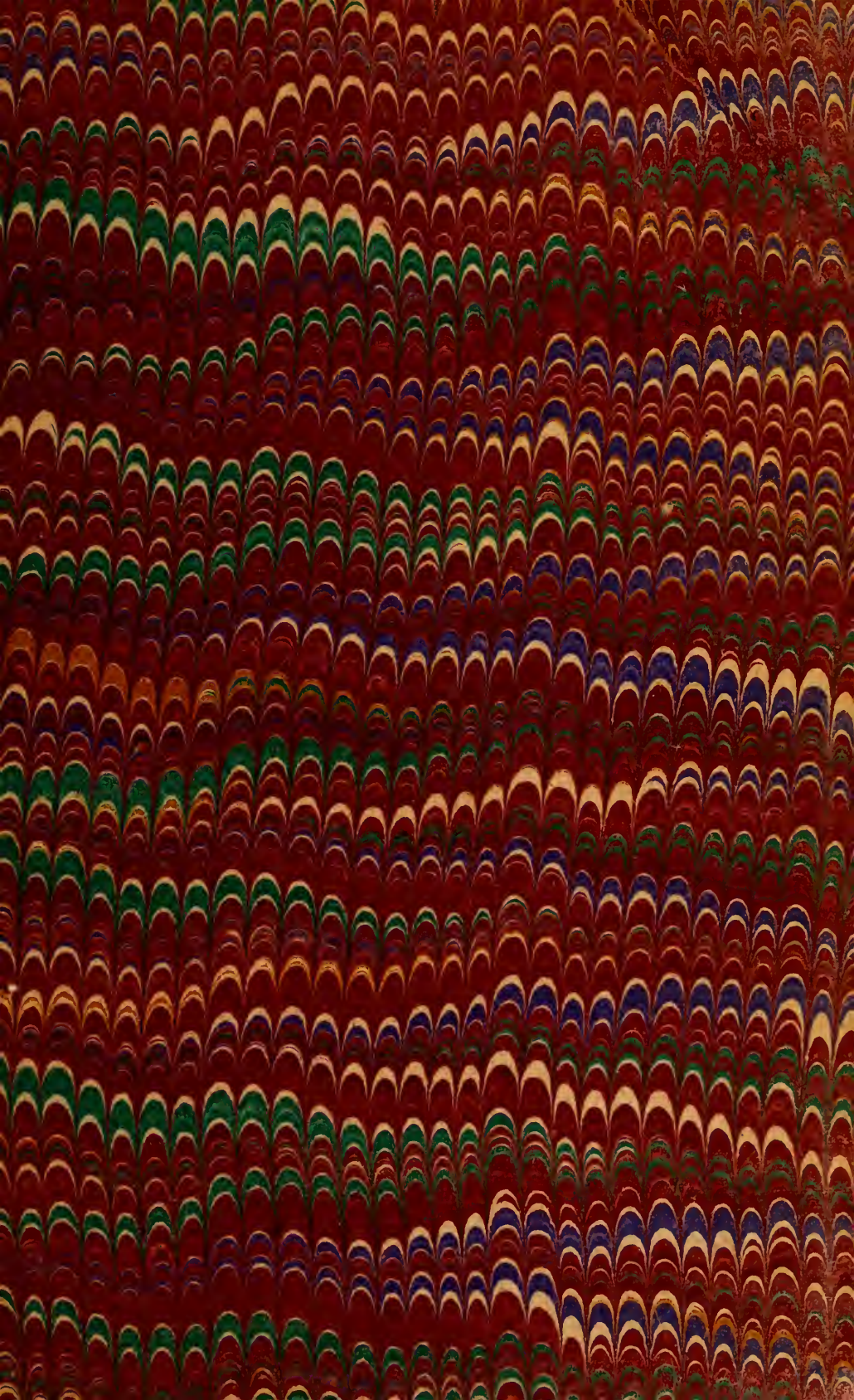


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REPORT

OF THE

BUREAU OF MINES

OF THE

Department of Internal Affairs of
Pennsylvania.

1900.

WM. STANLEY RAY,
STATE PRINTER OF PENNSYLVANIA.
1901.



REPORT

OF THE

BUREAU OF MINES.

COMMUNICATION.

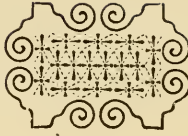
Department of Internal Affairs,
Harrisburg, May 1, 1901.

To His Excellency, William A. Stone, Governor of Pennsylvania:

Sir: In compliance with the requirements of the act of June 2, 1891, and that of May 15, 1893, relative to the Mine Inspectors' Reports of the Anthracite and Bituminous coal regions, I have the honor to present to you for transmission to the General Assembly the Report of the Bureau of Mines for the year 1900.

Very Respectfully,

JAMES W. LATTA,
Secretary of Internal Affairs.



LETTER OF TRANSMITTAL.

Bureau of Mines,
April 31, 1901.

Hon. James W. Latta, Secretary of Internal Affairs:

Sir: In accordance with Section 5 of an act establishing a Bureau of Mines in the Department of Internal Affairs, approved July 15, 1897, I have the honor to herewith submit the Report of the Bureau of Mines for the year ending December 31, 1900, together with the reports of the Anthracite and Bituminous Inspectors.

Very respectfully,

JAMES E. RODERICK,
Chief of Bureau of Mines.



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REPORT

OF THE

BUREAU OF MINES.

INTRODUCTION.

The year 1900 has been a prosperous one for all connected with the mining and transportation of coal, and particularly so to the operators who were prepared to meet all demands for an increased production. The demand for coal, both anthracite and bituminous, also for coke, has been unusually active during the past two years, but the mines were equal to the demand.

There has been no unusual friction between capital and labor in the Bituminous region, and the same can be said of the Anthracite region, except the unfortunate strike which commenced during the latter part of September and continued during October. This strike was the cause of the decrease in the production of anthracite coal from 54,034,224 tons in 1899, to 51,217,318 tons in 1900. Had the strike not occurred during the busy season, it would be fair to assume that the production of anthracite coal would have reached 56,000,000 tons.

The brisk demand for bituminous coal increased the production in 1900, which was 79,318,362 tons as against 73,066,943 in 1899, an increase of 6,251,419 tons.

The combined production of anthracite and bituminous coal reached a grand total of 130,535,680 tons, an increase over that of 1899 of 3,434,408. The production of coke during 1900 was 12,185,112 tons; for 1899 it was 12,192,570 tons, showing for 1900 a decrease of 7,458 tons. The combined production of anthracite and bituminous coal for 1900 was the largest ever made in this State, and it indicates that the Keystone State can meet any demand that it is likely to be made for the next twenty-five years at least.

While the area of anthracite coal is somewhat limited, the mines will be equal to a proportionate increase for years to come, but the production of bituminous coal is limited only by the demand and the capital invested.

In the production of 51,217,318 tons of anthracite coal, 411 lives were lost in and about the mines, and 1,057 persons were injured. This loss of life made 230 wives widows, and 525 children orphans.

The production of anthracite coal per life lost was 124,600 tons, while the production per non-fatal accident was 48,455 tons. The production of anthracite coal per life lost in 1899 was 117,211 tons, which shows an increase of production in favor of 1900 of 6,780 tons per life lost.

The number of employes in and about anthracite mines during 1900 was 143,826, and the number of fatalities per 1,000 persons employed was 2.86.

The number of employes in and about these mines during 1899 was 140,583 which shows an increase for 1900 of 3,243.

The number of fatalities for every 1,000 persons employed in 1899, was 3.28, which is a reduction per fatal accident of .42 per 1,000 employed in favor of 1900. In other words, if the ratio of 1899 were applied to 1900 the number of fatalities would have been 472 instead of 411, which shows that the record of lives lost in 1900 was, proportionately, 61 lives better than that of 1899. This proves that 1900 shows the best results in this respect of any year since the records have been kept in the anthracite region.

In the production of 79,318,362 tons of bituminous coal, 265 persons lost their lives and 584 were injured. This loss of life caused 145 wives to become widows and made 297 children orphans.

For each life lost in the bituminous mines 299,300 tons of coal were produced, and for each non-fatal accident there were 135,786 tons. The production of coal per life lost during 1899 was 283,167 tons, which shows an increase of 16,133 tons per fatal accident, in 1900.

The number of employes in and about the bituminous mines in 1900 was 109,018, an increase of 17,578 over that of 1899.

The number of fatal accidents per 1,000 employes in 1899 was 2.82, while in 1900 the ratio per fatal accident for each 1,000 employes was 2.43, which shows a reduction of .39 per 1,000 employed. While this reduction seems to be slight, it indicates that the saving of life in the bituminous region was 42 in 1900 as compared with 1899.

In my opinion all concerned can be congratulated on the good results in both the Anthracite and Bituminous regions, as the record of the Anthracite region shows the saving of 61 lives and of the Bituminous region 42, a total reduction in fatalities of 103, as compared with 1899.

