Mines

	Months												Totals
	January	February	March	April	May	June	July	August	September	October	November	December	
Inside													
Miners' laborers,				1	2	1		2	1				7
Miners,	1	1	1			2		2	1	1	2	1	13
Drivers and runners,				1	1								2
Doorboys and helpers,											1		1
Company men,									1				1
Foot tenders,						1							1
Totals,	1	1	1	2	3	4		5	3	1	3	1	25
Outside													
Engineers and firemen,		1											1
Laborers,		1											1
Rock dumpers,			1										1
Machine helpers,			1										1
Drivers,			1										1
Loaders,							1					1	2
Coal inspectors,										1			1
Bankmen,										2			2
Prop cutters,												1	1
Totals,		2	3					1		3		2	11
Grand totals inside and outside,	1	3	4	2	3	4		6	3	4	3	3	36

TABLE C.—Nationality of Persons Killed or Fatally Injured Inside and Outside of Mines

	Months												Totals
	January	February	March	April	May	June	July	August	September	October	November	December	
American,		1		1	1					1			4
English,					1								1
Welsh,							1			1			2
Irish,										1	1		2
Polish,		1	2	1			1						5
Italian,					2	1		1					4
Slavonian,	1	1											2
Lithuanian,					3								3
Russian,										1			1
Hebrew,				1									1
Totals,	1	3	2	3	7	1	2	1		4	1		25

TABLE II.—Nationality of Persons Injured Inside and Outside of Mines

	Months												Totals
	January	February	March	April	May	June	July	August	September	October	November	December	
American,		2		2	1					1	1		7
English,		1						1					2
Welsh,						1			1		1		3
Irish,											1		1
Polish,	1		2			2		2		1		1	9
Italian,			2					2	2				6
Slavonian,											1		1
Lithuanian,					1	1							2
Austrian,					1								1
Russian,								1				1	2
Totals,	1	3	4	2	3	4		6	3	4	3	3	36

TABLE I.—Operators and mines, kind of openings, type and size of fans, size of furnaces, volume of air produced by fan or furnace per minute, number of splits of air currents and number of persons employed inside

Names of operators and mines	Kind of opening	Gasous or non-gasous	Method of ventilation	Diameter of fan in feet and inches	Width of blades in feet and inches	Depth of blades in feet and inches	Number of revolutions per minute	Water gauge developed—in inches	Name of fan	Power used	Area of furnace bars in square feet	Number of splits of air currents	Number of cubic feet of air per minute entering the mine at inlet	Total quantity of air per minute circulating in all the splits in cubic feet	Number of cubic feet per minute passing out at outlet	Number of persons employed inside
Pennsylvania Coal Co.																
Old Forge Colliery:																
No. 1 shaft,	Shaft,	Gasous,	Fan,	20	6.5	5.25	52	.9	Guibal, ..	Steam, ..	.....	5	65,300	59,400	67,400	120
No. 1 slope,	Slope,	Gasous,	Fan,	17	4.5	4.5	60	.5	Guibal, ..	Steam, ..	.....	3	52,000	46,000	73,000	100
No. 2 shaft,	Shaft,	Non-gas.,	Fan,	20	6.5	5.4	75	.9	Guibal, ..	Electricity, ..	.....	3	87,345	78,675	99,935	273
Mountain tunnel, (Marcy vein),	Drift,	Non-gas.,	Fan,	20	6.5	5.4	60	1.0	Guibal, ..	Electricity, ..	.....	6	72,650	63,600	80,980	200
Mountain tunnel, (Clark vein),	Drift,	Non-gas.,	Fan,	20	6.5	5.4	60	1.0	Guibal, ..	Electricity, ..	.....	4	70,265	61,925	71,000	281
Central Colliery:																
Laws shaft,	Shaft,	Gasous,	Fan,	30	6.5	5.45	50	.5	Guibal, ..	Steam, ..	.....	6	90,110	71,840	116,260	424
Laws slope,	Slope,	Non-gas.,	Fan,	30	6.5	5.45	50	.5	Guibal, ..	Steam, ..	.....	6	90,110	71,840	116,260	424
No. 13 shaft,	Shaft,	Gasous,	Fan,	30	6.5	5.5	60	.6	Guibal, ..	Steam, ..	.....	2	54,500	47,500	103,500	83
Delaware, Lackawanna and Western Railroad Co.																
Pine Colliery:																
Pine shaft,	Shaft,	Gasous,	Fan,	16	5.0	4.5	60	1.2	Guibal, ..	Steam, ..	.....	12	249,455	211,345	251,458	624
Pine slope,	Slope,	Gasous,	Fan,	24	5.0	6.0	72	1.8	Guibal, ..	Steam, ..	.....	12	249,455	211,345	251,458	624
Taylor Colliery:																
Taylor shaft,	Shaft,	Gasous,	Fan,	25	8.0	6.0	60	1.1	Guibal, ..	Steam, ..	.....	9	265,400	144,970	340,380	595
Taylor slope,	Slope,	Gasous,	Fan,	12	3.5	3.0	.....	.....	Guibal, ..	Steam, ..	.....	9	265,400	144,970	340,380	595

*Emergency fan,

TABLE 1.—Operators, location of collieries, railroads, etc.

Names of operators and Collieries	County	Name of General Superintendent	Post Office	Name of Superintendent	Post Office	Railroad to Mine
Pennsylvania Coal Co. Old Forge,	Lackawanna,	W. W. Inglis,	Dunmore,	J. P. Jennings,	Moosic,	Erie
Central,	Luzerne,					
Delaware, Lackawanna and Western Railroad Co. Pyne Washery,	Lackawanna,	R. A. Phillips,	Scranton,	T. J. Williams,	Scranton,	D. L. and W.
Taylor,	Lackawanna,						C. E. Tobey, .....	E. J. Evans, .....	Scranton, .....
Halstead,	Luzerne,					
Jermyn and Co. Jermyn Nos. 1, 2, 3,	Lackawanna,	E. B. Jermyn,	Scranton,	J. P. Corcoran, ..	Old Forge,	Erie and E. L. and W.
Jermyn Washery,	Lackawanna,					
Hillside Coal and Iron Co. Consolidated,	Luzerne,	W. W. Inglis,	Dunmore,	J. P. Jennings,	Moosic,	Erie
Elliott McClure and Co. Sibley,	Lackawanna,						R. W. Reese, .....	Rendham, .....	E. L. and W. and Lehigh Valley
Hudson Coal Co. Langchiffe,	Luzerne,	C. C. Rose,	Scranton,	E. R. Pettebone, ..	Dorrancton,	Delaware and Hudson
Spring Brook,	Lackawanna,					
Lehigh Valley Coal Co. Austin,	Lackawanna,	F. M. Chase,	Wilkes-Barre,	W. B. Owens,	Pittston,	Lehigh Valley
Moosic Coal Co. Moosic,	Lackawanna,						William Cotter, ....	Moosic, .....	Erie

* New mine.

TABLE 2.—Number of tons of coal mined, number of days worked, number of persons employed, number killed and injured, quantity of powder, dynamite and permissible explosives used, etc.

Names of Operators and Collieries	County	Number of tons of coal shipped to market	Number of tons used at collieries for steam and heat	Number of tons sold to local trade and used by employes	Total production of coal in tons	Number of days worked	Number of employes	Number of fatal accidents	Number of non-fatal accidents	Explosives			Number of horses and mules
										Number of pounds of powder used	Number of pounds of dynamite used	Number of pounds of permissible explosives used	
Pennsylvania Coal Co.													
Old Forge,	Lackawanna,	866,786	65,250	.....	931,446	300	1,493	2	4	853,925	.....	20,508	7
Central,	Luzerne,	438,439	28,209	6,167	472,815	269	849	3	.....	339,925	.....	0,200	46
Totals, .....	.....	1,304,635	93,459	6,167	1,404,361	.....	2,342	5	4	1,193,850	.....	21,008	53
Delaware, Lackawanna and Western Railroad Co.													
Payne,	Lackawanna,	44,548	10,444	1,732	456,764	269	792	1	4	347,715	1,608	.....	68
Taylor,	Lackawanna,	391,208	8,267	7,863	406,428	218	747	4	4	422,500	7,054	.....	39
Halstead,	Luzerne,	145,546	24,359	2,302	172,347	240	520	2	2	232,000	4,942	.....	69
Payne Washery,	Lackawanna,	981,382	43,340	11,817	1,036,539	.....	2,059	7	10	1,002,275	23,094	.....	106
.....	.....	43,912	13,483	.....	57,395	214	27	.....	.....	.....	.....	.....	1
Totals, .....	.....	1,025,294	56,823	11,817	1,093,934	.....	2,086	7	10	1,002,275	13,694	.....	167
Jermyn and Co.													
Jermyn Nos. 1, 2, 3,	Lackawanna,	406,503	.....	6,194	412,787	250	1,016	8	3	457,375	17,350	.....	81
Jermyn Washery,	Lackawanna,	170,355	40,085	3,440	213,880	265	44	.....	.....	.....	.....	.....	.....
Totals, .....	.....	576,858	40,085	9,634	626,667	.....	1,060	8	3	457,375	17,350	.....	81
Hillside Coal and Iron Co.													
Consolidated,	Luzerne,	820,508	16,660	5,103	842,271	261	548	1	6	179,685	.....	.....	42

TABLE 2—Continued

Names of Operators and Collieries	County	Number of tons of coal shipped to market	Number of tons used at collieries for steam and heat	Number of tons sold to local trade and used by employes	Total production of coal in tons	Number of days worked	Number of employes	Number of fatal accidents	Number of non-fatal accidents	Explosives				Number of pounds of permissibile explosives used	Number of horses and mules
										Number of pounds of powder used	Number of pounds of dynamite used	Number of pounds of	Number of pounds of per-		
Elliott McClure and Co.	Lackawanna, ---	236,735	24,890	9,123	270,678	275	689	2	10	420,425	23,200	---	---	50	
Sibley, ---	Lackawanna, ---	---	---	---	---	---	---	---	---	---	---	---	---	---	
Hudson Coal Co.	Luzerne, ---	84,848	10,287	1,470	96,105	125	291	1	3	91,975	5,821	---	---	54	
Langellife, ---	Lackawanna, ---	44,576	10,097	678	55,671	103	127	1	---	64,050	794	---	---	17	
Spring Brook, ---	Lackawanna, ---	---	---	---	---	---	---	---	---	---	---	---	---	---	
Totals, ---	---	128,924	30,984	2,143	152,066	---	418	2	3	158,025	6,615	---	---	71	
Lehigh Valley Coal Co.	Lackawanna, ---	10,300	2,222	---	18,522	---	46	---	---	15,400	550	---	---	11	
Austin, *	Lackawanna, ---	---	---	---	---	---	---	---	---	---	---	---	---	---	
Moosic Coal Co.	Lackawanna, ---	1,938	291	120	1,749	73	24	---	---	3,575	550	---	---	2	
Grand totals, ---	---	3,610,082	255,444	44,112	3,910,238	---	7,213	25	36	3,420,950	61,860	---	35,261	477	

*Coal prepared at William A. Colliery, Eighth District.

TABLE 2.—Part 2

Names of Operators	County	Number of Boilers					Locomotives			Total horse power	Number of steam engines of all classes	Total horse power	Number of pumps delivering water to surface	Capacity in gallons per minute	Quantity delivered to surface per minute—gallons	Number of electric dynamos	Number of air compressors
		Cylindrical	Horse power	Tubular	Horse power	Total horse power	Steam	Air	Electric								
Pennsylvania Coal Co.,	Lackawanna,
Delaware, Lackawanna and Western Railroad Co.,	Luzerne,	8	160	26	5,300	5,300	7	.....	43	36	4,900	13	17,000	9,100	4	.....
Jermyn and Co.,	Lackawanna,	2	500	24	4,825	4,485	1	.....	20	69	4,068	8	10,220	5,100	4	.....
Hillside Coal and Iron Co.,	Luzerne,	.....	.....	4	2,000	2,500	.....	.....	.....	25	1,959	2	10,000	7,000	.....	.....
Elliot McClure and Co.,	Lackawanna,	.....	.....	10	800	800	2	.....	.....	14	856	1	600	500	.....	.....
Hudson Coal Co.,	Luzerne,	.....	.....	3	1,200	1,200	.....	.....	.....	24	1,250	2	3,500	1,800	.....	.....
Lehigh Valley Coal Co.,	Lackawanna,	.....	.....	12	1,485	1,465	2	.....	.....	35	1,196	6	4,200	1,800	.....	.....
Moosic Coal Co.,	Lackawanna,	1	60	.....	.....	.....	.....	.....	.....	1	15	1	500	400	.....	.....
Totals,	Lackawanna,	11	720	79	15,110	15,830	13	63	206	14,288	33	46,020	26,700	8	2

TABLE 3.—Number of each class of employes inside and outside of mines

Names of Operators	County	Inside										Outside										Grand total inside and outside
		Mine foremen	Assistant mine foremen	Mine bosses and assistants	Miners	Miners' laborers	Drivers and runners	Doorboys and helpers	Pumpmen	Company men	All other employes	Total Inside	Superintendents	Foremen	Blacksmiths and carpenters	Engineers and firemen	State pickers (boys)	State pickers (men)	Bookkeepers and clerks	All other employes	Total outside	
Pennsylvania Coal Co.,	Lackawanna,	4	12	.....	620	533	44	37	12	202	165	1	2	49	40	155	50	5	401	713	2,342
Delaware, Lackawanna and Western Railroad Co.,	Luzerne,	4	2	13	582	567	110	24	15	58	565	.....	4	17	46	110	28	9	232	446	2,086
Jermyn and Co.,	Luzerne,	2	2	11	288	295	100	8	3	113	.....	2	3	18	20	50	49	6	90	238	1,000
Hillside Coal and Iron Co.,	Luzerne,	2	3	.....	110	99	36	2	1	8	53	.....	1	29	17	30	3	1	133	234	548
Filbott McClure and Co.,	Lackawanna,	1	6	.....	200	170	70	15	4	44	20	.....	1	7	9	63	12	6	60	159	680
Hudson Coal Co.,	Luzerne,	2	1	1	96	126	44	.....	1	19	3	.....	2	8	96	7	16	4	62	125	418
Lehigh Valley Coal Co.,	Lackawanna,	1	.....	.....	10	9	6	.....	1	10	.....	.....	.....	.....	.....	.....	.....	.....	7	9	46
Moosic Coal Co.,	Lackawanna,	1	.....	.....	8	7	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	2	7	24
Totals,	17	26	25	1,914	1,806	411	86	37	454	606	5,282	4	13	130	160	417	108	32	1,007	1,931	7,213

TABLE 3.—Part 2

Names of Operators	County	Average Number of Days Worked in Breaker												Total
		January	February	March	April	May	June	July	August	September	October	November	December	
Pennsylvania Coal Co.,	Lackawanna, -- Luzerne, ---	25	24	26	23	26	26	25	26	25	25	24	25	300
Delaware, Lackawanna and Western Railroad Co.,	Lackawanna, -- Luzerne, ---	22	17	17	20	23	23	20	23	22	23	21	21	252
Jermyn and Co.,	Lackawanna, --	21	21	23	15	21	22	22	23	21	21	20	20	250
Hillside Coal and Iron Co.,	Luzerne, ---	22	21	24	21	21	22	20	23	21	22	22	22	261
Elliott McClure and Co.,	Lackawanna, --	22	23	26	21	23	23	24	24	24	24	22	21	275
Hudson Coal Co.,	Luzerne, --- Lackawanna, --	10	9	10	9	9	9	10	9	10	9	10	10	114
Moosie Coal Co.,	Lackawanna, --	---	---	---	---	---	---	---	7	6	11	25	24	73

TABLE 4.—Fatal accidents inside and outside of mines

Date of accident	Name of Person	Nationality	Occupation	Age	Married or single	Number of widows	Number of orphans	Name of Colliery	County	Nature and Cause of Accident in Brief
Jan. 19	Joseph Antol,	Slavonian,	Miner,	53	M.	1	1	Taylor,	Lackawanna,	Fatally injured by being struck by fall of "bol" roof 10 feet from face.
Feb. 6	John Shield,	American,	Motor brake man,	21	S.			Pyne	Lackawanna	Right leg fractured and left leg cut by being run over by cars on gangway road. Sometime after the accident gangrene set in and he died February 6.
7	Charles Brady,	Polish,	Miner,	32	M.	1	2	Spring Brook,	Lackawanna,	Back broken by fall of slate at face.
28	Steve Olosky,	Slavonian,	Laborer,	17	S.			Halstead,	Luzerne,	Died February 21.
Mar. 16	John Waskel,	Polish,	Laborer,	25	S.			Langcliffe,	Luzerne,	Killed by trip of cars while wandering along gangway road.
20	Alec Banosky,	Polish,	Miner,	27	M.	1		Old Forge,	Lackawanna,	Killed by falling down shaft. While ascending shaft on cage, he became dizzy and fell off the cage.
April 1	Joe Friedman,	Hebrew,	Laborer,	42	M.	1	6	Jermyn Nos. 1, 2, 3,	Lackawanna,	Killed by fall of roof at face of pillar.
8	William Goponski,	Polish,	Miner,	29	S.			Consolidated,	Luzerne,	Killed by fall of roof at face of pillar.
17	Fred Owens,	American,	Miner,	27	M.	1	1	Jermyn Nos. 1, 2, 3,	Lackawanna,	Killed by fall of roof at face of pillar.
May 3	Thomas Walsh,	American,	Miner,	38	M.	1	2	Central,	Luzerne,	Killed by fall of roof at face of chamber.
10	Charles Notari,	Italian,	Laborer,	23	S.			Old Forge,	Lackawanna,	Killed by fall of roof at end of pillar.
12	Rose Scavle,	Lithuanian,	Miner,	41	M.	1	4	Halstead,	Luzerne,	Killed by blast. He placed gas squib in hole, lighted it and retired to cressent.
	Anthony Orloczenski,	Lithuanian,	Miner,	26	M.	1				After waiting about fifteen minutes he returned and as he reached the face the blast exploded.
26	Adam Shamonie,	Lithuanian,	Miner,	38	M.	1		Jermyn Nos. 1, 2, 3,	Lackawanna,	Killed by fall of roof at face of pillar.
	Alec Jacobovitch,	Lithuanian,	Laborer,	30	S.					

May 29	Edward Prieste, -----	English, -----	Miner, -----	43	M.	1	4	Jermyn 2, 3,	Lackawanna, -	Killed by fall of roof at face, while robbing pillars.
June 22	James Selorno, -----	Italian, -----	Miner, -----	50	M.	1	4	Jermyn 2, 3,	Lackawanna, -	Fatally injured by being thrown on top beam of car. He placed a mining rail from rib to top of car to be used as a scaffold while drilling hole in top coal at face of chamber. The rail slipped and threw him on top beam of car.
July 19	John Guskuskie, -----	Polish, -----	Miner, -----	44	M.	1	3	Central,	Luzerne, -----	Killed by fall of roof at face while robbing pillars.
25	Thomas Johns, -----	Welsh, -----	Laborer, -----	38	S.	-----	-----	Taylor,	Lackawanna, -	Killed by fall of roof 18 feet from face of chamber.
Aug. 1	Nicholas Credell, -----	Italian, -----	Miner, -----	23	M.	1	-----	Jermyn 2, 3,	Lackawanna, -	Killed by fall of top coal at end of pillar while robbing same.
Oct. 17	William T. Williams, -----	Welsh, -----	Miner, -----	48	M.	1	-----	Sibley,	Lackawanna, -	Fatally burned about head, shoulders, breast, hands and arms, while charging a hole. Cartridge stuck in hole and he rammed powder back with scraper causing explosion.
24	Waddock Keysutsky, -----	Russian, -----	Miner, -----	46	M.	1	0	Jermyn 2, 3,	Lackawanna, -	Killed by fall of roof at face.
	David Perry, -----	American, -----	Miner, -----	28	S.	-----	-----	Taylor,	Lackawanna, -	Killed by being squeezed between car and rib on rock road.
27	Thomas Griffin, -----	Irish, -----	Miner, -----	27	M.	1	1	Sibley,	Lackawanna, -	Killed by fall of roof at face of pillar while restanding a prop.
Dec. 1	Thomas Hession, -----	Irish, -----	Miner, -----	56	M.	1	-----	Taylor,	Lackawanna, -	Killed by fall of roof at face of chamber.

TABLE 5.—Non-fatal accidents inside and outside of mines

Date of accident	Name of Person	Nationality	Occupation	Age	Married or Single	Name of Colliery	County	Nature and Cause of Accident in Brief
Jan. 20	John Dusho,	Polish,	Miner,	30	M.	Jermyn Nos. 1, 2, 3,	Lackawanna, ---	Shoulder dislocated by fall of top coal at face.
Feb. 7	William Green,	American,	Laborer,	30	S.	Langellife,	Luzerne,	Leg broken by being caught between timber and railroad tracks. Outside.
11	Robert Seamans,	English,	Miner,	65	M.	Old Forge,	Lackawanna, ---	Two ribs broken by fall of roof at face.
57	Harry Gillispie,	American,	Fireman,	34	M.	Old Forge,	Lackawanna, ---	Ulna fractured and arm lacerated by putting arm between disk and bed plate of engine before engine came to a stop. Outside.
Mar. 5	Joseph Peions,	Italian,	Rock dumper,	42	S.	Consolidated,	Luzerne,	Two ribs broken and back and legs scratched. He was thrown off mule's back, his foot caught in traces and he was dragged. Outside.
53	Frank Morandi,	Italian,	Machine helper,	15	S.	Jermyn Nos. 1, 2, 3,	Lackawanna, ---	Right arm torn off. While working on drill press in machine shop his clothing was caught. Outside.
	Notzi Kochinsky,	Polish,	Miner,	23	M.	Jermyn Nos. 1, 2, 3,	Lackawanna, ---	Leg broken and hand crushed by fall of roof at face.
24	Stanley Melisky,	Polish,	Driver,	15	S.	Sibley,	Lackawanna, ---	Foot crushed by being caught between bumpers of two cars. Outside.
April 18	David Parry,	American,	Laborer,	27	S.	Taylor,	Lackawanna, ---	Hip injured and head cut by fall of roof at face.
21	Leo Breymier,	American,	Runner,	18	M.	Halstead,	Luzerne,	Collar bone broken. He was running car out of chamber and missed the sprag. He ran after the car, fell and struck his shoulder against prop.
May 10	Andrew Tchanovitch,	Lithuanian,	Laborer,	30	M.	Pyne,	Lackawanna, ---	Head and neck lacerated and ribs broken by fall of roof at face.
20	Sam Beesic,	Austrian,	Laborer,	24	S.	Old Forge,	Lackawanna, ---	Compound fracture of both legs by fall of top coal at face.

May	29	William Edwards,	American,	Driver,	20	S.	Consolidated,	Luzerne,	Skull fractured. Kicked by mule on gangway road.
June	7	John Price,	Welsh,	Foot-tender,	43	S.	Consolidated,	Luzerne,	Injured by being caught between empty and loaded cars on branch at foot of slope.
	19	Andrew Povhounes,	Lithuanian,	Miner,	47	M.	Habstead,	Luzerne,	Back and side injured by premature blast at face.
	24	Peter Swagan,	Polish,	Miner,	43	M.	Sibley,	Lackawanna,	Eyes injured by premature blast at face.
		Michael Zapko,	Polish,	Laborer,	23	S.			Skull slightly fractured.
Aug.	4	Mike Keshpin,	Russian,	Loader,	27	S.	Pyne,	Lackawanna,	Contusion of right hip and thigh, by being caught between car and steps leading to loaders' platform under breaker. Outside.
	19	Stanley Yopchunko,	Polish,	Laborer,	22	M.	Langoliffe,	Luzerne,	Left leg fractured by fall of roof at face.
		William Owens,	Welsh,	Miner,	47	M.	Langoliffe,	Luzerne,	Compound fracture of left leg and arm, also contusions on side and scalp wounds by fall of roof at face.
	22	Thomas Wylam,	English,	Miner,	47	M.	Sibley,	Lackawanna,	Body cut, bruised and burned by premature blast at face of chamber.
		Evan Davis,	Welsh,	Laborer,	20	S.			Left leg fractured, right ankle dislocated, and contusions on right hand and left leg by fall of roof at face.
Sept.	5	Reginaldo Matteolo,	Italian,	Miner,	42	M.	Sibley,	Lackawanna,	Compound fracture of arm and scalp cut by fall of roof at face.
		Bologna Constantine,	Italian,	Laborer,	28	S.	Sibley,	Lackawanna,	Scalp slightly wounded by fall of roof at face of chamber.
	28	David B. Davis,	Welsh,	Company man,	39	M.	Pyne,	Lackawanna,	Hip broken by being caught between car and roof while riding on front end of car on gangway.
Oct.	18	Edward Collins,	American,	Coal inspector,	45	M.	Taylor,	Lackawanna,	Left arm broken and body squeezed by being struck by car while riding from breaker to office. Outside.
	9	Dominick Bruno,	Italian,	Miner,	26	M.	Sibley,	Lackawanna,	Head cut and bruised by a delayed blast at face of chamber.
	31	John Redock,	Polish,	Bankman,	42	S.			Face, arms and legs burned by an explosion caused by water coming in contact with burning culm. Outside.
		Alex Stummondosky,	Italian,	Bankman,	36	S.	Consolidated,	Luzerne,	Face, legs and lower part of body burned by above explosion.
Nov.	5	John Reap,	American,	Miner,	42	S.	Consolidated,	Luzerne,	Left leg broken by fall of roof at face of pillar while robbing it.
	22	Joe Reese,	Welsh,	Helper,	29	M.	Taylor,	Lackawanna,	Compound fracture of right leg by fall of roof at face.
	29	John Flynn,	Irish,	Miner,	45	M.	Taylor,	Lackawanna,	Back badly injured by fall of roof at face of chamber.

TABLE 5—Continued

Date of accident	Name of Person	Nationality	Occupation	Age	Married or single	Name of Colliery	County	Nature and Cause of Accident in Brief
Dec. 4	Mike Fenik,	Silavonian,	Loader,	25	S.	Pyne,	Laekawanna, ---	Head injured and compound fracture of right arm by being knocked off a car. Outside.
	Peter Brobosky,	Polish,	Miner,	40	M.	Sibley,	Laekawanna, ---	Legs broken by fall of roof at face of chamber.
7	William Kisselsky,	Russian, ---	Prop-cutter,	41	M.	Sibley,	Laekawanna, ---	Arm broken by being struck by mine car that slipped off guide. The mine car was being unloaded from big car. Outside.

CONDITION OF COLLIERIES

PENNSYLVANIA COAL COMPANY

Old Forge.—Ventilation, drainage and condition as to safety, good. Colliery is mining pillars to some extent.

Central.—Ventilation, drainage and general condition, good.

DELAWARE, LACKAWANNA AND WESTERN RAILROAD COMPANY

Pyne.—Ventilation, drainage and condition as to safety, good. Colliery is mining pillars.

Taylor.—Ventilation, drainage and condition as to safety, good.

Halstead.—Ventilation, drainage and general condition as to safety, fair.

JERMYN AND COMPANY

Jermyn Nos. 1, 2 and 3.—Ventilation and drainage good; condition as to safety, fair. Robbing pillars extensively.

HILLSIDE COAL AND IRON COMPANY

Consolidated.—Ventilation, drainage and condition as to safety, good. Pillars are being robbed.

ELLIOTT McCLURE AND COMPANY

Sibley.—Ventilation, drainage and condition as to safety, good.

HUDSON COAL COMPANY

Langeliffe.—Ventilation, drainage and general condition as to safety, good. Mining pillars.

Spring Brook.—Ventilation, drainage and general condition as to safety, good. Robbing pillars.

LEHIGH VALLEY COAL COMPANY

Austin.—Ventilation, drainage and general condition as to safety, fair. Robbing pillars almost exclusively.

MOOSIC COAL COMPANY

Moosic.—Ventilation, drainage and condition as to safety, good.

IMPROVEMENTS

PENNSYLVANIA COAL COMPANY

Old Forge Colliery.—Started work on the opening to the Clark and Marcy veins on the E. A. Corey tract. An air shaft 12 feet by 12 feet has been sunk 125 feet in depth. A slope 7 feet by 12 feet in the clear, 450 feet in length, on a pitch of 15 degrees, is being sunk to the Clark vein and also cuts the Marcy.

Central Colliery.—A new brick stable was built to accommodate all the mules. The inside barns have been abandoned and torn out.

JERMYN AND COMPANY

Jermyn Nos. 1, 2, 3 Colliery:

No. 1.—Barn on inside torn out and mules taken to outside barn. A new slope driven from outside to Marcy vein. An electric plant was built for the purpose of lighting inside and outside.

No. 2.—A new concrete barn was built to take the place of wooden structure. Also tail rope engine house made of concrete.

HILLSIDE COAL AND IRON COMPANY

Consolidated Colliery.—A new opening was made to the Red Ash vein from the outcrop, which affords a second opening directly to that vein.

MOOSIC COAL COMPANY

Moosic Colliery.—A new breaker, 30 feet by 48 feet by 52 feet high, was built and necessary machinery placed therein for the preparation of coal.

SIXTH DISTRICT

LUZERNE COUNTY

Pittston, Pa., February 24, 1912.

Hon. James E. Roderick, Chief of Department of Mines:

Sir: I have the honor to transmit herewith my Annual Report as Inspector of Mines for the Sixth Anthracite District, for the year ending December 31, 1911. The report contains the usual tables and statistics, with a brief description of the most important improvements made at the collieries, and also a brief description of fatal accidents.

Respectfully submitted,
H. McDONALD, Inspector.

SUMMARY OF STATISTICS

Number of collieries,	13
Number of mines,	39
Number of mines in operation,	37
Number of tons of coal shipped to market,	4,544,417
Number of tons used at mines for steam and heat,	479,533
Number of tons sold to local trade and used by employes,	40,732
Number of tons produced,	5,064,682
Number of tons produced by compressed air machines, .....	.....
Number of tons produced by electrical machines, .....	.....
Number of persons employed inside of mines,	8,335
Number of persons employed outside,	2,703
Number of fatal accidents inside of mines,	36
Number of fatal accidents outside,	3
Number of non-fatal accidents inside of mines,	63
Number of non-fatal accidents outside,	6
Number of tons of coal produced per fatal accident inside,	140,685
Number of persons employed per fatal accident inside,	231
Number of persons employed per fatal accident outside,	901
Number of persons employed per non-fatal accident inside,	132
Number of persons employed per non-fatal accident outside,	450
Number of wives made widows,	22
Number of children made orphans,	44
Number of steam locomotives used inside of mines, .....	.....
Number of steam locomotives used outside,	25
Number of compressed air locomotives used inside,	13
Number of compressed air locomotives used outside, .....	.....
Number of electric motors used inside,	54
Number of electric motors used outside, .....	.....
Number of fans in use,	40
Number of furnaces in use, .....	.....
Number of gaseous mines in operation,	18
Number of non-gaseous mines in operation,	19
Number of new mines opened,	2
Number of old mines abandoned, .....	.....

TABLE A

PRODUCTION OF COAL

Names of Operators	Tons
Pennsylvania Coal Company,	3,044,567
Hudson Coal Company,	658,860
Hillside Coal and Iron Company,	628,314
Lehigh Valley Coal Company,	519,449
Delaware and Hudson Company,	182,181
Yost Mining Company,	28,484
McCauley Coal Company,	2,827
	<hr/>
Total,	5,064,682
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Production by Counties

Luzerne,	5,064,682
	<hr/>
	1,658,227

TABLE C.—Classification of Fatal Accidents Inside and Outside of Mines

	Months												Percentages		
	January	February	March	April	May	June	July	August	September	October	November	December		Totals	
Causes of Accidents Inside															
Falls of coal,								2					2	5.56	
Falls of roof,			5			2	1		3	1		1	11	30.55	
Mine cars,		1									2		3	8.33	
Explosions of gas,	2		1			2							5	13.89	
Suffocation by gas, etc.,	1												1	2.78	
Explosions of powder and dynamite,	3					1							4	11.11	
Blasts, premature and otherwise,		1					1	1	2	1		1	7	19.44	
Falling into shafts,												1	1	2.78	
Machinery,		1											1	2.78	
Struck by timber,	1												1	2.78	
Totals,	7	3	4			5	2	3	5	2	2	3	26	100.00	
Causes of Accidents Outside															
Machinery,		1										1	1	3	100.00
Totals,		1										1	1	3	100.00
Grand totals inside and outside,	7	4	4			5	2	3	5	2	3	4	30		

TABLE D.—Classification of Non-Fatal Accidents Inside and Outside of Mines

	Months												Percentages	
	January	February	March	April	May	June	July	August	September	October	November	December		Totals
Causes of Accidents Inside														
Falls of coal,				1	1			1		2			6	9.52
Falls of roof,		1		1		1	2	2		2	3	2	15	23.81
Mine cars,	2				6	2	2	2	1		1	1	17	26.18
Explosions of gas,	1			1			2						6	9.52
Explosions of powder and dynamite,	4												4	6.35
Blasts, premature and otherwise,				1	1	1		1	1	1		2	8	12.70
Mules,			1				1						2	3.18
Machinery,				1	1								2	3.18
By falling,			1				1	1					3	4.76
Totals,	7	1	2	5	9	4	9	7	3	6	4	6	63	100.00
Causes of Accidents Outside														
Cars,	1	1											2	33.33
By falling,		1		1		1						1	4	66.67
Totals,	1	2		1		1						1	6	100.00
Grand totals inside and outside,	8	3	2	6	9	5	9	7	3	6	4	7	69	

TABLE E.—Occupations of Persons Killed or Fatally Injured Inside and Outside of Mines

	Months												Totals
	January	February	March	April	May	June	July	August	September	October	November	December	
Inside													
Miners,	1	1	3			3	2	2	2			2	16
Miners' laborers,	4		1					1	3			1	12
Drivers and runners,						1					1		2
Doorboys and helpers,											1		1
Company men,	2	1											3
Roadmen,		1				1							2
Totals,	7	3	4			5	2	3	5	2	2	3	36
Outside													
Blacksmiths and carpenters,			1										1
Electricians,											1		1
Laborers,												1	1
Totals,		1									1	1	3
Grand totals inside and outside,	7	4	4			5	2	3	5	2	3	4	39

TABLE F.—Occupations of Persons Injured Inside and Outside of Mines

	Months												Totals
	January	February	March	April	May	June	July	August	September	October	November	December	
Inside													
Miners,	1	1		2	3	2	2	6	1	4	2	2	27
Miners' laborers,	4			3	1		4		2	1	2	3	20
Drivers and runners,	2		2		4	2	1	1				1	13
Company men,									1				1
Roadmen,					1		1						2
Totals,	7	1	2	5	9	4	9	7	3	6	4	6	63
Outside													
Blacksmiths and carpenters,				1									1
Stateplekers (boys),						1							1
Machinists,		1											1
Headmen,		1											1
Laborers,	1												1
Loaders,											1		1
Totals,	1	2		1		1						1	6
Grand totals inside and outside,	8	3	2	6	9	5	9	7	3	6	4	7	69

TABLE G.—Nationality of Persons Killed or Fatally Injured Inside and Outside of Mines

	Months												Totals
	January	February	March	April	May	June	July	August	September	October	November	December	
American,		2	1			1					1	1	6
Irish,	3	1				2		1					7
German,											1		1
Polish,	1		3			1	1		2	1		2	12
Italian,						1				1		1	3
Slavonian,											1		1
Lithuanian,	2							1	2				5
Austrian,							1						1
Russian,	1	1						1					3
Totals,	7	4	4			5	2	3	5	2	3	4	39

TABLE H.—Nationality of Persons Injured Inside and Outside of Mines

	Months												Totals
	January	February	March	April	May	June	July	August	September	October	November	December	
American,	1	2	2	1	3	1	1	1				1	13
English,				1									1
Welsh,					1								1
Irish,		1						1		1			3
German,	1												1
Polish,	1			2	1	2	5	3	2	3	1	2	23
Italian,	2			1	1	1		1		1	1	2	10
Slavonian,					1				1	1			3
Lithuanian,	1						2				1	2	6
Austrian,						1							1
Russian,	2			1	1						1		5
French,								1					1
Bohemian,					1		1						2
Totals,	8	3	2	6	9	5	9	7	3	6	4	7	60

TABLE I.—Operators and mines, kind of openings, type and size of fans, size of furnaces, volume of air produced by fan or furnace per minute, number of splits of air currents and number of persons employed inside

Names of operators and mines	Kind of opening	Gasous or non-gasous	Method of ventilation	Diameter of fan in feet and inches	Width of blades in feet and inches	Depth of blades in feet and inches	Number of revolutions per minute	Water gauge developed—in inches	Name of fan	Power used	Area of furnace bars in square feet	Number of splits of air currents	Number of cubic feet of air per minute entering the mine at inlet	Total quantity of air per minute circulating in all the splits in cubic feet	Number of cubic feet per minute passing out at outlet	Number of persons employed inside
Pennsylvania Coal Co.																
Barnum Colliery:																
Barnum No. 2,	Shaft,	Gasous,	2 Fans,	17, (20,	5.2, 6.5	4.7, 5.3	75, 69	.7, 1,	Guibal,	Steam,	5	63,000	59,150	67,550	291
Barnum No. 3,	Shaft,	Gasous,	Fan,	17	5,	5,	67	.3	Guibal,	Steam, .....	.....	3	58,000	60,500	200
Number 9 Colliery:																
Number 1, .....	.....	.....	.....	20,	6.5	5.3	55	.8	.....	.....	.....	5	81,695	100,455	201
Number 8, .....	.....	.....	.....	20,	6.5	5.3	60	.8	.....	.....	.....	5	81,610	102,550	230
Number 9,	Shaft,	Gasous,	Fan,	20,	6.5	5.3	61	1.5	Guibal,	Steam, .....	.....	2	57,050	64,350	105
Number 10, .....	.....	.....	.....	20,	6.5	5.3	69	1.4	.....	.....	.....	5	105,600	122,000	255
Leadville, .....	.....	.....	.....	20,	6.5	5.3	64	2,	.....	.....	.....	3	59,100	70,200	113
Ewen Colliery:																
Hoyt, .....	.....	.....	.....	20,	6.5	5.3	70	1,	Guibal,	Steam, .....	.....	7	134,460	158,530	330
Number 7,	Shaft,	Gasous,	Fan,	20,	6.5	5.3	61	1,	Guibal,	Steam, .....	.....	6	86,460	91,780	310
Number 4, .....	.....	.....	2 Fans,	20,	6.5	5.3	65	1.5	.....	.....	.....	7	90,070	107,750	337
Number 6 Colliery:																
Number 5,	Shaft,	Gasous,	Fan,	20,	6.5	5.3	65	1.1	Guibal,	Steam, .....	.....	5	78,480	79,600	219
Number 6,	Shaft,	Gasous,	Fan,	20,	6.5	5.3	68	1,	Guibal,	Steam, .....	.....	9	103,480	110,400	365
Number 6 Diamond,	Slope,	Non-gas.,	Fan,	12,	4,	3,	52	.5	.....	.....	.....	2	14,684	16,540	47
Number 11,	Shaft,	Gasous,	Fan,	20,	6.5	5.3	60	1.5	.....	.....	.....	4	69,300	72,200	153

Number 14 Colliery:										
Number 14, Shaft,	Gaseous,	3 Fans,	20,	6.5	5.3	70	1.	297,300	140,575	649
Number 14, Slope,	Non-gas., Fan,	Fan,	17,	5.	4.	70	.8	43,820	37,070	190
Number 14, Tunnel,	Non-gas., Fan,	Fan,	17,	48,215	40,100	70	.8	50,210	50,210	133
Courtright, Shaft,	Non-gas., Fan,	Fan,	20,	6.5	5.3	65	.8	57,735	74,140	233
Chapman, Slope,	Non-gas., Natural,							10,150	6,000	14
Hudson Coal Co.										
Pine Ridge Colliery:										
Lafin, Shaft,	Gaseous,	2 Fans,	28,	8	7.3	58	2.1	339,310	203,530	816
Lafin, Tunnel,	Non-gas., Fan,	Fan,	20,	5	5	75	1.3	143,945	127,022	372
	Non-gas., Fan,	Fan,	14,	4	3.6	85	.5	34,690	37,020	66
Hillside Coal and Iron Co.										
Butler Colliery:										
Butler Marcy, Slope,	Fan,	Fan,	20,	6.5	5.3	80	1.6	62,500	37,800	152
Butler Marcy, Slope,	Fan,	Fan,	10,	4.6	2.8	110	.6	63,000	43,000	140
Butler Checker, Shaft,	Non-gas.,	2 Fans,	15,	4	4	100	1.2	191,690	178,400	369
Thomas, Shaft,	Non-gas.,		16,	4.3	4	100	1.2			
Fernwood, Slope,	Fan,	Fan,	20,	6.5	5.3	54	.9	81,300	56,700	227
Clarence, Slope,	Natural,							27,700	25,300	124
Lehigh Valley Coal Co.										
Heidelberg No. 1 Colliery:										
Heidelberg No. 1, Slope,	Non-gas.,	Fan,	16,	4	2.5	80	.6	53,574	43,580	103
Heidelberg Marcy, Slope,	Non-gas.,	Fan,	10,	4	4	144	.8	42,801	31,800	74
Heidelberg, Shaft,	Non-gas.,	Fan,	20,	5.8	5	60	.4	40,900	37,500	84
Heidelberg, Tunnel,	Natural,							16,500	14,570	46
Mineral Spring Colliery:										
Mineral Spring, Shaft,	Gaseous,	Fan,	20,	6.6	5.6	60	.9	76,700	48,000	223
Mineral Spring, Slope,	Gaseous,	Fan,	12,	4	3.6	100	.7	24,200	13,700	59
Coal Brook, Tunnel,	Non-gas.,	Fan,	20,	6.6	5.6	60	.9	17,600	10,100	43
Delaware and Hudson Co.										
Delaware Colliery:										
Delaware, Shaft,	Gaseous,	2 Fans,	22.5,	6.6	5.6	70	1.8	147,650	106,310	361
Yost Mining Co.										
Yost Colliery:										
Yost, Slope,	Non-gas.,	Fan,	4,	1.10	1.	320	.3	16,200	10,000	47
McCauley Coal Co.										
Pickaway Colliery:										
Pickaway, Tunnel,	Non-gas.,	Natural,						6,500	4,600	22

TABLE 1.—Operators, location of collieries, railroads, etc.

Names of Operators and Collieries	County	Name of General Superintendent	Post Office	Name of Superintendent	Post Office	Railroad to Mine
Pennsylvania Coal Co.						
Barnum						
Number 9						
Ewel						
Number 6	Luzerne	W. A. May, General Manager.	Seranton	Henry T. McMillan,	Pittston	Erie
Number 14		W. W. Ingels, General Supt.		Henry T. McMillan,	Pittston	
				Wm. P. Jennings,	Pittston	
				John W. Reid,	Plainsville	
Hudson Coal Co.						
Pine Ridge	Luzerne	C. C. Rose	Seranton	E. R. Pettebone	Derrancton	Delaware and Hudson
Lafin						
Hillside Coal and Iron Co.						
Butler	Luzerne	W. A. May, General Manager.	Seranton	Wm. P. Jennings	Pittston	Erie
		W. W. Ingels, General Supt.				
Lehigh Valley Coal Co.						
Heidelberg No. 1	Luzerne	F. M. Chase	Wilkes-Barre	W. D. Owens	Pittston	Lehigh Valley
Mineral Spring				Thomas Thomas	Wilkes-Barre	
Delaware and Hudson Co.						
Delaware	Luzerne	C. C. Rose	Seranton	E. R. Pettebone	Derrancton	D. and H.
Yost	Luzerne	H. E. Rissinger	Pittston			Erie
Yost Mining Co.						
McCaughey Coal Co.						
Pickaway	Luzerne	William McCaughey	Pittston			Lehigh Valley

TABLE 2.—Number of tons of coal mined, number of days worked, number of persons employed, number killed and injured, quantity of powder, dynamite and permissible explosives used, etc.

Names of Operators and Collieries	County	Number of tons of coal shipped to market	Number of tons used at collieries for steam and heat	Number of tons sold to local trade and used by employes	Total production of coal in tons	Number of days worked	Number of employes	Number of fatal accidents	Number of non-fatal accidents	Explosives			Number of horses and mules
										Number of pounds of dynamite used	Number of pounds of powder used	Number of pounds of permissible explosives used	
Pennsylvania Coal Co.													
Barnum,		340,308	23,860	2,563	366,731	247	608	4	2	280,575		5,625	65
Number 9,		713,705	79,643	6,821	800,169	296	1,592	9	14	527,100		13,017	129
Ewen,	Luzerne	505,579	53,643		559,222	219	1,352	6	3	490,725		15,012	142
Number 6,		493,724	37,428	9,138	545,290	203	1,386	6	6	580,500		26,412	129
Number 14,		713,567	58,443	2,145	773,155	288	1,640	3	7	765,775	1,350	23,916	133
Totals,		2,770,883	263,917	20,667	3,044,567		6,628	28	32	2,644,675	1,350	99,432	658
Hudson Coal Co.													
Pine Ridge,	Luzerne	329,778	63,798	8,967	467,533	244	1,013	2	18	569,025	21,429	1,888	80
Lafayette,		168,490	21,925	912	191,327	202	653	1	9	313,035	45,550	2,160	69
Totals,		568,268	85,723	4,869	653,860		1,566	3	27	882,060	66,979	4,038	149
Hillside Coal and Iron Co.													
Fauler,	Luzerne	505,205	54,030	6,079	629,314	296	1,371	4	4	603,925	14,300	29,450	91
Lehigh Valley Coal Co.													
Heidelberg No. 1,	Luzerne	343,498	32,395	1,793	277,686	252	444			211,675	84,431		85
Mineral Spring,		219,015	20,501	2,247	241,763	171	421	3	1	156,050	116,780		66
Totals,		463,513	52,896	4,040	519,449		865	3	1	397,725	151,221		161

TABLE 2--Continued

Names of Operators and Collieries	County	Number of tons of coal shipped to market	Number of tons used at collieries for steam and heat	Number of tons sold to local trade and used by employes	Total production of coal in tons	Number of days worked	Number of employes	Number of fatal accidents	Number of non-fatal accidents	Explosives				Number of horses and mules
										Number of pounds of powder used	Number of pounds of dynamite used	Number of pounds of permissible explosives used	Number of pounds of explosives used	
Delaware and Hudson Co.	Luzerne,	145,119	32,907	4,155	182,181	213	478	1	5	180,035	3,876	3,275	55	
Yost,	Luzerne,	27,382	50	902	28,484	210	109	.....	.....	24,825	600	.....	8
Pickaway,	Luzerne,	1,897	910	20	2,827	91	30	.....	.....	3,250	.....	.....	5
Grand totals, .....	.....	4,544,417	479,533	40,732	5,064,682	.....	11,038	39	69	4,646,475	238,326	146,146	1,127

TABLE 2.—Part 2

Names of Operators	County	Number of Boilers				Locomotives			Number of steam engines of all classes	Total horse power	Number of pumps delivering water to surface	Capacity in gallons per minute	Quantity delivered to surface per minute—gallons	Number of electric dynamos	Number of air compressors	
		Cylindrical	Horse power	Tubular	Horse power	Total horse power	Steam	Air								Electric
Pennsylvania Coal Co.,	80	14,845	14,845	13	13	21	215	13,449	23	29,103	14,810	6	19
Hudson Coal Co.,	24	5,140	5,140	2	.....	8	93	4,000	6	8,300	4,300	2	4
Hillside Coal and Iron Co.,	31	3,280	3,280	8	.....	23	25	3,100	6	4,000	2,200	5	.....
Lehigh Valley Coal Co.,	14	1,800	2,800	2	.....	45	45	5,300	8	6,197	4,977	.....	.....
Delaware and Hudson Co.,	4	1,040	7	1,225	1,225	.....	.....	28	28	672	3	5,240	1,900	1	2
Yost Mining Co.,	2	500	500	.....	.....
McCauley Coal Co.,	1	80	80	.....	.....	1	1	75	.....	.....	.....	.....	.....
Totals,	4	1,000	157	26,370	27,370	25	13	54	413	27,196	48	53,600	23,087	14	25

TABLE 3.—Number of each class of employes inside and outside of mines

Names of Operators	County	Inside										Outside							Grand total inside and outside			
		Mine foremen	Assistant mine foremen	Fire bosses and assistants	Miners	Miners' laborers	Drivers and runners	Doorboys and helpers	Pumpmen	Company men	All other employes	Total inside	Superintendents	Foremen	Blacksmiths and carpenters	Engineers and firemen	State pickers (boys)	State pickers (men)		Bookkeepers and clerks	All other employes	Total outside
Pennsylvania Coal Co.,	15	48	13	1,579	1,536	628	62	31	386	607	4,935	3	5	131	128	252	167	19	980	1,093	4,628
Hudson Coal Co.,	2	4	10	401	459	136	1	10	118	23	1,254	.....	3	18	64	20	37	5	105	312	1,563
Hillside Coal and Iron Co.,	4	0	.....	395	360	54	11	69	139	1,076	.....	1	.....	25	31	68	18	2	150	235	1,371
Lehigh Valley Coal Co.,	4	0	.....	287	105	7	9	51	53	632	.....	3	.....	22	34	.....	18	6	160	238	866
Delaware and Hudson Co.,	1	1	3	95	154	56	4	3	40	4	361	.....	1	6	26	15	2	2	63	117	478
Yost Mining Co.,	1	.....	.....	21	20	8	1	1	3	.....	.....	1	1	2	1	24	.....	1	15	45	100
McCauley Coal Co.,	1	.....	.....	9	9	2	.....	.....	1	22	.....	.....	.....	1	2	3	.....	.....	1	8	30
Totals,	28	63	26	2,877	2,653	1,033	90	65	696	856	8,335	5	14	205	286	332	242	34	1,535	2,798	11,038

TABLE 4.—Fatal accidents inside and outside of mines

Date of accident	Name of Person	Nationality	Occupation	Age	Married or single	Number of widows	Number of orphans	Name of Colliery	County	Nature and Cause of Accident in Brief
Jan. 10	Mathew Daily, -----	Irish, -----	Company man	47	M.	1	-----	Ewen, -----	-----	Suffocated by after-damp on gangway road from an explosion of gas.
	Frank Leish, -----	Russian, ---	Laborer, -----	21	S.	-----	-----	Ewen, -----	-----	Fatally burned at face of heading by the above explosion. Died January 12.
	Patrick Bulger, -----	Irish, -----	Company man	64	M.	1	-----	Ewen, -----	-----	Fatally injured on gangway road by the concussion of above explosion. Died January 25.
20	Charles Whitcomb, --	Lithuanian, --	Laborer, -----	40	M.	1	-----	Number 14, -----	-----	Killed by a prop knocked out by fall of top coal at face of breast.
	Michael Roach, -----	Irish, -----	Miner, -----	51	M.	1	5	-----	-----	Fatally burned by the explosion of a keg of powder while they were riding in an empty trip of cars on gangway road in Marcy vein.
25	George Zigmund, ---	Polish, -----	Laborer, -----	27	S.	-----	-----	Number 9, -----	-----	Killed by being caught between cage and roof in shaft while attempting to get on cage after the signal had been given to hoist.
Feb. 16	Metro Hunco, -----	Russian, ---	Company man	27	S.	-----	-----	Lafin, -----	-----	Killed by being caught between mine car and pillar on gangway road. The car ran off track.
19	James Murphy, -----	American, --	Trackman, ---	38	M.	1	5	Barnum, -----	-----	Killed by premature blast that he was firing at face of breast.
21	Martin McNulty, -----	Irish, -----	Miner, -----	50	M.	1	-----	Number 9, -----	-----	Instantly killed by his clothing being caught by a revolving line shaft in breaker. Outside.
22	Emanuel Skidmore, ---	American, --	Carpenter, ---	23	M.	1	-----	Pine Ridge, -----	-----	Killed by fall of top rock while robbing pillars.
March 4	John Moran, -----	American, --	Miner, -----	30	S.	-----	-----	Butler, -----	-----	Fatally burned by gas in old workings.
6	Edward Cheleuskie, --	Polish, -----	Laborer, -----	22	S.	-----	-----	Pine Ridge, -----	-----	Died March 14.
15	Martin Sartino, -----	Polish, -----	Miner, -----	32	M.	1	3	Number 14, -----	-----	Fatally injured by fall of top rock at face of breast. Died next day.

Mar. 28	Alex Kermosky, -----	Polish, -----	Miner, -----	38	M. 1	4	Ewen, -----	Instantly killed by fall of top rock while robbing.
June 5	Walter Fitzsimons, --	Irish, -----	Runner, -----	22	S. 1	6	Number 6, -----	Fitzsimons was instantly killed and Quinn was fatally injured by an explosion of gas.
12	Martin Quinn, -----	Irish, -----	Road cleaner, -----	71	M. 1	1	Butler, -----	Instantly killed by fall of top rock 10 feet from face.
	Michael Mleahy, -----	American, -----	Miner, -----	60	M. 1	1	Butler, -----	Killed by fall of rock after firing a blast at face of breast.
20	Broniek Kapinski, -----	Polish, -----	Miner, -----	38	M. 1	2	Mineral Spring, -----	Fatally injured by the explosion of a keg of powder. Died July 3.
30	Samuel Rose, -----	Italian, -----	Miner, -----	34	M. 1	4	Number 6, -----	Instantly killed by fall of top rock while robbing.
July 21	Frank Hohnbebeck, ---	Austrian, ---	Miner, -----	29	M. 1	7	Barnum, -----	Fatally injured by a blast that he was firing. Died same day.
22	Michael Venelke, -----	Polish, -----	Miner, -----	35	M. 1	3	Number 9, -----	Fatally injured by a blast that he was firing. He thought it had missed and returned to investigate when it exploded. Died same day.
Aug. 3	Michael Gibbons, -----	Irish, -----	Miner, -----	50	M. 1	2	Number 6, -----	Instantly killed by coal falling off pillar on him.
29	Stanley Olensheski, ---	Russian, ---	Laborer, ---	19	S. 1	1	Barnum, -----	Killed by fall of rider coal at face of breast.
31	Frank Workola, -----	Lithuanian, -----	Miner, -----	33	S. 1	1	Number 6, -----	Killed by fall of rock while shoveling coal to road at face of breast.
Sept. 1	John Bucan, -----	Polish, -----	Laborer, -----	22	S. 1	1	Ewen, -----	Instantly killed by explosion of blast while tamping powder in a hole at face of breast.
7	(Michael Warzewich, Joseph Suckatowski)	Polish, Lithuanian,	Miner, Laborer,	40 22	M. 1 S. 1	1	Number 9, -----	Instantly killed by fall of roof rock at face of pillar robbing. He fired a blast, which knocked out two props, and while standing the props the roof fell.
11	Michael Gait, -----	Lithuanian, -----	Miner, -----	28	M. 1	3	Ewen, -----	Instantly killed by fall of rock while laying track in breast.
30	John Bernott, -----	Polish, -----	Laborer, -----	40	M. 1	4	Number 9, -----	Fatally injured by a premature blast. Died same day.
Oct. 4	Triana Lorenzo, -----	Italian, -----	Laborer, -----	24	M. 1	1	Butler, -----	Fatally injured by fall of rock at face of breast. Died same day.
27	Peter Lensenski, -----	Polish, -----	Laborer, -----	26	S. 1	1	Number 6, -----	Instantly killed by being crushed between cars on gangway road.
Nov. 7	Michael Kitchin, -----	American, -----	Driver, -----	19	S. 1	1	Mineral Spring, -----	Instantly killed by falling off trip of loaded cars on gangway road. He jumped on trip while passing the door.
9	Michael Poster, -----	Slavonian, -----	Doorboy, -----	17	S. 1	1	Mineral Spring, -----	Instantly killed by being drawn through the rolls. He got on top of the covering over the rolls to repair a lamp and slipped off into the chute. Outside.
22	Charles Hans, -----	German, ---	Electrician, ---	18	S. 1	1	Number 14, -----	

Luzerne, -----

TABLE 4—Continued

Date of accident	Name of Person	Nationality	Occupation	Age	Married or single	Number of widows	Number of orphans	Name of Colliery	County	Nature and Cause of Accident in Brief
Dec. 12	Stanley Pecos,	Polish,	Laborer,	24	M.	1	1	Barnum,		Instantly killed by falling off the cage while being hoisted up the shaft. He dropped his lamp when the cage started, and trying to recover it, he leaned out in the shaft and was caught by the buntings and pulled off the cage. Instantly killed by a premature blast that he was firing in face of breast. Killed by fall of top rock at face of breast.
	Henry Chichi,	Italian,	Miner,	27	S.			Burder,		
23	John Plusatus,	Polish,	Miner,	28	M.	1		Number 9,	Luzerne,	
27	Lawrence Kocblinski, ..	American, ..	Laborer, ..	20	S.			Delaware,		Instantly killed by being caught on line shaft in the breaker. He crawled under the fencing and climbed up the timber to the line shafting and in reaching over same his clothing was caught by a set screw on the shaft. Outside.

TABLE 5.—Non-fatal accidents inside and outside of mines

Date of accident	Name of Person	Nationality	Occupation	Age	Married or Single	Name of Colliery	County	Nature and Cause of Accident in Brief
Jan. 10	Anthony Gowley, ----	Russian, ---	Miner, ----	31	S.	Ewen, ----		Face and hands burned by explosion of gas at face of breast.
17	George Chiehurle, ----	Russian, ---	Laborer, ----	25	S.	Delaware, ----		Leg broken by car while dumping a car of rock. Outside.
	George Raskle, ----	German, ---	Driver, ----	17	S.	Number 14, ----		Collar bone fractured by being caught between car and door post on gangway.
25	Victor Gudavitch, ----	Lithuanian, ---	Laborer, ----	22	S.			Burned and injured by the explosion of a keg of powder while riding in an empty trip of cars hauled by an electric motor on gangway road. The powder was ignited in some unknown manner. Three persons were killed by this explosion.
	Michael Jicks, ----	Italian, ----	Laborer, ----	23	S.	Number 9, ----		Leg bruised by falling off car bumper on which he was riding on gangway.
	William Slovskie, ----	Polish, ----	Laborer, ----	40	M.			Leg broken by rock sliding down on him while barring it down at face of breast.
	Catal Mersetal, ----	Italian, ----	Laborer, ----	24	S.			Leg broken by mine car while running it off the cage at foot of shaft. Outside.
Feb. 16	Thomas Oliver, ----	American, --	Driver, ----	16	S.	Lafin, ----	Luzerne,	Badly bruised by falling off a ladder while rolling machinery. Outside.
18	Henry McFale, ----	American, --	Headman, ----	17	S.	Number 14, ----		Arm broken by being kicked by a mule on gangway road.
20	Arch Hines, ----	American, --	Machinist, --	34	M.	Number 9, ----		Arm broken by falling on it while running to sprag car on gangway road.
Mar. 10	John Mushock, ----	American, --	Driver, ----	16	S.	Pine Ridge, ----		Hips and back bruised by fall of rock at face of breast.
27	William Raymond, --	American, --	Driver, ----	17	S.	Delaware, ----		Face and hands slightly burned by gas at face of breast.
April 3	Toney Copitz, ----	Italian, ----	Laborer, ----	27	S.	Number 6, ----		
4	Paul Paluka, ----	Polish, ----	Laborer, ----	29	M.	Pine Ridge, ----		

TABLE 5—Continued

Date of accident	Name of Person	Nationality	Occupation	Age	Married or single	Name of Colliery	County	Nature and Cause of Accident in Brief
April	4 Joseph Rava,	Polish,	Laborer,	50	M.	Number 9,	Luzerne,	Pelvis fractured by top coal falling off pillar on him close to face. Head and body cut and bruised by flying coal from premature blast on breast road. Four toes cut off by cage at foot of shaft. Shoulder dislocated by falling in pocket in breaker. Outside. Collar bone broken and scalp severely wounded. He attempted to move an electric motor and it ran away with him, jumped the track, and ran into pillar on gangway road. Leg broken by runaway ear on slope, caused by rope breaking. Shoulder broken by falling against ear while running from blast on gangway road. Leg broken by runaway ear on plane. The rope broke. Head and leg bruised by drill falling on him at face of breast. Shoulder bone broken by falling off ear on gangway road. Leg broken and head cut by flying coal from a premature blast he was firing in breast. Leg broken by fall of rider coal at face of gangway.
	Nicholas Goushucy,	Russian,	Miner,	28	M.	Pine Ridge,		
6	Joseph S. Burns,	English,	Miner,	65	M.	Number 9,		
	19 J. F. Decker,	American,	Carpenter,	40	M.	Delaware,		
May	1 Toney Sehillng,	Italian,	Trackman,	29	M.	Butler,		
	8 John Padock,	Russian,	Runner,	23	S.	Ladlin,		
6	Henry Rowen,	American,	Laborer,	30	S.	Pine Ridge,		
8	Morgan Watkins,	Welsh,	Driver,	30	M.	Mineral Spring,		
11	John W. Burke,	American,	Miner,	50	M.	Pine Ridge,		
	John Socho,	Slavonian,	Driver,	18	S.	Pine Ridge,		
12	John Levis,	Polish,	Miner,	29	M.	Number 9,		
13	Martin Kearney,	American,	Miner,	31	M.	Butler,		

May 31	Joseph Kosack, ----	Bohemian, ----	Runner, ----	23	S.	Lafin, ----	Arm broken by being caught between car and roof on gangway road.
June 6	Michael Alaino, ----	Italian, ----	Slatepicker, ----	14	S.	Ewen, ----	Collar bone broken by falling off roof of breaker to ground. Outside.
7	James A. Durkin, ----	American, ----	Driver, ----	19	S.	Pine Ridge, ----	Arm broken while spragging car on gangway.
8	Con Vistock, ----	Polish, ----	Runner, ----	19	S.	Number 14, ----	Skull fractured by being struck by fall of rock on gangway.
17	Felix Jewback, ----	Austrian, ----	Miner, ----	39	M.	Number 14, ----	Jaw broken by a premature blast that he was firing in breast.
28	Jacob Mushock, ----	Polish, ----	Miner, ----	47	M.	Pine Ridge, ----	Leg broken while placing mine car on track at foot of breast.
July 3	Joseph Vaiteus, ----	Polish, ----	Laborer, ----	40	S.	Number 14, ----	Leg broken by piece of rock falling from roof on him at face of breast.
19	Joseph Kosack, ----	Bohemian, ----	Runner, ----	23	S.	Lafin, ----	Arm broken while unhooking cars from rope on plane.
20	Joseph Napora, ----	Polish, ----	Laborer, ----	30	M.	Pine Ridge, ----	Leg broken by rock falling off side of gangway ten feet from face.
21	Benjamin Polkevich, ----	Polish, ----	Miner, ----	28	M.	Lafin, ----	Kicked in stomach by the mule he was driving on gangway road.
22	Andrew Barkowski, ----	Lithuanian, ----	Trackman, ----	25	S.	Lafin, ----	Leg broken by car which jumped the track while he was riding down slope.
24	Stephen Laikuskas, ----	Lithuanian, ----	Miner, ----	50	M.	Ewen, ----	Back fractured by fall of rock in crosscut that he was driving at face of breast.
25	James Dixon, ----	American, ----	Miner, ----	32	M.		Burned by an explosion of gas at working face in Red Ash vein.
Aug. 4	Joseph Watsonsky, ----	Polish, ----	Laborer, ----	25	S.	Pine Ridge, ----	Arm broken by falling while running away from blast on chamber road.
9	John Slusar, ----	Polish, ----	Laborer, ----	27	S.	Pine Ridge, ----	Skull fractured by flying coal from a blast he was firing in a breast.
11	Anthony Fisher, ----	Polish, ----	Miner, ----	45	M.	Pine Ridge, ----	Collar bone broken while placing car on track on gangway.
16	Jacob Litszman, ----	Polish, ----	Miner, ----	35	M.	Number 9, ----	Ankle broken by fall of top coal at face of breast.
17	Joseph Edre, ----	French, ----	Miner, ----	45	M.	Number 14, ----	Ankle broken by rock bell falling out of the roof on him at face of breast.
24	Thomas Flynn, ----	Irish, ----	Miner, ----	46	M.	Number 6, ----	Spine fractured by fall of rock at face of airway.
20	Samuel Mandola, ----	Italian, ----	Miner, ----	35	M.	Delaware, ----	Leg broken by car on gangway road. He was standing on bumper and slipped off.
Sept. 11	Michael Morris, ----	Polish, ----	Miner, ----	40	M.	Number 6, ----	Head and face cut by flying coal while firing a blast in breast. He thought the south had missed and was returning to investigate.
16	Edward McHugh, ----	American, ----	Runner, ----	18	S.	Number 6, ----	Arm broken by falling while walking down the manway on his way to work.
	Jacob Doaryack, ----	Polish, ----	Miner, ----	40	M.	Pine Ridge, ----	
	Adam Halath, ----	Polish, ----	Laborer, ----	30	M.	Pine Ridge, ----	

Luzerne, ----

TABLE 5—Continued

Date of accident	Name of Person	Nationality	Occupation	Age	Married or single	Name of Colliery	County	Nature and Cause of Accident in Brief
Sept. 30	Stephen Undereekar, ---	Slavonian,	Laborer, ---	21	S.	Number 9, ---		Leg broken by being struck by car on gangway road.
Oct. 4	Angelo Bow, ---	Italian, ---	Miner, ---	31	M.	Butler, ---		Leg broken by a premature blast he was going to fire in the gangway. His laborer was killed.
7	Peter Golish, ---	Slavonian,	Company man, ---	37	M.	Butler, ---		Legs broken by fall of coal while robbing pillar.
10	James Moffett, ---	Irish, ---	Miner, ---	51	M.	Barnum, ---		Leg broken by fall of coal at face of breast.
13	Ignatz Sebastian, ---	Polish, ---	Miner, ---	33	S.	Number 9, ---		Leg broken by fall of coal at face of breast.
23	George Deboskie, ---	Polish, ---	Miner, ---	40	S.	Pine Ridge, ---		Leg broken by fall of fire-clay roof at face of breast.
27	Jacob Strano, ---	Polish, ---	Laborer, ---	35	M.	Ladlin, ---	Laizerue, ---	Back bruised by fall of middle rock in a cross-cut that he was driving.
Nov. 6	Peter Lubera, ---	Polish, ---	Laborer, ---	23	S.	Delaware, ---		Leg broken by fall of top rock at face of breast.
10	Joseph Nardoskie, ---	Lithuanian,	Laborer, ---	21	M.	Number 6, ---		Leg broken by fall of middle rock at face of breast.
11	John Push, ---	Russian, ---	Miner, ---	26	M.	Ladlin, ---		Back and breast bruised by being caught between car and mule that he was driving on gangway road.
21	Dominiek Zaueckes, ---	Italian, ---	Miner, ---	23	S.	Number 14, ---		Leg broken by fall of rock at face of breast.
Dec. 1	Henry Schriver, ---	American, ---	Driver, ---	18	S.	Number 6, ---		Leg broken by runaway car on plane.
2	Anthony Angelo, ---	Italian, ---	Laborer, ---	27	M.	Number 9, ---		Collar bone broken by fall of soap stone at face of breast.

Dec. 11	John Ruelinitis, -----	Lithuanian, Laborer, -----	24	S. Number 9, -----	Head severely cut and bruised by coal flying from a blast at face of breast.
12	Lawrence Martin, -----	Italian, --- Miner, -----	25	M. Ladin, -----	Leg broken by flying coal from a blast that he was firing on breast road.
15	John Chill, -----	Polish, --- Miner, -----	25	S. Line Ridge, -----	Face and hands burned by gas in abandoned workings.
22	Joseph Briski, -----	Polish, --- Loader, -----	39	M. Number 9, -----	Arm broken by falling of top of box car at breaker. Outside.
27	Joseph Stotousky, -----	Lithuanian, Laborer, -----	27	S. Number 6, -----	Leg broken by piece of roof rock falling on him at face of breast.

Explosion of Gas in Hoyt Shaft, Ewen Colliery, of Pennsylvania Coal Company

January 10.—Mathew Daily, company man, Frank Leish, laborer, and Patrick Bulger, company man, were fatally injured by an explosion of gas in Pittston vein. At 1.30 p. m., Bulger was sent to build a wall to direct the air current up to a counter gangway above, where Frank Leish was working. Mathew Daily was cleaning the road on the counter gangway. The fire boss on the above morning failed to discover any gas in the working places. The supposition is that Bulger had about completed the wall that directed the air current up into the abandoned breast where gas had accumulated when the gas was carried into the face of counter gangway and ignited by the open light of Frank Leish, who was the only person burned. Daily was suffocated by the after-damp, Leish died January 12 and Bulger died January 25, from injuries received due to the concussion.

Explosion of Powder in Number 10 Shaft, Number 9 Colliery, of Pennsylvania Coal Company

January 25.—Michael Roach, miner, George Zigmound, laborer, and Andrew Sepcock, laborer, were fatally burned by the explosion of a keg of powder.

These men got into a trip of empty cars with a keg of powder to ride in the gangway to work. The trip of cars was hauled in the gangway, Marey vein, by an electric motor and the powder was ignited either by the electric current or by the men in the car. Roach died the same evening, Zigmound February 1, and Sepcock February 2.

Four other persons were slightly burned by this explosion while riding in the car next to the one containing the powder.

Explosion of Gas in Number 11 Shaft, Number 6 Colliery, of Pennsylvania Coal Company

June 5.—Walter Fitzsimons, car runner, was instantly killed and Martin Quinn, road cleaner, was fatally burned by an explosion of gas. As June 4 was Sunday, the ventilating fan on Number 5 shaft was slowed down to allow repairs to be made in the shaft, and the fan was not started at its regular speed until sometime in the night. In the meantime gas had accumulated in the workings of Number 6 shaft, Red Ash vein, which is connected through Number 5 workings up to Number 11 shaft.

The mule barn is situated in the workings between Number 11 and Number 5 shafts, and the drivers go down Number 5 shaft to the barn.

The fire boss of Number 11 shaft entered the mine at his usual time in the morning of the 5th and made his examination. On arriving at the foot of the shaft he met Martin Quinn, the road cleaner, at 6.00 a. m., and placed him at a door close to the manway to the barn and told him to allow no person to go in until he returned from examining the workings inside. At 6.45 a. m., Fitzsimons came down and started down the manway to the barn and lighted a body of gas with his open light.

CONDITION OF COLLIERIES
PENNSYLVANIA COAL COMPANY

Barnum No. 9, Ewen No. 6 and No. 14.—Ventilation, drainage and condition as to safety, good.

HUDSON COAL COMPANY

Pine Ridge and Laffin.—Ventilation, drainage and condition as to safety, good.

HILLSIDE COAL AND IRON COMPANY

Butler.—Ventilation, drainage and condition as to safety, good.

LEHIGH VALLEY COAL COMPANY

Heidelberg No. 1. and Mineral Spring.—Ventilation, drainage and condition as to safety, good.

DELAWARE AND HUDSON COMPANY

Delaware.—Ventilation, drainage and condition as to safety, good.

YOST MINING COMPANY

Yost.—Ventilation, drainage and condition as to safety, good.

McCAULEY COAL COMPANY

Pickaway.—Ventilation fair. Drainage and condition as to safety, good.

IMPROVEMENTS

PENNSYLVANIA COAL COMPANY

Barnum Colliery.—A rock tunnel 7x12 feet, was driven from the Marcy to the Pittston vein, a distance of 300 feet, to mine the coal under the city of Pittston.

Number 9 Colliery.—The No. 3 shaft on Broad street, Pittston, was concreted from the surface to rock, and is now being sunk to the Red Ash vein, to be used as a second opening for No. 1 shaft and for ventilation; size of shaft, 10x20 feet.

At Leadville shaft a horizontal, triplex expansion, direct-acting wood-lined plunger pump was installed to deliver 2,500 gallons of water per minute against a head of 500 feet.

Number 14 Colliery.—A new slope 7x12 feet was sunk from the surface to the Diamond vein, and is driven in the vein 700 feet. A concrete arch has been put in from the surface to the vein. A new air shaft 12x12 feet has been sunk from the surface to the Diamond vein and concreted from the surface to the rock. A new concrete and steel air bridge, to connect the slope airway to the air shaft, has been completed.

Two new shafts have been in progress of sinking from the surface to the Red Ash vein. No. 1 shaft 12x16 feet is down to the Marcy vein and is concreted from the surface to rock a depth of 50 feet. No. 2 shaft 12x22 feet is down 90 feet to the rock and is concreted the whole distance.

The new air shaft 12x12 feet in progress of sinking in 1910, from the surface to the Checker vein and Pittston vein, has been completed and concreted from the surface to a point about 30 feet below the Hillman vein, making 90 feet of concrete.

The Chapman slope which was abandoned by the Irondale Coal Company in the year 1849, was reopened by the Pennsylvania Coal Company to recover the pillars left. The coal is taken to Number 14 breaker, over land 1,000 feet, and prepared for market.

LEHIGH VALLEY COAL COMPANY

Mineral Spring Colliery.—The new steel breaker, to replace the one destroyed by fire in March, 1910, was completed and resumed operations April 3. In connection with the breaker, an Ottumwa box car loader was installed, and a new breaker engine house, containing hoisting engine, breaker engine and jig engine, was built. The loading of the coal into railroad cars is done by means of a 36-inch rubber belt, which conveys the coal from the pockets to the cars. A Barney plane for hoisting the coal up into the breaker was installed. The empty car plane was dismantled and the cars from the breaker are now run by gravity over a steel trestle to the head of the Red Ash shaft and Baltimore slope. The entire yard surrounding the breaker was graded and terraced and retaining walls built at the foot of these terraces. An 8-inch bore hole 77 feet deep was drilled to drain the water from the box car loader pit to the Baltimore vein. An 8-inch bore hole was drilled from the surface to the Red Ash vein for silting; which is to be used in the event of the hole now in use becoming blocked. An 8-inch bore hole for rope was put down from the surface to the head of the Red Ash No. 5 plane. A pair of 20x48-inch first motion engines was installed on the surface, east of the reservoir, to operate this plane. The Coal Brook coal will be lowered by these engines to the shaft level. Work was started on the reconstruction of the mule barn to make it absolutely fireproof. The timber at the head of the Baltimore slope was removed and a reinforced concrete mouth constructed.

MINE FOREMEN'S EXAMINATIONS

The annual examination of applicants for certificates of qualification as mine foremen and assistant mine foremen, was held at the Y. M. C. A. Hall, Pittston, April 4 and 5. The Board of Examiners was composed of Thomas J. Williams, Mine Inspector; Henry T. McMillan, Superintendent; David P. Williams and James Martin, Miners.

The following persons passed a satisfactory examination and were granted certificates:

Mine Foremen

John Burke, John E. Phillips, John Cosgrove, Avoca; Robert Metcalf, Duryea; John J. Mattick, Hudson; Michael Cavanaugh, Hughestown; David J. Jenkins, West Pittston.

Assistant Mine Foremen

William Owens, Richard M. Hughes, Thomas Daley, Avoca; Thomas Jones, Hughestown; George C. Ayers, William Mattick, Hudson; William Palmer, Samuel May, Pittston; James Gardiner, Plains; George Fairclough, Laflin; Thomas L. Williams, Duryea; Edward J. Quinn, Yates.

SEVENTH DISTRICT

LUZERNE COUNTY

Wilkes-Barre, Pa., February 28, 1912.

Hon. James E. Roderick, Chief of Department of Mines:

Sir: I have the honor to transmit herewith my Annual Report as Inspector of Mines for the Seventh Anthracite District, for the year ending December 31, 1911.

The report contains the statistical information required by law, with a brief description of the fatal and non-fatal accidents that occurred during the year.

Respectfully submitted,
THOMAS H. PRICE, Inspector.

SUMMARY OF STATISTICS

Number of collieries,	14
Number of mines,	49
Number of mines in operation,	49
Number of tons of coal shipped to market,	4,651,199
Number of tons used at mines for steam and heat,	575,405
Number of tons sold to local trade and used by employes,	242,715
Number of tons produced,	5,469,319
Number of tons produced by compressed air machines, .....	.....
Number of tons produced by electrical machines, .....	.....
Number of persons employed inside of mines,	8,125
Number of persons employed outside,	2,437
Number of fatal accidents inside of mines,	36
Number of fatal accidents outside,	2
Number of non-fatal accidents inside of mines,	45
Number of non-fatal accidents outside,	6
Number of tons of coal produced per fatal accident inside,	151,926
Number of persons employed per fatal accident inside,	226
Number of persons employed per fatal accident outside,	1,218
Number of persons employed per non-fatal accident inside,	181
Number of persons employed per non-fatal accident outside,	406
Number of wives made widows,	23
Number of children made orphans,	51
Number of steam locomotives used inside of mines, .....	.....
Number of steam locomotives used outside,	28
Number of compressed air locomotives used inside,	14
Number of compressed air locomotives used outside, .....	.....
Number of electric motors used inside,	15
Number of electric motors used outside, .....	.....
Number of fans in use,	48
Number of furnaces in use, .....	.....
Number of gaseous mines in operation,	46
Number of non-gaseous mines in operation,	3
Number of new mines opened,	3
Number of old mines abandoned,	3

TABLE A

PRODUCTION OF COAL.

Names of Operators	Tons
Lehigh and Wilkes-Barre Coal Company,	2,505,886
Lehigh Valley Coal Company,	1,875,517
Delaware and Hudson Company,	657,156
Red Ash Coal Company,	218,472
North American Coal Company,	68,248
Pittston Coal Mining Company,	54,490
Wilkes-Barre Anthracite Coal Company,	50,075
Miners Mills Coal Mining Company,	39,475
Total,	<u>5,469,319</u>

Production by Counties

Luzerne,	5,469,319
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~~5,469,319~~
5,469,319

TABLE B.—Fatal and non-fatal accidents inside and outside of mines; number of tons of coal produced per accident; number of persons employed; number employed per accident

Names of Operators	Fatal Accidents			Non-Fatal Accidents			Tons of coal produced per fatal accident inside	Tons of coal produced per non-fatal accident inside	Number of employees inside	Number of employees outside	Total number of employees	Fatal accident		Non-fatal accident	
	Inside	Outside	Total	Inside	Outside	Total						Number of employees inside per fatal accident	Number of employees outside per fatal accident	Number of employees inside per non-fatal accident	Number of employees outside per non-fatal accident
Lehigh and Wilkes-Barre Coal Co.,	20	2	22	30	2	32	127,394	125,204	4,194	875	5,069	210	438	210	438
Lehigh Valley Coal Co.,	9	—	9	17	1	18	208,391	110,325	2,448	636	3,084	272	—	210	272
Delaware and Hudson Co.,	4	—	4	6	1	7	164,280	109,326	848	437	1,305	212	—	141	457
Red Ash Coal Co.,	2	—	2	2	—	2	167,236	167,236	336	283	624	168	—	168	144
Wilkes-Barre Anthracite Coal Co.,	1	—	1	—	—	—	36,075	—	96	42	138	96	—	—	—
Miscellaneous Companies,	—	—	—	—	—	—	—	—	203	139	342	—	—	—	—
Totals and averages for district,	36	2	38	45	6	51	131,926	121,540	8,125	2,437	10,562	226	1,218	181	406

TABLE C.—Classification of Fatal Accidents Inside and Outside of Mines

	Months												Percentages	
	January	February	March	April	May	June	July	August	September	October	November	December		Totals
Causes of Accidents Inside														
Falls of coal,					1	1	1			1			4	11.11
Falls of roof,	1	1			1	1	2	1		1		3	10	27.78
Mine cars,											1		2	5.56
Explosions of gas,			1			1								19.44
Suffocation by gas, etc.,						1							1	2.78
Explosions of powder and dynamite,									1	1			2	5.56
Blasts, premature and otherwise,		2	1					1		1			5	13.89
Falling into shafts,									1				1	2.78
Crushed at batteries,									1	1			2	5.56
Mules,										1			1	2.78
Struck by rock,											1		1	2.78
Totals,	1	3	2		2	4	3	2	5	6	5	3	36	100.00
Causes of Accidents Outside														
Cars,						1							1	50.00
Machinery,	1												1	50.00
Totals,	1					1							2	100.00
Grand totals inside and outside,	2	3	2		2	5	3	2	5	6	5	3	38	

TABLE D.—Classification of Non-Fatal Accidents Inside and Outside of Mines

	Months												Percentages	
	January	February	March	April	May	June	July	August	September	October	November	December		Totals
Causes of Accidents Inside														
Falls of coal,	2		1			1	1	1			1		7	15.56
Falls of slate,				1									1	2.22
Falls of roof,			1	1	1			1	1				5	11.11
Mine cars,		1	2	3	3	2			1	1	1	1	15	33.34
Explosions of powder and dynamite,									1				1	2.22
Blasts, premature and otherwise,		1						1		1		2	5	11.12
Falling into slopes, etc.,				1									1	2.22
Mules,											1		1	2.22
By falling,	1					1				1			3	6.67
Struck by rope,							1						2	4.44
Struck by lever,	1										1		1	2.22
Struck by piece of coal,				1									1	2.22
Struck by timber,				1									1	2.22
Struck by pipe,								1					1	2.22
Totals,	4	2	6	6	4	4	2	4	3	3	4	3	45	100.00
Causes of Accidents Outside														
Cars,					1	1							2	33.34
Machinery,		1											1	16.67
Struck by frozen dirt,		1											1	16.67
Struck by piece of rock,						1							1	16.66
By falling,											1		1	16.66
Totals,		2			1	2					1		6	100.00
Grand totals inside and outside,	4	4	6	6	5	6	2	4	3	3	5	3	51	

TABLE E.—Occupations of Persons Killed or Fatally Injured Inside and Outside of Mines

	Months												Totals
	January	February	March	April	May	June	July	August	September	October	November	December	
Inside													
Fire bosses and assistants,						1							1
Miners,		3	1		1		1	2	3	3	3		17
Miners' laborers,			1		1	1	2		2	1	3		13
Drivers and runners,										1			1
Doorboys and helpers,						1					1		2
Footmen,	1												1
Bratticemen,						1							1
Totals,	1	3	2		2	4	3	2	5	6	5	3	36
Outside													
Foremen,	1												1
Loaders,						1							1
Totals,	1					1							2
Grand totals inside and outside,	2	3	2		2	5	3	2	5	6	5	3	38

TABLE F.—Occupations of Persons Injured Inside and Outside of Mines

	Months												Totals
	January	February	March	April	May	June	July	August	September	October	November	December	
Inside													
Miners,	1	1	2		3	2	1	1	2			2	16
Miners' laborers,	1		1		1			1	3	2			9
Drivers and runners,	1	1			1	1	2			1	1	1	9
Doorboys and helpers,					1		1						3
Dumpers,			1										1
Footmen,			2								1		3
Headmen,				1		1							2
Timbermen,							1						1
Electricians,	1												1
Totals,	4	2	6	6	4	4	2	4	3	3	4	3	45
Outside													
Runners,						1							1
Laborers,		2											2
Loaders,					1								1
Miners,						1							1
Slatepickers (boys),										1			1
Totals,		2			1	2					1		6
Grand totals inside and outside,	4	4	6	6	5	6	2	4	3	3	5	3	51

TABLE G.—Nationality of Persons Killed or Fatally Injured Inside and Outside of Mines

	Months												Totals
	January	February	March	April	May	June	July	August	September	October	November	December	
American,	2					1				1			4
English,											1		1
Welsh,		1											1
Irish,		1				1					1		3
Polish,		1	1			1		2	3	3	2		13
Italian,										1			1
Slavonian,			1			1							2
Lithuanian,					1				2		1	1	5
Austrian,					1								1
Russian,							3			1		2	6
Assyrian,						1							1
Totals,	2	3	2		2	5	3	2	5	6	5	3	38

TABLE H.—Nationality of Persons Injured Inside and Outside of Mines

	Months												Totals
	January	February	March	April	May	June	July	August	September	October	November	December	
American,	2		1			3	1	1		1	2		11
Irish,				1	1	1	1	1				1	4
Polish,	2	3	2	1	3	1	1	1	1	1	2	2	20
Hungarian,						1		1					1
Italian,						1							1
Slavonian,		1	1	1									3
Lithuanian,			2	1				1	1				5
Austrian,				1									1
Russian,				1	1				1	1			4
Mexican,											1		1
Totals,	4	4	6	6	5	6	2	4	3	3	5	3	51

TABLE I.—Operators and mines, kind of openings, type and size of fans, size of furnaces, volume of air produced by fan or furnace per minute, number of splits of air currents and number of persons employed inside

Names of Operators and Mines	Kind of opening	Gasous or non-gasous	Method of ventilation	Diameter of fan in feet and inches	Width of blades in feet and inches	Depth of blades in feet and inches	Number of revolutions per minute	Water range developed—in inches	Name of fan	Power used	Number of splits of air currents	Number of cubic feet of air per minute entering the mine at inlet	Total quantity of air per minute circulating in all the splits in cubic feet	Number of cubic feet per minute passing out at outlet	Number of persons employed inside
Lehigh and Wilkes-Barre Coal Co.															
Hollenback No. 2 Colliery:															
Hollenback No. 1	Shaft	Gasous,	Fan,*	35	11.6	8.9	41	1.1	Guibal,	Steam,	19	372,350	335,110	440,940	585
Hollenback No. 2	Slope		Fan,*	24	7.11	6.0	61	1.1							
Hollenback No. 3	Slope		Fan,*	35	11.9	8.9	45	1.7							
Hollenback No. 4	Shaft		Fan,*	35	11.9	8.9	45	1.7							
South Wilkes-Barre No. 5 Colliery:															
South Wilkes-Barre No. 1	Shaft	Gasous,	Fan,	35	11.9	8.9	45	1.5	Guibal,	Steam,	39	479,660	339,615	530,830	728
South Wilkes-Barre No. 2			Fan,*	35	11.9	8.9	45	1.7							
South Wilkes-Barre No. 3			Fan,	35	11.9	8.9	45	1.7							
South Wilkes-Barre No. 4			Fan,*	35	11.9	8.9	45	1.7							
Stanton No. 7 Colliery,															
Stanton No. 1	Shaft	Gasous,	Fan,	24	8.0	6.0	60	1.5	Guibal,	Steam,	33	371,160	355,560	400,360	683
Stanton No. 2			Fan,*	35	11.7	8.9	44	1.7							
Empire No. 4			Fan,*	34.5	11.9	8.45	44	1.7							
Sugar Notch No. 9 Colliery:															
Sugar Notch No. 1	Drift,	Gasous,	Fan,	20	6.8	5.0	72	1.4	Guibal,	Steam,	15	372,000	317,195	464,375	576
Sugar Notch No. 2			Fan,*	24	8.9	6.0	35	1.4							

*Emergency fan.

Maxwell No. 20 Colliery:													
Maxwell No. 1,	Slope, ---	25	8.2	6.3	50	1.1	Guibal,	Steam,	28	446,450	420,170	455,450	824
Maxwell No. 2,	Shaft, ---	24	8.0	6.0	80	1.1							
Maxwell No. 3,	Shaft, ---	35	11.9	8.9	45	.7							
Maxwell No. 4,	Shaft, ---	35	11.9	8.9	45	.7							
Lehigh Valley Coal Co.													
Prospect Colliery:													
Prospect No. 1,	Shaft, ---	25	8.2	6.3	80	1.7				161,000	151,312	168,900	170
Prospect No. 2,	Shaft, ---	39	9.0	8.0	52	1.7				186,000	174,800	190,000	317
Oakwood,†	Slope, ---	30	9.0	8.0	51	1.6				57,070	88,680	103,490	130
Midvale,	Slope, ---	30	6.6	5.3	66	1.2				94,633	102,430	133	133
Jenny,	Slope, ---	28	10.0	8.0	56	2.7				71,242	68,208	77,440	174
Five Foot,	Slope, ---	28	5.6	7.6	46	1.6	Guibal,	Steam,	4	90,755	80,851	100,357	69
Wyoming,†	Slope, ---	25	7.0	6.0	59	1.1				138,100	102	202	150
Red Ash,	Slope, ---	28	6.6	7.6	51	1.5				80,060	88,000	95,000	85
Hillman,	Slope, ---	15	4.6	3.8	80	1.				11,200	10,000	11,600	85
Wyoming,	Slope, ---	15	4.6	3.8	80	1.				43,983	29,000	50,000	53
Warrior Run,	Slope, ---	20	6.0	5.0	72	1.2				116,000	110,000	154,000	161
No. 4 Hillman,‡	Slope, ---	14	4.0	3.6	65	.5							
Dorrance Colliery:													
Dorrance No. 1,	Shaft, ---	28	8.0	10.0	40	1.7	Guibal,	Steam,	9	150,334	137,487	174,531	182
Dorrance No. 2,	Shaft, ---	35	12.0	10.2	47	1.9				132,072	127,450	162,472	162
Dorrance No. 3,	Shaft, ---	35	10.0	8.0	54	1.9							
Franklin Colliery:													
Rock Slope,	Slope, ---	20	6.0	5.9	80	1.2				92,100	90,100	94,500	185
Long Slope,	Slope, ---	14	6.0	4.0	80	.8				62,800	60,000	64,700	65
Sump Slope,	Slope, ---	15	4.6	4.6	80	1.				37,800	26,400	29,300	53
Tunnel Drift,	Tunnel, ---									21,000	17,000	22,500	42
Delaware and Hudson Co.													
Baltimore No. 5 Colliery:													
Baltimore No. 2,	Slope, ---	17.5	5.3	4.8	64	2.2				136,385	109,805	141,975	160
Baltimore No. 3,	Slope, ---	28	7.0	5.6	65	2.8				192,065	168,050	207,120	213
Baltimore No. 5,	Slope, ---	28	7.0	5.6	65	2.8							
Conyngham Hillman,	Shaft, ---	20	5.8	5.0	78	1.8	Guibal,	Steam,	3	85,770	80,640	89,280	88
Conyngham Baltimore,	Double fan.	17	5.4	4.0	90	1.7				102,920	91,350	125,960	23
Baltimore Tunnel Colliery:													
Baltimore Tunnel,	Tunnel, ---	8	5.0	2.2	75	.8	Guibal,	Steam,	3	21,900	18,430	23,120	81
Baltimore Shaft,	Shaft, ---	20	5.8	5.0	52	1.	Guibal,	Steam,	4	97,310	78,800	116,550	129

*Emergency fan.

†Abandoned.

‡New opening.

TABLE I—Continued

Names of Operators and Mines	Kind of opening	Gaseous or non-gaseous	Method of ventilation	Diameter of fan in feet and inches	Width of blades in feet and inches	Depth of blades in feet and inches	Number of revolutions per minute	Water gauge developed—in inches	Name of fan	Power used	Number of splits of air currents	Number of cubic feet of air per minute entering the mine at inlet	Total quantity of air per minute circulating in all the splits in cubic feet	Number of cubic feet per minute passing out at outlet	Number of persons employed inside
Red Ash Coal Co.	Slope, ---	Non-gas.,	Fan, -----	15	5.0	3.9	78	1.6	Vulcan, -	Steam, ----	3	38,000	49,000	68,000	212
Red Ash No. 2 Colliery:	Slope, ---	Non-gas.,	Fan, -----	15	5.0	3.9	64	1.5	Vulcan, -	Steam, ----	6	54,000	59,000	59,000	124
Red Ash No. 1,															
Red Ash No. 2,															
Pittston Coal Mining Co.															
Hadleigh Colliery:	Shaft, ----	Gaseous,	Fan, -----	17	4.6	5.6	80	1.5	Tamaqua,	Steam, ----	4	59,000	30,000	68,000	107
Hadleigh,															
Wilkes-Barre Anthracite Coal Co.															
Hillman Vein Colliery:	Shaft, ----	Gaseous,	Fan, -----	30	10.0	8.0	50	3.0	Tamaqua,	Steam, ----	2	85,500	58,200	100,000	96
Hillman,															
Mineers Mills Coal Mining Co.															
Healey Colliery:	Slope, ---	Gaseous,	Fan, -----	5.5	2.4	1.6	143	1.	Buffalo,	Electricity,	1	12,000	11,000	15,000	21
Slope No. 1,	Slope, ---	Gaseous,	Fan, -----	9.0	2.0	2.6	73	3	Buffalo,	Electricity,	1	28,000	24,000	29,500	66
Slope No. 2, §															

§New opening.

TABLE 1.—Operators, location of collieries, railroads, etc.

Names of Operators and Collieries	County	Name of General Superintendent	Post Office	Name of Superintendent	Post Office	Railroad to Mine
Lehigh and Wilkes-Barre Coal Co.	Luzerne	C. F. Huber, General Manager.	Wilkes-Barre,	Wm. H. Herring, Outside. Morgan R. Morgans, Inside.	Wilkes-Barre.	Central Railroad of New Jersey
Hollenback No. 2, South Wilkes-Barre No. 5, Stanton No. 7, Sugar Notch No. 9, Maxwell No. 20, Empire Washery,	Luzerne					
Lehigh Valley Coal Co. Prospect, Dorrance, Franklin,	Luzerne	F. M. Chase,	Wilkes-Barre,	Thomas Thomas,	Dorranceeton,	Lehigh Valley
Delaware and Hudson Co. Baltimore No. 5, Baltimore Tunnel, Baltimore Slope Washery, Baltimore Tunnel Washery, Conyngham Washery,	Luzerne	C. C. Rose,	Scranton,	E. R. Pettebone,	Dorranceeton,	Delaware and Hudson
Red Ash Coal Co. Red Ash No. 2, Red Ash Washery,	Luzerne	T. F. Munford,	Wilkes-Barre,	T. F. Munford,	Wilkes-Barre,	Central Railroad of New Jersey
North American Coal Co. Sugar Notch Washery, Pittston Coal Mining Co. Hadeligh,	Luzerne	H. W. Saums,	Wilkes-Barre,	H. W. Saums,	Wilkes-Barre,	Central Railroad of New Jersey
Wilkes-Barre Anthracite Coal Co. Hillman Vein,	Luzerne	M. W. O'Boyle,	Pittston,	C. M. O'Boyle,	Kingston,	Central Railroad of New Jersey
Miners Mills Coal Mining Co. Healey,	Luzerne	James B. Neale,	Minesville,	John Conway,	Minesville,	Lehigh Valley
	Luzerne	M. J. Healey,	Plains,	M. J. Healey,	Plains,	Lehigh Valley

TABLE 2.—Number of tons of coal mined, number of days worked, number of persons employed, number killed and injured, quantity of powder, dynamite and permissible explosives used, etc.