In the Anthracite districts there were 9 accidents from explosions of gas, by which 25 lives were lost; 6 by falls of rock, by which 12 lives were lost; 1 in a shaft, by which 4 lost their lives; 2 by mine cars in which 5 persons were killed; 1 by fumes from a mine fire, by which 3 persons perished. There were accidents by a "rush of coal," by "premature explosion of a blast," and by "explosion of powder," by which 6 persons lost their lives. These 22 accidents were the cause of the loss of 55 lives.

In the Bituminous mines there were 4 accidents from explosions of gas by which 9 persons lost their lives; 6 from falls of rock, etc., which caused the death of 13 persons; 2 in shafts by which 5 persons lost their lives, and 1 by mine cars in which 2 persons lost their lives. These 13 accidents caused the death of 29 persons.

The total number of employes in and about the mines in this State during 1900 was 252,844; the total production of coal was 130,535,680 tons, which shows an average production per employe of 516 tons, a much higher average for the year than can be shown in any European country in which coal is mined.

While this great army of toilers was engaged in the mining and preparation of the coal for market, 676 of them met their deaths in various ways, which made widows of 375 wives and orphans of 822 children, to be dependent upon friends or the charity of the public.

For every 1,000 persons employed 2.67 lost their lives and 6.48 were injured. After a careful examination of the reports of all the accidents in and about the mines, I have no hesitancy in asserting that at least 50 per cent. of them could have been averted had the victims and their fellow workmen taken necessary precautions.

MINE INSPECTIONS.

The inspections of the mines have been conducted in a thorough manner as shown by the records of this office, and on the whole their condition is satisfactory with respect to the health and safety of the employes, and the mining of coal is conducted in a satisfactory manner with a view both to the safety of the employes and of the best possible yield per acre. In my opinion, the condition of the mines in this State will compare favorably with that of any in the world which are similarly situated.

While accidents in and about the Anthracite mines appear to be numerous, this can be attributed to the increased risk and danger connected with the mining of coal. The mines in the Bituminous region of this State are, all things considered, as free from accidents as any mines in this or any other country.

There were 1,340 inspections made of the anthracite mines, and

investigations were made of all the fatal and the serious non-fatal accidents. There were 1,720 inspections made of the Bituminous mines, and all of the fatal and serious non-fatal accidents were investigated, showing that the inspectors were diligent in the discharge of their duties.

• Some of the mines were inspected as frequently as once a month, while others were inspected but once during the year, but all were inspected according to their needs. It is possible that in isolated cases men were not supplied with a sufficient volume of air, but these cases were few as compared with the majority of the employes, who were supplied with adequate ventilation; this must be carefully looked after, as at least 85 per cent. of the persons employed in the Anthracite, and about 70 per cent. of those in the Bituminous mines are employed in mines generating explosive gas, consequently ventilation must be ample and properly conducted, otherwise the mines could not be worked.

Together with inspecting mines, investigating accidents, attending inquests, attending court in cases of violations of the mine laws, there are other details to be looked after, which are known only to those directly interested.

Under the provisions of the act of Assembly, approved May 2, 1899, the Department of Internal Affairs is allotted each year 2,000 copies of the reports of the Bureau of Mines. In the anthracite coal region there are 82 general and assistant superintendents, and 1,634 mine foremen and assistants. In the Bituminous region there are 598 general and assistant superintendents, and 1,170 mine foremen and assistants, making an aggregate of 3,484 persons directly in charge of mining operations in the coal fields of Pennsylvania. In addition to this large number there are mining engineers in charge of collieries, and all of these, together with the superintendents and foremen, should be supplied with reports of the Bureau of Mines each year. It seems to be eminently proper that the operators should also receive copies, and there are many thousands of intelligent miners who would appreciate being supplied with these reports. The demand from libraries and institutions that have schools of mining engineering connected with them, is very great, and requests are constantly being received from the chiefs of the mining departments of other states and other countries for these reports. England, Scotland, Wales, France, Germany, Belgium, and even far away Australia and New Zealand have made requests. The newspapers of the State also make frequent applications, so that the 2,000 copies now received are entirely inadequate to supply the demand, and I most respectfully urge that the allotment be increased to 5,000.

Under the act of February 20, 1895, provision was made that the laws relating to the mining of coal should be printed annually in the report of the Bureau of Mines, but as frequent applications are

received from persons who desire copies of the laws pertaining to the Anthracite region who do not care for those relating to the Bituminous region, or visa versa, and as there are other requests from persons who wish the report merely for the statistical matter it contains, it would be better in my opinion, and more economical, to have the laws relating to the mining of coal printed in a separate pamphlet. The expense would be exceedingly small, and the decrease in the cost of printing and binding the report, with the laws omitted, would almost cover the cost of 3,000 additional copies of the report. If the Legislature should not deem it advisable to have the laws published separately in pamphlet form, I would respectfully recommend that the report be published in two volumes, the Anthracite report with the laws pertaining thereto in one volume, and the Bituminous report with the laws pertaining thereto in another, as the report as now published is very cumbersome and unwieldy.

Section 2 of Article 8 of the Anthracite Mine Law, approved June 2, 1891, provides as follows:

“Certificates of qualification to mine foremen and assistant mine foremen shall be granted by the Secretary of Internal Affairs to every applicant who may be reported by the examiners, as hereinafter provided, as having passed a satisfactory examination and as having given satisfactory evidence of at least five year’s practical experience as a miner, and of good conduct, capability and sobriety. The certificate shall be in manner and form as shall be prescribed by the Secretary of Internal Affairs, and a record of all certificates issued shall be kept in his Department.”

Section 2 of Article 15 of the Bituminous Mine Law referring to the same subject reads as follows:

“The said Board shall be empowered to grant certificates of competency of two grades, namely, certificates of the first grade to persons who have had experience in mines generating explosive gases, and who shall have the necessary qualification to fulfill the duties of mine foremen in such mines; and certificates of second grade to persons who give satisfactory evidence of their ability to act as mine foremen in mines not generating explosive gases.”

I would most urgently recommend that the foregoing section of the Bituminous law be amended so as to conform with the Anthracite law regarding the issuance of certificates of qualification to mine foremen from the office of the Secretary of Internal Affairs, as frequent applications are made to this Bureau for duplicate certificates by persons who have been granted certificates of qualification as mine foremen in the Bituminous region, which have been lost or mislaid, but we are unable to furnish them as there are no records kept in this office of the Bituminous certificates as there are of the Anthracite

ones. Examining boards are frequently changed, and by reason of deaths, removals, etc., of the Inspectors, there have never been any connected records kept of the certificates issued to mine foremen in the bituminous region.

I would respectfully recommend that the "Act establishing a Bureau of Mines in the Department of Internal Affairs of Pennsylvania, defining its purpose and authority, providing for the appointment of a Chief of said Bureau and Assistant, and fixing their salaries and expenses," approved July 15, 1897, should be amended as follows in Sections 7 and 9:

Section 7, which provides that "The Chief of the Bureau of Mines shall at all times be accountable to the Secretary of Internal Affairs for the faithful discharge of the duties imposed on him by law, in the administration of his office, and the rules and regulations pertaining to said Bureau shall be subjected to the approval of the Secretary of Internal Affairs, who is hereby empowered to appoint an assistant to the Chief of the Bureau," should, after the word Bureau, be amended to read, "who shall have knowledge of mining engineering, at a salary of eighteen hundred dollars per annum, two clerks, at a salary of fourteen hundred dollars each per annum, a stenographer and typewriter, at a salary of one thousand dollars per annum, and a messenger at a salary of three hundred dollars per annum; and provided further, that the salaries of the Chief of the Bureau of Mines, his assistants, clerk, stenographer and messenger shall be paid out of the State Treasury in like manner as other employes of the Department of Internal Affairs are now paid."

According to Section 7, the Bureau of Mines is entitled to the services of only one assistant and messenger; yet the fact is that the Bureau has been compelled to have more help to keep up with the work, and an additional clerk and stenographer have been supplied by the Department of Internal Affairs, which in fact is without any authority of law.

Section 9 provides "That the Mine Inspectors of each district in this State shall within six months after the final passage and approval of this act deposit in the Bureau of Mines an accurate map or plan of such coal mine, which may be on tracing muslin or sun print, drawn to a prescribed scale, which map or plan shall show the actual location of all openings, excavations, shafts, tunnels, slopes, planes, main headings, cross headings and rooms or working places in each strata operated; pumps, fans or other ventilation apparatus, the entire course and direction of air currents, the relation and proximity of the workings of such coal mines to all other adjoining mines or coal lands, and the relative elevation of all tunnels and headings, and of the face of working places near to or approaching boundary lines of adjacent mines; and on or before the close of each calendar

year transmit to the Chief of the Bureau of Mines a supplemental map or plan showing all excavations, changes and additions made in such mine during the year, drawn to the scale as the first mentioned map or plan. All such maps or plans to be and remain in the Bureau of Mines as a part of the records of said office."