Names of Operators and Collieries	County	Number of tons of coal shipped to market	Number of tons used at collieries for steam and heat	Number of tons sold to local trade and used by employes	Total production of coal in tons	Number of days worked	Number of employes	Number of fatal accidents	Number of non-fatal accidents	Explosives			Number of horses and mules
										Number of pounds of powder used	Number of pounds of dynamite used	Number of pounds of permissible explosives used	
Lehigh and Wilkes-Barre Coal Co.													
Hollenback No. 2,		540,789	42,740	39,321	423,850	229	843	2	1	390,450	11,470	34,435	91
South Wilkes-Barre No. 5,		448,955	43,360	95,839	590,154	240	1,260	5	11	475,775	10,647	68,180	130
Stanton No. 7,	Luzerne,	300,616	43,069	3,180	347,465	124	1,167	2	3	275,875	11,760	11,646	133
Sugar Notch No. 9,		340,482	20,179	6,261	368,422	337	746	5	3	265,250	13,810	81,137	92
Maxwell No. 20,		636,926	44,527	12,083	633,546	233	1,043	8	6	352,650	10,200	46,300	122
Empire Washery,	Luzerne,	2,069,748	197,415	156,714	2,423,877	294	5,029	22	22	1,718,850	57,887	242,233	568
Totals,		80,847	1,162	82,049			40						3
Lehigh Valley Coal Co.													
Prospect,		2,150,595	197,415	157,876	2,505,886		5,069	22	22	1,718,850	57,887	242,233	571
Doirance,	Luzerne,	962,133	126,368	5,266	1,093,667	362	1,854	4	9	658,750	242,361	2,082	282
Franklin,		349,890	45,721	41,537	440,548	246	720	1	7	337,900	42,415	7,100	79
Totals,		291,921	40,357	9,054	341,302	231	510	4	2	221,475	44,360		92
Delaware and Hudson Co.													
Baltimore No. 5,	Luzerne,	1,003,944	212,346	59,227	1,875,517		3,084	9	18	1,218,125	329,166	9,182	453
Baltimore Tunnel,		277,307	7,829	2,715	287,851	187	851	4	6	198,450	5,401		97
Totals,		234,411	922	6,469	241,742	213	419	1	1	150,700	1,069		51
		511,718	8,751	9,124	529,593		1,270	4	7	349,150	6,470		148

Baltimore Slope Washery,	5,594	11,792	17,886	46	35				
Baltimore Tunnel Washery,	517	92,490	93,007		†				
Corryham Washery,		17,170	17,170						
Totals,	6,111	121,452	127,563		35				
Red Ash Coal Company	517,829	130,203	9,124	657,156	1,305	4	7	34,150	6,470
Red Ash No. 2,	180,999	966	3,121	185,086	181	624	2	76,950	27,300
Red Ash Washery,	19,466	8,545	5,385	33,886					
Totals,	200,465	9,511	8,506	218,472		624	2	76,950	27,300
North American Coal Co.	63,698	4,410	140	68,248	291	39			
Sugar Notch Washery,									
Hadleigh,	48,683	5,309	567	54,490	162	15		6,350	5,000
Pittston Coal Mining Co.									
Wilkes-Barre Anthracite Coal Co.	23,332	14,600	6,143	50,075	138	138	1	11,700	
Hillman Vein,									
Miners Mills Coal Mining Co.	36,663	1,620	1,192	39,475	108	148		4,000	24,825
Healey,									
Grand totals,	4,661,196	575,405	242,715	5,469,319		10,562	38	51	3,385,725
									450,148
									257,520
									1,281

*Men employed in Baltimore Tunnel.

†Men employed in Baltimore No. 5.

TABLE 2.—Part 2

Names of Operators	County	Number of Boilers					Locomotives			Total horse power	Total horse power	Number of pumps delivering water to surface	Capacity in gallons per minute	Quantity delivered to surface per minute—gallons	Number of electric dynamos	Number of air compressors
		Cylindrical	Tubular	Horse power	Steam	Air	Electric	Number of steam engines of all classes	Total horse power							
Lehigh and Wilkes-Barre Coal Co.,			58	11,642	11,942	5	12	247	21,672	15	16,486	9,630	2	14		
Lehigh Valley Coal Co.,			41	9,400	9,400	15	2	11	12,910	13	10,835	7,500	4	11		
Delaware and Hudson Co.,			23	7,655	7,571	1		4	135	10,862	12	9,900	4,700	6		
Red Ash Coal Co.,		18	486	360	900	5		19	962	4	2,100	1,385		2		
North American Coal Co.,	Juzerne,		2	500	500			11	300							
Pitston Coal Mining Co.,			2	600	600			15	750	1	725	600				
Wilkes-Barre Anthracite Coal Co.,			4	1,200	1,200			6	2,065	2	1,500	365	1	1		
Miners Mills Coal Mining Co.,			2	200	200			5	150							
Totals,		18	4	31,271	32,313	28	14	15	558	51,361	49	41,366	24,640	13	38	

TABLE 3.—Number of each class of employees inside and outside of mines

Names of Operators	County	Inside											Outside						Grand total inside and outside				
		Mine foremen	Assistant mine foremen	Fire bosses and assistants	Miners	Miners' laborers	Drivers and runners	Boorboys and helpers	Pumpmen	Company men	All other employes	Total inside	Superintendents	Foremen	Blacksmiths and carpenters	Boothmen and firemen	State pickers (boys)	State pickers (men)		Bookkeepers and clerks	All other employes	Total outside	
Lehigh and Wilkes-Barre Coal Co.,		6	8	46	1,638	1,075	461	221	20	---	---	---	---	---	6	54	143	157	32	21	482	875	5,069
Lehigh Valley Coal Co.,		13	45	---	833	510	330	67	32	---	---	---	---	---	5	28	100	53	13	14	414	636	3,084
Delaware and Hudson Co.,		4	2	11	224	296	92	5	17	174	23	848	1	7	5	20	79	48	45	6	254	457	1,305
Red Ash Coal Co.,	Luzerne,	2	---	---	124	113	44	4	4	37	8	536	1	7	13	22	10	47	3	185	268	624	
North American Coal Co.,		1	---	1	49	28	12	1	2	6	---	---	---	---	1	1	6	8	---	1	22	39	39
Pittston Coal Mining Co.,		1	---	3	38	22	15	2	2	11	12	96	1	1	4	9	11	---	1	21	48	155	
Wilkes-Barre Anthracite Coal Co.,		1	1	2	34	26	16	1	1	14	---	---	---	---	2	5	4	20	2	3	13	42	138
Miners Mills Coal Mining Co.,		1	---	---	---	---	---	---	---	---	---	---	---	---	1	5	4	20	2	1	18	52	148
Totals,		28	56	63	2,450	2,070	970	301	78	242	1,357	8,125	3	28	110	381	315	141	50	1,409	2,437	10,562	

TABLE 3.—Part 2

Names of Operators	County	Average Number of Days Worked in Breaker												Total	
		January	February	March	April	May	June	July	August	September	October	November	December		
Lehigh and Wilkes-Barre Coal Co.,		20	14	15	17	19	23	2	14	16	24	22	21	21	213
Lehigh Valley Coal Co.,		23	18	22	20	24	22	16	18	21	22	22	21	21	249
Delaware and Hudson Co.,		17	17	19	17	17	17	12	17	17	17	17	17	16	200
Red Ash Coal Co.,		19	15	16	15	18	17	8	10	12	17	17	17	17	181
Pittston Coal Mining Co.,	Luzerne,	16	6	14	14	17	13	6	12	16	17	16	16	14	162
Wilkes-Barre Anthracite Coal Co.,		10	11	5	8	17	19	21	27	22	21	21	21	21	138
Miners Mills Coal Mining Co.,		1	1	1	1	1	1	1	18	21	23	21	21	17	168

TABLE 4.—Fatal accidents inside and outside of mines

Date of accident	Name of Person	Nationality	Occupation	Age	Married or single	Number of widows	Number of orphans	Name of Colliery	County	Nature and Cause of Accident in Brief
Jan. 14	Hugh Jones,	American,	Footman,	24	S. ....	.....	.....	Maxwell No. 20, ..	.....	Fatally injured by falling under a trip of loaded cars on slope. Died the next day.
16	Frank Osborne,	American,	Chute-boss,	38	M. 1	1	1	Maxwell No. 20, ..	.....	Fatally injured by being caught between belt and pulley in breaker. Outside.
Feb. 4	William Mockum,	Polish,	Miner,	49	M. 1	4	4	Prospect, .....	.....	Instantly killed by premature blast at face of chamber.
10	Michael Garduff,	Irish,	Miner,	49	M. 1	5	5	Hollenback No. 2, ..	.....	Fatally injured by premature blast at face of chamber. Died the same day.
24	John Griffiths,	Welsh,	Miner,	53	M. 1	1	1	Hillman, .....	.....	Instantly killed by fall of top rock at face of heading while barring down loose coal after a blast.
March 6	John Straka,	Slavonian,	Miner,	42	M. 1	4	4	Prospect, .....	.....	Fatally injured by being struck on forehead by a piece of coal from a delayed blast on gangway road. Died March 25.
57	Frank Carent,	Polish,	Laborer,	23	M. 1	.....	.....	Sugar Notch No. 9, ..	.....	Fatally burned by explosion of gas at face of chamber.
May 16	Martin Palonis,	Lithuanian,	Miner,	50	M. 1	.....	.....	Sugar Notch No. 9, ..	.....	Instantly killed by fall of top coal at face of chamber.
19	Jacob Tomchick,	Austrian,	Laborer,	30	S. ....	.....	.....	Dorrance, .....	.....	Instantly killed by fall of middle rock at face of slope.
June 2	Daniel Griffiths,	American,	Bratticeman,	32	M. 1	1	1	South Wilkes-Barre No. 5, ..	.....	Instantly killed by fall of top rock while walking on gangway road.
8	Daniel Solomon,	Assyrian,	Loader,	20	S. ....	.....	.....	South Wilkes-Barre No. 5, ..	.....	Instantly killed by falling between two railroad cars. Outside.
	Michael Kervitski,	Polish,	Patcher,	13	S. ....	.....	.....	Maxwell No. 20, ..	.....	Fatally burned by gas at foot of chamber on gangway road. Died June 9.
14	James Gildea,	Irish,	Fire-boss,	40	M. 1	7	7	Maxwell No. 20, ..	.....	Submerged in shelly coal while attempting to go through a small hole at face of heading to the next chamber.

TABLE 4—Continued

Date of accident	Name of Person	Nationality	Occupation	Age	Married or single	Number of widows	Number of orphans	Name of Colliery	County	Nature and Cause of Accident in Brief
June 17	John Andrew,	Slavonian,	Laborer,	52	M. 1	---	---	Baltimore No. 5,	---	Fatally injured by fall of top coal at face of gangway. Died on way to hospital.
July 12	Ignatz Gimnutski,	Russian,	Laborer,	29	M. 1	1	---	Franklin,	---	Instantly killed by fall of top rock off rib at face of chamber.
17	Frank Rengha,	Russian,	Miner,	50	M. 1	---	---	Prospect,	---	Instantly killed by fall of bony top coal at face of chamber.
19	Michael Zamko,	Russian,	Laborer,	26	S.	---	---	Red Ash No. 2,	---	Fatally injured by fall of top rock on gangway road while cleaning a cave. Died the same day.
Aug. 4	Adam Ziemba,	Polish,	Miner,	39	M. 1	3	---	Baltimore No. 5,	---	Fatally injured by fall of top rock at face of counter gangway. Died the same day.
10	John Zaumalski,	Polish,	Miner,	46	M. 1	4	---	Franklin,	---	Fatally injured by premature blast at face of chamber. Died August 13.
Sept. 6	Anthony Pronitis,	Lithuanian,	Miner,	24	S.	---	---	Maxwell No. 20,	Luzerne,	Instantly killed by being carried down the pitch with the coal when battery gave away at face of chamber. He was found at the lower battery a few hours later.
9	Anthony Vitsotski,	Polish,	Laborer,	26	S.	---	---	Hollenback No. 2,	---	Instantly killed by falling down shaft while getting off cage at surface landing.
13	Stanley Zeracka,	Polish,	Miner,	26	S.	---	---	Maxwell No. 20,	---	Fatally injured by an explosion of gas at face of chamber. Kushovieh died at Emergency hospital in the mines and Zeracka died September 19 at City hospital.
14	Peter Valencavage,	Lithuanian,	Miner,	30	M. 1	2	---	Franklin,	---	Fatally burned by black powder while making a charge at box on gangway road. Died September 23.

Oct.	10	Talle Jones,	American,	Driver,	35	S.	Stanton No. 7,	Fatally injured by being kicked on head by a mule on chamber road. Died October 13.
	12	Aleck Fach,	Russian,	Miner,	27	M.	Baltimore No. 5,	Fatally injured by premature blast at face of chamber. Died same day.
		George Kudoek,	Polish,	Laborer,	21	S.	South Wilkes-Barre No. 5,	Instantly killed by fall of top coal at face of gangway.
	17	Phillip Obaldi,	Italian,	Miner,	26	S.	Prospect,	Fatally burned by powder at box in heading. Died October 25.
	19	John Seviski,	Polish,	Miner,	48	M.	Sugar Notch No 9,	Fatally injured by fall of top rock at face of chamber. Died the same day.
		George Kostowski,	Polish,	Laborer,	27	S.	Stanton No. 7,	Instantly killed by a large piece of rock sliding down chamber and crushing him at battery.
Nov.	8	Charles Yuegelaitus,	Lithuanian,	Miner,	40	M.	Baltimore No. 5,	Fatally injured by a piece of rock sliding off the gob and crushing his head. Died November 14.
	9	Anthony J. Caferly,	Irish,	Doorman,	50	M.	Maxwell No. 20,	Fatally injured by being struck by a trip of cars on slope. Died the same day.
	14	Stanley Sleskeskie,	Polish,	Miner,	46	M.	Sugar Notch No. 9,	Fatally injured by an explosion of gas at face of heading. Died November 21.
	15	John Coudinski,	Polish,	Laborer,	24	M.	1	Instantly killed by an explosion of gas at shish battery near gangway road.
		James L. Simoons,	English,	Miner,	48	S.	South Wilkes-Barre No. 5,	Fatally injured by fall of top rock on gangway road while cleaning a cave.
Dec.	2	John Carmonovits,	Russian,	Laborer,	41	M.	3	Instantly killed by fall of top rock in chamber while walking up after a blast.
	4	Gregorus Sinolinski,	Russian,	Laborer,	24	S.	Franklin,	Instantly killed by fall of top rock at face of chamber.
	29	Mike Covoloskie,	Lithuanian,	Laborer,	32	M.	3	Instantly killed by fall of top rock at face of chamber.
							South Wilkes-Barre No. 5.	

Luzerne,-----

TABLE 5.—Non-fatal accidents inside and outside of mines

Date of accident	Name of Person	Nationality	Occupation	Age	Married or single	Name of Colliery	County	Nature and Cause of Accident in Brief
Jan. 11	Russell Vandling, -----	American, ---	Electrician, -----	18	S.	Baltimore No. 5, ---		Right arm fractured above elbow by falling off scaffold on gangway.
14	Michael Smith, -----	Polish, ----	Miner, -----	33	M.	Maxwell No. 20, ---		Left leg fractured above knee by being struck by a piece of coal at face of chamber.
18	Mike Gasda, -----	Polish, ----	Laborer, -----	32	M.	Prospect, -----		Leg fractured and back bruised by being struck by a piece of coal at face of chamber.
23	Meredith Evans, -----	American, ---	Runner, -----	23	M.	Red Ash No. 2, ---		Right hip dislocated by being struck by car lever while putting derailed car on track on gangway road.
Feb. 6	The Stetso, -----	Polish, ----	Laborer, -----	23	S.	Sugar Notch No. 9, ---	Luzerne, -----	Collar bone broken by being struck by cage lever. Outside.
13	Michael Sheligo, -----	Polish, ----	Miner, -----	24	S.	Prospect, -----		Right leg fractured by flying coal from premature blast at face of chamber.
17	Charles Sharady, ---	Slavonian, ---	Laborer, -----	28	M.	Red Ash No. 2, ---		Right ankle dislocated by being struck by a piece of frozen dirt in stripping. Outside.
18	George Kutney, -----	Polish, ----	Driver, -----	21	S.	Hollenback No. 2, ---		Right leg fractured above knee by being caught between cars on gangway road.
March 9	Frank Sabenskie, ---	Polish, ----	Dumper, -----	29	M.	Dorrance, -----		Right forearm fractured by fall of top rock at foot of chamber.
13	William Shulonski, --	Lithuanian, --	Miner, -----	29	M.	South Wilkes-Barre No. 5, -----		Ribs fractured and arm lacerated by being struck by derailed car on slope.
14	Francis Boyle, -----	American, ---	Footman, -----	39	M.	Dorrance, -----		Right hand taken off at wrist by car running over it while blocking car at foot of shaft.
16	Frank Kobolka, -----	Polish, ----	Laborer, -----	26	M.	Baltimore No. 5, ---		Left leg fractured by prop falling on it at face of chamber.

March 16	John Yetook, -----	Slavonian, -----	Footman, -----	27	M.	Prospect, -----	Compound fracture of left arm by being struck at foot of shaft by a piece of coal that fell down shaft.
22	Joseph Ogurkis, -----	Lithuanian, -----	Miner, -----	30	M.	South Wilkes-Barre No. 5, -----	Leg fractured below knee by fall of top coal at face of chamber.
April 7	John Sones, -----	Russian, -----	Headman, -----	21	S.	Dorrance, -----	Compound fracture of left leg by being caught between car and sheave on head of slope.
13	Charles Pachucki, -----	Polish, -----	Miner, -----	42	M.	Maxwell No. 20, --	Small bone of left ankle broken by falling down pitching chamber along with the coal from face of chamber.
14	Peter Asavage, -----	Lithuanian, -----	Miner, -----	35	M.	South Wilkes-Barre No. 5, -----	Left leg fractured by fall of top rock at face of chamber.
24	Mike Mattie, -----	Slavonian, -----	Driver, -----	21	S.	Prospect, -----	Leg fractured by being caught between stretcherstick and car bumper on gangway road.
26	John Lenehan, -----	Irish, -----	Miner, -----	50	M.	Sugar Notch No. 9, -----	Right arm fractured by fall of top slate at face of chamber.
27	Martin Kosha, -----	Austrian, --	Laborer, -----	40	M.	Dorrance, -----	Compound fracture of right leg by derailed trip of cars at foot of slope.
May 3	William Viras, -----	Polish, -----	Loader, -----	20	S.	South Wilkes-Barre No. 5, -----	Right leg cut off at knee and toes of left foot cut off by railroad car running over him under the breaker. Outside.
6	Peter Smith, -----	Russian, --	Driver, -----	19	S.	Dorrance, -----	Right arm cut off above the elbow by falling under moving trip on gangway road.
10	Dennis Casey, -----	Irish, -----	Doorboy, -----	16	S.	Sugar Notch No. 9, -----	Right forearm fractured by being caught between car and brattice on gangway road.
20	John Krofchik, -----	Polish, -----	Miner, -----	57	M.	South Wilkes-Barre No. 5, -----	Compound fracture of right leg by runaway buggy at face of chamber.
22	George Bednasek, -----	Polish, -----	Miner, -----	57	M.	South Wilkes-Barre No. 5, -----	Three fingers of left hand cut off at first joint by a piece of top rock falling on his hand at face of chamber.
June 5	Frank Quash, -----	Hungarian, -----	Miner, -----	38	S.	Red Ash No. 2, -----	Ribs fractured by a piece of rock falling on him in strippings. Outside.
10	Joseph Papka, -----	Italian, -----	Driver, -----	18	S.	Prospect, -----	Right forearm fractured by falling under loaded car on gangway road.
16	Peter Gerisheoni, -----	American, --	Headman, -----	17	S.	Stanton No. 7, -----	Right ankle fractured by being caught between two empty cars on top of car hoist at foot of shaft.
19	Stephen Lynch, -----	American, --	Driver, -----	17	S.	Baltimore No. 5, --	Left arm fractured. While crossing a ditch he slipped and fell to the ground.
20	William R. Price, -----	American, --	Runner, -----	17	S.	Dorrance, -----	Two fingers and thumb of right hand cut off while blocking loaded car. Outside.
24	George Novacko, -----	Polish, -----	Miner, -----	35	M.	Prospect, -----	Leg fractured by being struck by piece of coal that fell off rib at face of chamber.

Luzerne, -----

TABLE 5—Continued

Date of accident	Name of Person	Nationality	Occupation	Age	Married or single	Name of Colliery	County	Nature and Cause of Accident in Brief
July 24	Joseph Koleskie, -----	American,---	Doorboy, -----	18	S.	Dorrance, -----		Left leg fractured below knee by being struck by rope on slope.
27	Anthony Yantz, -----	Polish, ----	Miner, -----	47	M.	Baltimore Tunnel, --		Ribs fractured by being struck by a piece of coal that fell off face of chamber.
Aug. 4	Peter Washik, -----	Polish, ----	Laborer, -----	42	M.	Baltimore No. 5, ---		Leg fractured by fall of top rock at face of chamber.
5	Alex Purcell, -----	American,---	Timberman, --	34	M.	South Wilkes-Barre No. 5.		Left arm fractured by being struck by a swinging pipe at charging station for air locomotive on gangway road.
11	Martin J. Walsh, ----	Irish, -----	Miner, -----	62	W.	South Wilkes-Barre No. 5.		Skull fractured by premature blast at face of chamber.
17	Frank Talabor, -----	Lithuanian, --	Miner, -----	23	S.	Maxwell No. 20, ---		Right leg fractured below knee by being struck by a piece of coal at face of chamber.
Sept. 13	Peter Murray, -----	Russian, ----	Laborer, -----	25	S.	Red Ash No. 2, ----	Luzerne, -----	Ribs fractured by being caught between car and rib in chamber.
14	Joseph Buckler, -----	Lithuanian, --	Laborer, -----	22	S.	Franklin, -----		Hands and face burned by an explosion of powder on gangway.
22	Mike Saumanski, -----	Polish, ----	Laborer, -----	40	M.	Maxwell No. 20, ---		Right leg fractured and two ribs on right side fractured by fall of middle rock off rib at face of chamber.
Oct. 4	James Owens, -----	American,---	Driver, -----	20	S.	South Wilkes-Barre No. 5.		Right collar bone fractured by falling off mule on gangway road while on his way to work.
12	Anthony Sincavage, ---	Polish, ----	Laborer, -----	23	W.	South Wilkes-Barre No. 5.		Left shoulder dislocated by being caught between car and door post near face of gangway road.
20	Stanley Peltz, -----	Russian, ----	Laborer, -----	47	S.	Prospect, -----		Right ankle fractured by being struck by flying coal from premature blast at face of chamber.

Nov. 9	William Kovoleski, ---	American, ---	Patcher, -----	18	S.	Maxwell No. 20, ---	Head seriously injured by being kicked by a mule on gangway road.
14	Angel Kasus, -----	Mexican, --	Footman, -----	25	S.	Prospect, -----	Left leg fractured by being caught between loaded cars at foot of shaft.
18	Francis McGroaty, ---	American, ---	Slatepicker, -----	16	S.	Baltimore No. 5, ---	Left arm fractured by falling off banister in breaker. Outside.
28	Andrew Gyaski, -----	Polish, ---	Runner, -----	21	S.	Prospect, ---	Leg fractured below knee by being caught by crossing on slope rope at foot of slope.
29	Peter Chomovu, -----	Polish, ---	Miner, -----	42	S.	Baltimore No. 5, ---	Left ankle fractured by fall of coal at face of chamber.
Dec. 7	Stanley Eviouski, -----	Polish, ---	Miner, -----	29	M.	Maxwell No. 20, ---	Hands and face seriously injured by explosion of powder while pushing a cartridge of powder into hole at face of chamber.
9	James Burke, -----	Irish, -----	Miner, -----	43	M.	South Wilkes-Barre No. 5.	Right arm fractured, sight of left eye destroyed and nose broken by premature blast at face of chamber.
15	Frank Kovaek, -----	Polish, ---	Driver, -----	19	S.	Franklin, -----	Arm broken by being caught between bumper of loaded cars on gangway road at foot of slope.

Luzerne, -----

CONDITION OF COLLIERIES

LEHIGH AND WILKES-BARRE COAL COMPANY

Hollenback No. 2, South Wilkes-Barre No. 5, Stanton No. 7, Sugar Notch No. 9, and Maxwell No. 20.—Ventilation, roads, drainage and condition as to safety, good.

LEHIGH VALLEY COAL COMPANY

Prospect and Dorrance.—Ventilation, roads, drainage and condition as to safety, good.

Franklin.—Ventilation and condition as to safety, good; roads and drainage fair.

DELAWARE AND HUDSON COMPANY

Baltimore No. 5 and Baltimore Tunnel.—Ventilation, roads, drainage and condition as to safety, good.

RED ASH COAL COMPANY

Red Ash No. 2.—Ventilation, roads and drainage fair; condition as to safety, good.

PITTSTON COAL MINING COMPANY

Hadleigh.—Ventilation, roads and drainage fair; condition as to safety, good.

WILKES-BARRE ANTHRACITE COAL COMPANY

Hillman Vein.—Ventilation, roads, drainage and condition as to safety, good.

MINERS MILLS COAL MINING COMPANY

Healey.—Ventilation, roads and drainage fair; condition as to safety, good.

IMPROVEMENTS

LEHIGH AND WILKES-BARRE COAL COMPANY

Hollenback No. 2 Colliery:

Outside.—Red Ash shaft hoisting engines and house, electric light plant, feed water heater system.

Inside.—Extended No. 5 tunnel to Ross No. 30 tunnel, Hillman to Kidney.

South Wilkes-Barre No. 5 Colliery:

Outside.—Wash house.

Inside.—12x16-inch hoisting engines provided for Nos. 12 and 13 slopes. Installed two compressed air locomotives. Extended No. 23 tunnel to Five Foot; No. 27 tunnel, Kidney to Abbott; No. 26 tunnel, Stanton to Five Foot.

Stanton No. 7 Colliery:

Outside.—New breaker; steel head frame for breaker hoist. Concrete fuel bin for boiler house. Steam heat in breaker. Dust-collecting system in breaker. Hopper and pocket to receive coal from No. 21. 240 H. P. boilers at Empire Shaft. Fuel conveyor and slush trough. Feed water system. Tower hoisting engine and house. Power house. Yard grading, tracks and car hoist. New steam lines in colliery yards and to Stanton air shaft.

Inside.—12x16-inch hoisting engines provided for Nos. 2 and 3 slopes. Installed two compressed air locomotives. Sump tunnel extended. Tunnel, 6th West to 6th East, No. 12 plane.

Sugar Notch No. 9 Colliery.—**Inside:** No. 20 tunnel extended to Hillman.

Maxwell No. 20 Colliery:

Outside.—Wash house.

Inside.—No. 27 tunnel, Baltimore to Baltimore; 12x16 inch hoisting engines provided for No. 4 plane. No. 28 tunnel, Hillman to Kidney.

LEHIGH VALLEY COAL COMPANY

Prospect Colliery:

Inside.—The work of securing the foot of Oakwood shaft with reinforced concrete and "I" beams, mentioned in last year's report, is still being carried on. Concrete motor house was built in the Red Ash vein. The Red Ash vein pump room was concreted and made fireproof. The inside barns are being reconstructed of fireproof material. A sub-slope off No. 10 slope in the Red Ash vein was started. Electric haulage was extended in the Upper Baltimore vein and a new motor installed. Diamond drill provings were made in the Midvale slope to prove the Abbott and Bowkley veins. Larger engines were installed on No. 23 slope, Five Foot vein, and a new fireproof engine house constructed. Work was commenced for the driving of a tunnel from the Prospect shaft level, Baltimore vein, to the Skidmore vein, for the purpose of landing the Oakwood-Skidmore coal at the Prospect landing.

Outside.—No. 22 slope, near the new machine shop, was concreted from the surface to the Abbott vein, a pair of engines installed and the crippled cars and supplies for Prospect inside are handled on this slope. A reinforced concrete conduit was constructed under the Lehigh Valley and Central Railroad tracks at the river pump house, and new water and steam pipes laid in the same. Extensive repairs were made to the breaker and pockets, and new shakers were installed. A Welch overwinding device was installed in the Prospect shaft engine house. The work of installing an Ottumwa box car loader was nearly completed. The economizers at the boiler house were removed and a new feed water heater and stack installed. An 8-ton crane was erected in the yard near the breaker to handle supplies from railroad cars. The drilling of a new rope hole for No. 10 slope, to replace the hole now outside the yard near the Laurel Line tracks, was commenced.

Henry:

Inside.—All barns are being reconstructed with concrete to make them fireproof. No. 38 slope was driven in coal to mine small virgin area in the Lower Baltimore vein. The work under way in last year's report for the purpose of concentrating the hoisting of coal at the Red Ash shaft was completed. The construction of the central pumping plant in the Red Ash vein, mentioned in last year's report, is nearly completed; the pump room of concrete and "I" beam construction was finished and the second 18" and 28" and 48"x14"x36" Jeanesville Triplex expansion pump is now being installed. For the purpose of getting the Maltby water to these pumps, No. 36 Rock slope was driven in the Lower Baltimore to the Skidmore vein. The driving in the Skidmore vein toward the Maltby line was commenced and

when finished bore holes will be drilled from the Henry Skidmore to the Maltby Six Foot. At the New Skidmore landing in the Red Ash shaft, which is the point at which the Henry and Wyoming coal is concentrated, side walls with roof of reinforced concrete and "I" beams were constructed.

Outside.—Two Welch overwinding devices were installed in the Red Ash engine house. Plans were completed for the installation of an electric plant to light the inside and outside buildings. New conical drums with clutch device were placed on the Red Ash engines, in connection with the new haulage concentration. The old slope in the Hillman vein in the yard near Wyoming shaft was reopened to serve as an airway to the proposed new 20-foot fan to be installed; this will replace the two Hillman fans now outside the colliery yard. Test holes were put down in the vicinity of Anthracite Park, Dorrance-ton, to prove the rock cover for the Hillman and Bowkley veins. Test holes were also put down to prove the rock cover over the Five Foot vein near No. 8 outside slope and Henry shaft. A new feed water heater was installed. The Wyoming shaft engines were removed to Mineral Spring and a small pair temporarily installed, which will be removed on the completion of the Henry Baltimore barn, and the Wyoming shaft will be entirely abandoned.

Warrior Run:

Inside.—A second opening was driven from the first lift west, Hillman slope, to the surface. Tunnel was started in the basin in the Hillman vein to the Mills vein. The second opening Rock plane, mentioned in last year's report, 130 feet in length, was driven from the B to C vein in the robbing territory. A slant slope 350 feet long was driven off No. 2 slope in the B vein to mine the coal south of the fault. Work was started on the reconstruction of the inside mule barns to make them fireproof.

Outside.—Two air shafts 10 by 10 by 35 feet deep, one on each side of the Hillman slope, were sunk from the surface to the Hillman vein and concreted. A concrete air duct was constructed over the slope connecting these two shafts, and a 14-foot Guibal fan installed, the entire construction being of concrete. A concrete powder house was built. A new road was graded along the Lehigh Valley Railroad for hauling timber by team from the colliery yard to the Hillman slope.

Dorrance Colliery:

Inside.—All wood was removed from the engine house on the head of No. 7 Cooper slope and concrete retaining walls put up with roof of reinforced concrete and "I" beams. Diamond drill holes, mentioned in last year's report, from the face of the Bennett workings No. 6 extension slope, through the fault to prove the Cooper and Bennett veins on the other side, were completed. No. 21 tunnel, to shorten haulage in the Bennett and Cooper veins, mentioned in last year's report, was completed, total length 816 feet in the solid and 238 feet of bottom rock grading. The construction of side walls and concrete roof was continued at the head of No. 24 slope, Red Ash vein. The mule barns in the Hillman vein shaft, Baltimore vein, and Rock slope, Baltimore vein, were dismantled and are being reconstructed to make them fireproof. A new barn of fireproof construction is being built in the Red Ash vein. Electric haulage was extended in the Hillman, Baltimore and Red Ash veins, and several new motors installed. A

new Goyne pump was installed on No. 12 slope, Hillman vein, to handle silt water. A tunnel was started from the Cooper to the Lance vein, the Lance vein coal to be transported by motor to the new No. 21 tunnel mentioned above.

Outside.—Both silt holes near the breaker were reamed and made larger and terra cotta pipe inserted and cemented. Two Welch overwinding devices were installed, one on the Red Ash and one on the Hillman hoisting engines. Extensive repairs were made in the breaker and the breaker plane renewed.

Franklin Colliery:

Inside.—No. 27 tunnel, 222 feet long, was driven from the Bottom Five Foot Northward, cutting the Top Five Foot and Hillman veins. No. 28 tunnel, 264 feet long, was driven from the Sump vein to the Bottom of Five Foot in the Gin slope basin. Rock plane, 107 feet long, was driven as a second opening to No. 28 tunnel. No. 29 tunnel, 165 feet long, was driven from the Top Red Ash to Ross vein on No. 29 tunnel level. The 12x32x36 inch Scranton pump mentioned in last year's report was installed on No. 25 tunnel level, and a concrete pump-house is about two-thirds completed. A 2-inch drainage hole was drilled from Bottom to Top Red Ash to tap water in No. 8 slope. A 3-inch horizontal bore hole was drilled from the Skidmore vein on No. 26 tunnel level to the Baltimore vein, a distance of 340 feet, to tap water in the Long slope. The Baltimore vein at the foot of the Brown slope was re-opened to No. 5 tunnel, the tunnel cleaned and the roads laid to the Red Ash Vein. A manway for No. 10 slope was completed from the Skidmore vein to the surface. Work on the new concrete barn in the Rock slope was carried on and is nearly completed.

Outside.—A new pair of engines were installed on the Brown slope and a brick engine house erected. Old feed water heaters were taken out and a 2,000 H. P. Cochrane heater installed. A new shifting shanty was built. The Sump vein fan was dismantled and installed at the Warrior Run slope. Repairs to the dry side of breaker were completed and the old rolls replaced with new compound rolls. A new 40-foot track scale with new scale house was built and considerable grading done for the proposed rearranging of loaded car tracks.

A 10-inch rope bore hole was drilled from the surface to the head of No. 9 slope. The 16x24-inch geared engines formerly at Coal Brook were installed on the surface and the 12x15-inch engines on the inside removed. Bore holes were put down from the surface to prove the Sump vein in the Brown slope district. The old boiler drain near the Long slope engine house was removed and a concrete arched culvert constructed and the yard considerably graded and improved in that vicinity. Concrete retaining wall at the foot of breaker plane was constructed. A new roof was placed over the breaker plane.

MINE FOREMEN'S EXAMINATIONS

The annual examination of applicants for certificates of qualification as mine foremen and assistant mine foremen was held on April 4 and 5, in the Y. M. C. A. Building, Wilkes-Barre. The Board of Examiners was composed of Thomas H. Price, Mine Inspector; Morgan R. Morgans, Superintendent; and William Clappell and Patrick McGrane, Miners.

The following persons passed a satisfactory examination and were granted certificates:

Mine Foremen

Thomas I. Evans, Richard M. Evans, George Flecknoe, John T. George, Thomas M. Phillips, Wilkes-Barre; Tudor Roberts, Clarence O. Roberts, Ashley; William Cotter, Avoca; John Elbeson, Sugar Notch; Evan Morris, Rendham; Lewis S. Smith, Plainsville.

Assistant Mine Foremen

David R. Evans, Michael Garrity, John D. Jones, Reese Jones, William McCall, David J. Owens, James Summerson, Watkins Williams, Wilkes-Barre; Thomas F. Carr, Patrick J. Conway, John Munson, Sugar Notch; David James, Miners Mills; Daniel P. Jones, Parsons; Peter Linkiewicz, Joseph H. Tudgay, John Wordoski, Warrior Run; James Merino, Old Forge; William O. Morris, Plains; Frank Martin, Plymouth.

EIGHTH DISTRICT

LUZERNE AND LACKAWANNA COUNTIES

Wilkes-Barre, Pa., February 20, 1912.

Hon. James E. Roderick, Chief of Department of Mines:

Sir: I have the honor of transmitting herewith the Annual Report of the Eighth Anthracite District for the year ending December 31, 1911.

Respectfully submitted,
THOMAS J. WILLIAMS, Inspector.

SUMMARY OF STATISTICS

Number of collieries,	16
Number of mines,	30
Number of mines in operation,	25
Number of tons of coal shipped to market,	3,433,689
Number of tons used at mines for steam and heat,	456,073
Number of tons sold to local trade and used by employes,	76,695
Number of tons produced,	3,966,457
Number of tons produced by compressed air machines, .....	.....
Number of tons produced by electrical machines, .....	.....
Number of persons employed inside of mines,	6,869
Number of persons employed outside,	2,159
Number of fatal accidents inside of mines,	42
Number of fatal accidents outside, .....	.....
Number of non-fatal accidents inside of mines,	70
Number of non-fatal accidents outside,	5
Number of tons of coal produced per fatal accident inside, ..	94,439
Number of persons employed per fatal accident inside, ..	164
Number of persons employed per fatal accident outside, ..	.....
Number of persons employed per non-fatal accident inside, ..	98
Number of persons employed per non-fatal accident outside, ..	432
Number of wives made widows,	24
Number of children made orphans,	61
Number of steam locomotives used inside of mines,	3
Number of steam locomotives used outside,	10
Number of compressed air locomotives used inside,	5
Number of compressed air locomotives used outside, .....	.....
Number of electric motors used inside,	28
Number of electric motors used outside, .....	.....
Number of fans in use,	39
Number of furnaces in use, .....	.....
Number of gaseous mines in operation,	17
Number of non-gaseous mines in operation,	8
Number of new mines opened, .....	.....
Number of old mines abandoned,	1

TABLE A

PRODUCTION OF COAL

Names of Operators	Tons
Lehigh Valley Coal Company,	1,716,543
Forty Fort Coal Company,	646,538
Kingston Coal Company,	584,567
Mt. Lookout Coal Company,	346,422
Plymouth Coal Company,	194,386
East Boston Coal Company,	165,772
Raub Coal Company,	145,197
Delaware, Lackawanna and Western Railroad Company, ..	94,894
Clear Spring Coal Company,	50,652
Rissinger Brothers and Company, Incorporated,	21,486
Total,	<u>3,966,457</u>

Production by Counties

Luzerne,	3,683,872
Lackawanna,	282,585
Total,	<u>3,966,457</u>

TABLE B.—Fatal and non-fatal accidents inside and outside of mines; number of tons of coal produced per accident; number of persons employed; number employed per accident

Names of Operators	Fatal Accidents			Non-Fatal Accidents			Tons of coal produced per fatal accident inside	Tons of coal produced per non-fatal accident inside	Number of employees inside	Number of employees outside	Total number of employees	Number of employees inside per		Number of employees outside per	
	Inside	Outside	Total	Inside	Outside	Total						fatal accident	non-fatal accident	fatal accident	non-fatal accident
Lehigh Valley Coal Co.,	15		15	19	2	21	111,436	90,345	2,279	730	3,009	132	120	365	
Forty Fort Coal Co.,	4		4	19	1	20	161,634	34,028	1,262	326	1,588	316	67	326	
Kingston Coal Co.,	5		8	7		7	73,671	83,510	883	335	1,218	110	126		
Mt. Lookout Coal Co.,	1		1	6	1	7	49,489	57,737	562	159	751	85	99	150	
Plymouth Coal Co.,	1		1	8		8	194,386	34,298	354	116	470	354	44		
East Poston Coal Co.,	2		2	4	1	5	82,886	31,443	343	159	502	172	86	159	
Raub Coal Co.,				5		5		29,039	335	115	440		65		
Delaware, Lackawanna and Western Railroad Co.,	2		2	1		1	31,631	94,894	254	39	293	85	254		
Clear Spring Coal Co.,	2		2				25,326		517	145	662	331			
Risinger Brothers and Co., Incorporated,				1		1		21,486	60	35	95		60		
Totals and averages for district,	42	70	42	75	3	75	94,439	56,664	6,869	2,159	9,028	164	98	432	

TABLE C.—Classification of Fatal Accidents Inside and Outside of Mines

	Months												Percentages	
	January	February	March	April	May	June	July	August	September	October	November	December		Totals
Causes of Accidents Inside														
Falls of coal,				1				1	1				3	7.15
Falls of slate,													2	4.76
Falls of roof,	1	1	1	4	5	1			3	1			20	47.62
Mine cars,		3		1	1				2		1	1	9	21.43
Explosions of gas,												1	1	2.38
Explosions of powder and dynamite,											2		2	4.76
Blasts, premature and otherwise,			1		1				1	1			4	9.52
Falling into shafts,			1										1	2.38
Totals,	1	4	3	6	9	1		1	7	2	5	3	42	100.00
Causes of Accidents Outside (No Accidents)														

TABLE D.—Classification of Non-Fatal Accidents Inside and Outside of Mines

	Months												Percentages	
	January	February	March	April	May	June	July	August	September	October	November	December		Totals
Causes of Accidents Inside														
Falls of coal,		1				1		1	2		1		6	8.57
Falls of roof,		5		2	5		1	5	4	1	1	2	23	40.00
Mine cars,	5	2	1	1	1	1	1		1				14	20.00
Explosions of gas,	1				1		1	2				3	8	11.43
Explosions of powder and dynamite,								1					1	1.43
Blasts, premature and otherwise,	1		2		1		1		2		1	1	9	12.85
Machinery,				1					2			1	1	1.43
Struck by rope,						1							1	1.43
By falling,			1										1	1.43
Struck by door,					1								1	1.43
Totals,	9	8	4	4	9	3	4	9	9	2	3	6	70	100.00
Causes of Accidents Outside														
Machinery,		1			1								2	40.00
Struck by bar,							1						1	20.00
Struck by timber,	1												1	20.00
Scalded by steam,	1												1	20.00
Totals,	2	1			1		1						5	100.00
Grand totals inside and outside,	11	9	4	4	10	3	5	9	9	2	3	6	75	

TABLE E.—Occupations of Persons Killed or Fatally Injured Inside and Outside of Mines

	Months												Totals
	January	February	March	April	May	June	July	August	September	October	November	December	
Inside													
Miners,	1	1	2	2	3	1			4	1	1	1	17
Miners' laborers,		2	1	4	3			1	1	1	1		14
Drivers and runners,		1							1		3	1	6
Timbermen,									1				1
Couplers,					1				1				1
Siltmen,					1								1
Brakemen,					1							1	2
Totals,	1	4	3	6	9	1		1	7	2	5	3	42
Outside (No Accidents)													

TABLE F.—Occupations of Persons Injured Inside and Outside of Mines

	Months												Totals
	January	February	March	April	May	June	July	August	September	October	November	December	
Inside													
Miners,	3	4	2	1	2		3	6	4	1	1	3	30
Miners' laborers,	1	2	2	1	2	1	1	3	3		2	1	19
Drivers and runners,	1	2	2	2	2				1			2	12
Doorboys and helpers,	1												1
Oilers,										1			1
Pulleymen,				1									1
Topping bosses,									1				1
Footmen,				1									1
Inspectors,					1								1
Engineers,	1												1
Siltmen,					2								2
Totals,	9	8	4	4	9	3	4	9	9	2	3	6	70
Outside													
Laborers,					1		1						2
Jigrunners,		1											1
Propmen,	1												1
Ashmen,	1												1
Totals,	2	1			1		1						5
Grand totals inside and outside,	11	9	4	4	10	3	5	9	9	2	3	6	75

TABLE G.—Nationality of Persons Killed or Fatally Injured Inside and Outside of Mines

	Months												Totals
	January	February	March	April	May	June	July	August	September	October	November	December	
American,					1								1
English,									1				1
Welsh,		1							1				2
German,				1									1
Polish,			1	2	3				3	2	1		12
Hungarian,												1	1
Italian,		1	1	1			1		2				7
Slavonian,					2						2		5
Lithuanian,	1	1	1	1				1			2	1	9
Russian,					1								1
Horwat,		1		1									2
Totals,	1	4	3	6	9	1		1	7	2	5	3	42

TABLE H.—Nationality of Persons Injured Inside and Outside of Mines

	Months												Totals
	January	February	March	April	May	June	July	August	September	October	November	December	
American,	2	2	1	1		1						1	8
Welsh,					2								2
Irish,	1			1	1				1				4
German,									1				1
Polish,	1	3		1	3	1		3	3		3		19
Italian,	4	1	1	1			1	1	2				13
Slavonian,			2				1	1				2	6
Lithuanian,	3	2			2		2	3	1	2		1	16
Austrian,						1							1
Russian,					1			1	1				3
Horwat,		1			1		1						3
Totals,	11	9	4	4	10	3	5	9	9	2	3	6	75

TABLE I.—Operators and mines, kind of openings, type and size of fans, size of furnaces, volume of air produced by fan or furnace per minute, number of splits of air currents and number of persons employed inside

Names of Operators and Mines	Kind of opening	Gaseous or non-gaseous	Method of ventilation	Diameter of fan in feet and inches	Width of blades in feet and inches	Depth of blades in feet and inches	Number of revolutions per minute	Water gauge developed—in inches	Name of fan	Power used	Number of splits of air currents	Number of cubic feet of air per minute entering the mine at inlet	Total quantity of air per minute circulating in all the splits in cubic feet	Number of cubic feet per minute passing out at outlet	Number of persons employed inside
Lehigh Valley Coal Co.															
Exeter Colliery:															
Red Ash Shaft,	Shafts,	Gaseous,	{ 2 Fans, --- Fan,	{ 20 20	{ 6.8 6.8	{ 5.10 5.10	{ 76 76	{ 2 1.5	{ } Guibal, -	{ --- Steam, ---	{ 8 5	{ 186,375 146,115	{ 115,470 121,172	{ 223,823 162,309	{ 312 102
Pittston Shaft,	Shafts,	Gaseous,	{ Fan,	{ 20	{ 5.11	{ 5.11	{ 60	{ 1.5	{ } Guibal, -	{ --- Steam, ---	{ 4	{ 67,107	{ 51,800	{ 74,375	{ 177
*Knight Shaft (second opening),	Shafts,	Gaseous,	{ Fan,	{ 20	{ 5.11	{ 6.7	{ 60	{ 1.5	{ } Guibal, -	{ --- Steam, ---	{ 7	{ 95,300	{ 83,600	{ 110,300	{ 258
Seneca Colliery:															
Twin Shaft,	Shafts,	Gaseous,	{ Fan,	{ 20	{ 6.	{ 6.	{ 73	{ 1.6	{ } Guibal, -	{ --- Steam, ---	{ 5	{ 84,900	{ 62,400	{ 93,500	{ 110
*Coxey Shaft,	Shafts,	Gaseous,	{ Fan,	{ 20	{ 6.	{ 6.	{ 50	{ .8	{ } Guibal, -	{ --- Steam, ---	{ 1	{ 35,900	{ 18,700	{ 36,400	{ 24
Pittston Shaft,	Shafts,	Gaseous,	{ Fan,	{ 20	{ 6.	{ 6.	{ 50	{ .8	{ } Guibal, -	{ --- Steam, ---	{ 1	{ 35,900	{ 18,700	{ 36,400	{ 24
Maitby Colliery:															
No. 1 Shaft,	Shaft,	Gaseous,	{ 2 Fans, ---	{ 25	{ 8.11	{ 6.10	{ 73	{ 3.	{ } Guibal, -	{ --- Steam, ---	{ 10	{ 152,258	{ 118,305	{ 178,401	{ 433
Mountain Tunnel,	Tunnel,	Non-gas,	{ Fan,	{ 20	{ 5.11	{ 5.8	{ 82	{ 2.5	{ } Guibal, -	{ --- Steam, ---	{ 3	{ 40,165	{ 22,285	{ 43,300	{ 21
Four Foot Slope,	Slope,	Non-gas,	{ Fan,	{ 6	{ 1.6	{ 1.4	{ 180	{ .5	{ } Guibal, -	{ --- Steam, ---	{ 2	{ 59,218	{ 45,542	{ 64,445	{ 16
William A. Colliery:															
William A. Shaft,	Shaft,	Non-gas,	{ Fan,	{ 18	{ 5.3	{ 5.9	{ 75	{ .7	{ } Guibal, -	{ --- Steam, ---	{ 4	{ 62,000	{ 60,500	{ 63,000	{ 80
*Lawrence Shaft,	Shaft,	Non-gas,	{ Fan,	{ 18	{ 5.3	{ 5.9	{ 75	{ .8	{ } Guibal, -	{ --- Steam, ---	{ 6	{ 59,500	{ 57,000	{ 59,800	{ 150
*Babyion Shaft,	Shaft,	Non-gas,	{ Fan,	{ 20	{ 5.3	{ 5.9	{ 80	{ 1.3	{ } Guibal, -	{ --- Steam, ---	{ 4	{ 89,700	{ 87,500	{ 93,000	{ 133
No. 10 Tunnel,	Tunnel,	Non-gas,	{ Fan,	{ 6	{ 3.	{ 1.5	{ 80	{ .3	{ } Guibal, -	{ --- Steam, ---	{ 1	{ 18,500	{ 17,000	{ 19,500	{ 51

*Idle. Mines marked idle are used for ventilation and emergency purposes only; no coal is hoisted from them.

TABLE I—Continued

Names of Operators and Mines	Kind of opening	Gasous or non-gasous	Method of ventilation	Diameter of fan in feet and inches	Width of blades in feet and inches	Depth of blades in feet and inches	Number of revolutions per minute	Water gauge developed—in inches	Name of fan	Power used	Number of splits of air currents	Number of cubic feet of air per minute entering the mine at inlet	Total quantity of air per minute circulating in all the splits in cubic feet	Number of cubic feet per minute passing out at outlet	Number of persons employed inside
Delaware, Lackawanna and Western Railroad Co. Pettebone Colliery:	Shaft,----- Shaft,-----	Gaseous, Gaseous,	Fan,----- Fan,-----	22 35	6.2 10.1	6. 9.1	120 52	1.7 2.3	Dickson, Dickson,	Steam,----- Steam,-----	8	192,500	166,270	212,669	254
Clear Spring Coal Co. Clear Spring Colliery:	Shaft,-----	Gaseous,	3 Fans,--	24 20 20	8. 6. 6.	6. 6. 6.	60 60 60	2.5 1. 1.	Guibal,--	Steam,-----	3	250,000	200,000	200,000	517
Rissinger Brothers and Co., Incorporated Troy Colliery:	Tunnel,--	Non-gas,	Fan,-----	14	3.5	3.	52	.5	Guibal,--	Electricity,	2	13,000	13,000	14,300	60

TABLE 1.—Operators, location of collieries, railroads, etc.

Names of Operators and Collieries	County	Name of General Superintendent	Post Office	Name of Superintendent	Post Office	Railroad to Mine
Lehigh Valley Coal Co.						
Exeter,	Luzerne,	F. M. Chase,	Wilkes-Barre,	Thomas Thomas, ..	Wilkes-Barre,	Lehigh Valley
Maitly,						
Westmoreland,	Lackawanna,	F. M. Chase,	Wilkes-Barre,	W. D. Owens,	Pittston,	Lehigh Valley
William A.,						
Seneca,	Luzerne,					
Stevens Washery,						
Forty Fort Coal Co.						
Harry E.,	Luzerne,	S. M. Hemelright, ..	Seranton,	J. J. McCarthy,	Luzerne,	Lehigh Valley
Forty Fort,						
Kingston Coal Co.						
Kingston No. 4,	Luzerne,	F. E. Zerby,	Kingston,	Thos. H. Williams, ..	Kingston,	D. L. and W., D. and H., L. V. and Penna.
Mt. Lookout Coal Co.						
Mt. Lookout,	Luzerne,	F. H. Hemelright, ..	Seranton,	Seward Batton,	Wyoming,	D. L. and W. and L. V.
Plymouth Coal Co.						
Black Diamond,	Luzerne,	G. S. Jones,	Luzerne,	G. S. Jones,	Luzerne,	D. L. and W. and L. V.
Black Diamond Washery, ..						
East Boston Coal Co.						
East Boston,	Luzerne,	W. T. Payne,	Kingston,	W. T. Payne,	Kingston,	D. L. and W. and L. V.
East Boston Washery,						
Raub Coal Co.						
Louise,	Luzerne,	Gwilym Edwards, ..	Luzerne,	Gwilym Edwards, ..	Luzerne,	Lehigh Valley
Delaware, Lackawanna and Western Railroad Co.						
Pettebone,	Luzerne,	E. A. Phillips,	Seranton,	H. G. Davis,	Kingston,	D. L. and W.

TABLE 1--Continued

Names of Operators and Collieries	County	Name of General Superintendent	Post Office	Name of Superintendent	Post Office	Railroad to Mine
Clear Spring Coal Co.						
Clear Spring,*	Luzerne,	J. L. Cake,	Pittston,	J. Paul Cake,	Pittston,	D. L. and W.
Rissinger Brothers and Co., Incorporated						
Troy,	Luzerne,	H. E. Rissinger,	Pittston,			Lehigh Valley

*Abandoned.

TABLE 2.--Number of tons of coal mined, number of days worked, number of persons employed, number killed and injured, quantity of powder, dynamite and permissible explosives used, etc.

Names of Operators and Collieries	County	Number of tons of coal shipped to market	Number of tons used at collieries for steam and heat	Number of tons sold to local trade and used by employes	Total production of coal in tons	Number of days worked	Number of employes	Number of fatal accidents	Number of non-fatal accidents	Explosives				Number of horses and mules
										Number of pounds of powder used	Number of pounds of dynamite used	Number of pounds of permissible explosives used	Number of pounds of explosives used	
Lehigh Valley Coal Co.														
Exeter,	385,344	33,300	19,257	437,801	247	756	3	4	195,825	244,937	.....	.....	120
Seneca,	291,662	41,497	3,141	336,240	259	532	4	10	388,450	8,925	.....	.....	59
Malby,	282,377	36,225	5,204	323,706	243	614	3	3	184,700	138,637	.....	.....	93
William A.,	Lackawanna,	244,563	33,581	4,441	282,585	229	544	4	2	222,650	8,550	.....	.....	83
Westmoreland,	177,892	17,415	3,382	198,589	244	319	1	1	75,875	155,900	.....	.....	39
Stevens,	95,880	29,708	.....	125,588	.....	210	1	1	35,025	49,441	.....	.....	36
Stevens Washery,	12,024	.....	.....	12,024	150	14	.....	.....	.....	.....	.....	.....	.....
Totals,	1,489,492	191,626	35,425	1,716,543	.....	3,069	15	21	1,072,125	606,450	.....	.....	400
Forty Fort Coal Co.														
Harry E.,	293,648	43,254	3,066	339,968	253	781	2	10	245,000	92,510	.....	.....	98
Forty Fort,	272,418	30,474	3,678	306,570	239	807	2	10	243,775	106,080	.....	.....	86
Totals,	566,066	73,728	6,744	646,838	.....	1,588	4	20	488,775	198,540	.....	.....	184
Kingston Coal Co.														
Kingston No. 4,	521,013	60,960	2,594	584,567	244	1,218	8	7	465,575	1,100	.....	.....	138
Mt. Lookout Coal Co.,	394,824	36,500	5,698	346,422	245	751	7	7	277,575	163,089	.....	.....	45

*Coal prepared at William A. breaker.

TABLE 2.—Continued

Names of Operators and Collieries	County	Number of tons of coal shipped to market	Number of tons used at collieries for steam and heat	Number of tons sold to local trade and used by employes	Total production of coal in tons	Number of days worked	Number of employes	Number of fatal accidents	Number of non-fatal accidents	Explosives			Number of horses and mules
										Number of pounds of powder used	Number of pounds of dynamite used	Number of pounds of permissible explosives used	
Plymouth Coal Co.													
Black Diamond	Luzerne	153,465	19,000	4,921	177,386	237	470	1	8	80,000	25,100		56
Black Diamond Washery	Luzerne		17,000		17,000								
Totals		153,465	36,000	4,921	194,386		470	1	8	80,000	25,100		56
East Boston Coal Co.													
East Boston	Luzerne	78,699	16,000	5,273	99,942	127	484	2	5	72,000	27,000		50
East Boston Washery	Luzerne	53,404	12,000	426	65,830								
Totals		132,073	28,000	5,699	165,772		502	2	5	72,000	27,000		50
Raub Coal Co.													
Louise	Luzerne	117,985	16,425	10,787	145,197	239	440	5	5	117,250	35,075		40
Delaware, Lackawanna and Western Railroad Co.													
Pettebone	Luzerne	94,884	†	10	94,894	294	293	3	1	72,425		34,233	27
Clear Spring	Luzerne	35,753	10,000	4,869	50,652								
Rissinger Brothers and Co., Incorporated	Luzerne	18,134	2,894	518	21,486	288	95	1	1	12,450	7,000		7
Troy													
Grand totals		5,433,680	456,673	76,695	3,966,457		9,928	42	75	2,704,300	1,693,689	47,333	1,070

†16,561 tons from mines not in Eighth District.

TABLE 2.—Part 2

Names of Operators	County	Number of Boilers					Locomotives					Total horse power	Number of steam engines of all classes	Total horse power	Number of pumps delivering water to surface	Capacity in gallons per minute	Quantity delivered to surface per minute—gallons	Number of electric dynamos	Number of air compressors								
		Cylindrical	Horse power	Tubular	Horse power	Total horse power	Steam	Air	Electric	6	5									15	126	9,867	34	24,750	18,150	7	2
Lehigh Valley Coal Co.,	Luizerne,			53	10,625	10,625	6	5	15	126	9,867	34	24,750	18,150	7	2											
Forty Fort Coal Co.,	Lackawanna,			15	4,655	4,655	2			38	3,430	7	6,100	3,500		2											
Kingston Coal Co.,				16	4,200	4,200	1		4	28	4,200	8	8,600	5,100		2											
Mt. Lookout Coal Co.,				10	2,600	2,600	1		8	40	2,100	3	6,750	2,900		3											
Plymouth Coal Co.,			600	18	2,518	3,118	1			42	2,065	3	5,400	3,750		3											
East Boston Coal Co.,	Luizerne,	2		8	1,952	1,952				27	1,278	2	5,000	3,500		2											
Raub Coal Co.,				6	1,160	1,160	2			29	1,670	2	750	500													
Delaware, Lackawanna and Western Railroad Co.,				9	1,215	1,215			1	26	2,716	2	100	160			1										
Clear Spring Coal Co.,				13	2,463	2,463				15	865	6	5,000	5,000			1										
Rissinger Brothers and Co., Incorporated,				3	200	200				2	150	1	300	306													
Totals,		2	600	151	30,688	31,588	13	5	28	573	28,321	68	62,810	42,860	19			14									

TABLE 3.—Number of each class of employees inside and outside of mines

Names of Operators	County	Inside											Outside							Grand total inside and outside		
		Mine foremen	Assistant mine foremen	Fire bosses and assistants	Miners	Miners' laborers	Drivers and runners	Poorboys and helpers	Timbermen	Company men	All other employees	Total inside	Superintendents	Foremen	Blacksmiths and carpenters	Engineers and firemen	State pickers (boys)	State pickers (men)	Bookkeepers and clerks		All other employees	Total outside
Lehigh Valley Coal Co.,	Luzerne,	11	35	.....	1,075	443	303	39	45	147	190	2,279	.....	5	76	114	27	40	17	451	730	3,009
Forty Fort Coal Co.,	Lackawanna,	4	.....	12	530	323	176	38	18	142	19	1,262	1	2	22	35	90	40	5	131	326	1,588
Kingston Coal Co.,	.....	2	5	10	310	200	150	19	13	54	140	883	1	1	43	37	.....	32	4	217	335	1,218
Mt. Lookout Coal Co.,	.....	2	.....	4	269	172	28	15	9	88	5	592	1	1	16	24	7	29	3	78	139	751
Plymouth Coal Co.,	.....	1	.....	5	165	50	50	15	6	86	35	354	.....	1	7	19	17	13	2	56	116	479
East Boston Coal Co.,	.....	1	2	3	79	63	74	18	9	81	13	343	1	1	7	13	35	15	4	83	159	562
Rauh Coal Co.,	Luzerne,	1	3	1	142	67	50	12	8	3	38	325	.....	2	8	16	20	10	3	56	115	440
Delaware, Lackawanna and West- ern Railroad Co.,	.....	1	.....	3	66	66	15	4	2	2	95	254	.....	1	4	11	.....	.....	1	22	39	263
Clear Spring Coal Co.,	.....	1	2	4	219	134	46	10	5	73	23	517	1	2	6	20	43	7	4	62	145	662
Risinger Brothers and Co., In- corporated,	.....	1	.....	.....	23	21	10	.....	.....	5	.....	60	1	1	3	3	12	.....	1	14	35	96
Totals,	.....	25	48	42	2,818	1,539	902	161	115	661	558	6,869	6	17	193	292	251	186	44	1,170	2,159	9,028

TABLE 3.—Part 2

Names of Operators	County	Average Number of Days Worked in Breaker												Total	
		January	February	March	April	May	June	July	August	September	October	November	December		
Lehigh Valley Coal Co.,	Lackawanna,	23	17	21	19	21	24	17	18	20	22	21	21	21	244
Forty Fort Coal Co.,	Luzerne,	22	18	22	20	23	23	15	19	21	22	21	21	21	246
Kingston Coal Co.,		25	19	21	23	25	22	14	13	13	22	24	23	23	244
Mt. Lookout Coal Co.,		30	15	24	19	21	21	21	18	22	22	21	21	21	245
Plymouth Coal Co.,		20	19	22	17	20	20	18	21	20	21	20	19	237	
East Boston Coal Co.,	Luzerne,	18	16	17	12	13	13	13	14	11	11	11	11	127	
Raub Coal Co.,		22	22	23	19	23	21	18	22	23	23	22	21	259	
Delaware, Lackawanna and Western Railroad Co.,		25	27	25	24	26	25	24	26	24	24	26	24	294	
Clear Spring Coal Co.,		21	18	21	15	8	8	21	24	24	24	26	24	294	
Rissinger Brothers and Co., Incorporated,		25	23	26	22	24	25	23	24	24	25	23	24	288	

TABLE 4.—Fatal accidents inside and outside of mines

Date of accident	Name of Person	Nationality	Occupation	Age	Married or single	Number of widows	Number of orphans	Name of Colliery	County	Nature and Cause of Accident in Brief
Jan. 19	John Macalavich, ----	Lithuanian, ----	Miner, ----	42	M. 1	4	-----	Exeter, ----	Luzerne, ----	Instantly killed by fall of roof in face of chamber.
Feb. 1	John Pender, ----	Italian, ----	Miner, ----	31	M. 1	2	-----	Mt. Lookout, ----	Luzerne, ----	Fatally injured by being struck by a car in face of chamber.
8	Frank Naravich, ----	Horwat, ----	Laborer, ----	48	M. 1	-----	-----	East Boston, ----	Luzerne, ----	Fatally injured by being squeezed between car and door post on gangway, Red Ash vein.
	Gwyllim Johns, ----	Welsh, ----	Driver, ----	18	S. -----	-----	-----	Kingston No. 4, --	Luzerne, ----	Fatally injured by being caught between car and ribs in face of chamber.
15	Peter Lowolis, ----	Lithuanian, ----	Laborer, ----	30	M. 1	-----	-----	Pettebone, ----	Luzerne, ----	Instantly killed by fall of rock in dip gangway, Kidney vein.
Mar. 15	Edward Vardoskie, --	Polish, ----	Laborer, ----	28	S. -----	-----	-----	Kingston No. 1, --	Luzerne, ----	Instantly killed by fall of rock in fourth chamber from No. 6 slope, Cooper vein.
18	Carrol Carbonavage, --	Lithuanian, ----	Miner, ----	30	M. 1	2	-----	Clear Spring, ----	Luzerne, ----	Instantly killed by falling down shaft in Pittston vein.
27	Lorenzo Cui, ----	Italian, ----	Miner, ----	34	M. 1	6	-----	Forty Fort, ----	Luzerne, ----	Fatally injured by premature blast in face of chamber.
April 8	Stanley Galesky, ----	Polish, ----	Laborer, ----	25	M. 1	1	-----	Kingston No. 4, --	Luzerne, ----	Fatally injured by fall of rock on No. 1 vein, Lance vein.
11	Peter Kowbeloskie, ---	Polish, ----	Miner, ----	40	M. 1	4	-----	East Boston, ----	Luzerne, ----	Instantly killed by fall of top coal in face of chamber, Lance vein.
19	Steve Vuckmeen, ----	Horwat, ----	Laborer, ----	48	M. 1	5	-----	Black Diamond, --	Luzerne, ----	Instantly killed by fall of rock in face of chamber, Red Ash vein.
27	Patsy Shuville, ----	Italian, ----	Laborer, ----	21	S. -----	-----	-----	Mt. Lookout, ----	Luzerne, ----	Instantly killed by fall of rock in face of chamber, Ross vein.
	Charley Povatis, ----	Lithuanian, ----	Laborer, ----	45	M. 1	2	-----	Mt. Lookout, ----	Luzerne, ----	Instantly killed by being squeezed between cars at foot of Red Ash shaft.
29	John Koval, ----	German, ----	Miner, ----	52	M. 1	1	-----	Seneca, ----	Luzerne, ----	Fatally injured by fall of rock in chamber. Died May 4.
May 4	Felix Connolly, ----	American, ----	Brakeman, ---	21	S. -----	-----	-----	Seneca, ----	Luzerne, ----	Instantly killed by falling under loaded car at foot of shaft.

May	5	August Chesick,	-----	Lithuanian,	-----	Exeter,	-----	Luzerne,	-----	Instantly killed by fall of rock while re-moving pipe on Red Ash silt line on gangway.
		James Couskie,	-----	Polish,	-----	Miner,	-----	Luzerne,	-----	Instantly killed by premature blast in face of chamber, Marcy vein.
		Felix Voyta,	-----	Russian,	-----	Laborer,	-----	Luzerne,	-----	Instantly killed by fall of rock in face of chamber, Ross vein.
	9	George Gomoock,	-----	Slavonian,	-----	Laborer,	-----	Luzerne,	-----	Instantly killed by fall of rock in face of chamber, Marcy vein.
	11	George Ragi,	-----	Slavonian,	-----	Miner,	-----	Luzerne,	-----	Fatally injured by fall of rock at face of chamber, Marcy vein.
		John Lapinskie,	-----	Polish,	-----	Laborer,	-----	Luzerne,	-----	Fatally injured by fall of rock at face of chamber, Marcy vein.
	13	Anthony Connoskie,	-----	Polish,	-----	Compler,	-----	Luzerne,	-----	Fatally injured by fall of rock on back-switch near foot of shaft.
	15	Charles Bushgontes,	-----	Lithuanian,	-----	Miner,	-----	Luzerne,	-----	Instantly killed by fall of rock on gang-way.
June	10	Tony Scalambino,	-----	Italian,	-----	Miner,	-----	Lackawanna,	-----	Instantly killed by fall of rock at face of chamber.
Aug.	3	George Ralis,	-----	Lithuanian,	-----	Laborer,	-----	Lackawanna,	-----	Fatally injured by fall of top coal on gangway.
Sept.	8	Lewis Mardi,	-----	Italian,	-----	Miner,	-----	Lackawanna,	-----	Fatally injured by fall of coal at face while robbing pillar, Clark vein.
	14	Julius Sabatine,	-----	Italian,	-----	Driver,	-----	Lackawanna,	-----	Fatally injured by falling under trip of cars on gangway. He was sliding one foot on the rail when he fell.
	18	Thomas Flanagan,	-----	English,	-----	Miner,	-----	Luzerne,	-----	Instantly killed by an explosion of blast at face of gangway, Ross vein.
	23	Alex Ripko,	-----	Polish,	-----	Miner,	-----	Luzerne,	-----	Fatally injured by fall of rock on gang-way. Died September 25.
	26	William Germeta,	-----	Polish,	-----	Miner,	-----	Luzerne,	-----	Instantly killed by fall of rock at face, while taking off a skip to make room for new No. 9 slope, Checker vein.
	29	Albert Harwosky,	-----	Polish,	-----	Laborer,	-----	Luzerne,	-----	Instantly killed by fall of rock while cleaning up a fall on gangway, Red Ash vein.
		Evam Johns,	-----	Welsh,	-----	Timberman,	-----	Luzerne,	-----	Instantly killed by cars on gangway. He was sitting on high side of road when the draw bar of first car broke and he was caught between cars and rib.
Oct.	26	Charles Musarskie,	-----	Polish,	-----	Laborer,	-----	Luzerne,	-----	Fatally injured by blast in face of chamber. He fired the blast in the absence of the miner.
	31	Anthony Stainsook,	-----	Polish,	-----	Miner,	-----	Luzerne,	-----	Fatally injured by fall of rock at face of chamber, Bottom Ross vein.
Nov.	7	Joseph Zupa,	-----	Slavonian,	-----	Driver,	-----	Luzerne,	-----	Instantly killed by falling under trip of cars on gangway. He was riding on the bumper, sliding his foot on the rail.
	8	Mike Ondish,	-----	Slavonian,	-----	Runner,	-----	Luzerne,	-----	Fatally injured by an explosion of powder on gangway. Ondish died November 8, and Lynch November 21.
		Joseph Lyner,	-----	Lithuanian,	-----	Driver,	-----	Luzerne,	-----	

TABLE 4—Continued

Date of accident	Name of Person	Nationality	Occupation	Age	Married or single	Number of widows	Number of orphans	Name of Colliery	County	Nature and Cause of Accident in Brief
Nov. 20	Steve Valapoolskie, --	Lithuanian,	Laborer,	.....	S.	.....	.....	Seneca,	Luzerne,	Fatally injured by fall of rock at face while watching the miner barring down the loose coal. Died December 13.
25	Martin Skidowsky, ---	Polish, ----	Miner, .....	.....	M. 1	3	.....	William A.,	Lackawanna, -	Fatally injured by fall of slate at face of pillar. Died same day.
Dec. 3	Joseph Keffiek,	Hungarian,	Brakeman, ---	.....	S.	.....	.....	Pettebone,	Luzerne,	Fatally injured by an explosion of gas at face of chamber. Died December 20.
23	Phillip Reatz,	Italian,	Miner, .....	.....	S.	.....	.....	Seneca,	Luzerne,	Instantly killed by fall of slate at face of chamber.
27	George Subroskie,	Slavonian,	Driver, .....	.....	S.	.....	.....	Marby,	Luzerne,	Killed by falling under loaded car of water on slope.

TABLE 5.—Non-fatal accidents inside and outside of mines

Date of accident	Name of Person	Nationality	Occupation	Age	Married or single	Name of Colliery	County	Nature and Cause of Accident in Brief
Jan. 3	Joseph Vurruch,	Italian,	Laborer,	41	M.	William A.,	Lackawanna, ...	Right arm injured and ankle sprained by fall of rock in face of chamber.
4	Alex Masolis,	Lithuanian,	Miner,	42	M.	Black Diamond, ...	Luzerne,	Ankle fractured by fall of rock at face of chamber.
5	Zini Lorenzo,	Italian,	Miner,	37	M.	Forty Fort,	Luzerne,	Face and hands burned by explosion of gas in crosscut.
9	James May,	Irish,	Propman,	70	M.	Harry E.,	Luzerne,	Right arm fractured by prop falling on him, Outside.
17	John Barney,	Lithuanian,	Miner,	28	M.	Maltby,	Luzerne,	Severely injured by explosion of blast in face of chamber.
23	Charles Ross,	Italian,	Ashman,	22	S.	Stevens,	Luzerne,	Face and eye burned by the bursting of steam pipe. Outside.
24	William Herching, ...	Polish,	Laborer,	36	S.	Kingston No. 4, ...	Luzerne,	Leg fractured by being struck by loaded car on gangway.
26	Thomas Oram,	American, ...	Runner,	21	S.	East Boston, ...	Luzerne,	Ankle fractured by being struck by car that jumped the track on Red Ash plane.
27	Arch Sape,	American, ...	Engineer,	37	M.	Exeter,	Luzerne,	Injured by being squeezed between cars in Red Ash shaft.
30	Joseph Barenofakle, ...	Lithuanian, ...	Doorboy,	16	S.	Forty Fort,	Luzerne,	Hips squeezed by cars on gangway.
	Otagalo Vaghars, ...	Italian,	Laborer,	36	M.	Forty Fort,	Luzerne,	Top of finger taken off by draw-head on cars on gangway.
Feb. 6	George Bumba,	American, ...	Jig runner,	18	S.	M ^{rs} . Lookout, ...	Luzerne,	Right arm broken by being caught in the jig, Outside.
7	Centh Schaltskie, ...	Polish,	Miner,	38	S.	Black Diamond, ...	Luzerne,	Collar bone broken by being struck by cars on gangway. He stepped in front of cars.
8	Mike Bovesick,	Polish,	Laborer,	23	S.	Seneca,	Luzerne,	Leg broken and back injured by fall of roof at face of pillar.
13	Steve Franks,	American, ...	Runner,	32	M.	Forty Fort,	Luzerne,	Thumb taken off by cars on gangway.

TABLE 5—Continued

Date of accident	Name of Person	Nationality	Occupation	Age	Married or single	Name of Colliery	County	Nature and Cause of Accident in Brief
Feb. 14	Mike Patara, -----	Polish, ----	Miner, -----	28	M.	Maltby, -----	Luzerne, -----	Toe broken by fall of rock in face of chamber.
23	Anthony Broom, ----- Charles Churneskie, ---	Italian, --- Horwat, ---	Laborer, ----- Runner, -----	43 30	S. S.	Louise, ----- East Boston, ---	Luzerne, ----- Luzerne, -----	Thigh broken by fall of rock in chamber. Finger taken off by fall of coal on gangway.
28	John Regalls, ----- Jewey Matasavage, -	Lithuanian, --- Lithuanian, ---	Miner, ----- Miner, -----	27 32	M. M.	Forty Fort, -----	Luzerne, -----	Severely injured by fall of rock in face of chamber.
March 8	John Hayden, -----	American, ---	Runner, -----	22	M.	Harry E., -----	Luzerne, -----	Head injured by falling. He slipped on slope roller.
15	George Hallot, -----	Slavonian, ---	Miner, -----	35	S.	Black Diamond, ---	Luzerne, -----	Seriously injured by premature blast in face of chamber.
16	Marine Skinalla, -----	Italian, ---	Miner, -----	40	M.	Seneca, -----	Luzerne, -----	Severely injured by premature blast in face of chamber.
April 9	Joseph Kucher, ----- Joseph Lorri, -----	Slavonian, --- Italian, ---	Driver, ----- Footman, -----	18 49	S. M.	Harry E., ----- Seneca, -----	Luzerne, ----- Luzerne, -----	Top of two fingers taken off while spragging cars on gangway. Small bone in leg broken by being struck by lever on engine.
10	Lewis Owens, ----- Martin Maslosky, -----	American, --- Polish, ---	Miner, ----- Laborer, -----	55 28	M. M.	Kingston No. 4, ---	Luzerne, -----	Slightly injured by fall of rock in face of chamber. Left shoulder broken by fall of rock in face of chamber.
19	Alex. Law, -----	Irish, -----	Pulleyman, -----	47	M.	Kingston No. 4, ---	Luzerne, -----	Left hand cut off and body bruised by cars on gangway.
May 5	William Herbert, ----- Joseph Callahan, ---	Welsh, ----- Irish, -----	Siltman, ----- Siltman, -----	35 28	M. M.	Exeter, -----	Luzerne, -----	Injured by fall of rock while removing pipe of silt line on old gangway, Red Ash vein.
9	Mike Velovits, -----	Polish, ----	Miner, -----	37	M.	Louise, -----	Luzerne, -----	Head and back injured by fall of rock in face of chamber.
10	Andre Jubist, -----	Polish, ----	Driver, -----	20	S.	Mt. Lookout, ---	Luzerne, -----	Arm fractured by being caught between timber and door on gangway.
18	George Backvar, -----	Horwat, ---	Laborer, -----	25	S.	East Boston, ---	Luzerne, -----	Foot bruised by fall of rock in face of chamber.

May	19	Frank Jones,	Welsh,	Inspector,	59	S.	Maltby.	Luzerne,	Head and back injured by fall of rock on gangway.
	23	Charles Brown,	Lithuanian,	Driver,	21	S.	Seneca,	Luzerne,	Shoulder fractured by being squeezed by cars on gangway.
	24	Joseph Evastock,	Lithuanian,	Miner,	25	M.	Seneca,	Luzerne,	Face injured by premature blast in face of chamber.
	29	John Sliakie,	Russian,	Laborer,	42	M.	William A.,	Lackawanna,	Right leg broken by chain on conveyor line. Outside.
	32	Frank Grabwell,	Polish,	Laborer,	32	M.	Seneca,	Luzerne,	Hands and face burned by an explosion of gas on gangway.
June	6	John Krnko,	American,	Driver,	19	S.	Seneca,	Luzerne,	Small bone in foot broken by being struck by rope on slope.
	10	Clement Snyder,	Polish,	Runner,	18	S.	Kingston No. 4,	Luzerne,	Foot badly bruised by falling under cars on gangway.
	20	John Eukish,	Austrian,	Laborer,	25	S.	Black Diamond,	Luzerne,	Ankle fractured by fall of coal at face of chamber.
July	3	Mike Grubitch,	Horwat,	Laborer,	25	S.	Black Diamond,	Luzerne,	Pelvis broken by being squeezed between car and prop on gangway.
	6	Matt Yourkins,	Lithuanian,	Miner,	52	M.	Pettebone,	Luzerne,	Compound fracture of leg and body bruised by explosion of blast in face of chamber.
	10	Vicke Guenara,	Italian,	Miner,	53	M.	Harry E.,	Luzerne,	Ankle fractured by fall of rock at face of chamber.
	12	Peter Donavitz,	Slavonian,	Laborer,	50	M.	East Boston,	Luzerne,	Leg fractured by being struck by bar while unloading machinery. Outside.
	28	Felix Gelsbis,	Lithuanian,	Miner,	37	M.	Forty Fort,	Luzerne,	Face and hands burned by explosion of gas at face of chamber.
Aug.	2	Adam Kosky,	Polish,	Miner,	40	M.	Kingston No. 4,	Luzerne,	Rib fractured and body bruised by fall of rock at face of gangway.
	3	Dominick Wickofsky,	Lithuanian,	Miner,	38	M.	Kingston No. 4,	Luzerne,	Leg fractured by fall of rock on gangway.
	18	Martin Adamavitch,	Lithuanian,	Miner,	39	M.	Seneca,	Luzerne,	Severely injured by fall of roof at face of chamber.
	25	William Tolfsko,	Lithuanian,	Laborer,	28	M.	Mt. Lookout,	Luzerne,	Compound fracture of right leg by fall of rock at face of chamber.
	25	John Rotoskie,	Polish,	Miner,	39	M.	Mt. Lookout,	Luzerne,	Leg fractured by fall of coal at face of chamber.
	26	Anthony Carbonis,	Russian,	Laborer,	18	S.	Black Diamond,	Luzerne,	Face and hands burned by explosion of powder at face of chamber.
	28	Sam Pesano,	Italian,	Miner,	54	M.	Seneca,	Luzerne,	Face and hands slightly burned by explosion of gas at face of chamber.
	29	Joe Capack,	Slavonian,	Miner,	36	M.	Forty Fort,	Luzerne,	Leg fractured by fall of rock at face of chamber.
Sept.	15	Stanley Cronoskie,	Polish,	Laborer,	27	M.	Mt. Lookout,	Luzerne,	Leg fractured by being struck by cars on plane.
		Peter Cieshiskie,	Polish,	Laborer,	25	S.	Mt. Lookout,	Luzerne,	Leg fractured above knee by fall of rock in cross-cut.
		Frank Rosnick,	German,	Driver,	19	S.	Harry E.,	Luzerne,	Pelvis broken by fall of coal at face of chamber.
	18	Angio Frizzi,	Italian,	Miner,	31	S.	Mt. Lookout,	Luzerne,	
		George Bugas,	Polish,	Laborer,	35	M.	Black Diamond,	Luzerne,	

TABLE 5—Continued

Date of accident	Name of Person	Occupation	Age	Married or single	Name of Colliery	County	Nature and Cause of Accident in Brief
Sept. 19	John Cohalen,	Irish,	40	M.	Harry E.,	Luzerne,	Left leg broken by being struck by flying coal from blast in face of chamber.
20	George Hustotte,	Russian,	39	M.	East Boston,	Luzerne,	Arm fractured by being struck by flying coal from blast at face of chamber.
23	Lenorda Pugleane,	Italian,	23	S.	Mt. Lookout,	Luzerne,	Compound fracture of right arm by fall of coal at face of chamber.
26	Barney Muskey,	Polish,	23	S.	Exeter,	Luzerne,	Arm fractured by fall of rock at face of skip. Checker vein.
28	Adam Gornish,	Lithuanian,	41	M.	Mt. Lookout,	Luzerne,	Compound fracture of left leg by fall of rock at face of chamber.
Oct. 9	Charles Serreck,	Lithuanian,	40	M.	Troy,	Luzerne,	Rib broken by fall of rock at face of chamber.
12	Peter Butkie,	Lithuanian,	27	M.	Harry E.,	Luzerne,	Left leg broken by being squeezed between cars on gangway.
Nov. 7	Alex Marcofskie,	Polish,	23	S.	Louise,	Luzerne,	Leg broken by fall of rock in face of gangway.
22	Stanley Shamper,	Polish,	40	M.	Louise,	Luzerne,	Two ribs broken by flying coal from blast at face of chamber.
Dec. 6	Walantl Barbiney,	Italian,	25	S.	Louise,	Luzerne,	Injured by fall of coal at face of gangway.
11	John Mitchell,	Slavonian,	31	M.	Forty Fort,	Luzerne,	Leg broken by small piece of rock falling from side of rib in chamber.
12	Anthony Romatus,	Lithuanian,	47	M.	Black Diamond,	Luzerne,	Sprain and contusion of back by fall of rock in face of chamber.
20	Thomas Benson,	American,	21	S.	Harry E.,	Luzerne,	Face, hands and neck burned by explosion of gas in chamber.
20	Joseph Kuloskie,	Slavonian,	18	S.	Westmoreland,	Luzerne,	Leg fractured by flying coal from blast at face of chamber.
20	Julio Vletoskie,	Italian,	43	M.	Westmoreland,	Luzerne,	Leg fractured by flying coal from blast at face of chamber.

CONDITION OF COLLIERIES

LEHIGH VALLEY COAL COMPANY

Exeter, Seneca and Maltby.—Ventilation, drainage and general condition as to safety, good.

William A.—Ventilation good; drainage and general condition as to safety, fair. The principal work done at these mines is robbing the pillars, and considering the conditions, they are as safe as could be expected.

Westmoreland and Stevens.—Ventilation, drainage and condition as to safety, good.

FORTY FORT COAL COMPANY

Harry E. and Forty Fort.—Ventilation, drainage and general condition as to safety, good.

KINGSTON COAL COMPANY

Kingston No. 4.—Ventilation, drainage and general condition as to safety, good.

MT. LOOKOUT COAL COMPANY

Mt. Lookout.—Ventilation, drainage and general condition as to safety, good.

PLYMOUTH COAL COMPANY

Black Diamond.—Ventilation and drainage fair, condition as to safety, good.

EAST BOSTON COAL COMPANY

East Boston.—Ventilation and drainage fair, condition as to safety, good.

RAUB COAL COMPANY

Louise.—Ventilation, drainage and condition as to safety, fair.

CLEAR SPRING COAL COMPANY

Clear Spring.—Operations suspended indefinitely.

DELAWARE, LACKAWANNA AND WESTERN RAILROAD COMPANY

Pettebone.—Ventilation, drainage and general condition as to safety, good.

RISSINGER BROTHERS AND COMPANY, INCORPORATED

Troy.—Ventilation, drainage and condition as to safety, fair.

IMPROVEMENTS

LEHIGH VALLEY COAL COMPANY

Exeter Colliery.—Inside: The balance plane in the Red Ash vein, mentioned in last year's report, was completed and put in operation. The Red Ash motor haulage was extended 800 feet to the Northeast territory. Five inside bore holes were drilled, two for drainage from the Top to Bottom Red Ash, and three to prove the Marcy vein north

of the fault from the Pittston to the Marcy vein. The mule barns in the Red Ash and Checker veins and the part of the Marcy barn of wood construction are being reconstructed of concrete. No. 3 tunnel, about 100 feet long, was driven through the fault in the Checker vein in the vicinity of Knight shaft to open up the virgin territory beyond the fault. To handle this coal a new slope was driven in the Checker vein and new engine installed. A tunnel, 150 feet long, was driven, and 250 feet of bottom rock was graded to mine the Marcy vein north of the fault. A 15 degree balance plane was driven from the Bottom to Top Red Ash vein to shorten the mule haulage in the Top Red Ash vein, the coal to be handled by motor in the Bottom Red Ash. Work was started to develop the Clark vein in Red Ash shaft, and two rock planes will be driven, one on 15 degrees to serve as the balance plane to drop the coal to the Red Ash, and the other on 30 degrees to serve as a second opening. The 30 degree plane, about 61 feet long, has been completed. The work of installing the air motor haulage in the Marcy vein, mentioned in last year's report, was completed.

Outside: About 30 test holes were put down to prove the Checker vein rock cover in the northwest and southeast sections. Holes are now being drilled in the northeast section along the Stevens Colliery line. Work was commenced on the installation of a new 463 H. P. Stirling boiler and the same is nearly completed. A Welch overwinding device was installed in the Red Ash engine house. New drums for the first motion engines at the Pittston Shaft are on the ground, and will be installed shortly. Extensive repairs were made to the breaker; breaker pockets were renewed and the old circular screens are being replaced with shakers; moving tables are now being installed and other improvements are being made to handle the preparation of coal. Terra cotta pipe was laid from the Red Ash shaft to the main ditch to convey the Red Ash water. A new flume was constructed along the Lehigh Valley Railroad to carry this water.

Seneca Colliery.—Inside: In the Pittston vein, No. 13 rock tunnel 300 feet long was driven through fault for development, and No. 10 slope was extended through coal to the entrance of this tunnel.

In the Marcy vein a ditch 400 feet long was started from the Basin in Scovill's Island, which will drain the water and supplant 3 electric pumps. This water will pass through a new tunnel 400 feet long through an anticlinal and run by gravity to the sump of No. 5 pumping station. A concrete steel pump house was built, with a 2-ton traveling crane, and a 13 by 21 by 34 by 16 by 36-inch pump was installed, completing Marcy pumping station. New head was driven for No. 5 slope facilitating the handling of coal from this slope. Telephones were installed at various points inside and outside the mines.

Outside: Commenced work on the erection of a 3,000 H. P. boiler plant. A new carpenter and blacksmith shop built and equipped with the latest machinery. Fireproof light and loaded scale office erected and put in use. A branch of the company's mine rescue station was established here and a brick building erected for it. Complete rescue apparatus has been purchased and is in working order, subject to call from any colliery in the Division. Conveyor line built to handle fuel from railroad tracks to old boiler plant. A 17-inch bore hole was started from surface to Marcy vein, through which the new pump in No. 5 slope will deliver water to the surface.

Maltby Colliery.—Inside: No. 7 slant slope was extended in the Marcy vein. A 30-degree rock plane, 206 feet long, was driven from the Eleven Foot to the Six Foot, as a second opening to the No. 8 slope, mentioned in last year's report. No. 9 slope in the Marcy vein was extended and graded. No. 10 slope was driven in the Six Foot. No. 11 slope in the Marcy vein was started. Three small single drum electric hoists were installed, also two 8-inch by 9-inch electric triplex pumps. Plans were completed for a 30-degree rock plane from the Ross vein to the Nine Foot vein, No. 6 slope. A new balance plane was installed in the Six Foot vein, river district, which released one motor taken to the Eleven Foot. The reopening of roads in the Eleven-Foot, Six-Foot and Four-Foot veins was started to rob pillars northwest of the shaft. A 4-inch bore hole was drilled from surface to the old plane, which broke into the sand years ago, and cement was pumped through this hole in the hope of sealing off this plane. It is intended to carry on this work by drilling more holes to fill, if possible, the old plane with cement. New roads were driven in the Marcy vein and the electric haulage extended so as to concentrate the coal east of the slope to one lift. The mule barn in the Marcy vein is being reconstructed of concrete to make it fireproof.

Outside: Drilling operations were carried on in the river district to prove the Four-Foot vein rock cover. New engines were installed on the head of the outside refuse plane to handle breaker refuse and hoist coal from the Four-Foot slope. Extensive repairs were made in the breaker and new rolls were put in. The colliery fence was extended. Feed water regulators were installed at the boiler plant. One Welch overwinding device was installed in the shaft engine house.

William A. Colliery.—Inside: The following planes have been driven and put in operation: One 500 feet long in the Clark vein; one 800 feet long in the Marcy vein; and one 1,800 feet long in the Fifth vein. These planes are operated by engines located on the surface.

Outside: A conveyor 270 feet long, was built to handle ashes from boiler house. A new boiler house was erected at Campbells Ledge, containing two 72-inch by 18-foot boilers, to provide steam for engines on Marcy, Clark and Red Ash Planes. Two engines (one 13 by 18 inches and one 14 by 18 inches), were installed, and two rope holes put down, one to Marcy vein and another to Clark vein. A 14 by 18-inch two-drum engine was installed and rope hole put down to Red Ash vein.

Westmoreland Colliery.—Inside: The main haulage road in the Pittston vein, south of the Mt. Lookout anticlinal was extended. No. 7 tunnel, 250 feet long, was driven through the fault in the Marcy vein to mine the coal south of the Mt. Lookout anticlinal. In addition to this 220 feet of bottom rock was blown on the motor road outside of this tunnel. No. 4 rock plane, 63 feet long, was also driven through the fault as a second opening to the tunnel mentioned above. The foot of the main slope in the Marcy vein was graded to facilitate the handling of loaded and empty cars. Work was also commenced to reopen the old gangways at the head of Six-Foot slope to rob pillars east and west of the slope. One new 7-inch by 9-inch triplex electric pump was installed in the Six-Foot vein. The main tunnel was ex-

tended 27 feet and the head of the Marcy slope graded, in connection with the work of concentrating the hoisting of all the coal up the Marcy slope.

Outside: A 10-inch silt hole lined with terra cotta pipe was put down from surface to the Marcy vein, this hole to serve in case of emergency. A pair of 28-inch by 48-inch first motion engines was installed on the surface the rope operating through a new 8-inch bore hole put down on the mountain side from the surface to the head of the Marcy slope. These engines are housed in a new building of tile construction and steam is carried to these engines from the boiler house through a new 8-inch steam line 550 feet long. Test holes were put down on the Reynolds property to prove the Six-Foot vein rock cover. Extensive repairs were made to the breaker and the pockets were renewed. A new office building, containing rooms for outside foremen, colliery clerks and shipper, and with warehouse and oilhouse attached, all of tile construction, was erected and the old frame office building dismantled. 500 feet concrete retaining wall put up, 200 feet of same being along loaded track leading to the breaker plane, and the balance 50 feet and 250 feet on the west and east side of breaker respectively. A new concrete fanhouse with new engine and 20-foot fan was installed to replace the fan of wooden construction. 375 feet of 18-inch terra cotta pipe laid to carry the water from the Marcy pump discharge hole to the creek. A new 18-inch by 36-inch breaker engine was installed.

Stevens Colliery.—Inside: Rock cut was made for handling coal from Marcy vein to shaft. Motor road was completed in upper lift of Marcy vein and now handles coal directly to the shaft, which was previously done by a slope. Top Marcy vein gangways are being driven ahead rapidly and chambers worked from them.

KINGSTON COAL COMPANY

Kingston No. 4 Colliery.—Inside: Two tunnels have been driven in Orchard vein through roll and Lance vein to Orchard vein, a distance of 1,500 feet. Three new overcasts have been built in the Orchard vein of steel and concrete. Two new concrete barns have been built, one at Orchard vein and one at Cooper vein, complete with baths. One Scranton 14 by 8 by 18-inch steam pump has been installed for ash water purposes.

In No. 4 shaft, a new condensing house and Scranton duplex condensing pump, 14 by 8 by 18 inches have been added to No. 4 shaft pump house, and pump house has been rebuilt with steel and concrete timbers. A new quintuplex pump, a duplicate of the one installed in 1910, has been erected at the foot of Red Ash slope, and pump room completed of steel and concrete. 300 feet of the main slope above pump house has been timbered with steel timbers and concrete retaining walls. Two new overcasts have been built of concrete and steel in the Ross vein. New concrete barn consisting of fifty stalls have been built in the Red Ash vein, complete with mule baths. A rock slope 250 feet long has been driven through the roll in the Ross vein. Silting has been carried on very extensively in the southern and middle districts of the Ross and Red Ash veins during the year. Nos. 1 and 4 shaft hoisting engines have been equipped with the Welch improved overwinding device, steam reverse and brake.

The breaker has been wired and lighted by electricity. A Cross Compound Corliss valve movement Ingersoll-Rand air compressor 20 by 38 by 30 by 33 inches, was installed. A new brick central shipping station was built. A new underground fuel conveyor line was built from breaker to boiler house. An additional track was built for No. 4 loaded and supply. Two new powder houses were constructed.

The system of night schools has been continued during the year, also the school for the instruction of "First Aid to the Injured Corps." The general appearance of the property has been considerably improved during the year, a number of miners' dwelling houses having been enlarged and sanitary sewerage installed.

PLYMOUTH COAL COMPANY

Black Diamond Colliery.—Inside: Opened Eleven-Foot or Marcy vein in shaft. Built concrete mule stable in Cooper vein, concrete and steel stable in Ross vein and Red Ash vein: also concrete and steel engine room head of Ross slope. Drove a rock tunnel from Cooper vein to Lance vein, 150 feet, and drove a rock slope from Lance vein to Cooper vein 150 feet; also drove a rock tunnel from Red Ash vein to "A" vein 50 feet.

DELAWARE, LACKAWANNA AND WESTERN RAILROAD COMPANY

Pettebone Colliery.—Inside: A rock plane has been driven on a 15 degree pitch from the Hillman to Kidney vein, No. 2 shaft, which is now about completed, and a second opening for the same has been driven to the coal, but connections have not as yet been made. The work of sinking No. 11 slope, from Bennett to Red Ash vein, is under way. The Ross vein in No. 1 and No. 2 shafts has been opened and connected to shaft airway. The work of rebuilding mule barns, pump rooms, engine house, etc., with incombustible material, is under way, and will soon be completed.

MINE FOREMEN'S EXAMINATIONS

The examination of applicants for certificates of qualification as mine foremen and assistant mine foremen was held at Kingston, April 4 and 5. The Board of Examiners was composed of P. M. Boyle, Mine Inspector, Kingston; James J. McCarthy, Superintendent, Luzerne; Harry Jones, Miner, Wyoming; and Edward Carlin, Miner, Luzerne.

The following applicants passed a satisfactory examination and were granted certificates:

Mine Foremen

Michael H. Corgan, Luzerne; William Michael Toner, Plymouth; Frank J. Carter, Nicholas Cooke, Forty Fort; John Lewis Williams, David Richards, David William Owens, West Pittston; John McHugh, Edwardsville.

Assistant Mine Foremen

Thomas Francis Levin, Maltby; William L. Geyer, Dorranceton; William Coutts, David Coutts, Forty Fort; Peter Berry, Pringle; Philip Williams, Charles W. Thomas, John Williamson, John M. Williams, Jr., Wyoming.



NINTH DISTRICT

LUZERNE COUNTY

Wilkes-Barre, Pa., February 20, 1912.

Hon. James E. Roderick, Chief of Department of Mines:

Sir: I have the honor to transmit herewith my Annual Report as Inspector of Mines for the Ninth Anthracite District, for the year ending December 31, 1911.

The report contains the statistical information required by law, a brief description of fatal and non-fatal accidents, and a brief description of the general condition of the mines.

Respectfully submitted,

D. T. DAVIS, Inspector.

SUMMARY OF STATISTICS

Number of collieries,	15
Number of mines,	32
Number of mines in operation,	32
Number of tons of coal shipped to market,	5,175,102
Number of tons used at mines for steam and heat,	418,858
Number of tons sold to local trade and used by employes,	200,177
Number of tons produced,	5,794,137
Number of tons produced by compressed air machines, .....	.....
Number of tons produced by electrical machines, .....	.....
Number of persons employed inside of mines,	7,849
Number of persons employed outside,	2,373
Number of fatal accidents inside of mines,	37
Number of fatal accidents outside,	6
Number of non-fatal accidents inside of mines,	43
Number of non-fatal accidents outside,	3
Number of tons of coal produced per fatal accident inside,	156,598
Number of persons employed per fatal accident inside, ..	242
Number of persons employed per fatal accident outside,..	396
Number of persons employed per non-fatal accident inside, ..	183
Number of persons employed per non-fatal accident outside, ..	791
Number of wives made widows,	25
Number of children made orphans,	65
Number of steam locomotives used inside of mines, .....	.....
Number of steam locomotives used outside,	14
Number of compressed air locomotives used inside,	5
Number of compressed air locomotives used outside, .....	.....
Number of electric motors used inside,	22
Number of electric motors used outside, .....	.....
Number of fans in use,	38
Number of furnaces in use, .....	.....
Number of gaseous mines in operation,	19
Number of non-gaseous mines in operation,	13
Number of new mines opened, .....	.....
Number of old mines abandoned, .....	.....

TABLE A

PRODUCTION OF COAL

Names of Operators	Tons
Kingston Coal Company,	1,631,026
Delaware and Hudson Company,	1,348,133
Lehigh and Wilkes-Barre Coal Company,	1,158,070
Delaware, Lackawanna and Western Railroad Company,...	991,819
Parrish Coal Company,	330,435
Plymouth Coal Company,	159,721
George F. Lee Coal Company,	98,770
West Nanticoke Coal Company,	49,668
Bright Coal Company,	16,495
Dunn Coal Company,	10,000
Total,	5,794,137

Production by Counties

Luzerne,	5,794,137
	<u>965700</u>

TABLE B.—Fatal and non-fatal accidents inside and outside of mines; number of tons of coal produced per accident; number of persons employed; number employed per accident

Names of Operators	Fatal Accidents			Non-Fatal Accidents			Tons of coal produced per fatal accident inside	Tons of coal produced per non-fatal accident inside	Number of employees inside	Number of employees outside	Total number of employees	Number of employees inside per fatal accident	Number of employees outside per fatal accident	Number of employees inside per non-fatal accident	Number of employees outside per non-fatal accident
	Inside	Outside	Total	Inside	Outside	Total									
Kingston Coal Co.,	5	1	6	6		6	326,205	271,838	1,584	532	2,116	317	532	264	290
Delaware and Hudson Co.,	14	1	15	10	2	12	96,295	134,813	1,856	597	2,453	133	597	186	260
Lehigh and Wilkes-Barre Coal Co.,*	9		9	14	1	15	128,674	82,719	1,441	377	1,818	160		103	377
Delaware, Lackawanna and Western Railroad Co.,†	5	2	7	3		3	168,364	320,606	1,005	320	1,685	333	160	555	
Plymouth Coal Co.,	4		4	8		8	82,609	41,204	778	132	1,651	195		37	
Parrish Coal Co.,								137,721	556	132	388			256	
Plymouth Coal Co.,		2	2					137,721	236	77	313		39		
George F. Lee Coal Co.,								16,495	23	15	38			23	
Bright Coal Co.,								16,495	10	50	60				
Miscellaneous Companies,															
Totals and averages for district,	37	6	43	43	3	46	156,568	134,747	7,849	2,373	10,222	212	396	183	791

*Inman No. 21 (sinking shaft) not included.
†Loomis (sinking shaft) not included.

TABLE C.—Classification of Fatal Accidents Inside and Outside of Mines

	Months												Totals	Percentages	
	January	February	March	April	May	June	July	August	September	October	November	December			
Causes of Accidents Inside															
Falls of coal,			1	1		1				3	1		7	18.92	
Falls of roof,			1						1	2			4	10.81	
Mine cars,	1	1	2			1	1		1			2	9	24.33	
Explosions of gas,					1								1	2.70	
Suffocation by gas, etc.,					5								5	13.51	
Explosions of powder and dynamite,			2										2	5.41	
Blasts, premature and otherwise,					2		1		2				5	13.51	
Falling into shafts,		1		1			1				1		4	10.81	
Totals,	1	2	6	2	8	2	3	4	5	2	2	37	100.00		
Causes of Accidents Outside															
Cars,											1		1	16.66	
Machinery,					1								1	16.67	
Suffocation in chutes, etc.,	1												1	16.67	
By falling,					1		2						3	50.00	
Totals,	1				2		2			1		6	100.00		
Grand totals inside and outside,	2	2	6	2	10	2	5	4	5	3	2	43	.....	

TABLE D.—Classification of Non-Fatal Accidents Inside and Outside of Mines

	Months												Totals	Percentages	
	January	February	March	April	May	June	July	August	September	October	November	December			
Causes of Accidents Inside															
Falls of coal,	2		1							1	1		5	11.63	
Falls of slate,									1	1			2	2.33	
Falls of roof,		1			1			1				1	4	9.30	
Mine cars,	1					1	1	1	2	1	3	10	23.26		
Explosions of gas,	1		1	2					1	1		7	16.27		
Blasts, premature and otherwise,						1		4	1			6	13.95		
Kicked by mules,	1											1	2.33		
Struck by timber,			1		1							2	4.65		
Struck by pole,			1									1	2.33		
Struck by piece of coal,					2				1			3	6.97		
Struck by piece of steel,										1		1	2.33		
By falling,											1	1	2.33		
Struck by rope,											1	1	2.33		
Totals,	5	1	4	2	4	2	1	1	5	7	5	6	43	100.00	
Causes of Accidents Outside															
Machinery,		1										1	2	66.67	
Struck by bar,								1				1	3	33.33	
Totals,	1							1			1	3	100.00		
Grand totals inside and outside,	5	2	4	2	4	2	1	1	6	7	5	7	46	

TABLE E.—Occupations of Persons Killed or Fatally Injured Inside and Outside of Mines

	Months												Totals
	January	February	March	April	May	June	July	August	September	October	November	December	
Inside													
Miners,	1		2	1	5		1		3	3	1		17
Miners' laborers,			3	1	1	1	2		1				11
Drivers and runners,		1	1		1							2	5
Doorboys and helpers,					1								1
Shaftmen,		1									1		2
Footmen,						1							1
Totals,	1	2	6	2	8	2	3		4	5	2	2	37
Outside													
Blacksmiths and carpenters,					1								1
Engineers and firemen,					1								1
Slatepickers (boys),	1												1
Footmen,											1		1
Laborers,							2						2
Totals,	1				2		2				1		6
Grand totals inside and outside,	2	2	6	2	10	2	5		4	5	3	2	43

TABLE F.—Occupations of Persons Injured Inside and Outside of Mines

	Months												Totals
	January	February	March	April	May	June	July	August	September	October	November	December	
Inside													
Miners,	2	1	2	1	2	1			3	3	3		18
Miners' laborers,				1					2	2	1		10
Drivers and runners,	1		1				1					3	6
Doorboys and helpers,										1			1
Company men,			1		1								2
Footmen,					1								1
Driver-bosses,						1							1
Headmen,								1					1
Slopemen,										1			1
Tracklayers,											1		1
Barn-bosses,												1	1
Totals,	5	1	4	2	4	2	1	1	5	7	5	6	43
Outside													
Blacksmiths and carpenters,									1				1
Engineers and firemen,												1	1
Oilers,		1											1
Totals,		1							1			1	3
Grand totals inside and outside,	5	2	4	2	4	2	1	1	6	7	5	7	46

TABLE G.—Nationality of Persons Killed or Fatally Injured Inside and Outside of Mines

	Months												Totals
	January	February	March	April	May	June	July	August	September	October	November	December	
American,	1	1		1	2	1	2		1	1		1	11
English,			1		1				1	1		1	5
German,				1	1	1	1					1	4
Polish,			3	1		1	1		1	1	2		11
Slavonian,		1	1		3	3			1				6
Lithuanian,	1		1		3		1			2			7
Russian,					1		1						2
Totals,	2	2	6	2	10	2	5		4	5	3	2	43

TABLE H.—Nationality of Persons Injured Inside and Outside of Mines

	Months												Totals
	January	February	March	April	May	June	July	August	September	October	November	December	
American,	2		1		1	1	1		1	2	1	2	12
Welsh,		1	1		1								3
Irish,							1	1	1			2	5
Polish,	3		1		2				1	1	3	2	13
Italian,									2				2
Slavonian,										1			1
Lithuanian,		1	1	2					1	1	1		7
Russian,												1	1
Greek,						1							1
Totals,	5	2	4	2	4	2	1	1	6	7	5	7	46

TABLE I.—Operators and mines, kind of openings, type and size of fans, size of furnaces, volume of air produced by fan or furnace per minute, number of splits of air currents and number of persons employed inside

Names of Operators and Mines	Kind of opening	Gasous or non-gasous	Method of ventilation	Diameter of fan in feet and inches	Width of blades in feet and inches	Depth of blades in feet and inches	Number of revolutions per minute	Water gauge developed—in inches	Name of fan	Power used	Area of furnace bars in square feet	Number of splits of air currents	Number of cubic feet of air per minute entering the mine at inlet	Total quantity of air per minute circulating in all the splits in cubic feet	Number of cubic feet per minute passing out at outlet	Number of persons employed inside
Kingston Coal Co.																
Kingston No. 2 Colliery:																
Kingston No. 3,	Shaft,	Gasous,	Fan,	25	8	7.8	70	1.3	Guibal,	Steam,		8	165,000	115,000	172,000	1,182
Kingston No. 2,	Shaft,	Gasous,	Fan,	21	6	6.9	78	1.8	Guibal,	Steam,		4	113,000	100,000	120,000	
Kingston,	Slope,															
Kingston No. 41,	Drift,	Non-gas.,	Natural,													
Kingston No. 42,	Drift,															
Kingston No. 43,	Drift,															
Kingston No. 44,	Drift,															
Dovids,	Tunnel,															
Gaylord Colliery:																
Gaylord,	Slope,	Gasous,	Fan,	25	8	8.0	60	1.1	Guibal,	Steam,		8	122,200	117,000	117,000	402
Delaware and Hudson Co.																
Plymouth No. 3 Colliery:																
Plymouth,	Shaft,	Gasous,	2 Fans,	28	10	7.6	60	2.2	Guibal,	Steam,		13	287,000	243,000	337,000	646
Plymouth,	Drift,	Non-gas.,	Fan,	17	5	4.0	50	1.2								
Plymouth No. 5, Colliery:																
Plymouth,	Shaft,	Gasous,	Fan,	22	6	6.6	85	.3								
Plymouth No. 4,	Shaft,	Gasous,	Fan,	17	5	4.0	100	.7								
Boston,	Shaft,	Gasous,	Fan,	22	5	6.6	75	.2								
Boston,	Drift,	Non-gas.,	Natural,													

*A portion of the current screens through abandoned inaccessible workings to caves on crop lines.

TABLE 1.—Operators, location of collieries, railroads, etc.

Names of Operators and Collieries	County	Name of General Superintendent	Post Office	Name of Superintendent	Post Office	Railroad to Mine
Kingston Coal Co. Kingston No. 2, Gaylord, Gaylord Washery, Kingston No. 2 Washery.	Luzerne	F. E. Zerby	Wilkes-Barre	Thomas H. Williams, Ralph Smith	Edwardsville, Wilkes-Barre	Leligh Valley, Delaware and Hudson, D. L. and W. Delaware and Hudson
Delaware and Hudson Co. Plymouth Nos. 2, 3, 5, Plymouth Washeries Nos. 2, 3, 5,	Luzerne	C. C. Rose	Scranton	E. R. Petebone	Horsancton	Delaware and Hudson
Leligh and Wilkes-Barre Coal Co. Nottingham, Lance No. 11, Imman No. 21,*	Luzerne	C. F. Huber	Wilkes-Barre	Morgan R. Morgans, Inside Superin- tendent, W. H. Herring, Outside Superin- tendent.	Wilkes-Barre	C. R. R. of N. J.
Delaware, Lackawanna and Western Railroad Co. Woodward, Avondale, Loomis.	Luzerne	R. A. Phillips	Scranton	Henry G. Davis	Kingston	D. L. and W.
Parrish Coal Co. Bartonwood, Parrish.	Luzerne	William G. Thomas	Wilkes-Barre	George O. Thomas	Wilkes-Barre	C. R. R. of N. J.
Plymouth Coal Co. Dodson, George F. Lee Coal Co. Chauncey,	Luzerne	Thomas R. Phillips	Kingston	Gilbert S. Jones	Horsancton	D. L. and W.
	Luzerne	George F. Lee	Wilkes-Barre	Benjamin Amos	Plymouth	D. L. and W.

*Sinking Shaft.

TABLE 1—Continued

Name of Operators and Collieries	County	Name of General Superintendent	Post Office	Name of Superintendent	Post Office	Railroad to Mine
West Nanticoke Coal Co. West Nanticoke Washery	Luzerne	A. D. W. Smith	Wilkes-Barre	J. J. Richards	Wilkes-Barre	Pennsylvania
Bright Coal Co.	Luzerne	David Spruks	Scranton	Jonathan Vipond	Scranton	Delaware and Hudson
Dunn Coal Co.	Luzerne	G. G. Hollister	Kingston			Delaware and Hudson

TABLE 2.—Number of tons of coal mined, number of days worked, number of persons employed, number killed and injured, quantity of powder, dynamite and permissible explosives used, etc.

Names of Operators and Collieries	County	Number of tons of coal shipped to market	Number of tons used at collieries for steam and heat	Number of tons sold to local trade and used by employes	Total production of coal in tons	Number of days worked	Number of employes	Number of fatal accidents	Number of non-fatal accidents	Explosives				Number of horses and mules
										Number of pounds of powder used	Number of pounds of dynamite used	Number of pounds of permissible explosives used		
Kingston Coal Co.	Luzerne,	908,677	21,800	90,443	1,020,420	208	1,538	3	6	704,400	14,750	5,900	170	
Gaylord,		201,847	21,100	10,985	233,882	241	501	3	6	105,000	6,575	400	50	
Washerles	Luzerne,	1,110,524	42,400	101,378	1,254,302	.....	2,039	0	0	809,400	21,325	6,200	200
Gaylord,		155,006	.....	32,835	188,441	205	85	.....	.....	.....	.....	.....	.....
Kingston No. 2,	.....	169,045	3,870	15,368	188,283	294	42	.....	.....	.....	.....	.....	.....
Totals,	.....	324,651	3,870	48,202	370,724	.....	77	.....	.....	.....	.....	.....	.....
Delaware and Hudson Co.	Luzerne,	1,435,175	46,270	149,581	1,631,026	.....	2,116	6	6	809,400	21,325	6,200	229
Plymouth No. 3,		425,175	8,939	4,679	438,793	266	818	3	3	287,825	5,750	.....	80
Plymouth No. 5,		381,169	5,092	7,045	403,306	210	930	6	6	250,250	1,517	.....	102
Plymouth No. 2,	.....	291,428	23,677	.....	320,105	223	705	6	3	233,375	6,721	.....	.....
Totals,	.....	1,107,772	42,708	11,724	1,162,204	.....	2,453	15	12	771,450	11,997	.....	188

TABLE 2—Continued

Names of Operators and Collieries	County	Number of tons of coal shipped to market	Number of tons used at collieries for steam and heat	Number of tons sold to local trade and used by employes	Total production of coal in tons	Number of days worked	Number of employes	Number of fatal accidents	Number of non-fatal accidents	Explosives			Number of horses and mules
										Number of pounds of powder used	Number of pounds of dynamite used	Number of pounds ofmissible explosives used	
Washeries													
Plymouth No. 3,	Luzerne,	73,158	24,808	---	97,966	180	*	---	---	---	---	---	---
Plymouth No. 5,		23,956	43,200	---	67,216	67	†	---	---	---	---	---	---
Plymouth No. 2,		7,540	13,207	---	20,747	20	‡	---	---	---	---	---	---
Totals,		1,212,420	123,883	11,724	1,343,133	---	2,433	15	12	771,450	11,997	---	188
Lehigh and Wilkes-Barre Coal Co.													
Nottingham,	Luzerne,	656,031	63,132	6,076	725,239	507	1,130	3	10	323,225	7,988	---	188
Lance No. 11,		339,700	30,325	2,785	432,811	242	698	5	5	208,600	16,768	44,186	160
Inman No. 21,§		---	---	---	---	---	---	---	1	---	---	---	---
Totals,		1,055,731	93,478	8,861	1,158,070	---	1,818	9	15	531,825	24,756	44,186	207
Delaware, Lackawanna and Western Railroad Co.													
Woodward,	Luzerne,	922,892	40,724	7,818	971,434	265	1,710	4	3	812,323	8,767	3,500	145
Avondale,		11,901	6,763	1,031	20,385	28	275	---	---	1,375	2,010	735	30
Loomis,§		---	---	---	---	---	---	---	3	---	---	---	---
Totals,		934,833	47,427	9,509	991,819	---	1,985	7	3	814,198	10,777	4,235	175

*Included with employes of Plymouth No. 3.

†Included with employes of Plymouth No. 5.

‡Included with employes of Plymouth No. 2.

§Sinking shaft.

Parrish Coal Co.	Luzerne,	156,359	30,660	5,871	191,721	174	384	1	87,325	89,000	1,000	91
Butttonwood,	.....	163,482	30,660	5,232	138,714	162	467	3	73,890	59,850	7,600	69
Parrish,	.....										
Totals,	.....	259,832	60,690	10,603	330,435	.....	1,051	4	161,225	148,850	8,000	100
Plymouth Coal Co.	Luzerne,	119,868	36,500	3,353	159,721	197	388	.....	37,150	8,400	.....	38
Dodson,	.....										
George F. Lee Coal Co.	Luzerne,	89,082	7,300	2,388	98,770	246	313	2	27,500	6,000	355	42
Chauncey,	.....										
West Nanticoke Coal Co.	Luzerne,	46,113	2,400	1,155	49,668	270	42	.....	.....	.....	.....	2
West Nanticoke Washery,	.....										
Bright Coal Co.	Luzerne,	14,492	1,500	503	16,495	252	38	.....	13,750	500	.....	3
Hillside,	.....										
Dunn Coal Co.	Luzerne,	7,500	.....	2,500	10,000	147	18	.....	4,000	.....	.....	.....
Dunn,	.....										
Grand totals,	.....	5,175,162	418,858	200,177	5,794,137	.....	10,222	43	3,230,598	233,505	63,576	1,139

TABLE 2.—Part 2

Names of Operators	County	Number of Boilers					Locomotives					Total horse power	Number of steam engines of all classes	Total horse power	Number of pumps delivering water to surface	Capacity in gallons per minute	Quantity delivered to surface per minute—gallons	Number of electric dynamos	Number of air compressors			
		Cylindrical	Tubular	Horse power	Horse power	Total horse power	Steam	Air	Electric	Number of pumps delivering water to surface	Capacity in gallons per minute									Quantity delivered to surface per minute—gallons	Number of electric dynamos	Number of air compressors
Kingston Coal Co.,	Delaware	54	14	3,550	3,550	7	6	51	4,750	3	3,040	2,200	1	1								
Delaware and Hudson Co.,	Delaware		26	6,900	6,900			112	9,680	10	14,700	4,150	2									
Lehigh and Wilkes-Barre Coal Co.,	Lehigh		24	5,560	5,560	3	5	114	8,021	4	4,832	2,400		7								
Delaware, Lackawanna and Western Railroad Co.,	Delaware		20	4,375	4,375	3	16	54	7,343	8	13,900	10,173	7	2								
Parrish Coal Co.,	Laurens		30	4,500	4,500			50	8,283	6	4,350	2,600		8								
Plymouth Coal Co.,			15	2,650	2,650			12	2,650	3	2,100	1,500	1	3								
George F. Lee Coal Co.,			4	350	350			6	300													
West Nanticoke Coal Co.,			3	300	300	1		3	150	1	800	800	3									
Bright Coal Co.,			3	300	300			4	300	1	125	60										
Dunn Coal Co.,								4	300	1	150	100	2									
Totals,		54	139	28,375	29,725	14	5	406	41,475	37	44,617	23,983	16	21								

TABLE 3.—Number of each class of employes inside and outside of mines

Names of Operators	County	Inside											Outside							Grand total inside and outside		
		Mine foremen	Assistant mine foremen	Fire bosses and assistants	Miners	Miners' laborers	Drivers and runners	Doorbys and helpers	Pumpmen	Company men	All other employes	Total inside	Superintendents	Foremen	Blacksmiths and carpenters	Engineers and firemen	State pickers (boys)	State pickers (men)	Bookkeepers and clerks		All other employes	Total outside
Kings-ton Coal Co.,		5	14	3	576	507	234	21	3	86	135	1,584	2	5	86	45	2	43	7	337	532	2,116
Delaware and Hudson Co.,		4	5	14	547	651	239	61	12	281	42	1,856	---	5	24	110	79	96	6	277	597	2,443
Lehigh and Wilkes-Barre Coal Co.		3	3	16	523	370	107	78	12	---	269	1,441	---	2	18	62	89	17	8	190	377	1,813
Delaware, Lackawanna and Western Railroad Co.,	Luzerne,	4	4	18	523	486	141	53	27	280	129	1,665	---	3	32	52	39	4	5	185	320	1,985
Parrish Coal Co.,		2	2	12	241	173	96	43	11	29	169	778	2	5	12	45	28	56	9	116	273	1,661
Plymouth Coal Co.,		1	1	3	57	75	38	16	6	39	20	256	1	1	11	24	31	---	2	62	132	588
George F. Lee Coal Co.,		1	1	1	71	89	26	---	---	32	14	236	---	1	3	5	27	4	1	36	77	813
West Nanticoke Coal Co.,		1	---	---	---	---	---	---	---	---	---	---	1	1	1	3	5	4	1	27	42	42
Bright Coal Co.,		1	---	---	13	2	4	---	2	1	---	23	1	1	---	3	6	---	1	3	15	38
Dunn Coal Co.,		1	---	---	4	4	---	---	---	---	---	10	1	---	---	1	2	---	---	4	8	18
Totals.		22	30	67	2,556	2,357	946	272	73	749	778	7,849	7	24	187	350	299	229	40	1,287	2,373	10,222

TABLE 3.—Part 2

Names of Operators	County	Average Number of Days Worked in Breaker												Total	
		January	February	March	April	May	June	July	August	September	October	November	December		
Kingston Coal Co.,	-----	25	21	23	22	26	24	18	20	19	23	24	24	24	209
Delaware and Hudson Co.,	-----	21	19	22	19	19	20	17	21	20	19	18	18	18	233
Lehigh and Wilkes-Barre Coal Co.,	-----	23	17	18	20	23	23	11	8	16	23	22	22	21	225
Delaware, Lackawanna and Western Railroad Co.,	-----	23	18	21	21	23	23	18	26	23	21	23	22	22	265
Parrish Coal Co.,	-----	22	16	16	9	9	10	9	11	16	16	16	16	18	168
Plymouth Coal Co.,	-----	17	13	17	15	17	17	15	18	17	17	16	16	16	197
George F. Lee Coal Co.,	-----	24	20	26	25	25	21	22	21	23	20	20	20	24	246
Bright Coal Co.,	-----	24	22	19	14	26	16	16	21	25	20	24	25	25	252
Dunn Coal Co.,	-----	9	8	9	12	15	12	9	16	16	19	22	22	22	147

* Avondale Colliery not included.

TABLE 4.—Fatal accidents inside and outside of mines

Date of accident	Name of Person	Nationality	Occupation	Age	Married or single	Number of widows	Number of orphans	Name of Colliery	County	Nature and Cause of Accident in Brief
Jan. 6	Dennis Mekec,	American	Slatepicker,	15	S.	.....	.....	Chauncey,	.....	Smothered by being drawn through coal pocket. Outside.
9	Anthony Shetski,	Lithuanian,	Miner,	43	M.	1	2	Parrish,	.....	Killed by being struck by trip of loaded cars on gangway.
Feb. 7	Patrick Claberty,	American	Shaftman,	36	W.	.....	1	Innan No. 21, (Sinking Shaft),	.....	Killed by falling down shaft.
10	Joseph Gura,	Slavonian,	Driver,	24	M.	1	3	Kingston No. 2,	.....	Killed by being squeezed between car and prop on gangway.
Mar. 7	Anthony Gudseck,	Polish,	Laborer,	28	S.	.....	.....	Nottingham,	.....	Killed by fall of top coal at face.
10	Nuter Goodrich,	Polish,	Laborer,	27	M.	1	2	Kingston No. 2,	.....	Fatally injured by being struck by loaded trip of cars on gangway.
21	Albert Crawford,	English,	Driver,	18	S.	.....	.....	Lance No. 11,	.....	Killed by being struck by loaded trip on No. 5 Ross vein slope.
24	Alexander Chioreski,	Polish,	Laborer,	19	S.	.....	.....	Plymouth No. 2,	Luzerne,	Fatally burned by explosion of powder in chamber. Died April 10.
27	Andrew Stefancian,	Slavonian,	Miner,	44	M.	1	3	Plymouth No. 3,	.....	Killed by fall of rock at face. He tried to bar the rock down, but failed.
29	William Coronski,	Lithuanian,	Miner,	35	M.	1	4	Woodward,	.....	Fatally burned by explosion of powder in drill hole at face. Died April 5.
April 8	Thomas Hooligan,	American,	Miner,	36	M.	1	2	Gaylord,	.....	Killed by fall of top coal at face.
12	Andrew Cullnesky,	Polish,	Laborer,	31	M.	1	5	Loomis (Sinking Shaft)	.....	Fatally injured by falling down shaft. Died April 13.
May 1	John Lecky,	Lithuanian,	Miner,	45	M.	1	2	Nottingham,	.....	Fatally burned by explosion of gas in face of adjoining chamber. Died May 21.
9	Michael Lukshick,	Polish,	Miner,	46	M.	1	2	Woodward,	.....	Killed by premature blast at face due to cutting squib.
10	John Russliski,	Slavonian,	Miner,	39	M.	1	4	.....	.....	Smothered by gases from underground fire. See article in Preliminary Part of Report on Boston Mine fire.
	William Angeloviez,	Slavonian,	Laborer,	39	M.	1	2	Plymouth No. 5,	.....
	George Fender,	American,	Driver,	19	S.	.....	.....	.....	.....
	John Malast,	American,	Doorboy,	17	S.	.....	.....	.....	.....
	Jacob Kovilla,	Slavonian,	Miner,	42	S.	.....	.....	.....	.....

TABLE 4--Continued

Date of accident	Name of Person	Nationality	Occupation	Age	Married or single	Number of widows	Number of orphans	Name of Colliery	County	Nature and Cause of Accident in Brief
May 11	Harry Rabock,	Russian, ...	Fan engineer, ...	50	M.	1	5	Woodward,		Killed by belt splice while oiling pulley journal. Outside.
30	August Broszeit,	German, ...	Carpenter, ...	54	S.	.....	.....	Plymouth No. 3,		Fatally injured by falling from roof of washery to ground. Died same day. Outside.
22	Anthony Roginski,	Lithuanian,	Miner,	53	M.	1	1	Lance No. 11,		Fatally injured by being struck by flying coal from premature blast at face due to shortening squib. Died same day.
June 7	Dennis Noonan,	American, ...	Footman, ...	33	M.	1	3	Gaylord,		Killed on gangway by being caught by runaway loaded ear from slope.
26	Walter Gilsheski,	Polish, ...	Laborer, ...	24	S.	.....	.....	Woodward,		Killed by fall of top coal on gangway while watching his miner drilling hole.
July 10	Andrew Obletta,	Russian, ...	Laborer, ...	42	M.	1	0	Loomis (Sinking Shaft)		Fatally injured by falling off a pile of lumber. Outside.
17	Anthony Buskum,	Lithuanian,	Miner,	32	M.	1	.....	Plymouth No. 2,	Luzerne,	Fatally injured by being struck by flying coal from blast. He returned too quickly to airway. Died same day.
21	Ralph Grey,	American, ...	Laborer, ...	18	S.	.....	.....	Gaylord,		Fatally injured by falling from breaker annex to ground. Died August 1. Outside.
25	Jeremiah Boney,	American, ...	Laborer, ...	47	M.	1	1	Plymouth No. 2,		Killed by runaway rock car, which he had blocked with 1 inch boards on a pitch of 10 degrees in rock hole chamber.
26	Alexander Steffanovitz,	Polish, ...	Laborer, ...	21	S.	.....	.....	Loomis (Sinking Shaft)		Fatally injured by falling down shaft a distance of 60 feet. Died August 2.
Sept. 15	Joseph Leonard,	Polish, ...	Miner, ...	25	M.	1	2	Kingston No 2,		Killed by fall of rock while barring out coal at face.
	Frank Bryant,	German, ...	Miner, ...	57	M.	1	1	Lance No. 11,		Killed by being struck by flying coal from blast. He thought the squib had missed fire and returned to the face.

Sept. 23	William Brown,	American,	Miner,	25	S.	1	2	Plymouth No. 2,--	Killed by being struck by flying coal from premature blast at face.
27	John Daria,	Slavonian,	Laborer,	35	M.	1	2	Plymouth No. 5,--	Fatally injured by being squeezed between chute projection and car on gangway. He jumped on empty trip. Died September 25.
Oct. 9	Joseph Yonko,	Polish,	Laborer,	55	M.	1	0	Parrish,	Fatally injured by fall of top coal while barring out coal at face.
14	William Stracututes, August Keene,	Lithuanian, German,	Miner, Laborer,	57 28	M. S.	1 2	2	Plymouth No. 2,--	Killed by fall of top coal.
17	Thomas Markevitz,	Lithuanian,	Miner,	51	M.	1	1	Lance No. 11, ----	Fatally injured by fall of rock while loading car at face.
19	Joseph Smith,	American,	Miner,	42	M.	1	3	Plymouth No. 3,--	Killed by fall of coal while working at face.
Nov. 9	Anthony Wilkes,	Polish,	Footman,	21	S.	---	---	Chauncey	Killed by fall of rock at face. He entered the face immediately after firing a blast.
11	Joseph Kososki,	Polish,	Miner,	24	S.	---	---	Plymouth No. 2,--	Fatally injured by being squeezed between loaded cars. Outside.
21	Albert Dumas,	English,	Shaftman,	42	M.	1	---	Lance No. 11, ----	Killed by fall of top coal at face of gangway. He did not examine roof after firing blast.
Dec. 5	Harry Foslock,	German,	Driver,	19	S.	---	---	Buttonwood,	Killed by falling down shaft. He attempted to get on carriage after signal had been given.
22	Edward Colligan,	American,	Driver,	19	S.	---	---	Nottingham,	Fatally injured by being struck by runaway loaded car on gangway. Died same day.
									Fatally injured by being struck by runaway loaded car on gangway. Died same day.

Luzerne, -----

TABLE 5.—Non-fatal accidents inside and outside of mines

Date of accident	Name of Person	Nationality	Occupation	Age	Married or single	Name of Colliery	County	Nature and Cause of Accident in Brief
Jan. 3	Stanley Sultz,	Polish,	Miner,	36	M.	Parrish,		Hands and face burned by explosion of gas at face.
4	Peter Blascak,	Polish,	Laborer,	39	M.	Plymouth No. 3,		Leg fractured by being struck by empty car at face.
10	John Krinehus,	Polish,	Laborer,	22	S.	Kingston No. 2,		Leg fractured by fall of coal at face.
18	Joseph Cornif,	American,	Driver,	20	S.	Nottingham,		Kicked in abdomen by a mule that he was driving on gangway.
27	John Mason,	American,	Miner,	34	M.	Kingston No. 2,		Injured internally by fall of top coal at face while setting a prop.
Feb. 9	Benjamin Pierce,	Welsh,	Oiler,	21	S.	Lance No. 11,		Compound fracture of arm by being caught by a line of shafting, outside.
23	George Asadorky,	Lithuanian,	Miner,	45	M.	Kingston No. 2,		Leg fractured by fall of rock at face.
Mar. 20	James Rafter,	American,	Runner,	24	S.	Plymouth No. 3,		Leg fractured by being struck by a piece of board at face.
22	Jonah Davis,	Welsh,	Company man,	31	S.	Nottingham,	Luzerne,	Leg fractured by being struck by a pole while side-bitching trip on gangway.
23	Joseph Bugrofski,	Polish,	Miner,	24	M.	Lance No. 11,		Leg fractured by fall of coal at face while barring out loose coal.
28	Frank Bakran,	Lithuanian,	Miner,	52	M.	Nottingham,		Hands and face burned by explosion of gas at face.
April 5	Adam Crethills,	Lithuanian,	Laborer,	27	S.	Lance No. 11,		Hands and face burned by explosion of gas at face.
13	Charles Bredofski,	Lithuanian,	Miner,	39	S.	Parrish,		Neck, hands and face burned by explosion of gas at face.
May 5	Alexander Sockoloski,	Polish,	Miner,	42	M.	Nottingham,		Leg fractured by piece of coal that rolled against him at face.
13	Frank Nareski,	Polish,	Miner,	24	M.	Plymouth No. 2,		Foot fractured by fall of rock at face.
15	Jerry Obitz,	American,	Footman,	26	M.	Kingston No. 2,		Arm fractured by being struck by a piece of coal that fell down shaft.
27	John Lloyd,	Welsh,	Company man,	24	S.	Nottingham,		Leg fractured by being struck by a prop that was dislodged by car on gangway.

June 1	Nicholas Katrinez, ...	Greek, ...	Miner, ...	40 M.	Lance No. 11, ...	Nose fractured by being struck by flying coal from premature blast at face. Pavis fractured by being struck by a derailed car on slope.
6	Worrell Roberts, ...	American, ...	Driver boss, ...	59 M.	Nottingham, ...	Ankle fractured by being squeezed between empty cars on gangway.
July 11	Robert Smith, ...	American, ...	Driver, ...	17 S.	Plymouth No. 5, ...	Leg fractured by being caught by derailed loaded trip of cars on gangway.
Aug. 5	Patrick Harren, ...	Irish, ...	Headman, ...	27 S.	Plymouth No. 3, ...	Leg fractured by being struck by steel bar. Outside.
Sept. 1	Henry Evans, ...	American, ...	Carpenter, ...	25 M.	Plymouth No. 5, ...	Body injured and hand blown off while tamping dynamite at face.
19	Thomas Gressie, ...	Italian, ...	Miner, ...	35 S.	Parrish, ...	Body lacerated while assisting in tamping dynamite hole at face.
23	Edward Gressie, ... John McDonough, ...	Italian, Irish, ...	Laborer, Miner, ...	33 S. 43 M.	Woodward, ...	Ribs fractured and body lacerated by being struck by flying coal from premature blast at face.
	Martin Gushak, ...	Polish, ...	Laborer, ...	30 M.	Plymouth No. 5, ...	Ribs fractured and body bruised by fall of roof while pushing coal down the chute in chamber.
29	John Remack, ...	Lithuanian, ...	Miner, ...	26 S.	Woodward, ...	Body lacerated by being struck by flying coal from premature blast at face.
Oct. 2	James Brennan, ...	Irish, ...	Miner, ...	41 M.	Woodward, ...	Collar bone fractured by being struck by flying coal from delayed blast at face.
7	Rinaldo Mazzanti, ...	Italian, ...	Miner, ...	31 M.	Hillside, ...	Jaw fractured by fall of slate at face.
9	William Walchefsky, ...	Polish, ...	Laborer, ...	26 S.	Kingston No. 2, ...	Leg fractured by fall of coal at face while barring out a shot.
11	Andrew Vandure, ...	Slavonian, ...	Miner, ...	39 M.	Plymouth No. 2, ...	Face and arms burned by explosion of gas. He entered face against orders.
	George Freeman, ...	American, ...	Doorboy, ...	16 S.	Nottingham, ...	Ribs fractured by being caught between car and door frame when jumping on car on airway.
12	James Rowlands, ...	American, ...	Slopeman, ...	22 S.	Plymouth No. 5, ...	Hand crushed by car while adjusting latches on gangway.
27	Benjamin Rasamoviez, ...	Lithuanian, ...	Laborer, ...	26 S.	Dodson, ...	Ankle fractured by a piece of coal striking his leg at face.
Nov. 7	Costic Cristo, ... Joseph Ezenski, ...	Polish, Polish, ...	Miner, Miner, ...	33 M. 36 M.	Parrish, ...	Hands and face burned by explosion of gas. They neglected to repair brattice at face.
8	Ignatz Lubulski, ...	Lithuanian, ...	Laborer, ...	30 M.	Lance No. 11, ...	Injured internally by being struck by overturned empty car on gangway.
15	Stephen Ward, ...	American, ...	Tracklayer, ...	56 M.	Nottingham, ...	Eyesight destroyed by piece of steel that struck him while cutting rail on gangway.
21	Charles Jago, ...	Polish, ...	Miner, ...	39 M.	Nottingham, ...	Collar bone fractured by fall of top coal at face.
Dec. 1	Stanley Yawolski	Polish, ...	Driver, ...	18 S.	Nottingham, ...	Hips injured by being squeezed between cars and fall of rock on gangway.

TABLE 5—Continued

Date of accident	Name of Person	Nationality	Occupation	Age	Married or single	Name of Colliery	County	Nature and Cause of Accident in Brief
Dec. 6	John Nafus,	Irish,	Driver,	21	S.	Parrish,	Knee dislocated by being squeezed between cars on gangway. Pelvis fractured by fall of rock at face. Leg fractured. He slipped on rail and fell while playing on gangway. Injured internally by being run over by trip of cars on slope. Ankle fractured by wire rope while crossing plane. Hand mangled and four fingers severed by engine rod while repairing engine. Outside.
7	Michael Panko,	Russian,	Laborer,	25	S.	Kingston No. 2, .....	.....
	Bromstaw Marchkowi,	Polish,	Laborer,	28	M.	Plymouth No. 3, .....	.....
9	John Barton,	Irish,	Runner,	21	S.	Parrish,	Luzerne,	
15	William Allabaugh,	American,	Barn boss,	50	M.	Plymouth No. 5, .....	.....
25	Emory Drum,	American,	Engineer,	42	M.	Plymouth No. 2, .....	.....

CONDITION OF COLLIERIES

KINGSTON COAL COMPANY

Kingston No. 2 and Gaylord.—Safety conditions, ventilation and drainage, good.

DELAWARE AND HUDSON COMPANY

Plymouth Nos. 2, 3 and 5.—Safety conditions, ventilation and drainage, good.

LEHIGH AND WILKES-BARRE COAL COMPANY

Nottingham and Lance No. 11.—Safety conditions, ventilation and drainage, good.

DELAWARE, LACKAWANNA AND WESTERN RAILROAD COMPANY

Woodward and Avondale.—Safety conditions, ventilation and drainage, good.

PARRISH COAL COMPANY

Buttonwood and Parrish.—Safety conditions, ventilation and drainage, good.

PLYMOUTH COAL COMPANY

Dodson.—Safety conditions, ventilation and drainage, good.

GEORGE F. LEE COAL COMPANY

Chauncey.—Safety conditions, ventilation and drainage, good.

BRIGHT COAL COMPANY

Hillside.—Safety conditions, ventilation and drainage, good.

DUNN COAL COMPANY

Dunn.—Safety conditions, ventilation and drainage, good.

IMPROVEMENTS

KINGSTON COAL COMPANY

Kingston No. 2 Colliery.—Outside: The breaker has been equipped with a new Carpenter patent dust eradicator, size of fan 15 feet by 6 feet, belt driven, for removing dust from the breaker and eliminating such dust in a new water tower built on the outside of the breaker.

Two new jigs were installed in breaker.

The breaker has been wired and lighted by electricity.

A brick-concrete wash-house completed for the use of the miners, equipped with shower baths, individual tubs and two hundred steel lockers.

Concrete engine houses were constructed, supplanting frame at Lance bore hole, Orchard bore hole and Nos. 2 and 3 shafts.

Warehouse and office of brick, supplanting frame.

Nos. 2 and 3 shaft hoisting engines were equipped with Welch Improved Overwinding Prevention Device, steam reverse and brake.

Brick-concrete-steel mule bath, shoeing and wagon shed completed.

Twenty-five thousand gallon circular wooden water tank set in place.

Nos. 2 and 3 shaft towers have been stripped of wooden sheathing and head frame removed and strengthened.

No. 2 Shaft.—Inside: In accordance with the Act of June 15, 1911, all buildings inside of the mines have been constructed of incombustible material.

A concrete emergency hospital was built at the bottom of No. 2 shaft.

A concrete fire boss station was built in the Lance vein at the foot of shaft.

Two openings were driven from the Cooper to the Lance vein for second outlet.

A rock tunnel was driven from the Cooper to the Lance vein, a distance of 180 feet for traveling way and mule way.

The Bennett vein barn was extended, with steel and concrete stalls.

No. 3 Shaft.—Inside: Concrete-steel barn was built in Red Ash vein.

Concrete motor pit was built.

Concrete emergency hospital was built at the foot of the shaft.

A concrete fire boss station was built.

A balance plane was made in Red Ash vein.

Kingston Nos. 2 and 4 Washeries.—No. 2 culm bank was exhausted on October 23, and they are now preparing No. 4 bank through No. 2 washery structure.

Three new conveyor lines were built, running by subway under the railroad tracks, Main Street and No. 4 yard, to transport No. 4 bank to the washery.

Four new jigs were installed.

A 25,000 gallon fresh water circular wooden tank is in course of construction at boiler house.

Roadway for retail wagon trade under washery.

Silting from the washery was carried into No. 3 Ross and Red Ash workings.

Gaylord.—Outside: A brick ambulance wagon shed was erected.

The culm plane bridge over wagon road was rebuilt.

A 50,000 gallon cedar water storage tank was placed on steel and concrete foundations.

A playground was established along Cherry Street, complete with swings, wading basin, horizontal bars, turnstiles, etc., and opened to the children of employes on July 4.

Foundations have been completed for a new Ingersoll-Rand air compressor.

Inside: A concrete engine house was built for the Red Ash slope engines.

A bore hole 450 feet was sunk from the head of culm plane to the Red Ash vein for silting purposes.

Red Ash slope was extended and steel timbers are being tried.

Silting operations have been carried on extensively during the year.

LEHIGH AND WILKES-BARRE COAL COMPANY

Nottingham No. 15 Colliery.—Outside: Wash house at Reynolds.
Feed water system.

Inside: New manway for No. 1 slope.

One compressed air locomotive installed.

No. 5 tunnel, Ross to Top Ross.

Started remodeling pumping plants, No. 1 slope.

New rope hole for No. 2 slope.

No. 8 tunnel, Ross to Surface.

No. 9 tunnel, Surface to Baltimore.

One compressed air locomotive installed.

Lance No. 11 Colliery.—Outside: Wash house.

Five hundred H. P. boiler.

Inside: 12 by 16-inch hoisting engines provided for No. 19 plane.

Three compressed air locomotives installed.

No. 12 plane extended from Baltimore to Cooper and 12 by 16-inch hoisting engines provided.

Double-tracking No. 4 tunnel.

Inman No. 21 Colliery.—Developing in Baltimore vein.

DELAWARE, LACKAWANNA AND WESTERN RAILROAD COMPANY

Woodward Colliery.—The No. 3 shaft connecting with Nos. 1 and 2 main shafts has been equipped with two Jeffrey multi-blade 20-foot ventilating fans, which are now in running order and are capable of producing 420,000 cubic feet of air per minute.

In No. 2 shaft there is also under way and almost completed a multi-blade, Jeffrey 20-foot ventilating fan, which will take the place of two 16-foot fans now operating on this shaft.

The breaker building has been equipped with galvanized or iron dust boxes, connected to a 14-foot direct driven fan installed in a brick and concrete building.

A large exhaust steam generator is now being installed, housed in a brick and concrete building, near the No. 1 shaft ventilating fan, which will generate considerable power for this colliery.

No. 17 slope from Surface to Snake Island or Abbott vein, has been connected by parallel tunnels for second openings and return.

Two rock tunnels have been driven from Cooper vein to Lance vein for development and ventilation.

The work of erecting concrete arches and of grading a main haulage road to Woodward No. 3 is under way, and they expect to have the same finished during the early part of 1912.

A large triple expansion pump, 3,500 gallon capacity, has been installed at the foot of shaft, Red Ash vein, to pump water to the surface. It is housed in a concrete and steel building lighted with electricity.

During the year the colliery has been equipped with four Draeger helmets, known as "Life-saving Apparatus," and men have been trained in their use.

The work of rebuilding pump-rooms, engine houses and mule barns with incombustible material is about completed.

The condition of the colliery's workings from a safety standpoint is receiving the attention of the officials, and every effort is being made to reduce the number of accidents.

Avondale Colliery.—A new ventilating fan 25 by 8 by 8 feet, was placed in operation during the year.

The colliery resumed operations on a small scale during the month of November, after being idle the entire year, due to the subsidence that took place at this plant, by which a large quantity of water was permitted to flow into the workings from the bed of the Susquehanna River. The work of re-opening is being proceeded with as fast as conditions permit.

Installed in No. 1 slope, Red-ash vein, a 3,500 gallon centrifugal, electrically operated pump.

The colliery has also been equipped during the year with four Draeger helmets, and men have been trained in their use. This apparatus is kept in a small brick building, and is examined frequently by a man detailed for that work to see that it is kept in good condition.

Loomis Colliery.—The two shafts 50 feet 4 inches by 12 feet, sunk on this property have now reached the Hillman vein, 930 feet below the surface. Connections have been made between the shafts and preparations are being made for the erection of a 12-inch concrete partition separating hoistway and airway. When this work is completed and towers are erected, coal will be mined and shipped to Bliss colliery, Hanover township, for preparation.

The slope on 15 degree dip, which is being sunk from the Surface to the George vein, has passed through the upper seams and reached a depth of 645 feet.

A 20-foot Jeffrey ventilating fan is in running condition. Plans for the erection of breaker are under way, and work on the breaker will be started during the year 1912.

BRIGHT COAL COMPANY

During the year the Bright Coal Company put down a well on the property of John Barry. It is 327 feet deep and has a diameter of 6 inches and a capacity of 72 gallons per minute. It supplies the Company with sufficient water for all purposes.

MINE FOREMEN'S EXAMINATIONS

The annual examination of applicants for certificates of qualification as mine foremen and assistant mine foremen was held in the Willow Street School, Plymouth, April 4 and 5. The Board of Examiners was composed of D. T. Davis, Mine Inspector, Wilkes-Barre; H. G. Davis, Superintendent, Kingston; William Toner, Miner, Larksville; James Addis, Miner, Edwardsville.

The following persons passed a satisfactory examination and were granted certificates:

Mine Foremen

Joseph Dzialdowski, Glen Lyon; Milton R. Edwards, David G. Jones, Charles E. Rowe, S. Fuller Reynolds, David J. James, David R. Humphreys, Plymouth; William W. Jones, John E. Morris, Edwardsville; William L. Richards, Courtdale; Edward W. Taylor, Charles T. Gallagher, Larksville.

Assistant Mine Foremen

William Adamson, Phillip Callender, William Dearing, Lewis Keating, Gwilym Lloyd, Thomas J. Nolan, John R. Richards, William C. Thomas, David F. Walters, Edwardsville; Elliot Davis, Elmer Jones, Isaiah Kershaw, William G. Lewis, David E. Price, James Stephens, Charles Trebileox, Francis Walker, William R. Williams, Plymouth; James J. Duffy, Harry Titus, Kingston; Charles D. Dare, Jr., Larksville; Adolph Roschot, West Nanticoke; Lincoln Sanders, Christopher.



TENTH DISTRICT

LUZERNE COUNTY

Nanticoke, Pa., February 20, 1912.

Hon. James E. Roderick, Chief of Department of Mines:

Sir: I have the honor to transmit herewith my Annual Report as Inspector of Mines for the Tenth Anthracite District, for the year ending December 31, 1911, as required by law.

Respectfully submitted,
JOSEPH J. WALSH, Inspector.

SUMMARY OF STATISTICS

Number of collieries,	9
Number of mines,	39
Number of mines in operation,	39
Number of tons of coal shipped to market,	4,005,431
Number of tons used at mines for steam and heat,	364,579
Number of tons sold to local trade and used by employes,	53,672
Number of tons produced,	4,423,682
Number of tons produced by compressed air machines, .....	.....
Number of tons produced by electrical machines, .....	.....
Number of persons employed inside of mines,	7,161
Number of persons employed outside,	2,256
Number of fatal accidents inside of mines,	30
Number of fatal accidents outside,	2
Number of non-fatal accidents inside of mines,	39
Number of non-fatal accidents outside,	4
Number of tons of coal produced per fatal accident inside,	147,456
Number of persons employed per fatal accident inside, ..	239
Number of persons employed per fatal accident outside, ..	1,128
Number of persons employed per non-fatal accident inside, ..	184
Number of persons employed per non-fatal accident outside, ..	564
Number of wives made widows,	25
Number of children made orphans,	73
Number of steam locomotives used inside of mines,	2
Number of steam locomotives used outside,	26
Number of compressed air locomotives used inside,	15
Number of compressed air locomotives used outside, ....	.....
Number of electric motors used inside,	52
Number of electric motors used outside,	3
Number of fans in use,	39
Number of furnaces in use, .....	.....
Number of gaseous mines in operation,	31
Number of non-gaseous mines in operation,	8
Number of new mines opened, .....	.....
Number of old mines abandoned, .....	.....

TABLE A

PRODUCTION OF COAL

Names of Operators	Tons
Susquehanna Coal Company,	1,391,229
Delaware, Lackawanna and Western Railroad Company,	1,368,534
West End Coal Company,	754,631
Lehigh and Wilkes-Barre Coal Company,	566,052
Alden Coal Company,	293,369
E. S. Stackhouse Coal Company,	49,867
	<hr/>
Total,	4,423,682
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Production by Counties

Luzerne,	4,423,682
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TABLE C.—Classification of Fatal Accidents Inside and Outside of Mines

	Months												Totals	Percentages	
	January	February	March	April	May	June	July	August	September	October	November	December			
Causes of Accidents Inside															
Falls of coal,				2	1	2								5	16.67
Falls of slate,						2								2	6.67
Falls of roof,						1		1	2	2	2			8	26.67
Mine cars,	1				1	1		1						3	10.00
Explosions of gas,				2								2		4	13.33
Suffocation by gas, etc.,												1	1	1	3.33
Explosions of powder and dynamite,						1								1	3.33
Blasts, premature and otherwise,		1		1		2						1	5	16.67	
Electricity,						1								1	3.33
Totals,	1	1		5	2	9			2	2	2	6	30	100.00	
Causes of Accidents Outside															
Cars,										1				1	50.00
Electricity,			1											1	50.00
Totals,			1							1			2	100.00	
Grand totals inside and outside,	1	1	1	5	2	9			2	3	2	6	32		

TABLE D.—Classification of Non-Fatal Accidents Inside and Outside of Mines

	Months												Totals	Percentages	
	January	February	March	April	May	June	July	August	September	October	November	December			
Causes of Accidents Inside															
Falls of coal,	1		1		1				1					4	10.26
Falls of slate,	1													1	2.56
Falls of roof,	2			1									1	4	10.26
Mine cars,	2		1	2			1	1	1	1			3	12	30.77
Explosions of gas,										1		1	2	5.13	
Explosions of powder and dynamite,	1							1					2	5.13	
Blasts, premature and otherwise,		2					1	1		2		1	7	17.95	
Falling down chambers,		1											1	2.56	
Machinery,		2											2	5.13	
Struck by piece of coal,								1					1	2.56	
Struck by timber,										1			1	2.56	
By falling,			1			1							2	5.13	
Totals,	7	5	3	2	1	1	2	3	3	3	2	6	39	100.00	
Causes of Accidents Outside															
Cars,	1	1						1					1	4	100.00
Totals,	1	1						1					1	4	100.00
Grand totals inside and outside,	8	6	3	3	1	1	3	3	3	3	2	7	43		

TABLE E.—Occupations of Persons Killed or Fatally Injured Inside and Outside of Mines

	Months												Totals	
	January	February	March	April	May	June	July	August	September	October	November	December		
Inside														
Assistant mine foremen,													1	1
Miners,		1		3									3	12
Miners' laborers,				2	1	4				1	1	2	1	13
Drivers and runners,	1													1
Slope-men,									1					1
Masons,					1									1
Brakemen,												1		1
Totals,	1	1		5	2	9			2	2	2	6		30
Outside														
Electricians,			1											1
Loaders,										1				1
Totals,			1							1				2
Grand totals inside and outside,	1	1	1	5	2	9			2	3	2	6		32

TABLE F.—Occupations of Persons Injured Inside and Outside of Mines

	Months												Totals	
	January	February	March	April	May	June	July	August	September	October	November	December		
Inside														
Mine foremen,										1				1
Assistant mine foremen,													1	1
Miners,	2	2	1		1		1	3	2	1	2			15
Miners' laborers,	4	2	1	1					1	1			3	13
Drivers and runners,				1			1					2		4
Doorboys and helpers,				1										1
Timbermen,						1								1
Engineers,		1												1
Motormen,			1											1
Footmen,	1													1
Totals,	7	5	3	3	1	1	2	3	3	3	2	6		39
Outside														
Company men,	1													1
Roadmen,							1							1
Laborers,		1										1		2
Totals,	1	1					1					1		4
Grand totals inside and outside,	8	6	3	3	1	1	3	3	3	3	2	7		43

TABLE G.—Nationality of Persons Killed or Fatally Injured Inside and Outside of Mines

	Months												Totals
	January	February	March	April	May	June	July	August	September	October	November	December	
American,										1		1	2
English,												1	1
Welsh,	1											1	2
Irish,			1										1
Polish,		1		4		6			1	2	1		15
Italian,						1						1	2
Slavonian,												2	2
Lithuanian,					1								1
Austrian,									1		1		2
Russian,				1	1								2
Swedish,						1							1
Bohemian,						1							1
Totals,	1	1	1	5	2	9			2	3	2	6	32

TABLE H.—Nationality of Persons Injured Inside and Outside of Mines

	Months												Totals
	January	February	March	April	May	June	July	August	September	October	November	December	
American,	2	1		2						1		2	8
English,												1	1
Welsh,						1							1
German,		1					1						2
Polish,	4	3	2		1			1	2	2	2		20
Hungarian,								1					1
Italian,							2						2
Slavonian,		1						1					2
Lithuanian,			1										1
Austrian,	1												1
Russian,	1												1
Totals,	8	6	3	3	1	1	3	3	3	3	2	7	43

TABLE I.—Operators and mines, kind of openings, type and size of fans, size of furnaces, volume of air produced by fan or furnace per minute, number of splits of air currents and number of persons employed inside

Names of Operators and Mines	Kind of opening	(Gaseous or non-gaseous)	Method of ventilation	Diameter of fan in feet and inches	Width of blades in feet and inches	Depth of blades in feet and inches	Number of revolutions per minute	Water gauge developed—in inches	Name of fan	Power used	Number of splits of air currents	Number of cubic feet of air per minute entering the mine at inlet	Total quantity of air per minute circulating in all the splits in cubic feet	Number of cubic feet per minute passing out at outlet	Number of persons employed inside
Susquehanna Coal Co.															
Colliery No. 5:															
Number 2,	Shaft, ----	Gaseous,	2 Fans, --	20	6	6	60	1.8	Guibal, --	Steam, ----	5	110,400	85,200	116,400	310
Number 4,	Slope, ----	Gaseous,	2 Fans, --	25	8	8	56	1.6	Guibal, --	Steam, ----	5	165,960	101,200	190,000	230
Number 4,	Shaft, ----	Gaseous,	Fan, ----	20	6	6	60	1.8	Guibal, --	Steam, ----	4	86,000	64,000	87,000	165
Number 5,	Shaft, ----	Gaseous,	Fan, ----	20	6	6	59	1.2	Guibal, --	Steam, ----	2	15,000	10,000	17,000	78
Number 29,	Tunnel, ----	Non-gas.,	Natural,	---	---	---	---	---	---	---	---	5,000	3,000	5,500	15
Number 2,	Drift, ----	Non-gas.,	Natural,	---	---	---	---	---	---	---	---	8,000	4,000	8,100	20
Number 1,	Slope, ----	Non-gas.,	Natural,	---	---	---	---	---	---	---	---	12,000	8,000	12,500	14
Colliery No. 6:															
Number 6,	Tunnel, ----	Gaseous,	Fan, ----	20	6	6	56	.7	Guibal, --	Steam, ----	6	93,000	85,000	95,000	162
Number 6,	Shaft, ----	Gaseous,	2 Fans, --	25	8	8	60	.9	Guibal, --	Steam, ----	5	160,000	135,000	165,000	330
Number 7,	Shaft, ----	Gaseous,	Fan, ----	20	6	6	50	.11	Guibal, --	Steam, ----	6	79,000	70,000	80,000	260
Number 10,	Slope, ----	Gaseous,	Fan, ----	20	6	6	55	.2	Guibal, --	Steam, ----	1	20,000	15,000	21,000	56
Number 1,	Drift, ----	Gaseous,	Fan, ----	7.5	2	3	175	1.5	Capell, --	Electricity, [	1	18,000	12,000	19,000	34

TABLE I—Continued

Name of Operators and Mines	Kind of opening	Gasous or non-gasous	Method of ventilation	Diameter of fan in feet and inches	Width of blades in feet and inches	Depth of blades in feet and inches	Number of revolutions per minute	Water gauge developed—in inches	Name of fan	Power used	Number of splits of air currents	Number of cubic feet of air per minute entering the mine at inlet	Total quantity of air per minute circulating in all the splits in cubic feet	Number of cubic feet per minute passing out at outlet	Number of persons employed inside
Alden Colliery: Number 1, Number 2,	Shaft	Gasous	Fan	15	5.1	4.5	84	2	Guibal	Steam	5	62,200	62,200	64,000	101
	Shaft	Gasous	2 Fans	(24)	8.0	7.0	66	12	Guibal	Steam	11	162,360	162,360	220,850	369
Baltimore, Outside,	Slope	Non-gas	Fan	15	3.1	3.70	41	1	Guibal	Steam	2	13,750	11,750	14,200	34
	Slope	Non-gas	Fan	6	2.8	1.9	170	1	Guibal	Steam	1	7,000	6,700	7,200	7

TABLE I.—Operators, location of collieries, railroads, etc.

Names of Operators and Collieries	County	Name of General Superintendent	Post Office	Name of Superintendent	Post Office	Railroad to Mine
Susquehanna Coal Co. Number 5, 6, 7, Nanticoke Washery,	Luzerne,	Robert A. Quin,	Wilkes-Barre,	Francis H. Kohl- braker,	Nanticoke,	Pennsylvania
Delaware, Lackawanna and Western Railroad Co. Auchincloss, Bliss, Truesdale,	Luzerne,	R. A. Phillips,	Scranton,	H. G. Davis,	Kingston,	P. L. and W.
West End Colliery West End, West End Washery,	Luzerne,	H. H. Brady,	Scranton,	H. A. Fillmore,	Sticksblenny,	Penna. and C. R. R. of N. J.
Lehigh and Wilkes-Barre Coal Co. Wanamie,	Luzerne,	C. F. Huber,	Wilkes-Barre,	W. H. Herring, Outside, M. R. Morgans, Inside,	Wilkes-Barre,	C. R. R. of N. J.
Alden Coal Co. Alden,	Luzerne,	K. M. Smith,	Alden Station,			C. R. R. of N. J.
E. S. Stackhouse Coal Co. Washery,	Luzerne,	E. S. Stackhouse,	Sticksblenny,			D. L. and W.

TABLE 2. — Number of tons of coal mined, number of days worked, number of persons employed, number killed and injured, quantity of powder, dynamite and permissible explosives used, etc.

Names of Operators and Collieries	County	Explosives															
		Number of tons of coal shipped to market	Number of tons used at collieries for steam and heat	Number of tons sold to local trade and used by employes	Total production of coal in tons	Number of days worked	Number of employes	Number of fatal accidents	Number of non-fatal accidents	Number of pounds of powder used	Number of pounds of dynamite used	Number of pounds of permissible explosives used	Number of horses and mules				
Susquehanna Coal Co.																	
Number 5,	Luzerne,	332,554	74,215	17,409	444,178	233	1,235	1	9	394,060	22,725	4,342	97				
Number 6,	Luzerne,	503,187	47,995	4,782	555,964	245	1,178	3	1	354,000	18,964	14,725	81				
Number 7,	Luzerne,	326,821	62,810		389,631	197	1,430	5	3	146,300	16,818	59,080	109				
	Luzerne,	1,182,562	185,020	22,191	1,389,773	.....	3,543	9	13	794,900	58,510	69,947	287			
Nanticoke Washery,	Luzerne,	1,386	60		1,456	10	10										
Totals,		1,183,958	185,080	22,191	1,391,229	.....	3,553	9	13	794,900	58,510	69,947	287			
Delaware, Lackawanna and Western Railroad Co.																	
Anchincloss,	Luzerne,	133,884	16,200	5,604	175,688	163	626	4	2	63,225	6,045	35,125	42				
Poliss,	Luzerne,	389,594	30,524	3,781	424,239	251	925	7	5	359,409	18,720	10,330	63				
Truesdale,	Luzerne,	742,370	25,651	656	768,607	243	1,375	5	1	605,025	37,237	50,100	41				
Totals,		1,266,188	72,305	10,041	1,368,534	.....	2,926	16	8	1,087,650	57,022	127,225	146			
West End Coal Co.	Luzerne,	621,223	42,000	8,894	672,117	273	1,940	3	13	230,975	207,437	94,325	53				
West End Washery,	Luzerne,	67,514			82,514	300	10										
Totals,		688,737	42,000	8,894	754,631	.....	1,950	3	13	230,975	207,437	94,325	53			

Lehigh and Wilkes-Barre Coal Co. Wanamie,	Luzerne,	519,814	43,383	2,355	566,052	238	868	4	5	24,050	14,827	161,850	129
Alden Coal Co. Alden,	Luzerne,	266,103	19,011	8,255	293,369	210	669	4	4	19,325	8,885	31,409	79
B. S. Stackhouse Coal Co. Washery,	Luzerne,	45,631	2,800	1,436	49,867	271	51						
Grand totals,		4,005,431	364,579	53,672	4,423,682		9,411	72	43	2,346,946	346,681	428,211	67

TABLE 2.—Part 2

Names of Operators	County	Number of Boilers						Locomotives					Total horse power	Number of steam engines of all classes	Total horse power	Number of pumps delivering water to surface	Capacity in gallons per minute	Quantity delivered to surface per minute—gallons	Number of electric dynamos	Number of air compressors
		Number of Boilers						Locomotives												
		Cylindrical	Horse power	Tubular	Horse power	Total horse power	Steam	Air	Electric	Steam	Air	Electric								
Susquehanna Coal Co., Delaware, Lackawanna and Western Railroad Co., West End Coal Co., Lehigh and Wilkes-Barre Coal Co.,*	Luzerne,	33	7,155	47	12,614	13,169	11	15	6	91	13,565	9	10,850	4,100	5	11				
Alden Coal Co.,*				11	4,712	4,712	1		35	54	8,700	7	9,080	7,080	6	3				
F. S. Stackhouse Coal Co.,				10	3,330	3,300	8		14	20	2,515	7	3,200	2,700	5	3				
				10	1,636	1,616	3			41	2,623	5	4,258	2,680						
				10	1,945	1,945	2			9	1,373	2	1,850	1,400	1	3				
				3	120	120				3	100									
Totals,		33	14,155	81	23,557	24,912	28	15	55	227	28,008	30	25,188	17,563	17	20				

*These companies also have a gasoline engine used for haulage purposes inside.

TABLE 3.—Number of each class of employes inside and outside of mines

Names of Operators	County	Inside											Outside							Grand total inside and outside		
		Mine foremen	Assistant mine foremen	Fire bosses and assistants	Miners	Miners' laborers	Drivers and runners	Doorboys and helpers	Pumpmen	Company men	All other employes	Total inside	Superintendents	Foremen	Blacksmiths and carpenters	Engineers and firemen	State pickers (boys)	State pickers (men)	Bookkeepers and clerks		All other employes	Total outside
Susquehanna Coal Co.,	Delaware,	4	10	35	829	772	239	37	21	38	365	2,510	1	4	79	173	154	31	18	583	1,043	3,553
Delaware, Lackawanna and Western Railroad Co.,	Delaware,	5	4	26	786	960	111	31	13	521	2,457	4	32	51	108	8	10	256	430	2,926	430	2,926
West End Coal Co.,	Luzerne,	2	8	2	445	303	45	9	12	190	5,101	1	1	15	36	36	26	5	229	339	1,350	1,350
Lehigh and Wilkes-Barre Coal Co.,	Luzerne,	1	2	6	310	180	61	32	7	---	82	681	1	1	7	23	39	20	4	93	187	868
Alden Coal Co.,	Luzerne,	1	1	5	176	151	77	11	7	---	73	502	1	1	10	20	33	24	8	60	167	689
E. S. Stackhouse Coal Co.,	Luzerne,	1	1	1	---	---	---	---	---	---	---	---	1	2	3	6	2	2	33	51	51	51
Totals,		13	25	74	2,546	5,366	553	120	66	739	7,101	4	13	145	306	376	111	47	1,274	2,356	9,417	9,417

TABLE 4.—Fatal accidents inside and outside of mines

Date of accident	Name of person	Nationality	Occupation	Age	Married or single	Number of widows	Number of orphans	Name of Colliery	County	Nature and Cause of Accident in Brief
Jan. 15	Paul Williams,	Welsh,	Driver boss,	33	M. 1	3	Truesdale,			Killed by runaway trip of cars on slope. He was walking down the slope when the chain broke.
Feb. 28	Adolph Dobrowalski,	Polish,	Miner,	36	S.		Number 5,			Fatally injured by premature blast.
Mar. 20	John Grady,	Irish,	Electrician,	22	S.		Bliss,			Fatally injured by an electric shock while working on a pole. Outside.
April 5	Joseph Audrisick,	Polish,	Laborer,	22	S.		Wanamie,			Fatally injured by fall of coal near face of chamber.
36	Andrew Bilzo,	Russian,	Laborer,	20	S.		Wanamie,			Killed by fall of coal at face of chamber.
	Wadic Dubish,	Polish,	Miner,	40	M. 1	5	Number 1,			Killed by premature blast at face of chamber.
27	Leo Tusandl,	Polish,	Miner,	41	M. 1	6	Bliss,			Fatally burned by gas at face of chamber.
29	John Gill,	Polish,	Miner,	38	M. 1	5	Number 7,			Fatally burned by gas at face of chamber.
May 12	Michael Houdak,	Russian,	Mason,	54	M. 1		Number 6,			Fatally injured by gas at foot of shaft.
16	Mike Rocka,	Lithuanian,	Laborer,	27	M. 1		Bliss,		Luverne,	Killed by fall of top coal at face of chamber.
June 3	August Michalski,	Polish,	Laborer,	31	M. 1	2	Bliss,			Killed by coming in contact with trolley wire on gangway.
5	William Strumfries,	Swedish,	Laborer,	47	M. 1	1	Bliss,			Killed by fall of coal at face of chamber.
7	Bazyl Potroff,	Polish,	Miner,	30	M. 1	3	West End,			Killed by fall of rock at face of chamber.
8	John Broderick,	Polish,	Miner,	49	M. 1	6	Truesdale,			Killed by explosion of charge while connecting wires to fire a blast. One of their firing wires was connected to the negative electric light wire, while the other was touching the rail of an electric haulage road.
14	Andrew Magooda,	Polish,	Laborer,	48	M. 1	4	Wanamie,			Killed by fall of slate at face of working place.
16	Lewis Pero,	Italian,	Laborer,	22	S.		Wanamie,			Killed by fall of slate at face of working place.

TABLE 4—Continued

Date of accident	Name of person	Nationality	Occupation	Age	Married or single		Number of widows	Number of orphans	Name of Colliery	County	Nature and Cause of Accident in Brief
					M.	S.					
June 19	Charles Hughes,	Bohemian,	Miner,	53	M.	1	3	Bliss, .....	.....	.....	Killed by explosion of dynamite in chamber.
29	Peter Marcelviev,	Polish,	Miner,	32	M.	1	2	Auchincloss, .....	.....	.....	Killed by fall of coal at face of chamber.
Sept. 21	Leon Carzvalic,	Polish,	Laborer,	24	M.	1	1	Auchincloss, .....	.....	.....	Killed by fall of rock at face of chamber.
27	Sam Sharkala,	Austrian,	Stopeman,	55	S.	.....	.....	Truesdale, .....	.....	.....	Fatally injured by being squeezed by car on which he was riding on slope. The car jumped off the track.
Oct. 12	Frank Whiteofski,	American,	Miner,	31	M.	1	4	Number 7, .....	.....	.....	Killed by fall of rock at face of chamber.
13	Louis Sink,	Polish,	Loader,	45	M.	1	5	Number 6, .....	.....	.....	Fatally injured by being run over by car under breaker. Outside.
17	Edward Wasilewski,	Polish,	Laborer,	38	M.	1	1	Truesdale, .....	.....	.....	Killed by fall of rock at face of chamber.
Nov. 8	Frank Bystrak,	Polish,	Laborer,	39	M.	1	2	Number 7, .....	.....	.....	Killed by fall of rock at face of chamber.
17	Louis Gentilme,	Austrian,	Laborer,	42	M.	1	3	Number 7, .....	.....	.....	Killed by fall of rock near face of tunnel.
Dec. 2	Michael Buche,	Slovakian,	Brakeman,	19	S.	.....	.....	Bliss, .....	.....	.....	Killed by fall of rock on gangway road.
.....	Benjamin P. Thomas,	Welsh,	Miner,	45	M.	1	1	Auchincloss, .....	.....	.....	Fatally burned by gas while at work in face of gangway.
.....	John Nikosh,	Slovakian,	Laborer,	37	M.	1	5	.....	.....	.....	Killed by fall of rock while cleaning up cave on gangway.
12	Sherd Hughes,	American,	Miner,	43	M.	1	.....	West End, .....	.....	.....	Killed by premature blast at face of gangway.
13	Frank Coperlitti,	Italian,	Miner,	27	M.	1	1	West End, .....	.....	.....	Suffocated by gas. He went into a crosscut, which was not yet connected with opposite chamber, to rap to approaching miner, and was overcome and died before he could be rescued.
14	John Bryant,	English,	Assistant foreman,	38	M.	1	5	Number 7, .....	.....	.....	.....

TABLE 5.—Non-fatal accidents inside and outside of mines

Date of accident	Name of person	Nationality	Occupation	Age	Married or single	Name of Colliery	County	Natur. and Cause of Accident in Brief
Jan. 12	John Sheulock,	Polish,	Laborer,	19	S.	Wanamie,		Head cut and collar bone broken by fall of slate at face of chamber.
17	Elias Flockus,	Polish,	Footman,	24	S.	Number 7,		Leg broken by being squeezed between cars at foot of shaft.
17	David Jones,	American,	Miner,	30	S.	West End,		Back broken by fall of rock at face of chamber.
19	China Lasano,	Russian,	Laborer,	27	S.	Bliss,		Burned by explosion of powder at face of chamber.
26	Theo. Hagenback,	American,	Company man,	73	M.	Wanamie,		Collar bone fractured by being struck by cars. Outside.
	Joe Boots,	Polish,	Laborer,	45	M.	West End,		Leg broken by fall of coal from rib at face of chamber.
	Stanley Roskosky,	Polish,	Laborer,	22	S.	West End,		Leg broken by being caught between ear and slope rope.
	John Paulik,	Austrian,	Miner,	50	M.	Wanamie,		Three ribs broken by fall of rock at face of chamber.
Feb. 1	William Makofski,	Polish,	Engineer,	22	S.	Number 6,		Four fingers cut off while cleaning engine.
15	George Covall,	Slavonian,	Laborer,	42	M.	Bliss,		Body bruised by falling down pitching chamber.
	Peter Marden,	Polish,	Laborer,	25	S.	Alden,	Luzerne,	Arm fractured by being caught under cage.
	Harvey Stackhouse,	American,	Laborer,	19	S.	Alden,		Two fingers smashed while coupling cars. Outside.
21	August Vermont,	German,	Miner,	44	M.	Bliss,		Three ribs fractured by premature blast.
	Frank Sobrizecki,	Polish,	Miner,	55	M.	Number 5,		Leg broken by premature blast.
Mar. 6	William Brennan,	Polish,	Motor-runner,	24	M.	West End,		Hip broken by being squeezed between car and motor on gangway road.
13	Joe Sluszkonis,	Lithuanian,	Laborer,	28	S.	West End,		Rib fractured by falling off chamber platform.
17	Anthony Vanoshuski,	Polish,	Miner,	26	S.	West End,		Head cut by fall of coal in cross-cut.

TABLE 5—Continued

Date of accident	Name of person	Nationality	Occupation	Age	Married or single	Name of Colliery	County	Nature and Cause of Accident in Brief
April 10	Miles Rovi,	Italian,	Laborer,	24	S.	West End,	Luzerne,	Leg broken by fall of rock at face of chamber.
16	Clarence Russel,	American,	Runner,	23	S.	West End,		Leg broken by being squeezed between oil box of car and piece of coal along chamber road.
20	Roy Sager,	American,	Doorboy,	18	S.	Alden,	Luzerne,	Ribs fractured by cars on gangway road.
May 22	John Boss,	Polish,	Miner,	26	S.	Bliss,		Thigh fractured by fall of coal at face of chamber.
June 19	Thomas Smith,	Welsh,	Timberman,	60	M.	Number 7,	Rib broken by falling against car while unloading it in chamber.	
July 8	Oley Mosey,	Italian,	Miner,	25	S.	West End,	Leg broken by premature blast.	
July 24	Earnest Koboski,	German,	Runner,	17	S.	Bliss,	Ribs fractured by falling under car on gangway road.	
23	Frank Paello,	Italian,	Track-man,	46	M.	West End,	Internally injured by falling off car. Out-side.	
Aug. 7	Steve Yatzko,	Slavonian,	Miner,	31	M.	Number 5,	Two fingers blown off by exploder.	
11	Stanley Rosmush,	Polish,	Miner,	40	M.	West End,	Leg broken by car while running it out of chamber.	
26	Leslo Katocs,	Hungarian,	Miner,	31	M.	West End,	Ribs broken by being struck by piece of coal that fell down chamber.	
Sept. 21	Bolish Veroshock,	Polish,	Laborer,	20	S.	Wanamie,	Hip dislocated by being squeezed between cars on gangway road.	
	Peter Sisko,	Polish,	Miner,	37	M.	Truesdale,	Head, face and arm injured by premature blast.	
23	Frank Ilchkoski,	Polish,	Miner,	49	M.	Number 5,	Thigh broken by fall of coal at face of chamber.	
Oct 5	Stanley Price,	Polish,	Miner,	45	M.	Number 7,	Thigh fractured by being struck by cars on slope.	
18	William Giaski,	Polish,	Laborer,	23	M.	Auchincloss,	Hands, face and body burned by gas in face of chamber.	
23	Samuel Whitson,	American,	Foreman,	72	M.	Number 5,	Injured by prop falling on him while helping to set timber.	

Nov. 17	John Kogatch,	Polish,	Miner,	43	M.	Number 5,	Leg broken by flying coal from premature blast.
28	Ignatz Lauka,	Polish,	Miner,	28	S.	Number 5,	Arm broken by flying coal from premature blast.
Dec. 1	Paul Borris,	Polish,	Laborer,	45	M.	Number 5,	Foot smashed by fall of rock at face of chamber.
2	William Rule,	American,	Driver,	23	S.	Alden,	Ribs fractured by being struck by cars on gangway road.
	Frank Groffis,	American,	Driver,	19	S.	Waname,	Leg broken by being struck by cars on gangway road.
	Mathew Nash,	English,	Assistant foreman,	53	M.	Auchindloss,	Face and hands burned by gas at face of gangway.
13	Bart Capelitti,	Italian,	Laborer,	22	S.	West End,	Skull fractured by premature blast.
18	John Pavolotiski,	Polish,	Laborer,	68	M.	Number 5,	Collar bone and rib fractured by falling off railroad car. Outside.
28	Edwin Kuckenbecker,	German,	Laborer,	30	M.	Number 5,	Rib broken by car while running it out of chamber.

CONDITION OF COLLIERIES

SUSQUEHANNA COAL COMPANY

Numbers 5 and 7.—Ventilation, drainage and condition as to safety, good.

Number 6.—Ventilation and condition as to safety, good. Drainage fair.

DELAWARE, LACKAWANNA AND WESTERN RAILROAD COMPANY

Auchincloss.—Ventilation, drainage and general condition, good.

Bliss and Truesdale.—Ventilation and condition as to safety, good. Drainage fair.

WEST END COAL COMPANY

West End.—Ventilation and drainage fair. Condition as to safety, good.

LEHIGH AND WILKES-BARRE COAL COMPANY

Wanamie.—Ventilation and condition as to safety, good. Drainage fair.

ALDEN COAL COMPANY

Alden.—Ventilation and condition as to safety, good. Drainage fair.

IMPROVEMENTS

SUSQUEHANNA COAL COMPANY

Colliery No. 5.—A steam locomotive 10x16 outside connected, solid frame, saddle tank, with four 30-inch diameter drivers for 42-inch track gauge with 5-foot wheel base, was purchased and placed on the surface between Nos. 4 and 5 shafts.

Old No. 1 slope has been reopened for the purpose of mining pillar and solid coal not previously mined. At the head of the slope an engine and house were erected to hoist the coal to the surface.

No. 26 slope in No. 4 shaft was driven during the year 163 yards and is completed.

A second opening was driven in No. 4 shaft a distance of 126 yards and is completed.

A 26x45x48 Compound Duplex Goyne pump was installed at the foot of No. 2 shaft, and the old Bull pump was removed.

Colliery No. 6.—A new platform conveyor line was installed in the breaker during the year to convey the coal from No. 6 tunnel to the head of the breaker. This coal was formerly hoisted by rope haulage.

Built a new car and smith shop.

Installed in No. 11 slope, No. 6 tunnel, an electric pump, capable of handling 150 gallons of water per minute.

A tunnel was driven in No. 6 shaft a distance of 98 yards.

Electric haulage was installed in No. 7 shaft and three 7-ton, 250 volt electric motors placed in the shaft for transporting coal.

New air shaft in No. 7 shaft was driven 127 yards.

A slope was driven in the Hillman seam, Slope No. 6, 83 yards.

Slope No. 13 in No. 1 drift was driven a distance of 90 yards.

Colliery No. 7.—An electric sewing machine was installed in the harness shop.

Electric haulage was installed in No. 1 shaft and 2 electric motors were put in service to replace aid motors which were transferred to another mine.

A waterway was driven between Nos. 1 and 2 shafts a distance of 133 yards.

No. 30 slope in No. 1 shaft was driven 136 yards during the year.

DELAWARE, LACKAWANNA AND WESTERN RAILROAD COMPANY

Auchincloss Colliery.—The 25-foot ventilating fan referred to in last year's report is now in operation.

The work of erecting a brick partition between hoistway and airway, No. 2 shaft, is under way, and when it is completed a 35-foot ventilating fan will also be placed at the mines.

The work of erecting mule barns, pump-rooms, engine-houses, etc., of incombustible material will soon be completed.

Bliss Colliery.—The work of erecting brick partition in this shaft, separating hoistway and airway, is under way.

A brick and concrete wash-house for employes, with improved lockers, has been built.

A new fire-fighting apparatus has been installed on the outside, with new fire-pump, fire-line, etc.

The colliery has been equipped with four Draeger helmets known as the "Life-saving Apparatus," housed in a small brick building on the property, and men have been trained in their use.

Built a concrete and brick foremen's office and lamp-room.

The rebuilding of mule barns, pump-rooms, engine-houses, etc., of incombustible material, will soon be completed.

No. 13 slope has been sunk from the Mills to the Hillman vein. Second opening for this slope is now under way.

Truesdale Colliery.—The work of reconstructing the breaker with steel supports and pockets is under way.

The ventilating fans referred to in last year's report for No. 1 shaft and Nos. 4 and 6 slopes, have been completed.

A new rock conveyor and trestle erected from the breaker to the rock bank.

New and improved steam lines have been installed at this colliery connecting the boiler plant with various engines.

The colliery has been equipped with four Draeger helmets, known as the "Life-saving Apparatus," housed in a small brick building, and men have been trained in their use.

A rock tunnel has been driven for development, from the Mills vein, No. 5 slope, down Hillman and Baltimore seams to Forge vein.

A rock slope has been sunk through Warrior Run anticlinal to Red Ash vein.

Several short rock tunnels have been driven from Ross to Top Split Red Ash vein, which will be used for development and ventilation.

A new concrete and brick mine foremen's office has been erected at Nos. 4 and 6 slopes.

WEST END COAL COMPANY

West End Colliery.—During the year a double inlet, reversible, exhaust and blow fan was erected and put in operation at this colliery. The arrangement of the doors in the accompanying plan shows

their position when the fan is exhausting air from the mine. When changed to the position indicated by the dotted lines the fan then becomes a blow fan. This is the first and only fan of its kind in this district.

- One 26 by 24-inch Ridgway side crank engine.
- One 350 K. W. D. C. generator.
- One 4-panel slate switchboard.
- One double drum Vulcan electric shaft hoist, with solenoid brake, automatic control and overwind switch.
- Two 8-inch by 12-inch cement-lined Aldrich triplex pumps.
- Two 7-ton electric locomotives.
- One Ingersoll-Rand compound air compressor.
- One 8-foot Jeffrey fan, driven by a 100 H. P. Crocker-Wheeler motor, double inlet exhaust reversible.
- One 54-inch booster fan, electric-driven, direct on line.
- One hundred steel mine cars.
- One rope haul and car hoist, electric-driven, Lee shaft.
- The following tunnels have been driven.
- No. 10 tunnel, 500 feet, Lee No. 1 to No. 4 vein across south rise.
- No. 11 tunnel, 400 feet, Lee No. 1 to No. 4 vein across north rise.
- No. 21 tunnel, 250 feet, Long drift, Red Ash split to Ross.
- No. 22 tunnel, 50 feet, Long drift, Ross to Ross Split.
- No. 23 tunnel, 50 feet, Long drift, Ross to Ross Split.
- No. 24 tunnel, 150 feet, Long drift, R. A. Split. Built a concrete supply house 20 by 40 feet and a concrete boiler house 30 by 70 feet at No. 2 plant.

LEHIGH AND WILKES-BARRE COAL COMPANY

- Wanamie Colliery.—Outside: Gasoline locomotive house.
- Wash house at No. 19.
- Inside: No. 8 tunnel extended to Hillman.
- Started remodeling pumping plants in Nos. 3 and 6 slopes.
- Gasoline locomotives installed.
- No. 27 tunnel, Red Ash to Ross.

MINE FOREMEN'S EXAMINATIONS

The examination of applicants for certificates of qualification as mine foremen and assistant mine foremen was held April 4 and 5 in the High School Building, Nanticoke. The Board of Examiners was composed of Joseph J. Walsh, Mine Inspector; F. H. Kohlbraker, Superintendent; Frank Kettle and Joseph Dzialdowski, Miners.

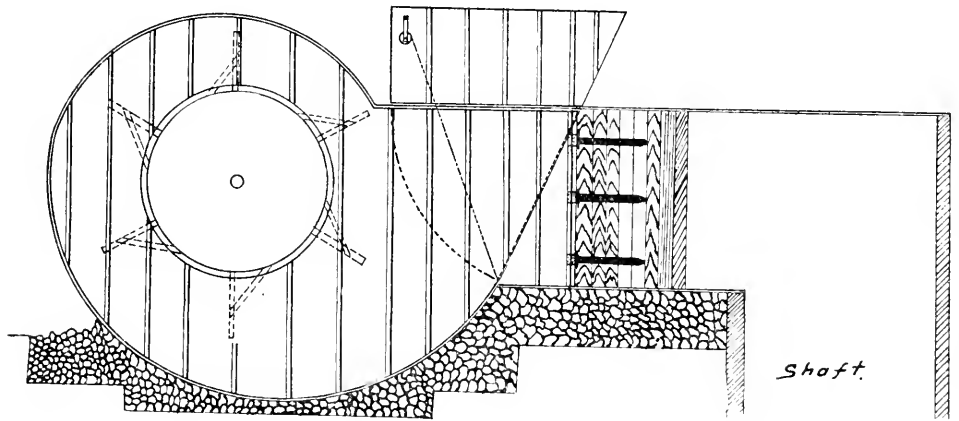
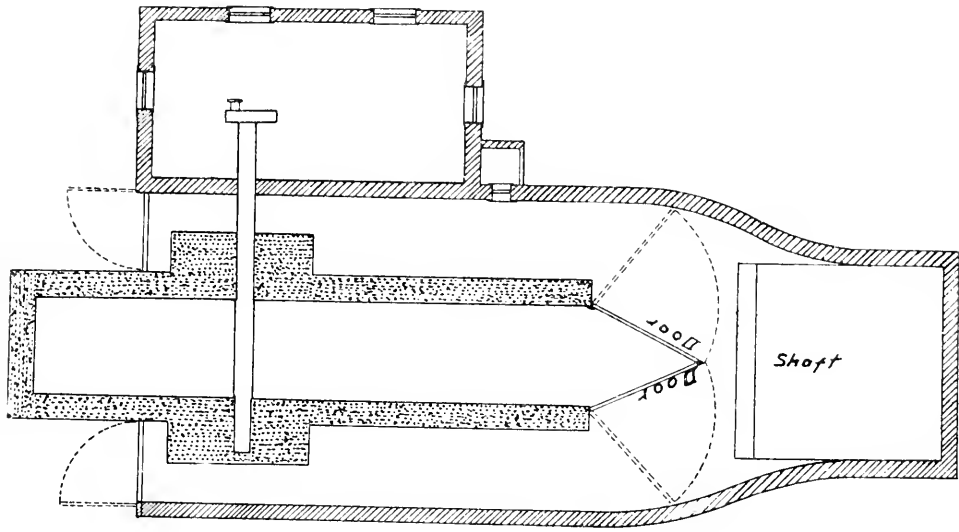
The following persons passed a satisfactory examination and were granted certificates:

Mine Foremen

Daniel Davis, Jenkin Evans and James M. Williams, Nanticoke; Peter Murphy, Glen Lyon; Peter F. Mitchell, Shickshinny.

Assistant Mine Foremen

Charles Adamski, Thomas J. Arnott, Michael Gzemski, Albert R. Lewis and John W. Jones, Nanticoke; Michael Chebro, Rhone; Nelson N. Nichols, Scranton; Edward Speary, West Nanticoke; William R. Talbot, Shickshinny.



Double Inlet Exhaust Reversible Fan

ELEVENTH DISTRICT

LUZERNE COUNTY

Hazleton, Pa., February 19, 1912.

Hon. James E. Roderick, Chief of Department of Mines:

Sir: I have the honor of transmitting herewith my Annual Report as Inspector of Mines for the Eleventh Anthracite District, for the year ending December 31, 1911.

Respectfully submitted,

DAVID J. RODERICK, Inspector.

SUMMARY OF STATISTICS

Number of collieries,	21
Number of mines,	87
Number of mines in operation,	87
Number of tons of coal shipped to market,	4,881,673
Number of tons used at mines for steam and heat,	753,460
Number of tons sold to local trade and used by employes,	150,521
Number of tons produced,	5,785,654
Number of tons produced by compressed air machines, .....	.....
Number of tons produced by electrical machines, .....	.....
Number of persons employed inside of mines,	7,434
Number of persons employed outside,	3,535
Number of fatal accidents inside of mines,	21
Number of fatal accidents outside,	12
Number of non-fatal accidents inside of mines,	78
Number of non-fatal accidents outside,	14
Number of tons of coal produced per fatal accident inside,	275,507
Number of persons employed per fatal accident inside,	354
Number of persons employed per fatal accident outside,	295
Number of persons employed per non-fatal accident inside,	95
Number of persons employed per non-fatal accident outside,	253
Number of wives made widows,	22
Number of children made orphans,	71
Number of steam locomotives used inside of mines,	17
Number of steam locomotives used outside,	77
Number of compressed air locomotives used inside,	11
Number of compressed air locomotives used outside, .....	.....
Number of electric motors used inside,	16
Number of electric motors used outside, .....	.....
Number of fans in use,	53
Number of furnaces in use,	1
Number of gaseous mines in operation,	35
Number of non-gaseous mines in operation,	52
Number of new mines opened,	2
Number of old mines abandoned,	1

TABLE A

PRODUCTION OF COAL

Names of Operators	Tons
G. B. Markle and Company,	1,218,710
Lehigh Valley Coal Company,	1,023,335
Coxe Brothers and Company, Incorporated,	902,760
Pardee Brothers and Company,	674,361
A. Pardee and Company,	611,333
C. M. Dodson and Company,	365,430
Harwood Coal Company,	266,432
Upper Lehigh Coal Company,	153,940
Hazle Mountain Coal Company,	154,076
M. S. Kemmerer and Company,	133,581
John S. Wentz and Company,	121,749
Harleigh Brookwood Coal Company,	94,280
Wolf Coal Company,	60,470
Thomas R. Reese and Son,	5,197
Total,	5,785,654

Production by Counties.

Luzerne,	5,785,654
----------------	-----------

219
 12 | 48
 | 98
 | 76
 | 25
 | 24
 | 16
 | 12
 | 4

TABLE B.—Fatal and non-fatal accidents inside and outside of mines; number of tons of coal produced per accident; number of persons employed; number employed per accident

Names of Operators	Fatal Accidents		Non-Fatal Accidents		Total	Tons of coal produced per fatal accident inside	Tons of coal produced per non-fatal accident inside	Number of employees inside	Number of employees outside	Total number of employees	Number of employees inside per fatal accident	Number of employees outside per fatal accident	Number of employees inside per non-fatal accident	Number of employees outside per non-fatal accident
	Inside	Outside	Total	Inside											Outside	Total
G. B. Markle and Co.,	6	1	7	26	38	383,118	46,853	1,578	405	2,073	263	495	61	347
Lehigh Valley Coal Co.,	3	3	6	10	16	341,112	102,334	1,516	637	2,153	505	58	152	657
Coxe Brothers and Co., Inc.,	3	7	10	12	22	300,920	75,230	969	406	1,375	303	58	70	68
Pardee Brothers and Co.,	1	1	2	3	5	224,787	663	366	366	1,026	366	366	366	366
A. Pargue and Co.,	4	1	5	12	17	611,333	50,944	984	436	1,440	984	436	82	228
C. M. Dodson and Co.,	1	1	2	4	6	91,358	60,606	516	240	756	129	240	91	326
Harwood Coal Co.,	1	1	2	3	5	266,482	60,313	363	135	498	363	326	43	326
Upper Lehigh Coal Co.,	1	1	2	3	5	154,076	51,313	68	130	380	250	130	66	130
Hazle Mountain Coal Co.,	1	1	2	3	5	44,327	44,327	199	103	302	165	130	42	122
M. S. Remmer and Co.,	1	1	2	4	6	121,749	30,477	167	122	289	165	130	42	122
John S. Wentz and Co.,	1	1	2	1	4	94,280	94,280	157	88	225	135	137	137	137
Harleigh Brookwood Coal Co.,	1	1	2	1	4	94,280	94,280	157	88	225	135	137	137	137
Miscellaneous Companies,	1	1	2	1	4	94,280	94,280	157	88	225	135	137	137	137
Totals and averages for district,	21	12	33	78	111	275,507	74,175	7,434	3,335	10,969	354	395	95	253

TABLE C.—Classification of Fatal Accidents Inside and Outside of Mines

	Months												Percentages	
	January	February	March	April	May	June	July	August	September	October	November	December		Totals
Causes of Accidents Inside														
Falls of coal,								1	2				3	14.29
Falls of slate,						2	1			2		1	5	38.10
Falls of roof,							1	1					2	9.52
Mine cars,			2			1				1			4	19.05
Blasts, premature and otherwise,								1					1	4.76
Falling into slopes, etc.,					1								1	4.76
Crushed at batteries,											1		1	4.76
Struck by timber,	1												1	4.76
Totals,	1		2		1	3	2	3	2	3	3	1	21	100.00
Causes of Accidents Outside														
Cars,	1	1			1		1						4	33.33
Machinery,		1								1		1	3	25.00
Suffocation in chutes, etc.,										5			5	41.67
Totals,	1	2			1		1			6		1	12	100.00
Grand totals inside and outside,	2	2	2		2	3	3	3	2	9	3	2	33	

TABLE D.—Classification of Non-Fatal Accidents Inside and Outside of Mines

	Months												Percentages	
	January	February	March	April	May	June	July	August	September	October	November	December		Totals
Causes of Accidents Inside														
Falls of coal,	1				2	2	1	1	2	2		1	12	15.39
Falls of slate,		1	1	2	1			1	2	2	1		12	15.39
Falls of roof,							1		1				2	2.56
Mine cars,			5	4	2	1	1	1	1	6	2	1	24	30.77
Explosions of gas,	1	3				2		1					7	8.98
Explosions of powder and dynamite,			1	1		2					1		5	6.41
Blasts, premature and otherwise,					1	1	1		1	1			5	6.41
Mules,		1			1						1		3	3.86
Struck by debris,	1												1	1.28
Burned by hot ashes,				1									1	1.28
Struck by rail,			1										1	1.28
Struck by timber,					1			1					2	2.56
Struck by jack,					1								1	1.28
Rush of coal,						1							1	1.28
Struck by piece of coal,										1			1	1.28
Totals,	3	5	9	7	9	8	6	5	5	12	5	3	78	100.00
Causes of Accidents Outside														
Cars,		2	1				1	1			1	1	7	50.00
Machinery,	1								1				2	14.29
By falling,		2											2	14.29
Struck by frozen clay,				1									1	7.14
Struck by gate weights,					1								1	7.14
Rush of rock,							1						1	7.14
Totals,	1	4	2	1			2	1	1		1	1	14	100.00
Grand totals inside and outside,	4	9	11	8	9	8	8	6	7	12	6	4	92	

TABLE E.—Occupations of Persons Killed or Fatally Injured Inside and Outside of Mines

	Months												Totals
	January	February	March	April	May	June	July	August	September	October	November	December	
Inside													
Miners,	1				1	1	1	3	1		3	1	12
Miners' laborers,						1	1		1	3			6
Doorboys and helpers,			1										1
Hitchers,			1										1
Motormen,						1							1
Totals,	1		2		1	3	2	3	2	3	3	1	21
Outside													
Foremen,	1											1	2
Slatepickers (boys),									1				1
Machinists,		1											1
Pumpmen,		1											1
Loaders,					1								1
Patchers,						1							1
Platemen,									4				4
Jig-runners,									1				1
Totals,	1	2			1		1		6			1	12
Grand totals inside and outside,	2	2	2		2	3	3	3	2	9	3	2	33

TABLE F.—Occupations of Persons Injured Inside and Outside of Mines

	Months												Totals
	January	February	March	April	May	June	July	August	September	October	November	December	
Inside													
Assistant mine foremen,						1							1
Miners,	2	1	3	3	5	5	4	4	3	5	2	2	39
Miners' laborers,	1				2	1	1		2	1			8
Drivers and runners,		2	3	3		1	1		1	3	2	1	16
Doorboys and helpers,		1	2	1	1			1		3	1		10
Company men,					1								1
Bratticemen,		1			1								1
Trackmen,			1										1
Oilers,				1									1
Totals,	3	5	9	7	9	8	6	5	6	12	5	3	78
Outside													
Blacksmiths and carpenters,			1										1
Engineers and firemen,		1											1
Laborers,	1	3	1	1			1						7
Miners,							1						1
Loaders,								1					1
Platemen,									1				1
Hitchers,										1			1
Drivers,											1		1
Totals,	1	4	2	1			2	1	1		1	1	14
Grand totals inside and outside,	4	9	11	8	9	8	8	6	7	12	6	4	92

TABLE G.—Nationality of Persons Killed or Fatally Injured Inside and Outside of Mines

	Months												Totals
	January	February	March	April	May	June	July	August	September	October	November	December	
American,	1	2	1				1					1	6
English,													1
Irish,					1							1	2
German,						1							1
Polish,			1			1		2		1			5
Hungarian,								2		1			3
Italian,	1					1		1	2	4			7
Slavonian,						1			2	3	1		5
Lithuanian,							1						1
Austrian,											1		1
Russian,					1								1
Totals,	2	2	2		2	3	3	3	2	9	3	2	33

TABLE H.—Nationality of Persons Injured Inside and Outside of Mines

	Months												Totals
	January	February	March	April	May	June	July	August	September	October	November	December	
American,	1	4	4	3	1		1	1	2	2	1	1	21
Welsh,						1	1						1
Irish,					1	1	2						4
German,					2	2	1	1	1	2			6
Polish,		1	1	1	2	2	1	1	2	3	1	2	17
Hungarian,	1		3	1	1	1		1	1	2	2		13
Italian,	2	1					2		1	1			8
Slavonian,		3	1	1			1	2		1	1		10
Lithuanian,						1					1		3
Austrian,			1	1				1		1			4
Russian,			1			1							2
Greek,					1								1
Tyrolean,					1								1
Montenegrin,						1							1
Totals,	4	9	11	8	9	8	8	6	7	12	6	4	92

TABLE 1.—Operators and mines, kind of openings, type and size of fans, size of furnaces, volume of air produced by fan or furnace per minute, number of splits of air currents and number of persons employed inside

Names of Operators and Mines	Kind of opening	Gasous or non-gasous	Method of ventilation	Diameter of fan in feet and inches	Width of blades in feet and inches	Depth of blades in feet and inches	Number of revolutions per minute	Water gauge developed—in inches	Name of fan	Power used	Number of splits of air currents	Number of cubic feet of air per minute entering the mine at inlet	Total quantity of air per minute circulating in all the splits in cubic feet	Number of cubic feet per minute passing out at outlet	Number of persons employed inside
G. B. Markle and Co.															
Jeddo No. 4 Colliery:															
Jeddo No. 4, Slope B, -----	Slope, ---	Gasous, ---	Fan, -----	16	4.6	4.9	100	2.	Guibal, --	Steam, ---	3	89,000	30,000	53,000	122
Jeddo No. 4, Shaft, -----	Shaft, ---	Non-gas., ---	Fan, -----	16	4.6	4.8	65	.4	Guibal, --	Steam, ---	3	30,000	20,000	40,000	77
Jeddo No. 4, Slope, -----	Slope, ---	Gasous, ---	Fan, -----	25	7.10	7.4	85	2.8			4	80,000	60,000	110,000	110
Jeddo No. 3, old, -----	Slope, ---	Gasous, ---	Fan, -----	16	5	5	75	1.			2	32,000	20,000	44,000	88
Ebervale Colliery:															
Ebervale, Primrose, -----	Slope, ---	Non-gas., ---	Fan, -----	10	3.1	2.7	125	.5	Guibal, --	Steam, ---	2	16,000	12,000	17,000	56
Ebervale, Mammoth and Wharton, -----	Slope, ---	Gasous, ---	Fan, -----	16	4.6	4.7	100	1.5			7	55,600	40,000	56,000	192
Jeddo No. 7 Colliery:															
Jeddo No. 7, Primrose and Holmes, -----	Slope, ---	Non-gas., ---	Fan, -----	11	4.6	4.8	60	.6	Guibal, --	Electricity, ---	2	40,000	26,000	47,000	65
Jeddo No. 7, Mammoth and Wharton, -----	Slope, ---	Non-gas., ---	Natural, -----								1	65,000	4,000	67,500	21
Highland No. 5 Colliery:															
Highland No. 5, -----	Slopes, ---	Gasous, ---	Fan, -----	16	4.6	4.8	100	1.9	Guibal, --	Steam, ---	2	16,000	12,000	17,000	59
Highland No. 5, -----	Slopes, ---	Gasous, ---	Natural, -----								3	30,000	18,000	23,000	87
Highland No. 5, Black Jeddo, -----	Slopes, ---	Gasous, ---	Fan, -----	16	4.5	4.8	100	1.9	Guibal, --	Steam, ---	3	33,000	28,000	33,200	132
Highland Nos. 8, 9, 10, -----	Slopes, ---	Non-gas., ---	Fan, -----	7	3.3	1.6	80	.6	Guibal, --	Steam, ---	3	22,000	13,000	32,000	45

Highland No. 2 Colliery:													
Highland No. 1,									3	30,000	30,000	38,000	110
Highland No. 2,	Slopes,	Gaseous,	Natural,	4.10	4.10	70	.9	Guibal,	1	11,000	10,000	12,500	39
Highland No. 6,	Slopes,	Non-gas,	Fan,	4.6	4.9	80	1,	Guibal,	4	50,000	27,000	39,000	114
Lehigh Valley Coal Co.													
Hazleton No. 1 Colliery:													
Hazleton No. 1,	Slopes,	Gaseous,	Fan,	6,	6,	80	.02	Guibal,	10	79,713	30,602	81,153	118
Hazleton No. 3,	Slopes,	Gaseous,	Fan,	4,	4.6	65	.50	Guibal,	5	32,348	17,749	37,848	10
Hazleton No. 4,	Slopes,	Non-gas,	Fan,	5,	5.6	35	.55	Guibal,	*				
Fager Ridge,													
Hazleton Shaft Colliery:													
Hazleton Shaft,	Shaft,	Gaseous,	Fan,	7,	6,	65	.55	Guibal,	10	115,800	40,800	135,100	166
Hazleton Shaft,	Shaft,	Gaseous,	Fan,	7,	6,	65	.55	Guibal,					
Hazleton No. 3,	Slope,	Gaseous,	Fan,	5,	6,	65	.50	Guibal,	5	60,200	30,900	65,300	92
Hazleton No. 5,	Slope,	Gaseous,	Fan,	4,	4.9	98	.53	Guibal,	6	53,200	44,500	60,400	112
Stockton No. 2,	Slope,	Non-gas,	Fan,	6.9	4.6	40	.35	Guibal,	*				
Spring Mountain and Spring Brook Collieries:													
Spring Mountain No. 4,	Slopes,	Non-gas,	Fan,	6.9	4.6	40	.75	Guibal,	3	49,000	38,800	51,000	64
Spring Brook No. 1,	Slopes,	Gaseous,	Fan,	4,	4,	60	.30	Guibal,	4	37,000	27,500	37,500	100
Spring Brook No. 2,	Slopes,	Gaseous,	Fan,	4.9	4,	70	.30	Guibal,	4	49,500	33,000	50,700	115
Coxe Brothers and Co., Inc.													
Drifton Colliery:													
Drifton No. 1,	Slopes,	Non-gas,	Fan,	4,	4,	60	-----	Guibal,	8	57,000	57,000	63,000	87
Drifton No. 2,	Slopes,	Gaseous,	Fan,	4,	4,	80	-----	Guibal,	8	162,000	49,000	166,200	82
Drifton No. 2,	Slopes,	Gaseous,	Fan,	4,	4,	80	-----	Guibal,					
Eckley Colliery:													
Eckley No. 1,	Slopes,	Natural,							3	14,200	16,300	18,100	6
Eckley No. 2,	Slopes,	Natural,							3	30,000	4,000	32,400	8
Eckley No. 6,	Slopes,	Natural,							4	51,000	31,000	52,000	46
Eckley No. 10,	Slopes,	Non-gas,	Fan,	4,	5.6	80	-----	Guibal,	3	15,500	11,700	17,000	35
Back Mountain,	Slopes,	Natural,							3	15,500	11,300	17,000	20
Stockton,	Slopes,	Natural,							2	9,500	7,300	10,500	36
Deringer, Tomhicken and Gowen Collieries:													
Deringer,	Drift,	Gaseous,	Fan,	6,	5.6	90	-----	Guibal,	8	67,950	66,500	68,950	87
Perringer,	Drift,	Non-gas,	Furnace,	20					2	16,200	9,200	17,100	44
Tomhicken,	Tunnel,	Gaseous,	Fan,	4,	4,	100	-----	Guibal,	7	63,840	42,615	64,350	108
Gowen Nos. 1 and 2,	Slope,	Gaseous,	Fan,	6,	6,	95	-----	Guibal,	8	53,600	36,800	64,500	60
Gowen No. 4,	Slope,	Gaseous,	Fan,	20	7,								

*Rebbling. No air measurements taken.