I would respectfully ask that this section be amended to read:

"At the written request of the Chief of the Bureau of Mines the Inspector of each district shall deposit with him within thirty days from date of demand an accurate map or plan of any coal mine or colliery required, which must be no tracing cloth drawn to a scale of not more than one hundred feet, and not less than four hundred feet to the inch, said map or plan shall accurately show the tidal elevations of the mouths of all shafts, tunnels, slopes, planes, main headings or gangways, cross headings, rooms or breasts in each strata operated, or that has been operated; all the sumps, pumps and fans, or other ventilating appliances, the course and direction of main air currents, the relation and proximity of the workings of such coal mines to all adjoining coal mines or coal lands, and it must also show the tidal elevations of the bottom of all shafts and slopes, the main headings or gangways, and at the face of each working place near to or approaching boundary lines of adjacent mines or coal lands; and on or before the close of each calendar year transmit to the Chief of the Bureau of Mines a supplemental map or plan, showing all excavations changes and additions made in each mine during the year, all the tidal elevations as required in preceding part of section. All drawn to the same scale as the first mentioned map or plan, giving such maps or plans to be and remain in the Bureau of Mines as a part of the records of said office."

I would respectfully ask for the foregoing amendment, as said original section of the law creating the Bureau of Mines provides that copies of the maps of all the coal mines in this State shall be deposited in this office, and as there are several thousand of such maps in this State, the greater number of which would be of no use to the Bureau, even if there were room to store them, and enough money appropriated to have copies made. To comply with this section the Inspectors would be either obliged to make tracings themselves or pay for having them made, which evidently was not the intention of the act. If the Inspectors were to do this work themselves, they would have little or no time to attend to the most important part of their duty, viz: making inspections. As it is, the Bureau of Mines has not been furnished with the maps and information as contemplated by the act. The assistant asked for in Section 7 should, besides being a mining engineer, be also a draughtsman, who could copy maps and supplemental maps from the ones deposited in this office by the district inspectors. The necessity for

having complete and accurate maps and plans of abandoned mines, and those about to be abandoned, is too well known to mining men to require more than mention here. Suffice it to say that having this data within easy reach might be the means of saving life and property in the future. As an example of the foregoing, let me say that in the southern Anthracite coal fields there are to-day no less than two hundred worked out or abandoned mines below water level. Of many of these the records are meagre and no accurate or even fairly accurate maps of them are in existence. Had good maps been in existence there would have been no accidents such as those at the Lytle, Kaska William, Jeansville, Laurel Hill and Hacklebarney collieries, wherein a large number of lives were lost through floods of water. The time for getting more information in regard to the old abandoned workings has gone by and those who operated and worked in them have passed away, and the information they had has passed with them.

In many cases no data is obtainable from which to determine the depths of shafts, length of slopes, the number and length of their gangways. Mining operation in consequence of the non-existence of accurate maps of these places, especially in the southern coal field, will be attended with greater danger to human life, and increased cost of mining coal.

In my report as Inspector of Mines for the Fifth Anthracite District for the year 1895, I called attention to the wide difference between the old maps of the Buck Mountain Coal Company and the recent map made by the engineers of the Cross Creek Coal Company, under the direction of Edgar Kudlich, M. E., some years after when the property had changed hands and became a part of the Coxe property. The latter surveys and test drill holes demonstrated that the shape of the basins had formerly been entirely mistaken, and a large body of coal existed where none was supposed to be. The later survey also demonstrated practically the total inaccuracy of the original maps. The gangways approaching each other had been stopped through fear that they were getting too close, whereas in reality the faces were a great distance from each other. Hundreds of thousands of tons have already been mined, and I am informed that a million more tons will be mined before the basins are exhausted, which would have been lost had not the genius and skill of the late Eckley B. Coxe and his knowledge of the topography of the country convinced him that valuable deposits of coal were still there. He at once ordered test drill holes, and a resurvey to be made and was amply rewarded by the results.

I would therefore suggest that the following be added to the act Creating the Bureau of Mines:

“Where any Anthracite or Bituminous coal mine or colliery is temporarily abandoned, worked out, or about to be finally aban-

done, the owner or operator of such coal mine or colliery shall have the maps and plans thereof extended to include all excavations as far as practicable, and such portions thereof as have been worked to or near the boundary lines of adjoining properties; or any part of the workings which is intended to be allowed to fill with water must be surveyed in duplicate, and such surveys must practically agree, and certified copies of the same made on tracing cloth shall be filed with the Chief of the Bureau of Mines, which tracing shall be a part of the records of said Bureau. The map or plan shall be drawn to a scale of not more than one hundred feet or not less than four hundred feet to the inch, and shall exhibit all the workings and excavations in each and every seam of coal, and the tunnels and passages connecting with such workings or excavations. There shall also be shown on each map the general inclination of the strata, with any material deflection therein in said workings or excavations, and shall also have the tidal elevation of the top and bottom of each shaft and slope, of tunnels, planes and gangways or main headings, and of any other point in the mine or on the surface, when such shall be deemed necessary by the Chief of the Bureau of Mines. The map or plan shall show the number of the last survey station and the date of each survey in all gangways or main headings and in the most advanced workings. It shall also accurately show the boundary lines of the lands of said coal mine or colliery, and the proximity of the workings thereto; and in case any mine contains water dammed up in any part thereof, it shall be the duty of the owner, operator or superintendent to cause the true location of said dam to be accurately marked on the said map or plan, together with the tidal elevation, inclination of the strata and area of said workings containing water. If it should be shown that the owner, operator or superintendent has neglected or failed to comply with the foregoing section, the party thus offending shall be guilty of a misdemeanor and upon conviction thereof shall be punished by a fine not exceeding twenty-five hundred dollars or imprisonment not exceeding three months, or both at the discretion of the court.

“Or, if it shall be shown that the owner, operator, superintendent, engineer or surveyor who has knowingly or designedly caused or allowed such map or plan of any Anthracite or Bituminous mine, abandoned for any cause, when furnished to the Bureau of Mines, to be inaccurate or false, such owner, operator, superintendent, engineer or surveyor thus offending shall be guilty of a misdemeanor, and upon conviction thereof shall be punished by a fine not exceeding five thousand dollars, or imprisonment not exceeding six months, or both, at the discretion of the court.

OVERWINDING DEVICE FOR HOISTING ENGINES.

The many accidents which have occurred from overwinding in hoisting shafts and slopes has demonstrated the necessity for attaching some simple and efficient overwinding device to hoisting engines, and many such have been invented, practically all of which have failed from want of quickness of action. The one illustrated, patented by Messrs. Morris Williams and F. H. Kohlbraker, is being quite extensively used by the Pennsylvania and Reading Companies. It is operated on the general principal of putting on the brake and cutting off the steam supply at the cylinders (not at the throttle) by the release of a weighted lever operated by a positive tripping arm attached to the shaft guides and released by the cage rising above a predetermined height. The method of operation is clearly shown by the diagram, in which Figure 1 shows the device set with the cage at its regular landing position, and Figure 2 the device in operation with the steam cut off and the brake put on. "A" is a tripping lever with its arm extending over the guide in position to be raised by the cage when the latter is raised above its proper height, the raising of "A" releases the catch yoke "B" by moving the roller "C" off the end of its track, "B" dropping forward slackens the wire connection and permits the weighted lever "D" to drop back, releasing the weighted lever "E" which is normally supported by its end resting on a roller on "D," this lever "E" in dropping closes the valve "G" located in the steam pipe as close as possible to the cylinder, by moving the arm "F," the action being accelerated by the steam pressure acting against "G" and by the same motion through the arm "H" pulls the brake lever "I" and puts on the brake, stopping the engine promptly; where a steam brake is in use the arm "H" moves the valve and puts on the brakes in a similar manner.

Tests with this device at the Luke Fidler shaft of the Mineral Railroad and Mining Co., Shamokin, Pa., showed that it is capable of stopping a pair of 32"x48" engines from full speed of 75 revolutions per minute in $1\frac{1}{2}$ revolutions or 1.2-10 seconds, and on starting up from the top, which is the way 95 per cent. of the over-hoists occur (viz. by the engineer forgetting to reverse his engine), the cage was stopped within less than two feet above the tripping lever, the action of the apparatus being practically instantaneous.

The efficiency of the apparatus is in a large measure due to the provision for cutting off the steam close to the cylinders, eliminating the effect of the steam contained in the bow pipes between the throttle and the cylinders, which is often sufficient in volume to move the engines two or three revolutions.

Besides its automatic feature, the apparatus can be put into action by the engineer pulling on lever "D" in case of accident to the throttle or link connections.

TABLE A—Classification of employees who were killed or fatally injured in and about the mines of the Anthracite regions for the years 1881-1890.

Years.	Inside Employees.										Outside Employees.									
	Mine foremen.	Fire bosses.	Miners.	Miners' laborers.	Drivers and runners.	Poor boys, etc.	All others.	Total inside.	Outside foremen.	Blacksmiths and carpenters.	Engineers and firemen.	State pickers.	All others.	Total outside.	Grand total.					
1881.	.....	5	114	70	29	10	18	246	.....	1	2	12	12	27	273			
1882.	3	6	135	56	39	11	18	268	.....	.....	3	11	10	24	292			
1883.	2	1	136	67	47	18	26	297	.....	7	11	7	1	26	323				
1884.	1	1	132	81	28	13	30	286	.....	4	9	12	6	31	317				
1885.	.....	3	160	86	16	6	28	299	.....	6	7	13	8	34	333			
1886.	2	2	131	68	18	6	18	245	1	1	6	9	16	32	278					
1887.	1	5	102	57	23	10	30	228	3	3	3	9	13	31	279					
1888.	1	2	169	87	33	9	31	332	.....	1	3	6	22	32	364				
1889.	4	2	194	79	39	10	20	348	.....	1	9	10	16	37	385				
1890.	1	5	146	95	37	8	25	318	1	13	8	12	26	60	378					
Grand total.	13	32	1,419	746	309	101	245	2,867	6	37	61	101	180	395	3,292					

By referring to Table A, it will be seen that 2,867 persons lost their lives inside and 335 outside of the Anthracite mines during the ten years ending December 31, 1890. In other words, 89.54 per cent. lost their lives inside, while 10.46 per cent. lost their lives outside the mines.

Those who lost their lives inside were employed as follows: Foremen and fire bosses 47, or 1.60 per cent.; miners 1,419, or 49.50 per cent.; miners' laborers 746, or 26.02 per cent.; drivers and runners 309, or 10.77 per cent.; door boys 101, or 3.52 per cent.; and all other employes 245, or 8.55 per cent.

The persons who lost their lives on the surface were employed as follows: Foremen, 6, or 1.79 per cent.; blacksmiths and carpenters 37, or 11.04 per cent.; engineers and firemen 61, or 18.21 per cent.; slate pickers 101, or 30.15 per cent.; all other employes 130, or 38.80 per cent.

TABLE B—Classification of employees who were killed or fatally injured in and about the mines of the Anthracite regions for the ten years 1891-1900.

Years.	Inside Employees.										Outside Employees.						Grand total.
	Mine foremen.	Fire bosses.	Miners.	Miners' laborers.	Drivers and runners.	Door boys, etc.	All others.	Total inside.	Outside foremen.	Blacksmiths and carpenters.	Engineers and firemen.	State pickers.	All others.	Total outside.			
1891, .....	.....	.....	180	119	38	7	37	387	.....	2	3	11	25	41	438
1892,	3	4	189	120	39	8	16	379	.....	1	4	7	27	39	418	
1893,	1	1	195	108	47	12	24	390	2	2	.....	11	41	56	446	
1894, .....	.....	.....	218	91	38	5	32	385	.....	.....	4	12	45	61	446
1895,	5	1	179	115	33	7	28	368	.....	3	4	13	38	58	426	
1896,	3	4	204	134	46	10	48	419	.....	3	4	12	34	53	502	
1897,	3	2	210	99	26	4	43	387	.....	4	2	6	25	37	434	
1898,	5	4	176	124	33	6	22	370	1	.....	4	13	23	41	411	
1899,	2	2	199	114	39	18	22	396	1	2	6	10	46	65	461		
1900, .....	.....	5	184	95	33	8	27	352	.....	2	2	9	46	59	411
Grand total,	25	29	1,965	1,119	372	85	299	3,864	4	19	33	104	350	510	4,374		

By referring to Table B for the period from 1891 to 1900, it will be seen that 3,864 persons lost their lives inside and 510 outside of the Anthracite mines. The percentage of lives lost inside was 88.34, and outside 11.66.

The number, occupations and percentage of those who lost their lives inside were as follows: Foremen and fire bosses 54, or 1.39 per cent.; miners, 1,935, or 50.78 per cent.; miners' laborers 1,119, or 28.96 per cent.; drivers and runners 372, or 9.62 per cent.; door boys 85, or 2.19 per cent.; all other employes 299, or 7.74 per cent.

Those on the surface were as follows: Foremen 4, or .8 per cent.; blacksmiths and carpenters 19, or 3.73 per cent.; engineers and firemen 33, or 6.47 per cent.; slate pickers 104, or 20.39 per cent.; all other employes 350, or 68.60 per cent.

TABLE C—Classification of employees who were killed or fatally injured in and about the Bituminous mines for the years 1891 to 1900, inclusive.

Years.	Inside Employees.								Outside Employees.					Grand total.
	Mine foremen.	Miners.	Laborers.	Company men.	Drivers and runners.	Door boys and helpers.	Total inside.	Blacksmiths and carpenters.	Engineers and firemen.	Company men.	Total outside.			
1891.	3	213	6	6	10	4	238	.....	.....	.....	.....	.....	238
1892.	1	100	9	5	11	4	130	.....	.....	.....	.....	.....	133
1893.	1	114	7	2	6	1	131	.....	.....	.....	.....	.....	131
1894.	.....	89	5	4	12	1	111	.....	.....	.....	.....	.....	113
1895.	3	120	5	5	20	1	154	.....	.....	.....	.....	.....	157
1896.	1	132	23	12	16	1	185	.....	.....	.....	.....	.....	193
1897.	3	117	10	7	7	1	145	.....	.....	.....	.....	.....	148
1898.	.....	135	20	29	11	3	198	.....	.....	.....	.....	.....	200
1899.	2	174	12	48	15	.....	251	.....	.....	.....	.....	.....	255
1900.	4	200	9	15	20	3	251	.....	.....	.....	.....	.....	264
Grand total.	18	1,264	106	133	128	15	1,794	1	18	19	38	1,832		

It will be seen by referring to Table C that 1,794 persons lost their lives inside the Bituminous mines and 38 on the surface in the ten years from 1891 to 1900. The occupations and percentage of those who lost their lives inside the mines were as follows: Mine foremen 8, or 1 per cent.; miners 1,500, or 83.61 per cent.; company men 133, or 7.97 per cent.; drivers and runners 128, or 7.73 per cent.; door boys 15, or 1 per cent. The total loss of life inside the Bituminous mines was 97.92 per cent., while on the surface it was 2.08 per cent.

To make an intelligent comparison of the percentages of the occupations of persons who lost their lives inside of the Anthracite and Bituminous mines, the following table is here inserted:

	Foremen.	Miners.	Drivers and runners.	Door boys.	All others.
Anthracite,	1.39	79.74	9.62	2.19	7.74
Bituminous,	1.00	83.61	7.73	1.00	7.97

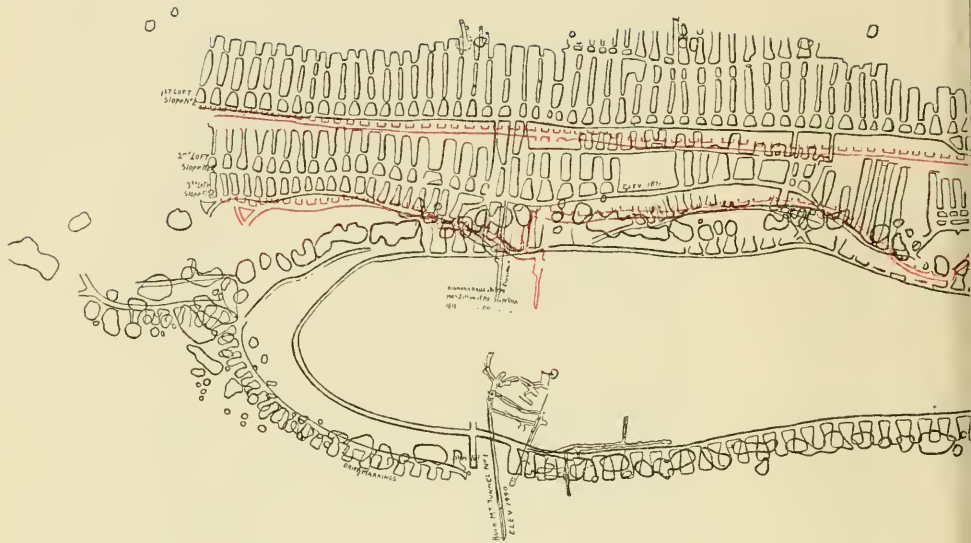
A comparison of the death rate outside of the mines shows that 510, or 11.66 per cent. lost their lives outside the anthracite mines, while only 38, or 2.08 per cent. of fatalities occurred on the surface at the Bituminous mines.