TABLE I—Continued

Names of Operators and Mines	Kind of opening	Gasous or non-gasous	Method of ventilation	Diameter of fan in feet and inches	Width of blades in feet and inches	Depth of blades in feet and inches	Number of revolutions per minute	Water gauge developed—in inches	Name of fan	Power used	Number of splits of air currents	Number of cubic feet of air per minute entering the mine at inlet	Total quantity of air per minute circulating in all the splits in cubic feet	Number of cubic feet per minute passing out at outlet	Number of persons employed inside
Pardee Brothers and Co.															
Lattimer Colliery:															
Lattimer No. 1	Non-gas.	Natural.	16	4	4.3	95	1.6	Gaubal.	Steam.	*	40,000	35,000	42,000	243	
Lattimer No. 2	Non-gas.	Natural.	16	4	4.3	95	1.6	Gaubal.	Steam.	*	40,000	35,000	42,000	243	
Lattimer No. 3	Non-gas.	Natural.	16	4	4.3	95	1.6	Gaubal.	Steam.	*	40,000	35,000	42,000	243	
Lattimer No. 8	Non-gas.	Natural.	16	4	4.3	95	1.6	Gaubal.	Steam.	*	40,000	35,000	42,000	243	
Lattimer Nos. 9 and 12	Gasous.	Fan.	16	4	4.3	95	1.6	Gaubal.	Steam.	*	40,000	35,000	42,000	243	
Lattimer No. 13	Gasous.	Fan.	16	4	4.3	95	1.6	Gaubal.	Steam.	*	40,000	35,000	42,000	243	
Lattimer No. 14	Non-gas.	Natural.	16	4	4.3	95	1.6	Gaubal.	Steam.	*	40,000	35,000	42,000	243	
Lattimer No. 23	Non-gas.	Fan.	16	4	4.3	95	1.6	Gaubal.	Steam.	*	40,000	35,000	42,000	243	
Lattimer No. 24	Non-gas.	Fan.	16	4	4.3	95	1.6	Gaubal.	Steam.	*	40,000	35,000	42,000	243	
Lattimer No. 25	Non-gas.	Fan.	16	4	4.3	95	1.6	Gaubal.	Steam.	*	40,000	35,000	42,000	243	
Lattimer No. 26	Non-gas.	Fan.	16	4	4.3	95	1.6	Gaubal.	Steam.	*	40,000	35,000	42,000	243	
Lattimer No. 17	Non-gas.	Fan.	16	4	4.3	95	1.6	Gaubal.	Steam.	*	40,000	35,000	42,000	243	
A. Pardee and Co.															
Cranberry Colliery:															
Cranberry No. 1, North	Gasous.	Fan.	16	4	5.4	70	.95			4	52,000	35,000	55,000	378	
Cranberry No. 1, South	Gasous.	Fan.	16	4	4.10	70	.80			4	55,000	38,000	58,000	378	
Cranberry Nos. 4 and 8	Gasous.	Fan.	16	4	4.9	70	.15	Gaubal.	Steam.	5	35,000	29,000	39,000	84	
Cranberry No. 5	Gasous.	Fan.	16	4	4.10	70	.50	Gaubal.	Steam.	6	25,000	23,000	27,100	206	
Cranberry Nos. 6 and 9	Non-gas.	Fan.	16	4	4.6	70	.55			5	50,000	35,000	55,000	175	
Cranberry No. 7	Gasous.	Fan.	16	4	4.6	70	.55			5	50,000	35,000	55,000	175	
E. Crystal Ridge No. 5	Non-gas.	Natural.	16	4	4.6	70	.55			1	39,200	29,500	40,100	141	

*Robbing. No air measurements taken.

C. M. Bodson and Co.										
Beaver Brook Colliery:										
Beaver Brook No. 5,	Natural,	Non-gas.,						20,400	18,000	22,400
Beaver Brook No. 6,	Natural,	Non-gas.,						3,000	2,500	3,000
Beaver Brook No. 10,	Fan,	Non-gas.,	16	4.6	5	90		50,000	41,500	69,000
Beaver Brook No. 11,	Fan,	Gasous,	16	4.6	5	90	Guibal,	25,000	22,000	27,000
Beaver Brook No. 15,	Fan,	Gasous,	16	4.6	5	90	Guibal,	22,000	18,000	27,000
Harwood Coal Co.										
Harwood Colliery:										
Harwood No. 1,	Fan,	Non-gas.,	16	4.6	4.3	72	.50			
Harwood No. 5,	Fan,	Gasous,	16	4.6	4.3	72	.50	Guibal,		
Harwood No. 19,	Fan,	Non-gas.,	6	3.25	1.42	145	.50			
Harwood No. 21,	Natural,	Non-gas.,								
Harwood No. 31,	Natural,	Non-gas.,								
Hazel Mountain Coal Co.										
Hazel Mountain Colliery:										
Hazel Mountain No. 1,	Slope,	Non-gas.,	16	6,	4.6	72	1,	Guibal,	48,400	35,050
Hazel Mountain No. 5,	Slope,	Non-gas.,	16	4,	3.11	85	1,	Guibal,	75,000	50,000
John S. Wentz and Co.										
Hazel Brook Colliery:										
Hazel Brook No. 3,		Non-gas.,						10,000	10,000	11,000
Hazel Brook No. 5,		Gasous,						30,000	50,000	32,000
Hazel Brook No. 6,		Non-gas.,						30,000	22,000	31,000
Hazel Brook No. 8,		Non-gas.,						5,000	4,000	5,200
Hazel Brook No. 9,		Non-gas.,						6,000	4,000	6,500
Hazel Brook No. 10,		Non-gas.,						12,000	10,000	12,400
Harleigh Brookwood Coal Co.										
Harleigh Colliery:										
Harleigh No. 1,		Non-gas.,	12	3.7	3.8	80	1,	Guibal,	22,000	18,000
Harleigh No. 2,	Slope,	Non-gas.,	7	3.6	3.	225	.9	Buffalo,	12,000	9,000
Harleigh No. 3,	Slope,	Non-gas.,	7	3.6	3.	225	.9	Buffalo,	11,000	8,500
Wolf Coal Co.										
Wolf Colliery:										
Wolf Nos. 3 and 4,	Slopes,	Non-gas.,	12	3,	3.6	110	1,	Guibal,	22,000	18,000
										22,300

*Robbing. No air measurements taken.

TABLE 1.—Operators, location of collieries, railroads, etc.

Names of Operators and Collieries	County	Name of General Superintendent	Post Office	Name of Superintendent	Post Office	Railroad to Mine
G. B. Markle and Co. Jeddo No. 4 and Ebervale, Jeddo No. 7, Highland Nos. 2 and 5,	Luzerne,	H. S. Carpenter,	Jeddo,		Jeddo,	Lehigh Valley
Lehigh Valley Coal Co. Hazleton No. 1, Hazleton Shaft, Spring Mountain and Spring Brook,	Luzerne,	F. M. Chase,	Wilkes-Barre,	W. H. Davies,	Hazleton,	Lehigh Valley
Coxe Brothers and Co., Inc. Drifton, Deringer, Tomhicken and Gowen Eckley, Buck Mountain and Stockton, Eckley Washery.	Luzerne,	F. M. Chase,	Wilkes-Barre,	W. H. Davies,	Hazleton,	Lehigh Valley
Pardee Brothers and Co.	Luzerne,	G. W. Barager,	Lattimer Mines,		Lattimer Mines,	Lehigh Valley
A. Pardee and Co. Cranberry,	Luzerne,	Frank Pardee,	Hazleton,		Hazleton,	Lehigh Valley
C. M. Dodson and Co. Beaver Brook,	Luzerne,	John J. Turnbach,	Beaver Brook,		Beaver Brook,	L. V. and C. R. R. of N. J.
Harwood Coal Co. Harwood,	Luzerne,	A. W. Drake,	Hazleton,		Hazleton,	Lehigh Valley
Upper Lehigh Coal Co. Upper Lehigh,	Luzerne,	A. C. Leisenring,	Upper Lehigh,	James W. Shaw, Jr.,	Upper Lehigh,	C. R. R. of N. J.

Hazle Mountain Coal Co. Hazle Mountain,	Lucerne,	W. R. McCurk, President.	Pennsylvania Building, Philadelphia.	James Burgess,	Hazleton,	Lehigh Valley
M. S. Kemmerer and Co. Sandy Run,	Lucerne,	M. S. Kemmerer,	Mauch Chunk,	J. P. Powell,	Sandy Run,	C. R. R. of N. J.
John S. Wentz and Co. Hazle Brook,	Lucerne,	T. E. Snyder,	Hazleton,	John Evans,	Hazlebrook,	Lehigh Valley
Harleigh Brookwood Coal Co. Harleigh,	Lucerne,	Frank A. Hill,	Pottsville,	I. D. Thomas,	Hazleton,	Lehigh Valley
Wolf Coal Co. Wolf,	Lucerne,	A. F. Wolf,	Wilkes-Barre,	Joseph G. Sarieks,	Freeland,	Lehigh Valley
Thomas R. Reese and Son Dusky Diamond,	Lucerne,	Thomas R. Reese,	Audenried,			Lehigh Valley

TABLE 2.—Number of tons of coal mined, number of days worked, number of persons employed, number killed and injured, quantity of powder, dynamite and permissible explosives used, etc.

Names of Operators and Collieries	County	Number of tons of coal shipped to market	Number of tons used at collieries for steam and heat	Number of tons sold to local trade and used by employees	Total production of coal in tons	Number of days worked	Number of employees	Number of fatal accidents	Number of non-fatal accidents	Explosives			Number of horses and mules used
										Number of pounds of powder used	Number of pounds of dynamite used	Number of pounds of permissible explosives	
G. B. Markie and Co.													
Jeddo No. 4 and Ebervale,	Luzerne,	331,055	27,192	3,163	411,410	217	782	2	12	54,450	112,440	61,050	83
Jeddo No. 7,		169,128	5,104	3,141	177,373	237	162	4	4	12,725	31,475	7,700	13
Highland No. 5,		302,747	24,272	832	327,851	241	569	3	6	13,375	42,809	120,189	56
Highland No. 2,		254,247	40,978	6,851	302,076	255	530	1	6	10,490	28,305	106,664	56
Totals,		1,107,177	97,546	13,987	1,218,710		2,073	7	28	190,550	215,139	295,608	212
High Valley Coal Co.													
Hazleton No. 1,	Luzerne,	213,813	41,010	67,368	322,191	251	578	1	3	70,975	128,410		46
Hazleton Shaft,		229,238	100,277	3,595	333,210	248	750	1	3	88,725	166,084		57
Spring Mountain and Spring Brook,		295,367	68,729	3,838	367,934	251	796	2	8	127,100	65,445		57
Totals,			738,418	210,116	74,801	1,023,335		2,173	3	11	286,800	349,939		160
Coxe Brothers and Co., Inc.													
Drifton,	Luzerne,	296,050	66,385	4,701	367,736	248	539	6	5	122,150	46,127		54
Berger, Tomshick and Gowen,		224,523	82,065	11,942	265,500	248	446	2	9	73,750	64,819		66
Eckley, Buck Mountain and Stockton,		211,017	31,500	9,467	252,550	246	296	2	4	37,850	54,791		55
Eckley Washery,		13,594		280	13,874	168	34						
Totals,		746,984	199,960	26,390	902,760		1,315	10	18	233,750	165,737		174

Lattimer, Pardee Brothers and Co.	Luzerne, -----	601,660	64,000	8,701	674,361	261	1,026	-----	3	7,450	231,271	-----	100
Cranberry, A. Pardee and Co.	Luzerne, -----	534,394	70,080	6,839	611,333	273	1,440	-----	2	101,250	312,625	-----	160
Beaver Brook, O. M. Dodson and Co.	Luzerne, -----	333,767	80,900	563	365,430	291	756	-----	5	121,000	123,500	-----	64
Harwood, Harwood Coal Co.	Luzerne, -----	201,181	62,400	2,851	266,432	231	498	-----	1	7,750	74,657	-----	54
Upper Lehigh, Upper Lehigh Coal Co.	Luzerne, -----	125,587	23,469	4,944	153,940	227	894	-----	1	5,175	64,969	-----	42
Hazle Mountain, Hazle Mountain Coal Co.	Luzerne, -----	124,636	18,250	1,190	154,076	219	380	-----	2	29,300	61,546	-----	51
Sandy Run, M. S. Kemmerer and Co.	Luzerne, -----	119,071	10,419	4,091	133,581	241	362	-----	3	8,375	24,624	-----	31
Hazle Brook, John S. Wentz and Co.	Luzerne, -----	96,067	24,026	1,626	121,749	166	289	-----	1	39,375	13,475	-----	25
Hartleigh, Hartleigh Brookwood Coal Co.	Luzerne, -----	84,310	9,000	470	94,280	275	225	-----	1	15,000	40,751	-----	10
Wolf, Wolf Coal Co.	Luzerne, -----	58,234	2,226	-----	60,470	209	89	-----	-----	9,175	32,181	-----	3
Dukey Diamond, Thomas R. Reese and Son	Luzerne, -----	257	592	4,343	5,197	266	9	-----	-----	1,000	2,500	-----	2
Grand totals,	-----	4,881,673	753,460	130,521	5,785,654	-----	10,969	33	92	1,050,550	1,713,643	-----	1,065

TABLE 2.—Part 2

Names of Operators	County	Number of Boilers				Locomotives			Number of steam engines of all classes	Total horse power	Number of pumps delivering water to surface	Capacity in gallons per minute	Quantity delivered to surface per minute—gallons	Number of electric dynamos	Number of air compressors	
		Cylindrical	Horse power	Tubular	Horse power	Total horse power	Steam	Air								Electric
G. B. Markle and Co.,	31	10,020	10,020	13	5	9	111	8,003	11	13,296	13,296	7	
Lehigh Valley Coal Co.,	62	9,700	9,700	14	.....	5	72	8,575	19	19,500	8,600	1	
Coxe Brothers and Co., Inc.,	49	9,375	9,375	17	6	.....	51	4,780	12	14,490	8,150	6	
Pardee Brothers and Co.,	12	4,000	4,000	9	.....	2	29	3,600	.....	.....	.....	3	
A. Pardee and Co.,	22	660	27	6,000	6,000	19	.....	.....	76	18,350	15	23,100	7,000	1	
C. M. Dodson and Co.,	25	3,600	3,600	2	.....	.....	18	1,400	9	12,100	5,750	1	
Harwood Coal Co.,	Luzerne,	.....	.....	12	1,800	1,800	3	.....	.....	13	850	5	7,000	3,500	1
Upper Lehigh Coal Co.,	30	600	14	2,430	3,020	8	.....	.....	32	1,073	10	11,550	4,500	1	
Hazle Mountain Coal Co.,	9	1,330	1,330	4	.....	.....	5	450	6	6,300	2,000	3	
M. S. Kemmerer and Co.,	6	300	4	480	780	1	.....	.....	8	446	1	720	720	.....
John S. Wentz and Co.,	9	1,370	1,370	3	.....	.....	23	710	6	8,500	3,000	1	
Harleigh Brookwood Coal Co.,	8	900	900	1	.....	.....	9	750	4	1,250	900	.....
Wolf Coal Co.,	2	325	325	.....	.....	.....	2	300	.....	.....	.....	1	
Thomas R. Reese and Son,	1	125	125	.....	.....	.....	2	60	.....	.....	.....	.....
Totals,	48	1,560	265	51,435	52,985	94	11	16	476	50,147	100	118,476	58,716	12	26

*Jeddo Tunnel drainage.

†Drainage into Beaver Brook No. 10.

TABLE 3.—Number of employees inside and outside of mines

Names of Operators	County	Inside											Outside										
		Mine foremen	Assistant mine foremen	Fire bosses and assistants	Miners	Miners' laborers	Drivers and runners	Doorboys and helpers	Pumpmen	Company men	All other employees	Total inside	Superintendents	Foremen	Blacksmiths and carpenters	Engineers and firemen	State pickers (boys)	State pickers (men)	Bookkeepers and clerks	All other employees	Total outside	Grand total inside and outside	
G. B. Markle and Co.,	10	11	7	523	518	129	33	20	51	276	4	6	23	90	62	34	8	268	465	2,073		
Lehigh Valley Coal Co.,	8	14	.....	586	170	65	11	20	235	407	.....	4	4	57	83	17	12	368	687	2,173	
Coxe Brothers and Co., Inc.,	5	14	.....	473	107	94	12	9	63	132	.....	3	3	31	74	16	11	241	406	1,315	
Pardee Brothers and Co.,	1	11	1	338	131	37	1	.....	42	40	666	1	2	29	40	27	22	230	369	1,026	
A. Pardee and Co.,	6	5	6	416	294	65	42	14	45	91	984	1	2	39	65	23	18	282	456	1,440		
C. M. Dodson and Co.,	1	3	1	179	193	34	13	8	38	46	516	1	1	21	38	39	9	4	127	240	756	
Harwood Coal Co.,	1	4	1	141	124	21	.....	4	31	34	363	1	2	17	12	17	3	78	135	468	
Upper Lehigh Coal Co.,	1	.....	.....	111	67	5	.....	2	10	68	1	2	7	21	37	15	3	240	326	394	
Hazle Mountain Coal Co.,	1	2	.....	111	67	24	6	7	24	250	1	2	12	14	27	9	3	62	130	380	
M. S. Kemmerer and Co.,	1	2	.....	75	36	17	7	1	30	190	1	1	5	12	20	39	2	23	103	302	
John S. Wentz and Co.,	1	2	.....	75	25	15	.....	4	45	167	1	1	9	23	17	.....	63	122	230		
Harleigh Brookwood Coal Co.,	1	.....	.....	50	51	9	.....	5	13	8	137	1	7	11	21	1	1	46	89	225	
Wolf Coal Co.,	1	.....	.....	32	26	1	.....	2	12	74	1	2	3	.....	.....	.....	1	8	15	89	
Thomas R. Reese and Son,	1	.....	.....	2	3	.....	.....	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	1	2	9	
Totals,	39	68	16	3,075	1,772	516	125	100	631	1,092	13	28	279	488	325	245	64	2,093	3,535	10,969		

TABLE 4.—Fatal accidents inside and outside of mines

Date of accident	Name of Person	Nationality	Occupation	Age	Married or single	Number of widows	Number of orphans	Name of Colliery	County	Nature and Cause of Accident in Brief
Jan. 11	Lewis Grebe,	American,	Foreman,	50	M.	1	6	Cranberry, .....	.....	Fatally injured by car at foot of breaker plane. Outside.
20	Mike Rega,	Italian,	Miner,	45	M.	1	6	Highland No. 5, .....	.....	Fatally injured by prop falling upon him in gangway.
Feb. 3	Michael Mulbearn,	American,	Machinist,	25	S.	.....	.....	Beaver Brook, .....	.....	Instantly killed by being whirled around shaft in carpenter shop. Outside.
23	John Marshlick,	American,	Topman,	20	S.	.....	.....	Eckley, .....	.....	Fatally injured by being caught between derailed car and post at top of slope. Outside.
Mar. 20	William R. Eiserman,	American,	Patcher,	17	S.	.....	.....	Hazle Mountain, .....	.....	Fatally injured by being caught by derailed car at bottom of slope.
27	Joseph Casper,	Polish,	Hitcher,	18	S.	.....	.....	Highland No. 1, .....	.....	Fatally injured by having his head caught between two cars in dish at bottom of slope.
May 11	John Gillespie,	Irish,	Loader,	57	M.	1	1	Drittien, .....	.....	Instantly killed by being run down by loaded box car. Outside.
24	John Martiszus,	Russian,	Miner,	45	M.	1	5	Hazleton Shaft, .....	.....	Fatally injured by falling down breast manway.
June 2	Toney Feouck,	Italian,	Laborer,	34	M.	1	2	Hartleich, .....	.....	Fatally injured by fall of slate in breast.
15	Stephen Jones,	German,	Motorman,	30	M.	1	2	Highland No. 5, .....	.....	Instantly killed by being run over by electric motor on gangway.
17	Joseph Dobroszinski,	Polish,	Miner,	30	M.	1	4	Highland No. 5, .....	.....	Instantly killed by fall of slate on gangway.
July 1	Wilber Cumfer,	American,	Patcher,	17	S.	.....	.....	Jeddo No. 4, .....	.....	Fatally injured by falling under cars. Outside.
11	John Yanyulevich,	Lithuanian,	Miner,	26	M.	1	2	Harwood, .....	.....	Instantly killed by fall of rock while robbing pillars.
17	Mike Suski,	Slavonian,	Laborer,	26	S.	.....	.....	Beaver Brook, .....	.....	Instantly killed by fall of slate on gangway.
Aug. 7	Mike Valenski,	Polish,	Miner,	51	M.	1	4	Spring Mountain, .....	.....	Instantly killed by blast in cross-out of breast.
30	Peter Muldoon,	Italian,	Miner,	37	M.	1	3	Spring Mountain, .....	.....	Fatally injured by fall of coal in breast.

TABLE 4—Continued

Date of accident	Name of Person	Nationality	Occupation	Age	Married or single	Number of widows	Number of orphans	Name of Colliery	County	Nature and Cause of Accident in Brief
Aug. 29	Alex. Solina,	Polish,	Miner,	41	M.	1	6	Jeddo No. 4,		Instantly killed by working place collapsing, due to cave of strata between Wharton and Mammoth veins.
Sept. 5	Joseph Badoe,	Hungarian,	Miner,	31	S.			Beringer,		Fatally injured by fall of coal while taking out pillars.
57	Steve Halek,	Hungarian,	Laborer,	24	M.	1	1	Highland No. 2,		Instantly killed by fall of coal from edge of pillar.
	Toney Plum,	Italian,	Platenan,	36	S.					Suffocated while taking down an old stack which stood over an abandoned air-shaft. The stack was partly surrounded by the refuse bank and when it was pushed over the bank rushed down, sweeping the men into the shaft and suffocating them. Outside.
	John Plum,	Italian,	Platenan,	34	M.	1	2			
Oct. 3	Stephen Sofle,	Hungarian,	Platenan,	50	M.	1	1	Britten,		
	Angelo Nazardo,	Italian,	Platenan,	32	M.	1	2			
	Joseph Camerano,	Italian,	Slatepicker,	20	S.					
5	Andro Fero,	Slavonian,	Laborer,	30	S.			Beaver Brook,	Luzerne,	Instantly killed by fall of slate in gang-way while drilling a hole in bottom slate. Had sounded roof and thought it safe.
	Andro Kachufka,	Slavonian,	Laborer,	27	M.	1	1			Fatally injured by machinery in breaker. Outside.
6	John Moskey,	Polish,	Jig-runner,	18	S.			Hazle Mountain,		Fatally injured by falling under ear which he was assisting to run out of a breast.
9	Ignats Yangshan,	Slavonian,	Laborer,	46	M.	1	5	Eckley,		Instantly killed by fall of slate at face of robbing.
Nov. 13	Paul Lazors,	Slavonian,	Miner,	27	M.	1	1	Beaver Brook,		Instantly killed by fall of slate at face of robbing.
24	James Bottoms,	English,	Miner,	58	M.	1		Hazle Brook,		Instantly killed by fall of slate at face of robbing.
28	Bartol Konchinick,	Austrian,	Miner,	33	M.	1	6	Deringer,		Fatally injured by being crushed by lump of rock at battery.
Dec. 5	James O'Donnell,	Irish,	Miner,	39	M.	1	8	Cranberry,		Fatally injured by fall of slate at face of robbing.
16	William Payton,	American,	Foreman,	35	M.	1	3	Upper Lehigh,		Fatally injured by being whirled around jig shaft in washery. Outside.

TABLE 5.—Non-fatal accidents inside and outside of mines

Date of accident	Name of Person	Nationality	Occupation	Age	Marrled or Single	Name of Colliery	County	Nature and Cause of Accident in Brief
Jan. 11	James Constantine,	Italian,	Miner,	38	M.	Hazleton Shaft,		Head and wrist cut by fall of coal in gangway.
13	James Brown,	American,	Laborer,	50	S.	Drifton,		Arm fractured by being caught in pump. Outside.
21	Steve Rigda,	Hungarian,	Miner,	42	M.	Hazle Brook,		Leg and side of face fractured by being struck by flying fragments of runaway car on slope.
26	Frank Nello,	Italian,	Laborer,	29	M.	Spring Brook,		Face and hands burned by explosion of gas in face of breast.
Feb. 6	Patrick O'Neil,	American,	Miner,	35	S.	Upper Lehigh,		Leg fractured by fall of slate in gangway.
	Frank Opalski,	Polish,	Laborer,	61	M.	Eckley,		Leg fractured by falling into chute in stripping. Outside.
7	(Matthew Kearney, August Vech, George Mikula,	American, American, Slavonian,	Bratticeman, Driver, Patcher,	30 19 42	S. S. M.	Lattimer,	Luzerne,	(Hands and face seriously burned by explosion of gas Hands and face slightly burned.
10	George Tkas,	Slavonian,	Driver,	28	M.	Deringer,		Arm fractured by mules on gangway.
21	Salvator Sealise,	Italian,	Laborer,	50	M.	Hazle Brook,		Hip squeezed by car turning over on him. Outside.
27	Andrew Dudley,	Slavonian,	Laborer,	21	S.	Eckley,		Collar bone fractured by falling in stripping. Outside.
	Samuel Boughner,	American,	Engineer,	46	M.	Drifton,		Skull fractured by being struck by side of derailed locomotive when blocks slipped. Outside.
March 1	Daniel Rodgers, Jacob Leubhart,	American, Austrian,	Patcher, Miner,	17 37	S. M.	Spring Brook, Deringer,		Leg fractured by runaway car on slope. Hand and eye injured by explosion of powder.
4	John Broadbent,	American,	Driver,	19	S.	Stockton,		Wrist fractured and side bruised by falling under cars on gangway.

TABLE 5—Continued

Date of accident	Name of Person	Nationality	Occupation	Age	Married or single	Name of Colliery	County	Nature and Cause of Accident in Brief
March 7	Edward Gallagher, ---	American, ---	Patcher, ---	17	S.	Spring Brook, ---		Knee cut by falling under ears on gangway.
9	James Furey, ---	American, ---	Driver, ---	22	S.	Highland No. 2, ---		Collar bone fractured by being squeezed between car and gangway leg.
10	Charles Kostoski, ---	Polish, ---	Driver, ---	19	S.	Highland No. 5, ---		Ribs fractured by being caught between chute and car on gangway.
13	George Danko, Sr., ---	Hungarian, ---	Carpenter, ---	49	M.	Drifton, ---		Leg crushed by being run over by locomotive, outside.
	Joseph Latz, ---	Russian, ---	Miner, ---	50	M.	Highland No. 5, ---		Ankle fractured by fall of slate on gangway.
15	Mike Sabo, ---	Slavonian, ---	Laborer, ---	28	M.	Cranberry, ---		Skull fractured by being struck by piece of frozen clay from shot, outside.
	Mike Mashenuski, ---	Hungarian, ---	Miner, ---	42	M.	Hazleton Shaft, ---		Hands and arm burned by hot ashes from chute at Stockton fire.
16	Mike Bellok, ---	Hungarian, ---	Trackman, ---	46	M.	Daringer, ---	Luzerne, ---	Leg fractured by rail falling upon it on slope.
April 5	John Thrash, ---	American, ---	Patcher, ---	17	S.	Lecky, ---		Collar bone fractured by being squeezed between car and timber on gangway.
7	John Meades, ---	Slavonian, ---	Driver, ---	20	S.	Jeddo No. 7, ---		Pelvis injured by being caught between derailed car and timber on gangway.
18	John Shebeck, ---	Polish, ---	Miner, ---	50	M.	Cranberry, ---		Face lacerated by fall of slate in face of breast.
24	Andrew Barwiehoek, ---	Hungarian, ---	Laborer, ---	47	M.	Drifton, ---		Leg fractured by gate weights falling upon him, outside.
	Pen. Martine, ---	Russian, ---	Miner, ---	40	M.	Hazle Brook, ---		Leg fractured by fall of slate in face of gangway.
25	Mike Yetsina, ---	Lithuanian, ---	Miner, ---	26	S.	Cranberry, ---		Face and hands burned by explosion of powder while tamping hole.
	William Vanlofski, ---	American, ---	Oiler, ---	16	S.	Cranberry, ---		Foot bruised by being caught between bumpers of cars on turnout.

April 29	Henry Steinheiser, ---	American, ---	Driver, ---	20	S.	Spring Brook, ---	Arm fractured by falling under cars on gangway.
May 1	Herbert Boyle, ---	American, ---	Doorboy, ---	17	S.	Deringer, ---	Face lacerated and teeth knocked out by kick from mule.
3	John Pocerutich, ---	Polish, ---	Laborer, ---	25	M.	Harleigh, ---	Pelvis fractured and injured internally by being squeezed between car and brattice on gangway.
4	John Oberman, ---	German, ---	Company man, ---	25	S.	Cranberry, ---	Foot bruised by being caught between re-tracker and the bottom.
13	Adam Divigill, ---	Tyrolean, ---	Miner, ---	30	M.	Jeddo No. 4, ---	Leg fractured by collar falling on him while raising it into its place on the legs.
22	William Dinkie, ---	German, ---	Miner, ---	47	M.	Cranberry, ---	Leg fractured by fall of slate in breast.
29	Stanley Gloyotskie, ---	Polish, ---	Miner, ---	40	M.	Jeddo No. 7, ---	Leg fractured by small buggy running over end of road upon him.
31	Joseph Gazick, ---	Hungarian, ---	Laborer, ---	19	S.	Hazle Brook, ---	Head and breast bruised by fall of coal in gangway.
June 12	Robert Fitzpatrick, ---	Irish, ---	Miner, ---	38	M.	Jeddo No. 7, ---	Leg fractured by fall of coal in breast.
14	Mike Baranish, ---	Greek, ---	Miner, ---	48	M.	Cranberry, ---	Face and arm lacerated and burned by the explosion of a shot that he thought had missed fire.
June 12	George Augustaites, ---	Lithuanian, ---	Miner, ---	38	M.	Deringer, ---	Leg fractured by fall of coal in breast.
14	Michael Slavin, ---	Irish, ---	Miner, ---	41	M.	Spring Brook, ---	(Skull) fractured by explosion of powder while tamping hole.
19	Wasil Matika, ---	Hungarian, ---	Laborer, ---	32	M.	Jeddo No. 4, ---	Arm fractured.
June 12	John Riehkupskie, ---	Polish, ---	Miner, ---	36	M.	Jeddo No. 4, ---	Eyes blown out by explosion of blast firing shot.
23	Salvo Mastonoviek, ---	Monteneg- Rau, ---	Miner, ---	24	S.	Tomhicken, ---	Leg fractured by fall of coal at face of robbing.
26	Joshua Griffith, ---	Welsh, ---	Assistant foreman, ---	34	M.	Highland No. 2, ---	Face and hands burned by explosion of gas in breast.
28	Peter Yanofskie, ---	Polish, ---	Miner, ---	40	M.	Ebervale, ---	Hip dislocated by being caught between detached car and rib of gangway.
July 12	John Hivak, ---	Russlan, ---	Driver, ---	18	S.	Hazle Mountain, ---	Chest and abdomen injured by slide of rock in stripping. Outside.
17	Toney Murphy, ---	Italian, ---	Laborer, ---	29	M.	Hazle Mountain, ---	Heel out of by fall of rock in cross-cut.
25	Mike Roman, ---	Italian, ---	Miner, ---	36	M.	Jeddo No. 4, ---	Leg crushed by being caught between cars on turnout at bottom of slope.
26	Edgar Moigan, ---	American, ---	Driver, ---	18	S.	Sandy Run, ---	Knee dislocated by fall of coal in breast.
27	August Becker, ---	German, ---	Miner, ---	54	M.	Hazle Brook, ---	Ankle fractured by fall of slate in gangway.
28	Thomas Gallagher, ---	Irish, ---	Miner, ---	38	M.	Highland No. 5, ---	Eyes blown out by blast in gangway.
31	Anton Dornin, ---	Polish, ---	Miner, ---	35	M.	Highland No. 6, ---	Ribs fractured by rush of coal in chute.
Aug. 4	John Zabroski, ---	Slavonian, ---	Laborer, ---	20	S.	Harwood, ---	Three fingers crushed between bumpers of cars. Outside.
4	John O'Donnell, ---	Irish, ---	Miner, ---	21	S.	Jeddo No. 7, ---	Leg fractured between gondolas near breaker. Outside.
4	Mike Bisura, ---	Slavonian, ---	Loader, ---	51	M.	Jeddo No. 4, ---	

Luzerne,

TABLE 5—Continued

Date of accident	Name of Person	Nationality	Occupation	Age	Married or single	Name of Colliery	County	Nature and Cause of Accident in Brief
Aug. 7	Mike Welshko,	Hungarian,	Miner,	50	M.	Jeddo No. 4,		Face and hands burned by explosion of gas in chute.
11	George Gaspet,	Slavonian,	Miner,	24	M.	Harwood,		Foot bruised and toe crushed by lagging falling upon it.
18	Oscar Minsinger,	American,	Miner,	28	S.	Beringer,		Foot fractured and head cut by fall of coal in breast.
21	William Doman,	Polish,	Patcher,	17	S.	Cranberry,		Ear nearly severed by sharp edge of a car.
	Peter Misolesie,	Austrian,	Miner,	46	M.	Spring Mountain,		Head, shoulder and leg bruised by fall of slate in breast.
Sept. 5	Thomas Spawn,	Polish,	Miner,	32	M.	Jeddo No. 4,		Leg fractured by fall of coal at face of robbing.
6	Christ Throne,	German,	Miner,	37	M.	Cranberry,		Face burned and lacerated by blast that he thought had missed.
11	Joseph Jerola,	Italian,	Plateman,	22	S.	Spring Mountain,		Toe fractured and foot bruised by machinery in breaker. Outside.
14	Metro Banya's,	Hungarian,	Miner,	39	M.	Highland No. 5,		Leg fractured by fall of slate in breast.
16	Harold White,	American,	Driver,	19	S.	Jeddo No. 4,		Elbow crushed by falling under ears on gangway.
19	Joseph Zanavish,	Polish,	Laborer,	23	S.	Harwood,		Jaw fractured and head bruised by fall of slate in breast.
20	Harry Hinkle,	American,	Laborer,	27	S.	Sandy Run,		Leg fractured by fall of coal in breast.
Oct. 3	James Sweeney,	American,	Driver,	23	S.	Harwood,		Ribs fractured by being squeezed between derailed car and rib.
4	William Yankofski,	Slavonian,	Miner,	45	M.	Cranberry,		Leg fractured by fall of coal in breast.
9	Anthony Yamaziti,	Austrian,	Miner,	49	M.	Drifton,		Arm fractured between derailed car and rib on gangway.
10	Gustav Mutzkus,	German,	Miner,	40	M.	Upper Lehigh,		Collar bone fractured by fall of slate in breast.
11	Mike Boscheek,	Polish,	Doorboy,	17	S.	Cranberry,		Ribs fractured by ears on gangway.

Luzerne,

Oct. 13	Lewis Middleton,	American,	Driver,	21	S. Cranberry,	Leg injured by cars on turnout at bottom of slope.
16	Charles Shell,	German,	Patcher,	18	S. Jeddo No. 3,	Hip dislocated and chest squeezed by cars on gangway.
17	George Korfanto,	Hungarian,	Hitcher,	24	S. Highland No. 2,	Leg fractured by being struck by piece of coal that rolled down slope.
26	Leo. Kometskic,	Polish,	Laborer,	22	S. Ebervale,	Leg fractured by fall of coal on gangway.
27	Easlie Sabota,	Italian,	Miner,	45	M. Upper Lehigh,	Back and ankle injured by fall of slate at face of robbing.
28	John Sabol,	Polish,	Driver,	22	S. Highland No. 5,	Foot crushed between bumpers of cars on turnout at slope bottom.
31	George Ezial,	Hungarian,	Miner,	32	S. Deringer,	Face and eyes injured by blast in breast.
Nov. 2	Ben. Barkus,	Lithuanian,	Miner,	25	S. Hazleton S. A. I.,	Fingers blown off by explosion of percussion cap in his hand.
8	Anthony Pekela,	American,	Driver,	20	S. Deringer,	Skull fractured by kick from mule.
	John Kachkiss,	Polish,	Miner,	45	M. Cranberry,	Hip and back bruised by fall of slate in breast.
15	George Keporick,	Slavonian,	Hitcher,	55	M. Cranberry,	Leg fractured by cars on stripping plane, outside.
17	John Krull,	Hungarian,	Driver,	32	M. Highland No. 5,	Chest crushed by falling under cars on gangway.
24	Steve Becker,	Hungarian,	Patcher,	17	S. Jeddo No. 4,	Leg crushed by falling under cars on gangway.
Dec. 1	Frank Barnofski,	Polish,	Miner,	46	M. Highland No. 2,	Spine fractured by fall of rock on gangway.
6	Andrew Elias,	Polish,	Miner,	35	M. Ebervale,	Leg fractured by fall of coal on gangway.
19	George Kimmel,	American,	Driver,	22	S. Sandy Run,	Arm fractured by being caught between derailed car and prop.
20	James King,	Italian,	Driver,	20	S. Upper Lehigh,	Arm fractured by car falling upon him on slate bank. Outside.

Luzerne,

FATAL ACCIDENTS

On the evening of October 3rd, at the Drifton Colliery of Coxe Brothers and Company, Incorporated, a serious and unexpected accident occurred, by which five men, Toney Plum, John Plum, Stephen Soffle, Angelo Nazardo and Joseph Camerano lost their lives. After the breaker had quit work for the day, Manus Carlin, the breaker foreman, was instructed to take down an old stack that stood over an air shaft and was partly surrounded by the refuse bank. The intention, and the instruction given the foreman, was to take the plank off from the top down, but when they arrived at the stack the men refused to go up on the ladder to begin at the top. After some discussion, it was decided to cut the stack around near the bottom, which was done, cutting the stack about two feet above the edge of the bank so as to avoid a rush of the bank into the shaft. After the cut was completed the men got on the north side of stack to push it over. When it was pushed over, the plank about six feet below the edge of the bank gave way and allowed the bank to rush in, sweeping the men into the air shaft, and before they could be rescued from below they were all dead from suffocation. The rest of the party, some on the east side and some on the west side of the stack, escaped, when they felt the material going from under their feet. It is very easy to see how this accident could have been avoided. Had the man in charge thought that the plank down in the shaft would give way, I am satisfied he would not have put the men on the north side of the stack.

CONDITION OF COLLIERIES

G. B. MARKLE AND COMPANY

Jeddo No. 4 slope, Jeddo No. 4 shaft, and Ebervale.—Ventilation, roads, drainage and condition as to safety, good.

Jeddo No. 7 No. 1 slope, and No. 3 slope.—Ventilation, roads drainage and condition as to safety, good.

Highland Nos. 2 and 5.—Ventilation, roads, drainage and condition as to safety, good.

LEHIGH VALLEY COAL COMPANY

Hazleton No. 1, Hazleton Shaft, Spring Mountain and Spring Brook.—Ventilation, roads, drainage and condition as to safety, good.

COXE BROTHERS AND COMPANY, INCORPORATED

Drifton, Deringer, Gowen, Tomhicken, Eckley, Buck Mountain and Stockton.—Ventilation, roads, drainage and condition as to safety, good.

PARDEE BROTHERS AND COMPANY

Lattimer.—Ventilation, roads, drainage and condition as to safety, good.

A. PARDEE AND COMPANY

Cranberry.—Ventilation good; roads and drainage fair; condition as to safety, good.

C. M. DODSON AND COMPANY

Beaver Brook.—Ventilation, roads and drainage fair; condition as to safety, good.

HARWOOD COAL COMPANY

Harwood.—Ventilation, roads and drainage fair; condition as to safety, good.

UPPER LEHIGH COAL COMPANY

Upper Lehigh.—Ventilation, roads, drainage and condition as to safety, good.

HAZLE MOUNTAIN COAL COMPANY

Hazle Mountain.—Ventilation, roads, drainage and condition as to safety, good.

M. S. KEMMERER AND COMPANY

Sandy Run.—Ventilation, roads, drainage and condition as to safety, good.

JOHN S. WENTZ AND COMPANY

Hazle Brook.—Ventilation, roads and drainage fair; condition as to safety, good.

HARLEIGH BROOKWOOD COAL COMPANY

Harleigh (Buck Mountain Slope).—Ventilation, roads, drainage and condition as to safety, good.

Spear Point, Primrose and Wharton Slopes.—Ventilation fair; roads and drainage good; condition as to safety, good.

WOLF COAL COMPANY

Wolf.—Ventilation, roads and drainage fair; condition as to safety, good.

THOMAS R. REESE AND SON

Dusky Diamond.—Ventilation, roads, drainage and condition as to safety, good.

IMPROVEMENTS

G. B. MARKLE AND COMPANY

Jeddo No. 4 Colliery.—Installed one 7-ton electric locomotive equipped with motor driven reel.

Erected scales for weighing retail coal.

Two fireproof concrete stables completed in the mines, total capacity, 50 mules.

A rock tunnel 390 feet long was driven, connecting Jeddo No. 4 bottom in Mammoth vein with the top of slope B in Buck Mountain vein.

New hoisting engine, 16 by 30, rated H. P. 250, erected at top of slope B, Buck Mountain vein.

In breaker, a complete rock crushing plant was installed to pulverize mine rock and slate from breaker, consisting of one traveling platform, one jaw rock crusher, one revolving pulverizer, one bucket elevator and pocket. This crushed material, in addition to the culm from breaker, is flushed into the Mammoth vein, through one 8-inch and one 10-inch bore hole.

New slush troughs built from breaker to 8-inch and 10-inch bore holes. One barley coal pocket built in breaker.

Ebervale Colliery.—Retail coal scales erected.

Installed hoisting engine 16 by 30, rated H. P. 250.

A new reservoir, capacity 8 million gallons, was excavated at South Ebervale and a 6-inch wood pipe line laid from this reservoir to connect with 6-inch line going to Ebervale.

One 7-ton electric locomotive installed in the Mammoth vein.

The construction of a fireproof mule stable in rock commenced; capacity, 24 mules.

The banks of the center basin canal, between the west property line of Ebervale to a point west of Jeddo No. 4 shaft, were raised to a height of 12 feet above the bed of channel; also the connection of the basin canal with the Big Black Creek canal moved about 200 feet east, necessitating the digging of about 1,400 feet of new canal.

A new road built across Ebervale basin from No. 1 to No. 3.

Jeddo No. 7 Colliery.—The light and loaded tracks for railroad cars completed; also system of track layout completed for mine cars of standard gauge, and for stripping cars of narrow gauge to bring coal from stripping.

Retail coal scales erected.

Breaker equipped with vacuum heating system.

A 50,000 gallon fresh water tank was erected on steel tower.

The stripping of the south outcrop of the Mammoth vein was continued during the year with four steam shovels; two shovels on earth and rock excavation, and two loading coal.

One locomotive house built.

Two buckwheat coal jigs installed in breaker.

One double dwelling built in Harleigh Village.

Breaker completely equipped with electric light.

A slush trough, composed of baffles and silt pickets was built from settling tank at breaker to No. 1 slope, in order that all culm possible should be taken from breaker water, and the water be allowed to flow back into the mines and be re-pumped to the surface. This arrangement is used during a scarcity of water.

Highland No. 5 Colliery.—A 7-ton electric locomotive was installed in Tunnel "O" section.

Retail coal scales erected.

Three slopes were sunk in the overlying veins, No. 8 slope 451 feet in length, No. 9 slope 318 feet in length, No. 10 slope 182 feet in length. A conveyor line was built alongside of breaker plane for handling the coal from these slopes.

A fireproof concrete stable was built in the Buck Mountain vein with sufficient room for 58 mules.

One Ayers separator installed in the breaker.

Main hoisting engines equipped with hand brake.

The rolling stock was increased by the addition of 40 new cars.

Highland No. 2 Colliery.—A new barn was erected outside for the storage of hay and grain.

One egg coal jig installed.

A new carpenter and blacksmith shop built.

Outside tracks changed at bridge for self-acting turnout.

A 40-ton locomotive put in service, and new house built for it.

One thousand and fifty-nine feet of tunnel driven in bottom rock of the Buck Mountain vein, forming a portion of a rock tunnel and rock slope, for drainage of water and haulage of coal from slope No. 1 to slope No. 2, and lowering the foot of No. 2 slope in the bottom rock of the Buck Mountain vein.

A 12-inch column pipe line was extended from the top of slope to the top of the breaker.

The six 500 H. P. Heine boilers were equipped with the Parsons system of blowers and dumping grates.

All the coal pockets in the breaker were enlarged and the building extended to cover the new pockets.

Ten new mine cars were built.

At Highland No. 6 slope, sheds were built for housing coal at night to prevent it from freezing.

An oil-burning locomotive installed in the mine and storage tanks for oil erected outside.

Jeddo and Japan.—Nine new double dwellings were built in the village of Japan. Neat picket fences were erected around them and also around the dwellings in Jeddo.

One key-seating machine installed in Jeddo machine shop, also a bolt cutting machine.

The office, machine shop, store, carpenter shop and boarding house equipped with vacuum heating system.

A new stable erected to replace the one destroyed by fire.

LEHIGH VALLEY COAL COMPANY

The comparatively steady work during 1911 required considerable gangway work in the Hazleton basin to maintain the production, 21,735 feet having been driven as follows:

Tracy,	3,885 feet.
Diamond,	4,795 feet.
Orchard,	4,520 feet.
Primrose,	1,335 feet.
Mammoth,	575 feet.
Wharton,	700 feet.
Gamma,	1,905 feet.
Buck Mountain,	4,020 feet.

Considerable work was done on the property to replace inflammable structures and heavy timbering by concrete and iron construction.

Hazleton No. 1 Colliery.—New stable of concrete was constructed in the Wharton vein, 5th lift, No. 1 slope. Pump-room in rock was constructed in the Wharton, 7th lift, No. 1 slope. Wooden floors removed from pump-rooms and replaced by concrete. Stone walls were built on 6th lift to secure slope pillars. Stable concreted in No. 8 slope section.

Top of manway concreted and steel supports put in place of timber, etc. Pumps are being installed on 7th lift in Wharton vein and connection made with present column line in main slope through a shaft there by removing fire risk by the pumps in Mammoth vein.

Throughout Nos. 1 and 8 slopes preparations are being made to install electricity, to be furnished by the Harwood Power Company. A sub-station will be erected at the breaker and the cable run through a bore hole to the Buck Mountain vein, then follow through old

breasts to the 7th lift, from which a slope is to be sunk to a lower level to open a new lift of the Buck Mountain vein. The turnouts have been completed and the room is made for the electric hoist.

An 8-inch drill hole was put down through the old No. 6 workings and extended to the Buck Mountain vein, for the purpose of ascertaining the elevation of Buck Mountain, Wharton and Gamma veins in the basin. It is intended to extend the 5th lift tunnel to the south and drive a plane to the Wharton basin, and open these veins, bringing the coal to Hazleton No. 1 breaker.

Elevators were erected to handle refuse from boiler house and breaker.

Coal was also made available by the stripping operations, which were extended by excavating 56,647 yards, making a total of 530,518 cubic yards up to January 1, 1912.

Hazleton Shaft Colliery.—At this colliery, which also handles Eekley, Stockton, Tomhicken and Deringer coal, an elevator was erected to handle breaker wash.

The inside work was pushed in all directions to maintain production.

Two short tunnels were driven, one 60 feet from Orchard to Diamond, and one 40 feet, from Primrose to Orchard.

The new pumping plant, on elevation of 1,050 feet, was completed and started July 3. The principal object of this installation was to lower the water in the Diamond basin and finally in the Stockton section, which at once would open a large field of coal and overcome for the future the difficulty to maintain and increase the production.

Over 1,000 feet of test holes were driven in the so called "fire section," west of Stockton No. 8 slope, which proved that no fire existed at present time, so that the greatest obstacle to lowering the water on the East Sugar Loaf land has been removed. The water is tapped by several 4-inch drill holes, and finally taken through 2½-inch drill holes to the new pumping plant mentioned above. The area to be drained is very extensive and a second pump provided for when the pump and sump room were made, will be set up.

Very little work was done on the East Sugar Loaf Coal Company land (Stockton No. 2), as the working level was submerged for over one-third of the year. Only 615 feet of gangway driven: Tracy, 165 feet; Diamond, 290 feet; Orchard, 160 feet.

On the No. 5 stripping, by excavating in eastern direction, 79,436 yards were removed, making a total of 612,602 yards to January 1, 1912.

Spring Mountain Colliery.—Gangway work was pushed as fast as condition of veins permitted 3,993 feet of gangway having been driven: Wharton, 275 feet; Buck Mountain, 3,183 feet; Lykens, 535 feet.

Several hundred feet of gangway reopened south of and adjoining the stripping section, in which 181,237 cubic yards were removed, bringing the total to 424,068 yards to January 1, 1912.

The slope paralleling the Western boundary pillar in the Buck Mountain vein has been extended and two levels started eastward. A rock slope has been branched off to open the Lykens vein, and a little east of old Slope No. 1 a slope is being sunk across the pitch on the Primrose vein, which had been tested by bore holes and was exposed in caves on the Mammoth vein.

Preparations are being made to install electricity, furnished by the Harwood Power Company. A bore hole was sunk near the rope hole for boundary slope, through which the cable will be taken into the mines.

Spring Brook Colliery.—The breaker, which had been used as a washery, has been abandoned and is being dismantled. A new washery has been built and put in operation preparing the waste banks.

Considerable improvements were made by replacing inflammable structures and heavy timbers by concreting and steel supports—for instance, at bottom of Slope No. 1, the shaft was retimbered and pump foundation concreted. Stables, feed houses and harness rooms were also replaced by concrete structures.

Substantial and convenient manways were driven connecting No. 1 slope and No. 2 slope workings and providing the second opening.

Pump-room in rock slope was completed and concrete overcast made on 2nd lift, slope No. 2. This slope has also been resilled and new rails put down.

A mile of gangway was also driven, viz: Wharton, 145 feet; Buck Mountain, 1,315 feet; Lykens, 3,670 feet, and 606 feet of gangway reopened in the Mammoth vein.

A trial slope in the Lykens vein, off the East gangway in the Underground Buck Mountain slope, Slope No. 1, has been sunk to the Basin, which was reached at a distance of 210 feet.

Machinery was installed on the 5th lift, Lykens vein, Slope No. 2, to follow the spooned dipping eastward with a dip gangway.

COXE BROTHERS AND COMPANY, INCORPORATED

Drifton Colliery: No. 1 Slope.—No actual opening work was done in this slope, except 530 feet of gangway driven off the west tunnel in the Wharton vein.

Coal was taken from robbings in the Buck Mountain in lieu of the coal obtained previously from the George Moore tract, which was not released again until the latter part of December, 1911, so that practically no mining was done during 1911 from the Black Creek Improvement Company's land. All the other coal came from the Wharton and Mammoth veins inside, off gangways driven several years ago, and the strippings principally, which were extended, and from which 81,140 yards were removed, which brings the total yardage of all classes up to 3,057,638 by January 1, 1912.

No. 2 Slope.—The actual opening work was confined to driving gangways in the subterranean slope, following the synclinal. The East gangway in the top split has reached the upper level and the face of the West gangway is within 860 feet of the Lattimer boundary line. Several counters are driving on the flat saddle workings to the south, and a tunnel 130 feet long was driven near the saddle from the top split to the bottom split.

The concrete stable, mentioned in last year's report, has been completed.

Deringer Colliery.—No new developments can be reported from this colliery, except possibly that the No. 18 West gangway, bottom level, Gowen Slope No. 4, has passed through the fault and entered on territory which previously was considered barren, disturbed by faults. Also the No. 1 West gangway, Gowen No. 3, is continuing unexpectedly in very good coal beyond what was supposed the extent of the coal veins.

In the stripping in the Deringer North basin 135,862 yards were excavated, making 313,549 yards removed up to January 1, 1912.

Tomblicken Slope.—No new work was opened at this place and all coal is obtained by pillar mining above water level. The coal is taken to the Hazleton shaft breaker.

Eckley Colliery.—Principally reopening work was done in this colliery, with exception of 720 feet of gangway in the Wharton, Slope No. 6, where driving to the west it reached the crop, across the saddle cutting the vein off, so that these workings do not connect with the overlying veins recently developed in the adjoining property, tributary to Highland No. 5. A proving slope 160 feet in length, was sunk across the saddle to the south, which possibly is in the same basin as the Highland No. 5 top vein workings; the synclinal was struck at 160 feet from the saddle. There were no indications whether the basin dipped east or west and no proving done to demonstrate it. To the east the gangway is following the spoon, and it is contemplated to sink a proving hole to determine the basin and decide on future developments.

The strippings have been continued and at Buck Mountain slope No. 1 basin, 354,713 yards were removed or a total of 2,055,193 yards, and at Buck Mountain Slope No. 6, 137,676 yards were removed, bringing the total up to 872,999 yards by January 1, 1912.

The Eckley-Buck Mountain coal is now being taken to the Hazleton Shaft colliery and the Eckley breaker is operated as a washery.

Stockton Slope.—The work in this slope was greatly interfered with by the water rising above the working levels. East and West gangways were extended on the north dip of the Gamma vein; the East gangway has reached the line after driving 175 feet in 1911, while the West gangway advanced 550 feet. An airway was driven from the southwest counter in the Wharton to give the necessary ventilation.

PARDEE BROTHERS AND COMPANY

Lattimer Colliery.—A tunnel 150 feet in length has been driven from the upper to the lower split of the Buck Mountain vein at an elevation of 1,515 on the south side of basin near the eastern end of property.

The tunnel from the East Gamma gangway slope No. 9, near the eastern end of the property has been extended south 150 feet to the first split of the Buck Mountain vein.

A tunnel 60 feet in length has been driven from the Gamma to the Wharton vein top of the run west side of slope No. 9 to facilitate transportation.

A tunnel 150 feet in length has been driven from the Gamma to the Buck Mountain vein off the West gangway of Slope No. 12 and work commenced on a pump-house for a Duplex pump, which will pump from this point to the top of the breaker.

No. 12 drainage tunnel has been extended 350 feet during the year and a connection made with Slope "B" of the Jeddco Tunnel Company at an elevation of 1,094.

A new manway has been driven to the surface from the West gangway upper lift of Slope No. 22.

An airway has been driven to the surface from the East gangway upper lift of Slope No. 22, and an 8-foot Sturtevant fan erected at the mouth of it.

A plane has been constructed and placed in operation at the east end of the Orphans' Home.

With the addition of an elevator and two sets of rolls, and several shaking screens, a new dry side has been placed in operation in No. 4 breaker.

Two Fairbanks railroad track scales have been constructed and placed in operation during the year, one on the empty track east of breaker, and the other on the loaded track west of breaker.

At Milnesville the shaft has been completed to the No. 17 or Primrose level, through which all of the coal from this level is brought to the surface.

A tunnel has been driven south from the shaft a distance of 210 feet to a lower split of the Buck Mountain vein, and a rock hole 16 feet driven up vertically to the top split of the Buck Mountain vein in No. 1 basin.

Slope No. 26 has been completed to the basin, from which gangways are being worked towards Hollywood.

An airway has been driven to the surface from the West gangway of Slope No. 26 at the mouth of which a 6-foot electrical-driven Guibal fan has been erected.

At Hollywood a tunnel 33 feet in length has been driven south from the Wharton vein at an elevation of 1,440, and a gangway driven west in same 375 feet to where it broke out into the stripping. The track was turned south and a large chute constructed, which will take what Primrose and Mammoth coal remains above this elevation.

C. M. DODSON AND COMPANY

Beaver Brook Colliery.—A new fresh water tank, with a capacity of 15,000 gallons, erected.

Eight thousand feet of 6-inch fresh water pipe line laid from No. 4 well to the dam.

A fresh water pump installed to pump water from dam to tank.

An 8-inch fresh water feed pump installed in the boiler house.

A 5,000-ton boiler fuel storage plant erected.

All outside buildings repainted.

Harwood electric lights installed in all outside buildings for lighting.

New carpenter, machine and blacksmith shop erected.

Two thousand seven hundred feet of 6-inch fresh water line laid from the water tank to the boiler house.

A complete telephone system connecting the superintendent's office with all slopes and engine houses.

In No. 11 slope a tunnel 50 feet in length was driven from the North dip of the Buck Mountain vein to the North dip of the Gamma vein.

A tunnel 100 feet in length from the North dip Gamma vein to the South dip Gamma.

A new fireproof stable completed and work is also progressing on making the pumphouses fireproof.

In slope No. 10 a new fireproof concrete stable erected, also concrete pump-house.

In slope No. 5 a new rock slope 500 feet in length was driven from No. 15 Lykens into No. 5 Buck Mountain.

A tunnel 100 feet in length was driven from the Lykens vein to the basin of the Buck Mountain from the top level Lykens, in what is known as No. 5 extension.

UPPER LEHIGH COAL COMPANY

Upper Lehigh Colliery.—Extensive changes were made in the breaker. Revolving screens on east and west sides were replaced with two single deck 28-foot Parrish shakers making five sizes of coal, pea, chestnut, small stove, large stove and egg coal.

Changed location of crushers and three sets of rolls.

Placed small shaker at forward rolls to remove smaller sizes before going through the lower rolls. Five Falker jigs were installed, four on chestnut and one on pea coal; two spirals on stove coal were installed; also two sets of elevators to elevate stove coal to the top of spirals.

Rebuilt mud screen shaker, double deck shaker on smaller sizes, and bony coal shaker.

Installed on the No. 2 washery one small shaker at platform; also two spirals, one on chestnut and one on stove coal.

Three steam shovels were in operation during the year and removed 352,871 cubic yards of earth, 122,956 cubic yards of rock, 20,672 cubic yards of slate, and 558 cubic yards of ashes.

HAZLE MOUNTAIN COAL COMPANY

Hazle Mountain Colliery.—The 6 by 8 rock hole, 117 feet long, started last year has been finished. This hole was driven from the Wharton vein in the No. 2 basin, to the basin of the top split of the Mammoth, which was stripped, and all the coal has been removed.

In slope No. 2 workings a rock hole was driven from the bottom split of the Mammoth vein to the basin of the top split of the Mammoth, close to the western end of the property.

One hundred and fifty feet of old gangway reopened and timbered which had been caved by former operations. Robbing is continued in the old No. 3 slope workings.

In the No. 1 slope the pump houses and medical room have been made fireproof to conform with the law.

What is known as a court house has been erected at No. 1 for the inspection of the coal as it comes from the mine.

Four thousand feet east of No. 1 slope a diamond drill bore hole was put down a distance of 235 feet into the green sandstone.

One new egg coal plunger jig installed in the breaker.

At Slope No. 5, a 1,000-gallon capacity water tank was erected, which will furnish water for boilers, wash-house, stable and fire protection.

The workings in this slope have advanced east to the spoon end of basin, and robbing has commenced. The west side workings are still continuing in the solid.

The pump-house and medical room have been made fireproof by lining with iron to conform with the law.

M. S. KEMMERER AND COMPANY

Sandy Run Colliery.—A new settling tank was erected in the breaker to collect the silt which is being turned into mine cave holes.

In No. 10 slope a tunnel 76 feet in length was driven from the Gamma vein to the Buck Mountain vein.

In No. 2 slope a tunnel, 104 feet in length, was driven from Gamma vein to the Buck Mountain vein.

JOHN S. WENTZ AND COMPANY

Hazle Brook Colliery.—Slope No. 1: A tunnel 110 feet in length was driven from the No. 2 vein to the No. 1 vein to get the basin coal from the No. 1 vein, and also to do the final robbing in the No. 2 vein by means of rock holes from the No. 2 vein up to the No. 1 vein.

An inside slope was driven a distance of 170 feet, starting on the top of the West slope, and dipping west 20 degrees across the pitch, to work out the coal left in the No. 2 vein. A small set of double engines placed to hoist from this slope.

Reopened 600 feet of old gangway on the North dip of No. 2 vein.

Slope No. 3.—A tunnel 60 feet in length was driven from No. 2 vein to the No. 1 vein and 200 feet of gangway driven to the west in a small leader of coal.

A Jeannesville pump 18 by 8 by 18 was installed in this slope, and a 3-inch steam line to furnish steam for same; also a 6-inch column line from the pump.

No. 5 Slope.—A tunnel 45 feet in length was driven through saddle in basin at the eastern end of No. 5, and 1,200 feet of gangway reopened and track relaid in same in the No. 2 vein; also 300 feet of the East gangway reopened on the South dip.

A slope was driven a distance of 150 feet about half way between No. 5 slope and the eastern end of property.

No. 10 slope west gangway was driven to the line a distance of 1,000 feet.

On the surface at this slope near western end of property a ditch was cut to carry the sulphur creek from the crop of the No. 4 vein.

MINE FOREMEN'S EXAMINATIONS

The annual examination of applicants for certificates of qualification as mine foremen and assistant mine foremen was held in the Y. M. C. A. Building, Hazleton, April 4 and 5. The Board of Examiners was composed of: David J. Roderick, Mine Inspector; John J. Turnbach, Superintendent, Beaver Brook; Frederick Young, Miner, Hazleton; Peter G. Gallagher, Miner, Freeland.

The following persons passed a satisfactory examination and were granted certificates:

Mine Foremen

Arthur S. Walker, Jeannesville; Bernard Phillips, Jeddo; John Spire, Eckley; David Thomas, Upper Lehigh; Anthony Anella, Milnesville; George Gernhardt, West Hazleton; Thomas J. Ferry, Beaver Brook.

Assistant Mine Foremen

John Gardner, Lausford; Thomas Barnes, Summit Hill; Charles Anthony, Sandy Run; Joseph B. Conlin, Lattimer; James Jerome Clark, Freeland; Charles Keenan, Upper Lehigh; John K. O'Donnell, Eckley; Adolph Busch, West Hazleton; John W. Corby, Nesquehoning; George T. Morgan, Nesquehoning; Harry McElmoyle, Nesquehoning; Gustave Carter, McAdoo; Bennett P. Dunstan, Nesquehoning; Conrad Broadt, Hazleton.



TWELFTH DISTRICT

—————
SCHUYLKILL COUNTY
—————

Mahanoy City, Pa., February 28, 1912.

Hon. James E. Roderick, Chief of Department of Mines:

Sir: I have the honor of transmitting herewith my Annual Report as Inspector of Mines for the Twelfth Anthracite District, for the year ending December 31, 1911, as required by the Act of April 14, 1903.

Respectfully submitted,

P. C. FENTON, Inspector.

SUMMARY OF STATISTICS

Number of collieries,	9
Number of mines,	15
Number of mines in operation,	15
Number of tons of coal shipped to market,	2,614,839
Number of tons used at mines for steam and heat,	378,708
Number of tons sold to local trade and used by employes,	50,240
Number of tons produced,	3,043,787
Number of tons produced by compressed air machines, ..	.....
Number of tons produced by electrical machines, .....	.....
Number of persons employed inside of mines,	5,111
Number of persons employed outside,	2,089
Number of fatal accidents inside of mines,	18
Number of fatal accidents outside,	5
Number of non-fatal accidents inside of mines,	25
Number of non-fatal accidents outside, .....	.....
Number of tons of coal produced per fatal accident inside, ..	169,099
Number of persons employed per fatal accident inside, ..	284
Number of persons employed per fatal accident outside, ..	418
Number of persons employed per non-fatal accident inside, ..	204
Number of persons employed per non-fatal accident outside, ..	.....
Number of wives made widows,	10
Number of children made orphans,	28
Number of steam locomotives used inside of mines, .....	.....
Number of steam locomotives used outside,	14
Number of compressed air locomotives used inside,	14
Number of compressed air locomotives used outside, .....	.....
Number of electric motors used inside,	13
Number of electric motors used outside, .....	.....
Number of fans in use,	15
Number of furnaces in use, .....	.....
Number of gaseous mines in operation,	15
Number of non-gaseous mines in operation, .....	.....
Number of new mines opened, .....	.....
Number of old mines abandoned, .....	.....

TABLE A

Names of Operators	Tons
Philadelphia and Reading Coal and Iron Company,	2,491,674
Lehigh Valley Coal Company,	552,113
Total,	<u>3,043,787</u>

Production by Counties

Schuylkill,	3,043,787
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$$\begin{array}{r} 3,043,787 \\ \hline 3,043,787 \end{array}$$

TABLE B.--Fatal and non-fatal accidents inside and outside of mines; number of tons of coal produced per accident; number of persons employed; number employed per accident

Names of Operators	Fatal Accidents			Non-Fatal Accidents			Tons of coal produced per fatal accident inside	Tons of coal produced per non-fatal accident inside	Number of employees inside	Number of employees outside	Total number of employees	Number of employees inside per fatal accident	Number of employees outside per fatal accident	Number of employees inside per non-fatal accident	Number of employees outside per non-fatal accident
	Inside	Outside	Total	Inside	Outside	Total									
Philadelphia and Reading Coal and Iron Co.,	17	4	21	20	20	20	108,247	4,286	1,861	6,147	252	467	214	214	214
Lehigh Valley Coal Co.,	1	1	2	5	5	5	110,423	825	228	1,053	825	228	165	165	165
Totals and averages for district,	18	5	23	25	25	25	121,751	5,111	2,089	7,200	284	418	264	264	264

TABLE C.—Classification of Fatal Accidents Inside and Outside of Mines

	Months												Percentages	
	January	February	March	April	May	June	July	August	September	October	November	December		Totals
Causes of Accidents Inside														
Falls of coal,		1					1		1			1	4	22.22
Falls of slate,	1									1			2	11.11
Mine cars,		1					1						2	11.11
Explosions of gas,						1							1	5.56
Explosions of powder and dynamite,					2				1				3	16.66
Blasts, premature and otherwise,			2										2	11.11
Falling into shafts,						1							1	5.56
Falling into slopes, etc.,											1		1	5.56
Crushed at batteries,				1									1	5.56
Struck by timber,										1			1	5.56
Totals,	1	2	2	1	2	2	2	1	1	2	2	2	18	100.00
Causes of Accidents Outside														
Cars,			1										1	20.00
Machinery,	1												1	20.00
Mules,											1		1	20.00
By falling,				1			1						2	40.00
Totals,	1		1	1			1					1	5	100.00
Grand totals inside and outside,	2	2	3	2	2	2	3	1	1	2	3	2	23	

TABLE D.—Classification of Non-Fatal Accidents Inside and Outside of Mines

	Months												Percentages	
	January	February	March	April	May	June	July	August	September	October	November	December		Totals
Causes of Accidents Inside														
Falls of coal,	3							1	2		1		7	28.00
Mine cars,							1						1	4.00
Explosions of gas,	2					3							5	20.00
Explosions of powder and dynamite,	1		1		2		1			1			6	24.00
Blasts, premature and otherwise,		2	1				1						4	16.00
Falling into slopes, etc.,		1											1	4.00
Crushed at batteries,				1									1	4.00
Totals,	6	3	2	1	2	3	1	3	2		2		25	100.00
Causes of Accidents Outside (No Accidents)														

TABLE E.—Occupations of Persons Killed or Fatally Injured Inside and Outside of Mines

	Months												Totals
	January	February	March	April	May	June	July	August	September	October	November	December	
Inside													
Miners,		2	2	1	2	1	1			1	1	1	12
Miners' laborers,	1					1		1				1	4
Drivers and runners,							1						1
Timbermen,											1		1
Totals,	1	2	2	1	2	2	2		1	1	2	2	13
Outside													
Blacksmiths and carpenters,	1												1
Loaders,			1										1
Drivers,												1	1
Laborers,							1						1
Oilers,				1									1
Totals,	1		1	1			1					1	5
Grand totals inside and outside,	2	2	3	2	2	2	3		1	1	2	3	23

TABLE F.—Occupations of Persons Injured Inside and Outside of Mines

	Months												Totals
	January	February	March	April	May	June	July	August	September	October	November	December	
Inside													
Miners,	6	2	1		2	2		3	2		2		20
Miners' laborers,		1	1	1		1	1						5
Totals,	6	3	2	1	2	3	1	3	2		2		25
Outside (No Accidents)													

TABLE G.—Nationality of Persons Killed or Fatally Injured Inside and Outside of Mines

	Months												Totals	
	January	February	March	April	May	June	July	August	September	October	November	December		
American,	1			1	2								1	5
Polish,	1		2											3
Slavonian,			1										1	2
Lithuanian,		2		1		2	2		1	1	2		1	12
Greek,							1							1
Totals,	2	2	3	2	2	2	3		1	1	2	3		23

TABLE H.—Nationality of Persons Injured Inside and Outside of Mines

	Months												Totals	
	January	February	March	April	May	June	July	August	September	October	November	December		
American,					1									1
Polish,	3		1			2	1	1						8
Italian,			1											1
Lithuanian,	3	3		1	1	1		1	2		2			14
Greek,								1						1
Totals,	6	3	2	1	2	3	1	3	2		2			25

TABLE I.—Operators and mines, kind of openings, type and size of fans, size of furnaces, volume of air produced by fan or furnace per minute, number of splits of air currents and number of persons employed inside

Names of Operators and Mines	Kind of opening	Gaseous or non-gaseous	Method of ventilation	Diameter of fan in feet and inches	Width of blades in feet and inches	Depth of blades in feet and inches	Number of revolutions per minute	Water gauge developed—in inches	Name of fan	Power used	Area of furnace bars in square feet	Number of splits of air currents	Number of cubic feet of air per minute entering the mine at inlet	Total quantity of air per minute circulating in all the splits in cubic feet	Number of cubic feet per minute passing out at outlet	Number of persons employed inside
Philadelphia and Reading Coal and Iron Co.	Slope, Shaft,	Gaseous,	Fans,	20 15	6.6 7.0	6.0 6.6	80 72	1.4 .5	Guibal,	Steam,	—	7 8	66,563 71,366	24,460 20,300	67,236 72,059	253 222
Ellangowan, Ellangowan, St. Nicholas Colliery:	Slope,	Gaseous,	Fan,	21	7.0	6.6	90	2.4	Guibal,	Steam,	—	10	46,930	38,330	47,250	153
Suffolk Colliery:	Slopes,	Gaseous,	Fans,	18 18	6.6 6.6	5.6 5.6	60 60	1.4 1.4	Guibal,	Steam,	—	8 9	53,861 35,911	28,565 18,000	54,583 36,599	83 91
Suffolk Colliery:	Shafts,	Gaseous,	Fans,	21 21	7.0 7.0	6.6 6.6	75 75	1.7 1.7	Guibal,	Steam,	—	10 9	87,830 82,450	45,470 44,130	89,029 83,290	386 346
Maple Hill Colliery:	Shafts,	Gaseous,	Fan,	21	7.0	6.3	75	2	Guibal,	Steam,	—	8	109,264	55,567	130,934	352
Maple Hill, Tunnel Ridge Colliery:	Slope,	Gaseous,	Fan,	21	7.0	6.6	86	2	Guibal,	Steam,	—	7	21,830	16,000	22,570	32
Mahanoy City Colliery:	Slope,	Gaseous,	Fan,	21	7.6	6.3	73	1.5	Guibal,	Steam,	—	9	136,870	65,270	130,315	292
North Mahanoy Colliery:	Slope,	Gaseous,	Fan,	21	7.6	6.3	73	1.5	Guibal,	Steam,	—	9	136,870	65,270	130,315	292

Lehigh Valley Coal Co.															
Primrose Colliery															
Park No. 1.	Slope, ---	Gaseous,	Fans, ---	4.0	4.6	10	1.5	Gubbal, -	Steam, ---	---	8	39,600	32,000	40,500	95
Park No. 2.	Slopes, --	Gaseous,	Fans, ---	4.4	4.3	9	1			---	7	33,670	31,300	34,000	131
Park No. 3.	Slopes, --	Gaseous,	Fans, ---	4.0	4.5	90	1.5	Gubbal, --	Steam, ---	---	9	21,300	15,680	25,370	121
Park No. 4.	Slopes, --	Gaseous,	Fans, ---	4.0	4.0	90	1.3	Gubbal, --	Steam, ---	---	9	65,200	20,000	66,500	234
			Fan, ---	5.4	4.5	85	1.5	Gubbal, --	Steam, ---	---	6	70,700	46,600	78,500	180

TABLE 1.—Operators, location of collieries, railroads, etc.

Names of Operators and Collieries	County	Name of General Superintendent	Post Office	Name of Superintendent	Post Office	Railroad to Mine
Philadelphia and Reading Coal and Iron Co.	Schuylkill,	W. J. Richards,	Pottsville	Reese Tasker	Pottsville,	P. and R.
Edgocowan,						
St. Nicholas,						
Suffolk,						
Maple Hill,						
Tunnel Ridge,						
Mahanoy City, North Mahanoy.						
Lehigh Valley Coal Co.	Schuylkill,	F. M. Chase,	Wilkes-Barre,	W. Underwood,	Mahanoy City,	Lehigh Valley
Park No. 2, Primrose,						

*Park No. 2 taken over from Lentz Coal Company by Lehigh Valley Coal Company, July 1, 1911.

TABLE 2.—Number of tons of coal mined, number of days worked, number of persons employed, number killed and injured, quantity of powder, dynamite and permissible explosives used, etc.

Names of Operators and Collieries	County	Number of tons of coal shipped to market	Number of tons used at collieries for steam and heat	Number of tons sold to local trade and used by employes	Total production of coal in tons	Number of days worked	Number of employes	Number of fatal accidents	Number of non-fatal accidents	Explosives				Number of horses and mules
										Number of pounds of dynamite used	Number of pounds of powder used	Number of pounds of permissible explosives used	Number of pounds of dynamite used	
Philadelphia and Reading Coal and Iron Co.														
Ellangowan		382,337	41,553	1,376	375,463	265	1,091	4		246,625	70,236			75
St. Nicholas		243,143	35,943	116	279,532	261	696	2	1	63,225	72,592	4,419		50
Suffolk		234,348	21,816	1,171	257,335	361	749	2	3	107,425	47,583			64
Maple Hill		635,265	40,270	36	676,331	239	1,567	6	6	336,225	82,065	1,075		79
Tunnel Ridge		133,750	62,780		216,510	239	621	1	1	361,750	70,174	8,426		59
Mahanoy City		207,217	36,636	38,237	282,090	262	695			146,950	39,065	577		76
North Mahanoy		337,966	41,583	4,641	401,190	305	858	6	6	144,375	33,734			77
Totals		2,164,946	280,831	45,897	2,491,674	.....	6,147	21	20	1,196,175	434,974	14,487		480
Lehigh Valley Coal Co.														
Park No. 2*		290,704	60,740	2,143	353,587	206	639	.....	4	143,785	53,947	53		183
Primrose		159,189	37,137	2,290	198,526	259	414	2	1	63,975	33,192	169		39
Totals		449,893	97,877	4,343	552,113	.....	1,053	2	5	237,760	87,139	162		222
Grand totals		2,614,839	378,708	59,240	3,043,787	.....	7,200	23	25	1,433,935	522,113	14,649		702

*Park No. 2 taken over from Lentz Coal Company by Lehigh Valley Coal Company, July 1, 1911, total production up to that time, 266,425 tons.

TABLE 2.—Part 2

Names of Operators	County	Number of Boilers				Locomotives			Total horse power	Number of steam engines of all classes	Total horse power	Number of pumps delivering water to surface	Capacity in gallons per minute	Quantity delivered to surface per minute—gallons	Number of electric dynamos	Number of air compressors
		Cylindrical	Horse power	Tubular	Horse power	Total horse power	Steam	Air									Electric
Philadelphia and Reading Coal and Iron Co.,	Schuylkill, .....	.....	.....	120	15,000	15,000	11	13	8	334	34,197	23	46,985	10,447	2	12
Lehigh Valley Coal Co., .....		.....	.....	29	6,550	6,550	3	1	5	63	6,918	9	14,733	4,087	1	2
Totals, .....		.....	.....	149	21,550	21,550	14	14	13	297	41,115	32	60,838	14,534	3	14

TABLE 3.—Number of each class of employes inside and outside of mines

Names of Operators	County	Inside											Outside							Grand total inside and outside	
		Mine foremen	Assistant mine foremen	Fire bosses and assistants	Miners	Miners' laborers	Drivers and runners	Doorboys and helpers	Pumpmen	Company men	All other employes	Total inside	Superintendents	Foremen	Blacksmiths and carpenters	Engineers and firemen	State pickers (boys)	State pickers (men)	Bookkeepers and clerks		All other employes	Total outside
Philadelphia and Reading Coal and Iron Co.,	Schuylkill,	8	63	1,458	752	273	65	15	752	900	4,386	18	68	208	415	101	35	1,016	1,861	6,147	
Lehigh Valley Coal Co.,		3	48	190	305	73	5	14	38	146	825	1	2	21	50	31	9	80	228	1,053	
Totals,		11	66	1,648	1,057	346	70	29	790	1,046	5,111	1	20	80	238	446	135	44	1,036	2,089	7,200

TABLE 3.—Part 2

Names of operators	County	Average Number of Days Worked in Breaker													
		January	February	March	April	May	June	July	August	September	October	November	December	Total	
Philadelphia and Reading Coal and Iron Co.,	Schuylkill,	23	19	32	32	25	17	17	22	23	23	23	23	23	261
Lehigh Valley Coal Co.,		24	20	32	32	24	16	19	24	23	23	23	23	23	264

TABLE 4.—Fatal accidents inside and outside of mines

Date of accident	Name of Person	Nationality	Occupation	Age	Married or single	Number of widows	Number of orphans	Name of Colliery	County	Nature and Cause of Accident in Brief
Jan. 24	Samuel White,	American,	Carpenter,	21	S.	.....	.....	Primrose, .....	.....	Fatally injured. While sawing a plank with a circle saw the plank caught, striking him in the stomach. Died January 26. Outside.
Feb. 2	Mike Shukus,	Polish,	Laborer,	23	S.	.....	.....	Suffolk, .....	.....	Killed by fall of slate at face of breast. Fatally injured by being caught by trip of mine cars on gangway. Died February 6.
	Mike Vlencavage,	Lithuanian,	Miner,	37	M.	.....	.....	Maple Hill, .....	.....
Mar. 9	Mike Nowgent,	Lithuanian,	Miner,	41	M.	1	5	Maple Hill, .....	.....	Killed by fall of coal at face of breast. Fatally injured by premature blast at face of breast. Died March 16.
Mar. 10	John Gefski,	Polish,	Miner,	43	M.	1	4	Maple Hill, .....	.....
16	Andrew Pordjick,	Slovakian,	Miner,	24	M.	1	3	North Mahanoy, .....	.....	Killed by being run over by railroad engine at breaker. Outside.
23	Stanley Cusack,	Polish,	Car loader,	53	M.	1	5	Maple Hill, .....	.....
April 12	Joe. Priscavage,	Lithuanian,	Oiler,	19	S.	.....	.....	Maple Hill,	Schuylkill,	Fatally injured by falling down steps in breaker. Died April 17. Outside.
21	Samuel Graham,	American,	Miner,	33	M.	1	3	North Mahanoy, .....	.....	Fatally injured by rock rolling on him at battery. Died same evening.
May 6	Edward Langford,	American,	Miner,	28	M.	1	2	North Mahanoy, .....	.....	Killed by explosion of dynamite on traveling road.
	Edward Troutman,	American,	Miner,	28	M.	1	2	North Mahanoy, .....	.....
June 8	John Cowliskey,	Lithuanian,	Laborer,	21	S.	.....	.....	Primrose, .....	.....	Killed by falling down underground shaft. Fatally injured by explosion of gas at face of breast.
	Adam Shelnuskey,	Lithuanian,	Miner,	30	S.	.....	.....	St. Nicholas, .....	.....
July 12	Matt. Lesowskie,	Lithuanian,	Triver,	43	S.	.....	.....	Maple Hill, .....	.....	Fatally injured by being caught by trip of cars on gangway. Died July 15.
15	John Smith,	Lithuanian,	Miner,	57	M.	1	2	Elmangwan, .....	.....	Killed by fall of coal at face of breast. Fatally injured by falling off mine car on tippie. Died July 24. Outside.
20	George Ambrolick,	Greek,	Laborer,	51	M.	1	1	Suffolk, .....	.....

TABLE 4—Continued

Date of accident	Name of Person	Nationality	Occupation	Age	Married or single	Number of widows	Number of orphans	Name of Colliery	County	Nature and Cause of Accident in Brief
Sept. 11	Peter Regutskie,	Lithuanian,	Laborer,	23	S. ....	.....	.....	Ellangowan, .....	.....	Fatally injured by fall of coal in chute. Died, September 21.
Oct. 16	Joe. Gromanavage, ..	Lithuanian,	Miner,	40	M.	2	.....	St. Nicholas, .....	.....	Killed by explosion of dynamite in heading.
Nov. 10	Joe. Kowkas,	Lithuanian,	Miner,	38	M. ....	.....	.....	Ellangowan, .....	.....	Killed by fall of slate at face of breast.
Nov. 25	Frank Jonskus,	Lithuanian,	Timberman, ..	35	S. ....	.....	.....	North Mahanoy, ..	Schuylkill,	Killed by piece of timber falling on him on slope.
Dec. 12	Charles Zatkas,	Lithuanian,	Miner,	35	M. ....	.....	.....	Ellangowan, .....	.....	Killed by fall of coal at face of chute.
Dec. 19	Martin Marushes,	Slavonian,	Laborer,	35	S. ....	.....	.....	Tunnel Ridge, .....	.....	Killed by falling down pumpway.
Dec. 27	Joseph Hood,	American,	Driver,	19	S. ....	.....	.....	North Mahanoy, ..	.....	Killed by being dragged by mule. Out-slate.

TABLE 5.—Non-fatal accidents inside and outside of mines

Date of accident	Name of Person	Nationality	Occupation	Age	Married or single	Name of Colliery	County	Nature and Cause of Accident in Brief
Jan. 11	William Molshisko, ..	Polish,	Miner,	27	M.	Park No. 2,		Hand blown off while thawing dynamite on gangway.
17	Anthony Nincavage, ..	Polish,	Miner,	27	S.	Maple Hill,		Burned by gas at face of breast.
18	Dominick Muckalivage, ..	Polish,	Miner,	24	S.	Maple Hill,		Injured by fall of coal at face of breast.
18	Joseph Sierum,	Lithuanian, ..	Miner,	29	M.	Maple Hill,		Injured by fall of coal at face of breast.
25	Anthony Recolitus,	Lithuanian, ..	Miner,	27	M.	North Mahanoy,		Injured by fall of coal at face of heading.
30	John Dolinskie,	Lithuanian, ..	Miner,	37	M.	Park No. 2,		Injured by premature blast on gangway.
Feb. 1	Anthony Kobskey,	Lithuanian, ..	Miner,	40	M.	Tunnel Ridge,		Injured by premature blast in cross heading.
2	Enoch North,	Lithuanian, ..	Miner,	42	S.	Maple Hill,		Injured by falling into a breast cross-heading in pillar.
3	Charles Chamos,	Lithuanian, ..	Laborer,	31	S.	Prinrose,		Injured by premature blast at face of breast.
Mar. 10	Joseph Laraski,	Polish,	Laborer,	20	S.	Maple Hill,	Schuylkill,	Injured by explosion of powder on gangway.
23	Frauk Damorrow,	Italian,	Miner,	50	M.	North Mahanoy,		Injured by explosion of dynamite on traveling road.
April 27	Joseph Sherkness,	Lithuanian, ..	Laborer,	27	S.	Park No. 2,		Injured by explosion of gas at face of chute.
May 6	John Cooper,	American,	Miner,	26	S.	North Mahanoy,		Injured by explosion of gas at face of chute.
June 8	William Wassil,	Lithuanian, ..	Miner,	25	S.	St. Nicholas,		Injured by explosion of dynamite on traveling road.
June 8	Thomas Slovitskey, ..	Lithuanian, ..	Miner,	28	S.	St. Nicholas,		Injured by explosion of gas at face of chute.
20	George Taylor,	Polish,	Miner,	31	S.	Suffolk,		Injured by explosion of gas at face of chute.
July 13	John Borak,	Polish,	Laborer,	26	S.	Maple Hill,		Injured by mine cars on plane.
Aug. 12	Felix Kissel,	Polish,	Laborer,	40	M.	Park No. 2,		Injured by explosion of dynamite on gangway.
39	Andrew Sobmon,	Greek,	Miner,	33	M.	Park No. 2,		Injured by premature blast at face of heading.
39	Mike Bushiaskie,	Polish,	Miner,	38	M.	Suffolk,		Injured by premature blast at face of heading.

TABLE 5—Continued

Date of accident	Name of Person	Nationality	Occupation	Age	Married or single	Name of Colliery	County	Nature and Cause of Accident in Brief
Aug. 30	William Cozges,	Lithuanian,	Miner,	31	M.	North Mahanoy, .....	.....	Injured by fall of coal at face of chute.
Sept. 26	Paul Lasbick,	Lithuanian,	Miner,	25	S.	St. Nicholas, .....	.....	Injured by fall of coal at face of breast.
Sept. 27	Stacey Chermesky,	Lithuanian,	Miner,	37	M.	North Mahanoy, .....	.....	Injured by fall of coal at face of breast.
Nov. 11	George Wolotofsky,	Lithuanian,	Miner,	58	M.	St. Nicholas, .....	.....	Injured by explosion of dynamite caps in heading.
??	John Sobolajick,	Lithuanian,	Miner,	41	M.	St. Nicholas, .....	.....	Injured by fall of coal in chute.

CONDITION OF COLLIERIES

PHILADELPHIA AND READING COAL AND IRON COMPANY

Ellangowan, St. Nicholas, Suffolk, Maple Hill, Tunnel Ridge, Mahanoy City and North Mahanoy.—Safety conditions, ventilation and drainage, good.

LEHIGH VALLEY COAL COMPANY

Park No. 2.—Safety conditions, ventilation and drainage, good. Taken over from Lentz Coal Company by Lehigh Valley Coal Company, July 1, 1911.

Primrose.—Safety conditions, ventilation and drainage, good.

IMPROVEMENTS

PHILADELPHIA AND READING COAL AND IRON COMPANY

Ellangowan Colliery.—A 10 by 12-inch Flory engine was installed for rock slope.

Suffolk Colliery.—A haulage tunnel was driven to connect No. 2 slope level with Maple Hill No. 2 plane, total length, 157½ yards.

Maple Hill Colliery.—Installed a pair of 32 by 60-inch hoisting engines for No. 2 shaft and a 21-foot diameter exhaust fan to operate on a rock airway driven on 45° pitch Maple Hill No. 2 plane level. A steel head-frame for No. 2 shaft was completed. A tunnel was completed from Skidmore to Seven-Foot vein, 145¾ yards. A three-compartment building was erected with First Aid and Ambulance rooms, lamp room and employes' register room.

Tunnel Ridge Colliery.—The following tunnels were driven: One from surface to the Lykens vein on water level, total distance 300 yards; one on water level from Bottom split to Seven-Foot vein, total distance, 76½ yards; one from Seven-Foot to Buck Mountain vein, total length 26 yards; one on water level from Bottom split to Buck Mountain vein, total length, 75 yards. The Elmwood tender slope was timbered with steel girders resting on concrete walls a distance for 126 feet from surface.

Mahanoy City Colliery.—A haulage tunnel was driven through Seven-Foot saddle, total length 18½ yards. The Big Tracy vein was developed from a rock hole 19 yards long on 30 degrees pitch from Diamond vein. An electric haulage was installed on the water level, third level, and underground shaft.

North Mahanoy Colliery.—A traffic tunnel was driven from Buck Mountain vein, Schuylkill Section first lift, to West Bottom split gangway, total length, 129¾ yards. The wooden timber at the 8th level bottom of No. 1 slope, Schuylkill Section, was replaced with 61 sets of concrete arches averaging six-foot centers.

LEHIGH VALLEY COAL COMPANY

Park No. 2 Colliery. A new fanway is being driven in Buck Mountain vein No. 2 slope and is nearly completed. At Meyersville slope a new landing has been made on the surface, doing away with inside haulage from slope to breaker. This colliery was taken over from Lentz Coal Company July 1.

Primrose Colliery.—A locomotive road was built from Primrose to Park No. 4 to take the coal for preparation at Primrose colliery.

MINE FOREMEN'S EXAMINATIONS

The annual examination of applicants for certificates of qualification as Mine Foremen and Assistant Mine Foremen was held at Pottsville, March 22 and 23. The Board of Examiners was composed of P. C. Fenton, Mine Inspector, Mahanoy City; James L. Reese, Superintendent, Park Place; Robert Roberts, Miner, St. Nicholas; P. H. Devine, Miner, Shaft P. O.

The following persons passed a satisfactory examination and were granted certificates:

Mine Foremen

Robert Redclift.