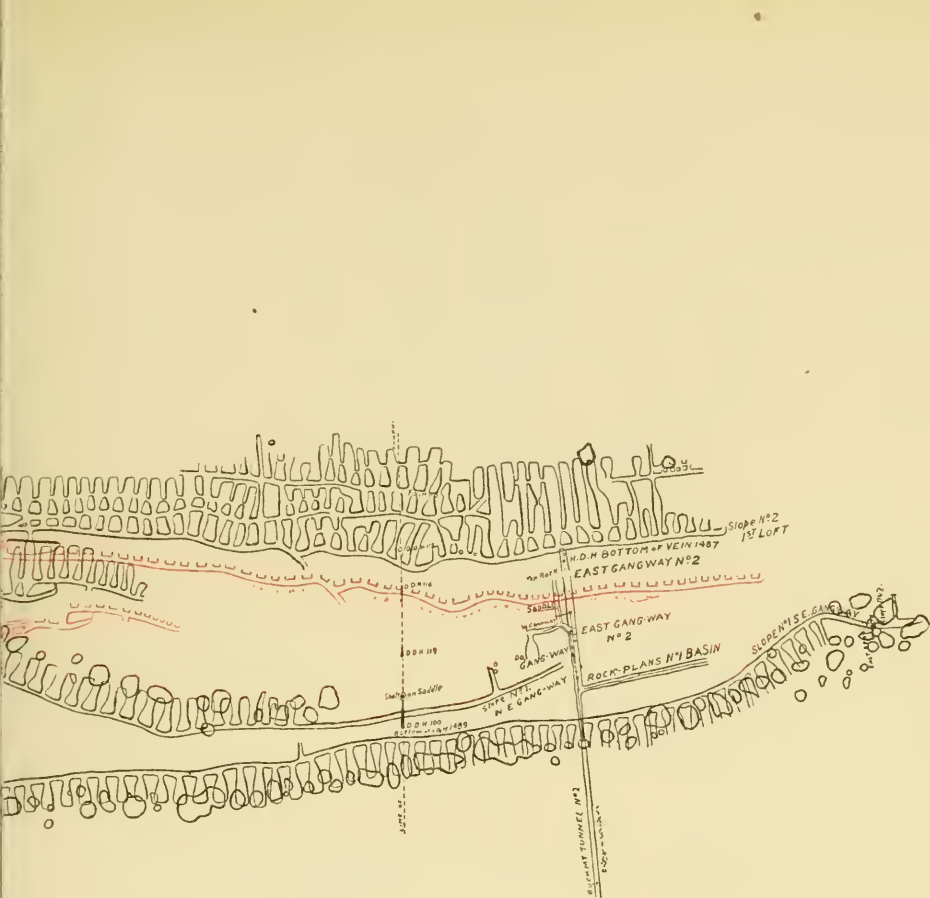
TABLE D.—Showing number of employes inside and outside of mines, number of fatalities inside and outside, number of miners and miners' laborers employed, and number of fatalities in both classes, percentage of fatalities amongst employes inside and outside; average number of days worked in each year and average production of coal per day, from anthracite mines, for the years 1881 to 1890, inclusive.

Years.	Number of persons employed inside of mines.	Number of persons employed outside of mines.	Number of employes inside and outside of mines.	Percentage of employes inside of mines.	Percentage of employes outside of mines.	Number of employes per 1,000 tons of coal produced.	Number of employes per 1,000 tons of coal produced inside of mines.	Number of employes per 1,000 tons of coal produced outside of mines.	Percentage of fatalities inside of mines.	Percentage of fatalities outside of mines.	Total number of fatalities.	Number of miners and miners' laborers employed.	Number of miners and miners' laborers killed.	Percentage of miners and miners' laborers killed.	Number of persons employed inside and outside of mines.	Percentage of persons employed inside of mines.	Percentage of persons employed outside of mines.	Average number of days worked in breaker.	Average production of coal in tons per day.
1881	45,619	663	46,282	129,102	22,809	114	4,9950	16,726	70	4,1851	39,535	184	4,6541	30,412	89	4,1851	39,535	221	136,696
1882	50,764	654	51,418	123,469	22,843	135	5,9069	15,229	56	3,6040	33,072	191	5,0168	31,486	41	3,6040	33,072	218	141,536
1883	56,268	590	56,858	121,131	25,319	136	5,3774	16,879	67	3,9693	42,198	203	4,8959	33,153	49	3,9693	42,198	222	149,562
1884	61,922	526	62,448	118,850	27,100	132	4,8708	19,606	81	4,1314	46,706	213	4,5604	39,151	46	4,1314	46,706	192	169,590
1885	62,901	532	63,433	115,586	28,305	160	5,6327	20,123	86	4,2726	48,433	216	5,0791	37,419	42	4,2726	48,433	204	164,318
1886	63,900	432	64,332	144,341	25,970	131	5,0442	17,068	68	3,9840	43,083	199	4,6238	39,114	43	3,9840	43,083	196	173,696
1887	67,716	548	68,264	137,540	29,568	102	8,4542	17,548	57	3,2539	47,106	159	3,3965	38,801	46	3,2539	47,106	208	178,544
1888	73,689	529	74,218	131,351	34,547	169	4,8948	21,952	87	3,9642	46,549	256	5,4396	43,590	47	3,9642	46,549	218	191,002
1889	74,178	526	74,704	118,589	30,504	194	6,3538	19,368	79	4,0788	49,872	273	5,4740	45,486	58	4,0788	49,872	197	198,049
1890	73,613	544	74,157	124,115	28,936	136	5,0456	18,620	95	5,1020	47,556	241	5,0677	46,306	55	5,1020	47,556	210	199,901
Total and average, ..	62,510	564	63,074	125,907	27,589	1,409	5,1595	18,312	746	4,0005	44,960	2,165	4,8178	33,681	466	4,0005	44,960	209	169,394

TABLE D.—Continued—For the Years 1891 to 1900, Inclusive.

Years.	Number of persons employed inside of mines.	Number tons of coal produced per employe inside of mines.	Number of lives lost inside.	Percentage of lives lost per 1,000 employes inside.	Number tons of coal produced per life lost inside.	Number of miners employed.	Number of miners' laborers employed.	Percentage of miners killed or fatally injured per 1,000 employed.	Number of miners' laborers killed or fatally injured.	Percentage of miners' laborers killed or fatally injured per 1,000 employed.	Total number of miners and miners' laborers employed.	Number of miners and miners' laborers killed.	Percentage of miners and miners' laborers killed per 1,000 employes.	Number of persons employed outside of mines.	Number of lives lost outside of mines.	Number of lives lost per 1,000 employes outside of mines.	Average number of days worked in breaker.	Average production of coal in tons per day worked in breaker.
1891,	76,569	119,113	372	4.8583	139,113	39,552	19,590	5.8915	119	6.0745	59,142	299	5.9632	46,739	56	1.1898	213	298,979
1892,	81,953	126,669	361	4.4049	126,669	39,779	22,110	6.1438	120	5.4274	52,889	309	5.8422	48,212	57	1.1791	202	225,312
1893,	86,387	121,595	388	4.4914	121,595	32,881	22,853	5.3934	108	4.7258	55,734	303	5.2571	51,682	68	1.3002	202	233,562
1894,	87,901	127,876	368	4.1865	127,876	33,257	23,942	6.5353	91	3.8008	57,299	309	5.3910	52,038	78	1.5181	175	200,035
1895,	89,059	144,612	354	3.9749	144,612	34,553	24,638	5.1894	115	4.6876	59,191	294	4.9671	54,431	67	1.2327	187	273,823
1896,	94,978	111,800	436	4.5273	111,800	37,063	26,350	5.5130	134	5.0853	63,553	338	5.3352	55,220	72	1.3015	170	282,790
1897,	95,812	126,202	477	3.8826	126,202	36,932	27,277	5.6881	99	3.6294	64,209	309	4.6566	53,745	51	1.9006	151	310,909
1898,	91,171	130,958	372	3.9587	130,958	36,377	24,060	4.8354	124	5.1538	60,437	300	4.9638	51,242	51	1.9852	151	312,219
1899,	92,223	138,905	389	4.2180	138,905	36,421	23,946	5.4638	114	4.7697	60,367	313	5.1849	48,433	72	1.4866	179	301,867
1900,	94,140	143,065	358	4.2548	143,065	36,832	24,613	4.9844	95	3.8598	61,445	279	4.5406	49,676	53	1.0669	176	291,007
Total and average...	89,019	139,246	3,752	4.2758	139,246	34,269	23,898	5.6161	1,119	4.7185	58,297	3,053	5.2101	51,152	625	1.2170	181	269,960