Assistant Mine Foremen

Nicholas Noll, Michael Kelly, Benjamin Lloyd, Joseph Testen, James Bennett, Dennis McGuire, Mahanoy City.

THIRTEENTH DISTRICT

SCHUYLKILL COUNTY

Shenandoah, Pa., March 4, 1912.

Hon. James E. Roderick, Chief of Department of Mines:

Sir: In compliance with the Anthracite Mining Laws, I transmit herewith my Annual Report of the Thirteenth Anthracite District for the year ending December 31, 1911.

Respectfully submitted,

A. B. LAMB, Inspector.

SUMMARY OF STATISTICS

Number of collieries,	18
Number of mines,	36
Number of mines in operation,	34
Number of tons of coal shipped to market,	2,967,396
Number of tons used at mines for steam and heat,	400,061
Number of tons sold to local trade and used by employes,	79,818
Number of tons produced,	3,447,275
Number of tons produced by compressed air machines, ..	.....
Number of tons produced by electrical machines, .....	.....
Number of persons employed inside of mines,	4,983
Number of persons employed outside,	2,996
Number of fatal accidents inside of mines,	28
Number of fatal accidents outside,	4
Number of non-fatal accidents inside of mines,	36
Number of non-fatal accidents outside,	7
Number of tons of coal produced per fatal accident inside, ..	123,117
Number of persons employed per fatal accident inside, ..	178
Number of persons employed per fatal accident outside, ..	749
Number of persons employed per non-fatal accident inside, ..	138
Number of persons employed per non-fatal accident outside, ..	428
Number of wives made widows,	17
Number of children made orphans,	40
Number of steam locomotives used inside of mines, .....	.....
Number of steam locomotives used outside,	44
Number of compressed air locomotives used inside,	5
Number of compressed air locomotives used outside, .....	.....
Number of electric motors used inside,	5
Number of electric motors used outside, .....	.....
Number of fans in use,	29
Number of furnaces in use, .....	.....
Number of gaseous mines in operation,	28
Number of non-gaseous mines in operation,	6
Number of new mines opened,	4
Number of old mines abandoned,	2

TABLE A

PRODUCTION OF COAL

Names of Operators	Tons
Philadelphia and Reading Coal and Iron Company,	1,769,001
Lehigh Valley Coal Company,	552,486
Thomas Colliery Company,	394,543
Susquehanna Coal Company,	307,003
Cambridge Coal Company,	74,217
M. A. Gerber and A. S. Seaman,	22,885
Harleigh-Brookwood Coal Company,	20,045
William Niswenter,	4,153
Oxford Coal Company,	147,058
Brighton Coal Company,	108,854
H. H. Smith and Company,	92,030
Total,	<u>3,447,275</u>

Production by Counties

Schuylkill,	<table border="1"> <tr> <td></td> <td>3,447,275</td> </tr> <tr> <td>4</td> <td>86,1519</td> </tr> </table>		3,447,275	4	86,1519
	3,447,275				
4	86,1519				

TABLE C.—Classification of Fatal Accidents Inside and Outside of Mines

	Months												Percentages	
	January	February	March	April	May	June	July	August	September	October	November	December		Totals
Causes of Accidents Inside														
Falls of coal,	1	1	1						1	1		1	6	21.43
Falls of slate,		1	2		3							1	8	28.57
Falls of roof,					1	1	1						3	10.72
Mine cars,	1					1			1	1			4	14.29
Suffocation by gas, etc.,					1								1	3.57
Explosions of powder and dynamite,									1				1	3.57
Falling into slopes, etc.,				1					1				2	7.14
Struck by timber,										1			2	7.14
Miscellaneous,						1							1	3.57
Totals,	2	2	3	1	5	4	1		4	3	1	2	28	100.00
Causes of Accidents Outside														
Cars,						1	1						2	50.00
Struck by rope,				1									1	25.00
By falling,											1		1	25.00
Totals,				1		1	1				1		4	100.00
Grand totals inside and outside,	2	2	3	2	5	5	2		4	3	2	2	32	

TABLE D.—Classification of Non-Fatal Accidents Inside and Outside of Mines

	Months												Percentages	
	January	February	March	April	May	June	July	August	September	October	November	December		Totals
Causes of Accidents Inside														
Falls of coal,		1				2						1	4	11.11
Falls of slate,							1		1			1	4	11.11
Mine cars,	1			1		2	1		1		1		7	19.44
Explosions of gas,	1				1			1	4	1		1	9	25.00
Explosions of powder and dynamite,						1			1				2	5.56
Blasts, premature and otherwise,		2											2	5.56
Falling into shafts,			1										1	2.78
Struck by coal,				1		1			1				3	8.33
Struck by piece of rock,								1					1	2.78
Struck by timber,						1			1				2	5.55
By rush of water,								1					1	2.78
Totals,	2	3	1	2	1	7	2	3	9	1	3	2	36	100.00
Causes of Accidents Outside														
Machinery,						1							1	14.28
Struck by timber,						1						1	2	28.58
Struck by wrench,					1								1	14.28
Struck by piece of coal,						1							1	14.28
By falling,	1							1					2	28.58
Totals,	1				1	3		1				1	7	100.00
Grand totals inside and outside,	3	4	1	2	2	10	2	4	9	1	3	3	43	

TABLE E.—Occupations of Persons Killed or Fatally Injured Inside and Outside of Mines

	Months												Totals
	January	February	March	April	May	June	July	August	September	October	November	December	
Inside													
Miners,	1	2	2	1	4	1	1		1	2	1	2	18
Miners' laborers,	1		1		1	1			2	1			5
Drivers and runners,						1							1
Bottommen,						1							1
Motormen,									1				1
Totals,	2	2	3	1	5	4	1		4	3	1	2	28
Outside													
Topmen,				1									1
Drivers,							1						1
Laborers,										1			1
Plane-tenders,						1							1
Totals,				1	1	1				1			4
Grand totals inside and outside,	2	2	3	2	5	5	2		4	3	2	2	32

TABLE F.—Occupations of Persons Injured Inside and Outside of Mines

	Months												Totals
	January	February	March	April	May	June	July	August	September	October	November	December	
Inside													
Fire bosses and assistants,									1	1			1
Miners,	1	1			1	3		2	5	1	1		15
Miners' laborers,		1				2	1	1	3		1	1	10
Drivers and runners,	1			1		2	1						5
Charge-men,		1											1
Bottommen,				1	1						1		3
Civil engineers,												1	1
Totals,	2	3	1	2	1	7	2	3	9	1	3	2	36
Outside													
Foremen,					1								1
Blacksmiths and carpenters,		1				1							2
Car runners,						1							1
Conveyor-tenders,						1							1
Laborers,												1	1
Timber-cutters,								1					1
Totals,		1			1	3		1				1	7
Grand totals inside and outside,	2	4	1	2	2	10	2	4	9	1	3	3	43

TABLE G.—Nationality of Persons Killed or Fatally Injured Inside and Outside of Mines

	Months												Totals
	January	February	March	April	May	June	July	August	September	October	November	December	
American,	1			1		2			1		1		6
English,									1				1
Welsh,										1			1
Irish,	1		1						1	1			4
Polish,			1		3	2						2	8
Slavonian,					1								1
Lithuanian,		1			1	1	1			1	1		6
Russian,		1							1				2
Greek,				1									1
Tyrolean,			1										1
Hebrew,							1						1
Totals,	2	2	3	2	5	5	2		4	3	2	2	32

TABLE H.—Nationality of Persons Injured Inside and Outside of Mines

	Months												Totals
	January	February	March	April	May	June	July	August	September	October	November	December	
American,	1	1			1	2			1		1	1	8
Irish,				1						1			2
German,								1					1
Polish,					1	2		2				1	6
Slavonian,			1			1							2
Lithuanian,	1	3		1		3	2	1	6		2		19
Austrian,												1	1
Russian,						1			1				2
Greek,						1							1
Syrian,									1				1
Totals,	2	4	1	2	2	10	2	4	9	1	3	3	43

TABLE I.—Operators and mines, kind of openings, type and size of fans, size of furnaces, volume of air produced by fan or furnace per minute, number of splits of air currents and number of persons employed inside

Names of Operators and Mines	Kind of opening	Gaseous or non-gaseous	Method of ventilation	Diameter of fan in feet and inches	Width of blades in feet and inches	Depth of blades in feet and inches	Number of revolutions per minute	Water gauge developed—in inches	Name of fan	Power used	Number of splits or air currents	Number of cubic feet of air per minute entering the mine at inlet	Total quantity of air per minute circulating in all the splits in cubic feet	Number of cubic feet per minute passing out at outlet	Number of persons employed inside
Philadelphia and Reading Coal and Iron Co.															
West Shenandoah Colliery:															
West Shenandoah,	Slope, ---	Gaseous,	2 Fans, --	18 {21	6.6 7.0	6.0 6.0	70 90	1 3	Guibal, -	Steam, ---	14	180,307	70,316	138,815	389
Kohlmoor Colliery:															
Kohlmoor,	Shaft, ---	Gaseous,	Fan, ----	18	6.0	4.5	75	.9	Guibal, --	Steam, ---	7	46,312	25,033	47,061	179
Turkey Run Colliery:															
Turkey Run No. 1,	Drift, ----		{ Fan, ----	21	7.0	4.5	90	3	Guibal, --	Steam, ---	9				
Turkey Run No. 5,	Slope, ----	Gaseous,	{ Fan, ----	21	7.0	4.5	30	3	Guibal, --	Steam, ---	9	150,700	86,615	104,840	502
Turkey Run No. 8,	Slope, ----		{ Fan, ----	8			184	.9	Guibal, --	Electricity, ---	7				
Shenandoah City Colliery:															
Shenandoah City,	Shaft, ----	Gaseous,	{ Fan, ----	21	7.0	6.5	80	2	Reading,	Steam, ---	10	222,236	124,318	224,148	608
Shenandoah City,	Slope, ----	Gaseous,	{ Fan, ----						Guibal, --	Steam, ---	1				
Shenandoah City,	Drift, ----	Non-gas.,	{ Fan, ----	12	4.0	-----	30	-----							
Boston Run Colliery:															
Boston Run,	Slope, ----	Gaseous,	Fan, ----	21	7.0	6.5	80	1.8	Guibal, -	Steam, ---	-----	70,260	35,440	75,240	281

Gilberton Colliery: Gilberton No. 1, Gilberton No. 2,	Slope, Slope, Gaseous, Gaseous,	Fan, Fan,	21	7.0	6.0	80	1.8	Guibal,	Steam,	9	91,570	46,720	91,800	422
Knekerbocker Colliery: Knekerbocker No. 1, Knekerbocker No. 2,	Slopes, Gaseous,	Fan,	18			96	1.8	Guibal,	Steam,	9	60,645	56,689	61,100	342
Draper Colliery: Draper No. 1, Draper No. 2,	Shaft, Slope, Gaseous, Gaseous,	Fan, Fan,	18 12	6.6	6.0	80 80	1.6 1.6	Guibal, Guibal,	Steam, Steam,	10	122,290	108,674	138,575	248
Indian Ridge Colliery: Indian Ridge, Indian Ridge, Top Split, Indian Ridge, Holmes No. 1, Indian Ridge, Holmes No. 2, Indian Ridge, Fritrose,	Shaft, Slope, Slope, Slope, Slope, Slope,	{ 2 Fans, Natural, Fan, Fan, Fan,	{ 18 15 12 5 5	6.0 5.0 4.0 2.0 2.0	4.5 4.75 4.0	75 80 45 45 45	1.1 1 .3 .1 .1	Guibal, Guibal, Guibal, Recalling, Recalling,	Steam, Steam, Steam, Steam, Steam,	10	149,542	91,640	149,677	379
Lehigh Valley Coal Co. Packer No. 2 Colliery: Packer No. 1, Packer No. 2,	Slopes, Gaseous, Gaseous,	Fan,	20	6	5.5	64	.8	Guibal,	Steam,		71,000	45,600	73,450	206
Packer No. 3 Colliery: Packer No. 3, Packer No. 3,	Slope, Drift, Gaseous, Non-gas.,	Fan, Natural,	18	6	5.4	70	.6	Guibal,	Steam,		108,250	70,650	112,470	235
Packer No. 4 Colliery: Packer No. 4,	Slope, Gaseous,	Fan,	20	6.9	5	62	1	Guibal,	Steam,		87,465	60,250	91,640	192
Thomas Colliery Co. Kelley Run Colliery: Kelley Run No. 1, Kelley Run No. 3, Kelley Run No. 1,	Slopes, Gaseous, Gaseous, Gaseous,	{ Fan, Fan, Natural,	{ 16 8	6 4	5 3	100 150	1.5 1.6	Guibal, Guibal,	Steam, Steam,	10 6	81,820 40,515 14,433	63,305 24,957 8,800	85,304 40,810 14,505	314
Susquehanna Coal Co. William Penn Colliery: William Penn No. 1, William Penn, William Penn No. 2,	Drift, Shaft, Drift, Non-gas., Gaseous, Non-gas.,	Fan, Fan, Fan,	18 18 18	7 7 7	6 6 6	70 70 35	1.8 .8 .8	Guibal, Vulcan,	Steam, Steam,	9	135,330	118,750	158,450	400
Cambridge Coal Co. Cambridge Colliery: Cambridge,	Drift, Non-gas.,	Fan,	8	3	2	100		Coal,	Steam,	3	10,025	70,650	11,100	76

TABLE I—Continued

Names of operators and Mines	Kind of opening	Gaseous or non-gaseous	Method of ventilation	Diameter of fan in feet and inches	Width of blades in feet and inches	Depth of blades in feet and inches	Number of revolutions per minute	Water gauge developed in inches	Name of fan	Power used	Number of splits or air currents	Number of cubic feet of air per minute entering the mine at inlet	Total quantity of air per minute circulating in all the splits in cubic feet	Number of cubic feet per minute passing out at outlet	Number of persons employed inside
M. A. Gerber and A. S. Seaman Furnace Colliery:	Drift	Gaseous	Natural									4,000	4,000	4,800	84
Harleigh-Brookwood Coal Co. Stanton Colliery:	Slope	Gaseous	Fan	4			100		Cubical	Steam		21,500	12,000	22,000	
Stanton, Four Foot, Stanton, Back Slope,	Slope	Gaseous	Fan	16			75	1.5	Cubical	Steam					
W. H. and Niswenter Niswenter Colliery:	Drift	Non-gas.	Natural												

*Abandoned July, 1911.

TABLE I.—Operators, location of collieries, railroads, etc.

Names of Operators and Collieries	County	Name of General Superintendent	Post Office	Name of Superintendent	Post Office	Railroad to Mine
Philadelphia and Reading Coal and Iron Co.	Schuylkill	W. J. Richards	Pottsville	Reese Tasker	Pottsville	P. and R.
West Shenandoah						
Kobinroof						
Turkey Run						
Shenandoah City						
Boston Run						
Gilberton						
Kinkorhocker						
Draper						
Indian Ridge						
Plank Ridge Warbery						
Lehigh Valley Coal Co.	Schuylkill	F. M. Chase	Wilkes-Barre	J. M. Humphrey	Centralia	Lehigh Valley
Packer Nos. 2, 3, 4						
Kellby Run	Schuylkill	Frank A. Hill	Pottsville	John Price	Shenandoah	P. and R.
Susquehanna Coal Co.	Schuylkill	Robert A. Quip	Wilkes-Barre	Edw. A. Van Horn	Shaft	Pennsylvania
Cambridge Coal Co.	Schuylkill	D. E. James	Shenandoah	D. R. James	Shenandoah	P. and R.
Cambridge						
M. A. Gerber and A. S. Seaman	Schuylkill	M. A. Gerber	Tamaqua	J. Berkelbach	Gilberton	P. and R.
Furnace						
Harleigh-Brookwood Coal Co.	Schuylkill	Frank A. Hill	Pottsville	William Niswenter		P. and R.
Stanton's						
William Niswenter	Schuylkill	William Niswenter	Shenandoah			P. and R.
Niswenter						

*Abandoned July, 1911.

TABLE 1—Continued

Name of Operators and Collieries	County	Name of General Superintendent	Post Office	Name of Super- intendent	Post Office	Railroad to Mine
Oxford Coal Co. Oxford Washery	Schuylkill	Frank A. Hill	Pottsville	F. L. Kloch	Shenandoah	P. and R.
Brighton Coal Co. Brighton Washery	Schuylkill			J. A. Davis	Gilberton	P. and R.
H. H. Smith and Co. Hudson Washery	Schuylkill	Henry Meyers	Minersville	M. E. Jones	Shenandoah	P. and R.

TABLE 2.—Number of tons of coal mined, number of days worked, number of persons employed, number killed and injured, quantity of powder, dynamite and permissible explosives used, etc.

Names of Operators and Collieries	County	Number of tons of coal shipped to market	Number of tons used at collieries for steam and heat	Number of tons sold to local trade and used by employes	Total production of coal in tons	Number of days worked	Number of employes	Number of fatal accidents	Number of non-fatal accidents	Explosives				Number of horses and mules
										Number of pounds of dynamite used	Number of pounds of permissible explosives	Number of pounds of powder used	Number of pounds of dynamite used	
Philadelphia and Reading Coal and Iron Co.	Schuylkill	544,214	65,093	15	699,257	253	794	1	2	127,725	25,975	5,375	33	
West Shenandoah,	216	1	1	28,350	9,333	.....	14	
Kennedy,	736	2	2	64,373	65,748	210	42	
Turkey Run,	823	2	9	87,373	24,118	13,973	76	
Schenandoah City,	439	1	.....	21,615	70,800	.....	17	
Boston Run,	648	2	4	7,450	.....	35,650	43	
Gilberton,	436	2	.....	41,150	21,125	29,662	40	
Knickacker,	407	2	4	8,250	72,809	31,125	42	
Draper,	452	2	.....	57,900	20,314	.....	56	
Indian Ridge,	81	.....	.....	.....	.....	.....	3	
Plank Ridge Washery,	
Totals,	1,481,801	223,029	60,571	1,769,001	.....	5,023	15	22	474,450	380,236	115,674	371	
Lehigh Valley Coal Co.	Schuylkill	.....	.....	.....	.....	.....	256	2	5	49,975	17,866	.....	80
Packer No. 2,	286	.....	.....	22,325	23,343	.....	.....
Packer No. 3,	515	3	6	84,225	9,701	.....	45	
Packer No. 4,	
Totals,	457,365	80,464	8,927	552,486	.....	1,057	5	14	159,525	50,810	.....	110	
Thomas Colliery Co.	Schuylkill	322,213	22,925	4,405	349,548	276	550	5	3	128,750	49,200	.....	40
Kelley Run,	

*Coal prepared and shipped from Packer No. 4.

TABLE 2—Continued

Name of Operator and Collieries	County	Number of tons of coal shipped to market	Number of tons used at collieries for steam and heat	Number of tons sold to local trade and used by employes	Total production of coal in tons	Number of days worked	Number of employes	Number of fatal accidents	Number of non-fatal accidents	Explosives				Number of horses and mules used
										Number of pounds of powder used	Number of pounds of dynamite used	Number of pounds of permissible explosives	Number of pounds of explosives used	
William Penn.	Schoharie	298,649	36,496	2,467	307,693	24	616	2	4	65,200	47,375	250	250	64
Cambridge	Schoharie	69,751	4,673	363	74,217	588	76	3	3	4,375	1,159	---	---	6
M. A. Geber and A. S. Seaman <i>Seaman</i>	Schoharie	20,655	2,850	---	22,885	135	146	2	---	---	11,490	---	---	11
Harper-Brockwood Coal Co. Stanton	Schoharie	17,900	3,045	---	20,045	69	258	---	---	625	4,203	---	---	9
William Niswenter Niswenter	Schoharie	701	100	3,352	4,153	298	17	---	---	---	1,150	---	---	5
Oxford Washery Oxford Washery	Schoharie	140,965	6,000	3	147,068	255	50	---	---	---	1,425	---	---	1
Brighton Coal Co. Brighton Washery	Schoharie	99,964	8,890	---	108,854	240	88	---	---	---	---	---	---	---
H. H. Smith and Co. Hudson Washery	Schoharie	86,501	5,529	---	92,030	183	68	---	---	---	---	---	---	---
Grand total		2,967,386	409,661	79,818	3,447,255	7,759	32	43	829,925	547,046	115,924	617		

TABLE 2.—Part 2

Names of Operators	County	Number of Boilers				Locomotives			Total horse power	Number of steam engines of all classes	Total horse power	Number of pumps delivering water to surface	Capacity in gallons per minute	Quantity delivered to surface per minute—gallons	Number of electric dynamos	Number of air compressors
		Cylindrical	Horse power	Tubular	Horse power	Steam	Air	Electric								
Philadelphia and Reading Coal and Iron Co.,				122	15,000	15,600	19	3	3	246	30,855	20	31,211	8,680	8	10
Lehigh Valley Coal Co.,				20	4,200	4,200	5			53	6,382	2	6,212	4,881		1
Thomas Colliery Co.,				13	1,950	1,950	8			15	1,213	4	5,000	4,050		
Susquehanna Coal Co.,				15	2,800	2,800	1			20	1,603	1	1,300	724		1
Cambridge Coal Co.,				4	450	450	1			4	101					
M. A. Gorber and A. S. Seaman,	Selmykill,			4	330	330	4			9	125	1	360	145		1
Harleigh-Brookwood Coal Co.,				5	600	600	2			11	500	1	400	250		1
William Niswenter,				1	25	25				1	15					
Oxford Coal Co.,				4	500	500	3			4	320					
Brighton Coal Co.,				8	900	900	3			13	428					
H. H. Smith and Co.,				3	375	375	2			7	241					
Totals,		199	27,230	27,230	44	5	3	353	41,362	35	44,483	18,080	3	13		

TABLE 3.—Number of each class of employees inside and outside of mines

Names of Operators	County	Inside										Outside										
		Mine foremen	Assistant mine foremen	Fire bosses and assistants	Miners	Miners' laborers	Drivers and runners	Doorbays and helpers	Timbermen	Company men	All other employees	Total inside	Superintendents	Foremen	Blacksmiths and carpenters	Engineers and firemen	State pickers (boys)	State pickers (men)	Bookkeepers and clerks	All other employees	Total outside	
Philadelphia and Reading Coal and Iron Co.,		8	61	.....	862	894	185	21	22	796	651	3,440	.....	15	63	221	214	80	32	958	1,583	5,023
Lehigh Valley Coal Co.,		3	13	.....	239	138	50	13	14	.....	163	633	1	4	30	60	34	20	6	209	434	1,057
Thomas Colliery Co.,		1	1	.....	150	83	12	5	4	53	314	314	1	3	13	26	50	3	4	136	236	550
Susquehanna Coal Co.,		1	1	.....	132	84	39	2	.....	9	136	490	1	2	26	30	34	12	6	108	216	616
Cambridge Coal Co.,		1	1	.....	10	13	2	.....	.....	2	20	20	1	1	2	7	16	.....	1	18	46	76
M. A. Gerber and A. S. Seaman,	Schuylkill,	1	1	.....	28	18	10	5	2	2	11	78	1	1	5	5	19	.....	1	36	68	146
Harleigh-Brookwood Coal Co.,		1	.....	1	30	35	2	.....	.....	5	4	84	1	1	41	13	12	.....	1	105	174	258
William Niswenter,		1	.....	.....	2	.....	1	.....	.....	.....	4	4	.....	.....	.....	6	.....	.....	.....	6	13	17
Oxford Coal Co., .....		.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	1	3	10	7	2	1	55	80	80
Brighton Coal Co., .....		.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	1	5	12	8	.....	1	59	88	88
H. H. Smith and Co., .....		.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	1	6	9	2	.....	1	44	68	68
Totals,		17	78	13	1,453	1,265	391	46	48	897	355	4,983	9	31	194	394	402	121	54	1,791	2,996	7,979

TABLE 4.—Fatal accidents inside and outside of mines

Date of accident	Name of Person	Nationality	Occupation	Age	Married or Single	Number of Widows	Number of Orphans	Name of Colliery	County	Nature and Cause of Accident in Brief
Jan. 6	Henry Sandt,	American, ..	Miner,	42	M.	1	6	William Penn,		Instantly killed by fall of coal away from face. While he was making room for relief timber, the timber collapsed. Killed by cars on gangway. He became confused and ran in front of trip of cars.
	Patrick Trainer,	Irish,	Laborer,	37	M.	1		Gilberton,		Instantly killed by fall of slate near face. After firing hole he returned to heading when feathered edge piece of slate fell from top.
Feb. 13	Matt Lesinskiy,	Russian, ..	Miner,	43	M.	1	3	Packer No. 4,	Schuylkill,	Fatally injured by fall of coal near face. Died May 19.
17	Jno. Shuppis,	Lithuanian, ..	Miner,	65	M.	1		Kuikerbocker,		Killed by fall of slate. He and another miner were sent by the foreman to pull down a heavy wing of slate on the rib of plane. They were unable to pull it down with bars and were in the act of putting hole in it when it fell suddenly and crushed Dean.
March 2	Martin Dean,	Irish,	Laborer,	31	M.	1		West Shenandoah,		Killed by fall of slate near face. He was in the act of stepping on the bumper of car as it was landing on the top of slope, when the main link suddenly snapped and struck him on the head. Outside.
27	Rudolph Branch,	Tyrolean, ..	Miner,	28	M.			Kohley Run,		Killed by fall of slate near face.
30	Peter Stabinsky,	Polish,	Miner,	42	M.	1		Turkey Run,		Instantly killed. He was in the act of stepping on the bumper of car as it was landing on the top of slope, when the main link suddenly snapped and struck him on the head. Outside.
April 27	Michael Haley,	American, ..	Topman,	21	S.			Packer No. 2,		Killed by falling down manway. He had lifted two holes and had returned to face of breast when some coal fell and in trying to reach a place of safety he fell down manway.
	Emil Kossar,	Greek,	Miner,	38	M.	1	2	Kohley Run,		

May	5	John Sincaavage, --- Phillip Norsavage, --- William Miller, --- Daniel Blasco, --- William Stabskie, --- Michael Feres, ---	Polish, --- Lithuanian, --- Polish, --- Slovakian, --- Polish, --- Polish, ---	Miner, --- Miner, --- Miner, --- Laborer, --- Miner, --- Miner, ---	21 34 60 29 40 48	M. 1 S. 1 M. 1 S. 1 M. 1 M. 1	1 Kehley Run, Kulcherhoecker, Cambridge, Furnace, Schenandoah City, ---	Killed by fall of rock near face. Smothered by rush of fine coal and dirt. Killed by fall of slate near face.
June	27	Alex Zagonsky, --- Frank Gounley, ---	Polish, --- American, ---	Laborer, --- Plane tender, ---	39 18	S. 1 S. 1	Turkey Run, Packer No. 4, ---	Killed by fall of rock away from face. Killed between car and timber on gangway. He stood on the wrong side of track and was crushed against timber by locomotive.
	29	Michael Birmingham, ---	American, ---	Driver, ---	24	S. 1	Furnace, ---	Killed by fall of rock away from face. He was found dead alongside trip of loaded cars. The mule was also standing on side of trip on top of Birmingham.
	30	Anthony Matsko, ---	Lithuanian, ---	Bottomman, ---	24	S. 1	Boston Run, ---	Instantly killed by being struck by timber on the main hoisting slope. After some investigation the men started up the slope very slowly on the gumboat and when near the lift above a piece of timber rolled down and caught Matsko.
July	6	John Hartneckiewicz, --- Joseph Goodall, ---	Lithuanian, --- Hebrew, ---	Miner, --- Driver, ---	24 25	S. 1 M. 1	William Penn, Gilberton, ---	Killed by fall of rock near face. Killed by falling in front of moving dumper, outside.
Sept.	14	Benjamin Green, --- Howard Sneddon, ---	English, --- American, ---	Miner, --- Laborer, ---	53 28	M. 1 M. 1	1 Packer No. 2, --- Drapet, ---	Killed by fall of coal away from face. Instantly killed by falling down timber hole. They were lowering timber down a hole from the surface and had placed a rope around a pulley attached to the top collar for the purpose of pulling the timber close to the hole. Sneddon climbed up on top of the collars and the top collar pulled off the legs and dropped him down the hole.
	25	Thomas Kilty, ---	Irish, ---	Motor tender, ---	27	S. 1	Kohinoor, ---	Killed by cars on gangway. He was riding in front of trip of eight cars on motor and in some unknown manner he fell in front of trip and was rolled along under the axles.

Schuylkill, ---

TABLE 4—Continued

Date of accident	Name of Person	Nationality	Occupation	Age	Married or single	Number of widows	Number of orphans	Name of Colliery	County	Nature and Cause of Accident in Brief
Sept. 27	August Esacomis, ----	Russian, ---	Laborer, ----	21	S.	-----	-----	Kehley Run, ----	-----	Instantly killed by explosion of dynamite. He brought a stick of dynamite, cap and fuse to face of gangway, and in some unknown manner the dynamite exploded in his hands.
Oct. 10	Peter Nelayetkie, ----	Lithuanian, ---	Miner, ----	32	M.	1	1	Indian Ridge, ----	-----	Killed by fall of coal away from face.
12	Joseph Mathias, ----	Welsh, ----	Laborer, ----	42	S.	-----	-----	Cambridge, ----	-----	Killed by ear. A loaded car ran over end of rails and crushed him against face of gangway.
27	Martin Pane, ----	Irish, ----	Miner, ----	39	M.	1	5	Kehley Run, ----	-----	Instantly killed by being struck on head by a prop that was pushed out by pressure of gob.
Nov. 14	Samuel Willison, ----	American, ---	Laborer, ----	55	M.	-----	-----	Draper, ----	Schuylkill, ----	Fatally injured. While helping to unload a large timber truck he fell to the tracks below. Outside.
28	William Kanopitkie, --	Lithuanian, ---	Miner, ----	28	M.	1	1	Indian Ridge, ----	-----	Fatally injured by fall of slate near face. He fired a shot, which displaced a prop, and while in the act of resetting the prop a piece of slate fell from the top, breaking his back. Died December 18.
Dec. 19	Paul Oneseavage, ----	Polish, ----	Miner, ----	28	S.	-----	-----	Packer No. 4, ----	-----	Fatally injured by fall of coal near face. While drilling a hole a piece of coal from top fell and struck him, breaking his back. Died February 3, 1912.
29	Enoch Gltson, ----	Polish, ----	Miner, ----	24	M.	1	2	Shenandoah City, --	-----	Killed by fall of slate near face.

TABLE 5.—Non-fatal accidents inside and outside of mines

Date of accident	Name of Person	Nationality	Occupation	Age	Married or single	Name of Colliery	County	Nature and Cause of Accident in Brief
Jan. 10	Joseph Krow, -----	Lithuanian, --	Miner, -----	43	M.	William Penn, -----		Burned by gas. He went up chute with naked lamp.
18	Henry Wisner, -----	American, --	Driver, -----	18	S.	Draper, -----		Arm broken by falling under cars on gangway.
Feb. 8	Stain Kutskill, -----	Lithuanian, --	Miner, -----	27	M.	William Penn, -----		Hips injured by premature blast.
	George Youzitskie, -----	Lithuanian, --	Laborer, -----	28	M.			Head and hands lacerated.
16	Frank Kufer, -----	American, --	Carpenter, -----	31	M.	Draper, -----		Arm fractured by falling. While carrying a large block of wood he slipped and fell. Outside.
16	William Barlavage, --	Lithuanian, --	Timberman, -----	39	M.	Packer No. 2, -----		Foot bruised by fall of coal away from face.
Mar. 24	Joseph Tikoniek, -----	Slavonian, --	Chargeman, -----	24	M.	Draper, -----		Arm and ribs fractured by falling 30 feet down shaft.
April 7	John Murry, -----	Irish, -----	Bottomman, -----	24	S.	Packer No. 2, -----		Ribs fractured by being struck by piece of coal that fell off car on slope.
28	Joseph Motracavage, -----	Lithuanian, --	Driver, -----	21	S.	Gilberton, -----	Schuylkill, -----	Body bruised by falling under cars on gangway.
May 1	Peter Kiltch, -----	American, --	Foreman, -----	45	M.	Packer No. 4, -----		Face lacerated. Wrench slipped and struck him in the face. Outside.
11	Frank Burecopsky, -----	Polish, -----	Miner, -----	38	S.	Shenandoah City, -----		Burned by gas. It is supposed he struck a match to ignite a squib.
June 3	Joseph Zekiewiez, -----	Polish, -----	Conveyor tender, -----	18	S.	Shenandoah City, -----		Shoulders and head injured by being caught in conveyor line. Outside.
6	Stibey Yensavage, -----	Lithuanian, --	Laborer, -----	23	S.	Packer No. 3, -----		Eyes blown out, left arm cut off at elbow and fingers of right hand cut off by explosion of a box of dynamite caps. A spark from his lamp ignited caps.
	Mike Kurilla, -----	Greek, -----	Miner, -----	38	M.	Shenandoah City, -----		Leg broken by being struck by timber that fell out while he was making room for relief timber.

TABLE 5—Continued

Date of accident	Name of Person	Nationality	Occupation	Age	Married or single	Name of Colliery	County	Nature and Cause of Accident in Brief
June 17	John Barrett,	American, ..	Car runner,	22	S.	Gilberton,		Leg broken by being caught by rush of coal against brake stick while loading coal from a cleaner. Outside.
24	Tupel Perlinski,	Slavonian, ..	Driver,	24	S.	Shenandoah City, ..		Arm crushed by being knocked off car on gangway. While riding on front of car his head struck collar and he was knocked off car.
26	George Eye,	American, ..	Carpenter,	20	M.	Packer No. 4,		Jaw bone broken. He was working at circular saw in repair shop and was forcing wood against saw when the wood flew up and struck him. Outside.
27	Joseph Babulonus, ..	Lithuanian, ..	Driver,	18	S.	Shenandoah City, ..		Leg broken by falling under car on gangway. He jumped off car while in motion.
	Joseph Ling,	Polish,	Miner,	33	M.	Turkey Run,	Schuykill,	Leg broken by rush of rock and coal from a loose bank away from face.
	Frank Kowolchuck, ..	Russian, ...	Miner,	52	M.	Packer No. 4,		Hip fractured by fall of coal near face.
	Stincy Stabulsky, ..	Lithuanian, ..	Laborer,	26	M.	Packer No. 2,		Leg and ribs fractured by fall of coal near face.
July 10	George Filler,	Lithuanian, ..	Driver,	17	S.	Shenandoah City, ..		Chest crushed by being caught between car and timber on gangway.
22	Enoch Wasconus,	Lithuanian, ..	Laborer,	24	S.	Kehley Run,		Compound fracture of arm by fall of slate away from face.
Aug. 1	John Hinderlighter, ..	German, ...	Timber cutter, ..	38	M.	Kehley Run,		Arm broken by falling from cribbing on timber bank. Outside.
8	Adam Malukus,	Lithuanian, ..	Laborer,	24	S.	William Penn,		Collar bone fractured and head lacerated by rush of water and mud from breach on surface.
11	John Wyludiek,	Polish,	Miner,	27	S.	West Shenandoah, ..		Burned by gas. He was helping to stand a prop 14 feet long at face of breast and climbed to top of prop, with naked light on his head, to put cap piece on prop.

Aug. 22	Max Coveluskie, ----	Polish, ----	Miner, -----	45	S.	Shenandoah City, --
Sept. 12	Ant. Dutalavage, ----	Lithuanian, ----	Laborer, -----	26	S.	Gilberton, ----
	Joseph Grime, -----	Lithuanian, ----	Miner, -----	53	M.	Packer No. 2, ----
19	John Miles, -----	American, --	Fire boss, -----	36	M.	Packer No. 3, ----
	Joseph Kupslitus, ----	Lithuanian, ----	Miner, -----	27	S.	
	Alex Zanskupsky, ----	Lithuanian, ----	Miner, -----	26	S.	
	Joseph Zanskupsky, --	Lithuanian, ----	Miner, -----	24	S. J	
23	Peter Dipp, -----	Syrian, ----	Laborer, -----	30	S.	Turkey Run, ----
25	Felix Chopliskie, ----	Lithuanian, ----	Laborer, -----	32	M.	Shenandoah City, --
	John Nelusliek, -----	Russian, ----	Miner, -----	26	S.	Kehley Run, ----
Oct. 4	Dom Barrett, -----	Irish, -----	Miner, -----	34	M.	Packer No. 3, ----
	Andro Dobrilske, ----	Lithuanian, ----	Laborer, -----	35	M.	Gilberton, ----
Nov. 11	William Dillman, ----	American, --	Bottomman, ----	31	M.	Draper, ----
22	Alex Hardy, -----	Lithuanian, ----	Miner, -----	20	M.	Packer No. 2, ----
Dec. 9	Roy Brocius, -----	American, --	Civil engineer, ---	19	S.	Shenandoah City, --
	John Sineo, -----	Austrian, --	Laborer, -----	50	M.	West Shenandoah, -
30	Walter Brozapke, ----	Polish, ----	Laborer, -----	22	S.	Kobinor, -----

Schuykill,

Leg broken by being struck by a piece of rock that rolled down pitch.

Leg broken by fall of slate near face.

Arm broken and leg dislocated by being struck by a piece of coal that rushed down from pile of coal.

Burned by gas. They were building a brattice to remove gas at face of a breast. The fire boss sent Kupslitus to get a piece of canvas in another breast, and Kupslitus lighted his lamp to find canvas and walked into the gas.

Head and body squeezed. He was dumping a buggy and in trying to remove a piece of coal at the door the stick under the hind end came out and crushed him against collar on buggy tip.

Leg broken by being struck by timber. He was standing a set of timber and in trying to turn one of the legs the timber fell out.

Head, chest, legs and arms lacerated. He was driving gangway when his laborer exploded a stick of dynamite at face of gangway, blowing Nelusliek down an old breast. The laborer was killed.

Burned by gas that he ignited with open lamp. He used a naked lamp contrary to the orders of the fire boss.

Arm broken by fall of slate near face. Body and arms crushed by being caught between cars on slope. The rope broke and car came back in slope.

Shoulder lacerated by fall of coal near face.

Burned by gas that he ignited with open lamp. He went through a heading and up a breast 55 feet. The fire boss told him not to do so.

Hip dislocated. While assisting to lift a car up on the tip the stick that held the car up came out and struck Sineo. Outside.

Leg broken by fall of slate near face.

CONDITION OF COLLIERIES

PHILADELPHIA AND READING COAL AND IRON COMPANY

West Shenandoah, Kohinoor, Turkey Run, Draper, Gilberton, Boston Run, Shenandoah City and Knickerbocker.—Ventilation, drainage and condition as to safety, good.

Indian Ridge.—Ventilation and condition as to safety, good; drainage fair.

LEHIGH VALLEY COAL COMPANY

Packer Nos. 2, 3 and 4.—Ventilation and condition as to safety, good; drainage fair.

THOMAS COLLIERIES COMPANY

Kehley Run.—Ventilation, drainage and condition as to safety, good.

SUSQUEHANNA COAL COMPANY

William Penn.—Ventilation and condition as to safety, good; drainage fair.

HARLEIGH-BROOKWOOD COAL COMPANY

Stanton.—Ventilation, drainage and condition as to safety, good.

M. A. GERBER AND A. S. SEAMAN

Furnace.—Ventilation, drainage and condition as to safety, fair.

CAMBRIDGE COAL COMPANY

Cambridge.—Ventilation and condition as to safety, good; drainage fair.

WILLIAM NISWENTER

Niswenter.—Ventilation good; drainage and condition as to safety, fair.

IMPROVEMENTS

PHILADELPHIA AND READING COAL AND IRON COMPANY

Kohinoor Colliery.—Two tunnels from Buck Mountain to Little Buck vein, total length, 94½ yards.

No. 26 slush bore hole 543 feet deep to Buck Mountain vein.

New hoisting plant installed for No. 2 shaft.

West Shenandoah Colliery.—Tunnel from Skidmore to Mammoth, total length, 71-3 yards.

Rock hole from Seven Foot to Mammoth for slushing.

No. 8 slush bore hole 150 feet deep to Buck Mountain vein.

Slush bore hole 124 feet deep to Buck Mountain vein.

Turkey Run Colliery.—Tunnel from Four Foot to Primrose vein, 98 1-3 yards long.

Tunnel from Skidmore to Mammoth, total length, 16 yards.

Incandescent lights installed in No. 8 slope engine house.

Shenandoah City Colliery.—Rock hole to Top Split, 44¾ yards long, to work basin.

Rock hole to Top Split, 21 1-3 yards long, for ventilation.

Tunnel to Skidmore from 6th lift, total length, 13 yards.

No. 7 bore hole for electric wires to operate No. 2 Underground Buck Mountain slope, 746 feet deep, and transformer house at top engine room completed; and electric hoist installed for No. 2 Underground Buck Mountain slope.

Buck Mountain slope 3rd lift East sump extended 100 feet.

Four-inch water pipe lines laid on all levels for fire purposes.

Concrete walls and steel I beams installed in pump room at foot of shaft.

Concrete walls and floor in pump room on 3rd lift Buck slope.

Four-inch water pipe lines laid outside for fire purposes.

Indian Ridge Colliery.—Rock hole from Skidmore to Bottom split 26 $\frac{2}{3}$ yards long for ventilation.

Tunnel to Buck Mountain at foot of No. 5 rock slope, 37 1-3 yards long.

Plane in Buck Mountain 200 feet long.

No. 6 slope in Holmes vein sunk 271 feet to basin and gangway turned off.

No. 7 slope in Primrose vein sunk 210 feet to 1st lift.

Plane in Top split 800 feet long nearly completed.

Engines erected on surface.

Draper Colliery.—Tunnel to Buck Mountain vein from the West Skidmore gangway, 1st lift No. 5 slope 700 feet west of tunnel at foot of No. 5 slope completed February, 1911; total distance, 62 1-3 yards.

Permanent headframe for coal hoisting shaft completed in December.

New coal hoisting shaft from surface to 2nd lift, 201 1-3 yards. The sinking of the shaft was completed November, 1911, but the guides have not been placed in the north compartment.

Single and double track tunnel from the Buck Mountain vein 2nd lift to and around the new coal hoisting shaft, through measures underlying the Buck Mountain vein started March, 1911. Probable length of tunnel, 298 yards, of which 77 yards will be double track tunnel. The shaft and tunnel were connected in October, 1911. Total distance from beginning of tunnel to east side of shaft 535 feet.

Gilberton Colliery.—Traffic tunnels to Little Buck vein east and west of proposed slope across pitch at breast No. 28 off West Buck Mountain gangway, 5th lift, completed January, 1911; distance, 29 yards.

Air tunnel to Little Buck vein from the West Buck Mountain gangway 5th lift between breasts Nos. 30 and 31, completed March, 1911; distance 10 2-3 yards.

Tunnel to Bottom Split of Mammoth vein from the East Skidmore gangway, 5th lift at a point 900 feet west of east pillar line, completed April, 1911; distance, 11 1-3 yards.

Ash haulage engine at lower boiler house, completed August, 1911.

Slope on 25 degrees across pitch from West Buck Mountain gangway, 5th lift at breast No. 28, November, 1911; distance 128 2-3 yards.

Extension of Buck Mountain tender slope from 5th to 6th lift, completed March, 1911; length of extension, 36 $\frac{2}{3}$ yards; length 5th to 6th lifts, 70 yards.

Boston Run Colliery.—A tunnel to Little Buck from East Buck Mountain vein 4th lift for empty cars; length, 16 1-3 yards.

Extension of Tender slope from 3rd lift to 4th lift; length, 108 yards.

THOMAS COLLIERY COMPANY

Kehley Run Colliery.—Inside: Tunnel driven from the Skidmore to the Mammoth No. 4 slope.

Work commenced on pump houses, hospital and fire bosses' rooms for the purpose of concreting the walls and protecting the top with steel girders.

Outside: Addition made to the breaker and 4 jigs installed.

Reservoir partly completed for the storing of mine water to wash the coal.

New foremen's office erected.

SUSQUEHANNA COAL COMPANY

William Penn Colliery.—31 new mine cars, new shakers to replace revolving screens, two egg coal jigs, 88 yard tunnel in No. 2 drift, 11 yard tunnel in No. 1 level, 34 yard tunnel in No. 2 level, 31 yard tunnel in No. 3 level.

Fireproof stables on Nos. 1, 2 and 3 levels partly completed.

Turn-out and head for new Buck slope on No. 4 level.

Two new broken coal spirals in breaker.

Four old horizontal return tubular boilers were replaced with new ones.

Total amount expended for improvements during year, \$20,415.33.

HARLEIGH-BROOKWOOD COAL COMPANY

Stanton Colliery.—New Buck Mountain single gunboat slope from surface to No. 3 lift 700 feet.

Airway from 3rd lift to 1st lift.

Pump room behind the Buck on the 3rd lift 45 by 55 by 16 feet high.

Tunnel on the 3rd lift south 97 feet to tap Stanton and Lawrence water.

Waterway in Little Buck 50 feet west of No. 2 Buck new slope to carry the water from main pump slope passed No. 2 slope out the water level.

New slope on Four Foot to work the Holmes; also air shaft for fan.

Returning Old Skidmore slope.

MINE FOREMEN'S EXAMINATIONS

The annual examination of applicants for certificates of qualification as mine foremen and assistant mine foremen was held in Union Hall, Pottsville, March 22 and 23. The Board of Examiners was composed of A. B. Lamb, Mine Inspector; E. A. Rhoads, Superintendent, William Penn; George H. Young, Miner, Shenandoah; George W. Keller, Miner, Ashland.

The following persons passed a satisfactory examination and were granted certificates:

Mine Foremen

Alfred R. Price, William Penn, Shaft P. O.

Assistant Mine Foremen

Fenton E. Cooney, Frederick Hildlaebrand, Henry Thomas, Emrys Lewis, William T. Simmons, Joseph E. Kennard, Shenandoah, Robert Morgan, Gilberton; Thomas F. Gallagher, Lost Creek; John Keating, Jackson; Thomas Cavanaugh, Lost Creek; Daniel Drew, Shenandoah.



FOURTEENTH DISTRICT

COLUMBIA AND SCHUYLKILL COUNTIES

Centralia, Pa., February 21, 1912.

Hon. James E. Roderick, Chief of Department of Mines:

Sir: I have the honor to transmit herewith my Report as Inspector of Mines for the Fourteenth Anthracite District for the year ending December 31, 1911, as required by the Act of April 14, 1903.

Respectfully submitted,

JAMES A. O'DONNELL, Inspector.

SUMMARY OF STATISTICS

Number of collieries,	11
Number of mines,	26
Number of mines in operation,	22
Number of tons of coal shipped to market,	2,136,033
Number of tons used at mines for steam and heat,	305,210
Number of tons sold to local trade and used by employes,	35,146
Number of tons produced,	2,476,389
Number of tons produced by compressed air machines, .....	.....
Number of tons produced by electrical machines, .....	.....
Number of persons employed inside of mines,	3,245
Number of persons employed outside,	1,772
Number of fatal accidents inside of mines,	9
Number of fatal accidents outside,	5
Number of non-fatal accidents inside of mines,	35
Number of non-fatal accidents outside,	16
Number of tons of coal produced per fatal accident inside,	275,154
Number of persons employed per fatal accident inside, ..	361
Number of persons employed per fatal accident outside, ..	354
Number of persons employed per non-fatal accident inside, ..	93
Number of persons employed per non-fatal accident outside, ..	111
Number of wives made widows,	7
Number of children made orphans,	11
Number of steam locomotives used inside of mines, .....	.....
Number of steam locomotives used outside,	31
Number of compressed air locomotives used inside,	4
Number of compressed air locomotives used outside, .....	.....
Number of electric motors used inside,	15
Number of electric motors used outside, .....	.....
Number of fans in use,	19
Number of furnaces in use, .....	.....
Number of gaseous mines in operation,	21
Number of non-gaseous mines in operation,	1
Number of new mines opened, .....	.....
Number of old mines abandoned, .....	.....

TABLE A

PRODUCTION OF COAL

Names of Operators	Tons
Philadelphia and Reading Coal and Iron Company,	897,387
Lehigh Valley Coal Company,	853,827
Midvalley Coal Company,	378,642
Girard Mammoth Coal Company,	209,830
W. R. McTurk Coal Company,	131,512
Dreshman Coal Company,	5,191
Total,	<u>2,476,389</u>

Production by Counties

Schuylkill,	1,410,553
Columbia,	1,065,836
Total,	<u>2,476,389</u>

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49527

TABLE B.—Fatal and non-fatal accidents inside and outside of mines; number of tons of coal produced per accident; number of persons employed; number employed per accident

Names of Operators	Fatal Accidents			Non-Fatal Accidents			Tons of coal produced per fatal accident inside	Tons of coal produced per non-fatal accident inside	Number of employees inside	Number of employees outside	Total number of employees	Number of employees inside per fatal accident	Number of employees outside per fatal accident	Number of employees inside per non-fatal accident	Number of employees outside per non-fatal accident
	Inside	Outside	Total	Inside	Outside	Total									
Philadelphia and Reading Coal and Iron Co., -----	2	4	6	6	8	14	148,668	140,565	1,486	819	2,305	743	205	137	186
Lehigh Valley Coal Co., -----	3	1	3	21	6	27	284,009	40,658	1,067	324	1,391	356	51	51	54
Midvalley Coal Co., -----	1	1	2	6	2	6	378,642	63,107	421	180	610	421	180	70	70
Girard Mammoth Coal Co., -----	1	1	1	1	2	3	249,830	309,830	180	223	403	180	180	180	112
W. R. McMurk Coal Co., -----	2	1	2	1	1	1	65,756	131,512	86	212	297	42	42	85	85
Miscellaneous Companies, -----									6	5	11				
Totals and averages for district,	9	5	14	35	16	51	275,154	70,754	3,845	1,772	5,017	361	354	93	111

TABLE C.—Classification of Fatal Accidents Inside and Outside of Mines

	Months												Percentages	
	January	February	March	April	May	June	July	August	September	October	November	December		Totals
Causes of Accidents Inside														
Falls of coal,					1	2						1	4	44.45
Mine cars,		1											1	11.11
Explosions of gas,											1		1	11.11
Suffocation by gas, etc.,				2									2	22.22
Rush of coal,								1					1	11.11
Totals,		1		2	1	2		1			1	1	9	100.00
Causes of Accidents Outside														
Cars,										1			1	20.00
Machinery,	1		2										3	60.00
Struck by frozen culm,	1												1	20.00
Totals,	2		2							1			5	100.00
Grand totals inside and outside,	2	1	2	2	1	2		1		1	1	1	14	

TABLE D.—Classification of Non-Fatal Accidents Inside and Outside of Mines

	Months												Percentages	
	January	February	March	April	May	June	July	August	September	October	November	December		Totals
Causes of Accidents Inside														
Falls of coal,	1			1						1			4	11.43
Falls of slate,		1									1		2	5.71
Falls of roof,							1						1	2.86
Mine cars,		1	1	1	1			1				1	6	17.14
Explosions of gas,			1	1	2	3	2				1	1	11	31.42
Explosions of powder and dynamite,				1		1							2	5.71
Blasts, premature and otherwise,				1									1	2.86
Falling into slopes, etc.,				1		1					1		3	8.57
Crushed at batteries,				1			1						1	2.86
Machinery,												1	1	2.86
Struck by rope,						1							1	2.86
Rush of coal,							1						1	2.86
Struck by rod,											1		1	2.86
Totals,	1	1	4	6	3	6	5		1	1	4	3	35	100.00
Causes of Accidents Outside														
Cars,		1				1							2	12.50
Machinery,	4	1							1				6	37.50
By mules,							1						1	6.25
By falling,	1			1					1				3	18.75
Struck by object,		1											1	6.25
Struck by timber,		1											1	6.25
Struck by plate,			1										1	6.25
Struck by chain,										1			1	6.25
Totals,	5	4	1	1		1	1		2	1			16	100.00
Grand totals inside and outside,	6	5	5	7	3	7	6		1	3	5	3	51	

TABLE E.—Occupations of Persons Killed or Fatally Injured Inside and Outside of Mines

	Months												Totals
	January	February	March	April	May	June	July	August	September	October	November	December	
Inside													
Miners,				1	1	1					1		4
Miners' laborers,				1		1		1				1	4
Timbermen,		1											1
Totals,		1		2	1	2		1			1	1	9
Outside													
Engineers and firemen,			1										1
Laborers,		2	1						1				4
Totals,		2	2						1				5
Grand totals inside and outside,	2	1	2	2	1	2		1		1	1	1	14

TABLE F.—Occupations of Persons Injured Inside and Outside of Mines

	Months												Totals
	January	February	March	April	May	June	July	August	September	October	November	December	
Inside													
Miners,			3	4	2	4	3			1	2	1	20
Miners' laborers,	1			2		1	1				1	1	7
Drivers and runners,		1			1				1				3
Switchmen,			1										1
Loaders,												1	1
Timbermen,						1							1
Starters,							1						1
Surveyors,											1		1
Totals,	1	1	4	6	3	6	5		1	1	4	3	35
Outside													
Foremen,	1												1
Blacksmiths and carpenters,	1								1				2
Engineers and firemen,	1												1
Miners,	1												1
Starters,	1												1
Laborers,		2	1			1	1						5
Loaders,		1		1									2
Jig-tenders,		1											1
Oilers,									1				1
Cranemen,										1			1
Totals,	5	4	1	1		1	1		2	1			16
Grand totals inside and outside,	6	5	5	7	3	7	6		1	3	5	3	51

TABLE G.—Nationality of Persons Killed or Fatally Injured Inside and Outside of Mines

	Months												Totals
	January	February	March	April	May	June	July	August	September	October	November	December	
American, -----			1	2	1	1				1			6
Irish, -----	1												1
German, -----	1	1											2
Slavonian, -----			1			1							2
Lithuanian, -----								1			1		2
Totals, -----	2	1	2	2	1	2		1		1	1	1	14

TABLE H.—Nationality of Persons Injured Inside and Outside of Mines

	Months												Totals
	January	February	March	April	May	June	July	August	September	October	November	December	
American, -----	1	4	2	1		3	3		1	2	2		19
Irish, -----	1			1		1				1			4
German, -----	2												2
Polish, -----			1	2	3	1	1				2	1	11
Italian, -----	1												1
Slavonian, -----	1					1							2
Lithuanian, -----			1	1		1						1	5
Austrian, -----			1	1			1						3
Russian, -----		1		1			1				1	1	5
Totals, -----	6	5	5	7	3	7	6		1	3	5	3	51

TABLE I.—Operators and mines, kind of openings, type and size of fans, size of furnaces, volume of air produced by fan or furnace per minute, number of splits of air currents and number of persons employed inside

Names of Operators and Mines	Kind of openings	Gasous or non-gasous	Method of ventilation	Diameter of fan in feet and inches	Width of blades in feet and inches	Depth of blades in feet and inches	Number of revolutions per minute	Water gauge developed—in inches	Name of fan	Power used	Number of splits of air currents	Number of cubic feet of air per minute entering the mine at inlet	Total quantity of air per minute circulating in all the splits in cubic feet	Number of cubic feet per minute passing out at outlet	Number of persons employed inside
Philadelphia and Reading Coal and Iron Co.															
Hammond Colliery:															
Hammond Buck.	Slope, ---	Gaseous,	Fan, ----- 15	5.0	4.0	4.0	90	2	Cuibal,	Steam, ----	15	200,000	130,000	208,000	592
Hammond Mammoth.	Slope, ---	Gaseous,	Fan, ----- 21	7.0	6.0	6.0	90	2							
Hammond Nos. 1, 2, 3 and 4.	Drifts, ---	Gaseous,													
Bast Colliery:															
Bast Mammoth.	Slope, ---	Gaseous,	2 Fans, -- 13	5.0	5.0	5.0	90	2.1	Cuibal,	Steam, ----	12	185,000	175,000	195,000	422
Bear Ridge Colliery:															
Bear Ridge Tunnel.	Slope, ---	Gaseous,	Fan, ----- 18	6.0	4.5	4.5	85	1.8	Cuibal,	Steam, ----	8	70,000	67,000	74,000	37
Potts Colliery:															
Potts Primrose.	Slope, ---	Gaseous,	Fan, ----- 21	7.0	6.0	6.0	80	1	Whiting,	Steam, ----	15	210,000	200,000	214,000	435
Potts Mammoth.	Slopes, --	Gaseous,	2 Fans, -- 18	6.0	5.0	5.0	80	1.8							
Lehigh Valley Coal Co.															
Centralia Colliery:	Slope, ---	Gaseous,	2 Fans, -- (30	6.0	6.5	6.5	62	1.3		Steam, ---	6	65,000	63,000	68,000	155
Continental.	Slope, ---	Gaseous,	12	3.5	1.75	3.0	60	.3	Cuibal,	Gasoline, --	4	40,000	38,000	42,000	110
Logan.	Slope, ---	Gaseous,	Fan, ----- 12	4.0	3.0	3.0	92	.5		Steam, ----					

TABLE 1.—Operators, location of collieries, railroads, etc.

Names of Operators and Collieries	County	Name of General Superintendent	Post Office	Name of Superintendent	Post Office	Railroad to Mine
Philadelphia and Reading Coal and Iron Co.	Schuylkill, --- Schuylkill, --- Columbia, --- Schuylkill, ---	W. J. Richards, General Manager,	Pottsville.	Reese Tasker,	Pottsville,	P. and R.
Lehigh Valley Coal Co.	Columbia, --- Schuylkill, --- Columbia, ---	S. D. Warriner, General Manager,	Wilkes-Barre,	J. M. Rumphrey,	Centralla,	Lehigh Valley
Midvalley Coal Co.	Columbia, ---	T. E. Snyder, General Manager,	Hazleton,	H. D. Kostenbauder,	Wilburton,	Lehigh Valley
Girard Mammoth Coal Co.	Schuylkill, ---			William Palmer,	Ravenna,	P. and R.
W. R. McTurk Coal Co.	Schuylkill, ---	W. R. McTurk,	Philadelphia,	Jacob M. Holt,	Girardville,	P. and R.
Girard Bear Ridge,					Ashtand,	
Pioneer,	Schuylkill,			John Dreshman,		
Beaver Valley Coal Co.	Columbia, ---			John Evans,	Beaver Valley,	Pennsylvania
*Scotch Valley,						

*Idc.

TABLE 2.—Number of tons of coal mined, number of days worked, number of persons employed, number killed and injured, quantity of powder, dynamite and permissible explosives used, etc.

Names of Operators and Collieries	County	Number of tons of coal shipped to market	Number of tons used at collieries for steam and heat	Number and used by employes	Total production of coal in tons	Number of days worked	Number of employes	Number of fatal accidents	Number of non-fatal accidents	Explosives			
										Number of pounds of powder used	Number of pounds of dynamite used	Number of pounds of permissible explosives used	Number of horses and mules
Philadelphia and Reading Coal and Iron Co.	Schuylkill,	280,807	37,163	7,480	325,950	278	330	3	7	3,525	85,282	69,354	51
Hammond,	Schuylkill,	257,940	56,340	10,280	324,560	275	749	1	5	19,323	60,576	30,860	33
Basf,	Schuylkill,	185,031	52,363	2,633	240,087	201	619	2	2	.....	21,835	1,644	76
Potts,	Columbia,	.....	6,790	.....	6,790	.....	56	.....	.....	.....	1,760	.....	6
*Bear Ridge,	Schuylkill,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Totals,	.....	723,778	152,656	20,353	877,887	.....	2,365	6	14	23,050	169,453	117,698	226
Lehigh Valley Coal Co.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Centralia,	Columbia,	395,930	45,440	5,737	447,107	294	801	13	13	3,075	225,972	.....	64
Paucker No. 5,	Schuylkill,	38,918	19,772	.....	46,720	267	555	3	14	125,025	101,159	.....	32
Lochs Run, [†]	Columbia,	.....	.....	.....	.....	.....	35	.....	.....	.....	8,536	.....	5
Totals,	.....	782,878	65,212	5,737	853,827	.....	1,391	3	27	128,100	330,627	.....	101
Mitvalley Coal Co.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Mitvalley,	Columbia,	337,867	38,040	2,535	378,642	219	610	2	6	64,300	38,788	.....	72
Girard Mammoth Coal Co.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Girard Mammoth,	Schuylkill,	179,157	30,000	673	209,830	229	403	1	3	88,400	190,735	.....	21

*Idle.

†Pumping station.

TABLE 2—Continued

Names of Operators and Collieries	County	Number of tons of coal shipped to market	Number of tons used at collieries for steam and heat	Number of tons sold to local trade and used by employes	Total production of coal in tons	Number of days worked	Number of employees	Number of fatal accidents	Number of non-fatal accidents	Explosives				Number of horses and mules used
										Number of pounds of dynamite used	Number of pounds of powder used	Number of pounds of permissible explosives used	Number of pounds of dynamite used	
W. R. McTurk Coal Co.	Schuylkill,	112,353	19,077	82	131,512	238	297	2	1	24,100	.....	.....	.....	30
Girard Bear Ridge, .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Dreshman Coal Co.	Schuylkill, .....	.....	225	4,966	5,191	203	11	.....	.....	1,500	.....	.....	.....	3
Pioneer, .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Grand totals, .....	.....	2,136,083	305,210	35,146	2,476,839	.....	5,017	14	51	253,850	703,893	117,638	.....	453

TABLE 2.—Part 2

Names of Operators	County	Number of Boilers				Locomotives				Total horse power	Number of pumps delivering water to surface	Capacity in gallons per minute	Quantity delivered to surface per minute—gallons	Number of electric dynamos	Number of air compressors
		Cylindrical	Tubular	Horse power	Total horse power	Steam	Air	Electric	Number of steam engines of all classes						
Philadelphia and Reading Coal and Iron Co.,	Schuylkill,	24	54	6,750	7,626	7	4	-----	122	14,887	10	13,363	7,391	1	5
Lehigh Valley Coal Co.,	Columbia, Schuylkill, Columbia,	15	25	3,900	4,455	4	-----	13	63	7,605	3	7,128	5,128	2	1
Midvalley Coal Co.,	Columbia,	-----	16	3,000	3,000	10	-----	-----	15	2,240	7	7,830	7,830	-----	1
Girard Mammoth Coal Co.,	Schuylkill,	-----	5	1,250	1,250	6	-----	2	10	1,210	4	3,200	2,000	1	-----
W. R. McTurk Coal Co.,	Schuylkill,	-----	11	1,492	1,492	4	-----	-----	11	1,320	2	600	300	-----	1
Dreshman Coal Co.,	Schuylkill,	-----	1	169	169	-----	-----	-----	2	80	-----	-----	-----	-----	-----
Totals,	-----	39	112	16,492	17,923	31	4	15	223	27,842	26	37,126	25,649	4	8

TABLE 3.—Number of employees inside and outside of mines

Names of Operators	County	Inside											Outside							Grand total inside and outside		
		Mine foremen	Assistant mine foremen	Fire bosses and assistants	Minders	Shifters, laborers	Drivers and runners	Doorboys and helpers	Pumpmen	Company men	All other employees	Total inside	Superintendents	Foremen	Blacksmiths and carpenters	Engineers and firemen	State pickers (boys)	State pickers (men)	Hookkeepers and clerks		All other employees	Total outside
Philadelphia and Reading Coal and Iron Co.,	Schuylkill,	6	26	.....	227	178	73	47	11	421	497	1,486	.....	8	34	102	111	47	11	516	819	2,305
Lehigh Valley Coal Co.,	Columbia,	6	18	.....	250	326	57	16	6	.....	388	1,007	.....	5	36	49	15	3	5	211	334	1,331
Midvalley Coal Co.,	Columbia,	3	.....	7	153	133	38	5	6	86	.....	421	1	2	17	37	25	10	3	94	189	610
Girard Mammoth Coal Co.,	Schuylkill,	1	1	2	62	45	12	4	5	48	.....	180	1	1	10	24	44	3	3	138	233	403
W. R. McTurk Coal Co.,	Schuylkill,	1	.....	1	14	39	6	5	2	9	8	85	1	1	12	11	51	.....	2	130	217	297
Dreshman Coal Co.,	Schuylkill,	1	.....	.....	3	.....	2	.....	.....	.....	6	1	1	1	1	.....	.....	.....	1	1	5	11
Totals,	.....	18	45	16	799	721	178	77	30	564	862	3,245	4	19	69	227	247	63	23	1,090	1,772	5,017

TABLE 3.—Part 2

Names of Operators	County	Average Number of Days Worked in Breaker												Total		
		January	February	March	April	May	June	July	August	September	October	November	December			
Philadelphia and Reading Coal and Iron Co.,	Columbia,	15	13	16	23	25	26	18	17	21	24	24	24	24	24	246
Lehigh Valley Coal Co.,	Schuylkill,	24	19	23	22	25	25	17	17	24	24	24	24	24	22	276
Midvaleley Coal Co.,	Columbia,	21	19	21	19	22	22	20	20	22	21	21	21	21	21	249
Girard Marquette Coal Co.,	Schuylkill,	19	14	3	22	23	21	17	19	23	24	23	23	21	21	229
W. R. McTurk Coal Co.,	Schuylkill,	20	17	24	20	16	22	16	20	20	20	21	21	21	21	238
Breshman Coal Co.,	Schuylkill,	17	17	20	19	16	15	16	11	20	16	17	17	16	17	203

TABLE 4.—Fatal accidents inside and outside of mines

Date of accident	Name of Person	Nationality	Occupation	Age	Married or single	Number of widows	Number of orphans	Name of Colliery	County	Nature and Cause of Accident in Brief
Jan. 4	Anthony O'Donnell,---	Irish,-----	Laborer,-----	57	M.	1	---	Hammond,-----	Schuylkill,-----	Killed by overhoist while being hoisted up the tender slope. The engineer left his engine and the car was pulled in on the dump. Outside.
25	Fred Shrader,-----	German,---	Laborer,-----	30	S.	---	---	Potts,-----	Columbia,-----	Killed by fall of frozen culm where they were loading up a bank with steam shovel. Outside.
Feb. 2	Fred Peters,-----	German,---	Timberman,---	64	M.	1	---	Packer No. 5,---	Schuylkill,-----	Fatally injured by being struck by motor while opening door. He was tending door for the day. Died March 19.
Mar. 16	Thomas McDonald,---	American,---	Laborer,-----	19	S.	---	---	Hammond,-----	Schuylkill,-----	Killed by his clothing being caught in breaker machinery. He was oiling the machinery while it was in motion. Outside.
18	Michael Menkoush,--	Slavonian,--	Fireman,-----	35	M.	1	4	Midvalley,-----	Columbia,-----	Fatally injured by being caught in fly-wheel of an ash line engine. He started it with his foot and his legs were caught. Died March 22. Outside.
April 4	Henry Purnell,-----	American,---	Miner,-----	29	M.	1	---	Girard Bear Ridge,-----	Schuylkill,-----	Suffocated by rush of coal in chute.
May 26	Elisha Purnell,-----	American,---	Laborer,-----	18	S.	---	---	Girard Mammoth,-----	Schuylkill,-----	Killed by fall of coal off the breast rib 180 feet from face.
	Patriek Monaghan,---	American,---	Miner,-----	33	S.	---	---	Girard Mammoth,-----	Schuylkill,-----	Killed by fall of coal 30 feet from face while robbing pillars.
June 16	Luke Cottrick,-----	Slavonian,--	Laborer,-----	43	M.	1	5	Packer No. 5,---	Schuylkill,-----	Killed by fall of coal off pillar 40 feet from face while robbing pillars.
20	Peter Collis,-----	American,---	Miner,-----	38	M.	1	1	Midvalley,-----	Columbia,-----	from face while robbing pillars.

Aug. 11	Peter Zenanonskie,---	Lithuanian,	Labore	22	S.	-----	Bast, -----	Schuykill, -----	Killed by rush of coal on gangway 180 feet from face. He and the miner and another laborer were at work at the face when they heard the gangway breaking behind them. Zenanonskie ran to get out and was caught. The others remained inside and were uninjured.
Oct. 19	Levl Yarnell, -----	American,--	Laborer,	27	M.	1	Potts, -----	Columbia, -----	Killed by being caught between box car door and chute under breaker. Out-side
Nov. 3	Peter Asmanskie, -----	Lithuanian, -----	Miner, ---	23	S.	-----	Hammond, -----	Schuykill, -----	Killed by explosion of gas and falling 80 feet down the breast manway. He used a naked light, when he had been ordered to use safety lamp.
Dec. 29	Thomas Helco, -----	Slavonian,	Laborer, ---	6	S.	-----	Packer No. 5, ---	Schuykill, -----	Killed by fall of coal. He went into an abandoned place to load a buggy of coal to finish the shift and while picking down top coal it fell on him.

TABLE 5.—Non-fatal accidents inside and outside of mines

Date of accident	Name of Person	Naturalty	Occupation	Age	Married or single	Name of Colliery	County	Nature and Cause of Accident in Brief
Jan. 4	Frank Carrall, ----- John Bush, ----- Michael Wabush, -----	Irish, ----- Italian, ----- Slovakian, -----	Starter, ----- Miner, ----- Laborer, -----	38 36 21	M. M. S.	Hammond, ----- Packer No. 5, ----- Hammond, -----	Schnykill, ----- Schnykill, ----- Schnykill, -----	Leg fractured by an overholst on slope. Outside. Leg fractured by fall of coal while robbing pillars. Hand crushed in machinery in breaker and had to be amputated. Outside. Leg fractured by machinery under breaker. Outside. Leg fractured by jumping off locomotive on stripping bank. Outside. Eye punctured by bumping against object at breaker. Outside. Thigh bruised by falling under cars on gangway. Ankle fractured by machinery in breaker. Outside.
20	Frank Oswald, -----	German, -----	Assistant foreman, -----	45	M.	Hammond, -----	Schnykill, -----	
25	Lewis Strinak, -----	German, -----	Carpenter, -----	41	M.	Potts, -----	Columbia, -----	
30	James Hagerty, -----	American, -----	Engineer, -----	32	S.	Centraha, -----	Columbia, -----	
Feb. 1	John Purcell, -----	American, -----	Loader, -----	19	S.	Centraha, -----	Columbia, -----	
7	John Hoffman, -----	American, -----	Driver, -----	33	M.	East, -----	Schnykill, -----	
23	Arthur Orth, -----	American, -----	Jig-tender, -----	18	S.	Centraha, -----	Columbia, -----	
25	John Garvey, -----	American, -----	Laborer, -----	19	S.	East, -----	Schnykill, -----	
27	Michael Lacoovieh, -----	Russian, -----	Laborer, -----	38	M.	Centraha, -----	Columbia, -----	
March 1	Sylvester Kolkoskie, -----	Lithuanian, -----	Miner, -----	37	M.	Packer No. 5, -----	Schnykill, -----	
3	Owen King, -----	American, -----	Switchman, -----	26	S.	Hammond, -----	Schnykill, -----	
7	Thomas Moran, -----	American, -----	Laborer, -----	55	M.	Hammond, -----	Schnykill, -----	
13	Adam Gronofskle, -----	Lithuanian, -----	Miner, -----	42	M.	Packer No. 5, -----	Schnykill, -----	
14	Steve Demetro, -----	Polish, -----	Miner, -----	48	M.	Centraha, -----	Columbia, -----	

April	3	Flex Rowe,	Polish,	Miner,	39	M. Midvalley,	Columbia,	Face and body lacerated by premature blast at face of breast.
	4	Michael Wynn,	Irish,	Repairman,	52	M. Bast,	Schuylkill,	Foot fractured by falling down airway while timbering.
	5	Andrew Suffron,	Polish,	Loader,	58	M. Centralia,	Columbia,	Shoulder dislocated by falling off car at breaker. Outside.
	21	John Tretter,	Austrian,	Laborer,	20	S. Centralia,	Columbia,	Leg bruised by being bumped between cars on gangway.
	24	Joseph Sexton,	American,	Miner,	45	S. Packer No. 5,	Schuylkill,	Hands blown off and eyes destroyed by explosion of box of caps on gangway.
	25	Frank Stollus,	Russian,	Miner,	28	S. Packer No. 5,	Schuylkill,	Hands and face burned by explosion of gas at face of breast.
	29	Joe Dubills,	Lithuanian,	Miner,	25	S. Packer No. 5,	Schuylkill,	Leg fractured by fall of coal at face of breast.
May	8	Michael Vasulavage,	Polish,	Miner,	25	M. Midvalley,	Columbia,	Face and hands burned by explosion of gas at face of breast.
	19	John Smith,	Polish,	Driver,	33	S. Midvalley,	Columbia,	Shoulder blade fractured by being caught between car and timber on gangway.
	27	Joseph Morgans,	Polish,	Miner,	33	M. Midvalley,	Columbia,	Hands and face burned by explosion of gas at face of breast.
June	12	Humphrey Cosack,	Slavonian,	Miner,	27	M. Packer No. 5,	Schuylkill,	Hands and face burned while handling powder with naked lamp on head.
	15	Joseph Parsick,	Polish,	Laborer,	29	M. Centralia,	Columbia,	Body crushed by being caught by cars on rock bank. Outside.
	16	Patrick Curran,	Irish,	Laborer,	45	M. Centralia,	Columbia,	Leg fractured by being struck by rope on slope.
	21	William Woodman,	American,	Timberman,	37	M. Bast,	Schuylkill,	Concussion of brain by falling down airway while timbering.
	26	Frank Miller,	American,	Miner,	52	M. Packer No. 5,	Schuylkill,	Hands and face burned by explosion of gas in chute while robbing pillars.
	27	John Grant, (August Lokitas,	American,	Miner,	37	M. Hammond,	Schuylkill,	Hands and face burned by explosion of gas at face of breast.
July	7	Stincy Swatskie,	Polish,	Starter,	24	M. Midvalley,	Columbia,	Arm fractured by being caught in battery in breast.
	18	Andy Hoffshanne, (Joe Krick,	Russian,	Miner,	32	M. Packer No. 5,	Schuylkill,	Hands and face burned by explosion of gas at face of breast.
	21	William Miller,	American,	Laborer,	27	S. Bast,	Schuylkill,	Ribs fractured by being kicked by mule at timber yard. Outside.
	27	John Belber,	Austrian,	Miner,	47	S. Bast,	Schuylkill,	Compound fracture of leg by fall of rock at face while robbing pillars.
	29	John Tyson,	American,	Miner,	25	M. Centralia,	Columbia,	Leg fractured by rush of coal in breast mainway.
Sept.	6	William Davis,	American,	Driver,	29	M. Centralia,	Columbia,	Foot fractured by cars.
Oct.	2	Patrick Noon,	Irish,	Miner,	22	S. Girard Bear Ridge,	Schuylkill,	Leg fractured by fall of coal at face of breast.
	3	John Maloney,	American,	Oiler,	51	M. Packer No. 5,	Schuylkill,	Arm fractured by falling in breaker. Outside.
	26	John Tiley,	American,	Blacksmith,	23	S. Girard Mammoth,	Schuylkill,	Leg fractured by machinery in shop. Outside.
	26	John Potts,	Columbia,	Miner,	38	M. Potts,	Columbia,	

TABLE 5—Continued

Date of accident	Name of Person	Nationality	Occupation	Age	Married or single	Name of Colliery	County	Nature and Cause of Accident in Brief
Nov. 6	Frank Rodusky, -----	Polish, ----	Miner, -----	40 M., -----		Girard Mammoth, --	Schuylkill, -----	Collar bone fractured by fall of slate while robbing pillars.
	Merrit Zimmerman, --	American,--	Surveyor, -----	29 S., -----		Packer No. 5, -----	Schuylkill, -----	Body punctured by jumping on iron rod on gangway.
9	Mike Burda, -----	Russian, --	Miner, -----	34 M., -----		Packer No. 5, -----	Schuylkill, -----	Hands burned by explosion of gas in heading that he was driving.
13	John McGrath, -----	American,--	Craneman, -----	18 S., -----		Girard Mammoth, --	Schuylkill, -----	Leg fractured by being struck by broken chain on steam shovel on stripping. Outside.
22	Michael Carlock, -----	Polish, ----	Laborer, -----	44 M., -----		Centralia, -----	Columbia, -----	Arm fractured by falling down breast manway.
Dec. 5	Frank Petroski, -----	Russian, --	Laborer, -----	39 M., -----		Midvale, -----	Columbia, -----	Collar bone fractured by being caught between car and platform on gangway.
7	John Encrionskie, ---	Lithuanian,	Miner, -----	26 M., -----		Packer No. 5, -----	Schuylkill, -----	Hands and face burned by explosion of gas at face of breast.
27	Anthony Kudoek, -----	Polish, ----	Loader, -----	19 S., -----		Centralia, -----	Columbia, -----	Finger cut off while cranking gasoline motor on gangway.

CONDITION OF COLLIERIES

PHILADELPHIA AND READING COAL AND IRON COMPANY

Hammond, Bast, Potts and Bear Ridge.—Safety conditions, ventilation and drainage good.

LEHIGH VALLEY COAL COMPANY

Centralia, Packer No. 5 and Locust Run.—Safety conditions, ventilation and drainage, good.

MIDVALLEY COAL COMPANY

Midvalley.—Safety conditions, ventilation and drainage, good..

GIRARD MAMMOTH COAL COMPANY

Girard Mammoth.—Safety conditions, ventilation and drainage, good.

W. R. McTURK COAL COMPANY

Girard Bear Ridge.—Safety conditions and ventilation good; drainage fair.

DRESHMAN COAL COMPANY

Pioneer.—Safety conditions and ventilation good; drainage fair.

IMPROVEMENTS

PHILADELPHIA AND READING COAL AND IRON COMPANY

Potts Colliery.—Water was turned into the mine on April 29, 1910, with a view of extinguishing all fires, that is, to the highest point they could reach with water. On November 18, 1910, the water reached the highest point possible. While the flooding of the mine was being done five fire slopes were sunk on the Mammoth vein, on the hill east of the breaker, to get at any fire that might be above the level reached by the water. Cross-headings were driven between these slopes to explore the territory. Work at these slopes and headings was completed in February, 1911, and all of these openings were afterwards filled with slush, which was pumped from the slush bank at breaker.

The water in the mine remained at a standstill until February 28, 1911, when the drawing off of the water from behind the brick dams commenced. August 9, 1911, the colliery was entirely free of water.

A new breaker equipped with the most modern machinery and appliances was built on the site of the old breaker.

The old Primrose hoisting engines were moved to a new location 195 feet north of old engine house. The Primrose slope trestle was extended to a new landing in order to dump the coal from this slope into the gunboat dump.

A concrete fan shaft was built at the 18-foot exhaust fan on Mammoth vein, west of Mammoth slope headframe.

Sixteen sets of steel timber, 4-foot centers, were placed from the surface down 60 feet on Mammoth slope.

A new concrete wash water sump at wash pump house was built.

The house over Mammoth gunboat dump was remodeled and new machinery installed.

Steel timber was placed for about 45 feet up the headframe at top of Mammoth hoisting slope and concrete walls and walks laid at top of slope.

A 27 by 46 by 12 by 48 inch P. and R. compound condensing pump was installed in a pump room with concrete floor in the top rock of the Primrose vein 3rd lift 30 feet west of Primrose slope. This pump discharges the water to the surface, a vertical lift of 870 feet.

A tunnel from the east Orchard gangway on 2nd lift Backswitch level to the Primrose slope is being driven; probable distance, 32 yards.

Bast Colliery.—A tunnel through fault from the face of No. 4 Buck Mountain drift North Ashland dip was completed; distance, 71 1-3 yards; also a tunnel to the Buck Mountain vein from the East Mammoth gangway 3rd lift Bast dip, distance, 109 $\frac{2}{3}$ yards.

In the pump-room in the top rock of Buck Mountain vein on the 2nd lift the round timber that supported the roof and sides has been replaced by 12-inch steel girders, which rest upon a concrete wall 3 feet thick, extending to within 16 inches of the top of pump-room. Old T rail was placed on top of the steel girders. In the gangway at north end of pump-room the timber supports have been replaced by steel girders. In the pump-room in Buck Mountain vein, 2nd lift, 18 sets of steel timber have been erected in place of wood timber; concrete walls 4 feet 6 inches high have been built along both sides of the pump-room, and on top of these walls steel props with 4 foot 8 inch centers, have been placed which have a 12-inch steel girder for collar. The sides and top of room are lined with old T rail and room has concrete floor.

A single track Barney plane to lower the coal from No. 5 Buck drift, was completed; plane is 590 feet long, 10 feet wide, on an average pitch of 18 $\frac{1}{2}$ degrees.

Hammond Colliery.—A coal hoisting shaft has been completed at a depth of 1,211 feet. The shaft has four compartments each 7 feet by 12 feet 8 inches in the clear.

A traffic and turnout tunnel between the West Orchard and the West Diamond veins on the 3rd lift; distance, 222 feet, was completed.

An underground slope in the Buck Mountain vein was sunk a distance of 343 feet, and the East and West gangways, 4th lift, are driven 500 feet on each side of slope.

The underground slope in the Mammoth vein on line of Mammoth slope from 3rd lift, was completed; distance, 330 feet, and East and West gangways, 4th lift, are driven 500 feet each side of slope.

A tunnel to the Mammoth vein from the Buck Mountain vein, 4th lift, about 200 feet east of the bottom of underground slope in Buck was completed; distance, 228 feet. This tunnel connects the East Buck Mountain, 4th lift and East Mammoth, 4th lift gangways and is on a line of proposed tunnel northward to the coal shaft and southward to the Diamond vein.

A tunnel from the West Mammoth to the Holmes vein was completed; distance, 127 feet.

A tunnel to the Mammoth vein from the West Seven Foot water level was completed; distance, 123 feet.

The stable in the Seven Foot vein, 3rd lift, was completed. It has a concrete floor, the roof and sides are supported with T rails, the mangers and feed bins are made of gas pipe and sheet iron, and the feed box for storing supplies is made of concrete.

LEHIGH VALLEY COAL COMPANY

Centralia Colliery.—Two 300 H. P. Stirling boilers were erected. The boiler house building and feed pump house are built of reinforced concrete, and the boiler house is equipped with Coxe traveling grates and automatic feed regulators. The Central power plant was started November, 1910, and was completed during this year. This power plant contains a 500 K. V. A. generator driven by a Cross-Compound Corliss engine, size 22 by 36 by 36 inches and is completely equipped with steam driven exciter as well as electrically driven exciter set and is in every particular equipped with the most modern appliances. The house is completely fireproof, being built of re-inforced concrete steel trusses; the roof is also of reinforced concrete. They have ordered a motor generator set to replace the D. C. steam driven generator. This plant supplies power for Locust Run, and they contemplate doing all of the haulage at the collieries tributary to Centralia breaker as well as pumping, and in addition the pumping at the water station.

Locust Run Colliery.—Operations were started toward the end of the year and during the past year the slope in the Buck Mountain vein from the old water level to the locomotive road from Locust Run to Centralia was completed 500 feet deep, and the locomotive road from Centralia to Locust Run finished and an electric hoist placed on this slope.

The timber at the mouth of the Holmes slope and at the mouth of the Logan slope and the Continental manway were replaced by concrete.

A plane and engine house erected at Big Mine Run for transporting the coal from the stripping.

MINE FOREMEN'S EXAMINATIONS

The annual examination of applicants for certificates of qualification as mine foremen and assistant mine foremen, was held in Union Hall, Pottsville, March 22 and 23. The Board of examiners was composed of James A. O'Donnell, Mine Inspector; Jacob M. Holt, Superintendent, Girardville; John Meredith, Miner, Ashland; Patrick Curran, Miner, Centralia.

The following persons passed a satisfactory examination and were granted certificates:

Mine Foremen

John J. Conway, Centralia.

Assistant Mine Foremen

Frank Pollard, John J. Doyle, Patrick F. Kane, John Panko, Jr., Alfred Liddicott, Peter J. Conway, James J. Haffey, Centralia; John A. Quinn, Connerton; Albert D. Wolfgang, Lavelle; Edward J. Lowery, John J. Colaban, Ashland.



FIFTEENTH DISTRICT

NORTHUMBERLAND COUNTY

Mount Carmel, Pa., February 10, 1912.

Hon. James E. Roderick, Chief of Department of Mines:

Sir: I have the honor of transmitting herewith my Annual Report as Inspector of Mines of the Fifteenth Anthracite District, for the year ending December 31, 1911.

Respectfully submitted,
BENJAMIN I. EVANS, Inspector.

SUMMARY OF STATISTICS

Number of collieries,	11
Number of mines,	30
Number of mines in operation,	30
Number of tons of coal shipped to market,	3,046,996
Number of tons used at mines for steam and heat,	347,520
Number of tons sold to local trade and used by employes,	44,798
Number of tons produced,	3,439,314
Number of tons produced by compressed air machines, .....	.....
Number of tons produced by electrical machines, .....	.....
Number of persons employed inside of mines,	5,777
Number of persons employed outside,	2,265
Number of fatal accidents inside of mines,	15
Number of fatal accidents outside,	6
Number of non-fatal accidents inside of mines,	14
Number of non-fatal accidents outside,	2
Number of tons of coal produced per fatal accident inside,	229,288
Number of persons employed per fatal accident inside,	385
Number of persons employed per fatal accident outside,	377
Number of persons employed per non-fatal accident inside,	412
Number of persons employed per non-fatal accident outside,	1,132
Number of wives made widows,	9
Number of children made orphans,	15
Number of steam locomotives used inside of mines, .....	.....
Number of steam locomotives used outside,	21
Number of compressed air locomotives used inside,	3
Number of compressed air locomotives used outside, .....	.....
Number of electric motors used inside,	18
Number of electric motors used outside, .....	.....
Number of fans in use,	30
Number of furnaces in use, .....	.....
Number of gaseous mines in operation,	12
Number of non-gaseous mines in operation,	18
Number of new mines opened, .....	.....
Number of old mines abandoned,	2

TABLE A

PRODUCTION OF COAL

Names of Operators	Tons
Philadelphia and Reading Coal and Iron Company,	1,373,235
Mineral Railroad and Mining Company,	892,557
Lehigh Valley Coal Company,	381,845
Greenough Red Ash Coal Company,	266,144
Enterprise Coal Company,	242,676
Colonial Collieries Company,	172,842
Excelsior Coal Company,	110,015
Total,	<u><u>3,439,314</u></u>

Production by Counties

Northumberland,	3,439,314
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~~3,439,314~~
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TABLE B.—Fatal and non-fatal accidents inside and outside of mines; number of tons of coal produced per accident; number of persons employed; number employed per accident

Names of Operators	Fatal Accidents			Non-Fatal Accidents			Tons of coal produced per fatal accident inside	Tons of coal produced per non-fatal accident inside	Number of employees inside	Number of employees outside	Total number of employees	Number of employees inside per fatal accident	Number of employees outside per fatal accident	Number of employees inside per non-fatal accident	Number of employees outside per non-fatal accident
	Inside	Outside	Total	Inside	Outside	Total									
Philadelphia and Reading Coal and Iron Co.,	3	2	5	7	2	9	457,745	196,176	2,145	789	2,434	715	394	306	384
Mineral Railroad and Mining Co.,	5	1	6	4	2	6	178,512	248,189	1,829	669	2,498	366	457	457	384
Lehigh Valley Coal Co.,	3	1	4	2	1	3	127,282	514	514	182	696	171	175	197	175
Greenough Red Ash Coal Co.,	1	1	2	2	1	3	266,144	133,672	335	175	570	385	175	197	197
Enterprise Coal Co.,	2	1	3	1	1	2	121,388	426	426	205	631	315	205	311	205
Colonial Collieries Co.,	1	2	3	1	2	3	172,842	311	167	167	478	167	83	311	311
Excelsior Coal Co.,	1	1	2	1	1	2	110,015	157	157	78	235	157	83	311	311
Totals and averages for district,	15	6	21	14	2	16	229,288	245,665	5,777	2,565	8,042	385	377	412	1,132

TABLE C.—Classification of Fatal Accidents Inside and Outside of Mines

	Months												Totals	Percentages	
	January	February	March	April	May	June	July	August	September	October	November	December			
Causes of Accidents Inside															
Falls of coal,					1		1							2	13.33
Falls of slate,			1	1				1						3	20.00
Falls of roof,									1					1	6.67
Mine cars,			1	1			2		1			1		6	40.00
Blasts, premature and otherwise,	1													1	6.67
Drowned in sump,			1							1				2	13.33
Totals,	1		3	2	1		3	1	1	2		1		15	100.00
Causes of Accidents Outside															
Cars,	1										1	1	3	3	50.00
Machinery,								1		1			2	2	33.34
By falling,													1	1	16.66
Totals,	1							1		1	1	2	6	6	100.00
Grand totals inside and outside,	2		3	2	1		3	2	1	3	1	3	21		

TABLE D.—Classification of Non-Fatal Accidents Inside and Outside of Mines

	Months												Totals	Percentages	
	January	February	March	April	May	June	July	August	September	October	November	December			
Causes of Accidents Inside															
Falls of coal,					1		1		1					3	21.43
Falls of slate,		1									1			2	14.29
Mine cars,		1		1			1				1			3	35.71
Explosions of powder and dynamite,										1				1	7.14
Blasts, premature and otherwise,	1			1										2	14.29
									1					1	7.14
Totals,	1	2		2	1		2		1	3	2			14	100.00
Causes of Accidents Outside															
Cars,			1									1	2	2	100.00
Totals,			1									1	2	2	100.00
Grand totals inside and outside,	1	2	1	2	1		2		1	3	2	1	16		

TABLE E.—Occupations of Persons Killed or Fatally Injured Inside and Outside of Mines

	Months												Totals
	January	February	March	April	May	June	July	August	September	October	November	December	
Inside													
Miners,	1	1	1	1			1	1		1			7
Miners' laborers,		1					1						2
Dump-men,												1	1
Loader-bosses,									1				1
Loaders,				1									1
Repairmen,										1			1
Bottommen,			1										1
Totals,	1	2	2	1	1		2	1	1	2		1	15
Outside													
Chute-bosses,								1		1			2
Conductors,	1												1
Loaders,												1	1
Car-runners,											1		1
Oilers,												1	1
Totals,	1							1		1	1	2	6
Grand totals inside and outside,	2	2	2	1	1		3	2	1	3	1	3	21

TABLE F.—Occupations of Persons Injured Inside and Outside of Mines

	Months												Totals
	January	February	March	April	May	June	July	August	September	October	November	December	
Inside													
Miners,	1	1		1	1		1		1	2			9
Miners' laborers,				1			1					1	3
Drivers and runners,										1			1
Doorboys and helpers,		1											1
Totals,	1	2		2	1		2		1	3		1	14
Outside													
Drivers,												1	1
Oilers,			1										1
Totals,			1									1	2
Grand totals inside and outside,	1	2	1	2	1		2		1	3	2	1	16

TABLE G.—Nationality of Persons Killed or Fatally Injured Inside and Outside of Mines

	Months												
	January	February	March	April	May	June	July	August	September	October	November	December	Totals
American,	1						2		1	2	1	2	9
Irish,								1					1
Polish,			1		1		1	1					4
Lithuanian,		1	1	1									3
Austrian,												1	1
Russian,			1	1						1			3
Totals,	2		3	2	1		3	2	1	3	1	3	21

TABLE H.—Nationality of Persons Injured Inside and Outside of Mines

	Months												
	January	February	March	April	May	June	July	August	September	October	November	December	Totals
American,		1	1							1		1	4
English,											1		1
German,							1						1
Polish,		1	1	1	1				1	1	1		5
Slavonian,										1			1
Austrian,				1									1
Tyroleau,							1						1
Totals,	1	2	1	2	1		2		1	3	2	1	16

TABLE I.—Operators and mines, kind of openings, type and size of fans, size of furnaces, volume of air produced by fan or furnace per minute, number of splits of air currents and number of persons employed inside

Names of Operators and Mines	Kind of openings	Gasous or non-gasous	Method of ventilation	Diameter of fan in feet and inches	Width of blades in feet and inches	Depth of blades in feet and inches	Number of revolutions per minute	Water gauge developed—in inches	Name of fan	Power used	Number of splits of air currents	Number of cubic feet of air per minute entering the mine at inlet	Total quantity of air per minute circulating in all the splits in cubic feet	Number of cubic feet per minute passing out at outlet	Number of persons employed inside
Philadelphia and Reading Coal and Iron Co.															
Locust Spring Colliery:															
Locust Spring, East.	Slope.	Gasous.	Fan.	21	5.6	5.9	72	1.6	Reading.		19	41,470	46,650	42,000	561
Locust Spring, West.	Slope.	Gasous.	Fan.	15	3	3.6	54	1.2	Gulbal.		8	59,700	59,500	60,800	
Locust Spring, East.	Slope.	Gasous.	Fan.	15	4	3.6	84	1.6	Gulbal.	Steam.	8	31,000	31,000	32,500	
Locust Gap, East.	Slope.	Gasous.	Fan.	21	5	4.6	73	1.2	Gulbal.		9	78,000	77,000	73,000	
Locust Gap, West.	Slope.	Non-gas.	Fan.	15	4	3.6	50	.4	Gulbal.		6	32,000	33,700	496	
Locust Gap, Park Mountain.	Slope.	Non-gas.	Fan.	12	4	3.6	35	.5	Reading.		2	11,000	11,370		
Alaska Colliery:															
Alaska No. 1.	Shafts.	Non-gas.	Fan.	18	4.8	5	85	1.4	Gulbal.	Steam.	6	68,799	67,500	69,000	600
Alaska No. 2.	Shafts.	Non-gas.	Fan.	18	7	6.5	90	1.5	Gulbal.		6	61,000	60,000	62,350	
Roanoke Colliery:															
Roanoke No. 1.	Stops.	Non-gas.	Fan.	18	5.6	5.6	74	1.3	Gulbal.	Steam.	7	51,000	50,100	52,000	388
Roanoke No. 2.	Stops.	Non-gas.	Fan.	18	5.6	5.6	72	1.1	Gulbal.		7	56,000	56,000	56,680	
Mineral Railroad and Mining Co.															
Pennsylvania Colliery:															
Pennsylvania No. 1.	Slope.	Gasous.	Fan.	21	2.5	3.5	75	1.5	Gulbal.	Steam.	4	81,500	78,450	84,700	707
Pennsylvania No. 4.	Slope.	Gasous.	Fan.	16	5	5	80	1.3	Vulcan.		2	61,200	59,000	64,450	
Pennsylvania No. 5.*	Slope.	Gasous.	Fan.	16	3.5	3.5	85	1.2	Mullion.		8	67,050	65,350	68,700	

*Abandoned.

Richards Colliery:												
Richards No. 1	Slopes, ---	Gasous, {	Fan, -----	18	7.2	5.2	90	1.6	Coal, ---	6	70,000	71,000
Richards No. 2	---	Gasous, {	Fan, -----	19	6.8	6.4	94	1.8	Coal, ---	5	75,000	76,000
Richards No. 3	---	Non-gas, {	Fan, -----	16	4.5	4.5	60	1	Coal, ---	5	67,750	68,010
Richards No. 4	---	---	---	---	---	---	---	---	---	---	---	---
Scott Colliery:												
Scott	Shaft, -----	Gasous, {	Fan, -----	18	7	5.6	100	2	Coal, ---	11	182,000	184,500
Lehigh Valley Coal Co.												
Sayre Colliery:												
Sayre	Shaft, -----	Gasous, {	Fan, -----	20	6	5.6	70	1.4	Coal, ---	8	74,000	75,500
Stouk No. 3	Slope, ---	Gasous, {	Fan, -----	16	5	5	55	2.1	Coal, ---	9	58,000	59,480
Greenough Red Ash Coal Co.												
Greenough Colliery:												
Greenough No. 1	Shaft, -----	Non-gas, {	Fan, -----	15	5	4	120	2.1	Mullen, ---	3	77,000	78,000
Greenough No. 2	Slope, ---	---	Fan, -----	12	4	4	80	1	---	2	82,000	82,400
Greenough No. 3	Slope, ---	---	Fan, -----	12	4	4	52	.7	---	1	15,400	15,700
Enterprise Coal Co.												
Enterprise Colliery:												
Enterprise No. 10	Shaft, -----	Non-gas, {	Fan, -----	14	3.5	5	126	2.3	Coal, ---	5	30,500	29,700
Enterprise No. 10	Slope, ---	---	Fan, -----	14	3.5	5	80	1.2	Coal, ---	5	25,800	25,000
Enterprise, Buck Mountain	Slope, ---	---	Fan, -----	14	4.5	5	75	.7	Coal, ---	6	42,400	41,600
Colonial Collieries Co.												
Natalie Colliery:												
Natalie No. 1	Slopes, ---	Non-gas, {	Fan, -----	16	4	4.6	45	.9	Mullen, ---	2	21,000	20,000
Natalie No. 2	---	---	Fan, -----	16	4	4.5	60	.9	---	1	42,000	42,500
Natalie No. 3	---	---	Fan, -----	14	4	3.11	60	1.3	---	1	50,000	48,000
Natalie No. 4	---	---	Fan, -----	14	4	3.10	60	1	---	2	51,000	48,000
Excelsior Coal Co.												
Excelsior Colliery:												
Excelsior	Drift, -----	Non-gas, {	Fan, -----	14	3.8	5	60	2	Beadle, ---	2	37,250	36,500
												38,180
												157

*Abandoned.

TABLE 1.—Operators, location of collieries, railroads, etc.

Names of Operators and Collieries	County	Name of General Superintendent	Post Office	Name of Superintendent	Post Office	Railroad to Mine
Philadelphia and Reading Coal and Iron Co.	Northumberland,	W. J. Richards,	Pottsville,	Euse Tasker,	Pottsville,	P. and R.
Locust Spring, Locest Gap, Alaska, Reliance,	Northumberland,	W. J. Richards,	Pottsville,	Euse Tasker,	Pottsville,	P. and R.
Mineral Railroad and Mining Co.	Northumberland,	R. A. Quin,	Wilkes-Barre,	W. R. Reinhardt,	Shamokin,	Pennsylvania
Lehigh Valley Coal Co.	Northumberland,	F. M. Chase,	Wilkes-Barre,	J. M. Humphrey,	Conradia,	Lehigh Valley
Sayre, Greenough Red Ash Coal Co.	Northumberland,	Edward Freiman,	Shamokin,			Pennsylvania
Greenough, Enterprise Coal Co.	Northumberland,	W. L. Connel,	Scranton,			P. and R.
Enterprise, Colonial Collieries Co.	Northumberland,	F. A. Hill,	Pottsville,	R. H. Buchanan,	Pottsville,	P. and R.
Natalie, Excelsior Coal Co.	Northumberland,	Andrew Robertson,	Pottsville,	A. D. Robertson,	Shamokin,	P. and R.

TABLE 2.—Number of tons of coal mined, number of days worked, number of persons employed, number killed and injured, quantity of powder, dynamite and permissible explosives used, etc.

Names of Operators and Collieries	County	Number of tons of coal shipped to market	Number of tons used at collieries for steam and heat	Number and used by employees	Total production of coal in tons	Number of days worked	Number of employees	Number of fatal accidents	Number of non-fatal accidents	Explosives			Number of horses and mules
										Number of pounds of powder used	Number of pounds of dynamite used	Number of pounds of permissible explosives used	
Philadelphia and Reading Coal and Iron Co.													
Loeast Spring,	Northumberland,	612,673	67,666	2,981	682,747	200	953	2	2	47,075	189,643	42,111	106
Loenst Gap,		57,118	9,375	.....	67,093	496	496	2	2	16,550	150,776	.....	.....
Alaska,		320,255	31,894	80	352,197	261	965	2	1	196,340	151,436	.....	75
Reliance,		213,664	33,724	23,910	271,198	270	589	1	2	20,300	146,135	.....	54
Totals,		1,204,173	142,086	26,971	1,373,235	.....	2,984	5	7	280,275	587,390	42,111	235
Mineral Railroad and Mining Co.													
Pennsylvania,	Northumberland,	311,677	26,469	9,030	347,167	219	939	1	1	137,375	99,351	.....	113
Richards,		282,297	28,762	84	311,143	211	967	3	4	38,325	230,654	.....	79
Scott,		213,714	19,180	1,353	234,247	195	592	1	1	66,750	111,728	.....	49
Totals,			807,688	74,462	10,467	892,557	2,498	5	6	243,450	411,733	.....	241
Leligh Valley Coal Co.													
Sayre,	Northumberland,	334,623	45,536	1,686	381,845	250	696	3	.....	42,050	163,927	.....	35
Greengough Red Ash Coal Co.													
Greengough,	Northumberland,	244,265	18,250	3,689	246,144	268	570	2	2	131,250	42,350	.....	63
Enterprise Coal Co.													
Enterprise,	Northumberland,	205,840	36,500	316	242,676	216	631	3	.....	290,300	11,496	.....	55

TABLE 2--Continued

Names of Operators and Collieries	County	Number of tons of coal shipped to market	Number of tons used at collieries for steam and heat	Number of tons sold to local trade and used by employes	Total production of coal in tons	Number of days worked	Number of employes	Number of fatal accidents	Number of non-fatal accidents	Explosives				Number of horses and mules
										Number of pounds of powder used	Number of pounds of dynamite used	Number of pounds of permissile explosives used	Number of pounds of explosives used	
Colonial Collieries Co.	Northumberland,	151,733	19,786	1,223	172,842	278	478	2	1	14,000	67,500	.....	37
Excelsior Coal Co.	Northumberland,	98,769	10,969	346	110,015	224	235	1	.....	35,000	9,175	.....	34
Grand totals,	.....	3,046,996	347,520	44,798	3,439,314	.....	8,042	21	16	975,325	1,322,871	42,111	700

TABLE 2.—Part 2

Names of Operators	County	Number of Boilers						Locomotives				Total horse power	Number of steam engines of all classes	Total horse power	Number of pumps delivering water to surface	Capacity in gallons per minute	Quantity delivered to surface per minute—gallons	Number of electric dynamos	Number of air compressors					
		Cylindrical	Horse power	Tubular	Horse power	Total horse power	Steam	Air	Electric	Number of steam engines of all classes	Total horse power									Number of pumps delivering water to surface	Capacity in gallons per minute	Quantity delivered to surface per minute—gallons	Number of electric dynamos	Number of air compressors
Philadelphia and Reading Coal and Iron Co.,		12	300	2	150	510	7,450	7,450	6	3	3	130	18,015	14	23,092	6,808	1	8						
Mineral Railroad and Mining Co.,				44	5,950	5,950	5,950	5,950	5		3	57	7,125	12	8,790	3,162	2	3						
Lehigh Valley Coal Co.,	Northumberland,			13	2,900	2,900	2,900	2,900	4		6	45	2,837	7	1,810	6,400	1							
Greenough Red Ash Coal Co.,				8	1,300	1,300	1,300	1,300			4	14	880	2	2,100	2,100	2							
Enterprise Coal Co.,				10	2,500	2,500	2,500	2,500			5	12	1,328	4	6,548	6,548	2							
Colonial Collieries Co.,				11	1,700	1,700	1,700	1,700	4			18	2,240	3	1,400	1,400	1							
Excelsior Coal Co.,				2	300	300	300	300	2			7	924	1	600	350								
Totals,		12	300	142	21,950	22,310	22,310	22,310	21	3	18	288	32,616	43	59,340	27,168	9	13						

TABLE 3.—Number of each class of employees inside and outside of mines

Names of Operators	County	Inside										Outside										Grand total inside and outside
		Mine foremen	Assistant mine foremen	Fire bosses and assistants	Miners	Miners' laborers	Drivers and runners	Doorboys and helpers	Pumpmen	Company men	All other employees	Total inside	Superintendents	Foremen	Blacksmiths and carpenters	Engineers and firemen	State pickers (boys)	State pickers (men)	Hookkeepers and clerks	All other employes	Total outside	
Philadelphia and Reading Coal and Iron Co.,		5	32	.....	958	221	145	28	19	275	432	2,145	.....	7	34	117	117	27	16	471	789	2,934
Mineral Railroad and Mining Co.,		4	6	32	857	321	123	17	33	40	596	1,829	1	3	49	94	221	10	24	297	1,09	2,498
Lehigh Valley Coal Co.,		1	8	228	87	19	6	11	11	.....	134	514	1	4	13	32	9	3	3	117	182	695
Greenough Red Ash Coal Co.,		1	5	.....	175	65	55	4	5	35	50	325	1	1	7	16	95	.....	.....	52	175	570
Enterprise Coal Co.,		2	1	.....	237	43	53	6	7	54	23	496	1	1	10	38	30	3	3	84	265	631
Colonial Collieries Co.,		1	4	1	104	48	23	2	7	47	69	311	.....	1	10	57	23	6	2	98	167	478
Excelsior Coal Co.,		1	1	.....	42	74	23	1	2	8	5	157	1	1	6	14	8	31	2	35	78	235
Totals,		15	57	33	2,601	869	416	64	84	439	1,149	5,777	5	18	129	358	511	57	53	1,124	2,265	8,012

Northumberland,

TABLE 3.—Part 2

Names of Operators	County	Average Number of Days Worked in Breaker												Total
		January	February	March	April	May	June	July	August	September	October	November	December	
Philadelphia and Reading Coal and Iron Co.,		23	19	24	21	25	26	18	17	21	24	23	23	264
Mineral Railroad and Mining Co.,		29	15	18	20	20	18	13	13	12	18	22	20	200
Lehigh Valley Coal Co.,		21	21	21	23	22	22	21	22	22	21	21	21	259
Greenough Red Ash Coal Co.,		23	23	24	23	24	23	21	21	21	23	21	22	263
Enterprise Coal Co.,		21	21	21	21	21	16	11	11	18	19	20	20	216
Colonial Collieries Co.,		24	19	15	17	25	25	23	20	22	23	22	22	258
Excelsior Coal Co.,		18	18	20	19	19	19	16	16	21	19	19	20	224

Northumberland,

TABLE 4.—Fatal accidents inside and outside of mines

Date of accident	Name of Person	Nationality	Occupation	Age	Married or single	Number of widows	Number of orphans	Name of Colliery	County	Nature and Cause of Accident in Brief
Jan. 2	Tek Babuess,	Lithuanian,	Miner,	36	M.	1	4	Scott,		Killed by blast at face of breast. While fighting a squib with his naked light the flame caught the powder in the squib and the shot went off. Killed by falling under cars while trying to couple them while in motion. Outside.
20	Leroy Jones,	American...	Loco. Cond.,	19	S.	.....	.....	Natalie,		Killed by fall of slate at face of breast. They had fired a hole and discharged a prop, and while examining the roof a piece of slate fell on him.
Mar 20	Sylvester Keretski, ..	Polish,	Laborer,	22	S.	.....	.....	Enterprise,		Drowned in shaft sump. He went under the safety bar to cross the shaft, instead of using traveling way, and fell into the sump just as the cage was descending to the bottom, and the cage held him there.
23	Andrew Duejack,	Russian,	Miner,	40	M.	1	5	Enterprise,	Northumberland,	Killed by being caught by car against rib on slope. While standing at the second bit waiting for an empty trip to come down, the front car of the trip became uncoupled and ran away and caught him.
29	William Urbanavitch, ..	Lithuanian,	Bottomman,	20	S.	.....	.....	Alaska,		Instantly killed by being bumped between cars. While pushing a car to the dump on top of a counter chute, another car ran down behind him from the turnout and bumped him.
April 3	Mike Yedenock,	Russian,	Loader,	28	S.	.....	.....	Richards No. 4, ..		Killed by fall of slate at face of breast. After firing a shot he returned to the face to make an examination, when a piece of slate fell on him.
10	Martin Sidlinski,	Lithuanian,	Miner,	33	S.	.....	.....	Reliance,		

May	3	Kusta Molefski,	Polish,	Miner,	31	M.	1	2	Richards,	Instantly killed by fall of coal while skipping a pillar.
July	1	Harry Becker,	American,	Laborer,	25	M.	1	1	Sayre,	Killed by being caught between door and car in tunnel. He was riding on front of empty trip pushed by a motor and failed to get off the trip in time and was caught as he was opening the door.
	28	Peter Tomshiefski, ..	Polish,	Miner,	28	M.	1	2	Sayre,	Killed by cars on gangway. While riding between loaded cars he was caught on short side of curve and squeezed to death.
	29	Thomas Branley,	American,	Miner,	25	S.	.....	.....	Greenough,	Killed by fall of coal at face of breast. He had fired a shot and returned to face and while barring out bottom coal a piece of top coal fell on him.
Aug.	8	Anthony Marcavitch, ..	Polish,	Miner,	29	M.	1	.....	Pennsylvania,	Killed by fall of slate at face of breast while picking coal off the rib.
	26	Patrick Shannon,	Irish,	Chute boss, ..	27	S.	.....	.....	Locust Spring,	Killed by falling a distance of 25 feet while fixing the elevators in the breaker the floor gave way and he was thrown to the ground. Outside.
Sept.	1	William Penman,	American,	Loader boss, ..	32	M.	1	2	Alaska,	Killed by being run over by loaded cars. He was unfastening chain on top of slope and slipped and fell under car.
Oct.	2	Albert Martz,	American,	Repairman, ..	46	M.	1	.....	Excelsior,	Drowned in sump. He was taking a gasoline engine apart. He boared the gasoline that was in the tank into the sump, when a spark from his lamp fell into the water exploding the gasoline. He was overcome by the fumes and fell into the sump.
	5	Rufus Welkel,	American,	Chute boss, ..	16	S.	.....	.....	Enterprise,	Killed by falling into gear wheels. While playing around the breaker he got inside the fence and fell into the gear wheels, outside.
	50	Peter Monovitch,	Russian,	Miner,	35	M.	1	.....	Sayre,	Killed by fall of roof at face of heading. After firing a shot he returned to the face and began to work and loosened a piece of roof.
Nov.	13	Victor Hatter,	American,	Car runner, ..	39	S.	.....	.....	Greenough,	Killed by being run over by cars. While running a trip of cars from the slope to the breaker, the cars jumped the track on a curve and he was thrown under. Outside.

Northumberland,

TABLE 4—Continued

Date of accident	Name of Person	Nationality	Occupation	Age	Married or single	Number of widows	Number of orphans	Name of Colliery	County	Nature and Cause of Accident in Brief
Dec. 2	John Carl,	Austrian,	Dumppuan,	21	S.	-----	-----	Richard,	-----	Killed by cars. While dumping a car, a lump of coal caught in the door. He went to the front of the car to loosen the lump and reached over the door bar. When he loosened the coal the car tipped back and caught him between top of car and top rock.
2	David Adams,	American,	Car loader,	19	S.	-----	-----	Natalie,	Northumber-land.	Killed by being run over by railroad cars. He was running cars out from under the breaker and slipped and fell. Out side.
7	Earl Hummel,	American,	Oiler,	17	S.	-----	-----	Locust Spring,	-----	Killed by machinery. While inside the safety fence oiling the scraper line his clothing was caught in the machinery and he was dragged. Outside.

TABLE 5.—Non-fatal accidents inside and outside of mines

Date of accident	Name of Person	Nationality	Occupation	Age	Married or single	Name of Colliery	County	Nature and Cause of Accident in Brief
Jan. 27	Bart Swaba,	Polish,	Miner,	39	M.	Greenough,		Leg broken by premature blast.
Feb. 31	Adam Tolau,	American,	Doorboy,	17	S.	Richards,		Leg broken by car running over him on gangway. In jumping off car he slipped and fell.
Mar. 7	Peter Papko,	Polish,	Miner,	33	M.	Richards No. 4,		Hips severely injured by fall of slate at face of breast.
	William Else,	American,	Oilier,	14	S.	Scott,		Left arm broken by being caught between car and floor under the breaker. Outside.
April 18	Mat Brantz,	Austrian,	Miner,	45	M.	Locust Spring,		Face and body injured by explosion of blast. While drawing a missed hole it exploded.
26	Steve Thurick,	Polish,	Driver,	16	S.	Reliance,		Ribs broken by being caught between chute and car on gangway.
May 18	Andrew Babou,	Polish,	Miner,	45	M.	Pennsylvania,		Collar bone broken by fall of coal at face of breast.
July 11	Abroma Romania,	Tyrolean,	Miner,	40	M.	Alaska,		Leg broken by fall of coal at face of breast.
18	William Headhammer,	German, ...	Laborer, ...	34	M.	Locust Spring,		Leg broken by being caught between car and rib on gangway.
Sept. 14	Joe Laycock,	Polish,	Miner,	24	M.	Richards No. 4,		Leg broken by fall of coal at face of breast.
Oct. 11	John Strambo,	Slavonian,	Miner,	27	M.	Greenough,		Leg broken by being struck by a rail.
16	Victor Dieck,	Polish,	Miner,	26	M.	Reliance,		Severely injured by explosion of dynamite cap, which was carelessly handled.
18	John Leane,	American,	Driver,	19	S.	Locust Gap,		Severely injured by being kicked off front of car by a mule.
Nov. 7	Mike Schultz,	Polish,	Laborer, ...	19	S.	Natalie,		Legs broken by fall of slate at face of gangway.
22	Thomas Owen,	English,	Laborer, ...	31	M.	Locust Gap,		Leg broken by being caught between car and prop on gangway.
Dec 11	William Schlegel, ...	American,	Driver,	18	S.	Richards,		Leg broken by being run over by dumper. Outside.

Northumberland

CONDITION OF COLLIERIES

PHILADELPHIA AND READING COAL AND IRON COMPANY

Locust Spring.—Locust Spring Shaft: Ventilation, drainage, roadbeds and general condition as to safety, good.

Locust Spring No. 1 Slope and Locust Spring, West Slope.—Ventilation, drainage and roadbeds, good.

Locust Gap, East.—Ventilation, drainage and condition as to safety, good.

Locust Gap, West.—Ventilation and drainage good; roadbeds in fair condition.

Locust Gap.—Buck Mountain Slope: Ventilation, drainage and roadbeds in good condition.

Alaska.—ventilation fairly good; drainage, general condition as to safety and roadbeds, good.

Reliance.—Ventilation fair; roadbeds and general condition as to safety, good.

MINERAL RAILROAD AND MINING COMPANY

Pennsylvania.—Pennsylvania No. 1 Slope: Ventilation, drainage, roadbeds and condition as to safety, good.

Pennsylvania No. 5 Slope.—Ventilation fair; drainage and roadbeds in fairly good condition.

Richards.—Richards No. 1: Ventilation and drainage good; roadbeds in fairly good condition.

Richards No. 4.—Ventilation, drainage and roadbeds in good condition.

Richards No. 5.—Ventilation, drainage and roadbeds in fairly good condition.

Scott.—Ventilation good; drainage fair; roadbeds in fairly good condition.

LEHIGH VALLEY COAL COMPANY

Sayre.—Sayre Shaft: Ventilation, drainage, roadbeds and condition as to safety, good.

Sioux Nos. 1 and 3.—Ventilation, drainage and roadbeds in fair condition.

GREENOUGH RED ASH COAL COMPANY

Greenough.—General condition, good.

ENTERPRISE COAL COMPANY

Enterprise.—Enterprise Shaft: Ventilation fair; drainage and roadbeds in poor condition.

Enterprise No. 3 Slope.—Ventilation, drainage and roadbeds in fair condition.

COLONIAL COLLIERIES COMPANY

Natalie.—Natalie No. 1: Ventilation, drainage and roadbeds in fair condition.

Natalie No. 2.—Ventilation and drainage fair; roadbeds in poor condition.

Natalie No. 3.—Ventilation, drainage and roadbeds in fairly good condition.

Natalie No. 4.—Ventilation, drainage and roadbeds in good condition.

EXCELSIOR COAL COMPANY

Excelsior.—General condition, fair.

MINE FOREMEN'S EXAMINATIONS

The annual examination of applicants for certificates of qualification as mine foremen and assistant mine foremen was held at Pottsville, March 22 and 23.

The following persons passed a satisfactory examination and were granted certificates:

Mine Foremen

Thomas Brennan, Shamokin.

Assistant Mine Foremen

Harry Edwards, Thomas McLaughlin, Locust Gap; Richard Keely, Centralia.



SIXTEENTH DISTRICT

NORTHUMBERLAND COUNTY

Shamokin, Pa., February 19, 1912.

Hon. James E. Roderick, Chief of Department of Mines:

Sir: I have the honor to transmit herewith my Annual Report as Inspector of Mines of the Sixteenth Anthracite District, for the year ending December 31, 1911.

Respectfully submitted,

M. McLAUGHLIN, Inspector.

SUMMARY OF STATISTICS

Number of collieries,	14
Number of mines,	45
Number of mines in operation,	45
Number of tons of coal shipped to market,	2,533,263
Number of tons used at mines for steam and heat,	308,391
Number of tons sold to local trade and used by employes,	66,685
Number of tons produced,	2,908,339
Number of tons produced by compressed air machines, ..	.....
Number of tons produced by electrical machines, .....	.....
Number of persons employed inside of mines,	4,995
Number of persons employed outside,	2,111
Number of fatal accidents inside of mines,	24
Number of fatal accidents outside,	2
Number of non-fatal accidents inside of mines,	48
Number of non-fatal accidents outside,	15
Number of tons of coal produced per fatal accident inside, ..	121,181
Number of persons employed per fatal accident inside, ...	208
Number of persons employed per fatal accident outside, ..	1,055
Number of persons employed per non-fatal accident inside, ..	104
Number of persons employed per non-fatal accident outside, ..	141
Number of wives made widows,	19
Number of children made orphans,	34
Number of steam locomotives used inside of mines,	1
Number of steam locomotives used outside,	22
Number of compressed air locomotives used inside, .....	.....
Number of compressed air locomotives used outside, .....	.....
Number of electric motors used inside,	8
Number of electric motors used outside,	1
Number of fans in use,	43
Number of furnaces in use, .....	.....
Number of gaseous mines in operation,	19
Number of non-gaseous mines in operation,	26
Number of new mines opened,	4
Number of old mines abandoned, .....	.....

TABLE A

PRODUCTION OF COAL

Names of Operators	Tons
Philadelphia and Reading Coal and Iron Company,	1,350,995
Mineral Railroad and Mining Company,	910,700
Shipman Coal Company,	227,601
Excelsior Coal Company,	175,262
Buck Ridge Coal Company,	141,759
Trevorton Colliery Company,	102,022
Total,	2,908,339

Production by Counties

Northumberland,	2,908,339
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~~2,908,339~~
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TABLE B.—Fatal and non-fatal accidents inside and outside of mines; number of tons of coal produced per accident; number of persons employed; number employed per accident

Names of Operators	Fatal Accidents			Non-Fatal Accidents			Tons of coal produced per fatal accident inside	Tons of coal produced per non-fatal accident inside	Number of employees inside	Number of employees outside	Total number of employees	Number of employees inside per fatal accident	Number of employees outside per fatal accident	Number of employees inside per non-fatal accident	Number of employees outside per non-fatal accident
	Inside	Outside	Total	Inside	Outside	Total									
Philadelphia and Reading Coal and Iron, Co.,	7	.....	7	15	8	18	192,529	90,066	2,403	989	3,393	313	.....	163	397
Minehill Railroad and Mining Co.,	13	.....	13	19	6	25	70,054	47,952	1,482	721	2,203	114	.....	78	120
Shuman Coal Co.,	1	1	2	5	.....	5	227,001	47,530	315	162	477	315	162	63	.....
Excelsior Coal Co.,	2	.....	2	3	1	4	87,631	58,422	387	86	473	193	.....	127	86
Pack Ridge Coal Co., .....	.....	.....	.....	5	5	10	23,352	270	72	342	342	.....	.....	54	14
Trevorton Colliery Co.,	1	1	2	1	.....	1	102,922	102,922	138	90	228	138	90	138	.....
Totals and averages for district.	24	2	26	48	15	63	121,181	60,590	4,995	2,111	7,106	298	1,055	104	131

TABLE C.—Classification of Fatal Accidents Inside and Outside of Mines

	Months												Totals	Percentages	
	January	February	March	April	May	June	July	August	September	October	November	December			
Causes of Accidents Inside															
Falls of coal,					1			1				1	3	12.50	
Falls of slate,	1	1	1	1	1	1				1			7	29.17	
Mine cars,	1									2	1		4	16.66	
Explosions of gas,					5								5	20.83	
Explosions of powder and dynamite,			1					1	1				2	8.33	
Blasts, premature and otherwise,								1					1	4.17	
Rush of coal,	1												1	4.17	
Struck by piece of rock,						1							1	4.17	
Totals,	3	1	2	1	7	1	1	2	1	3	1	1	24	100.00	
Causes of Accidents Outside															
Machinery,			1										1	50.00	
By mules,										1			1	50.00	
Totals,			1							1			2	100.00	
Grand totals inside and outside,	3	1	3	1	7	1	1	2	1	4	1	1	26		

TABLE D.—Classification of Non-Fatal Accidents Inside and Outside of Mines

	Months												Totals	Percentages	
	January	February	March	April	May	June	July	August	September	October	November	December			
Causes of Accidents Inside															
Falls of coal,						1				1			3	5	10.42
Falls of slate,	1	1			2	1	1		1		2		9	18.75	
Falls of roof,	1			1			1						4	8.34	
Mine cars,		1					2	2		1		2	8	16.67	
Explosions of gas,	2					1					1		4	8.34	
Explosions of powder and dynamite,											1		1	2.08	
Blasts, premature and otherwise,	2			1	1	1				1		1	7	14.58	
Falling into slopes, etc.,	1	1					1						3	6.25	
Crushed at batteries,								1					1	2.08	
Machinery,					1								1	2.08	
By falling,				1									1	2.08	
Struck by timber,					1		1						2	4.17	
Struck by brake stick,										1			1	2.08	
Rush of gob,										1			1	2.08	
Totals,	7	3		3	5	4	7	2	2	5	4	6	48	100.00	
Causes of Accidents Outside															
Cars,		3		1					1	1	1	2	9	60.00	
Machinery,										1			1	6.67	
By falling,										1			2	13.33	
Struck by rope,				1									1	6.67	
Struck by chain,										1			1	6.67	
Struck by timber,											1		1	6.66	
Totals,		3		3					1	4	2	2	15	100.00	
Grand totals inside and outside,	7	6		6	5	4	7	2	3	9	6	8	63		

TABLE E.—Occupations of Persons Killed or Fatally Injured Inside and Outside of Mines

	Months												Totals
	January	February	March	April	May	June	July	August	September	October	November	December	
Inside													
Fire bosses and assistants,					1								1
Miners,	2		2	1	2	1	1	2	1	2		1	15
Miners' laborers,		1											1
Doorboys and helpers,					1								1
Repairmen,	1												1
Machine runners,					2								2
Chargemen,					1								1
Bottommen,									1				1
Engineers,										1			1
Totals,	3	1	2	1	7	1	1	2	1	3	1	1	24
Outside													
Jig-runners,			1										1
Drivers,									1				1
Totals,			1						1				2
Grand totals inside and outside,	3	1	3	1	7	1	1	2	1	4	1	1	26

TABLE F.—Occupations of Persons Injured Inside and Outside of Mines

	Months												Totals
	January	February	March	April	May	June	July	August	September	October	November	December	
Inside													
Miners,	6	2		1	3	3	4	1	1	4	4	5	34
Miners' laborers,	1			1	1		2	1	1				6
Drivers and runners,							1	1		1		1	4
Topmen,		1										1	1
Roadmen,				1									1
Timbermen,					1								1
Loaders,						1							1
Totals,	7	3		3	5	4	7	2	2	5	4	6	48
Outside													
Blacksmiths and carpenters,				1									1
Engineers and firemen,		1											1
Slate pickets (boys),									1				1
Topmen,		1							1		1		3
Conductors,		1											1
Laborers,				1									1
Teamsters,				1									1
Miners,								1					1
Oilers,									1				1
Pumpmen,									1				1
Drivers,										1			1
Timbermen,										1			1
Runners,											1		1
Totals,		3		3					1	4	2	2	15
Grand totals inside and outside,	7	6		6	5	4	7	2	3	9	6	8	63

TABLE G.—Nationality of Persons Killed or Fatally Injured Inside and Outside of Mines

	Months												Totals
	January	February	March	April	May	June	July	August	September	October	November	December	
American,	1				1		1			2	1	1	7
Welsh,								1					1
German,								1					1
Polish,	1	1	2	1					1				5
Slavonian,			1										1
Austrian,					4	1							5
Russian,					2				1	2			5
Bohemian,	1												1
Totals,	3	1	3	1	7	1	1	2	1	4	1	1	26

TABLE H.—Nationality of Persons Injured Inside and Outside of Mines

	Months												Totals
	January	February	March	April	May	June	July	August	September	October	November	December	
American,	1	4		5	2	2	2	1		4	2	4	27
English,		1				1	1		1	1			6
German,		1				3	2		1	2	2	1	14
Polish,	2	1											3
Hungarian,												1	1
Italian,	1			1			1		1				4
Slavonian,						1						1	2
Lithuanian,	1												1
Russian,	2						2		1	1		1	7
Totals,	7	6		6	5	4	7	2	3	9	6	8	63

TABLE 1.—Operators and mines, kind of openings, type and size of fans, size of furnaces, volume of air produced by fan or furnace per minute, number of splits of air currents and number of persons employed inside

Names of Operators and Mines	Kind of opening	Gasous or non-gasous	Method of ventilation	Diameter of fan in feet and inches	Width of blades in feet and inches	Depth of blades in feet and inches	Number of revolutions per minute	Water range developed—in inches	Name of fan	Power used	Number of splits of air currents	Number of cubic feet of air per minute entering the mine at inlet	Total quantity in all the splits in cubic feet	Number of cubic feet per minute passing out at outlet	Number of persons employed inside
Philadelphia and Reading Coal and Iron Co.															
North Franklin Colliery:															
North Franklin No. 1	Drift	Non-gas.	Fan	18	6.0	5.4	70	0.7	Gaubal	Electricity, Steam	8	78,000	58,000	79,000	433
North Franklin No. 2	Slope	Non-gas.	Fan	18	6.0	5.5	85	2.1	Gaubal	Electricity, Steam	6	71,000	52,000	73,000	
North Franklin No. 3	Slope	Gaseous	Fan	15	5.1	4.5	50	0.1	Gaubal	Electricity	5	57,000	35,000	58,000	
Bear Valley Colliery:															
Bear Valley No. 1	Shaft	Gaseous	Fan	18	5.9	4.9	95	2.1	Gaubal	Steam	7	46,000	43,000	47,000	473
Bear Valley No. 2	Shaft	Gaseous	Fan	12	4.0	3.6	50	0.5	Gaubal	Steam	5	27,000	25,000	28,000	
Bear Valley No. 3	Drift	Non-gas.	Fan	15	4.0	5.0	90	6.6	Gaubal	Steam	3	35,000	39,000	39,000	
Burnside Colliery:															
Burnside No. 1	Drift	Non-gas.	Fan	15	4.2	5.6	90	1.0	Gaubal	Steam	4	10,000	35,000	41,000	512
Burnside No. 2	Shaft	Gaseous	2 Fans	15	4.0	5.0	90	1.1	Gaubal	Steam	4	41,000	37,000	42,000	
				15	4.0	5.0	90	1.0	Gaubal	Steam	4	41,500	36,000	43,000	
Stirling Colliery:															
Stirling No. 1	Slope	Gaseous	3 Fans	21	7.2	6.0	60	1.1	Gaubal	Steam	5	40,000	36,000	41,000	259
				18	6.0	5.4	65	1.6	Gaubal	Steam	8	33,000	32,000	34,000	
				15	4.6	4.3	80	1.0	Gaubal	Steam	6	34,000	30,000	35,000	
Henry Clay Colliery:															
Henry Clay No. 1	Shaft	Gaseous	2 Fans	21	7.0	6.3	68	1.4	Gaubal	Steam	7	42,000	48,000	53,000	414
				15	4.0	5.0	120	1.2	Gaubal	Steam	6	49,000	45,000	50,000	
Big Mountain Colliery:															
Big Mountain No. 1	Drift	Non-gas.	Fan	12	4.0	3.6	120	1.5	Gaubal	Steam	4	24,000	21,000	25,000	310
Big Mountain No. 2	Slope	Gaseous	Fan	18	6.0	5.5	75	.8	Gaubal	Steam	3	40,000	36,000	41,000	
Big Mountain No. 3	Slope	Gaseous	Fan	18	6.0	5.5	70	1.2	Gaubal	Steam	3	32,000	28,000	33,000	

Mineral Railroad and Mining

Co.

Cameron Colliery:									
Cameron No. 1,	Drift,	Non-gas.,	Fan,	20	6.10	6.2	40	0.2	47,000
Cameron No. 2,	Drift,	Non-gas.,	Fan,	18	6.0	5.2	73	1.4	51,000
Cameron No. 3,	Drift,	Non-gas.,	Fan,	18	6.0	5.7	75	1.4	43,000
Cameron No. 4,	Drift,	Non-gas.,	Fan,	18	7.0	5.6	100	2.7	81,000
Cameron No. 5,	Slope,	Gaseous,	Fan,	18	6.0	5.2	83	1.6	43,000
Cameron No. 6,	Slope,	Gaseous,	Fan,	16	6.0	5.3	96	2.4	53,000
Luke Fidler Colliery:									
Luke Fidler No. 1,	Shaft,	Gaseous,	Fan,	18	7.0	5.0	84	1.6	56,000
Luke Fidler No. 2,	Shaft,	Gaseous,	2 Fans, (	18	7.0	5.2	106	2.4	75,000
Luke Fidler No. 3,	Drift,	Non-gas.,	Fan,	10	4.4	2.0	70	0.4	48,000
Hickory Ridge Colliery									
Hickory Ridge No. 1,	Slope,	Gaseous,	Fan,	18	7.0	5.6	76	0.8	50,000
Hickory Ridge No. 2,	Drift,	Non-gas.,	Fan,	15	4.9	4.5	84	1.2	51,000
Hickory Swamp Colliery:									
Hickory Swamp No. 1,	Slope,	Gaseous,	2 Fans, (	16	5.5	4.5	90	2.0	30,000
				14	3.6	4.1	70	0.5	30,000
Shipman Coal Co.									
Colbert Colliery:									
Colbert No. 1,	Shaft,	Gaseous,	Fan,	16	5.0	4.0	90	0.8	52,000
Colbert No. 2,	Drift,	Non-gas.,	Fan,	16	5.0	4.0	75	0.5	33,000
Excelsior Coal Co.									
Corbin Colliery:									
Corbin No. 1,	Drifts,	Non-gas.,	Fan,	10	8.0	3.6	100	1.5	21,000
Corbin No. 2,	Slope,	Gaseous,	Fan,	12	3.6	3.6	98	2.2	26,000
Corbin No. 3,	Slope,	Gaseous,	Fan,	10	8.0	3.6	100	2.4	24,000
Corbin No. 4,	Drift,	Non-gas.,	Fan,	12	2.6	3.6	98	2.3	25,000
Corbin No. 5,	Slope,	Gaseous,							22,000
Corbin No. 6,	Slope,	Gaseous,							26,000
Buck Ridge Coal Co.									
Buck Ridge Colliery:									
Buck Ridge No. 1,	Slopes, (	Gaseous,	2 Fans, (	14	4.6	4.6	85	0.6	28,000
				12	3.6	3.6	100	0.4	27,000
Buck Ridge No. 2,	Slopes, (	Non-gas.,	Fan,	6	2.5	2.0	180	0.6	9,000
Buck Ridge No. 3,	Slopes, (	Non-gas.,	Fan,	6	2.5	2.0	200	0.6	10,000
				6	2.5	2.0	200	0.6	9,000
Trevorton Colliery Co.									
Katherine Colliery:									
Katherine No. 1,	Drift,	Non-gas.,	Fan,	7	3.0	2.5	325	0.8	28,000
Katherine No. 2,	Drift,	Non-gas.,	Fan,	7	3.0	2.5	300	0.7	28,000
Katherine No. 3,	Drift,	Non-gas.,	Fan,	7	3.0	2.5	300	0.7	28,000

Note.—No report made of air measurements of six non-gaseous mines ventilated by natural means.

TABLE 1.—Operators, location of collieries, railroads, etc.

Names of Operators and Collieries	County	Name of General Superintendent	Post Office	Name of Super-Intendent	Post Office	Railroad to Mine
Philadelphia and Reading Coal and Iron Co.				(Reese) Tasker, Mining Supt.	Pottsville.	
Bear Valley.				P. F. Brennan, Division Supt.	Shamokin.	P. and R.
Big Mountain.	Northumberland,	W. J. Richards,	Pottsville.	John C. Brown, Inside District Supt.	Shamokin.	
Burnside.				J. P. Knapp, Outside Dist. Supt.	Shamokin.	
Henry Clay.						
North Franklin.						
Stirling.						
Mineral Railroad and Mining Co.						
Cameron.						
Hickory Ridge.	Northumberland,	Robert A. Quin,	Wilkes-Barre,	Wh. R. Reinhardt.	Shamokin.	Pennsylvania
Hickory Swamp.						
Hickory Swamp Washery.						
Luke Fidler.						
Shipman Coal Co.	Northumberland,	J. M. Stauffer,	Hazleton,			Pennsylvania
Colbert.						
Excelsior Coal Co.	Northumberland,	A. Robertson,	Pottsville.	Geo. W. Robertson,	Shamokin.	P. and R.
Corbin.						
Buck Ridge Coal Co.	Northumberland,	D. H. MeCee,	Shamokin.			Penna. and P. and R.
Buck Ridge.						
Trevorton Colliery Co.	Northumberland,	C. T. Starr,	Shamokin.	L. I. Van Epps,	Shamokin.	P. and R.
Katherine.						

TABLE 2.—Number of tons of coal mined, number of days worked, number of persons employed, number killed and injured, quantity of powder, dynamite and permissible explosives used, etc.

Names of Operators and Collieries	County	Number of tons of coal shipped to market	Number of tons used at collieries for steam and heat	Number of tons sold to local trade and used by employes	Total production of coal in tons	Number of days worked	Number of employes	Number of fatal accidents	Number of non-fatal accidents	Explosives				Number of horses and mules
										Number of pounds of powder used	Number of pounds of dynamite used	Number of pounds of permissible explosives used	Number of horses and mules	
Philadelphia and Reading Coal and Iron Co.														
North Franklin,		269,796	31,919	4,706	267,421	214	648	1	3	145,475	45,110	48		
Bear Valley,		296,554	26,637	1,926	231,217	255	741	1	2	149,775	53,285	66		
Barnside,	Northumberland,	312,417	33,471	6,394	402,712	353	735	2	4	198,750	29,640	109		
Strling,							283	1	3	74,950	5,388			
Henry Clay,		359,703	39,312	17,630	416,645	371	611	1	4	141,650	16,762	76		
Big Mountain,							354	1	2	91,525	25,174			
Totals,		1,169,560	151,539	29,456	1,359,995		3,383	7	18	802,125	174,559	290		
Mineral Railroad and Mining Co.														
Cameron,		259,599	39,496	21,294	330,269	217	962	8	12	147,625	24,948	125		
Luke Fidler,		145,326	25,705	11,397	182,333	192	498	3	5	77,490	9,714	70		
Hickory Ridge,	Northumberland,	239,241	22,820	894	292,355	269	710	1	6	151,825	33,750	83		
Hickory Swamp,									4					
Totals,		644,166	88,021	33,465	765,576		2,170	13	25	376,950	67,997	283		
Hickory Swamp Washery,														
	Northumberland,	134,724	10,410		145,144	*530	33							
Totals,		778,894	98,431	33,465	910,709		2,203	13	25	376,850	67,997	283		

*Day and night shifts.

TABLE 2.—Continued

Names of Operators and Collieries	County	Number of tons of coal shipped to market	Number of tons used at collieries for steam and heat	Number of tons sold to local trade and used by employees	Total production of coal in tons	Number of days worked	Number of employees	Number of fatal accidents	Number of non-fatal accidents	Explosives			
										Number of pounds of powder used	Number of pounds of dynamite used	Number of pounds of nitrocellulose used	Number of horses and mules
Shipman Koad Co. Colbert,	Northumberland,	311,333	15,000	495	227,601	291	477	3	5	118,909	30,825	4,280	31
Excelsior Coal Co. Corbin,	Northumberland,	151,642	23,620	.....	175,262	335	473	2	4	216,750	9,725	.....	37
Buck Ridge Coal Co. Buck Ridge,	Northumberland,	122,873	17,280	1,006	141,759	283	312	.....	10	51,229	26,025	.....	21
Trevorton Colliery Co. Katherine,	Northumberland,	39,141	1,921	969	162,022	316	228	2	1	41,770	11,650	.....	21
Grand totals, .....	.....	3,733,973	308,391	66,685	2,908,339	.....	7,106	26	73	1,612,555	317,331	4,280	687

TABLE 2.—Part 2

Names of Operators	County	Number of Boilers				Locomotives			Number of steam engines of all classes	Total horse power	Number of pumps delivering water to surface	Capacity in gallons per minute	Quantity delivered to surface per minute—gallons	Number of electric dynamos	Number of air compressors
		Cylindrical	Horse power	Tubular	Horse power	Total horse power	Steam	Air								Electric
Philadelphia and Reading Coal and Iron Co.,				64	8,000	8,000	6	7	141	17,750	21	047	7,274	4	4
Mineral Railroad and Mining Co.,				52	7,012	7,012	11	2	80	9,250	13	301	3,888	2	5
Shipman Coal Co.,	Northumberland,			9	1,125	1,125	1		20	1,073	3	48	824		1
Excelsior Coal Co.,		16	512	2	150	662	2		7	240	2	58	290		
Buck Ridge Coal Co.,				8	1,380	1,380	3		20	707	4	90	750		
Trevorton Colliery Co.,				2	000	000			6	325					1
Totals,		16	512	137	18,267	18,779	23	9	275	29,360	43	4	13,036	6	11

TABLE 3.—Part 2

Names of Operators	County	Average Number of Days Worked in Breaker												
		January	February	March	April	May	June	July	August	September	October	November	December	Total
Philadelphia and Reading Coal and Iron Co.,	Northumberland,	33	19	18	22	23	22	15	16	19	24	33	23	248
Mineral Railroad and Mining Co.,		20	14	18	20	22	17	13	12	11	18	21	20	206
Shippan Coal Co.,		24	22	26	21	25	25	25	20	25	23	24	23	231
Excelsior Coal Co.,		22	15	17	21	23	23	18	14	13	23	23	22	235
Back Ridge Coal Co.,		24	23	26	23	25	26	25	24	25	22	22	23	288
Trevorton Colliery Co.,		24	23	26	23	25	26	25	24	25	22	22	23	288
		24	23	26	23	25	26	25	24	25	22	22	23	288
		24	23	26	23	25	26	25	24	25	22	22	23	288
		24	23	26	23	25	26	25	24	25	22	22	23	288
		24	23	26	23	25	26	25	24	25	22	22	23	288
	24	23	26	23	25	26	25	24	25	22	22	23	288	
	24	23	26	23	25	26	25	24	25	22	22	23	288	

TABLE 4.—Fatal accidents inside and outside of mines

Date of accident	Name of Person	Nationality	Occupation	Age	Married or single	Number of widows	Number of orphans	Name of Colliery	County	Nature and Cause of Accident in Brief
Jan. 12	Mathew Stasney,	Bohemian,	Repairman, ..	33	S.	.....	.....	Luke Fidler, ..	.....	Instantly killed by being caught between car and top rock on low side of gangway, while riding on front end of a trip of mine cars.
	Louis Kehler,	American, ..	Miner,	51	M.	1	7	Cameron, .....	.....	Killed by rush of coal from face of breast while staking a prop hole.
Feb. 15	Joseph Norcavitch, ..	Polish,	Miner,	40	M.	1	.....	Hickory Ridge, ..	.....	Instantly killed by fall of slate while crossing the breast.
	John Godskie,	Polish,	Laborer,	45	M.	1	3	Corbin, .....	.....	Instantly killed by fall of slate at face of gangway.
Mar. 3	Joseph Jancoskie,	Slavonian,	Miner,	48	M.	1	6	Bear Valley, ..	.....	Fatally burned by explosion of a keg of powder, which was ignited by a spark from his lamp. Died March 9.
10	Frank Simon,	Polish,	Miner,	33	S.	.....	.....	Luke Fidler, ..	.....	Instantly killed by fall of slate at face of chute.
22	Anthony B. Paseo, ...	Polish,	Jig-runner, ..	16	S.	.....	.....	Katherine,	Northumberland,	Killed by being caught by a revolving shaft that operates the jigs. He was found twisted around the shaft. The shaft is directly under the main traveling way of the breaker, which is protected by hand and guard rails. It is not known why the boy crawled into the usual space in which the shaft revolved. Outside.
April 19	Anthony Suckel,	Polish,	Miner,	32	M.	1	2	Burnside, .....	.....	Head lacerated and injured internally. He fired a blast at the face of the breast, which removed three props, and while he was resetting the props the top slate fell on him. Died April 26.
May 10	Frank Keshenoskie, ...	Russian,	Miner,	24	M.	1	.....	Colbert, .....	.....	Instantly killed by fall of coal at working face while removing pillars.

May 13	Anthony Saborney,	Russian,	Miner,	43	M.	1	2	Cameron,	Fatally injured. Head lacerated, arm broken and chest crushed by fall of slate that followed him down the chute and caught him 150 feet from working face.
	John Moore,	American,	Fire boss,	36	M.	1	1		Fatally burned by an explosion of gas in tunnel. They were driving tunnel from No. 4 seam to No. 2 seam. During the night they cut the seam in the tunnel which was making gas. About 6 o'clock in the morning Moore found them sitting in No. 5 vein gangway and was told about the gas. He said he would make an examination and he went into tunnel carrying a safety lamp. The men followed him with naked lights and ignited the gas. Moore and Rubolish died the same day. Szwedzkie Sathrick died June 1, and Jock June 1.
June 8	John Jock,	Austrian,	Chargeman,	28	M.	1	3	Luke Fidler,	Instantly killed by fall of slate at working place while removing pillars.
	George Pease,	Austrian,	Miner,	45	M.	1	1		Fatally injured while starting a battery by a piece of rock that came through him on the leg. Died July 30.
July 26	Simon Fisher,	American,	Miner,	71	M.	1	1	Stirling,	Face and chest lacerated and burned by premature blast at working face while removing pillars. Died August 11.
Aug. 8	James Kramer,	German,	Miner,	33	M.	1	5	Big Mountain,	Fatally injured by fall of coal at face of breast. Died the same evening.
	Evan Jones,	Welsh,	Miner,	29	M.	1	1	Henry Clay,	Face, arms and body burned by the explosion of a keg of powder ignited by a spark from an open lamp. Died September 21.
Sept. 6	John Bullock,	Russian,	Miner,	28	S.			Cameron,	Instantly killed by mine car. A loaded car was ascending the slope when the rope broke. The car ran back and struck him while he was passing the bottom of the slope.
Oct. 6	Benjamin Doornaek,	Russian,	Miner,	31	M.	1	2	Hickory Swamp	Fatally injured by mine car. A loaded car was ascending the slope when the rope broke about 120 feet above the socket. The car ran back and struck him at the bottom of the slope. Died the same day.
	Touy Morgan,	American,	Bottomman,	19	S.			Corbin,	Instantly killed by fall of slate at face of breast.
	Frank Sherman,	American,	Miner,	61	M.	1	1	Katherine,	

Northumberland,

TABLE 4—Continued

Date of accident	Name of Person	Nationality	Occupation	Age	Married or single	Number of widows	Number of orphans	Name of Colliery	County	Nature and Cause of Accident in Brief
Oct. 13	Ant. Lesniack,	Russian, ---	Driver,	30	S.	.....	.....	Colbert,		Instantly killed by mule falling on him. While carting ashes to the ash dump the mule left the main road causing the ash cart to strike a stump that protruded from the ground. The sudden contact upset both cart and mule and the mule fell on him. Outside.
Nov. 15	Joseph McCall,	American --	Engineer, ---	20	S.	.....	.....	Hurside,	Northumberland,	Instantly killed by electric motor and eight cars passing over his body. When he was approaching the mouth of the drift he attempted to set off motor to get some sand, and he fell, and motor and cars ran over him.
Dec. 17	Samuel Stuch,	American, ---	Miner,	33	M.	1	.....	North Franklin		Fatally injured by fall of coal. He and his partner were driving a small breast through the center of pillar preparing at to take it out. They were working at face of breast 30 feet from air course, when a fall of coal from the pillar caught them on top of the outside manway, covering both men completely except their heads. Died December 19.

TABLE 5.—Non-fatal accidents inside and outside of mines

Date of accident	Name of Person	Nationality	Occupation	Age	Weight or Stone	Name of Colliery	County	Nature and Cause of Accident in Brief
Jan. 4	John Smidana,	Russian,	Miner,	37	S.	Henry Clay,		Head, back and side lacerated and bruised by flying pieces of coal from premature blast.
1	John Metcavage,	Polish,	Miner,	25	S.	Cameron,		Left leg fractured by piece of top rock falling on it at working face while removing pillars.
17	Irvin Conrad,	American,	Miner,	37	S.	Hickory Ridge,		Back wrenched by falling in manway while he was measuring it.
18	John Washeleskie,	Lithuanian,	Miner,	43	M.	Libhart,		Small bone in ankle fractured by flying piece of coal from blast.
26	Joseph Swatskie,	Russian,	Miner,	28	M.	Hickory Swamp,		Head, hands and body burned by gas ignited by an open lamp.
	John Farnavage,	Polish,	Miner,	20	M.			Leg fractured by fall of slate at face of gangway.
	Joseph Lawa,	Italian,	Laborer,	24	S.	Stirling,		Leg fractured while jumping on cars. Outside.
Feb. 1	Charles Luskuskie,	American,	Conductor,	17	S.	Buck Ridge,	Northumberland,	Left arm fractured by falling down manway while taking timber up the breast.
6	William F. Weary,	American,	Miner,	52	M.	Hickory Ridge,		Arm badly lacerated by a mine car passing over it while cleaning the tongs on top of slope. Arm was amputated at State Hospital.
8	Edward Gable,	German,	Topman,	35	M.	Big Mountain,		Leg fractured by fall of slate at face of breast.
10	John Borton,	Polish,	Miner,	26	M.	Barnside,		Arm fractured by falling under car while in the act of detaching the hook from the car. Outside.
16	Herbert Gass,	American,	Topman,	22	S.	Buck Ridge,		Knee cap dislocated. The trip of mine cars collided with the engine and he was thrown out of the cab. Outside
17	James Graham,	American,	Locomotive engineer,	29	M.	Buck Ridge,		

TABLE 5—Continued

Date of accident	Name of Person	Nationality	Occupation	Age	Married or single	Name of Colliery	County	Nature and Cause of Accident in Brief
April 3	Calvin Martz	American	Laborer	19	S.	Cortin	Northumberland	Finger taken off at first joint while coupling cars while they were in motion. Outside.
11	John Gauzhan	American	Roadman	37	S.	Luke Fidler		Right leg fractured by fall of roof while taking down some loose rock from top of gangway.
21	Wm. Mowrey	American	Miner	39	M.	Bear Valley		Face lacerated and right eye destroyed by a delayed blast to which he returned after he thought the stubb had gone off.
24	Samuel Snyder	American	Teamster	66	M.	Luke Fidler		Right leg fractured below knee by slipping and falling on some timber while driving through the timber yard. Out side.
26	Dearl Rader	American	Carpenter	24	M.	Stirling		Leg fractured below knee by handling rope striking him while he was standing near track. Outside.
27	John Kershick	Italian	Laborer	28	S.	Traverse		Legs fractured. He was building a wall on high side of gangway, and while placing rock on top of wall he slipped and fell, and the rock fell on him.
May 11	Philip Moraskie	Polish	Laborer	23	S.	Hickory Ridge		Thumb fractured by a small sheave wheel falling on it.
18	Charles Snyder	American	Miner	25	M.	Colbert		Collar bone broken by fall of slate at face of breast.
20	William S. Weary	American	Timberman	52	M.	Hickory Ridge		Back strained in lifting a gangway collar.
	Ant. Bobuskie	Polish	Miner	53	M.	Colbert		Compound fracture of leg by fall of slate at face of breast.
23	John Falsuskie	Polish	Miner	50	M.	Luke Fidler		Head and body lacerated by flying pieces of coal from premature blast.
June 2	Roy Kline	American	Miner	31	M.	Katherine		Arm fractured and body bruised by fall of coal at face of chute.

June 26	Andrew Pella, -----	German, ---	Miner, -----	31	M. Colbert, -----	Shoulder dislocated by fall of slate at face of breast.
29	Bert M. Koble, -----	American, ---	Miner, -----	36	M. Buck Ridge, -----	Face and arm lacerated by flying pieces of coal from premature blast.
30	Mat. Sunbury, -----	Slavonian, ---	Leader, -----	18	S. Cameron, -----	Face and hands burned by gas.
July 10	John Gerbock, -----	Polish, ---	Miner, -----	40	M. Stirling, -----	Left arm fractured by being caught between car and rib of gangway while helping to piece a derailed car on track.
13	Daniel Kehler, -----	American, ---	Miner, -----	56	M. Cameron, -----	Ribs fractured by a piece of top rock falling on him while sinking a prop hole at face of chute.
17	Frank Humphrey, -----	American, ---	Driver, -----	22	S. Cameron, -----	Right leg fractured by being struck by piece of timber while standing outside the safety hole at bottom of slope. The first car of an empty trip going down the slope became uncoupled and knocked out some timber.
20	Frank Krolinski, -----	Polish, ---	Miner, -----	34	M. Hickory Swamp, -----	Left foot fractured by fall of rock at face of gangway while barring down loose rock.
25	Peter Mosloske, -----	Russian, ---	Laborer, -----	28	S. Corbin, -----	Body squeezed by being caught between car and gangway door while trying to jump on the front end of trip of cars.
26	Rudolph Miller, -----	German, ---	Laborer, -----	34	M. Burnside, -----	Leg fractured by fall of slate at face of breast.
	Adam Bilske, -----	Russian, ---	Miner, -----	25	S. Colbert, -----	Head, face and back lacerated by falling down manway. He fired a blast in No. 11 breast and went down No. 10 breast for safety, when a blast fired in No. 10 breast caused him to fall down manway.
Aug. 1	Al. Ambrose, -----	Italian, ---	Miner, -----	23	S. Buck Ridge, -----	Nose fractured and head and arm lacerated by being caught between car and face of slope that he was sinking.
24	Stephen Koperdock, -----	American, ---	Driver, -----	20	S. Cameron, -----	Collar bone and several ribs fractured by being caught between mine car and rib of tunnel.
Sept. 11	Stany Rozniskie, -----	Polish, ---	Miner, -----	33	M. Henry Clay, -----	Body bruised by being knocked under car. While crossing the tracks leading to the breaker tip a loaded car struck him. Outside.
15	Paul Lebar, -----	Russian, ---	Laborer, -----	29	S. Buck Ridge, -----	Leg fractured by fall of slate which caught against a mine car while loading it at face of gangway.
25	George Snyder, -----	German, ---	Miner, -----	49	M. Bear Valley, -----	Right leg fractured by piece of slate that slid out of battery while he was in the act of starting it.
Oct. 7	John Socks, -----	Polish, ---	Miner, -----	31	M. Buck Ridge, -----	Arm fractured by fall of coal at face of breast while dressing off a shot.

Northumberland,

TABLE 5—Continued

Date of accident	Name of Person	Nationality	Occupation	Age	Married or single	Name of Colliery	County	Nature and Cause of Accident in Brief
Oct. 10	William Whary,	American,	Pumpman,	21	S.	Cameron,		Collar bone fractured by being caught between empty car he was taking from the dump and loaded car that was on way to the dump. Outside.
16	John Castine,	Italian,	Driver,	24	S.	Hickory Swamp,		Left leg fractured by being bumped between cars. While releasing spreader chain from car his light went out, and before he could get out of the way he was bumped between the cars.
18	Joseph Moyock,	Polish,	Miner,	44	M.	Cameron,		Ribs fractured. He was in the manway while the loader was loading a car, and the brake stick became dislodged, swung around and caught him against chute.
24	Samuel Faust,	American,	Miner,	47	S.	Cameron,	Northumberland,	Rib fractured by rush of gob. While re-thundering traveling way between two lifts the manway gave way and the gob rushed in on him.
25	George Esber,	American,	Topman,	18	S.	Hickory Ridge,		Leg fractured. He was throwing chain on loaded cars at rope haulage at breaker tip. He put the hook on the loaded car and gave the signal to throw the clutch to pull the car to the dump. At the same time the chain formed a loop around his leg, and the loop tightened on his leg when clutch was thrown in. Outside.
26	Steve Ombitskie,	Russian,	Miner,	33	M.	Henry Clay,		Hand blown off. While drilling out a hole loaded with dynamite that had missed fire, the dynamite exploded.

Oct. 26	Thomas Hagute,	English,	Oiler,	16	S.	Buck Ridge,	Leg fractured by cars. He tried to take side chains off cars while in motion. He got one chain off and while crossing track to take the other off he slipped and fell, and the car passed over his leg, outside.
	Clarence Mattis,	American,	Shatepicker,	16	S.	Cameron,	Left leg fractured by falling into jig while returning from top of jig after examining the scraper line. Outside.
Nov. 6	George Park,	German,	Miner,	28	S.	Colbert,	Back injured by fall of slate at working face while removing pillars.
10	Joseph Vascleskie,	Polish,	Miner,	34	M.	Henry Clay,	Face and hands burned by explosion of gas in chute. The gauze of a lamp was pierced by a pick and the flame ignited gas.
11	Stany Zobruskie,	Polish,	Miner,	35	M.	Corbit,	Left leg fractured above knee by fall of slate at working face while removing pillars.
15	John Glenaskie,	American,	Driver,	16	S.	Cameron,	Two ribs fractured by being caught between mine cars at breaker tip. Outside.
22	Isaac Fleming,	American,	Miner,	43	M.	North Franklin,	Middle finger lacerated by the explosion of a dynamite cap that he thought had missed fire.
23	B. C. Cleaver,	German,	Timberman,	55	M.	Buck Ridge,	Small bone in leg fractured by piece of timber rolling on it in timber-yard. Outside.
Dec. 2	Joseph Longo,	American,	Car-runner,	22	S.	North Franklin,	Left hand crushed by being caught under wheel of mine car while putting a derailed car on track. Outside.
6	Ant. Klaminskie,	Polish,	Miner,	48	M.	Big Mountain,	Leg fractured by fall of coal on gang-way while replacing leg under collar.
7	Joseph Scarbo,	Russian,	Miner,	29	M.	Corbin,	Left shoulder blade fractured by falling under cars while trying to jump on front end of loaded trip that the driver was taking to the bottom of slope.
13	Abraham Adams,	American,	Miner,	31	M.	North Franklin,	Body and limbs bruised by fall of coal from pillar. His partner was fatally injured.
16	Frank Staminie,	American,	Miner,	33	M.	Buck Ridge,	Leg fractured below knee by fall of top coal at face of breast.
18	Andrew Gessick,	Slavonian,	Miner,	24	S.	Borraside,	Head and back injured by premature blast at face of chute.

Northumb Rland,

TABLE 5.—Continued

Date of accident	Name of Person	Nationality	Occupation	Age	Married or single	Name of Colliery	County	Nature and Cause of Accident in Brief
Dec. 18	Truman Troutman, --	American, --	Driver,	24	S.	Cameron,	Northumberland,	Arm fractured by falling under cars. While taking two loaded mine cars to bottom of slope he slipped and fell under cars. Foot crushed by car running over it while taking chain off car at top of slope, outside.
20	David Hardish,	Hungarian,	Topman,	27	S.	Hickory Ridge,		

CONDITION OF COLLIERIES

PHILADELPHIA AND READING COAL AND IRON COMPANY

North Franklin and Burnside.—Safety conditions and drainage good; ventilation fair.

Bear Valley.—Safety conditions good; ventilation and drainage fair.

Stirling, Henry Clay and Big Mountain.—Safety conditions, ventilation and drainage, good.

MINERAL RAILROAD AND MINING COMPANY

Cameron, Luke Fidler, Hickory Ridge and Hickory Swamp.— Safety conditions good; ventilation and drainage fair.

SHIPMAN COAL COMPANY

Colbert.—Safety conditions good; ventilation and drainage fair.

EXCELSIOR COAL COMPANY

Corbin.—Safety conditions good; ventilation and drainage fair.

BUCK RIDGE COAL COMPANY

Buck Ridge.—Safety conditions good; ventilation and drainage fair.

TREVORTON COLLIERY COMPANY

Katherine.—Safety conditions and ventilation good; drainage fair.

IMPROVEMENTS

PHILADELPHIA AND READING COAL AND IRON COMPANY

North Franklin Colliery.—A tunnel was driven in the self-acting plane in the Rennie water level workings, from No. 5 vein north to No. 7 vein, a distance of 309 feet.

Bear Valley Colliery.—A tunnel was driven in the No. 2 shaft from No. 10 vein north to No. 11 vein, a distance of 884 feet. A tunnel driven in the No. 2 shaft from No. 10 vein south to No. 4 vein, a distance of 618 feet. An air tunnel was driven in the No. 2 shaft from No. 10 vein south to No. 4 vein, a distance of 628 feet.

Burnside Colliery.—A tunnel was driven in the shaft, third lift, from east No. 7 vein, south dip, south to No. 9 vein, a distance of 183 feet. A tunnel was driven in the second lift of No. 4 underground slope in water level workings, from No. 5 vein north to No. 4 vein, a distance of 90 feet. A tunnel was driven in shaft second lift, No. 6 self-acting plane, from No. 5 vein south to No. 4 vein, a distance of 171 feet.

Henry Clay Colliery.—An air tunnel was driven in shaft second lift, from No. 11 vein north dip to No. 11 vein south dip, a distance of 438 feet.

MINERAL RAILROAD AND MINING COMPANY

Cameron Colliery.—A tunnel was driven in the shaft from No. 4 vein to No. 2 vein, a distance of 500 feet. A tunnel was driven in the rock slope from No. 8 vein north dip to No. 9 vein south dip, a

distance of 85 feet. No. 1 slope was concreted from the surface down, a distance of 90 feet. No. 2 vein inlet was concreted from the surface down to the solid rock, a distance of 110 feet, and the upcast was concreted from the surface down, a distance of 70 feet.

A 20-foot fan was erected on the No. 2 vein, and a 16 by 24 inch Vulcan engine enclosed in a concrete block building was installed to operate it. A new carpenter and blacksmith shop 142 feet long, 22 feet wide and 18 feet high, was built of concrete blocks.

Luke Fidler Colliery.—A 12-foot fan was erected over the Lambert drift, and a 10 by 12-inch Sturtevant engine enclosed in a concrete building was installed to operate it. No. 4 slope in No. 2 shaft was extended 250 feet, making a total length of 1,090 feet. At the bottom of No. 4 slope a backswitch was driven in rock a distance of 55 feet. A single track engine plane was driven in No. 1 shaft in the No. 4 vein, a distance of 1,125 feet, operated by a 12 by 12-inch duplex engine.

Hickory Ridge Colliery.—An accommodation slope was driven in No. 4 vein a distance of 1,589 feet, and a 16 by 30 inch duplex engine enclosed in a frame building 35x22 feet was installed to hoist from it. From the bottom of No. 8 slope a turnout was driven through rock to No. 5 vein, a distance of 80 feet. A gangway was driven in No. 5 vein east 203 feet, and from that point a tunnel was driven to No. 4 vein a distance of 118 feet. A duplex Goyne pump, 16 by 14 by 18 inches, was erected to pump water to the breaker for coal washing, and is enclosed in a brick building 30 feet long, 16 feet wide and 18 feet high. A locomotive house 66 feet long, 16 feet wide and 19 feet high, was built of concrete blocks.

SHIPMAN KOAL COMPANY

Colbert Colliery.—A 175 horse power water tube boiler was installed, and a conveyor line 317 feet long was built to convey the ashes from the boiler plant. A concrete supply house 14 by 40 feet, and two additional water tanks of 30,000 gallons capacity, were erected.

BUCK RIDGE COAL COMPANY

Buck Ridge Colliery.—A rock slope was driven on a 35 degree pitch from No. 15 vein to No. 12 vein, a distance of 464 feet, and a pair of 15 by 30-inch direct-acting engines installed to hoist from it.

A slope was sunk in the No. 13 vein south dip, a distance of 164 feet, and a pair of 12 by 11 inch Blory engines installed to hoist from it.

A new 6-foot fan was erected to ventilate this slope and two Cameron pumps installed to pump the water. A 330 horse power water tube boiler was installed. An 8-inch bore hole was drilled 295 feet deep to rock slope, for a rope haul; a 12-inch bore hole was drilled 305 feet from surface to pump house in No. 2 slope to pump the water, and a 12-inch bore hole was drilled from surface to No. 2 pump house, cased with 10-inch well casing, in which is placed a 6-inch steam line to pumps.

TREVORTON COLLIERY COMPANY

Katherine Colliery.—A tunnel was driven from No. 7 vein south dip to No. 7 vein north dip, a distance of 210 feet. A double track gravity plane was driven from No. 2 east gangway No. 1 tunnel, to No. 18 breast counter above, a distance of 400 feet.

MINE FOREMEN'S EXAMINATIONS

The annual examination of applicants for certificates of qualification as mine foremen and assistant mine foremen was held in Pottsville, March 22 and 23. The Board of Examiners was composed of the following: Martin McLaughlin, Mine Inspector, Shamokin; Edward Brennan, Superintendent, Shamokin; William Cutler, M. P. R., Shamokin; Patrick Ryan, Miner, Shamokin.

The following persons passed a satisfactory examination and were granted certificates:

Mine Foremen

John L. Manney, Shamokin.

Assistant Mine Foremen

William Way, William Hand, E. V. McKeever, George J. Harris, Charles Naravage, Joseph J. McCormick, William Morningwake, Frank D. Smith, Shamokin; Harry Pengelly, John Hester, Trevorton; Robert Kramer, Cameron Township.



SEVENTEENTH DISTRICT

CARBON AND SCHUYLKILL COUNTIES

Lansford, Pa., February 28, 1912.

Hon. James E. Roderick, Chief of Department of Mines:

Sir: I have the honor of transmitting herewith my Annual Report as Inspector of Mines of the Seventeenth Anthracite District, for the year ending December 31, 1911.

Respectfully submitted,

ISAAC M. DAVIES, Inspector.

SUMMARY OF STATISTICS

Number of collieries,	11
Number of mines,	41
Number of mines in operation,	41
Number of tons of coal shipped to market,	3,984,373
Number of tons used at mines for steam and heat,	529,264
Number of tons sold to local trade and used by employes,	158,067
Number of tons produced,	4,671,704
Number of tons produced by compressed air machines, .....	.....
Number of tons produced by electrical machines, .....	.....
Number of persons employed inside of mines,	5,643
Number of persons employed outside,	3,004
Number of fatal accidents inside of mines,	26
Number of fatal accidents outside,	7
Number of non-fatal accidents inside of mines,	33
Number of non-fatal accidents outside,	7
Number of tons of coal produced per fatal accident inside,	179,581
Number of persons employed per fatal accident inside, ..	217
Number of persons employed per fatal accident outside, ..	429
Number of persons employed per non-fatal accident inside, ..	171
Number of persons employed per non-fatal accident outside, ..	429
Number of wives made widows,	19
Number of children made orphans,	44
Number of steam locomotives used inside of mines,	6
Number of steam locomotives used outside,	40
Number of compressed air locomotives used inside,	2
Number of compressed air locomotives used outside, .....	.....
Number of electric motors used inside,	51
Number of electric motors used outside,	4
Number of fans in use,	17
Number of furnaces in use, .....	.....
Number of gaseous mines in operation,	19
Number of non-gaseous mines in operation,	22
Number of new mines opened,	3
Number of old mines abandoned,	2

TABLE A

PRODUCTION OF COAL.

Names of Operators	Tons
Lehigh Coal and Navigation Company,	4,053,325
Estate A. S. Van Winkle,	310,861
Coxe Brothers and Company, Incorporated,	279,222
Evans Colliery Company,	11,942
W. R. McCready,	10,799
Moses Neyer,	5,555
Total,	<u>4,671,704</u>

Production by Counties

Carbon,	2,957,574
Schuylkill,	1,714,130
Total,	<u>4,671,704</u>

~~4,671,704~~
4,667,386

TABLE B.—Fatal and non-fatal accidents inside and outside of mines; number of tons of coal produced per accident; number of persons employed; number employed per accident

Names of Operators	Fatal Accidents				Non-Fatal Accidents				Tons of coal produced per fatal accident inside	Tons of coal produced per non-fatal accident inside	Number of employees inside	Number of employees outside	Total number of employees	Number of employees inside per fatal accident	Number of employees outside per fatal accident	Number of employees inside per non-fatal accident	Number of employees outside per non-fatal accident
	Inside	Outside	Total	Total	Inside	Outside	Total	Total									
Lehigh Coal and Navigation Co.,	2	7	29	25	2	25	174,342	176,232	4,434	2,520	7,154	224	360	211	1,200		
Estate A. S. Van Winkle	1	1	2	1	1	155,431	44,469	417	360	677	298	298	60	65			
Coxe Brothers and Co., Inc.,	1	1	1	1	1	279,222	33,074	233	158	391	393	35	77	158			
Evans Colliery Co.,	1	1	1	1	1	11,942		35	46	81	35						
Miscellaneous Companies,								24	20	41							
Totals and averages for district,	20	7	33	33	7	40	179,681	111,967	5,613	3,004	8,617	217	429	171	439		

TABLE C.—Classification of Fatal Accidents Inside and Outside of Mines

	Months												Totals	Percentages	
	January	February	March	April	May	June	July	August	September	October	November	December			
Causes of Accidents Inside															
Falls of coal,				2		2		1						4	15.79
Falls of slate,								1						1	3.85
Falls of roof,									1	1				2	7.70
Mine cars,					4	1	1		1		1			5	30.77
Explosions of gas,					2	1			1			1		4	15.39
Blasts, premature and otherwise,	1													1	3.85
Falling into shafts,									1					1	3.85
Crushed at batteries,									1					1	3.84
Timber fell on him,											1			1	3.84
Struck by coal,								1						1	3.84
by falling,									1					1	3.84
Strained by pushing car,	1													1	3.84
Totals,	2	1	2	2	6	4	1	2	3	2	3	1	1	26	100.00
Causes of Accidents Outside															
Cars,		1			2									3	42.85
Machinery,									1	1				2	28.58
Suffocation in chutes, etc.,												1		1	14.28
Fell off car,									1					1	14.28
Totals,	1	1	2	2	2	1	1	2	2	1	1	1	1	7	100.00
Grand totals inside and outside,	2	2	2	2	8	4	1	2	5	3	3	1	1	33	100.00

TABLE D.—Classification of Non-Fatal Accidents Inside and Outside of Mines

	Months												Totals	Percentages		
	January	February	March	April	May	June	July	August	September	October	November	December				
Causes of Accidents Inside																
Falls of coal,				1										1	3	0.37
Falls of slate,	1													1	3	3.12
Falls of roof,														1	1	3.12
Mine cars,				2				1						1	4	12.50
Explosions of gas,	2				1	2	1			5				11	34.37	
Explosions of powder and dynamite,									1	2				3	9.37	
Blasts, premature and otherwise,			1					1						2	6.25	
Falling into shafts,									1					1	3.12	
Crushed at batteries,											1			1	3.13	
Mules,	1													1	3.13	
Struck by piece of rock,									1					1	3.13	
Timber fell on him,			1											1	3.13	
Struck by piece of coal,								1						1	3.13	
By falling,	1													1	3.13	
Totals,	3	3	2	3	1	2	1	3	3	7	2	2	2	32	100.00	
Causes of Accidents Outside																
Cars,					1	1		1						3	37.50	
Machinery,								1		1				2	25.00	
Scalded by steam,								2						2	25.00	
By falling,								1						1	12.50	
Totals,	1	1	1	1	1	1	1	5	1	1	1	1	1	8	100.00	
Grand totals inside and outside,	3	3	2	3	2	3	1	8	3	8	2	2	2	40	100.00	

TABLE E.—Occupations of Persons Killed or Fatally Injured Inside and Outside of Mines

	Months												
	January	February	March	April	May	June	July	August	September	October	November	December	Totals
Inside													
Miners,		1		1	4	3					1		12
Miners' laborers,	2			1	1					2			6
Drivers and runners,					1						1		2
Boorboys and helpers,							1						2
Loaders,						1			1				2
Pole-boys,									1				1
Totals,	2	1		2	6	4	1	2	3	2	3		26
Outside													
Foremen,												1	1
Blacksmiths and carpenters,									1				1
Slatpickers (boys),					1								1
Slatpickers (men),		1			1								2
Machinists,									1	1			2
Laborers,									1				1
Totals,		1			2				2	1		1	7
Grand totals inside and outside,	2	2		2	8	4	1	2	5	3	3	1	33

TABLE F.—Occupations of Persons Injured Inside and Outside of Mines

	Months												
	January	February	March	April	May	June	July	August	September	October	November	December	Totals
Inside													
Fire bosses and assistants,								1					1
Miners,	2	2	2	1	1	1	1	2	2	3		2	21
Miners' laborers,		1				1			1	2			5
Drivers and runners,	1			1									2
Loaders,											1		1
Mucker bosses,											1		1
Pole-boys,				1									1
Totals,	3	3	2	3	1	2	1	3	3	7	2	2	32
Outside													
Engineers and firemen,								2					2
Slatpickers (men),								1					1
Car-runners,					1								1
Topmen,						1							1
Fire-runners,									1				1
Laborers,								2					2
Totals,					1	1		5		1			8
Grand totals inside and outside,	3	3	2	3	2	3	1	8	3	8	2	2	40

TABLE G.—Nationality of Persons Killed or Fatally Injured Inside and Outside of Mines

	Months												Totals
	January	February	March	April	May	June	July	August	September	October	November	December	
American,				1	3	3	1	1	1			1	11
Welsh,									1			1	2
Polish,	1	1							1				3
Italian,									2				2
Slavonian,	1	1		1	2	1				2		1	9
Austrian,					1					1			2
Greek,					2								2
Totals,	2	2		2	8	4	1	2	5	3	3	1	33

TABLE H.—Nationality of Persons Injured Inside and Outside of Mines

	Months												Totals
	January	February	March	April	May	June	July	August	September	October	November	December	
American,	3	1		1	1	1	1	5		3			16
English,												1	1
German,									1				1
Polish,				1									1
Hungarian,		1									1		2
Slovakian,													
Austrian,						2							2
Greek,								1					1
Tyrolean,											1		1
Totals,	3	3	2	3	2	3	1	6	3	3	2	2	40

TABLE I.—Operators and mines, kind of openings, type and size of fans, size of furnaces, volume of air produced by fan or furnace per minute, number of splits of air currents and number of persons employed inside

Names of Operators and Mines	Kind of opening	Gasous or non-gasous	Method of ventilation	Diameter of fan in feet and inches	Width of blades in feet and inches	Depth of blades in feet and inches	Number of revolutions per minute	Water gauge developed—in inches	Name of fan	Power used	Number of splits of air currents	Number of cubic feet of air per minute entering the mine at inlet	Total quantity of air per minute circulating in all the splits in cubic feet	Number of cubic feet per minute passing out at outlet	Number of persons employed inside
Lehigh Coal and Navigation Co.															
Nesquehoning Colliery:															
Number 1	Tunnel	Gaseous	Fans	24	8	6.0	72	.8			19	143,560	63,961	*105,800	314
Number 2	Shaft	Gaseous		21	8	6.5	68	2.0			12	122,460	76,155	179,880	211
Number 3	Slope	Non-gas.	Natural	16	8	4.0	100	.7	Gulbal,	Steam,	3	24,560	2,561	10,000	74
Number 1,	Drift	Non-gas.	Natural								1	3,400	4,200	3,000	32
Number 2,	Tunnel	Non-gas.	Natural								1	3,000	3,200	3,000	8
Lansford Colliery:															
Number 4	Shaft	Gaseous	Fans	24	8	7.0	90	1.8	Co. make	Steam,	2	29,172	29,200	30,000	19
Number 4	Slope	Gaseous		21	7	6.5	50	.8	Gulbal,	Steam,	4	90,000	95,083	95,083	250
Number 5	Shaft			24	8	6.0	97	1.4	Gulbal,	Steam,	0	69,000	78,248	78,248	191
Number 6,	Shaft								Gulbal,	Steam,	3	51,000	53,500	53,805	256
Coaldale Colliery:															
Number 8	Shaft	Gaseous	Fan,	24	8	6.0	70	1.9	Gulbal,	Steam,	4	72,506	62,849	85,538	203
Number 8	Slope	Gaseous	Natural								†				
Number 8	Tunnel		Natural								†				
Number 9,	Shaft		Fan,	24	8	6.0	80	1.5	Gulbal,	Steam,	8	79,593	66,846	*77,651	252

NOTE.—Nineteen non-gaseous mines in which principal work done is robbing. No air measurements taken.

*A portion of the air escapes to the surface through old workings impossible to get correct measurements; work done is robbing and re-robbing.

Greenwood Colliery:																
Number 10,	Shaft,	{	Fan,	24	8	6.0	80	1.8	Guibal,	-	Steam,	{ 4	48,200	41,920	56,110	286
Number 10,	Slope,	{	Fan,						Guibal,	-	Steam,	{ 5	41,500	48,500	77,140	273
Number 10,	Tunnel,	{	Fan,	12	4	4.0	70	-----	Guibal,	-	Steam,	{ 2	6,120	8,300	10,140	
Rain Colliery:																
Number 11,	Shaft,	{	Fan,	24	8	6.0	75	1.3	Guibal,	-	Steam,	{ 6	141,600	133,800	172,500	314
Fosters,	Tunnel,	{	Fan,	21	7	5.3	44	.8	Guibal,	-	Steam,	{ 7	64,400	63,940	65,300	171
Tannaqua Colliery:																
Number 14,	{ Shaft,	{	Fan,	12	4	4.0	100	.7	Sturte-	-	Steam,	{ 13	96,850	82,740	91,660	353
	{ Shaft,	{	Fan,	20	7	5.3	75	1.2	vant,	-	Steam,	{				
Estate A. S. Colliery:																
Coleraine Colliery:	Slope,	{	Fan,	16	4	5.0	85	-----	Guibal,	-	Steam,	{ 5	56,410	51,170	60,800	160
Buck Mountain,		{	Fan,							-	Steam,	{				
Coxe Bros. and Co. Inc.																
Beaver Meadow Colliery:	Slope,	{	Fan,	20	6	5.6	90	.7	Guibal,	-	Steam,	{ 1	19,500	16,450	27,300	39
Number 2,	Slope,	{	Fan,	12	5	5.6	110	.40	Guibal,	-	Steam,	{ 3	40,570	18,460	66,700	89
Number 4,		{	Fan,							-	Steam,	{				

TABLE 1.—Operators, location of collieries, railroads, etc.

Names of Operators and Collieries	County	Name of General Superintendent	Post office	Name of Superintendent	Post Office	Railroad to Mine
Lehigh Coal and Navigation Co.	Carbon,					
Nesquehoning,	Carbon,					
Lansford,	Schuylkill,					
Caldale,	Carbon,					
Greenwood,	Schuylkill,					
Rahn,	Schuylkill,					
Tamaqua,	Schuylkill,					
Greenwood Washery,	Schuylkill,					
Caldale Washery,	Schuylkill,					
Hauto Washery,	Carbon,					
Estate A. S. Van Winkle Coleraine,	Carbon,	John Harvey,	Hazleton,			L. V., P. and R. and C. R. R. of N. J.
Coxe Brothers and Co., Inc. Beaver Meadow,	Carbon,	F. M. Chase,	Wilkes-Barre,	W. H. Davles,	Hazleton,	Lehigh Valley
Evans, Evans Colliery Co.	Carbon,	W. E. Smith,	Hazleton,	Charles Bidleman,	Hazleton,	Lehigh Valley
W. R. McCready Summit Hill,	Carbon,	W. R. McCready,	Summit Hill,			Panther Valley
Moses Neyer Black Rock,	Carbon,	Moses Neyer,	Summit Hill,	Elmer Neyer,	Summit Hill,	None

(W. G. Whitdin, In-
 side Supt.
 S. V. Tench, Out-
 side Supt.)
 Ralph Snyder, Jr., Lansford,

TABLE 2.—Number of tons of coal mined, number of days worked, number of persons employed, number killed and injured, quantity of powder, dynamite and permissible explosives used, etc.

Names of Operators and Collieries	County	Number of tons of coal shipped to market	Number of tons used at collieries for steam and heat	Number of tons sold to local trade and used by employes	Total production of coal in tons	Number of days worked	Number of employes	Number of fatal accidents	Number of non-fatal accidents	Explosives			Number of horses and injured
										Number of pounds of dynamite used	Number of pounds of powder used	Number of pounds of permissible explosives used	
Lehigh Coal and Navigation Co.													
Nesquehoning,	Carbon,	779,247	69,781	1,389	781,317	284	1,475	4	10	157,024	.....	40
Lansford,	Carbon,	756,879	152,847	52,371	653,697	282	1,880	11	8	319,282	.....	.....
Coaldale,	Schuylkill,	869,548	13,150	10,045	872,643	256	1,480	4	3	341,797	.....	79
Greenwood,	(Carbon,	427,279	33,899	11,698	472,876	277	922	2	1	178,850	.....	42
Rahn,	Schuylkill,	243,167	57,108	39,501	400,576	280	701	4	4	117,965	.....	66
Tamaqua,	Schuylkill,	224,948	38,436	1,348	265,292	239	647	4	2	148,417	.....	15
		3,291,488	376,524	120,843	3,788,805	.....	7,105	29	25	1,750,535	.....	242
Washeries:													
Greenwood,	Schuylkill,	18,687	3,832	316	24,236	235	81	.....	.....	15,025	.....	.....
Coaldale,	Schuylkill,	72,999	28,787	3,349	105,076	75	122	.....	.....	437	.....	.....
Hauto,	Carbon,	95,923	27,115	12,197	135,238	261	147	.....	.....	.....	.....	.....
		187,609	61,658	15,853	264,520	.....	349	.....	.....	12,432	.....	2
Totals,		3,478,447	438,182	136,696	4,053,325	.....	7,454	29	35	1,832,967	.....	244
Colraine,	Carbon,	248,071	59,009	3,781	310,861	301	677	2	11	52,500	91,990	500	87
Beaver Meadow,	Carbon,	219,596	25,993	3,828	279,222	276	174	1	1	115	95	88,797	36

TABLE 2.—Part 2

Names of Operators	County	Number of Boilers				Locomotives				Total horse power	Number of steam engines of all classes	Total horse power	Number of pumps delivering water to surface	Capacity in gallons per minute	Quantity delivered to surface per minute—gallons	Number of electric dynamos	Number of air compressors
		Cylindrical	Horse power	Tubular	Horse power	Total horse power	Steam	Air	Electric								
Lehigh Coal and Navigation Co.,	Carbon,	3	186	140	39,676	29,292	34	.....	55	203	38,571	23	47,243	11,314	.....	8	14
Schuylkill,																	
Estate A. S. Van Winkle,				18	2,170	2,170	6	.....	.....	35	1,340	7	7,347	1,955	.....	.....	1
Coxe Brothers and Co., Inc.,				8	2,000	2,000	6	2	.....	21	1,800	1	1,200	1,100	.....	1	2
Evans Colliery Co.,	Carbon,	2	700	.....	700	700	.....	.....	.....	6	325	3	2,000	1,000	.....	.....	.....
W. R. McCready,		1	125	1	125	250	.....	.....	.....	2	30	.....	.....	.....	.....	.....	.....
Moses Neyer,				1	35	35	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Totals,		6	1,011	163	33,386	34,357	46	2	55	208	42,036	84	57,799	14,850	.....	9	17

TABLE 3.—Number of each class of employes inside and outside of mines

Names of Operators	County	Inside										Outside										
		Mine foremen	Assistant mine foremen	Fire bosses and assistants	Miners	Miners' laborers	Lifters and trammers	Doorboys and helpers	Penpump	Company men	Total inside	Foremen	Overseers and foremen	State packers (by year)	State laborers (men)	Bookkeepers and clerks	All other employes	Total outside				
Lobloch Coal and Navigation Co.,	Carroll, Seldwy Hill.	15	21	23	1,673	671	113	68	10	1,000	2,9	1,931	22	152	225	113	111	32	1,875	2,820	7,451	
Estate A. S. Van Winkle,		4	1	3	157	112	33	6	18	1	417	1	2	16	31	18	7	8	167	293	637	
Craig Brothers and Co., Inc.,		1	3	106	97	11	11	6	1	6	97	1	1	10	16	17	21	1	80	178	291	
Evans Colliery Co.,	Cherokee,	1	1	1	1	1	1	1	10	1	1	1	1	1	3	5	14	1	21	40	51	
W. R. McCordy,		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
Moses Meyer,		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
Totals,		27	25	23	1,953	862	223	72	19	1,114	1,366	5,643	4	27	181	219	238	131	47	2,089	3,004	8,617

TABLE 3.—Part 2

Names of Operators	County	Average Number of Days Worked in Breaker												Total		
		January	February	March	April	May	June	July	August	September	October	November	December			
Leligh Coal and Navigation Co.,	Carbon	22	18	22	23	25	24	30	21	23	24	24	24	25	25	274
Estate A. S. Van Winkle,	Shuylkill	25	21	27	24	26	26	25	27	27	25	25	25	25	25	304
Coxe Brothers and Co., Inc.,		24	20	23	23	26	25	18	19	24	25	24	25	24	25	275
Evans Colliery Co.,	Carbon	25	22	25	16	17	10	11	12	14	22	20	21	21	21	235
W. R. McCready,		25	22	25	23	22	25	25	27	24	25	25	25	25	25	293
Moses Neyor,		21	20	21	21	22	23	22	21	22	22	22	22	22	22	260

TABLE 4.—Fatal accidents inside and outside of mines

Date of accident	Name of Person	Nationality	Occupation	Age	Married or single	Number of widows	Number of orphans	Name of Colliery	County	Nature and Cause of Accident in Brief
Jan. 24 30	Johi Kautsick,	Polish,	Laborer,	49	M.	1	3	Lansford,	Carbon,	Instantly killed by falling into shaft.
	Paul Puliek,	Slavonian,	Laborer,	33	S.			Rahn,			Schuylkill,	Fatally injured while pushing car on cage at bottom of shaft. Died February 6 from internal strams.
Feb. 1	Martin Stencko,	Polish,	Miner,	45	M.	1	6	Beaver Meadow,	Carbon,	Instantly killed in breast 30 feet from face by a shot that was fired in breast next to him and came through his pillar.
3	George Habsko,	Slavonian,	Slatepicker,	55	M.	1		Coaldale,	Schuylkill,	Fatally injured by falling under motor. Died February 4. Outside.
April 6	Thomas Hupka,	Slavonian,	Laborer,	33	M.	1	3	Coleraine,	Carbon,	Instantly killed by a portion of top bench of coal falling on them near face of coal pillar.
	(Cornick McFarvey,	American,	Miner,	58	M.	1	5			
May 1	Wash Prohola,	Greek,	Miner,	46	M.	1	2	Lansford,	Carbon,	Killed by being crushed by cars. They were standing near we (end of No. 99) turnout waiting for a loaded trip to pass out when two cars of the empty trip became uncoupled and ran back into loaded trip and fell over on the men.
	Thomas Polusky,	Greek,	Miner,	39	M.	1	1			
	(Shoon Firatoski,	Austrian,	Laborer,	45	M.	1	4			
15	Paul Yocobewicht,	Slavonian,	Slatepicker,	36	M.	1	3	Tamaqua,	Schuylkill,	Killed by cars at overcoal bucket. A couple of loaded conchola cars came in contact with car they were unloading, knocking them down with such force that they fell through the car onto the track and were run over.
	(Conrad Bechart,	American,	Slatepicker,	16	S.					
	William Slovitsky,	Slavonian,	Miner,	26	S.			Rahn,	Schuylkill,	Fatally injured by explosion of gas in crosscut. He passed danger signal with open light. Died May 28.

May 18	Thomas Sadusky, ---	American, ---	Driver, -----	18	S.	Tamaqua, -----	Schuykill, -----	Killed by having his head crushed between loaded car and roof of tunnel. He was riding on the bumper on the bottom side.
27	Oliver Kemmerer, ---	American, ---	Miner, -----	47	M. 1	Rahn, -----	Schuykill, -----	Fatally injured by explosion of gas at face of breast in Foster's tunnel. Died June 6.
June 7	Wilford Miller, -----	American, ---	Miner, -----	21	S.	Coaldale, -----	Schuykill, -----	Killed by fall of coal at face of breast while making room for a length of man-way, No. 8 shaft.
14	Mike Pavlick, -----	Slavonian, ---	Loader, -----	24	M. 1 2	Greenwood, -----	Schuykill, -----	Fatally injured by being run over by loaded car on gangway in No. 10 shaft. Died the same day.
22	John Wheldon, -----	American, ---	Miner, -----	49	M. 1 1	Coaldale, -----	Schuykill, -----	Suffocated by fall of coal at face of chute in gangway, No. 9 shaft.
July 14	Benjamin Black, -----	American, ---	Doorboy, -----	27	M. 1 1	Lansford, -----	Carbon, -----	Killed by explosion of gas in chute in gangway at No. 5 shaft.
Aug. 17	Harry Benninghoff, ---	American, ---	Miner, -----	27	M. 1 2	Lansford, -----	Carbon, -----	Fatally injured by being caught between car and gangway rib at Foster's tunnel. Died the same day.
21	Wazil Baron, -----	Polish, ---	Miner, -----	30	M. 1 4	Evans, -----	Carbon, -----	Fatally injured by fall of slate at face of breast. He failed to remove the loose top slate after firing shot. Died the same day.
Sept. 5	Floyd Henninger, ---	American, ---	Poleboy, -----	17	S.	Lansford, -----	Carbon, -----	Instantly killed by being run over by motor in gangway, No. 5 shaft.
7	Nicola Cerite, -----	Italian, ---	Laborer, -----	36	M. 1 2	Tamaqua, -----	Schuykill, -----	Fatally injured by being knocked off dump car by an overhead steam pipe. Died the same day. Outside.
12	Joseph Olexky, -----	Polish, ---	Batterymen, ---	22	S.	Lansford, -----	Carbon, -----	Suffocated at battery by rush of coal, No. 5 shaft.
14	Daniel Jenkins, -----	Welsh, ---	Loader, -----	19	S.	Coaldale, -----	Carbon, -----	Killed by fall of roof in chute near gangway in Springdale tunnel.
29	James Coscar, -----	Italian, ---	Carpenter, ---	36	M. 1 4	Nesquehoning, ---	Carbon, -----	Fatally injured by machinery while attempting to start the feeder at head-house. Died September 11. Outside.
Oct. 12	Frank Meseček, -----	Slavonian, ---	Laborer, -----	22	S.	Nesquehoning, ---	Carbon, -----	Killed by fall of rock at face of gangway, No. 1 tunnel.
16	Joseph Belenskie, ---	Austrian, ---	Laborer, -----	26	S.	Nesquehoning, ---	Carbon, -----	Killed by falling from chute to gangway, No. 1 tunnel.
27	Joseph Bednar, -----	Slavonian, ---	Machinist, ---	27	M. 1 1	Lansford, -----	Carbon, -----	Fatally injured by sheave wheel falling on him while removing the shaft, No. 6 dirt plane. Died December 21. Outside.
Nov. 14	August Martinkus, ---	Slavonian, ---	Machine helper, ---	29	M. 1 1	Nesquehoning, ---	Carbon, -----	Killed by gangway collar falling on him. The collar was knocked down by a falling rock.

TABLE 4—Continued

Date of accident	Name of Person	Nationality	Occupation	Age	Married or Single	Number of widows	Number of orphans	Name of Colliery	County	Nature and Cause of Accident in Brief
Nov. 16	Thomas Goheck, ----	Polish, ----	Driver, ----	18	S.	-----	-----	Lansford, ----	Carbon, ----	Killed by being caught between car and gangway rib, No. 4 water level.
29	William Jones, ----	Welsh, ----	Miner, ----	28	S.	-----	-----	Greenwood, ----	Schuylkill, ----	Instantly killed by explosion of gas in breast, No. 10 shaft. It is supposed that he ignited the gas while firing a hole.
Dec. 13	James T. Duncan, ----	American, --	Pank foreman, --	27	S.	-----	-----	Lansford, ----	Carbon, ----	Smothered in rush of culm at No. 6 banks. Outside.

TABLE 5.—Non-fatal accidents inside and outside of mines

Date of accident	Name of Person	Nationality	Occupation	Age	Married or single	Name of Colliery	County	Nature and Cause of Accident in Brief
Jan. 3	William Maurer,	American	Miner,	49	M.	Nesquehoning,	Carbon,	Hands and face burned by explosion of gas at face of breast.
	Thomas Maurer,	American	Miner,	27	M.			Collar bone broken by being squeezed between mule and car on gangway.
10	James Mitchell,	American	Driver,	23	S.	Coleraine,	Carbon	Body lacerated by falling on a sprag in gangway.
Feb. 7	Harry Rosko,	Slavonian,	Laborer,	21	M.	Lansford,	Carbon	Left femur fractured by fall of clod at face of gangway.
17	Doek Henry,	American	Miner,	30	S.	Coleraine,	Carbon	Back and hips bruised by fall of coal at face of breast.
18	Andrew Wojtko,	Hungarian,	Miner,	27	M.	Beaver Meadow,	Carbon	Face lacerated and eyes injured by premature blast.
March 7	John Turlek,	Slavonian,	Miner,	31	M.	Coleraine,	Carbon	Leg broken by a stick of timber falling on it.
11	Andro Coleman,	Slavonian,	Miner,	53	M.	Coleraine,	Carbon	Pelvis fractured by being caught between car and gangway leg.
April 3	Michael Swarts,	Slavonian,	Driver,	23	S.	Coleraine,	Carbon	Leg fractured by being caught between loaded car and motor on gangway.
14	Edward Lawson,	Polish,	Poleboy,	18	S.	Tamaqua,	Schuylkill,	Two fingers smashed by fall of coal in manway.
20	Joseph Kennedy,	American	Miner,	34	S.	Nesquehoning,	Carbon	Hands and face burned by explosion of gas.
May 15	Joseph Boycofsky,	Slavonian,	Miner,	39	M.	Rahn,	Schuylkill,	Ribs broken and body bruised by jumping off car while it was in motion. Outside.
18	Albert Wersinger,	American	Car-runner,	17	S.	Coleraine,	Carbon	Hands and face burned by explosion of gas in chute.
June 22	John Leno,	Austrian	Miner,	32	M.	Lansford,	Carbon	Leg fractured by car passing over it
	John Domasavage,	Austrian	Laborer,	35	M.			
26	John Watra,	American	Topman,	20	S.	Beaver Meadow,	Carbon	

TABLE 5—Continued

Date of accident	Name of Person	Nationality	Occupation	Age	Married or single	Name of Colliery	County	Nature and Cause of Accident in Brief
July 15	James Gallagher, -----	American,-----	Miner, -----	40	M.	Coaldale, -----	Schuylkill,-----	Hands, face and body burned by explosion of gas in chute.
Aug. 7	Edward Boyle, -----	American,-----	Miner, -----	35	M.	Greenwood -----	Schuylkill,-----	Hands and face lacerated by premature blast.
15	John Botskorus, -----	Slavonian,-----	Laborer,-----	50	M.	Coleraine, -----	Carbon,-----	Hip dislocated by falling while unloading props. Outside.
	Paul Haddock, -----	Slavonian,-----	Laborer,-----	40	S.	Tamaqua, -----	Schuylkill,-----	Head and body lacerated by falling from car while it was in motion. Outside.
17	George Aiken, -----	American,-----	Fireboss,-----	57	M.	Lansford, -----	Carbon,-----	Head cut and ribs fractured by coal falling down slope on him.
18	Michael North, -----	American,-----	Engineer,-----	68	M.	Coleraine, -----	Carbon,-----	Scalded by a leaking steam pipe. Outside.
22	Thomas Corrigan, -----	American,-----	Engineer,-----	54	M.	Beaver Meadow,-----	Carbon,-----	Left foot crushed between Barney and Barney pit.
	Joseph Gottner, -----	American,-----	Miner, -----	36	S.			Arms broken and hip lacerated by falling on scraper line. Outside.
24	Mike O'Milon, -----	Greek,-----	Slatepicker,-----	23	S.	Lansford, -----	Carbon,-----	Skull fractured by falling off cage into shaft.
Sept. 1	Steve Lasko, -----	Slavonian,-----	Laborer,-----	19	S.	Coaldale, -----	Carbon,-----	Right hand, three fingers of left hand, and sight of both eyes destroyed by explosion of caps in gangway.
15	Jacob Snyder, -----	German,-----	Miner, -----	42	M.	Nesquehoning,-----	Carbon,-----	Skull fractured by being struck by a piece of rock that fell down the chute.
25	Lucas Moneta, -----	Slavonian,-----	Miner, -----	40	M.	Coaldale, -----	Schuylkill,-----	Hands shattered by explosion of a blasting cap.
Oct. 9	Mich. Regan, -----	Slavonian,-----	Miner, -----	36	M.	Beaver Meadow,-----	Carbon,-----	Face lacerated and eye injured by explosion of powder.
12	Ben Fisher, -----	American,-----	Miner, -----	30	M.	Nesquehoning,-----	Carbon,-----	Hands and face burned by explosion of gas.
16	Michael Mulligan, -----	American,-----	Miner, -----	39	M.	Nesquehoning,-----	Carbon,-----	Hands and face burned by explosion of gas.
	Andrew Lechock, -----	Slavonian,-----	Miner, -----	33	M.	Lansford, -----	Carbon,-----	
	Steve Matula, -----	Slavonian,-----	Laborer,-----	38	M.			