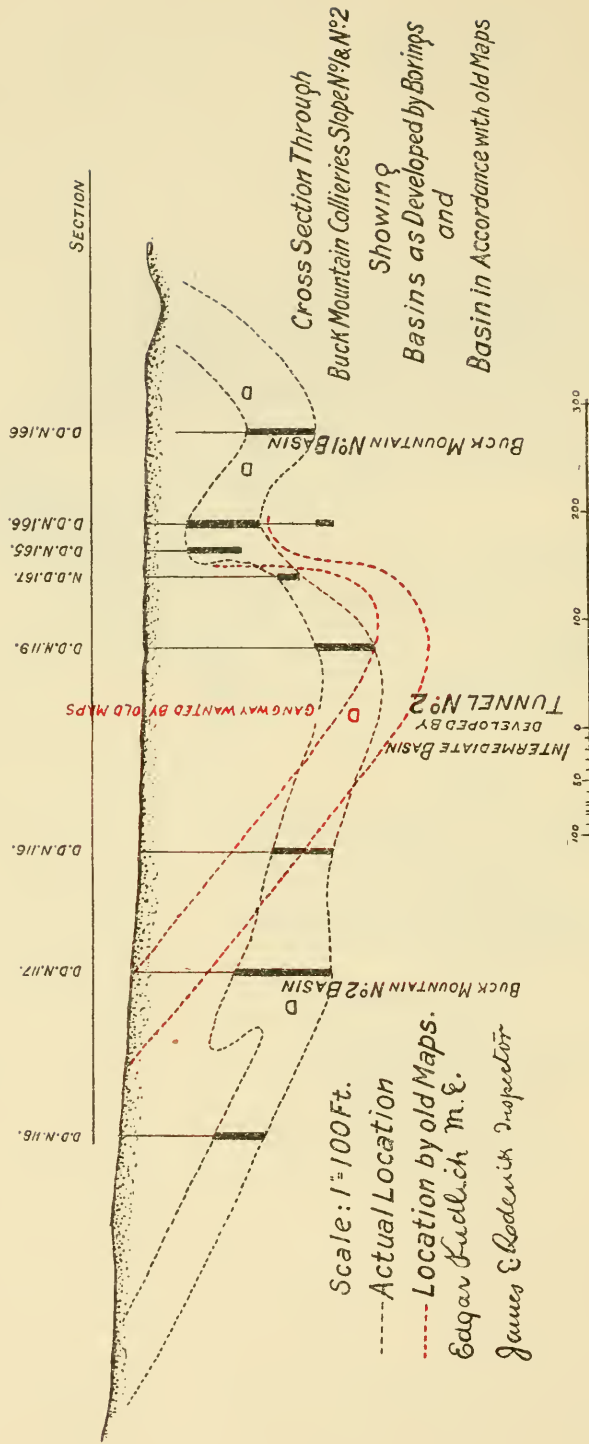


Map of
 Buck Mountain Slopes Nos. 1 & 2
 showing the workings according
 to Dymor's old Map and the cor-
 rected location

Scales are below
 Dymor's location in red.
 Corrected location in black.

Edgar Koublick, M.E.
 James E. Dyerich, Inspector





*Cross Section Through
Buck Mountain Collieries Slope No. 2
Showing
Basins as Developed by Borings
and
Basin in Accordance with old Maps*

GANGWAY WANTED BY OLD MAPS
*TUNNEL No. 2
DEVELOPED BY
INTERMEDIATE BASIN*

*Scale: 1" = 100 Ft.
--- Actual Location
--- Location by old Maps.
Edgar Fuchlich M.E.
James E. Radenick Inspector*

By referring to Table D, it will be seen that during the year 1881, the total number of employes inside the Anthracite mines was 45,619, of which 39,535, or 86.66 per cent. were miners and miners' laborers.

The same table shows that by 1890 the total number of employes inside the mines had increased to 76,613. Of this number 47,556, or 62.07 per cent. were miners and miners' laborers.

The same table also shows that during the year 1900 there were 84,140 employes inside the mines. Of this number there were 61,445, or 73.05 per cent. miners and their laborers.

The average number of inside employes for each year from 1881 to 1890 was 63,510, of which 44,906, or 70.71 per cent. were miners and miners' laborers. The average number of inside employes for the decade 1891 to 1900 was 88,019, of which 58,206, or 66.13 per cent. were miners and miners' laborers.

The increase in the number of inside employes from 1891 to 1900, over that from 1881 to 1890 was 24,509, or 38.59 per cent. It will be seen that the increase in the number of miners and miners' laborers has not kept pace proportionately with the increase of other inside employes, as if it had, the average number of miners and miners' laborers for the years from 1891 to 1900 would have been 62,238 instead of 58,206, which shows a loss of 4,032. This decrease in miners and miners laborers, the actual producers of coal, indicates that the 4,032 have been added to the army of men who perform what is termed "dead work."

Table D also shows that the average number of tons of coal produced per life lost inside the mines for the year 1890 was 125,907, while the average number of tons produced per life lost inside during 1900 was 139,246, an average increase of 13,339 tons per life lost inside. This increased production per life lost inside the mines is a better indication than anything I can say, as any person connected with the mining of coal is aware, that the dangers pertaining to that work are increasing each year.

By referring to Table D it will also be seen that the production of anthracite coal per average number of days worked by the breakers, varied from 134,696 in 1881 to 312,219 tons for 1898, which year shows the largest production per day of any year to date. The average daily production by breakers for the ten years ending December 31, 1890 was 169,394 tons, while the average production per day for the ten years ending December 31, 1900, was 269,960 tons, an average increase of 100,566 tons per day worked in the last decade.

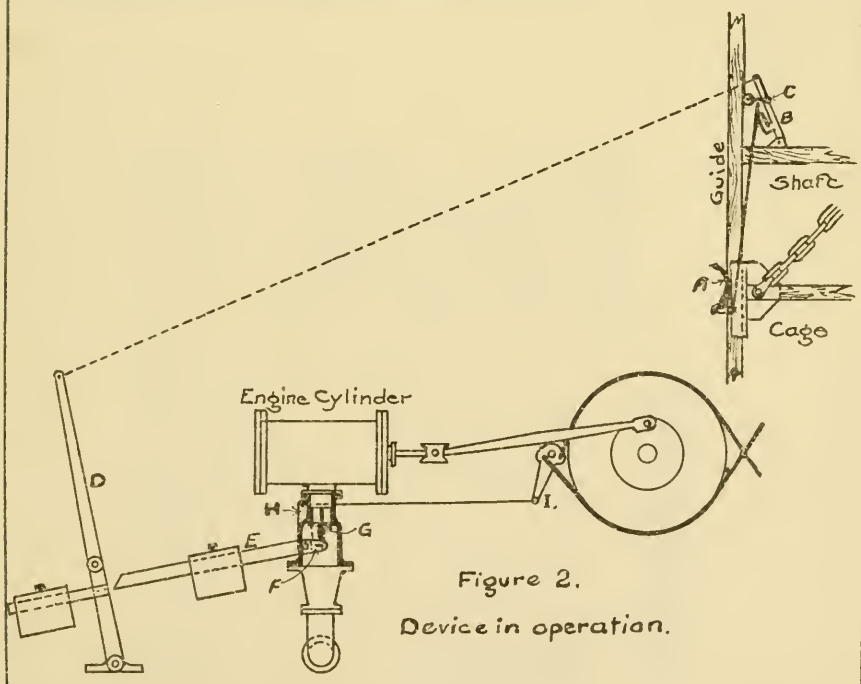
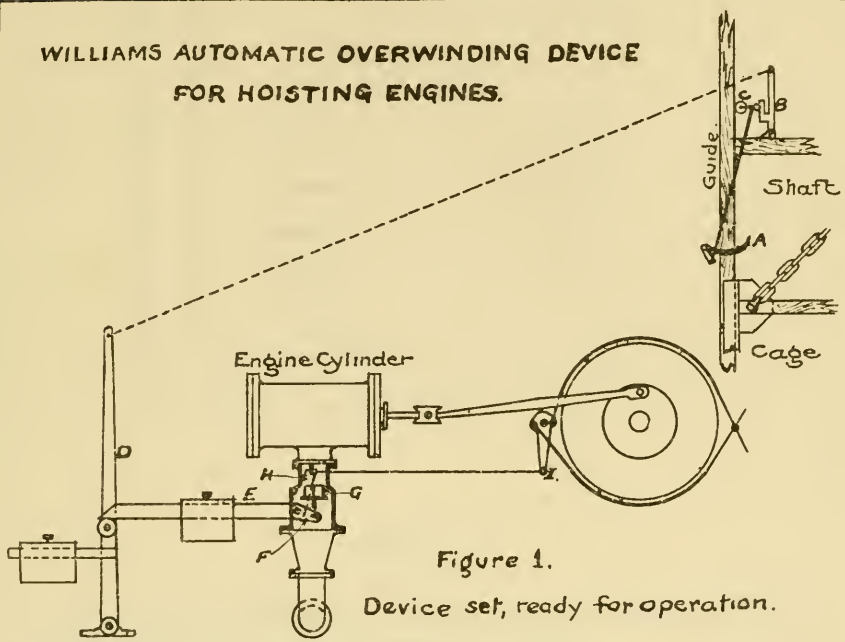
This great increase in the production of coal per day worked by breakers is phenomenal, but it can be explained by the concentration in the methods of preparation, improved machinery, closer supervision and inspection in the method of preparation, the economical handling of coal while in process of preparation, and the great reduction in the percentage of coal which formerly went to the dirt

bank, for possibly the greatest increase comes from the utilization of the smaller size of coal in recent years.

The average production of coal per year for each inside employe, during the first period was 554 tons, while in the second period it was 549 tons, an average decrease of 5 tons per employe inside per year. The average production per miner and miners' laborer per year for the first period was 763 tons, while the average production per year in the second period was 825 tons, an increase of about 62 tons for each miner and miners' laborer each year.

Miners and their laborers are the only ones who actually produce coal, all other employes inside are employed at "dead work," and those outside simply prepare the coal to meet the demands of trade.

WILLIAMS AUTOMATIC OVERWINDING DEVICE
FOR HOISTING ENGINES.



ERRATA.

On page xxvii, English speaking people should be 2,198;
non-English speaking people should be 2,183.

TABLE E—Nationality by birth of employees killed and fatally injured in and about the mines of the Anthracite region from 1891 to 1900, inclusive.

Years.	Americans.	English.	Welsh.	Scotch.	Irish.	Germans.	Poles.	Slavs.	Austrians.	Hungarians.	Italians.	Swedes.	French.	Bohemians.	Tyroleans.	Russians.	Lithuanians.	Greeks.	Danes.	Total.
1891,	63	40	49	4	94	20	83	3	1	47	7	2	.....	.....	.....	7	5	2	1	428
1892,	83	33	40	2	63	18	96	9	3	43	14	.....	.....	.....	.....	3	9	2	.....	418
1893,	73	36	41	1	75	25	120	15	6	39	19	1	1	.....	.....	1	3	.....	.....	456
1894,	76	37	43	4	76	27	91	2	7	62	16	2	.....	.....	.....	2	1	.....	.....	446
1895,	78	18	30	1	73	23	113	4	4	51	18	.....	.....	.....	.....	2	1	.....	.....	421
1896,	86	33	33	3	87	17	132	3	6	61	11	1	1	.....	.....	1	4	3	.....	502
1897,	63	31	38	.....	77	22	107	7	7	44	12	3	.....	.....	.....	1	4	.....	.....	423
1898,	73	21	47	7	58	22	114	7	9	36	8	1	.....	.....	.....	12	.....	.....	.....	415
1899,	90	27	30	7	67	15	152	6	10	27	13	5	.....	.....	.....	4	5	1	.....	461
1900,	92	20	23	4	43	21	104	19	7	18	24	.....	.....	.....	.....	2	14	2	.....	411
Total,	*777	296	379	33	713	210	†1,112	75	60	428	142	15	3	1	3	53	58	22	1	4,381

*English speaking people, 2,408.

†Non-English speaking people, 1,973.

By referring to Table E it will be seen that 4,381 persons lost their lives in and about the anthracite mines from 1891 to 1900. An effort was made during the past year to ascertain the actual number of each nationality at work in and about the coal mines of this State, which was only partially successful.

Reports from 232 Anthracite mines showed that the employes numbered 96,077, of which 55,426 were of the English speaking races and 40,651 were of the non-English or Continental races. The 96,077 reported equal about 66.8 per cent. of the total number employed.

The same table shows that 2,198, or 50.17 per cent. of those who lost their lives in and about the mines during the past ten years were people who spoke the English language, while the loss of life among the people from the Continent was 2,183, or 49.83 per cent. of the total number.

By the above figures it will be seen that the non-English speaking people who comprise 42.31 per cent. of the total number of employes, sustained a loss of life in and about the mines equal to 49.83 per cent. of the total fatalities.

Taking the percentage of accidents among the English speaking people as a basis, the accidents in and about the Anthracite mines, if all employes were of the English speaking races, during the past ten years would have been 3,711 as against the actual number, 4,381, or a reduction of 670 in the number of fatal accidents.

These figures are theoretical of course, and are so presented that they cannot be sustained by facts, but I am sure that as the people of the continental races become familiar with the English language, the death rate amongst them will be greatly reduced.

ERRATA.

On page xxix, the figures 211 at the bottom of the table indicates English speaking people; 312, in same line, indicates non-English speaking people.

TABLE E—Continued.—Nationality by birth of employees killed and fatally injured in and about the Bituminous mines during 1899 and 1900.

Years.	Americans.	English.	Welsh.	Scotch.	Irish.	German.	Poles.	Slavs.	Austrians.	Hungarians.	Italians.	Swedes.	French.	Belgians.	Bohemians.	Russians.	Total.
1899,	62	14	7	10	10	16	20	46	13	16	26	5	2	4	3	4	258
1900,	71	16	2	8	11	10	19	56	12	13	29	7	3	2	3	3	265
Total,	133	30	9	18	21	26	39	102	25	29	55	12	5	6	6	7	523
			211								312						523

Following is the same line of inquiry in the Bituminous region, namely to ascertain the nationalities of employes in and about the mines in 1900, but the result was not crowned with complete success, as returns were received from only 439 of more than 800 mines in that region, which gave the number of English speaking people employed as 31,154, and of non-English speaking races as 36,371, a total of 67,525, which equals 61.94 per cent. of the total number of employes as reported by the Mine Inspectors in their annual report for 1900.

Taking the above percentage as a fair ratio, it will be seen that the English speaking people were 46.13 per cent. of the total, and the non-English races 53.87 per cent.

The fatal accidents that happened to the English speaking people were 40.35 per cent. and to the non-English speaking people 59.65 per cent. of the total number.

If the ratio as received from the returns would hold good as to all the employes, the number of English speaking people would be 50,390 and non-English speaking 58,628, which equals the total of 109,018 employed in 1900 in the Bituminous region. If the employes were all of the English speaking races, the number of fatal accidents would have been 456 in place of 523, the actual number for 1899 and 1900, a reduction of 67, or 13 per cent., in the two years.

TABLE F.—Giving number of fatalities and the cause of each fatal accident that occurred in and about the mines of the Anthracite region for the years 1881 to 1890, inclusive.

Years.	Inside of Mines.										Outside of Mines.					Grand total.		
	By Falls		By Falling Into			Crushed at batteries.		By mules.	Miscellaneous.	Total Inside.	By cars.	By machinery.	By boiler explosion.	Miscellaneous.	Total outside.			
	Of coal.	Slate and roof.	By mine cars.	By explosion of gas.	By powder and dynamite.	By blasts, etc.	Shafts.	Slopes.	Manways & breasts.	By mules.	Miscellaneous.	Total Inside.	By cars.	By machinery.	By boiler explosion.		Miscellaneous.	Total outside.
1881,	68	55	54	28	9	11	5	5	1	1	6	239	15	12	4	3	34	273
1882,	62	68	51	25	5	16	13	5	4	3	6	258	13	13	1	7	34	292
1883,	58	66	52	32	11	28	14	.....	.....	.....	16	277	24	12	4	6	46	323
1884,	74	61	61	19	5	29	11	5	.....	2	14	281	16	13	3	19	51	332
1885,	65	87	35	25	13	18	11	11	.....	.....	*53	318	19	9	7	5	40	358
1886,	67	61	35	24	7	18	5	3	.....	.....	20	240	12	11	5	10	38	278
1887,	74	75	49	19	7	14	9	1	.....	.....	26	274	17	11	1	12	41	315
1888,	85	89	58	20	11	24	9	3	.....	.....	20	319	16	12	.....	15	43	362
1889,	18	100	58	20	10	24	3	5	.....	.....	20	339	27	14	6	8	55	385
1890,	67	70	56	60	3	16	17	8	.....	.....	29	356	25	9	7	11	52	378
Total,	701	632	509	281	77	198	97	46	5	2	210	2,802	184	116	38	96	434	3,296

*Nanticoke disaster, 26 persons entombed by an inrush of quicksand.

A reference to Table F will show that 2,860 lives, or 86.83 per cent. were lost inside of the Anthracite mines in the ten years from 1881 to 1890. Of this number 1,333, or 46.93 per cent. perished from falls of coal, slate or roof; 509 or 17.78 per cent. by having been run over or injured in various ways by cars; 202, or 6.39 per cent. by explosions of gas; 275 or 9.26 per cent. by explosions of powder, dynamite and blasts; 148 or 5.17 per cent. by falling down shafts, slopes, etc., and 210 or 7.33 per cent. from miscellaneous causes. There were 434 lives lost outside the mines for the same period, which was 13.17 per cent. of the whole number, of which 184 or 42.39 per cent. were by cars, 116 or 26.72 per cent. by boiler explosions, and 96 or 22.12 per cent. from miscellaneous causes.

TABLE C.—Giving number of fatalities, and the cause of each fatal accident that occurred in and about the mines of the Anthracite region for the years 1891 to 1900, inclusive.

Years.	Inside of Mines.										Outside of Mines.						Grand total.					
	By Falls		State and roof.	By mine cars.	By explosion of gas.	By powder and dynamite.	By blasts, etc.	By Falling Into			Crushed at batteries.	By mules.	By suffocation.	Miscellaneous.	Total inside.	By cars.		By machinery.	By suffocation.	By boiler explosions.	Miscellaneous.	Total outside.
	Of coal.	By shafts.						Slopes.	Manways & breast.													
1891.	75	97	59	39	13	33	11	6	1	2	4	4	17	30	387	12	14	2	13	41	428
1892.	88	104	57	57	7	29	6	1	7	2	1	1	20	379	19	11	5	4	39	418
1893.	80	119	74	45	11	30	7	2	4	1	7	17	19	416	14	13	1	2	10	40	456	
1894.	83	104	53	29	18	28	13	5	1	1	4	26	20	385	23	13	4	10	11	61	446	
1895.	66	123	52	31	24	27	7	7	4	3	5	3	11	363	26	15	1	4	12	58	421	
1896.	68	*187	49	41	9	28	13	3	5	2	6	9	9	432	18	17	4	9	22	70	502	
1897.	84	120	40	36	10	38	8	3	5	1	.....	20	16	382	21	9	1	.....	10	41	423
1898.	58	128	44	33	11	24	7	4	4	.....	8	16	28	365	15	14	5	12	10	46	411
1899.	78	148	51	28	11	27	5	4	7	2	8	5	23	397	26	12	12	.....	14	64	461
1900.	61	114	60	38	14	20	13	4	2	.....	.....	11	9	355	28	10	4	.....	14	56	411
Total.	741	1,244	539	377	128	293	90	38	43	12	44	125	185	3,861	202	128	37	29	120	516	4,377	

*Twin shaft disaster, 58 persons were entombed June 26.