Oct. 25	Frank Matzidon, [Mich. Matzidon,	Slavonian, Slavonian,	Miner, Laborer,	26 24	S. M.	Nesquehoning,	Carbon,	Hands, body and face burned by explosion of gas. Hands and face burned by explosion of gas.
26	Joseph Mitchell,	American,	Jig runner,	16	S.	Coleraine,	Carbon,	Arm fractured and hip dislocated by pulley belt, outside.
Nov. 16	George Demicola,	Tyrolean,	Muckerboss,	32	M.	Nesquehoning,	Carbon,	Back injured by being struck by a piece of rock that fell in face of tunnel.
	Walter Parsata,	Hungarian,	Loader,	22	S.	Lausford,	Carbon,	Leg fractured and body injured by being caught by rock at battery.
Dec. 11	Richard Johns,	English,	Washer,	42	M.	Nesquehoning,	Carbon,	Head lacerated by being caught between car and gangway timber.
13	John Kraynock,	Slavonian,	Miner,	36	M.	Coleraine,	Carbon,	Head and back bruised by fall of coal, due to forepokes breaking down at face of chute.

CONDITION OF COLLIERIES

LEHIGH COAL AND NAVIGATION COMPANY

Nesquehoning.—Ventilation generally good; drainage, roads and condition as to safety, good.

Lansford and Greenwood.—Ventilation good, with a few exceptions; roads, drainage and condition as to safety, good.

Coaldale and Tamaqua.—Ventilation, roads, drainage and general condition as to safety, good.

Rahn.—Ventilation, roads and drainage fair; general condition as to safety, good.

Greenwood, Coaldale and Hanto Washeries.—In good condition.

ESTATE A. S. VAN WICKLE

Coleraine.—Ventilation, roads, drainage and general condition as to safety, good.

COXE BROTHERS AND COMPANY, INCORPORATED

Beaver Meadow.—Ventilation, drainage, roads and general condition as to safety, good.

EVANS COLLIERY COMPANY

Evans.—Inside operations have been suspended indefinitely.

W. R. McCREADY

Summit Hill.—General conditions good. Will be completely robbed out in about two months.

MOSES NEVER

Black Rock.—Ventilation, drainage and roads good.

IMPROVEMENTS

LEHIGH COAL AND NAVIGATION COMPANY

Nesquehoning Colliery.—Outside: Remodeling head-house. Installed new wash water pump. Installed new jig engine and house. Erected additional 500 horse power battery of Stirling boilers.

No. 1 Tunnel.—Tunnel in Central basin driven north 159 feet from East Seven Foot to Mammoth. Mouth of No. 1 Buck Mountain drift changed 43 feet west, making underground crossing with public road.

No. 1 Shaft.—Tunnel from East Seven Foot 86 feet north toward Mammoth, Middle basin. North dip, tunnel from East Mammoth toward Seven Foot south 42 feet, Centre basin. North dip, main south tunnel driven 286 feet to Buck Mountain, South basin.

No. 2 Shaft.—Tunnel from Mammoth, North basin South dip, to Skidmore vein 45 feet.

Lausanne Drainage Tunnel.—2,150 feet of gangway and 1,560 feet of tunnel driven on No. 2 shaft end, a total of 3,710 feet; 4,948 feet of gangway and 379 feet of tunnel driven on Mauch Chunk end, a total of 5,327 feet, making a total of 9,037 feet driven for the year on both ends. The tunnel had been driven a total distance of 18,195 feet on January 1.

Lansford Colliery.—Outside: Installed one additional slush pump. Erected wash-house for use of employes. Installed new Cochran feed-water heater and erected house. Erected fence around the colliery grounds. Concreted top of No. 6 shaft. Installed ventilators in No. 4 and No. 6 boiler houses. Erected head-house at No. 6 dirt bank to remove large refuse and rock from dirt bank material that is loaded for shipment to Greenwood and Coaldale Washeries, thus aiding the washeries greatly in preparing the coal.

No. 4 Slope.—Inside: Empty car tunnel, 5th level, driven 148 feet to completion, total length 495 feet. Tunnel driven south 37 feet from West Mammoth, North dip, 5th level, to Skidmore vein. Tunnel driven from the East Mammoth, North dip, 5th level, 496 feet north to South dip of Mammoth and continued 107 feet into vein. Air tunnel driven 212 feet north from East Mammoth airway, 5th level. A hospital 18 by 18 feet, was made in west rib of No. 4 shaft main tunnel in rock.

No. 5 Shaft.—Tunnel driven north 31 feet from East Skidmore to Bottom Split of Mammoth, 2nd level.

Coaldale Colliery.—Outside: Installed ventilators in No. 8 boiler house. Erected wash-house at No. 9 tunnel for use of miners. Erected new fence around colliery grounds. Completed removal of old No. 9 breaker. Completed new 8-inch steam line from No. 8 boiler house to Mountain fan and hoisting engines. Installed jig engine and 14 additional jigs.

No. 8 Shaft.—Drilling bore hole from surface, where hoisting engines will be located to develop new level, to be known as the 7th. One concrete hospital erected on water-level and one on shaft-level.

No. 9 Shaft.—Empty car tunnel on 3rd level driven 195 feet to completion. In the Springdale workings a tunnel was driven south, at a point 500 feet west of Springdale tunnel, 307 feet toward the Bottom Split of the Mammoth vein.

Slushing was continued at the Summit Hill fire along the outcrop of the vein on North dip to prevent fire spreading westward along that crop.

Greenwood Colliery.—Outside: Erected fence around colliery grounds. Inside No. 3 tunnel, slope level, extended 82 feet south. No. 1 tunnel, slope level, extended 173 feet to Primrose vein.

Rahn Colliery.—Outside: Erected wash-house for convenience of inside men. Erected fence around colliery grounds. Erected addition on west side of breaker and installed additional jiggling machinery.

Tamaqua Colliery.—Outside: Erected new wash-house for use of inside men. Installed additional air compressor. Completed erection of 24 foot fan on Sharpe Mountain. Erected fence around colliery grounds. Inside: North tunnel, 2nd level. Tunnel driven 83 feet from East Skidmore to East Top Split, total distance driven 215 feet, 81 feet of tunnel driven from West Skidmore to Top Split, total distance driven 170 feet. Main South tunnel was extended 202 feet, total distance 4,319 feet. South air tunnel driven 240 feet. Air tunnel driven 60 feet from No. 1 East Orchard air course to No. 2 East Orchard. Near face of No. 2 West Orchard tunnel driven 60 feet north to vein struck by diamond drill hole from Primrose South tunnel. Traces of the Old Greenwood fire were discovered on May 25, 1911. The old drift was immediately reopened for 1,875 feet, a

slope sunk 110 feet on crop of Top Split vein. South dip, proving gangways and chutes driven, and a second opening driven up to surface from East gangway. No evidence of fire could be discovered and operations were resumed in this section October 3, 1911.

Greenwood Washery.—New dirt-bank material hopper built and conveyor lines renewed, also general repairs to the breaker structure and machinery.

Hauto Washery.—A 500 horse power battery of Stirling boilers was removed from Coaldale Washery and erected at this plant.

A new colliery to be known as Summit Colliery is in course of development at a point about midway between Lansford and Nesquehoning Collieries. The main water-level tunnel has been started and preparations are now under way to commence sinking two shafts. During the year a Mine Rescue car was fitted up in good condition with the Draeger Oxygen Apparatus and proper first-aid material, and is kept in readiness for prompt movement to any of the collieries in case of necessity. Too much praise cannot be given the First Aid Corps of this company for the interest they take in their humane work, particularly with the Corps of Nos. 4 and 8 Shafts and No. 8 Water level, who contributed their time and money to bring their medical rooms to such a state of perfection as to be second to none in the Anthracite coal region.

ESTATE A. S. VAN WICKLE

Coleraine Colliery.—Wheelbarrow basin: Sunk an inside slope 12 feet by 7 feet by 150 feet long, angle 23 degrees, from the West gangway, Buck Mountain vein, to the basin. Drove a tunnel 87 feet long through a fault at the bottom of the slope. Made a pump house and installed a pump with all necessary steam and water pipes. Drove a rock tunnel from the same gangway to the Gamma vein, 177 feet long, and made a new stable all in rock to accommodate 10 mules.

In Wheelbarrow basin, Wharton vein, sunk a new slope 7 feet by 12 feet by 200 feet long, angle 21 degrees.

No. 7 Buck Mountain Slope.—Drove a tunnel through a fault in the East 4th level gangway, distance 150 feet.

Drove a tunnel from the West 4th level gangway south to the Gamma vein, a distance of 108 feet.

No. 7 Gamma Slope.—Sunk the slope down another lift, distance 172 feet, angle 27 degrees. Drove a tunnel from the bottom of this slope to the Buck Mountain vein, distance 60 feet.

Flory Slope.—Sunk an inside slope to the basin of the underlap in the Mammoth vein, distance 88 feet, angle 27 degrees.

No. 2 Old Mammoth Slope.—Sunk a slope South to the basin of the underlap, distance 164 feet, angle 11 degrees.

Sinking a slope 12 feet by 7 feet clear of rail from the Mammoth to Wharton vein, sunk 173 feet in coal, angle 18 degrees, and 253 feet in rock, angle 25 degrees; present depth of slope 425 feet.

No. 2 Stripping.—Sunk a slope to mine the coal left in the Old Carter workings, distance 105 feet, angle 20 degrees.

Made connections from the Old No. 1 Wharton slope through the Carter tunnel to the Buck Mountain slope, making new bottom and hoisting the No. 1 Wharton coal through the Buck Mountain slope. Abandoned all hoisting of coal through No. 1 slope.

No. 9 Slope was abandoned June 5; exhausted.

COXE BROTHERS AND COMPANY, INCORPORATED

Beaver Meadow Colliery.—The main drainage tunnel mentioned in last year's report was extended across the Big Vein basin for 180 feet and is being continued now square to the measures in Northern direction to develop the underlying veins, which have been tested by diamond drill holes. The Wharton territory has been explored and opened by a gangway to the North, which has advanced 800 feet beyond the face of the old workings. The coal is now moved by a complicated system of counters and back-switches, but since the extent of the basin to the North has been satisfactorily proved, a rock slope will be sunk to tap this section direct.

The strippings have been extended on the continuation of the No. 8 basin, 40,398 yards having been excavated, and in the Greenfield basin 75,446 yards were moved by the contractor, bringing the total excavation in these strippings to 1,191,012 cubic yards by January 1, 1912.

At Beaver Meadow Slope No. 4 the gangway work in Buck Mountain and Gamma veins advanced steadily and proved the usual irregularities of the three splits of the Buck Mountain vein.

Two modern fireproof hospitals were constructed, one in No. 4 slope and the other in No. 2 slope.

EVANS COLLIERY COMPANY

Evans Colliery.—Installed one set of Stirling boilers 350 horse power, two Hazleton jigs, and a new State line.

Evans No. 2.—Gamma slope has been abandoned temporarily.



EIGHTEENTH DISTRICT

SCHUYLKILL COUNTY

Pottsville, Pa., February 27, 1912.

Hon. James E. Roderick, Chief of Department of Mines:

Sir: I have the honor of transmitting herewith my Annual Report as Inspector of Mines of the Eighteenth Anthracite District, for the year ending December 31, 1911.

Respectfully submitted,

JOHN CURRAN, Inspector.

SUMMARY OF STATISTICS

Number of collieries,	17
Number of mines,	43
Number of mines in operation,	43
Number of tons of coal shipped to market,	2,453,403
Number of tons used at mines for steam and heat,	375,365
Number of tons sold to local trade and used by employes,	37,299
Number of tons produced,	2,866,067
Number of tons produced by compressed air machines, .....	.....
Number of tons produced by electrical machines, .....	.....
Number of persons employed inside of mines,	4,617
Number of persons employed outside,	2,261
Number of fatal accidents inside of mines,	20
Number of fatal accidents outside,	5
Number of non-fatal accidents inside of mines,	65
Number of non-fatal accidents outside,	19
Number of tons of coal produced per fatal accident inside,	143,303
Number of persons employed per fatal accident inside,	231
Number of persons employed per fatal accident outside,	452
Number of persons employed per non-fatal accident inside,	71
Number of persons employed per non-fatal accident outside,	119
Number of wives made widows,	19
Number of children made orphans,	55
Number of steam locomotives used inside of mines,	3
Number of steam locomotives used outside,	35
Number of compressed air locomotives used inside,	8
Number of compressed air locomotives used outside, .....	.....
Number of electric motors used inside,	7
Number of electric motors used outside, .....	.....
Number of fans in use,	32
Number of furnaces in use, .....	.....
Number of gaseous mines in operation,	23
Number of non-gaseous mines in operation,	20
Number of new mines opened, .....	.....
Number of old mines abandoned,	2

TABLE A

PRODUCTION OF COAL

Names of Operators	Tons
Lehigh and Wilkes-Barre Coal Company,	792,680
Philadelphia and Reading Coal and Iron Company,	651,790
Coxe Brothers and Company, Incorporated,	286,732
Lehigh Valley Coal Company,	264,131
Maryd Coal Company,	245,126
Dodson Coal Company,	242,262
Alliance Coal Company,	156,763
Mill Creek Coal Company,	136,833
East Lehigh Coal Company,	58,664
Phillips Brothers Coal Company,	44,382
Port Carbon Coal Company,	30,702
Gorman and Cumpion,	23,493
Schuylkill Lehigh Coal Company,	17,233
William Cooke Estate,	5,256
Total,	2,866,067

Production by Counties

Schuylkill,	2,866,067
	373213

TABLE B.—Fatal and non-fatal accidents inside and outside of mines; number of tons of coal produced per accident; number of persons employed; number employed per accident

Names of Operators	Fatal Accidents			Non-Fatal Accidents			Tons of coal produced per fatal accident inside	Tons of coal produced per non-fatal accident inside	Number of employees inside	Number of employees outside	Total number of employees	Number of employees inside per fatal accident	Number of employees outside per fatal accident	Number of employees inside per non-fatal accident	Number of employees outside per non-fatal accident
	Inside	Outside	Total	Inside	Outside	Total									
Lehigh and Wilkes-Barre Coal Co., Philadelphia and Reading Coal and Iron Co.,	3		3	11	8	19	117,113	63,880	1,660	523	1,613	131	361	99	65
Coxe Brothers and Co., Inc.,	3		3	11	4	15	217,263	59,233	1,107	198	1,605	359	106	106	124
Lehigh Valley Coal Co.,	3		3	9	1	10	95,577	33,811	385	130	505	128	48	48	190
Maryel Coal Co.,	2		2	8	3	11	29,350	29,350	414	283	702	101	288	46	96
Madison Coal Co.,	2		2	8		8	122,375	30,640	322	163	482	161	198	40	229
Allamore Coal Co.,	2		2	7	1	8	78,381	121,131	307	230	617	307	307	61	104
Mill Creek Coal Co.,	2		2	3	1	4	22,355	22,355	445	154	560	233	64	44	44
East Lehigh Coal Co.,	2		2	3	3	6	68,416	45,611	136	118	254	68	57	47	47
Phillips Brothers Coal Co.,	2		2	2	1	3	29,332	29,332	37	57	94	18	57	18	18
Gouman and Champion,	1		1	1		1	31,382	31,382	43	42	85	43	43	43	43
Schuykill Lehigh Coal Co.,	1		1	1		1			43	32	75	32	32	32	32
William Cooke Estate,	1		1	1	1	2	8,616	8,616	64	59	125	59	59	59	59
Miscellaneous Companies,				1		1	5,256	5,256	8	11	19	8	8	8	8
Totals and averages for district,	29	5	34	65	19	84	143,303	41,093	4,017	2,261	6,878	231	452	71	119

TABLE C.—Classification of Fatal Accidents Inside and Outside of Mines

	Months												Percentages	
	January	February	March	April	May	June	July	August	September	October	November	December		Totals
Causes of Accidents Inside														
Falls of coal,			1		1								2	10.00
Falls of slate,	1			1	2							1	5	25.00
Falls of roof,	1					1							2	10.00
Mine cars,		1					1			1			3	15.00
Explosions of gas,								1					1	5.00
Suffocation by gas, etc.,			1			1					1		3	15.00
Blasts, premature and otherwise,		1										1	2	10.00
Falling into shafts,					1								1	5.00
Rush of coal,					1								1	5.00
Totals,	2	2	2	1	5	2	1	1	1	1	1	2	20	100.00
Causes of Accidents Outside														
Rock rolled on him,	1					1							2	40.00
Falling,										1	1		2	40.00
Rush of culm,										1			1	20.00
Totals,	1					1				2	1		5	100.00
Grand totals inside and outside,	3	2	2	1	5	3	1	1	1	3	2	2	25	.....

TABLE D.—Classification of Non-Fatal Accidents Inside and Outside of Mines

	Months												Percentages	
	January	February	March	April	May	June	July	August	September	October	November	December		Totals
Causes of Accidents Inside														
Falls of coal,			1		1	1			1	1			5	7.69
Falls of slate,		1		2		1	2				2		8	12.31
Falls of roof,	2											1	3	4.62
Mine cars,	1	2		1	2	2		2				1	11	16.92
Explosions of gas,			3		1	2		1	2		2	2	13	20.00
Explosions of powder and dynamite,	2					1			1				4	6.75
Blasts, premature and otherwise,	1		1				1					1	4	6.15
Falling into shafts,						1							1	1.54
Falling into slopes, etc.,							1				2		3	4.61
Struck by mining needle,	1												1	1.54
Struck by axe,	1												1	1.54
Rush of coal,		1											1	1.54
Struck by piece of coal,	1												1	1.54
Struck by bar,			1							1			2	3.08
Struck by car wheel,				1									1	1.54
Struck by timber,				1	1			1					3	4.61
Struck by piece of slate,					1	1							1	1.54
Struck by pulley,					1								1	1.54
Falling,				1									1	1.54
Totals,	9	4	6	6	7	8	4	2	6	2	6	5	65	101.00
Causes of Accidents Outside														
Cars,		1		2	1	1				1		2	8	42.11
Machinery,				1	1								2	10.53
Rush of culm,		2											2	10.53
Falling,		1				1							2	10.53
Mules,			1										1	5.26
Scalded by steam,					2								2	10.52
Struck by bursting pipe,				1									1	5.26
Injured by a jack,						1							1	5.26
Totals,	4	1	6	2	2	1				3	6	7	19	100.00
Grand totals inside and outside,	9	8	7	12	9	10	5	2	6	3	6	7	84	.....

TABLE E.—Occupations of Persons Killed or Fatally Injured Inside and Outside of Mines

	Months												Totals
	January	February	March	April	May	June	July	August	September	October	November	December	
Inside													
Fire bosses and assistants,								1					1
Miners,	2	2	1	1	4	1	1				1	2	15
Miners' laborers,					1	1							2
Doorboys and helpers,									1				1
Pumpmen,			1										1
Totals,	2	2	2	1	5	2	1	1		1	1	2	20
Outside													
Blacksmiths and carpenters,											1		1
Structural iron-workers,										1			1
Laborers,	1					1				1			3
Totals,	1					1				2	1		5
Grand totals inside and outside,	3	2	2	1	5	3	1	1		3	2	2	25

TABLE F.—Occupations of Persons Injured Inside and Outside of Mines

	Months												Totals
	January	February	March	April	May	June	July	August	September	October	November	December	
Inside													
Assistant mine foremen,					1								1
Fire bosses and assistants,						1							1
Miners,	8	3	5	3	4	3	3	2	4	2	5	4	46
Miners' laborers,				2			1						3
Drivers and runners,	1				1	2							4
Doorboys and helpers,									1				1
Company men,		1	1										2
Engineers,				1									1
Bottommen,					1								1
Spraggers,									1				1
Totals,	9	4	6	6	7	8	4	2	6	2	6	5	65
Outside													
Engineers and firemen,				3									3
Laborers,		2		1	2	1							6
Patchers,		1		2		1				1			5
Timbermen,			1										1
Footmen,							1						1
Drivers,												1	1
Topmen,												1	1
Stablenen,		1											1
Totals,		4	1	6	2	2	1			1		2	19
Grand totals inside and outside,	9	8	7	12	9	10	5	2	6	3	6	7	84

TABLE G.—Nationality of Persons Killed or Fatally Injured Inside and Outside of Mines

	Months												Totals
	January	February	March	April	May	June	July	August	September	October	November	December	
American,			1			1				3	1		6
Irish,								1					1
Polish,	1		1		1							1	4
Hungarian,	1				1								2
Italian,							1						1
Slavonian,											1	1	2
Lithuanian,		1		1									4
Austrian,					1								1
Russian,	1	1				2							4
Totals,	3	2	2	1	5	3	1	1		3	2	2	25

TABLE H.—Nationality of Persons Injured Inside and Outside of Mines

	Months												Totals
	January	February	March	April	May	June	July	August	September	October	November	December	
American,	1	3		7	2	5	2	1	1			1	23
Welsh,			1							1			2
Irish,	1												1
German,		1	1										1
Polish,	1	2			1	3	1		1		1	4	15
Hungarian,	1		2		2								5
Italian,		2		4	1	1				1			9
Slavonian,		1				1			3		1	2	8
Lithuanian,	3	1	1		2		2	1		1	3		13
Austrian,											1		1
Russian,	1		1	1					1				4
Tyrolean,	1				1								2
Totals,	9	8	7	12	9	10	5	2	6	3	6	7	84

TABLE I.—Operators and mines, kind of openings, type and size of fans, size of furnaces, volume of air produced by fan or furnace per minute, number of splits of air currents and number of persons employed inside

Names of Operators and Mines	Kind of opening	(Gaseous or non-gaseous)	Method of ventilation	Diameter of fan in feet and inches	Width of blades in feet and inches	Depth of blades in feet and inches	Number of revolutions per minute	Water gauge developed—in inches	Name of fan	Power used	Number of splits of air currents	Number of cubic feet of air per minute entering the mine at inlet	Total quantity of air per minute circulating in all the splits in cubic feet	Number of cubic feet per minute passing out at outlet	Number of persons employed inside
Lehigh and Wilkes-Barre Coal Co.															
Audenried No. 4 Colliery:															
Audenried No. 11,	Slopes, ..	Gaseous,	{ Fan,	16	4.2	3.8	95	.8	Guibal,	Steam,	5	105,000	105,000	109,000	524
Audenried No. 16,	Slopes, ..	Gaseous,	{ Fan,	12	4.0	3.6	90	.7	Guibal,	Steam,	2	49,000	49,000	50,000	
Audenried No. 21,	Slopes, ..	Gaseous,	{ Fan,	15	4.6	5.0	45	.4	Guibal,	Steam,	2	39,000	40,000	42,000	
Honey Brook No. 5 Colliery:															
Honey Brook No. 15,	Slope, ..	Gaseous,	Fan,	15	4.4	4.4	75	.8	Guibal,	Steam,	4	54,300	54,300	58,000	378
Honey Brook No. 22,	Slope, ..	Non-gas,	Natural,												
Honey Brook No. 29,	Slope, ..	Non-gas,	Fan,	8	2.10	2.3	65	.8	Guibal,	Steam,	3	28,900	29,500	32,000	
Green Mountain,	Slope, ..	Non-gas,	Fan,	15	4.2	4.6	65	.7	Guibal,	Steam,	4	46,450	47,500	48,500	
Water Level,	Tunnel, ..	Non-gas,	Fan,	12	4.0	3.6	60	.5	Guibal,	Steam,	2	27,000	27,500	28,000	
No. 8 South,	Slope, ..	Non-gas,	Natural,												
Philadelphia and Reading Coal and Iron Co.															
Silver Creek Colliery:															
Silver Creek,	Shaft,	Gaseous,	Fans,	{ 21	6.0	7.0	61	.7	Guibal,	Steam,	18	200,000	200,500	200,500	418
				{ 21	6.2	7.0	65	1.1							

TABLE 1.—Operators, location of collieries, railroads, etc.

Names of Operators and Collieries	County	Name of General Superintendent	Post Office	Name of Superintendent	Post Office	Railroad to Mine
Lehigh and Wilkes-Barre Coal Co. Anderson No. 4, Honey Brook No. 5,	Schuylkill,	C. F. Huber,	Wilkes-Barre,	E. J. Newbaker,	Anderson,	C. R. R. of N. J.
Philadelphia and Reading Coal and Iron Co.						
Silver Creek, Eagle Hill,	Schuylkill,	W. J. Richards, General Manager,	Pottsville,	Reese Tasker, Mining Supt. George B. Hadesky, Dist. Supt. David Jones, Inside Supt. William Tiley, Outside Supt.	Pottsville,	Philadelphia and Reading
Coxe Brothers and Co., Inc. Oneida,	Schuylkill,	F. M. Chase,	Wilkes-Barre,	William H. Davies,	Hazleton,	Lehigh Valley
Lehigh Valley Coal Co. Vulcan, Buck Mountain,	Schuylkill,	F. M. Chase,	Wilkes-Barre,	William Underwood,	Mahanoy City,	Lehigh Valley
Maryol Coal Co.	Schuylkill,	T. E. Snyder,	Hazleton,	Arthur Kennedy,	Maryd,	C. and P. and C. R. R. of N. J.
Dodson Coal Co.	Schuylkill,	Truman M. Dodson, General Manager,	Morea,			Penna. and L. V.
Alliance Coal Co.	Schuylkill,			Thos. F. Downing,	Pottsville,	Philadelphia and Reading
Mill Creek Coal Co.	Schuylkill,	T. D. Jones,	New Boston,	J. E. Jones,	New Boston,	Penna. and L. V.
East Lehigh Coal Co. East Lehigh,	Schuylkill,	James Tinsley,	Tamaqua,	James Tinsley,	Tamaqua,	Philadelphia and Reading

*Formerly Kaska William, operated by Truman M. Dodson Coal Company. Alliance Coal Company took charge August 12

Phillips Brothers Coal Co. Silver Hill,	Schuylkill,	D. E. Phillips,	Middletown,	D. E. Phillips,	Mahanoy City,	Philadelphia and Reading
Port Carbon Coal Co. Lucy R.,	Schuylkill,	D. J. Slattery,	Port Carbon,	Joseph V. Connors,	Port Carbon,	Philadelphia and Reading
German and Campion Bell,	Schuylkill,	D. J. Slattery,	Tuscarora,	D. J. Slattery,	Tuscarora,	Philadelphia and Reading
Schuylkill Lehigh Coal Co. Brookton,	Schuylkill,	J. P. Perch,	Brookton,	J. P. Perch,	Brookton,	Philadelphia and Reading
William Cooke Estate Oakley,†	Schuylkill,	B. G. Cooke,	Tuscarora,	B. G. Cooke,	Tuscarora,	Philadelphia and Reading

†Abandoned July.

TABLE 2.—Number of tons of coal mined, number of days worked, number of persons employed, number killed and injured, quantity of powder, dynamite and permissible explosives used, etc.

Names of Operators and Collieries	County	Number of tons of coal shipped to market	Number of tons used at golf-heres for steam and heat	Number of tons sold to local trade and used by employes	Total production of coal in tons	Number of days worked	Number of employes	Number of fatal accidents	Number of non-fatal accidents	Explosives			Number of horses and mules	
										Number of pounds of powder used	Number of pounds of dynamite used	Number of pounds of permissible explosives used		
Leligh and Wilke-Barre Coal Co.	Schuylkill	235,638	51,969	2,732	389,339	231	865	3	11	72,775	27,572		73	
Audenried No. 4, Striping		307,706	14,375		322,341	237	613	9	8	6,099	18,150		49	
Irony Brook No. 3, Striping							33							
Miscellaneous							96							
Totals			633,491	66,344	2,732	792,689		1,613	8	19	78,775	388,672		112
Philadelphia and Reading Coal and Iron Co.	Schuylkill	323,382	31,974	4,353	369,299	270	598	2	8	97,025	162,070	49,464	94	
Silver Creek		250,911	39,117	2,453	291,581	272	667	1	7	62,350	37,492	45,781	56	
Eagle Hill														
Totals		573,893	71,091	6,806	671,780		1,665	3	15	159,375	199,562	95,245	144	
Coxe Brothers and Co., Inc.	Schuylkill	243,285	40,657	3,392	286,732	276	565	3	9	169,750	62,515		72	
Oneida														
Vulcan, Leligh Valley Coal Co.	Schuylkill	106,923	27,091	318	134,357	221	305		5	98,870	16,296	519	34	
Buck Mountain		91,326	37,583	585	129,771	268	398	1	7	61,550	14,765	1,212	35	
Totals		118,324	61,871	933	264,151		703	1	12	160,100	31,961	1,731	69	
Maryd Coal Co.	Schuylkill	212,691	59,415	2,116	215,146	164	485	2	8	49,375	79,866		59	

Morea,	Dodson Coal Co.	298,219	35,984	959	242,232	290	617	3	83,125	161,775	41	
Albance,*	Alliance Coal Co.	120,017	30,509	246	156,763	231	550	2	40,125	52,985	47	
Middle Lehigh,	Mt. Creek Coal Co.	119,833	17,060	.....	136,833	290	254	2	42,850	19,950	37
East Lehigh,	East Lehigh Coal Co.	31,628	8,700	18,336	58,664	227	94	3	.....	8,450	8
Silver Hill,	Phillips Brothers Coal Co.	40,634	3,217	551	44,382	290	85	.....	1	207	100
Lucey R.,	Port Carbon Coal Co.	29,607	450	645	30,702	229	91	.....	.....	.....	6
Bell,	Gorman and Campion	21,933	1,500	.....	23,493	170	75	1	.....	12,000	8
Brockton,	Schuylkill Lehigh Coal Co.	15,560	1,575	98	17,233	139	123	.....	3	260	500
Oakley,	William Cooke Estate	4,435	300	471	5,236	152	19	.....	1	.....	839
Grand totals,		2,453,403	373,365	37,280	2,866,667	6,872	25	84	715,235	993,412	620

*Formerly Kacka William, operated by Truman M. Dodson Coal Company. Alliance Coal Company took charge August 12.

TABLE 2.—Part 2

Names of Operators	County	Number of Boilers				Locomotives				Total horse power	Number of steam engines of all classes	Total horse power	Number of pumps delivering water to surface	Capacity in gallons per minute	Quantity delivered to surface per minute—gallons	Number of electric dynamos	Number of air compressors
		Cylindrical	Tubular	Horse power	Total horse power	Steam	Air	Electric	Number of steam engines of all classes								
Lehigh and Wilkes-Barre Coal Co.,		39	1,350	45	4,780	6,130	8	1	46	6,175	11	17,263	8,345	2	3		
Philadelphia and Reading Coal and Iron Co.,		20	640	19	3,050	3,690	4	2	58	3,857	8	6,161	1,617	1	3		
Coxe Brothers and Co., Inc.,		23	3,800	23	3,800	3,800	3	3	20	2,750	7	5,925	3,870	2	5		
Lehigh Valley Coal Co.,		20	600	16	3,850	4,450	4	3	15	2,530	6	6,000	3,830	2	2		
Maryd Coal Co.,		13	1,950	13	1,950	1,950	2	4	16	2,500	4	4,000	1,500	1	1		
Dodson Coal Co.,		37	2,950	37	2,950	2,950	4	4	15	2,500	6	7,725	7,725	1	1		
Alliance Coal Co.,	Schuylkill,	16	2,240	16	2,240	2,240	2	2	14	2,615	2	2,350	1,500	2	2		
Mt. Creek Coal Co.,		15	2,200	15	2,200	2,200	4	2	12	1,400	3	6,000	1,500	1	1		
East Lehigh Coal Co.,		3	800	3	800	800	2	2	10	800	2	200	125	1	1		
Phillips Brothers Coal Co.,		3	290	3	290	290	2	2	8	227	2	1,150	490	1	1		
Port Carbon Coal Co.,		2	150	2	150	150	2	2	6	175	2	240	120	1	1		
Gorman and Crompton,		5	1,700	5	1,700	1,700	2	2	6	1,800	2	240	120	1	1		
Schuylkill Lehigh Coal Co.,		2	120	2	120	120	1	1	3	176	2	240	120	1	1		
William Cooke Estate,		79	2,650	131	28,055	30,605	36	8	8	220	31,705	53	57,069	29,762	4	19	
Totals,		79	2,650	131	28,055	30,605	36	8	8	220	31,705	53	57,069	29,762	4	19	

*Oil burner.

TABLE 3.—Number of each class of employes inside and outside of mines

Names of Operators	County	Inside											Outside							Grand total inside and outside		
		Mine foremen	Assistant mine foremen	Fire bosses and assistants	Miners	Miners' laborers	Drivers and runners	Doorboys and helpers	Pumpmen	Company men	All other employes	Total inside	Superintendents	Foremen	Blacksmiths and carpenters	Knighers and firemen	State pickers (boys)	State pickers (men)	Bookkeepers and clerks		All other employes	Total outside
Lehigh and Wilkes-Barre Coal Co., Philadelphia and Reading Coal and Iron Co.,		3	2	4	563	203	56	32	15	224	188	1,090	3	7	35	49	91	2	4	309	223	1,613
Coxe Brothers and Co., Inc., Lehigh Valley Coal Co.,		3	18	---	401	246	73	---	4	155	364	1,167	---	5	22	57	78	34	7	295	498	1,665
Maryd Coal Co.,		2	4	5	222	24	30	2	3	24	76	385	1	1	4	27	49	3	3	85	120	503
Dodson Coal Co.,		1	1	6	178	75	18	8	4	50	60	414	1	2	12	35	49	31	3	132	288	702
Alliance Coal Co.,		1	---	3	68	78	22	6	4	56	179	397	1	1	19	34	17	10	3	104	163	485
Mill Creek Coal Co.,	Schuylkill,	1	---	6	160	24	39	2	4	90	130	446	1	1	10	33	7	---	3	56	164	560
East Lehigh Coal Co.,		1	1	1	16	6	4	1	2	6	7	136	1	1	3	32	7	---	3	47	118	274
Phillips Brothers Coal Co.,		1	1	1	14	9	4	2	2	9	37	43	1	1	1	6	9	---	1	38	37	94
Port Carbon Coal Co.,		1	---	1	42	9	9	1	---	3	65	111	1	1	2	7	7	---	1	23	42	85
Gorman and Cavanaugh,		1	---	1	50	6	5	2	---	9	48	111	1	1	2	6	6	---	1	15	32	75
Schuylkill Lehigh Coal Co.,		1	1	1	50	4	5	2	---	3	64	111	1	1	1	1	1	---	2	49	39	133
William Cooke Estate,		1	1	1	4	2	1	---	---	---	5	---	1	1	---	---	---	---	5	5	11	19
Totals,		17	32	28	1,740	791	393	43	48	655	310	1,637	13	29	51	330	396	86	37	1,389	2,261	6,873

TABLE 4.—Fatal accidents inside and outside of mines

Date of accident	Name of Person	Nationality	Occupation	Age	Married or single	Number of widows	Number of orphans	Name of Colliery	County	Nature and Cause of Accident in Brief
Jan. 14	Walter Kamososky, ---	Russian, ---	Miner, ---	26	S.	---	---	Onelda, ---	---	Killed by fall of roof at face of breast on gangway.
27	George Boyschock, ---	Hungarian, ---	Laborer, ---	49	M.	1	1	Honey Brook No. 5,	---	Killed by a large boulder of rock that rolled down from top of stripping, outside.
31	Frank Merook, ---	Polish, ---	Miner, ---	46	M.	1	2	Middle Lehigh, ---	---	Killed by fall of slate from top, 30 feet back from face of breast.
Feb. 17	Anthony Noviek, ---	Lithuanian, ---	Miner, ---	48	M.	1	3	Eagle Hill, ---	---	Killed by blast at face of breast while in the act of lighting a squib.
22	George Fremore, ---	Russian, ---	Miner, ---	36	M.	1	5	Honey Brook No. 5,	---	Killed by being struck by runaway trip of empty cars. Hitching bar broke on slope.
March 9	Martin Marook, ---	Polish, ---	Miner, ---	35	M.	1	2	Middle Lehigh, ---	---	Fatally injured internally by piece of top coal falling on him at face of breast.
26	Samuel Marshall, ---	American, ---	Pump-runner, ---	25	M.	1	4	East Lehigh, ---	Schuylkill,	Died in hospital at Ashland. Smothered by smoke from fire in pump house while trying to extinguish fire.
April 7	William Rice, ---	Lithuanian, ---	Miner, ---	32	M.	1	3	Maryd, ---	---	Killed by fall of slate from top while robbing back pillar.
May 4	Martin Eilash, ---	Polish, ---	Miner, ---	50	M.	1	1	Audenried No. 4,	---	Fatally injured by fall of top coal at face of breast.
5	Anthony Ladage, ---	Lithuanian, ---	Laborer, ---	24	S.	---	---	Silver Creek, ---	---	Killed by piece of slate that fell on him at face of gangway while he was putting up a set of timber.
12	Joseph Abraham, ---	Hungarian, ---	Miner, ---	29	M.	1	2	Audenried No. 4,	---	Killed by fall of top slate at face of breast.
18	Joseph Shapolis, ---	Lithuanian, ---	Miner, ---	50	M.	1	7	Kaska William, --- (Now Alliance)	---	Killed by falling down shaft while riding up on cage.
26	Peter Grough, ---	Austrian, ---	Miner, ---	49	M.	1	2	Maryd, ---	---	Killed by rush of coal in roadway of breast while starting a blocked manway.

TABLE 4—Continued

Date of accident	Name of Person	Nationality	Occupation	Age	Married or single	Number of widows	Number of orphans	Name of Colliery	County	Nature and Cause of Accident in Brief
June 19	John Griffin,	American, ..	Miner,	50	M. 1	8	Shiver Creek,			Filled by fall of rock while dressing down top of tunnel to make it safe.
	Paul Theodoro,	Russian, ..	Laborer,	52	S.		Andenried No. 4,			Killed by a dump of rock tilting on him on rock bank on stripping. Outside.
26	Michael Orlesky,	Russian, ..	Laborer,	27	M. 1	1	Honey Brook No. 5,			Smothered by rush of culm clay and coal while starting check bottom in chute.
July 8	John Paulucci,	Italian,	Miner,	45	M. 1	1	Honey Brook No. 5,			Killed by runaway mine car that ran out of breast on grade of from 1 to 8 degrees.
Aug. 2	John English,	Irish,	Fireboss,	43	M. 1	4	Kaska William, (Now Alliance)			Fatally burned. He lit his naked lamp before completing his rounds in the breasts in the morning and ignited a body of gas that was brought down by a fall of coal from face of breast.
Oct. 5	Stephen Reitzner,	American, ..	Patcher,	16	S.		Onelda,	Schuylkill,		Killed by being caught between mine cars and prop on high side of gangway.
6	John Mulligan,	American, ..	Structural iron worker,	29	M. 1	1	Buck Mountain,			Fatally injured by falling from swinging scaffold in breaker, breaking his skull. Outside.
23	Benjamin Houser,	American, ..	Laborer,	66	M. 1		East Lehigh,			Killed by being smothered by rush of culm from culm bank. Outside.
Nov. 17	Curtis Seidle,	American, ..	Carpenter,	22	S.		Bell,			Fatally injured by falling from top of new breaker. Died same day. Outside.
18	Constantine Bierniec,	Slavonian, ..	Miner,	53	S.		Honey Brook No. 5,			Smothered by rush of coal dirt and mud from surface when pillar gave way.
Dec. 27	Andrew Hardue,	Slavonian, ..	Miner,	41	M. 1	3	Onelda,			Killed by fall of top slate at face of gangway.
	Byrne Veckomos,	Polish,	Miner,	35	M. 1		East Lehigh,			Fatally injured by blast in monkey head log, East A. vein. Died January 2, 1912.

TABLE 5.—Non-fatal accident's inside and outside of mines

Date of accident	Name of Person	Nationality	Occupation	Age	Married or Single	Name of Colliery	County	Nature and Cause of Accident in Brief
Jan. 11	Isadore Rice, -----	Lithuanian, -----	Driver, -----	45	M.	Audenried No. 4, ---		Both legs broken by explosion of blast. He charged three short holes that he had drilled to make room for road sills at face of gangway. He lit two of the fuses and was trying to light the other one when the two he had lit exploded. Leg broken by being caught between banners of trip of loaded cars standing on bottom turnout and loaded trip pulling on to the turnout with a team of mules.
12	Edward Colon, -----	Lithuanian, -----	Miner, -----	19	S.	Silver Hill, -----		Hands and face burned by powder. A spark from Chockles lamp fell into keg of black powder while he was making up a charge for a blast in breast heading.
12	Adam Chockles, [Anthony Zubritsky, -----]	Polish, Russian, ---	Miner, Miner, -----	38 34	M. M.	Maryd, -----	Schuylkill, -----	Leg broken by piece of roof falling on it at face of gangway.
14	August Marznone, -----	Tyrolean, -----	Miner, -----	31	S.	Onelda, -----		Head, face and body cut and bruised by fall of roof at face of breast in gangway.
17	John Whalen, -----	Hungarian, -----	Miner, -----	32	M.	Onelda, -----		Two fingers of right hand cut off by being struck by an axe in the hand of a laborer while dressing the butt of a gangway leg on gangway.
24	Patrick Haggerty, -----	Irish, -----	Miner, -----	46	M.	Morea, -----		Leg broken by being struck by a piece of coal that rolled down manway.
26	William Rasavage, -----	Lithuanian, -----	Miner, -----	38	M.	Vulkan, -----		Foot injured by a mining needle that penetrated his instep in chute.

TABLE 5--Continued

Date of accident	Name of Person	Nationality	Occupation	Age	Married or single	Name of Colliery	County	Nature and Cause of Accident in Brief
Feb. 1	Marth Lopeot, -----	Slavonian, -----	Miner, -----	31	M.	Oakley, -----		Jaw bone broken by being caught between car and coal at bottom of slope when car jumped the track.
14	Joseph Kennedy, -----	American, -----	Patcher, -----	22	S.	Oneida, -----		Small bone of leg broken by being caught between bumpers of timber truck and locomotive. Outside.
18	Joseph Zerbon, -----	Polish, -----	Miner, -----	35	M.	Kaska William, ----- (Now Alliance)		Body squeezed by being caught under rush of coal of pillar while putting up a set of timber in heading.
20	Stiney Kenelousky, --	Polish, -----	Miner, -----	56	M.	Kaska William, ----- (Now Alliance)		Ribs broken. He was returning into breast after firing a blast when a piece of slate fell on him.
22	James Baker, -----	American, -----	Company man, --	53	M.	Oneida, -----	Schoykill, -----	Collar bone broken by being caught between mine cars and timber on high side of gangway.
27	Joseph Laplook, ----- (Charles Verigo, -----)	Italian, ----- Italian, -----	Laborer, ----- Laborer, -----	37 32	M. M.	Silver Creek, -----		Body bruised by being caught against mine car by rush of culm from bank. Outside.
March 1	Henry Schalegae, -----	American, -----	Stableman, -----	43	M.	Eagle Hill, -----		Arm broken by being thrown from wagon when team of horses slipped. Outside.
2	Charles Selega, -----	Polish, -----	Miner, -----	28	S.	Buck Mountain, -----		Hands and face burned by gas. He struck a match to light a shot in face of chute and ignited the gas.
2	Sbandor Kisz, -----	Hungarian, -----	Company man, --	48	M.	Honey Brook No. 5, -----		Leg fractured. He was barring down a collar of an old set of timber and as the timber fell he was struck by the bar that he was using.
4	Frank Alspach, -----	German, -----	Timberman, -----	28	M.	Morea, -----		Leg fractured by being kicked by a mule that he was taking to stable. Outside.

March	4	Eben Pergrans, -----	Welsh, -----	Miner, -----	51	M.	Vulcan, -----	Hands and face burned by gas. He was working with a naked lamp at face of chute and ignited the gas.
	20	Leo Patrick, -----	Russian, ---	Miner, -----	25	S.	East Lehigh, -----	Hands and face burned by gas in breast. He uncovered his safety lamp to light it with match and ignited traveling gas.
	21	Joseph Nujer, -----	Hungarian, ---	Miner, -----	24	M.	Oneida, -----	Right leg broken by fall of coal at face of breast.
	25	Peter Clem, -----	Lithuanian, ---	Miner, -----	58	M.	Middle Lehigh, -----	Face cut and hand smashed by blast from dynamite placed on obstruction in man-way to remove it.
April	2	Thomas Carr, ----- Albert Sundock, -----	American- American, ---	Engineer, ----- Engineer, -----	29 21	M. S.	Honey Brook No. 5, -----	Hands and face scalded by escaping steam when locomotive jumped off the track and broke off steam pipe. Outside.
		Jacob Lutz, -----	American, ---	Fireman, -----	44	M.	Buck Mountain, -----	Leg scalded.
	6	Joseph Mingo, -----	Italian, ---	Miner, -----	26	M.	Honey Brook No. 5, -----	Skull fractured by being struck by elbow of blow-off steam cock which broke while in the act of turning it. Outside.
	12	Leo Collins, -----	American, ---	Laborer, -----	20	S.	Buck Mountain, -----	Ankle sprained by being struck by car at bottom of slope.
		James McFadden, -----	American, ---	Miner, -----	28	M.	Honey Brook No. 5, -----	Injured internally and shoulder lacerated by being caught in machinery of scraper line. Outside.
		John Zeronightis, -----	Russian, ---	Miner, -----	23	S.	Buck Mountain, -----	Leg injured by being struck by car wheel on gangway. The wheel had come off car descending slope.
	15	James Ryan, -----	American, ---	Engineer, -----	24	S.	Buck Mountain, -----	Leg fractured by fall of slate in breast while pulling cut prop from under it.
		Venturie Buckenary, -----	Italian, ---	Laborer, -----	27	S.	Buck Mountain, -----	Head cut. He ran into a broken down collar on gangway when taking his first trip of cars in gangway.
	20	William Mingo, -----	Italian, ---	Patcher, -----	19	S.	Audenried No. 4, ---	Leg fractured by being thrown from front end of loaded car on which he was riding up the new pump slope.
	22	James Gallagher, -----	American, ---	Patcher, -----	20	S.	Audenried No. 4, ---	Foot bruised by being caught between bumpers of cars in stripping. Outside.
		Lawrence Gumbovage, -----	Italian, ---	Laborer, -----	49	M.	Maryd, -----	Knee squeezed by being caught between mine cars at bottom of plane. Outside.
May	3	John Semitski, -----	Polish, ---	Miner, -----	42	M.	Audenried No. 4, ---	Two ribs and ankle broken by fall of slate at face of gangway.
	8	John Ferraz, -----	American, ---	Bottomman, -----	24	S.	Maryd, -----	Foot fractured. A mine car caught a piece of rock on which he was sitting on platform of chute and threw him over the car to low side of gangway.
								Ankle bruised by prop falling on him. A mine car on No. 1 slope jumped off the track and knocked out prop.

Schuylkill, -----

TABLE 5—Continued

Date of accident	Name of Person	Nationality	Occupation	Age	Married or single	Name of Colliery	County	Nature and Cause of Accident in Brief
May 10	James Buntz, -----	Italian, ----	Laborer, -----	40	M.	Kaska William, (Now Alliance)		Thumb cut off by being caught in rigging of galloways while hoisting car on end of rock bank. Outside.
11	John Idrichiek, -----	Hungarian, -----	Driver, -----	20	S.	Audenried No. 4, --		Compound fracture of leg. While riding on the front of a trip of mine cars they jumped the track and threw him against low side of gangway.
12	Gaber Saloka, -----	Hungarian, -----	Laborer, -----	54	M.	Audenried No. 4, --		Hips bruised by being caught between bumpers of locomotive and dump cars. Outside.
20	John Shbelinsky, -----	Lithuanian, -----	Miner, -----	25	S.	Maryd, -----		Hip dislocated by fall of top coal while dressing down loose coal from face of breast.
	Frank Maskawide, -----	Lithuanian, -----	Miner, -----	36	M.	Oneida, -----	Schuylkill,	Leg cut by being struck by a piece of slate that slid down over loose coal he was moving in breast.
	Leopold Flain, -----	Tyrolean, -	Miner, -----	43	M.	Oneida, -----		Hands and face burned by gas. He raised his naked lamp to a vacant space above the timber at face of gangway and ignited gas.
25	Elmer VanBlaragan, ---	American, ---	Assistant foreman,	30	M.	Oneida, -----		Arm broken by being struck by a pulley while riding up slope.
June 3	Anthony Wasco, -----	Polish, -----	Laborer, -----	65	S.	Silver Creek, -----		Compound fracture of leg. Caught between bumpers of cars on turnout on top of coal shaft. Leg had to be amputated. Outside.
5	William H. James, ---	American, ---	Miner, -----	45	M.	Morea, -----		Fingers of both hands blown off. In taking a dynamite cap out of box a spark fell into box and exploded all the caps.

June 7	Martin Halupko, -----	Slavonian, -----	Laborer, -----	32	M. Audenried No. 4, -----	Shoulder dislocated, side crushed, ribs fractured and ankle broken by fall of top slate at face of breast.
13	Walter H. Buras,	American, -----	Fireboss, -----	35	M. Maryd, -----	Face and hands burned by gas while examining breast in morning.
	Anthony Chipreana, ----	Italian, -----	Miner, -----	33	S. Maryd, -----	Face and hands burned by gas. He went up in breast with naked lamp and ignited gas.
16	Joseph Spotts, -----	American, -----	Laborer, -----	25	M. Kaska William, -----	Body bruised and head cut by falling down shaft.
19	James Leonard, -----	American, -----	Driver, -----	18	S. Silver Creek, -----	Body bruised by falling under mine car at bottom of shaft.
21	Alex Bardenose, -----	Polish, -----	Patcher, -----	19	S. Honey Brook No. 5, -----	Compound fracture of ankle by falling off locomotive. Outside.
23	Casper Golbeck, -----	American, -----	Driver, -----	27	S. Maryd, -----	Body squeezed by being caught between mine cars and timber on gangway.
26	Andrew Gratsin, -----	Polish, -----	Miner, -----	36	M. Middle Lehigh, -----	Collar bone fractured by fall of coal at face of counter gangway.
July 12	Lewis Cassat, -----	American, -----	Footman, -----	23	M. Audenried No. 4, -----	Thumb crushed by being caught by the retracker while putting on mine ear on plane. Outside.
14	Michael Buroot, -----	Polish, -----	Miner, -----	38	M. Kaska William, -----	Leg broken by fall of slate in chute.
22	Simon Ramos, -----	Lithuanian, -----	Miner, -----	24	S. Silver Creek, -----	Leg broken by falling down chute while running away from shot.
23	Thomas Troutman, -----	American, -----	Miner, -----	28	M. Silver Creek, -----	Face and arms cut and eye injured by blast while tamping hole in face of breast.
24	Mike Nesweski, -----	Lithuanian, -----	Laborer, -----	22	S. Silver Creek, -----	Legs broken by a piece of slate that fell from high side of gangway while loading car.
AUG. 1	William Foose, -----	American, -----	Miner, -----	23	S. Oneida, -----	Hip dislocated by being struck by timber. While timbering on gangway a piece of clot or slate fell and knocked out two sets of timber.
3	Stephen Watchesky, ----	Lithuanian, -----	Miner, -----	28	M. Kaska William, -----	Hands and face burned by gas in breast.
Sept. 1	Anthony Bartuice, ----	Polish, -----	Patcher, -----	16	S. Audenried No. 4, -----	Leg fractured by being caught between bumpers of loaded cars in gangway.
	John Zelosky, -----	Russian, -----	Miner, -----	38	M. Honey Brook No. 5, -----	Thumb and index finger blown off. While forcing the fuse into a dynamite cap it exploded, in breast.
15	Andrew Sardoek, -----	Slavonian, -----	Miner, -----	24	M. Buck Mountain, -----	Back bruised by a piece of coal falling on him while he was raking coal into chute.
17	John Kahler, -----	American, -----	Spragger, -----	17	S. Silver Creek, -----	Leg squeezed by being caught between loaded cars on gangway. Leg amputated.

TABLE 5—Continued

Date of accident	Name of Person	Nationality	(Occupation)	Age	Married or single	Name of Colliery	County	Nature and Cause of Accident in Brief
Sept. 22	Stephen Lychock, --- Harry Lychock, ---	Slavonian, Slavonian,	Miner, Miner,	25 32	M. M.	Eagle Hill, --- Audenried No. 4, ---		Face, hands and back burned by gas at face of breast. Foot crushed by being run over by mine cars. Outside.
Oct. 2	Cussat Donk, ---	Italian, ---	Patcher,	21	S.	Vulcan, ---		Hand injured by being caught by drill against the pillar while starting coal in chute.
9	Isaac Lewis, ---	Welsh, ---	Miner, ---	65	M.	Vulcan, ---		Wrist cut by being struck by piece of coal that fell from top at face of breast.
13	Joseph Karasofsky, ---	Lithuanian,	Miner, ---	46	S.	Vulcan, ---		Head cut and body bruised by falling down the airway, a distance of 200 feet.
Nov. 3	Stiney Bovish, ---	Lithuanian,	Miner, ---	44	M.	Middle Lehigh, ---		Head and face lacerated by falling down airway, a distance of 25 feet.
9	Joseph Yutko, ---	Slavonian,	Miner, ---	27	M.	Honey Brook No. 5, ---	Schuykill, ---	Hands and face burned by gas at face of breast.
21	Simon Liscavage, --- Thomas Switcavage, ---	Lithuanian, Lithuanian,	Miner, Miner,	45 32	M. S.	Alliance, --- Brockton, ---		Back injured by fall of slate in chute. Ribs broken and injured internally.
24	Joseph Ruscavage, --- Joseph Franna, ---	Polish, Austrian,	Miner, Laborer,	32 19	M. S.	Brockton, --- Audenried No. 4, ---		Contused pelvis. A piece of rock fell on him at face of gangway.
Dec. 11	Elek Sobena, --- Louis Lubushafsky, --- John Gregtas, --- Anthony Lazor, ---	Slavonian, Polish, Polish, Slavonian,	Miner, Miner, Driver,	44 23 29 20	M. M. M. S.	Eagle Hill, --- Vulcan, ---		Hands and face burned by gas at face of breast. Hand cut and bruised by wheel of mine car running over it. Outside.
19	Harry Meek, --- George Breausky, ---	American, Polish,	Topman, Laborer,	16 47	S. M.	Brockton, --- Eagle Hill, ---		Fingers crushed by wheel of mine car running over them. Outside. Body and hips squeezed by being caught between mine car and centre prop near bottom of slope.
30	John Touneavage, ---	Polish, ---	Miner, ---	38	M.	East Lehigh, ---		Head and body injured by blast in rocky heading.

CONDITION OF COLLIERIES

LEHIGH AND WILKES-BARRE COAL COMPANY

Audenried No. 4 and Honey Brook No. 5.—Ventilation, drainage and condition as to safety, good.

PHILADELPHIA AND READING COAL AND IRON COMPANY

Silver Creek and Eagle Hill.—Ventilation, drainage and condition as to safety, good.

COXE BROTHERS AND COMPANY, INCORPORATED

Oneida.—Ventilation, drainage and condition as to safety, good.

LEHIGH VALLEY COAL COMPANY

Buck Mountain and Vulcan.—Ventilation and condition as to safety, good; drainage fair.

MARYD COAL COMPANY

Maryd.—Ventilation and drainage fair; condition as to safety, good.

DODSON COAL COMPANY

Morea.—Ventilation and condition as to safety, good; drainage fair.

ALLIANCE COAL COMPANY

Alliance (Formerly Kaska William, operated by Truman M. Dodson Coal Company).—Ventilation and drainage fair; condition as to safety, good.

MILL CREEK COAL COMPANY

Middle Lehigh.—Ventilation good; drainage and condition as to safety, fair.

EAST LEHIGH COAL COMPANY

East Lehigh.—Ventilation and drainage fair; condition as to safety, good.

PHILLIPS BROTHERS COAL COMPANY

Silver Hill.—Ventilation and condition as to safety, good; drainage fair.

PORT CARBON COAL COMPANY

Lucy R.—Ventilation and drainage fair.

GORMAN AND CAMPION

Bell.—Ventilation, drainage and condition as to safety, good.

SCHUYLKILL LEHIGH COAL COMPANY

Brockton.—Ventilation and drainage fair; condition as to safety, good. This colliery was formerly operated by Big Creek Coal Company.

WILLIAM COOKE ESTATE

Oakley.—Ventilation and drainage fair; condition as to safety, good. Abandoned July.

IMPROVEMENTS

LEHIGH AND WILKES-BARRE COAL COMPANY

Audenried No. 4 Colliery.—Installed duplex pump 15 and 25 by 12 by 36 inches, in No. 23 slope, 2nd lift.

Equipped No. 1 inside slope and plane with bore hole and hoisting engines.

Tunnel Buck Mountain to Gamma, No. 1 inside slope and plane, Tunnel Lykens to Wharton, No. 23 slope.

Four hundred and fifty H. P. return tubular boiler plant, No. 21 slope.

Honey Brook No. 5 Colliery.—Turnout tunnel, South dip to North dip Lykens, 3rd lift, No. 20 slope.

Tunnel Lykens to Lykens, 2nd lift, No. 15 slope.

PHILADELPHIA AND READING COAL AND IRON COMPANY

Silver Creek Colliery.—The air tunnel mentioned in last year's report from the Orchard North dip to the Primrose South dip, No. 4 plane level, completed to the Holmes South dip; length 950 feet.

The traveling and mule way from the East Holmes gangway No. 3 plane at breast No. 29 to the No. 4 plane level, completed.

The air tunnel mentioned in last year's report from the East Middle Split to the Bottom Split at breast No. 23, No. 4 plane level, completed; length 240 feet.

Cross-cut driven from the East Skidmore shaft level to the Bottom Split of the Mammoth; length 75 feet.

Plane and counter gangways opened at breast No. 5 East Bottom Split, No. 1 plane level basin gangway, with 8 breasts west and 5 breasts east.

Rock hole driven from No. 8 breast East Skidmore inside section No. 1 plane level to the Bottom Split of Mammoth vein. Gangways have been turned east and west.

Air hole through rock driven from the West Holmes, No. 3 plane level to the West Primrose, length 78 feet.

Gangways east and west on the Holmes South dip and the Primrose South dip, main tunnel, No. 4 plane level (Cedar Hill basin), have been started.

Tunnel 5 feet by 6 feet from the East Top Split, No. 3 plane level driven to the tender shaft for second outlet.

Tunnel 80 feet long, from the West Skidmore No. 4 plane level South dip through the saddle to Skidmore North dip, has been completed.

Air locomotive installed on No. 4 plane level.

Two air holes are being driven from the West Holmes South dip, Cedar Hill basin, No. 4 plane level to the surface.

Tunnel completed from the West Middle Split No. 4 drift to the Top Split vein, cutting it on both dips; length 55 feet.

Cross-cut driven from the West Skidmore No. 4 drift to the Seven Foot; length 30 feet.

Tunnel 220 feet long completed from the West Skidmore No. 4 drift south, cutting the Bottom, Middle and Top Splits. Gangways turned east on the Bottom Split and Top Split veins.

Tunnel has been completed from the West Top Split of the Buck Mountain vein, No. 1 drift to the Middle and Bottom Split of the same vein; length 80 feet.

Tunnel 140 feet long driven from the East Skidmore gangway, No. 2 drift at breast No. 19, to the Middle Split.

Eagle Hill Colliery.—The Orchard North dip, Orchard South tunnel, Primrose North dip drift is being continued north from the Orchard South dip vein. The Holmes, Top Split, Middle Split and Bottom Split South dip veins and the Bottom Split North dip vein have been cut. Gangways turned east and west on the Primrose South dip and on the Middle Split South dip vein.

The Holmes, Primrose haulage tunnel, West Holmes gangway, No. 1 Section west 6th lift has been completed and a gangway turned west on the Primrose vein.

The No. 2 air tunnel west at chute No. 45 in the West Skidmore monkey heading, 6th lift to the Holmes vein has been completed, a distance of 640 feet, cutting the Mammoth vein in both splits.

Haulage tunnel driven south from the East Skidmore gangway, 6th lift, opposite chute No. 42 to the Top Split of the Mammoth vein, a distance of 350 feet, cutting the Bottom and Middle Splits of the Mammoth vein. Gangway turned west on the Top Split vein.

Air tunnel is being driven south from the East Skidmore monkey heading 6th lift between chutes Nos. 43 and 44 to the Top Split of the Mammoth vein, a distance of 350 feet. The Bottom Split of the Mammoth vein has been cut.

COXE BROTHERS AND COMPANY, INCORPORATED

Oneida Colliery.—The new plant at Slope No. 8 mentioned in the 1910 report was completed and the first coal sent through the slope on March 15, 1911.

The opening work at Slope No. 1 progressed regularly; 240 feet of gangway driven in the Mammoth vein, 1,830 feet in the Wharton vein, and 2,600 feet in the Buck Mountain vein. The 3rd lift East gangway has turned the basin and breasts worked in the spoon have struck the same fault that cut out the gangway on 1st and 2nd lift, north and south of the synclinal axis, before reaching the Humboldt boundary line.

At Slopes Nos. 1 and 4 an oil-burning locomotive was installed. Gangways were extended in the Buck Mountain vein, which is the only vein worked in this section at present; 350 feet driven east above a fault on the upper level, and 650 feet west on the lower level. A dip gangway, following the spoon in the Green Mountain or South basin, was extended 250 feet and stopped at 570 feet, pending the installation of electricity.

At Slopes Nos. 3 and 5 a new hoisting engine was installed at the shaft hoist, or rather relocated to the South. All opening work was done in the Buck Mountain vein, driving 2,120 feet of gangway. The stripping west of Slope No. 6 has been extended and 80,524 yards removed, bringing the total excavation up to 320,305 yards by January 1, 1912.

LEHIGH VALLEY COAL COMPANY

Vulcan Colliery.—The old mule barn on the 3rd level was reconstructed with concrete and steel, making a modern fireproof stable.

A concrete and steel aqueduct was made across the slope and airway on the 4th level to convey the water to the new pumping plant Buck Mountain.

New mule barns of fireproof material are being made on the 4th and 5th levels to replace the old ones.

The new 25 foot ventilating fan was completed during the year. The building and airway down to the rock of the Buck Mountain vein are made of brick and concrete, making a complete fireproof structure. This fan is now doing the work formerly done by the one on the Buck Mountain and the one on the Mammoth vein. The old Mammoth fan has been removed.

A pair of 30 by 48-inch engines, Vulcan Iron Works pattern, direct connected link reversing, Corliss valve motion, equipped with 8'-0 diameter drum steam brake and steam reverse, placed in a new concrete engine room to do the work now being done by the two old pairs of hoisting engines.

Buck Mountain Colliery.—Inside: The pump room and pipeways of concrete and iron, commenced last year have been completed and two 18 and 27 and 42 by 14 by 36 triple expansion Duplex plunger pumps, built by the Goyne Steam Pump Works of Ashland, have been set in place, and will soon be ready to operate. They will take care of all the water made at Buck Mountain and Vulcan mines. A new concrete and steel fireproof mule barn is under construction on the 4th level and will do away with all the old mule barns at this colliery.

Outside: A new 21 foot diameter reversible ventilating fan, housed in a brick and concrete building was erected near the No. 3 slope and put in operation September 19, 1911. The two old wooden fans formerly used have been removed. The new 2,100 horse power boiler plant erected last year was put in operation, doing away with the old cylinder boiler plant at Buck Mountain. Three new engine rooms and a locomotive and compressor house of concrete and steel construction were erected near the new breaker. Work on the new concrete and steel breaker has been carried on during the year and it is expected that the breaker will be completed and ready for operation by April 1, 1912. A two-story concrete oil house was built near the colliery warehouse and office.

A breaker wash water reservoir was built to supply the breaker with water and a 10-inch column pipe laid to deliver the water. A new wagon road was built to the colliery and 10 blocks of modern dwelling houses erected.

Two 8-inch bore hole wells were drilled and are being pumped with compressed air to supply plant with fresh water.

MARYD COAL COMPANY

Maryd Colliery.—Rock pump house steel timbered on 1st level of shaft at foot of Diamond vein slope, 16 by 75 by 12 feet high.

Goyne Compound Duplex wood line pump 17 by 32 by 14 by 36 inches.

Fourteen-inch wood lined column to surface.

Eight-inch steam main from surface to pump house.

Tunnel 815 feet long, driven connecting shaft 1st level with No. 1 slope workings.

Tunnel 433 feet long driven from Top-Split of Mammoth to tap water in Potts' old Big Creek slope and develop Mammoth vein at western end of property.

In addition to two tunnels mentioned above there was a total of 380 feet of tunnel driven at different parts of the mine, making total of 1,628 feet of rock tunnel for year.

Shaft cleaned out, repaired and guided to 2nd level, and gangways turned. 256 feet turnout driven.

Outside: Settling tank 12 feet by 22 feet, concrete. Conveyor line from same to convey slush.

One double Lehigh Valley jig on buckwheat coal.

Complete renewal of machinery at head of 54-inch conveyor line at breaker.

New battery, 250 horse power, Stirling boilers nearly completed.

DODSON COAL COMPANY

Morea Colliery.—Outside: An addition to the colliery office—an engineer's drafting room equipped with fireproof vault.

Inside: Placed steel timber in 3rd level steam air column way, from 3rd level pumping plant to within a short distance of the surface.

Completed the erection of a steel and cement pump-house on the 3rd level and installed therein a Jeanesville compound Duplex pump, size 27 by 50 by 14 by 48, 500 foot head.

Erected a new corrugated iron and cement breaker pump-house and installed therein a Jeanesville horizontal Duplex steam pump, size 20 by 14 by 36 inches, 190 foot head.

ALLIANCE COAL COMPANY

Alliance Colliery.—Slope sunk from surface to old shaft level, a distance of 306 yards.

Tunnel from Skidmore water level to Bottom Split, a distance of $19\frac{2}{3}$ yards.

Tunnel from West Middle Split No. 2 shaft 2nd level to Top Split, 17 yards.

Tunnel from East Skidmore No. 2 shaft 2nd level to Bottom Split, 28 yards.

The pump house at the bottom of No. 1 shaft has been retimbered in rock with iron girders, lagged with rail and covered with plate iron.

MILL CREEK COAL COMPANY

Middle Lehigh Colliery.—Tunnel third level, Buck Mountain vein to Seven Foot vein, completed.

Tunnel driven from Skidmore vein South dip to Bottom Split of Mammoth vein, South dip, 2nd level.

Slope sunk in Seven Foot vein South dip from surface to 1st level, 528 feet by December 31, 1911.

Pump houses 1st and 3rd levels, made fireproof with iron supports.

EAST LEHIGH COAL COMPANY

East Lehigh Colliery.—The boiler plant moved 50 feet east of old location and one 200 horse power Heine boiler installed.

GORMAN AND CAMPION

Bell Colliery.—Erected a new 500-ton breaker and installed two tubular boilers 350 horse power.

Continued water level tunnel south from Bottom Split of Mammoth vein to Skidmore vein, distance 93 feet.

Rock slope south, Dip 24, to connect with tunnel driven North from Holmes vein; length of slope, 93 feet.

Tunnel 8 by 10 feet, 112 feet long, south from bottom of slope to Top Split 8 by 15 feet.

Fan in course of erection, diameter 10 feet, blades 48 inches by 24 inches.

SCHUYLKILL LEHIGH COAL COMPANY

Brockton Colliery.—Ten proving holes sunk on property.

Two diamond drill holes, depth 377 feet each.

Water pumped out of Nos. 4, 2 and 5 slopes.

Complete telephone lines connecting entire property.

Three new Christ jigs installed in breaker; also a new scraper line, one set of rollers and segments.

Five hundred feet of 3-inch pipe line from boiler house to breaker.

Two return tubular boilers 340 horse power.

One new hoisting engine at No. 4 slope capable of hoisting four cars at a time.

One and one-half mile of track, 36-inch gauge, with 35-pound rails, from breaker to Whitfield culm bank.

One mile of track from No. 4 slope to No. 5 slope. Thirty nine cars, capacity $2\frac{1}{2}$ tons.

One Worthington pump 12 by 6 by 12.

One No. 9 Cameron pump.

One complete hoisting plant at No. 5 slope.

MINE FOREMEN'S EXAMINATIONS

The annual examination of applicants for certificates of qualification as mine foremen and assistant mine foremen was held in Union Hall, Pottsville, March 22 and 23. The following persons passed a satisfactory examination and were granted certificates:

Mine Foremen

John Currey, Middleport; John Humphries, Tamaqua; Thomas J. Price, Maryd.

Assistant Mine Foremen

David Thompson, Cumbola; Thomas A. Davis, Pottsville; William Doyle, Silver Creek; John Breslin, New Philadelphia; John Samuels, Pottsville; Alexander Hyland, James Cannon, Maryd; Daniel Tolan, New Boston; John D. Davis, James B. Cullen, Coaldale; Harry Berry, Tamaqua.

NINETEENTH DISTRICT

—————
SCHUYLKILL COUNTY
—————

Pottsville, Pa., March 2, 1912.

Hon. James E. Roderick, Chief of Department of Mines:

Sir: I have the honor of transmitting herewith my Annual Report as Inspector of Mines of the Nineteenth Anthracite District, for the year ending December 31, 1911.

Respectfully submitted,
MICHAEL J. BRENNAN, Inspector.

SUMMARY OF STATISTICS

Number of collieries,	17
Number of mines,	45
Number of mines in operation,	44
Number of tons of coal shipped to market,	2,665,280
Number of tons used at mines for steam and heat,	469,411
Number of tons sold to local trade and used by employes,	38,530
Number of tons produced,	3,173,221
Number of tons produced by compressed air machines, .....	.....
Number of tons produced by electrical machines, .....	.....
Number of persons employed inside of mines,	4,873
Number of persons employed outside,	2,437
Number of fatal accidents inside of mines,	23
Number of fatal accidents outside,	6
Number of non-fatal accidents inside of mines,,	45
Number of non-fatal accidents outside,	9
Number of tons of coal produced per fatal accident inside,	137,966
Number of persons employed per fatal accident inside,	212
Number of persons employed per fatal accident outside,	406
Number of persons employed per non-fatal accident inside,	108
Number of persons employed per non-fatal accident outside,	271
Number of wives made widows,	15
Number of children made orphans,	31
Number of steam locomotives used inside of mines,	2
Number of steam locomotives used outside,	27
Number of compressed air locomotives used inside, .....	.....
Number of compressed air locomotives used outside, .....	.....
Number of electric motors used inside,	13
Number of electric motors used outside, .....	.....
Number of fans in use,	42
Number of furnaces in use, .....	.....
Number of gaseous mines in operation,	32
Number of non-gaseous mines in operation,	12
Number of new mines opened, .....	.....
Number of old mines abandoned, .....	.....

TABLE A

PRODUCTION OF COAL

Names of Operators	Tons
Philadelphia and Reading Coal and Iron Company,	1,268,780
St. Clair Coal Company,	392,685
Lytle Coal Company,	341,771
Pine Hill Coal Company,	534,622
Oak Hill Coal Company,	324,240
Buck Run Coal Company,	233,317
Darkwater Coal Company,	103,430
Mt. Hope Coal Company,	86,275
John H. Davis Company,	34,177
White and Company,	29,449
Butcher Creek Coal Company,	22,500
Black Heath Coal Company,	1,975
Total,	<u>3,173,221</u>

Production by Counties

Schaylkill, 3,173,221

⁵³¹
3,173,221
 528870

TABLE B.—Fatal and non-fatal accidents inside and outside of mines; number of tons of coal produced per accident; number of persons employed; number employed per accident

Names of Operators	Fatal Accidents			Non-Fatal Accidents			Tons of coal produced per fatal accident inside	Tons of coal produced per non-fatal accident inside	Number of employees inside	Number of employees outside	Total number of employees	Number of employees inside per fatal accident	Number of employees outside per fatal accident	Number of employees inside per non-fatal accident	Number of employees outside per non-fatal accident
	Inside	Outside	Total	Inside	Outside	Total									
Philadelphia and Reading Coal and Iron Co.,	8	1	9	15	1	16	158,736	81,585	2,275	1,133	3,408	284	1,133	132	1,133
St. Clair Coal Co.,	5	3	8	3	2	5	137,895	137,895	165	235	709	78	155	117	117
Lyle Coal Co.,	5	3	8	3	2	5	68,354	37,974	554	257	781	110	61	113	113
Fine Hill Coal Co.,	1	1	2	1	1	2	231,622	2,142	426	130	603	129	129	189	189
Oak Hill Coal Co.,	7	3	10	3	1	4	46,326	168,080	476	243	719	68	159	243	243
Black Run Coal Co.,	7	1	8	7	1	8	38,321	38,321	292	121	453	66	47	47	47
Peckwater Coal Co.,	2	4	6	5	1	6	31,156	31,156	133	78	211	66	41	41	41
Mt. Hope Coal Co.,	1	1	2	1	1	2	73	73	73	91	164	91	91	91	91
White and Co.,	1	1	2	1	1	2	5,816	5,816	76	40	110	33	33	33	33
Lutcher Creek Coal Co.,	1	1	2	1	1	2	22,606	22,606	27	32	59	27	27	32	32
Miscellaneous Companies,									48	57	105				
Totals and averages for district,	23	6	29	45	9	54	155,946	755,146	1,873	2,134	7,319	212	406	168	541

TABLE C.—Classification of Fatal Accidents Inside and Outside of Mines

	Months												Totals	Percentages	
	January	February	March	April	May	June	July	August	September	October	November	December			
Causes of Accidents Inside															
Falls of coal,					1			2	1				4	17.39	
Falls of slate,	1		1						3			1	8	34.78	
Mine cars,			1		1						1		3	13.04	
Blasts, premature and otherwise,	2		2							1			5	21.74	
Falling into slopes, etc.,											1		1	4.35	
Mules,						1							1	4.35	
Electricity,							1						1	4.35	
Totals,	3		3	1	4	1	3	4	1	2	1	23	100.00		
Causes of Accidents Outside															
Cars,						1							1	16.67	
Machinery,							1						1	16.67	
Clay rolled on him,	1												1	16.67	
Fell from platform,					1								1	16.67	
By falling,						1						1	2	33.33	
Totals,	1				1	2	1					1	6	100.00	
Grand totals inside and outside,	4		3	1	5	3	4	1	1	2	2	29			

TABLE D.—Classification of Non-Fatal Accidents Inside and Outside of Mines

	Months												Totals	Percentages	
	January	February	March	April	May	June	July	August	September	October	November	December			
Causes of Accidents Inside															
Falls of coal,			1	2		1	1						5	11.11	
Falls of slate,			1		1	1		1	3	2			9	20.00	
Mine cars,	2	1			2	1							9	20.00	
Explosions of gas,		1				4		1	2	1	2		11	24.45	
Blasts, premature and otherwise,	1	1	1			1		1	2				7	15.56	
Falling into slopes, etc.,											1		1	2.22	
Struck by support,	1												1	2.22	
Struck by prop,								1					1	2.22	
Fell from chute,											1		1	2.22	
Totals,	4	3	3	2	3	8	1	3	8	4	3	3	45	100.00	
Causes of Accidents Outside															
Cars,		1		1		1			1				4	14.45	
Machinery,		1				2							3	33.33	
Struck by frozen cumb,		1											1	11.11	
Fall of clay,				1									1	11.11	
Totals,	3	3	2	2	3	3	1	1	1	1	3	3	9	100.00	
Grand totals inside and outside,	7	6	5	4	6	11	2	4	9	5	6	6	54		

TABLE E.—Occupations of Persons Killed or Fatally Injured Inside and Outside of Mines

	Months												
	January	February	March	April	May	June	July	August	September	October	November	December	Totals
Inside													
Fire bosses and assistants,					1								1
Miners,	3		1	1	2			1	3	1		1	13
Miners' laborers,					1			2	1		1		5
Drivers and runners,			1			1							2
Machine runners,			1										1
Engineers,											1		1
Totals,	3		3	1	4	1		3	4	1	2	1	23
Outside													
Blacksmiths and carpenters,					1	1							2
Jig runners,							1						1
Laborers,	1					1						1	3
Totals,	1				1	2	1					1	6
Grand totals inside and outside,	4		3	1	5	3	1	3	4	1	2	2	29

TABLE F.—Occupations of Persons Injured Inside and Outside of Mines

	Months												
	January	February	March	April	May	June	July	August	September	October	November	December	Totals
Inside													
Fire bosses and assistants,											1		1
Miners,	1	2	3	2	1	3	1	3	6	2	1	2	32
Miners' laborers,									2	1		1	4
Drivers and runners,	1				2								3
Company men,	2										1		3
Patchers,		1								1			2
Totals,	4	3	3	2	3	3	1	3	8	4	3	3	45
Outside													
Blacksmiths and carpenters,		1											1
Topmen,		1											1
Laborers,		1		2		3			1				7
Totals,		3		2		3			1				9
Grand totals inside and outside,	4	6	3	4	3	11	1	3	9	4	3	3	54

TABLE G.—Nationality of Persons Killed or Fatally Injured Inside and Outside of Mines

	Months												Totals
	January	February	March	April	May	June	July	August	September	October	November	December	
American,	2				2	1	1	1	2	1	2		12
Welsh,	1												1
Hungarian,								1					1
Italian,	1		2		1								4
Slavonian,				1	1							1	1
Lithuanian,				1				1				1	4
Austrian,					2			1	1				4
Greek,						2							2
Totals,	4		2	1	5	3	1	3	4	1	2	2	29

TABLE H.—Nationality of Persons Injured Inside and Outside of Mines

	Months												Totals
	January	February	March	April	May	June	July	August	September	October	November	December	
American,	1	2		2		2			5		2	2	16
Welsh,	1				1	1		1					4
Irish,		1				1							2
German,	1					1							2
Polish,			1	1	1	2				1	1		7
Hungarian,				1			1						2
Italian,						1							1
Slavonian,	1	2	1			1			2			1	8
Lithuanian,		1	1			2			2				6
Austrian,					1				2				4
Russian,								1		1			2
Totals,	4	6	3	4	3	11	1	3	9	4	3	3	54

TABLE 1.—Operators and mines, kind of openings, type and size of fans, size of furnaces, volume of air produced by fan or furnace per minute, number of splits of air currents and number of persons employed inside

Names of Operators and Mines	Kind of opening	Gaseous or non-gaseous	Method of ventilation	Diameter of fan in feet and inches	Width of blades in feet and inches	Depth of blades in feet and inches	Number of revolutions per minute	Water gauge developed—in inches	Name of fan	Power used	Number of splits of air currents	Number of cubic feet of air per minute entering the mine at inlet	Total quantity of air per minute circulating in all the splits in cubic feet	Number of cubic feet per minute passing out at outlet	Number of persons employed inside
Philadelphia and Reading Coal and Iron Co.															
Wadesville Colliery:															
Wadesville	Shaft	Gaseous	Fan	21	7.0	6.0	76	1.4			9	81,465	51,350	83,075	
Wadesville	Shaft	Gaseous	Fan	21	7.0	6.0	76	1.4	Guibal		9	70,195	49,140	72,780	
Wadesville	Slope	Non-gas	Fan	8	.32	.27	160	.5		Steam	2	11,195	10,940	11,377	553
Wadesville	Slope	Non-gas	Fan	5			120	.3			1	7,550	7,050	7,800	
Wadesville	Slope	Gaseous	Fan	8	36.0	.28	87	.4			2	14,000	7,935	14,128	
Otto Colliery:															
Otto	Shaft	Gaseous	Fan	18	6.0	5.6	67	.3			13	117,270	49,979	122,068	
Otto	Slope	Gaseous	Fan	15	5.0	3.5	94	1	Guibal	Steam	8	57,140	28,980	57,710	487
Otto	Drift	Gaseous	Fan	12	4.2	3.6	60	.9			1				
Pine Knot Colliery:															
Pine Knot	Shaft	Gaseous	Fan	18	6.0	5.6	50	1.2	Guibal	Steam	5	18,290	12,180	23,200	194
Pine Knot	Shaft	Gaseous	Fan	18	6.0	5.6	50	1.2			16	26,100	16,620	32,600	
Thomaston Colliery:															
Thomaston	Slope	Gaseous	Fan	18	6.0	5.2	65	.3	Guibal	Steam	6	71,164	68,088	79,785	
Thomaston	Slope	Gaseous	Fan	18	6.0	5.2	76	.4			6	55,733	50,283	61,408	825
Thomaston	Drift	Non-gas	Fan	12	4.2	3.5	80	.6		Steam	1	41,000	27,000	41,200	

Phoenix Park Colliery:												
Phoenix Park,	Slopes,	Gasous,	Fan,	7.0	6.0	80	1.6	53,540	8	54,110	96,400	37
Phoenix Park,	Fan,	Gasous,	Fan,	5.0	3.5	95	1.4	32,740	8	50,000	53,475	
Phoenix Park,	Fan,	Gasous,	Fan,	5.0	3.5	40	.4	19,430	3	23,850	24,375	
Phoenix Park,	Fan,	Gasous,	Fan,	5.5	4.6	76	1.8	68,640	18	88,960	89,480	
Glendower Colliery:	Slope,	Gasous,	Fan,	6.0	5.6	80	1.8	42,300	8	81,960	82,700	217
Glendower,	Slope,	Gasous,	Fan,	5.0	3.5	46	4.0	27,300	2	45,900	46,980	
Glendower,	Drift,	Non-gas.,	Fan,	5.0	4.6	72	.2	14,307	8	27,000	21,448	173
John Veith Colliery:	Shaft,	Gasous,	Fan,	5.0	4.6	72	2.0	20,006	9	36,700	37,680	
John Veith,	Shaft,	Gasous,	Fan,	5.0	4.6	72	2.0	20,006	9	36,700	37,680	
St. Clair Coal Co.												
St. Clair Colliery:												
St. Clair,	Shaft,	Non-gas.,	Natural,									
St. Clair,	Tunnel,	Non-gas.,	Natural,									
St. Clair,	Slope,	Gasous,	2 Fans,	5.0	3.6	95	1.4	95,300	8	110,040	115,180	465
				5.0	5.0	65	.5					
Lytle Coal Co.												
Lytle Colliery:												
Lytle,	Shaft,	Gasous,	2 Fans,	7.0	5.1	96	2.2	114,675	22	238,450	271,110	554
Lytle,	Slope,	Gasous,	Fan,	7.0	5.1	94	2.1					
Lytle,	Slope,	Gasous,	Fan,	7.0	5.5	100	2.1					
				7.0	5.0	95	2.0					
Pine Hill Coal Co.												
Pine Hill Colliery:												
Pine Hill,	Shaft,	Gasous,	Fan,	4.0	4.0	80	.6	114,325	31	217,805	227,035	430
Pine Hill,	Slope,	Gasous,	2 Fans,	4.6	4.0	90	.9					
Pine Hill,	Drift,	Non-gas.,	Fan,	4.6	1.1	90	2.5					
				4.6	1.1	90	2.5					
Oak Hill Coal Co.												
Oak Hill Colliery:												
Oak Hill,	Shaft,	Gasous,	Fan,	8.3	6.4	70	2.6	113,000	11	91,000	118,000	476
Oak Hill,	Slope,	Gasous,	Fan,	3.0	3.2	210	1.7	18,000	2	10,000	20,000	
Oak Hill,	Drift,	Gasous,	Fan,	3.0	3.2	210	1.7	6,500	2	7,000	7,300	
Oak Hill,	Drift,	Gasous,	Fan,	3.0	3.2	210	1.7	6,500	2	7,000	7,300	
				3.0	3.2	210	1.7					
Buck Run Coal Co.												
Buck Run Colliery:												
Buck Run,	Slope,	Gasous,	Fans,	4.0	4.0	95	1.6	95,000	11	102,000	110,000	332
Buck Run,	Slope,	Gasous,	Fan,	6.0	5.0	95	1.7					
Buck Run,	Slope,	Gasous,	Fan,	4.0	5.0	95	2.0					

TABLE I—Continued

Names of Operators and Mines	Kind of opening	Gaseous or non-gaseous	Method of ventilation	Diameter of fan in feet and inches	Width of blades in feet and inches	Depth of blades in feet and inches	Number of revolutions per minute	Water gauge developed—in inches	Name of fan	Power used	Number of splits of air currents	Number of cubic feet of air per minute entering the mine at inlet	Total quantity of air per minute circulating in all the splits in cubic feet	Number of cubic feet per minute passing out at outlet	Number of persons employed inside
Earkwater Coal Co. Newcastle Colliery:	Slope	Gaseous,	Fan, -----	20	6.0	6.0	80	1.1	Vulcan,	Steam, -----	116	28,000	25,100	30,000	133
	Slope	Gaseous,	Fan, -----	8	4.0	3.0	90	1.0	Gaubal,	Steam, -----					
	Slope	Non-gas,													
	Drift														
John H. Davis Co. Ellsworth Colliery:	Slope	Non-gas,	Fan, -----	6	1.8	1.1	255	.5	Gaubal,	Steam, -----		9,000	8,500	9,200	41
White and Co. Howard Colliery:	Slope	Gaseous,	Fan, -----	12	4.2	3.4	70	1.0	Gaubal,	Steam, -----	1	12,000	11,000	14,000	70
	Slope	Gaseous,	Fan, -----	10	3.0	3.8	60	1.0			1	10,000	9,100	11,000	
Butcher Creek Coal Co. Laurel Run Colliery:	Drift	Non-gas,	Natural,									*			27
Black Heath Coal Co. Black Heath Colliery:	Drift	Non-gas,	Natural,									*			7

*Ventilation irregular and liable to change one hour after being measured.

TABLE I.—Operators, location of collieries, railroads, etc.

Names of Operators and Collieries	County	Name of General Superintendent	Ext. Office	Name of Superintendent	Post Office	Railroad to Mine
Philadelphia and Reading Coal and Iron Co. Wadesville, Otto, Pine Knot, Thomaston, Phoenix Park, Glendover, John Veith, Anchor Washery,	Schuylkill,	W. J. Richards,	Pottsville,	Roose Tasker,	Pottsville,	Philadelphia and Reading
St. Clair Coal Co. St. Clair, St. Clair Washery,	Schuylkill,			W. T. Smythe,	Pottsville,	Philadelphia and Reading
Lytle Coal Co. Lytle,	Schuylkill,	B. A. Quin,	Wilkes Barre,	D. V. Rand Pl.,	Minersville,	Pennsylvania
Pine Hill Coal Co. Pine Hill,	Schuylkill,			G. M. Keiser,	Minersville,	Pennsylvania
Oak Hill Coal Co. Oak Hill,	Schuylkill,			Jacob Britton,	Minersville,	Philadelphia and Reading
Buck Run Coal Co. Buck Run,	Schuylkill,	James B. Neale,	Minersville,	John Conway,	Minersville,	Philadelphia and Reading
Darkwater Coal Co. Newcastle,	Schuylkill,	James B. Neale,	Minersville,	John Conway,	Minersville,	Pennsylvania
Mt. Hope Coal Co. Mt. Hope,	Schuylkill,	I. D. Beahm,	Port Carbon,			Philadelphia and Reading

TABLE 1--Continued

Names of Operators and Collieries	County	Name of General Superintendent	Post Office	Name of Superintendent	Post Office	Railroad () Mine
John H. Davis Co. Elsworth, White and Co. Howard	Schuylkill,	John H. Davis,	St. Clair,	.....	.....	Philadelphia and Reading
Pitchee Creek Coal Co. Laurel Run,	Schuylkill,	Richard White,	Pottsville,	.....	.....	Philadelphia and Reading
Black Heath Coal Co. Black Heath,	Schuylkill,	L. J. Whitus,	St. Clair,	.....	.....	Philadelphia and Reading
.....	Schuylkill,	James Scott,	Minesville,	.....	.....	Trenton and Pennsylvania

TABLE 2. -- Number of tons of coal mined, number of days worked, number of persons employed, number killed and injured, quantity of powder, dynamite and permissible explosives used, etc.

Names of Operators and Collieries	County	Number of tons of coal shipped to market	Number of tons used at collieries for steam and heat	Number of tons sold to local trade and used by employes	Total production of coal in tons	Number of days worked	Number of employes	Number of fatal accidents	Number of non-fatal accidents	Explosives				Number of horses and mules
										Number of pounds of powder used	Number of pounds of dynamite used	Number of pounds of permissible explosives used	Number of pounds of explosives used	
Pennsylvania and Reading Coal and Iron Co.														
Wadesville,		284,698	29,515	1,085	314,698	271	840	1	3	61,115	35,314	15,683	84	
Ohio,		213,297	66,303	2,007	381,610	273	686	1	4	29,350	14,959	45,031	81	
Pine Knot,		184,026	55,747	518	240,291	277	450			9,350	113,320	21,281	49	
Thomaston,	Schuylkill						272	2						
Phoenix Park,		160,091	29,263	1,797	191,141	246	572	2	4	63,469	12,261	67,187	75	
Glendower,		117,140	19,447		136,587	276	316	1	4	63,469	15,413	16,071	41	
John Veith,		50,057			50,057		206	2			14,794	27,554	17	
		1,098,769	290,298	5,407	1,214,384		3,347	9	15	163,875	285,991	222,125	350	
Anchor Washery,		49,961	4,485		54,396	106	61		1		75			
Totals,		1,058,070	204,703	5,407	1,268,780		3,403	9	16	163,875	286,066	222,125	350	
St. Clair Coal Co.														
St. Clair,	Schuylkill	247,419	65,000	6,756	319,175	183	672	3	5	160,825	17,682		48	
St. Clair Washery,		69,857	3,000	6.3	73,910	115	28							
Totals,		317,276	68,000	7,400	392,685		700	3	5	160,825	17,682		48	

* Coal prepared at Pine Knot.

* Coal prepared at Ohio

TABLE 2--Continued

Names of Operators and Collieries	County	Number of tons of coal shipped to market	Number of tons used at collieries for steam and heat	Number of tons sold to local trade and used by employes	Total production of coal in tons	Number of days worked	Number of employes	Number of fatal accidents	Number of non-fatal accidents	Explosives			Number of horses and mules
										Number of pounds of powder used	Number of pounds of dynamite used	Number of pounds of permissible explosives used	
Lytle, Lytle Coal Co.	Schuylkill	256,530	76,354	8,887	341,771	259	781	5	11	125,175	-----	78	
Pine Hill, Pine Hill Coal Co.	Schuylkill	297,549	36,000	1,073	334,622	295	600	1	2	92,500	14,100	30	
Oak Hill, Oak Hill Coal Co.	Schuylkill	290,568	30,000	3,732	324,340	275	719	7	4	2,900	14,325	60	
Buck Run, Buck Run Coal Co.	Schuylkill	213,446	19,000	871	233,317	288	453	-----	7	89,525	85,177	82	
Newcastle, Parkwater Coal Co.	Schuylkill	89,638	13,690	142	103,430	342	211	2	4	-----	37,500	12	
Mt. Hope, Mt. Hope Coal Co.	Schuylkill	71,910	6,000	8,365	86,275	233	164	1	1	2,125	10,000	12	
Ellsworth, John L. Davis Co.	Schuylkill	29,821	3,800	556	34,177	298	94	-----	-----	-----	15,000	7	

Howard, -----	Schuylkill, -----	21,493	7,500	456	29,449	271	110	3	1,250	9,600	12	
Butcher Creek Coal Co.	Schuylkill,	18,162	4,252	86	22,500	212	59	1	300	3,750	6	
Laurel Run, -----	Schuylkill,	277	202	1,496	1,975	297	11				2	
Black Heath Coal Co.	Schuylkill,											
Black Heath, -----		2,065,289	469,411	38,539	3,173,221		7,310	29	54	513,300	767,150	649
Grand totals, -----											1,200	251,750

TABLE 2.—Part 2

Names of Operators	County	Number of Boilers				Locomotives			Total horse power	Number of steam engines of all classes	Total horse power	Number of pumps delivering water to surface	Capacity in gallons per minute	Quantity delivered to surface per minute—gallons	Number of electric dynamos	Number of air compressors
		Cylindrical	Horse power	Tubular	Horse power	Steam	Air	Electric								
Philadelphia and Reading Coal and Iron Co.,		.....	.....	.....	.....	13	.....	.....	205	27,082	17	23,738	9,702	2	7
St. Clair Coal Co.,		.....	.....	.....	.....	6	.....	.....	22	.....	2	1,500	1,500	1	1
Lyle Coal Co.,		.....	.....	.....	.....	1	.....	.....	21	7,322	Tanks	2,000	1,966	2	3
Pine Hill Coal Co.,		.....	.....	.....	.....	4	.....	.....	30	2,010	4	13,000	3,000	1	1
Oak Hill Coal Co.,		.....	.....	.....	.....	5	.....	.....	21	1,000	2	2,000	1,100	1	1
Buck Run Coal Co.,	Schuykill,	.....	.....	.....	.....	3	.....	.....	26	1,020	3	1,800	400	1	1
Parkwater Coal Co.,		.....	.....	.....	.....	1	.....	.....	16	730	3	4,500	866	1	1
Mt. Hope Coal Co.,		.....	.....	.....	.....	2	.....	.....	9	500	2	1,350	500	1	1
John H. Davis Co.,		.....	.....	.....	.....	.....	.....	.....	6	210	.....	.....	.....	.....	.....
White and Co.,		.....	.....	.....	.....	.....	.....	.....	11	300	3	1,500	750	.....	.....
Butcher Creek Coal Co.,		.....	.....	.....	.....	.....	.....	.....	2	60	.....	.....	.....	.....	.....
Black Heath Coal Co.,		.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Totals,		155	27,550	27,557	29	29	13	369	41,444	39	51,388	19,318	11	13		

TABLE 3.—Number of each class of employees inside and outside of mines

Names of Operators	County	Inside											Outside										
		Mine foremen	Assistant mine foremen	Fire bosses and assistants	Miners	Miners' laborers	Drivers and runners	Doorbays and helpers	Pumpmen	Company men	All other employes	Total inside	Superintendents	Foremen	Blacksmiths and carpenters	Engineers and firemen	State pickers (boys)	State pickers (men)	Bookkeepers and clerks	All other employes	Total outside	Grand total inside and outside	
Philadelphia and Reading Coal and Iron Co.,		6	42	4	771	391	136	3	17	421	488	2,275	1	14	52	109	114	62	21	701	1,133	3,408	
St. Clair Coal Co.,		2	1	1	240	60	30	45	4	28	100	465	1	3	27	32	40	19	4	109	225	700	
Lyle Coal Co.,		1	1	2	215	84	45	7	7	40	8	334	1	1	15	39	19	61	7	85	227	781	
Pine Hill Coal Co.,		1	1	7	204	86	58	8	6	76	8	476	1	1	10	19	52	15	5	77	181	600	
Oak Hill Coal Co.,		1	1	8	275	78	24	2	3	80	3	332	2	1	7	13	15	4	5	113	243	710	
Buck Run Coal Co.,		1	1	5	152	66	12	9	3	39	2	133	2	1	5	9	11	1	1	76	121	433	
Darkwater Coal Co.,	Schuylkill,	1	1	1	41	35	10	1	3	50	2	73	1	1	5	12	6	2	1	48	78	211	
Mt. Hope Coal Co.,		1	1	1	11	6	3	3	2	8	41	41	1	1	2	5	8	3	1	63	91	164	
Robt. H. Davis Co.,		1	1	1	16	10	8	3	2	8	7	70	1	1	4	10	6	2	1	15	40	110	
White and Co.,		1	1	1	33	16	4	2	2	6	7	27	1	1	2	5	1	2	1	19	32	59	
Butcher Creek Coal Co.,		1	1	1	5	4	2	1	1	1	1	7	1	1	1	1	1	1	1	1	4	11	
Black Heath Coal Co.,		1	1	1	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	11	
Totals,		17	50	39	1,967	833	328	55	40	748	776	4,873	13	56	155	335	345	172	33	1,338	2,437	7,310	

TABLE 3.—Part 2

Names of Operators	County	Average Number of Days Worked in Breaker												Total	
		January	February	March	April	May	June	July	August	September	October	November	December		
Philadelphia and Reading Coal and Iron Co.,	Schuylkill,	23	21	27	22	24	26	16	17	19	25	26	23	269	
St. Clair Coal Co.,		25	22	10	21	23	26	6	24	24	25	23	24	24	183
Lytle Coal Co.,		24	20	27	22	25	26	14	22	23	20	26	23	23	259
Pine Hill Coal Co.,		24	24	24	20	24	26	17	24	23	24	26	24	23	296
Oak Hill Coal Co.,		24	23	24	20	24	26	17	24	23	24	24	23	24	275
Buck Run Coal Co.,		24	24	26	22	25	26	20	26	24	24	24	24	23	288
Darkwater Coal Co.,		20	22	17	17	17	24	20	22	22	18	22	22	21	242
Mt. Hope Coal Co.,		19	17	21	18	21	21	16	19	21	21	20	20	20	233
John H. Davis Co.,		24	24	27	24	25	26	23	27	25	24	25	25	25	298
White and Co.,		24	22	22	25	22	19	23	24	24	24	24	24	21	271
Butcher Creek Coal Co.,		16	22	22	18	22	11	12	8	16	20	20	21	22	212
Black Heath Coal Co.,		25	23	25	24	25	26	23	25	26	26	26	25	24	297

TABLE 4.—Fatal accidents inside and outside of mines

Date of accident	Name of Person	Nationality	Occupation	Age	Married or single	Number of widows	Number of orphans	Name of Colliery	County	Nature and Cause of Accident in Brief
Jan. 5	James Campion,	American,	Laborer,	23	M.	1	.....	Laurel Run, .....	.....	Fatally injured by a piece of clay rolling on him in stripping. Died same day. Outside.
9	Louis Adams,	Welsh,	Miner,	41	M.	1	5	Phoenix Park, .....	.....	Killed by premature blast at face of gang-way. He had charged hole and was punching coal beneath it when it exploded.
18	Andrew Grandy,	American,	Miner,	46	M.	1	2	Pine Hill, .....	.....	Fatally injured by fall of slate at gang-way face. He was working with the pick under it when it fell on him. Died January 19.
27	Frank Gallo,	Italian,	Miner,	28	S.	.....	.....	Oak Hill, .....	.....	Killed by blast while igniting three holes in face of rock crosscut. He delayed too long.
Mar. 27	Peter Wright,	Lithuanian,	Driver,	21	S.	.....	.....	Wadesville,	Schuykill,	Killed by being crushed by cars on gang-way. While coming out with trip of mine cars in some unknown manner he fell beneath the cars.
28	Louis Magrolle,	Italian,	Machine runner,	40	M.	1	5	Newcastle, .....	.....	Killed by blast in face of tunnel. They fired two holes and then went back to face of tunnel. They were found near face of tunnel partly covered with rock from blast. They used fuse in blasting.
April 6	Paul Salvatore,	Italian,	Miner,	26	S.	.....	.....	Oak Hill, .....	.....	Fatally injured by fall of slate while working near face of breast.
8	Frank Ronsenge,	Lithuanian,	Miner,	44	S.	.....	.....	Lytle, .....	.....	Fatally injured by fall of slate while making place to stand prop. Died May 14.
May 13	John Plugie,	Italian,	Laborer,	24	S.	.....	.....	Lytle, .....	.....	Killed by fall of coal in breast.
13	Sylvester Yancoskie,	Austrian,	Miner,	38	M.	1	.....	Lytle, .....	.....
17	Joseph Gulda,	Austrian,	Muler,	45	M.	1	3	Lytle, .....	.....

TABLE 4—Continued

Date of accident	Name of Person	Nationality	Occupation	Age	Married or single	Number of widows	Number of orphans	Name of Colliery	County	Nature and Cause of Accident in brief
May 17	John Moran,	American, ..	Carpenter, ..	40	S.	.....	.....	St. Clair, .....	.....	Killed by falling from platform in new breaker. Outside.
26	John Rellly,	American, ..	Fire boss, ..	34	S.	.....	.....	John Veith, .....	.....	Killed by being caught between mine car and gangway timber while helping to put car on track.
June 10	Steve Krouchison,	Greek,	Laborer,	38	M. 1	4	.....	Phoenix Park, .....	.....	Hand injured by being pinched between mine car wheel and block while blocking car. Died of tetanus June 19. Outside. Fatally injured by a kick from a mule. Died June 24.
15	Theodore Wasley,	Greek,	Driver,	22	S.	.....	.....	John Veith, .....	.....	Fatally injured by falling from back and tackle to ground while hoisting timber at breaker. Died June 19. Outside.
17	Charles Sturdevant, ..	American, ..	Carpenter, ..	28	S.	.....	.....	St. Clair, .....	.....	Fatally injured. While repairing shaker screens in breaker his head was caught between spring boards from which shakers are suspended. Died the same day. Outside.
July 20	George Harris,	American, ..	Mfg-runner, ..	17	S.	.....	.....	St. Clair,	Schuylkill,	Killed by coming in contact with electric wire while erecting set of timber on gangway.
Aug. 17	John Knott,	Austrian, ..	Laborer,	30	M. 1	.....	.....	Lytle, .....	.....	Killed by fall of coal at face while showing in pillar entry.
18	Samuel Reitsnyder, ..	American, ..	Miner,	52	M. 1	4	.....	Thomaston, .....	.....	Killed by fall of coal at face of gangway.
23	Joseph Yuske,	Lithuanian, ..	Laborer,	22	S.	.....	.....	Oak Hill, .....	.....	Killed by fall of slate while skipping pillar.
Sept. 1	Henry Donnelly,	American, ..	Miner,	38	S.	.....	.....	Oak Hill, .....	.....	Killed by fall of slate while skipping pillar.
1	Michael Wrenko,	Hungarian, ..	Laborer,	40	M. 1	.....	.....	Otto, .....	.....	Killed by fall of slate at face of gangway.
19	John Gross,	Austrian, ..	Miner,	35	M. 1	.....	.....	Lytle, .....	.....	Killed by fall of slate while removing pillar stump.
27	John King,	American, ..	Miner,	35	M. 1	.....	.....	Glendower, .....	.....	Fatally injured by fall of coal at face of breast. Died September 29.

Oct. 5	Bert Barton,	American, ..	Miner,	83	S.	Oak Hill,	Killed by a blast fired in heading in adjoining breast.
Nov. 13	Patrick Dullard,	American, ..	Laborer,	20	M. 1 3	Thomaston,	Fatally injured by falling down slope while repairing track. Filed the same day.
24	Henry Dressler,	American, ..	Engineer,	36	M. 1 5	Oak Hill,	Fatally injured by being caught between engine brake wheel and rib of gangway. While coming out of drift with trip of cars the engine jumped the track. Died November 25.
Dec. 1	John Toso,	Slavonian, ..	Laborer,	65	M. 1	Mt. Hope,	Killed by falling off bench of coal, a distance of 7 feet, in attempting to get out of way of a fall of clay on stripping. He fractured his spine. Outside.
20	Charles Berlavage, ..	Lithuanian, ..	Miner,	33	S.	Oak Hill,	Killed by fall of slate. He drilled and charged hole on pillar and was in the act of pulling down a loose piece of slate with drill, before firing, when it fell on him.
						Schuylkill,	

TABLE 5.—Non-fatal accidents inside and outside of mines

Date of accident	Name of Person	Nationality	Occupation	Age	Married or single	Name of Colliery	County	Nature and Cause of Accident in Brief
Jan. 5	James Doyle,	American,	Company man,	28	M.	Phoenix Park,		Leg fractured. While placing support in front of shish tank it broke and struck him.
18	Peter Kriper,	Slavonian,	Company man,	26	M.	Buck Run,		Leg fractured by being struck by car. The side hook of car pulled loose while ascending the slope and the car ran away.
19	Otis Loseb,	German,	Miner,	32	S.	Buck Run,		Hands injured by explosion of blast while drilling hole that had missed fire.
20	William Edwards,	Welsh,	Driver,	21	S.	St. Clair,		Leg fractured by being dragged by mine car.
Feb. 2	Charles Pleskukus,	Lithuanian,	Miner,	37	S.	Lytle,		Hands and face injured while attempting to withdraw charge of blast that failed to explode.
8	Thomas Daley,	Irish,	Miner,	50	M.	Newcastle,	Schuylkill,	Face and hands burned by gas while igniting blast.
15	William Sands,	American,	Carpenter,	32	M.	Newcastle,		Arm fractured by band saw becoming loose and falling on his arm. Outside.
23	Laughlin Burns,	American,	Tepman,	39	S.	Lytle,		Hips squeezed by mine car on top of shaft. Outside.
24	George Fable,	Slavonian,	Laborer,	51	M.	Anchor Washery,		Leg fractured by being struck by frozen culm on edlin bank. Outside.
25	Joseph Kremi,	Slavonian,	Patcher,	17	S.	St. Clair,		Foot crushed. He fell on rail and car wheel passed over foot.
March 1	Waiber Degan,	Lithuanian,	Miner,	23	M.	Buck Run,		Leg fractured. A piece of coal fell in breast and caught his foot against prop.
28	Michael Machuski,	Polish,	Miner,	39	M.	Buck Run,		Skull fractured by being struck by coal from blast through heading in adjoining breast.

March 28	J. Chuffeck, -----	Slavonian, -----	Miner, -----	48	M.	Newcastle, -----	Shoulder blade fractured by a piece of slate that fell on him while pulling down collar of old set of timber.
April 4	John Wonelock, -----	Hungarian, -----	Laborer, -----	40	S.	Mt. Hope, -----	Leg and chest bruised by being struck by fall of clay while working on stripping bank. Outside.
11	Gasner Rozitus, -----	Polish, -----	Miner, -----	55	M.	Oak Hill, -----	Back injured by fall of coal in chute.
14	Charles Homer, -----	American, -----	Laborer, -----	37	S.	Oak Hill, -----	Leg fractured by being bumped between mine cars while attempting to separate them while they were in motion. Outside.
15	Joseph Shoffstall, -----	American, -----	Miner, -----	29	M.	Phoenix Park, -----	Back injured by fall of coal while working on pillar.
May 18	Michael Zerenchak, -----	Austrian, -----	Driver, -----	21	S.	Lytle, -----	Hip fractured. A mule knocked him down and he was caught between mine car and timber.
25	Peter Bunto, -----	Polish, -----	Driver, -----	40	S.	Laurel Run, -----	Head injured by being caught between car and timber in gangway.
28	William Edwards, -----	Welsh, -----	Miner, -----	50	S.	Otto, -----	Leg fractured by fall of slate while prying a piece of coal loose at face of breast.
June 9	Frank Betalk, -----	Polish, -----	Miner, -----	28	S.	Pine Hill, -----	Leg fractured by fall of coal while removing slabs from breast roadway.
10	Richard Jones, -----	American, -----	Miner, -----	27	M.	Howard, -----	Head bruised by being struck by coal from blast.
13	Anthony Miller, -----	Slavonian, -----	Miner, -----	27	S.	Buck Run, -----	Face and hands burned by explosion of gas in old breast from which he removed brattice.
	John Purcell, -----	American, -----	Miner, -----	41	M.	Buck Run, -----	Face and hands burned by explosion of gas while hunting for drill in breast.
14	Daniel Carza, -----	Italian, -----	Miner, -----	28	S.	Wadesville, -----	Leg fractured by being bumped between mine cars while trying to unhitch mule.
16	Michael Bedaus, -----	Polish, -----	Laborer, -----	43	M.	Lytle, -----	Body injured by being bumped by ash dumper. Outside.
19	Henry Kimmelwright, -----	German, -----	Miner, -----	26	S.	Wadesville, -----	Back injured by fall of slate near gangway face.
21	Anthony Winecols, -----	Lithuanian, -----	Miner, -----	26	S.	Glendower, -----	Hands and face burned by explosion of gas. One of the men unscrewed his lamp to light it.
	Joseph Fowser, -----	Lithuanian, -----	Miner, -----	20	S.		Leg fractured.
	George Hughes, -----	Welsh, -----	Laborer, -----	22	S.		Head injured. While removing machinery in breaker a pinion wheel fell on them. Outside.
30	William Donahoe, -----	Irish, -----	Laborer, -----	20	S.	St. Clair, -----	Collar bone fractured by fall of coal while working at gangway face.
July 14	John Banns, -----	Hungarian, -----	Miner, -----	38	S.	Otto, -----	Head and face injured by explosion of blast. He was tamping a blast containing dynamite when it exploded.
Aug. 9	Edward Griffith, -----	Welsh, -----	Miner, -----	35	M.	New Castle, -----	Face and hands burned by explosion of gas.
22	Joseph Teronls, -----	Russian, -----	Miner, -----	29	M.	Lytle, -----	

Schuykill, -----

TABLE 5—Continued

Date of accident	Name of Person	Nationality	Occupation	Age	Married or single	Name of Colliery	County	Nature and Cause of Accident in Brief
Aug. 23	Andrew Gress,	Austrian, ..	Miner,	32	M.	Lytle,		Leg fractured by fall of slate while pushing coal in breast.
Sept. 1	Charles Mitchell,	American, ..	Laborer,	22	S.	Pine Hill,		Chest squeezed by being bumped between mine cars. Outside.
13	Joseph Berger,	Austrian, ..	Miner,	28	M.	Otto,		Skull and rib fractured by prop falling on him.
18	John Robuck,	Austrian, ..	Laborer,	29	M.	Phoenix Park,		Leg fractured by fall of slate while assisting miner to stand set of timber.
26	Hugh Curran,	American, ..	Miner,	37	M.	Oak Hill,	Schuylkill,	Face and eyes injured.
	Michael Purcell,	American, ..	Miner,	40	M.			They ran the mining needle into blast containing dynamite and black powder and the cap exploded.
28	Anthony Rumberger,	American, ..	Miner,	19	S.	Glendower,		Leg fractured by fall of slate while sinking prop hole near face of breast.
30	Xlah Rumberger,	American, ..	Miner,	40	M.	Glendower,		Body bruised by fall of slate while sinking prop hole near face of breast.
	Raymond Kulpbox,	Lithuanian, ..	Miner,	39	M.	Lytle,		Face and hands burned. While working in monkey airway they unscrewed safety lamp and ignited gas.
	Enoch Yockti,	Lithuanian, ..	Laborer,	25	S.	Lytle,		Ribs fractured by being squeezed between mine cars he was coupling.
Oct. 3	Charles Srockman,	Slavonian, ..	Motor patcher, ..	23	M.	St. Clair,		Leg and ribs fractured by fall of slate at gangway face.
5	Thomas Lump,	Slavonian, ..	Laborer,	38	M.	Wadesville,		Arm fractured by fall of slate while holding prop in gangway.
20	Anthony McCarra,	Polish,	Miner,	26	M.	Lytle,		Face and hands burned by explosion of gas. Fuse ignited the gas in chute.
21	Simon Koratkowski,	Russian,	Miner,	23	S.	Lytle,		

Nov. 3	John Nevilles, -----	American, --	Fire boss, -----	46 M.	Lytle, -----	Ribs fractured by falling under mine car.
24	Alex. Oilekshock, -----	Folsb, ---	Miner, -----	23 M.	Otto, -----	Collar bone fractured by falling from chute to gangway.
29	Henry Kensingler, -----	American, --	Company man, --	25 S.	Phoenix Park, -----	Leg fractured by falling under mine car while unbitching mule.
8	Edward Moore, -----	American, --	Laborer, -----	22 S.	Howard, -----	(Hands and face burned by explosion of gas)
	Charles Johnson, -----	American, --	Miner, -----	38 S.	Buck Run, ---	Leg fractured by falling down breast.
20	Frank Sifed, -----	Slavonian, --	Miner, -----	24 S.	Schuykill, -----	

CONDITION OF COLLIERIES

PHILADELPHIA AND READING COAL AND IRON COMPANY

Wadesville, Otto, Pine Knot, Thomaston, Glendower, Phoenix Park and John Veith.—Ventilation, drainage and condition as to safety, good.

ST. CLAIR COAL COMPANY

St. Clair.—Ventilation, drainage and condition as to safety, good.

LYTLE COAL COMPANY

Lytle.—Ventilation and condition as to safety, good; drainage fair.

PINE HILL COAL COMPANY

Pine Hill.—Ventilation and condition as to safety, good; drainage fair.

Shaft No. 3.—Level West: Condition as to safety, fair.

OAK HILL COAL COMPANY

Oak Hill.—Ventilation and condition as to safety, good; drainage fair. Considerable improvement has been made in the drainage, especially in No. 1 drift. The tunnel was skipped and track raised, which removed the water. Under the new management the condition of the colliery is very much improved.

BUCK RUN COAL COMPANY

Buck Run.—Ventilation and condition as to safety, good; drainage fair.

DARKWATER COAL COMPANY

Newcastle.—Ventilation and condition as to safety, good; drainage fair.

MT. HOPE COAL COMPANY

Mt. Hope.—Ventilation and condition as to safety, good; drainage fair.

JOHN H. DAVIS COMPANY

Ellsworth.—Ventilation, drainage and condition as to safety, good.

WHITE AND COMPANY

Howard.—Ventilation and condition as to safety, good; drainage fair.

BUTCHER CREEK COAL COMPANY

Laurel Run.—Ventilation and drainage fair; condition as to safety, good.

BLACK HEATH COAL COMPANY

Black Heath.—Ventilation and drainage fair; condition as to safety, good.

IMPROVEMENTS

PHILADELPHIA AND READING COAL AND IRON COMPANY

Wadesville Colliery.—The Primrose slope has been sunk to the 4th level 300 feet and a gangway turned west. The slope is now being continued to the 5th lift.

A landing has been made in the Holmes vein in the Tender shaft at the second lift Bottom Split of Primrose plane.

A locomotive road, 1,700 feet long, was laid, connecting the Vulcan slope track to two planes, one 1,400 feet long and the other 900 feet long. A track 1,600 feet long connects the latter or West Primrose plane to Beechwood culm banks. A boiler and hoisting plant were installed, the latter operating both planes.

A tunnel 410 feet long, was driven from the 2nd lift Holmes slope north to the Top and Bottom Split of the Mammoth vein. Gangways are being turned east and west.

A tunnel 160 feet long was driven north from the 2nd lift of the Vulcan slope to the Four Foot vein.

Two ventilating bore holes, 10 inch diameter, 1,530 feet apart, have been drilled from the surface, tapping old Beechwood workings. A rock hole is being driven from the head of No. 33 chute, West Skidmore gangway 2nd lift, Skidmore plane, and will connect with workings about midway between the bore holes.

Work on the power plant mentioned in last year's report in No. 8 breast, East Skidmore gangway shaft level, is still in progress.

Otto Colliery.—Completed: Steam line from bore hole to shaft engines.

Twenty-eight by forty-eight inch engines at coal shaft.

Car hoist 7th lift of shaft.

Steel head frame.

Tunnel Skidmore slope level to Little vein.

Tunnel Bottom Bench to Middle Split.

Extension of Skidmore slope. Second outlet to White Ash slope.

Tunnel from Bottom Bench to foot of Skidmore slope.

In progress: Extending White Ash slope.

Pine Knot Colliery.—Completed Inside: Opening 1st level and driving tunnels.

Tunnel from East Skidmore gangway to Daniel vein North dip No. 1 shaft.

Tunnel from West Skidmore gangway to Daniel vein North dip No. 1 shaft.

Air tunnel from Crosby North dip to Buck Mountain North dip 1st level No. 2 shaft.

Haulage tunnel Skidmore North dip to Buck Mountain North dip 1st level No. 1 shaft.

Air tunnel from East Skidmore North dip to Daniel vein North dip No. 1 shaft.

No. 2 shaft, engines and engine house.

Concreting dam in Jugular tunnel, Ellsworth Colliery.

Haulage tunnel Crosby South dip to Skidmore South dip 1st level No. 2 shaft.

In Progress Inside: Air tunnel West Skidmore North dip to Daniel vein North dip No. 1 shaft.

Completed Outside: Grading and laying tracks top of No. 2 shaft. Erecting steel head frame top of No. 2 shaft.

In Progress.—Outside: Second setting of two Stirling boilers and house.

Thomaston Colliery.—Completed Inside: Air tunnel from Crosby North dip to Skidmore North dip lower level Lelar slope.

Drainage tunnel from West North dip Primrose gangway to Crosby vein, 1st level Crosby slope.

Continuation of main haulage tunnel lower level Lelar slope from Seven Foot to Buck Mountain.

In Progress Inside: Haulage tunnel from E. N. dip Skidmore to North dip Daniel, lower level Lelar slope.

Continuation of air tunnel from Skidmore to Buck Mountain lower level, Lelar slope.

Air tunnel from East Skidmore North dip to Daniel vein North dip lower level, Lelar slope.

Driving extension of Crosby slope from 2nd to 3rd lift for second outlet to Lelar slope.

Glendower Colliery.—Completed Inside: Basin tunnel from South dip Skidmore vein to North dip Buck Mountain vein, western slope workings.

Tunnel from South dip Skidmore vein to South dip Buck Mountain vein, western slope workings.

Tunnel from South dip Daniel vein to South dip Lelar vein, 2nd landing of basin slope, western slope workings.

Concrete stable in Lelar vein North dip, Taylorsville level.

In Progress Inside: Basin slope from 2nd landing to Glendower workings, at western slope workings.

Tunnel from North dip Skidmore vein to North dip Daniel vein at water level tunnel.

Tunnel from South dip Daniel vein to South dip Buck Mountain vein, 2nd level basin slope, western slope workings.

Completed Outside: 15-foot force fan, electrically driven, at water level tunnel, and power plant for same.

Phoenix Park Colliery.—Completed: No. 2 air shaft, second outlet to No. 6 slope Tracy vein.

Steam line No. 6 Tracy slope to air shaft.

Extension of No. 2 underground slope.

No. 6 slope, engines and foundation.

Fifteen-foot exhaust fan, No. 2 air shaft.

In Progress : No. 6 Tracy slope. No. 7 Tender slope.

Standing: Extension of Peach Mountain slope.

Anchor Washery destroyed by fire March 4 and is being rebuilt.

ST. CLAIR COAL COMPANY

St. Clair breaker was partly destroyed by fire March 17. It has been rebuilt and commenced operations July 24.

LYTLE COAL COMPANY

Lytle Colliery.—Outside: 450 H. P. Coatesville boilers.

Coal plane engine, shaft to breaker.

New feed water heating system.

Four stove coal jigs.

Twelve broken, egg and stove coal shakers.

Barney plane for empty cars, breaker to shaft.

Inside: Tunnels, 2nd level, 19 1-3 yards; 3rd level, 21 $\frac{2}{3}$ yards, 4th level, 115 1-3 yards; 5th level, 309 1-3 yards; 6th level, 229 yards. No. 5 slope, 5th to 6th level in Primrose vein, 100 H. P. Flory electric hoist.

PINE HILL COAL COMPANY

Pine Hill Colliery.—New lift, Buck inside slope on drift, 375 feet. New inside slope, Black Heath shaft, 340 feet. Red Ash tunnel, shaft, third lift, 100 feet. Skidmore to Black Heath tunnel, 58 feet. Air tunnel from haulage tunnel to West Seven Foot monkey, 30 feet. Main airway, Buck, from third level, 380 feet. New rock engine room and electric hoist, 50 feet.

OAK HILL COAL COMPANY

Oak Hill Colliery.—One-story brick lamp house 18 by 20 feet with concrete floor. One-story brick pump house 20 by 18 feet, in which two pumps have been installed for pumping water from the mine to the breaker. A new 10-inch iron column pipe was installed from this pump house to the top of the breaker, taking the place of the wooden line. A concrete foundation, 40 feet 7 inches by 27 feet 8 inches, for a supply office was made during the year. Considerable repairs and changes were made in the breaker. All the old jigs and spirals were removed and 8 new jigs and 3 new slatepickers installed. A concrete basin 28 feet by 28 feet, 8 feet deep, was made for the purpose of storing mine water for breaker use.

Inside: The shaft was retimbered from the rock to the surface, a distance of 70 feet. A tunnel 96 feet long was driven from the 5th level West Holmes to the Primrose gangway, and an air tunnel was started from the airway to the 5th level West Holmes gangway to the Primrose vein and has been driven a distance of 38 feet. A new hospital was constructed in the rock of the 4th level in the shaft workings. A fireproof stable made of concrete was started on the third level No. 1 slope. A tunnel was started in the third level No. 1 slope from the West Black Heath gangway to tap the water in the old working from Hill's slope, and has been driven 30 feet. Two tunnels, each 40 feet long, were driven from the third level West Black Heath gangway No. 1 slope to the Middle Split seam. Two feet of top rock taken down in No. 1 drift for a distance of 225 feet and the road raised, which improves the drainage in this tunnel. Beginning at the mouth there were 25 sets of steel mine frames put in No. 2 slope. A tunnel has been driven from the 3rd level West Black Heath gangway No. 3 slope to the Buck Mountain seam, a distance of 110 yards. 110 feet additional sunk in the No. 3 slope Black Heath vein. A balance plane 360 feet long was made in the Buck Mountain seam from No. 2 drift to the old counter. A 7-ton gasoline locomotive has been installed in No. 2 drift. Two oil burners have been installed in the drifts taking the place of the coal-burning locomotives.

MINE FOREMEN'S EXAMINATIONS

The annual examination of applicants for certificates of qualification as mine foremen and assistant mine foremen was held March 21 and 22, in Union Hall, Pottsville. The Board of Examiners was composed of the following: Michael J. Brennan, Mine Inspector, Pottsville; James B. Neale, Superintendent, Buck Run; Charles Larkin, Miner, Branchdale; Timothy Brennan, Miner, Heckscherville. The following applicants passed a satisfactory examination and were granted certificates:

Mine Foremen

Walter Poticher, Peter Keifer, John Salen and Archibald Miller, Minersville; Patrick Smith, Wade; William Davis, St. Clair.

Assistant Mine Foremen

Thomas Champion, James Keating, Heckscherville; Wilfred Miller, James McCabe, Joseph P. Dando, Minersville; John Brennan, Zerbe; Hugh Curran, Isaac Charles, Duncott.

TWENTIETH DISTRICT

—————
SCHUYLKILL AND DAUPHIN COUNTIES
—————

Lykens, Pa., February 7, 1912.

Hon. James E. Roderick, Chief of Department of Mines:

Sir: I have the honor of transmitting herewith my Report as Inspector of Mines of the Twentieth Anthracite District for the year ending December 31, 1911.

Respectfully submitted,
CHARLES J. PRICE, Inspector.

SUMMARY OF STATISTICS

Number of collieries,	7
Number of mines,	28
Number of mines in operation,	26
Number of tons of coal shipped to market,	1,946,553
Number of tons used at mines for steam and heat,	381,686
Number of tons sold to local trade and used by employes,	35,844
Number of tons produced,	2,364,083
Number of tons produced by compressed air machines, ..	.....
Number of tons produced by electrical machines, .....	.....
Number of persons employed inside of mines,	4,153
Number of persons employed outside,	1,670
Number of fatal accidents inside of mines,	23
Number of fatal accidents outside,	1
Number of non-fatal accidents inside of mines,	56
Number of non-fatal accidents outside,	8
Number of tons of coal produced per fatal accident inside, ..	102,786
Number of persons employed per fatal accident inside, ..	181
Number of persons employed per fatal accident outside, ..	1,670
Number of persons employed per non-fatal accident inside, ..	74
Number of persons employed per non-fatal accident outside, ..	209
Number of wives made widows,	16
Number of children made orphans,	35
Number of steam locomotives used inside of mines, .....	.....
Number of steam locomotives used outside,	18
Number of compressed air locomotives used inside, .....	.....
Number of compressed air locomotives used outside, .....	.....
Number of electric motors used inside,	21
Number of electric motors used outside,	4
Number of fans in use,	23
Number of furnaces in use, .....	.....
Number of gaseous mines in operation,	25
Number of non-gaseous mines in operation,	1
Number of new mines opened, .....	.....
Number of old mines abandoned,	2

TABLE A

PRODUCTION OF COAL

Names of Operators	Tons
Philadelphia and Reading Coal and Iron Company,	1,240,154
Lehigh Valley Coal Company,	278,426
Summit Branch Mining Company,	845,503
Total,	2,364,083

Production by Counties

Schuylkill,	1,518,580
Dauphin,,	845,503
Total,	2,364,083

TABLE B.—Fatal and non-fatal accidents inside and outside of mines; number of tons of coal produced per accident; number of persons employed; number employed per accident

Names of Operators	Fatal Accidents				Non-Fatal Accidents				Total	Tons of coal produced per fatal accident inside	Tons of coal produced per non-fatal accident inside	Number of employees inside	Number of employees outside	Total number of employees	Number of employees inside per fatal accident	Number of employees outside per fatal accident	Number of employees inside per non-fatal accident	Number of employees outside per non-fatal accident
	Inside	Outside	Total		Inside	Outside	Total											
Philadelphia and Reading Coal and Iron Co.,	9	1	10	11	2	13	137,795	112,741	2,171	788	2,962	242	788	198	394			
Lehigh Valley Coal Co.,	4	-----	4	4	1	5	69,606	69,606	449	132	1,581	112	132	112	132			
Summit Branch Mining Co.,	10	-----	10	41	5	46	84,550	30,622	1,539	750	2,280	153	-----	37	150			
Totals and averages for district,	23	1	24	56	8	64	162,786	42,216	4,153	1,670	5,833	151	1,670	74	20			

TABLE C.—Classification of Fatal Accidents Inside and Outside of Mines

	Months												Totals	Percentages	
	January	February	March	April	May	June	July	August	September	October	November	December			
Causes of Accidents Inside															
Falls of coal,			1		1									2	8.69
Falls of slate,			2											2	8.70
Falls of roof,		3				1					1			5	21.74
Mine cars,				2						1		1		4	17.39
Explosions of gas,					1									1	4.35
Blasts, premature and otherwise,		1					1							2	8.70
Falling into slopes, etc.,		1							1		1			3	13.04
Mules,						1								1	4.35
Rush of gob,			1											1	4.35
Struck by piece of coal,	1				1									2	8.69
Totals,	1	5	4	2	3	2	1		2	1	2		23	100.00	
Causes of Accidents Outside															
Cars,													1	1	10.00
Totals,													1	1	100.00
Grand totals inside and outside,	1	5	4	2	3	2	1		2	1	3		24		

TABLE D.—Classification of Non-Fatal Accidents Inside and Outside of Mines

	Months												Totals	Percentages	
	January	February	March	April	May	June	July	August	September	October	November	December			
Causes of Accidents Inside															
Falls of coal,	1	1	1		2	1		1	1		1	1	16	17.86	
Falls of slate,	1				1	1	1	1					5	8.93	
Falls of roof,	3										1		4	7.14	
Mine cars,							1	2	1			1	7	12.50	
Explosions of gas,			1	3	2	1			2	2			17	30.36	
Blasts, premature and otherwise,		1	1									1	3	5.36	
Falling into slopes, etc.,				1									1	1.79	
Mules,			1										1	1.79	
Machinery,			4										4	7.14	
By falling,			1										1	1.79	
Struck by timber,													1	1.78	
Struck by piece of coal,						1							1	1.78	
Struck by piece of slate,									1				1	1.78	
Totals,	5	2	10	4	13	4	2	4	4	3	2	3	56	100.00	
Causes of Accidents Outside															
Cars,			1			1				1	1	1	5	62.50	
Struck by chain,					1								1	12.50	
Struck by timber,						1							1	12.50	
Struck by pipe,									1				1	12.50	
Totals,			1		1	2				2	1	1	8	100.00	
Grand totals inside and outside,	5	2	11	4	14	6	2	4	4	5	3	4	64		

TABLE E.—Occupations of Persons Killed or Fatally Injured Inside and Outside of Mines

	Months												Totals
	January	February	March	April	May	June	July	August	September	October	November	December	
Inside													
Miners,		5	3	1	1		1			1	1	1	14
Miners' laborers,	1		1			1				1			4
Drivers and runners,				1		1						1	3
Bottommen,					1								1
Rockmen,					1								1
Totals,	1	5	4	2	3	2	1			2	1	2	23
Outside													
Laborers,												1	1
Totals,												1	1
Grand totals inside and outside,	1	5	4	2	3	2	1			2	1	3	24

TABLE F.—Occupations of Persons Injured Inside and Outside of Mines

	Months												Totals
	January	February	March	April	May	June	July	August	September	October	November	December	
Inside													
Fire bosses and assistants,								1					1
Miners,	5	1	6	4	6	2	1	2	3	2	2	2	36
Miners' laborers,		1	3			1							5
Drivers and runners,			1		2		1		1			1	6
Loaders,						1			1				2
Rockmen,					3								3
Timbermen,					1			1					2
Machinists,					1								1
Totals,	5	2	10	4	13	4	2	4	4	3	2	3	56
Outside													
Engineers and firemen,									1				1
Roadmen,					1								1
Runners,											1		1
Laborers,			1			2			1	1			5
Totals,			1		1	2			2	1	1		8
Grand totals inside and outside,	5	2	11	4	14	6	2	4	4	5	3	4	64

TABLE G.—Nationality of Persons Killed or Fatally Injured Inside and Outside of Mines

	Months												Totals
	January	February	March	April	May	June	July	August	September	October	November	December	
American,	1	3	3	1	2	1	1	.....	2	.....	3	.....	17
Polish, .....	.....	.....	.....	1	1	1	.....	.....	.....	.....	.....	.....	3
Slavonian, .....	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	1
Lithuanian, .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	.....	.....	1
Austrian, .....	.....	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	2
Totals,	1	5	4	2	3	2	1	.....	2	1	3	.....	24

TABLE H.—Nationality of Persons Injured Inside and Outside of Mines

	Months												Totals
	January	February	March	April	May	June	July	August	September	October	November	December	
American,	5	2	10	3	9	4	2	4	2	4	3	4	52
German, .....	.....	.....	1	1	4	1	.....	.....	.....	.....	.....	.....	3
Polish, .....	.....	.....	.....	.....	4	1	.....	.....	2	.....	.....	.....	7
Slavonian, .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	.....	.....	1
Russian, .....	.....	.....	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	1
Totals,	5	2	11	4	14	6	2	4	4	5	3	4	64

TABLE I.—Operators and mines, kind of openings, type and size of fans, size of furnaces, volume of air produced by fan or furnace per minute, number of splits of air currents and number of persons employed inside

Names of Operators and Mines	Kind of opening	Gasous or non-gasous	Method of ventilation	Diameter of fan in feet and inches	Width of blades in feet and inches	Depth of blades in feet and inches	Number of revolutions per minute	Water gauge developed—in inches	Name of fan	Power used	Number of splits of air currents	Number of cubic feet of air per minute entering the mine at inlet	Total quantity of air per minute circulating in all the splits in cubic feet	Number of cubic feet per minute passing out at outlet	Number of persons employed inside
Philadelphia and Reading Coal and Iron Co.															
Lincoln Colliery:															
Lincoln No. 1,	Slope,	Gasous,	Fan,	21	7	6	85	2.4	Guibal,	Steam,	46	253,370	253,200	257,000	968
Lincoln No. 2,	Slope,	Gasous,	Fan,	18	6	5.3	88	1.6	Guibal,	Steam,					
Lincoln No. 2 Vein Trial Slope,	Slope,	Gasous,	Fan,	12	4	5	88	.7	Guibal,	Electricity,					
Lincoln Water Shaft,	Shaft,														
Brookside Colliery:															
Brookside No. 1,	Slope,	Gasous,	Fans,	18	6	5	95	1.5	Guibal,	Steam,					
Brookside No. 4,	Slope,	Gasous,	Fans,	18	6	5	80	.8	Guibal,	Steam,					
Brookside,	Shaft,			21	7	6	75	1.1	Guibal,						
Brookside Tender Slope,	Slope,			14	4	5	100	1.2	Guibal,	Steam,	22	297,000	296,000	310,000	602
Good Spring Colliery:															
Good Spring No. 1,	Slope,			18	6	5	90	.8							
Good Spring No. 2 Tender Slope,	Slope,	Gasous,	Fans,	17	4.5		85	1.1	Guibal,	Steam,	19	162,000	152,000	160,000	554
Good Spring No. 3,	Slope,	Gasous,	Fans,	18	6	5	61	.8							
Good Spring,	Tunnel,			18	6	5	70	.8							

Lehigh Valley Coal Co.													
Blackwood Colliery:													
Dumblass,	Tunnels, -	Gaseous,	Fans,	6	5.9	75	1.3	Guibal, -	Steam,	34	142,700	150,000	449
Number 4,	{		{	4	3.9	100	1.8						
				6	5.9	100	1.8						
				20									
				12									
				20									
Summit Branch Mining Co.													
Williamstown Colliery:													
Number 1,	Shaft,			8	7	60	2.2						
Number 2,	Shaft,			8	7	60	1.8						
Number 3,	Slope,	Gaseous,	Fans,	4	4	62	1.4	Guibal, -	Steam,	10	162,600	170,000	716
Summit Slope Tender,	Slope,			8	7	62	1.4						
Big Lick,	Slope,			8	7	62	1.4						
				4	4	75	.9						
				25									
				14									
				25									
				14									
Short Mountain Colliery:													
Short Mountain,	Slope,	Gaseous,	Fan,	8	7	69	2.7	Guibal, -	Steam,	7			
Lykens Valley,	Slope,	Gaseous,	Fan,	4	4	100	1.2	Guibal, -	Steam,	8			
Underground Slope No. 4,	Slope,	Gaseous,	Fan,	8	7	60	2.5	Guibal, -	Steam,	8	210,000	220,000	814
Number 1,	Drift,	Non-gas,	Natural,										
Bear Gap,	Tunnel,	Gaseous,	Fan,	2.5	2.5	70	.2	Guibal, -	Compressed	6			
				10					air,				

TABLE 1.—Operators, location of collieries, railroads, etc.

Names of Operators and Collieries	County	Name of General Superintendent	Post Office	Name of Superintendent	Post Office	Railroad to Mine
Philadelphia and Reading Coal and Iron Co.	Schuylkill, ---	{ W. J. Richards, } General Manager.	Pottsville, -----	{ Reese Tasker, Min- } ing Supt. { E. E. Kaercher, } Division Supt. { John Lorenz, In- } side Supt. { J. H. Lee, Outside } Supt. }	Pottsville, -----	Philadelphia and Reading
Lehigh Valley Coal Co.	Schuylkill, ---	{ S. D. Warriner, } General Manager, { F. M. Chase, Gen- } eral Supt.	Wilkes-Barre, -----	William Underwood,	Mahanoy City, ----	Lehigh Valley
Summit Branch Mining Co. Williamstown, Short Mountain Washery, Williamstown Washery.	Dauphin, -----	R. A. Quin, -----	Wilkes-Barre, -----	{ William Auman, } Outside Supt. { M. J. Readdy, In- } side Supt. }	Lykens, -----	Pegsylvania

*Idle entire year.

TABLE 2.—Number of tons of coal mined, number of days worked, number of persons employed, number killed and injured, quantity of powder, dynamite and permissible explosives used, etc.

Names of Operators and Collieries	County	Number of tons of coal shipped to market	Number of tons used at collieries for steam and heat	Number of tons sold to local trade and used by employes	Total production of coal in tons	Number of days worked	Number of employes	Number of fatal accidents	Number of non-fatal accidents	Explosives					
										Number of pounds of powder used	Number of pounds of dynamite used	Number of pounds of permissible explosives used	Number of horses and mules		
Philadelphia and Reading Coal and Iron Co.															
Lincoln,	Schuylkill,	374,274	76,266	6,517	457,057	213	1,170	3	6	198,260	38,219	1,475	188		
Brookside,		274,688	39,924	.....	314,612	212	894	7	2	40,325	35,372	7,435	115	
Good Spring,		248,472	53,145	6,238	307,855	217	732	.....	5	7,225	81,812	45,338	78	
Valley View,															
Washeries:															
Rausch Creek,		897,434	169,335	12,755	1,079,524	.....	2,796	10	13	254,759	155,483	54,348	321	
Middle Creek,		64,415	4,093	968	69,466	100	86	.....	.....	.....	.....	.....	.....
.....		83,479	7,685	.....	91,164	138	80	.....	.....	.....	.....	.....	.....
Totals,		147,894	11,778	938	160,630	.....	166	.....	.....	.....	.....	.....	.....
Lehigh Valley Coal Co.		1,045,328	131,113	13,713	1,240,154	.....	2,962	10	13	254,750	155,486	54,243	323	
Blackwood,	Schuylkill,	350,673	26,549	1,204	278,426	248	531	4	5	12,025	195,885	.....	16	
Summit Branch Mining Co.		292,487	53,237	5,006	350,730	227	1,091	4	28	142,725	84,086	.....	101	
Williamstown,	Dauphin,	223,592	35,612	12,134	273,338	219	1,116	6	18	75,956	23,339	.....	125	
Short Mountain,		518,079	83,849	17,199	624,118	.....	2,297	10	46	218,675	107,455	.....	225

TABLE 2—Continued

Name of Operators and Collieries	County	Number of tons of coal shipped to market	Number of tons used at collieries for steam and heat	Number of tons sold to local trade and used by employes	Total production of coal in tons	Number of days worked	Number of employes	Number of fatal accidents	Number of non-fatal accidents	Explosives			Number of horses and mules
										Number of pounds of powder used	Number of pounds of dynamite used	Number of pounds of permissible explosives used	
Washeries:													
Short Mountain,	Dauphin,	51,442	31,022	3,193	125,657	413	36	.....	.....	.....	.....	2
Williamstown,		41,031	54,133	544	95,728	519	37	.....	.....	.....	.....	.....
Totals,		132,473	85,175	3,737	221,385	.....	73	.....	.....	.....	.....	2
Grand totals,		650,552	174,024	20,927	845,503	.....	2,280	10	46	218,675	107,435	227
		1,946,553	381,686	35,844	2,364,083	5,823	24	64	485,450	458,826	54,243	566

TABLE 2.—Part 2

Names of Operators	County	Number of Boilers					Locomotives				Total horse power	Number of steam engines of all classes	Total horse power	Number of pumps delivering water to surface	Capacity in gallons per minute	Quantity delivered to surface per minute—gallons	Number of electric dynamos	Number of air compressors
		Cylindrical	Horse power	Tubular	Horse power	Total horse power	Steam	Air	Electric									
Philadelphia and Reading Coal and Iron Co.,	Schuylkill,	70	8,750	8,750	8,750	7	0	123	22,346	8	16,400	4,471	4	4				
Lehigh Valley Coal Co.,	Schuylkill,	10	1,500	1,500	1,500	4	5	9	2,320	1			1	1				
Summit Branch Mining Co.,	Fauplin,	7	1,010	11,540	12,550	7	11	129	13,537	3	11,795	3,982	4	6				
Totals,		7	1,010	21,790	22,800	18	25	261	38,406	17	28,195	8,453	9	11				

TABLE 3.—Number of employes inside and outside of mines

Names of Operators	County	Inside										Outside										Grand total inside and outside
		Mine foremen	Assistant mine foremen	Fire bosses and assistants	Miners	Miners' laborers	Drivers and runners	Doorboys and helpers	Timbermen	Company men	All other employes	Total inside	Superintendents	Foremen	Blacksmiths and carpenters	Engineers and firemen	State pickers (boys)	State pickers (men)	Bookkeepers and clerks	All other employes	Total outside	
Philadelphia and Reading Coal and Iron Co.,	Schuylkill,	7	49	.....	631	249	129	32	4	456	617	2,174	.....	10	43	130	58	16	14	517	788	2,962
Lehigh Valley Coal Co.,	Schuylkill,	3	8	.....	238	57	9	1	30	97	449	.....	2	11	17	6	2	3	9	132	132	581
Summit Branch Mining Co.,	Dauphin,	3	8	.....	616	131	132	30	5	549	1,530	.....	4	63	138	107	.....	12	424	750	2,280	
Totals,	.....	13	65	19	1,485	457	270	55	35	491	1,263	4,153	3	16	117	285	171	18	29	1,031	1,670	5,823

TABLE 3.—Part 2

Names of Operators	County	Average Number of Days Worked in Breaker												Total
		January	February	March	April	May	June	July	August	September	October	November	December	
Philadelphia and Reading Coal and Iron Co.,	Schuylkill,	22	16	17	22	20	13	7	14	13	23	24	24	214
Lough Valley Coal Co.,	Schuylkill,	25	19	23	22	25	25	14	19	14	25	24	23	203
Summit Branch Mining Co.,	Dauphin,	23	17	20	23	21	18	14	10	16	18	24	25	223

TABLE 4.—Fatal accidents inside and outside of mines

Date of accident	Name of Person	Nationality	Occupation	Age	Married or single	Number of widows	Number of orphans	Name of Colliery	County	Nature and Cause of Accident in Brief
Jan. 30	John Brown,	American,	Laborer,	17	S.	.....	.....	Brookside,	Schuylkill,	Skull fractured by being struck by a lump of coal that rolled down the plane. Died on his way home.
Feb. 6	William L. Conly,	American,	Miner,	32	S.	.....	.....	Short Mountain,	Dauphin,	Instantly killed by falling down mainway. While getting out of the way of some falling coal he slipped and fell.
8	Benj. F. Reese,	American,	Miner,	55	M.	1	.....	Blackwood,	Schuylkill,	Fatally injured by fall of rock at face of his breast. Died three hours later.
9	John E. Batdorff,	American,	Miner,	34	M.	1	4	Short Mountain,	Dauphin,	Instantly killed by the explosion of a shot that, it was supposed, had exploded three days previous; at face of gangway.
10	(Frank Clappa,	Austrian,	Miner,	28	S.	.....	.....	Blackwood,	Schuylkill,	Instantly killed by fall of rock at face of his breast.
March	(Joseph Bonan,	Austrian,	Miner,	53	M.	1	.....	Brookside,	Schuylkill,	Foot crushed. Blood poisoning set in and he died March 18.
	Daniel Schoffstall,	American,	Miner,	52	M.	1	2			
10	Wasil Byskory,	Slavonian,	Laborer,	26	M.	1	1	Blackwood,	Schuylkill,	Smothered by being drawn down into gob, which started while he was standing on it at face of his breast.
25	William H. Kosler,	American,	Miner,	35	M.	1	4	Short Mountain,	Dauphin,	Fatally injured by fall of slate at face of gangway. Died the same day.
31	E. F. Miller,	American,	Miner,	34	M.	1	4	Short Mountain,	Dauphin,	Fatally injured by fall of slate at face of his breast. Died before he could be removed to the surface.
April 13	Charles Nelson,	American,	Driver,	25	M.	1	3	Brookside,	Schuylkill,	Back and abdomen injured by fall of coal. Died April 6.
	William Schmitz,	Polish,	Miner,	47	M.	1	4	Brookside,	Schuylkill,	Fatally injured by falling under mine cars on gangway. Died April 14.
14	William Schmitz,	Polish,	Miner,	47	M.	1	4	Brookside,	Schuylkill,	Instantly killed by falling under mine car on gangway.

May	1	George Fedor, -----	Polish, ----	Rockman, ---	28	M.	1	1	Williamstown, ---	Dauphin,-----	Skull fractured by the concussion from an explosion of gas on rock plane. Died the same day.
	10	Josiah Behuey, -----	American,--	Pottomman, ---	20	S.	-----	-----	Lincoln, -----	Schuylkill, ---	Left side of head crushed by being struck by a lump of coal that flew from loaded cars. The chain broke and the cars ran back to the bottom of the slope. Died May 19.
	18	John Zimmerman, ---	American,--	Miner, -----	22	M.	1	-----	Short Mountain,--	Dauphin,-----	Fatally injured by fall of coal at face of his breast. Died May 21.
June	12	John Hool, -----	Polish, ----	Laborer, -----	27	M.	1	-----	Short Mountain,--	Dauphin,-----	Instantly killed by fall of rock in heading that he was reopenging.
	28	Earl Bonawitz, -----	American,--	Driver, -----	20	S.	-----	-----	Brookside, -----	Schuylkill,-----	Instantly killed by being kicked on the head by a mule and falling under mine car. The front wheel of car passed over his body.
July	17	Jacob A. Kreiser, ---	American,--	Miner, -----	28	S.	-----	-----	Lincoln, -----	Schuylkill, ---	Instantly killed by a shot that blew through from east side. He sent his brother around to tump and fire it.
	4	John Hornish, -----	American,--	Miner, -----	38	M.	1	4	Lincoln, -----	Schuylkill, ---	Fatally injured by falling down manway of his breast. Died October 7.
	11	Joseph Murray, -----	American,--	Laborer, -----	19	S.	-----	-----	Williamstown, ---	Dauphin,-----	Fatally injured by being squeezed between two mine cars at bottom of slope. Died October 14.
Nov.	11	Chas. Jesalonus, ---	Lithuanian, ---	Miner, -----	32	M.	1	3	Brookside, -----	Schuylkill,-----	Instantly killed by fall of rock at face of his working place while robbing pillars.
Dec.	1	George Hess, -----	American,--	Driver, -----	25	S.	-----	-----	Williamstown, ---	Dauphin,-----	Fatally injured by falling under loaded mine car on gangway. Died the same day.
	2	John Ludwig, -----	American,--	Laborer, -----	20	M.	1	-----	Brookside, -----	Schuylkill, ---	Instantly killed by being run over by mine car that jumped off the track, between East and West Brookside mines. Outside.
	9	William Bainbridge,-----	American,--	Miner, -----	30	M.	1	4	Williamstown, ---	Dauphin,-----	Fatally injured by falling down manway. Died before he could be removed to surface.

TABLE 5.—Non-fatal accidents inside and outside of mines

Date of accident	Name of Person	Nationality	Occupation	Age	Married or single	Name of Colliery	County	Nature and Cause of Accident in Brief
Jan. 5	Andrew Kerwin, -----	American,--	Miner, -----	31	M.	Short Mountain, --	Dauphin,-----	Left side badly bruised from hip to knee by fall of coal from high side of buggy gangway.
26	Thomas Radle, -----	American,--	Miner, -----	21	S.	Williamstown, -----	Dauphin,-----	Right leg fractured by fall of slate at face of heading.
	Joseph H. Berdsoll,--	American,--	Miner, -----	20	S.	Williamstown, -----	Dauphin,-----	Back and kidneys injured by fall of rock at face of his working place.
30	Thomas Gaundlett, ---	American,--	Miner, -----	34	M.	Blackwood, -----	Schuylkill,-----	Hand badly crushed by fall of rock at face of his working place.
	David Blackway, ----	American,--	Miner, -----	41	M.	Short Mountain, --	Dauphin,-----	Four ribs broken and one of the bones of the lower vertebrae fractured by fall of roof at face of his breast.
Feb. 9	C. J. Schlottman, --	American,--	Laborer, -----	23	M.	Short Mountain, --	Dauphin,-----	Injured internally by being struck by debris from a delayed shot at face of gangway.
21	John Byerly, -----	American,--	Miner, -----	31	M.	Williamstown, -----	Dauphin,-----	Ribs fractured and injured internally by fall of coal at face of his breast.
March 2	Henry Bitterman, ----	American,--	Driver, -----	18	S.	Short Mountain, --	Dauphin,-----	Small bone in leg broken by falling over a prop in getting out of the way of a kicking mule.
9	George Oun, -----	German,---	Laborer, -----	54	M.	Lincoln, -----	Schuylkill,-----	Leg fractured below the knee by being kicked by a mule.
10	Joseph Shuttlesworth, American,--	American,--	Laborer, -----	21	S.	Williamstown, -----	Dauphin,-----	Injured internally by being squeezed between two dumpers. Outside.
17	Richard McCreaddy,--	American,--	Miner, -----	45	M.	Williamstown, -----	Dauphin,-----	Face and hands slightly burned by explosion of gas in chute he was driving.
27	G. H. Foster, -----	American,--	Laborer, -----	44	M.	Short Mountain, --	Dauphin,-----	Left arm broken in two places by being struck by falling timber.
	Val. Heinbach, -----	American,--	Miner, -----	54	M.	Lincoln, -----	Schuylkill,-----	Leg fractured, face and body badly cut by being struck by coal from premature shot.

March 27	John Golden,	American, ..	Miner,	38	S.	Williamstown,	Dauphin,	Shoulders and instep injured by fall of coal at face of his breast. Knee dislocated and body badly bruised. Leg injured.
	{ James O'Brien,	American, ..	Miner,	55	M.	Williamstown,	Dauphin,	Arm fractured and back injured. These men were injured when the cage struck the bottom of the shaft, the engineer having lost control of his engines. Severely burned by explosion of gas in breast. They ignited gas with their open lights.
	{ Rathunus Miller,	American, ..	Miner,	34	M.			Head and body badly bruised by falling down roadway.
	{ Joseph Bopp,	American, ..	Laborer,	22	M.			Face and hands slightly burned by explosion of gas in breast.
	{ William Lewis,	American, ..	Miner,	34	M.			Walaski, Fedor and Petka were seriously burned on face, hands and body by an explosion of gas which they ignited with their open lights, on going back after a shot on the rock plane they were driving.
April 12	{ Robert Martz,	American, ..	Miner,	29	M.	Short Mountain,	Dauphin,	Head cut and rib fractured by the concussion from above explosion.
	{ Frank Hentz,	German,	Miner,	31	S.			Arm broken by the concussion from above explosion.
22	Louis Fromme,	American, ..	Miner,	30	M.	Williamstown,	Dauphin,	Hands and face slightly burned by explosion of gas in breast.
29	Harry Koehler,	American, ..	Miner,	31	M.	Short Mountain,	Dauphin,	Shoulder dislocated by fall of coal while robbing pillars.
May 1	{ Joseph Walaski,	Polish,	Roekman,	36	S.			Collar bone torn loose and rib fractured by fall of slate at face of gangway.
	{ Paul Fedor,	Polish,	Roekman,	22	M.			Leg fractured by flying chain on top of slope. Outside.
	{ John Petka,	Polish,	Roekman,	37	M.	Williamstown,	Dauphin,	Leg fractured by fall of coal at face of breast.
	Milton Paul,	American, ..	Timberman,	56	M.			Pelvis crushed by being caught between mine car and door frame on gangway.
	Thomas Flynn,	American, ..	Machinist,	45	M.			Hands and face slightly burned by explosion of gas in breast.
	Blaine Detrick,	American, ..	Miner,	27	M.	Good Spring,	Schuylkill,	Shoulder dislocated by fall of coal while robbing pillars.
2	{ Charles Long,	American, ..	Miner,	28	M.	Williamstown,	Dauphin,	Collar bone torn loose and rib fractured by fall of slate at face of gangway.
	{ John Mckelva,	American, ..	Miner,	37	M.			Leg fractured by flying chain on top of slope. Outside.
3	Fred. Mueher,	American, ..	Miner,	55	M.	Short Mountain,	Dauphin,	Leg fractured by fall of coal at face of breast.
5	Frank Huntziuger,	American, ..	Roadman,	32	M.	Good Spring,	Schuylkill,	Pelvis crushed by being caught between mine car and door frame on gangway.
	Henry Scheafer,	American, ..	Miner,	54	S.	Good Spring,	Schuylkill,	Hands and face slightly burned by explosion of gas in breast.
5	Allen Maurer,	American, ..	Driver,	17	S.	Good Spring,	Schuylkill,	Bone in left instep fractured by being caught between mine car and bottom slate on gangway.
16	Michael Zukas,	Polish,	Miner,	38	M.	Williamstown,	Dauphin,	Three fingers of left hand crushed while blocking mine cars. Outside.
22	John Bonnoek,	Russian,	Driver,	30	M.	Short Mountain,	Dauphin,	Back injured by fall of slate at face of breast.
June 1	Thomas Groscovitich,	Polish,	Laborer,	47	M.	Blackwood,	Schuylkill,	Slightly burned by explosion of gas in breast.
14	Louis Irving,	American, ..	Miner,	36	M.	Brookside,	Schuylkill,	
15	Paul Kraus,	German,	Miner,	40	S.	Short Mountain,	Dauphin,	

TABLE 5—Continued

Date of accident	Name of Person	Nationality	Occupation	Age	Married or single	Name of Colliery	County	Nature and Cause of Accident in Brief
June 16	Solomon Granger, ---	American, ---	Laborer, ---	32	M.	Blackwood, ---	Schuylkill, ---	Scalp lacerated and shoulders bruised by fall of coal at face of gangway.
20	Roy Gilbert, ---	American, ---	Loader, ---	25	M.	Williamstown, ---	Dauphin, ---	Fingers of left hand smashed by lump of coal rolling down chute.
27	Henry Swegar, ---	American, ---	Laborer, ---	45	M.	Short Mountain, ---	Dauphin, ---	Three ribs fractured by mine timber falling on him. Outside.
July 13	John Goudy, ---	American, ---	Driver, ---	18	S.	Short Mountain, ---	Dauphin, ---	Felvis fractured on both sides by being caught between mine car and prop on gangway.
	Charles A. Row, ---	American, ---	Miner, ---	34	M.	Short Mountain, ---	Dauphin, ---	Bone of left foot fractured by fall of slate at face of gangway.
Aug. 7	John Williams, ---	American, ---	Timberman, ---	33	M.	Williamstown, ---	Dauphin, ---	Lacerated wound in the groin by being caught between mule chain and mine car.
11	John Nunemacher, ---	American, ---	Miner, ---	32	S.	Brookside, ---	Schuylkill, ---	Bruised across back and kidneys by fall of slate while robbing pillars.
18	Samuel Mack, ---	American, ---	Miner, ---	37	M.	Blackwood, ---	Schuylkill, ---	Left knee injured by fall of coal at face of breast.
27	Charles E. Hoffman, ---	American, ---	Fire boss, ---	39	M.	Short Mountain, ---	Dauphin, ---	Rib fractured, severe bruises on left side and across kidneys by being caught between mine car and timber while coming up slope.
Sept. 12	James Stewart, ---	American, ---	Driver, ---	26	S.	Lincoln, ---	Schuylkill, ---	Legs fractured and body bruised by falling under mine cars on gangway.
19	Aaron Shamel, ---	American, ---	Miner, ---	53	M.	Blackwood, ---	Schuylkill, ---	Instep badly cut and bruised by fall of coal at face of breast.
21	Walter Jobinski, ---	Polish, ---	Miner, ---	26	M.	Williamstown, ---	Dauphin, ---	Face and hands slightly burned by explosion of gas at face of breast.
	Frank Fusat, ---	Polish, ---	Miner, ---	30	S.	Williamstown, ---	Dauphin, ---	Ankle dislocated and fractured. While blowing out a boiler the pipe twisted and struck him on ankle. Outside.
Oct. 16	Wm. Hoffman, ---	American, ---	Fireman, ---	23	S.	Lincoln, ---	Schuylkill, ---	

Oct. 18	Mike. Kasulja, -----	Slavonian, -----	Laborer, -----	22	S.	Williamstown, -----	Dauphin, -----	Right leg fractured by being caught between bumpers of mine cars. Outside.
20	Warden Geist, -----	American, -----	Miner, -----	24	M.	Williamstown, -----	Dauphin, -----	Hands and face burned by explosion of gas at face of their place.
31	Patrick Craven, -----	American, -----	Miner, -----	28	S.	Short Mountain, -----	Dauphin, -----	Left leg fractured by being struck by a lump of slate while loading mine car on gangway.
	George L. Kramer, -----	American, -----	Loader, -----	34	M.	Short Mountain, -----	Dauphin, -----	Compound fracture of right leg and right wrist dislocated by fall of rock while robbing pillars.
Nov. 3	F. Zimmerman, -----	American, -----	Miner, -----	27	S.	Lincoln, -----	Schuylkill, -----	Pelvis cracked on left side by fall of coal at face of breast.
22	Jos. F. Thomas, -----	American, -----	Miner, -----	38	M.	Short Mountain, -----	Dauphin, -----	Left leg fractured by being caught between bumpers of empty cars at head of breaker. Outside.
27	George Riekert, -----	American, -----	Laborer, -----	17	S.	Williamstown, -----	Dauphin, -----	Three ribs fractured and injured internally by fall of coal while putting up timber at face of gangway.
Dec. 5	Samuel Whitecomb, -----	American, -----	Miner, -----	48	M.	Williamstown, -----	Dauphin, -----	Left hand badly lacerated by mine car on gangway.
18	Arthur Franz, -----	American, -----	Driver, -----	18	S.	Williamstown, -----	Dauphin, -----	Head and body badly cut and bruised by coal from a delayed shot in breast.
29	Morris Schneek, -----	American, -----	Miner, -----	45	M.	Lincoln, -----	Schuylkill, -----	Hand badly lacerated by falling under mine car. Outside.
	Russel Fox, -----	American, -----	Runner, -----	18	S.	Short Mountain, -----	Dauphin, -----	

CONDITION OF COLLIERIES

PHILADELPHIA AND READING COAL AND IRON COMPANY

Lincoln, Brookside, Good Spring.—Ventilation, drainage and condition as to safety, good.

Valley View.—Idle.

SUMMIT BRANCH MINING COMPANY

Williamstown and Short Mountain.—Ventilation and condition as to safety, good. Drainage fair.

LEHIGH VALLEY COAL COMPANY

Blackwood.—Ventilation, drainage and condition as to safety, good.

IMPROVEMENTS

PHILADELPHIA AND READING COAL AND IRON COMPANY

Brookside Colliery.—A tunnel has been driven from the No. 5 to the No. 4 vein, West No. 5 vein gangway, No. 3 plane, near "saddle," a distance of 144 feet.

A plane on West No. 4 vein gangway has been driven across the pitch 425 feet long, the landing of which is nearly completed.

A new traveling way and mule way from the No. 4 slope level to surface has been completed, and all mules from the No. 1 and No. 4 slope levels are taken to the surface at night.

Fireproof stables are being erected on the 4th lift of basin slope and at the bottom of the shaft. The mules on the top lifts are taken to the surface at night.

Outside: A wash-house of frame and concrete 20 by 38 feet, with steam heat and clothes hangers, has been completed at the shaft.

A stable for the mules of the 2nd and 3rd lifts is now in course of erection.

A concrete fan duct has been erected from the No. 4 slope fan to the top of the No. 4 vein airway.

A check-off house and lamp house completed at No. 4 slope.

Good Spring Colliery.—A tunnel 243 feet long has been driven from the bottom split of Mammoth vein to the Buck Mountain vein at breast No. 83 on the 2nd lift at No. 3 slope.

A tunnel 477 feet long has been driven from the Mammoth vein to the Orchard vein at breast No. 59 on 2nd lift slope.

A fireproof stable of concrete and iron construction has been completed in tunnel from bottom split of Mammoth to Skidmore vein on 2nd lift at No. 3 slope.

Fireproof stables are in course of construction on 3rd lift of No. 1 slope.

Two sets of return tubular boilers have been installed at No. 3 slope.

An ash flume to carry ashes by gravity from boiler house has been constructed at No. 3 slope.

An 18-foot fan has been erected on bottom split of Mammoth vein to replace the fan on Mammoth vein.

Check-off houses have been erected at Nos. 1 and 3 slopes.

Lincoln Colliery.—A tunnel from No. 4 vein to No. 2 vein on 7th lift, 636 feet long, has been completed.

Cross-over tunnels 380 feet long have been driven on the 7th and 8th lifts at No. 5 vein slope.

Electric locomotives have been installed on 7th and 8th lifts in No. 5 vein inside slope.

An electric pump for fresh water supply has been installed at New Lincoln.

A wash-house of concrete and wood has been erected at No. 2 vein trial slope.

A concrete tank for ash wash has been erected, capacity 28,000 gallons.

Fireproof stables are in course of construction on 4th and 6th lifts, No. 1 slope and 6th lift, No. 2 slope.

LEHIGH VALLEY COAL COMPANY

Blackwood Colliery.—Completed tunnel in workings from Buck Mountain to the Diamond vein on the west side.

On the east side a tunnel has been driven 404 feet between the Skidmore and the Tracy veins.

The replacing of the timber in Blackwood tunnel with concrete and steel has been continued throughout the year, and is now completed as far as it is intended to go at this time.

A gasoline-burning locomotive was installed at Dundass tunnel in September.

A slope has been started on the Tracy vein and is down 275 feet below the Blackwood tunnel level. A rope bore hole to operate this slope was drilled from the surface to the top rock of the vein, a distance of 270 feet.

SUMMIT BRANCH MINING COMPANY

Tunnels were driven from No. 9 vein to No. 9½ vein Bear Valley slope, on No. 2 and No. 3 lifts; also an airway in No. 2 shaft, and rock plane to counter, and fireproof stable.

Tunnels from West No. 9 vein to No. 7 vein, and from No. 7 vein to No. 11 vein, in Bear Valley slope extension.

A new motor line was built in Bear Valley slope extension; also a new concrete hospital inside.

A new stable and a pump-house, both fireproof, were erected in No. 1 shaft, also new eages and steam brake.

Tunnels were driven from East Little vein and from East White's vein to East Lykens vein, and an air tunnel from West Lykens vein to Little vein.

A tunnel sump gangway to Buck Mountain vein and a sump gangway in No. 2 shaft were driven.

Tunnels were driven for "Y" at bottom of Big Lick slope and on the 4th lift of same.

Three fresh water tanks, 50,000 gallons' capacity each, a new wash-house, an ash-washing device, a boiler coal trestle, and 68 new mine cars and buggies were built.

Airways have been driven from No. 2 gate to No. 3 West Short Mountain slope, to Basin pillar slope, and from White's vein No. 4 level in No. 4 slope.

Slopes have been driven in the following levels: Basin pillar No. 3 west, No. 1 drift, White ash vein, and White ash trial.

Planes have been driven on the following levels: No. 6 counter, Big vein No. 3 west, No. 2 counter White's vein No. 3 west, and No. 4 slope extension.

Crosscuts were driven in No. 5 counter, Little vein, east and west.

The following fireproof buildings have been erected: Engine room Bear Gap tunnel, No. 1 drift, Basin pillar slope, No. 4 slope extension; pump-house White's vein No. 4 level, No. 4 slope; also new stables.

A concrete lamp-house, air compressor building and fan house have been erected.

Built 150 new mine cars and buggies.

Erected new Ingersoll-Rand air compressor; steam and air lines; new water heater and building; and lumber storage building.

A complete Draeger apparatus has been purchased and the men are being trained how to use it in case of emergency.

MINE FOREMEN'S EXAMINATIONS

The annual examination of applicants for certificates of qualification as mine foremen and assistant mine foremen was held in Union Hall, Pottsville, March 22 and 23, and at Lykens April 12 and 14. The Board of Examiners was composed of the following: Charles J. Price, Mine Inspector, Lykens; William Auman, Superintendent, Lykens; W. C. Wagner, Miner; Tower City, and Samuel Evans, Miner, Minersville.

The following persons passed a satisfactory examination and were granted certificates:

Mine Foremen

John R. Lewis, Williamstown.

Assistant Mine Foremen

George F. Welker, Samuel F. McCoy, Charles E. Hoffman, Lykens; Thomas H. Miller, Wiconisco; Charles A. Schrope, Orwin; Allen Schreiner, James A. Bailey, Tower City; George W. Unger, Muir; William Hoppstetter, Charles C. Wetzel, Tremont; Michael F. Farrell, Donaldson.

TWENTY-FIRST DISTRICT

SULLIVAN, SUSQUEHANNA, LACKAWANNA AND WAYNE COUNTIES

Forest City, Pa., February 26, 1912.

Hon. James E. Roderick, Chief of Department of Mines:

Sir: I have the honor to transmit herewith my Report as Inspector of Mines of the Twenty-first Anthracite District, for the year ending December 31, 1911.

Respectfully submitted,
BENJAMIN MAXEY, Inspector.

SUMMARY OF STATISTICS

Number of collieries,	8
Number of mines,	13
Number of mines in operation,	13
Number of tons of coal shipped to market,	1,470,998
Number of tons used at mines for steam and heat,	120,221
Number of tons sold to local trade and used by employes,	20,411
Number of tons produced,	1,611,630
Number of tons produced by compressed air machines, .....	.....
Number of tons produced by electrical machines, .....	.....
Number of persons employed inside of mines,	2,209
Number of persons employed outside,	846
Number of fatal accidents inside of mines,	6
Number of fatal accidents outside,	2
Number of non-fatal accidents inside of mines,	18
Number of non-fatal accidents outside,	2
Number of tons of coal produced per fatal accident inside,	268,605
Number of persons employed per fatal accident inside, ..	368
Number of persons employed per fatal accident outside, ..	423
Number of persons employed per non-fatal accident inside, ..	123
Number of persons employed per non-fatal accident outside, ..	423
Number of wives made widows,	5
Number of children made orphans,	9
Number of steam locomotives used inside of mines,	4
Number of steam locomotives used outside,	10
Number of compressed air locomotives used inside, .....	.....
Number of compressed air locomotives used outside, .....	.....
Number of electric motors used inside,	25
Number of electric motors used outside, .....	.....
Number of fans in use,	12
Number of furnaces in use, .....	.....
Number of gaseous mines in operation, .....	.....
Number of non-gaseous mines in operation,	13
Number of new mines opened, .....	.....
Number of old mines abandoned, .....	.....

TABLE A

PRODUCTION OF COAL

Names of Operators	Tons
Hillside Coal and Iron Company,	596,036
Hudson Coal Company,	362,232
Connell Anthracite Mining Company,	326,130
Northern Anthracite Coal Company,	178,503
O'Boyle-Foy Anthracite Coal Company,	127,253
Randall and Schaad Brothers Anthracite Coal Company, Limited,	8,676
Clinton Falls Coal Company,	8,300
Stillwater Coal Company,	4,500
Total,	<u>1,611,630</u>

Production by Counties

Sullivan,	640,562
Susquehanna,	600,536
Lackawanna,	307,898
Wayne,	62,634
Total,	<u>1,611,630</u>

2 / 805,613

TABLE B.—Fatal and non-fatal accidents inside and outside of mines; number of tons of coal produced per accident; number of persons employed; number employed per accident

Names of Operators	Fatal Accidents				Non-Fatal Accidents				Tons of coal produced per fatal accident inside	Tons of coal produced per non-fatal accident inside	Number of employees inside	Number of employees outside	Total number of employees	Number of employees inside per fatal accident	Number of employees outside per fatal accident	Number of employees inside per non-fatal accident	Number of employees outside per non-fatal accident
	Inside	Outside	Total		Inside	Outside	Total										
Hillside Coal and Iron Co.,	1	2	3	4	2	6	566,036	119,009	946	345	1,291	946	173	287	173		
Hudson Coal Co.,	1		1	4		4	312,382	90,558	561	149	710	561	140	140	140		
Connell Anthracite Mining Co.,				4		4	81,533	330	330	162	492	330	83	83	83		
Northern Anthracite Coal Co.,	3		3	1		1	59,501	178,503	170	95	265	170	170	170	170		
O'Boyle-Foy Anthracite Coal Co.,	1		1	5		5	127,553	25,450	141	67	208	141	141	141	98		
Miscellaneous Companies,										28	89						
Totals and averages for district,	6	2	8	18	2	20	268,605	89,635	2,209	846	3,055	368	423	123	423		

TABLE C.—Classification of Fatal Accidents Inside and Outside of Mines

	Months												Percentages	
	January	February	March	April	May	June	July	August	September	October	November	December		Totals
Causes of Accidents Inside														
Falls of coal,										1			1	16.67
Falls of roof,		1										1	2	33.33
Explosions of powder and dynamite,			2										2	33.33
Machinery,					1								1	16.67
Totals,		1	2		1					1		1	6	100.00
Causes of Accidents Outside														
Cars,									1				1	50.00
Machinery,											1		1	50.00
Totals,									1		1		2	100.00
Grand totals inside and outside,		1	2		1				1	1	1	1	8	

TABLE D.—Classification of Non-Fatal Accidents Inside and Outside of Mines

	Months												Percentages	
	January	February	March	April	May	June	July	August	September	October	November	December		Totals
Causes of Accidents Inside														
Falls of coal,			1										1	5.56
Falls of roof,	3	2		1		1	1	1					9	50.00
Mine cars,				1			1					1	3	16.67
Explosions of powder and dynamite,	1											1	2	11.11
Blasts, premature and otherwise,		1										1	2	11.11
Falling into shafts,								1					1	5.55
Totals,	4	3	1	2		1	2	2				3	18	100.00
Causes of Accidents Outside														
By falling,									1				1	50.00
Boulder rolled on him,					1								1	50.00
Totals,					1				1				2	100.00
Grand totals inside and outside,	4	3	1	2	1	1	2	2	1			3	20	

TABLE E.—Occupations of Persons Killed or Fatally Injured Inside and Outside of Mines

	Months												Totals
	January	February	March	April	May	June	July	August	September	October	November	December	
Inside													
Miners,		1	2							1			4
Miners' laborers,												1	1
Pumpmen,					1								1
Totals,		1	2		1					1		1	6
Outside													
Laborers,									1		1		2
Totals,									1		1		2
Grand totals inside and outside,		1	2		1				1	1	1	1	8

TABLE F.—Occupations of Persons Injured Inside and Outside of Mines

	Months												Totals
	January	February	March	April	May	June	July	August	September	October	November	December	
Inside													
Miners,	3	1		1		1						3	9
Miners' laborers,		2	1				1	2					1
Motor helpers,				1									1
Totals,	4	3	1	2		1	2	2				3	18
Outside													
Prop cutters,									1				1
Laborers,					1								1
Totals,					1				1				2
Grand totals inside and outside,	4	3	1	2	1	1	2	2	1			3	20

TABLE G.—Nationality of Persons Killed or Fatally Injured Inside and Outside of Mines

	Months												Totals
	January	February	March	April	May	June	July	August	September	October	November	December	
American,			1							1		1	3
Welsh,													1
Irish,			1										1
Italian,									1		1		2
Lithuanian,		1											1
Totals,	1	1	2		1				1	1	1	1	8

TABLE H.—Nationality of Persons Injured Inside and Outside of Mines

	Months												Totals
	January	February	March	April	May	June	July	August	September	October	November	December	
American,	1			1			1		1				4
English,		1										1	1
Irish,		1	1	1		1						1	4
Polish,	1	1	1	1		1							7
Hungarian,	1												1
Italian,					1		1						2
Lithuanian,								2					2
Austrian,	1	1											2
Totals,	4	3	1	2	1	1	2	2	1			2	20

TABLE 1.—Operators and mines, kind of openings, type and size of fans, size of furnaces, volume of air produced by fan or furnace per minute, number of splits of air currents and number of persons employed inside

Names of Operators and Mines	Kind of opening	Gasous or non-gasous	Method of ventilation	Diameter of fan in feet and inches	Width of blades in feet and inches	Depth of blades in feet and inches	Number of revolutions per minute	Water gauge developed—in inches	Name of fan	Power used	Number of splits of air currents	Number of cubic feet of air per minute entering the mine at inlet	Total quantity of air per minute circulating in all the splits in cubic feet	Number of cubic feet per minute passing out at outlet	Number of persons employed inside
Hillside Coal and Iron Co.															
Forest City Colliery:															
Forest City No. 2,	{ Shafts,	Non-gas..	{ 2 Fans, ..	18	6	6	70	1	Guibal, ..	Steam,	6	107,053	108,293	113,185	330
Chlorford,	{		{ Fan,	24	5	5	65	1	Guibal, ..	Steam,	5	72,874	70,540	74,014	302
			{ Fan,	18	5	5	80	1	Guibal, ..	Steam,	5	76,850	72,594	77,349	295
Hudson Coal Co.															
Clinton Colliery:															
Clinton No. 3, Top Vein,	Slope,		{ Fan,	17	4	4	95	1.6			2	52,600	50,620	54,025	118
Clinton No. 5, Riverside,	Slope,		{ Fan,	20	5	5	75	1.4			4	77,450	77,820	78,050	212
Clinton No. 5, Clifford Vein,	Drift,	Non-gas..	{ Fan,	10	2.5	2.5	112	.6	Guibal,	Steam,	1	27,500	26,675	28,500	51
Clinton No. 7, Clifford Vein,	Drift,		{ Fan,	10	2.5	2.5	112	.6			1	27,600	26,750	28,450	72
Clinton No. 10, Grassy Vein,	Slope,		{ Fan,	20	5	5	75	.9			4	83,900	81,420	86,900	159
Connell Anthracite Mining Co.															
Connell Colliery:															
Connell,	Drift,	Non-gas.,	Fan,	16	4	4	100	.2	Guibal, ..	Steam,	5	94,000	67,000	100,000	295
Northern Anthracite Coal Co.															
Murray Colliery:															
Murray,	Shaft,	Non-gas.,	Fan,	16	5	0	85	1.6	Guibal, ..	Steam,	3	72,500	68,000	72,500	170

Company	Shaft	Non-gas., Fan,	Is	6	60	1.2	Guibal, ..	Steam,	3	41,500	46,300	50,800	140
O'Boyle-Foy Anthracite Coal Co. O'Boyle-Foy Colliery:	shaft,	Non-gas., Fan,	Is	6	60	1.2	Guibal, ..	Steam,	3	41,500	46,300	50,800	140
Randall and Schaad Brothers Anthracite Coal Co., Ltd. Randall and Schaad Colliery:	Slope,	Non-gas., ..					Guibal, ..	Steam,	1	13,000	18,000	20,500	21
Clinton Falls Coal Co. Clinton Falls Colliery:	Drift,	Non-gas., Natural, ..							1	6,000	5,000	7,000	21
Stillwater Coal Co. Stillwater Colliery:	Drift,	Non-gas., Fan,	8	3	75	77	Guibal, ..	Steam,	1	6,000	6,000	6,100	16

*Ventilated by O'Boyle-Foy Anthracite Coal Co. on Southwest Split.

TABLE 1.—Operators, location of collieries, railroads, etc.

Names of Operators and Collieries	County	Name of General Superintendent	Post Office	Name of Superintendent	Post Office	Railroad to Mine
Hillside Coal and Iron Co. Forest City,	Susquehanna,	W. W. Inglis,	Dunmore,	A. E. Yetter,	Forest City,	Erie
Hudson Coal Co. Clinton,	[Lackawanna, Wayne,	C. C. Rose,	Seranton,	E. R. Pettebone,	Dorranecton,	Delaware and Hudson
Connell Anthracite Mining Co. Connell,	Sullivan,	W. L. Connell,	Seranton,	T. V. McLaughlin,	Bernice,	Lehigh Valley
Northern Anthracite Coal Co. Murray,	Sullivan,	M. J. Murray,	Dunmore,	P. J. Murray,	Murray,	Lehigh Valley
O'Boyle-Foy Anthracite Coal Co. O'Boyle-Foy,	Sullivan,	M. W. O'Boyle,	Pittston,	M. J. Clemons,	Murray,	Lehigh Valley
Randall and Schaad Brothers Anthracite Coal Co., Ltd. Randall and Schaad,	Sullivan,	W. J. Schaad,	Mildred,			Lehigh Valley
Clinton Falls Coal Co. Clinton Falls,	Wayne,	Peter Murphy,	Forest City,			N. Y. O. and W.
Stillwater Coal Co. Stillwater,	Susquehanna,	W. D. Lewis,	Forest City,			Erie

TABLE 2.—Number of tons of coal mined, number of days worked, number of persons employed, number killed and injured, quantity of powder, dynamite and permissible explosives used, etc.

Names of Operators and Collieries	County	Number of tons of coal shipped to market	Number of tons used at collieries for steam and heat	Number of tons sold to local fire and used by employes	Total production of coal in tons	Number of days worked	Number of employes	Number of fatal accidents	Number of non-fatal accidents	Explosives				Number of horses and mules
										Number of pounds of powder used	Number of pounds of dynamite used	Number of pounds of permissible explosives used	Number of pounds of explosives used	
Hillside Coal and Iron Co. Forest City,	Susquehanna,	542,552	46,108	7,246	306,036	573	1,391	3	6	627,475	.....	93,189	82
Hudson Coal Co. Clinton,	[Wayne,] [Lackawanna, ..]	329,720	29,200	3,312	362,232	270	710	1	4	450,525	55,333	.....	88
Connell Anthracite Mining Co. Connell,	Sullivan,	294,684	29,200	2,246	326,130	279	492	.....	4	78,450	16,197	.....	9
Northern Anthracite Coal Co. Murray,	Sullivan,	170,539	5,679	2,255	178,503	182	265	3	1	144,775	1,950	.....	43
O'Boyle-Foy Anthracite Coal Co. O'Boyle-Foy,	Sullivan,	118,192	7,084	1,977	127,253	207	208	1	5	128,650	1,000	.....	18
Randall and Schaad Brothers Anthracite Coal Co., Ltd. Randall and Schaad,	Sullivan,	6,981	1,000	695	8,676	171	27	.....	.....	10,375	150	.....	4
Clinton Falls Coal Co. Clinton Falls,	Wayne,	6,950	1,200	150	8,300	139	40	.....	.....	11,075	.....	.....	5
Stillwater Coal Co. Stillwater,	Susquehanna,	1,350	750	2,400	4,500	150	22	.....	.....	9,000	300	.....	4
Totals, .....	.....	1,470,998	120,221	20,411	1,611,630	.....	3,055	8	20	1,459,735	75,130	.....	253

TABLE 2.—Part 2

Names of Operators	County	Number of Boilers			Locomotives			Number of steam engines of all classes	Total horse power	Number of pumps delivering water to surface	Capacity in gallons per minute	Quantity delivered to surface per minute—gallons	Number of electric dynamos	Number of air compressors
		Cylindrical	Horse power	Tubular	Horse power	Total horse power	Steam								Air	Electric
Hillside Coal and Iron Co.,	Susquehanna,		2,750	25	2,750	2,750	5	43	3,000	4	1,600	1,000		
Hudson Coal Co.,	Wayne,	25	125	1	862	862	1	40	1,765	7	4,200	1,400	4	
	Lockawanna,													1
Council Anthracite Mining Co.,	Sullivan,		1,600	6	1,600	1,600		8	1,212	1	900	450		
North Anthracite Coal Co.,	Sullivan,		450	5	450	450		5	400	1	1,174	1,000		
O'Boyle-Foy Anthracite Coal Co.,	Sullivan,		450	2	450	450	8	5	450	2	160	130		
Randall and Schaad Brothers Anthracite Coal Co., Ltd.,	Sullivan,		80	1	80	80		3	75	1	200	200		
Clinton Falls Coal Co.,	Wayne,	1	60		60	60								
Stillwater Coal Co.,	Susquehanna,		200	2	200	200		3	120	1	75	25		
Totals,		26	797	42	5,655	6,452	14	25	7,022	17	8,309	4,205	8	1

TABLE 3.—Number of each class of employes inside and outside of mines

Names of Operators	County	Inside										Outside							Grand total inside and outside			
		Mine foremen	Assistant mine foremen	Fire bosses and assistants	Miners	Miners' laborers	Drivers and runners	Doorboys and helpers	Pumpmen	Company men	All other employes	Total inside	Superintendents	Foremen	Blacksmiths and carpenters	Engineers and firemen	Statepickers (boys)	Statepickers (men)		Bookkeepers and clerks	All other employes	Total outside
Hillside Coal and Iron Co.,	Susquehanna,	3	8	---	356	307	67	29	8	139	29	946	1	1	21	32	50	28	4	208	345	1,291
Hudson Coal Co.,	(Wayne, Lackawanna, Sullivan, O'Boyle-Foy Anthracite Coal Co.,	1	3	---	184	220	76	4	43	12	561	---	1	1	6	23	6	28	1	84	149	710
Connell Anthracite Mining Co.,	Sullivan,	1	1	---	140	80	---	3	18	78	330	1	1	15	16	15	21	5	88	162	492	
Northern Anthracite Coal Co.,	Sullivan,	1	1	---	60	60	22	1	8	7	170	1	2	1	5	8	30	3	45	95	265	
O'Boyle-Foy Anthracite Coal Co.,	Sullivan,	1	1	---	62	48	9	2	6	8	141	1	1	3	6	8	28	1	19	67	208	
Randall and Schaad Brothers Anthracite Coal Co., Ltd.,	Sullivan,	1	1	---	17	---	2	---	---	---	21	1	1	1	1	---	---	---	2	6	27	
Clinton Falls Coal Co.,	Wayne,	1	1	---	15	1	6	1	1	1	24	1	1	---	3	6	2	---	4	16	40	
Stillwater Coal Co.,	Susquehanna,	1	1	---	6	6	2	1	---	---	16	---	1	---	2	1	1	---	---	6	22	
Totals,		10	13	---	840	732	184	66	215	134	2,209	5	8	47	88	94	189	15	450	846	3,055	

TABLE 3.—Part 2

Names of Operators	County	Average Number of Days Worked in Breaker												Total	
		January	February	March	April	May	June	July	August	September	October	November	December		
Hillside Coal and Iron Co.,	Susquehanna,	23	23	25	22	22	23	21	24	23	22	22	23	23	273
Hudson Coal Co.,	Wayne,	24	23	24	22	23	21	15	26	24	22	23	23	23	270
	Laekawanna,														
Connell Anthracite Mining Co.,	Sullivan,	24	24	27	23	24	24	17	23	23	24	23	23	23	279
Northern Anthracite Coal Co.,	Sullivan,	25	17	16	18	10	9	6	6	13	17	24	24	22	182
O'Boyle-Foy Anthracite Coal Co.,	Sullivan,	23	18	19	19	17	8	13	13	11	22	22	22	207	
Randall and Sehaad Brothers Anthracite Coal Co., Ltd.,	Sullivan,	26	24	24	24	24	8	8	8	21	26	25	25	171	
Clinton Falls Coal Co.,	Wayne,	25	24	11	20	24	8	7	5	18	16	15	15	159	
Stillwater Coal Co.,	Susquehanna,	26	24	11	20	24	8	7	5	18	16	15	15	160	

TABLE 4.—Fatal accidents inside and outside of mines

Date of accident	Name of Person	Nationality	Occupation	Age	Married or single	Number of widows	Number of orphans	Name of Colliery	County	Nature and Cause of Accident in Brief
Feb. 25	Anthony Ghummer,	Lithuanian,	Miner,	40	M.	1	2	O'Boyle-Foy,	Sullivan,	Instantly killed by fall of roof at face of his chamber.
Mar. 16	Patrick Lynott,	Irish,	Miner,	52	M.	1	2	Murray,	Sullivan,	Fatally injured by explosion of dynamite on gangway.
	Daniel Hoffal,	American,	Miner,	40	M.	1	1	Murray,	Sullivan,	Instantly killed by explosion of dynamite on gangway.
May 15	Evan Cox,	Welsh,	Pumpman,	26	S.			Forest City,	Susquehanna,	Fatally injured by being caught between the gears and pinion wheels of electric pump.
Sept. 23	Mike Makure,	Italian,	Laborer,	20	S.			Forest City,	Susquehanna,	Instantly killed by head being caught between top of car and cross beams while riding on car. Outside.
Oct. 2	Harry Nelson,	American,	Miner,	30	S.			Clinton,	Wayne,	Fatally injured by fall of coal at face of his chamber.
Nov. 16	Anthony Covey,	Italian,	Laborer,	46	M.	1	3	Forest City,	Susquehanna,	Instantly killed. His head came in contact with the revolving scrapers of conveyor line. Outside.
Dec. 18	James Dunlop,	American,	Laborer,	26	M.	1	1	Murray,	Sullivan,	Instantly killed by fall of roof while he and the miner were replacing a timber at face of chamber.

TABLE 5.—Non-fatal accidents inside and outside of mines

Date of accident	Name of Person	Nationality	Occupation	Age	Married or single	Name of Colliery	County	Nature and Cause of Accident in Brief
Jan. 3	Joseph Rizezenski, --	Polish, ----	Miner, -----	52	M.	Forest City, -----	Susquehanna, ----	Head and body severely injured by explosion of powder at face of chamber.
6	Henry Cartliss, ----	Hungarian, ----	Miner, -----	39	M.	O'Boyle-Foy, -----	Sullivan, -----	Left leg severely injured by fall of roof at face of chamber.
14	Gregory Planinski, --	Austrian, --	Miner, -----	43	M.	Clinton, -----	Wayne, -----	Skull fractured by fall of roof at face of chamber.
24	Charles Pelton, -----	American, --	Laborer, --	40	M.	Connell, -----	Sullivan, -----	Left leg fractured by fall of roof at face of chamber.
Feb. 25	{William Quinn, -----	Irish, -----	Miner, -----	30	S.	O'Boyle-Foy, -----	Sullivan, -----	{Thumb injured by fall of roof at face of chamber.
27	{Anthony Felbridge, --	Polish, ----	Laborer, --	23	S.	O'Boyle-Foy, -----	Sullivan, -----	{Face lacerated by flying piece of rock from a blast fired in face of chamber.
Mar. 23	Anthony Pounter, --	Austrian, --	Laborer, --	21	S.	Clinton, -----	Wayne, -----	Arm broken and head injured by fall of coal from pillar that was being robbed.
April 12	Tatfel Sucholeskie, --	Polish, ----	Laborer, --	31	M.	Forest City, -----	Susquehanna, ----	Back injured by fall of roof at face of gangway.
19	Daniel Filler, -----	American, --	Miner, -----	38	M.	Murray, -----	Sullivan, -----	Left arm broken by being caught between car and roof on gangway. He was riding on car when it jumped the track.
May 22	Edward Barnofsky, --	Polish, ----	Motor-helper, --	24	S.	Connell, -----	Sullivan, -----	Leg fractured by a boulder rolling on him while digging a trench. Outside.
June 3	Santo Peter, -----	Italian, ----	Laborer, -----	18	S.	Forest City, -----	Susquehanna, ----	Right leg broken by fall of roof at face of chamber.
July 24	Paul Rudyinski, ----	Polish, ----	Miner, -----	38	M.	Clinton, -----	Wayne, -----	Body injured by fall of rock at face of chamber.
	Netto Rinno, -----	Italian, ----	Laborer, -----	26	S.	O'Boyle-Foy, -----	Sullivan, -----	

July 25	Henry Griffith,	American, ..	Rope-riider,	24	M. O'Boyle-Foy,	Sullivan,	Small bone in right foot broken by cars on main haulage road.
Aug. 10	John Sepok,	Lithuanian,	Laborer,	64	S. Connell,	Sullivan,	Toe cut off by fall of roof at face of chamber.
22	Ladie Stashiutes,	Lithuanian,	Laborer,	21	S. Forest City,	Susquehanna,	Internally injured by falling into shaft a distance of 25 feet.
Sept. 8	W. J. Pontecost,	American, ..	Prop-Cutter,	69	M. Forest City,	Susquehanna,	Right arm broken by falling. He was loading a prop into a car when he slipped and fell. Outside.
Dec. 1	Beny Kosheski,	Polish,	Miner,	24	M. Connell,	Sullivan,	Three ribs broken by cars on gangway.
28	Stanley Petcavage,	Polish,	Miner,	39	M. Clinton,	Wayne,	Injured by flying piece of coal from a blast fired at face of chamber.
30	William Knight,	English,	Miner,	43	M. Forest City,	Susquehanna,	Left arm and head lacerated by explosion of powder at face of chamber.

CONDITION OF COLLIERIES

HILLSIDE COAL AND IRON COMPANY

Forest City.—Ventilation, drainage and condition as to safety, good.

HUDSON COAL COMPANY

Clinton.—Ventilation, drainage and condition as to safety, good.

CONNELL ANTHRACITE MINING COMPANY

Connell.—Ventilation, drainage and condition as to safety, good.

NORTHERN ANTHRACITE COAL COMPANY

Murray.—Ventilation, drainage and condition as to safety, good.

O'BOYLE-FOY ANTHRACITE COAL COMPANY

O'Boyle-Foy.—Ventilation, drainage and condition as to safety, good.

RANDALL AND SCHAAD BROTHERS ANTHRACITE COAL CO., LTD.

Randall and Schaad.—Ventilation, drainage and condition as to safety, good.

CLINTON FALLS COAL COMPANY

Clinton Falls.—Ventilation, drainage and condition as to safety, fair.

STILLWATER COAL COMPANY

Stillwater.—Ventilation fair; drainage and condition as to safety, good.

IMPROVEMENTS

HILLSIDE COAL AND IRON COMPANY

Forest City Colliery.—A new washery has been erected near the former location of the Clifford breaker, in order to prepare the coal in the Clifford culm dump.

Two batteries of return tubular boilers, 600 H. P., have been installed in No. 2 shaft fireroom. The old boiler house has been replaced by a new and more up-to-date corrugated iron building.

A pair of first-motion engines, 22 by 36 inches, installed on the surface near No. 2 shaft for operating the Dunmore slope, to replace a smaller pair of second-motion engines. A corrugated iron building surrounds these engines.

A new slope has been started on the Gray tract about one and one-half miles below Forest City Colliery. This will open up the second and third Dunmore vein in this territory and will be operated by a pair of first-motion engines located at the head of Oak street, Vandling. These engines have been installed and a corrugated iron house completed. A concrete subway has also been constructed accommodating two tracks underneath Oak street from a point about 150 feet above Main street to a point about 75 feet below Clinton street, or a total of about 600 feet.

Bottom Dunmore Vein.—A new motor road from the foot of Clifford shaft to the foot of Dunmore slope has been completed; Clifford shaft has been abandoned as a hoisting way and hereafter all the coal will be transported to the foot of Dunmore slope by motor and hoisted to the surface by way of No. 2 shaft.

A rock tunnel has been driven in a southerly direction through a fault south of the Dunmore slope, which will develop the 3rd Dunmore vein beyond the fault.

HUDSON COAL COMPANY

Clinton Colliery.—Inside: New haulage road driven about 2,000 feet and is in operation.

Outside: A washery, 62 by 80 feet, has been built and is nearly ready for operation. Two and one-half miles of poles and wiring completed for electrifying the colliery.

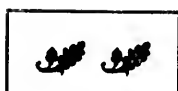
Twelve-inch pump hole 400 feet deep to Clifford vein.

NORTHERN ANTHRACITE COAL COMPANY

Murray.—Installed a 24-inch cast iron column pipe in air shaft, through which to pump mine water to the surface.

Also installed two piston pumps, capable of discharging 1,200 gallons per minute to the surface, with a piston travel of 137 strokes per minute.

Replaced 25 feet of old cribbing on the air shaft with new timber and backed it with a concrete wall 2 feet thick. All wooden buildings in the mine are also being replaced with concrete buildings.



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