Table G shows that during the ten years from 1891 to 1900, 3,861 or 88.21 per cent. of the total number of fatal accidents in the Anthracite region occurred inside of the mines, of which 1,985 or 51.41 per cent. were from falls of coal, slate or roof; 539 or 13.96 per cent. by mine cars; 377 or 9.77 per cent. by explosions of hydrogen gas; 293 or 7.58 per cent. by explosions of blasts and powder; 171 or 4.45 per cent. by falling down shafts, slopes, etc.; 125 or 3.23 per cent. by suffocation; 44 or 1.14 per cent. were killed by mules; 185 or 4.79 per cent. were from miscellaneous causes.

About the outside workings of the mines 516 or 11.79 per cent. of the total number lost their lives, of which 202 or 39.15 per cent. were killed by being run over or otherwise injured by cars; 128 or 24.82 per cent. by machinery; 37 or 7.17 per cent. by suffocation; 29 or 5.71 per cent. by explosions of boilers, and 120 or 23.25 per cent. from miscellaneous causes.

TABLE H—Giving number of fatalities, and the cause of each fatal accident that occurred in and about the mines of the Bituminous region for the years 1891 to 1900, inclusive.

Years.	Inside of Mines.										Outside of Mines.						Grand total.						
	By Falls		By Falling Into								Total Inside.		By machinery.					Total outside.					
	Of coal.	State and roof.	By mine cars.	By machinery.	By explosion of gas.	Explosions of powder and dynamite.	Explosions of blasts.	Electric shocks.	Shafts.	Slopes.	Manways & breaks.	By mules.	By suffocation.	Miscellaneous.	By cars.	By machinery.		By suffocation.	By boiler explosions.	Miscellaneous.			
1891,	19	69	16	111	3	2	.....	2	.....	.....	.....	.....	4	6	232	1	.....	.....	.....	1	2	234
1892,	18	70	25	1	1	.....	.....	1	.....	.....	.....	.....	.....	3	119	3	.....	.....	.....	2	5	124
1893,	18	85	16	1	2	.....	.....	.....	.....	.....	.....	4	2	128	1	.....	.....	.....	.....	.....	1	129
1894,	23	60	22	.....	1	3	.....	3	.....	.....	.....	.....	.....	.....	113	.....	.....	.....	.....	.....	.....	114
1895,	16	88	31	4	1	4	.....	1	.....	.....	.....	.....	.....	5	152	4	1	.....	.....	.....	.....	156
1896,	28	71	22	17	1	.....	2	.....	.....	.....	1	2	4	151	2	.....	.....	.....	.....	.....	.....	155
1897,	21	92	20	2	1	3	2	2	.....	.....	.....	.....	.....	144	1	.....	1	.....	.....	.....	.....	150
1898,	26	105	35	11	1	4	3	1	.....	.....	.....	.....	4	190	5	4	.....	.....	.....	.....	.....	200
1899,	26	137	40	29	4	4	5	3	.....	.....	.....	.....	.....	251	1	3	.....	.....	.....	2	1	258
1900,	38	129	49	6	8	1	6	10	2	10	260	4	1	5	265
Total,	233	906	276	182	22	21	18	24	.....	.....	2	17	84	1,740	22	8	1	7	7	45	1,785	

During the ten years from 1891 to 1900 1,785 lives were lost in and about the Bituminous mines, of which 1,740 or 97.45 per cent. occurred inside and 45 or 2.55 per cent., outside.

Of the fatalities that occurred inside the mines, 1,139 or 63.81 per cent. were by falls of coal, slate, roof, etc.; 276 or 15.46 per cent. by mine cars; 182 or 10.19 per cent. by explosions of gas; 43 or 2.41 per cent. by explosions of powder and blasts; 18 or 1.01 per cent. by falling into shafts; 17 or 1 per cent. by suffocation, and 34 or 1.34 per cent. were from miscellaneous causes.

There were 45 fatalities outside the mines, of which 22 or 48.88 per cent. were by cars in various ways; 8 or 17.78 per cent. by machinery; 7 or 15.55 per cent. by explosions of boilers, and 8 or 17.88 per cent. from miscellaneous causes.

The following is a brief table of comparison of accidents in both regions:

	Inside.						
	Falls.	Mine cars.	Explosion of gas.	Explosion of powder, etc.	Falling into shafts.	Suffocation.	Miscellaneous.
Anthracite,	51.41	13.96	9.77	7.58	4.45	3.23	4.79
Bituminous,	63.81	15.46	10.19	2.41	1.01	1.00	1.34

	Outside.				
	Cars.	Machinery.	Suffocation.	Explosions of boilers.	Miscellaneous.
Anthracite,	39.15	24.82	7.17	5.71	23.25
Bituminous,	48.88	17.88	.....	15.55	17.88

TABLE I—Number and percentage of each class of fatal accidents in and about the Anthracite coal mines for the decade, 1891-1900, inclusive.

	1891.	1892.	1893.	1894.	1895.	1896.	1897.	1898.	1899.	1900.	Grand total.	Percent- age.
By falls of coal, slate and roof,	172	192	199	187	189	255	204	186	226	175	1,985	51.40
By mine cars,	59	57	74	53	52	49	40	44	40	60	539	13.95
By explosions of gas,	39	57	45	29	31	41	36	33	28	38	378	9.75
By explosions of powder and blasts,	46	36	41	46	51	37	48	35	33	43	421	10.90
By falling down shafts, slopes and manways,	18	14	13	19	18	21	16	15	16	19	172	4.45
By being crushed at batteries,	2	.....	1	1	3	2	1	.....	.....	.....	12	3.1
By being killed by mules,	4	.....	7	4	5	6	.....	.....	.....	.....	8	2.1
By suffocation,	17	1	17	26	3	9	20	16	5	11	125	3.24
By miscellaneous causes,	30	20	19	20	11	9	17	28	23	9	186	4.82
Total accidents inside,	387	379	416	385	363	432	382	365	397	355	3,862	88.22
By cars,	12	19	14	23	26	18	21	15	26	28	202	39.15
By machinery,	14	11	13	13	15	17	9	14	12	10	128	24.80
By suffocation, .....	.....	5	1	4	1	4	1	5	12	4	37	7.17
By boiler explosions,	2	.....	2	10	4	9	.....	.....	.....	.....	29	5.62
By miscellaneous causes,	13	4	10	11	12	22	10	2	14	14	120	23.26
Total accidents outside,	41	39	40	61	58	70	41	46	64	56	516	11.78

TABLE J—Number and percentage of each class of fatal accidents in and about the Bituminous coal mines for the decade, 1891-1900, inclusive.

	1891.	1892.	1893.	1894.	1895.	1896.	1897.	1898.	1899.	1900.	Grand total.	Percentage.
By falls of coal, slate and roof,	87	93	105	94	102	115	110	142	163	170	1,181	67.14
By mine cars,	17	27	14	20	28	22	20	21	37	39	245	13.82
By explosions of gas,	111	1	1	.....	4	19	2	11	29	8	186	10.58
By explosions of powder and blasts,	5	2	2	3	5	1	4	5	7	9	43	2.44
By falling down shafts and slopes,	1	.....	.....	4	1	.....	1	1	3	6	17	.97
By machinery, .....	.....	.....	.....	.....	.....	1	1	.....	.....	1	3	.17
By mules, .....	.....	.....	.....	.....	1	1	.....	.....	.....	1	3	.17
By electric shock, .....	.....	.....	.....	.....	.....	2	2	2	5	6	17	.87
By suffocation,	4	2	4	.....	.....	3	.....	4	.....	1	18	1.02
By miscellaneous causes,	7	3	3	3	7	5	2	1	4	11	46	2.62
Total accidents inside,	232	128	129	124	148	169	142	187	248	252	1,759	96.22
By cars,	3	4	2	.....	4	6	1	6	3	10	39	56.52
By machinery, .....	.....	1	.....	.....	2	.....	1	2	2	.....	9	13.04
By suffocation, .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	1.45
By boiler explosions, .....	.....	.....	.....	.....	.....	2	3	.....	1	.....	6	8.70
By miscellaneous causes,	1	1	.....	.....	1	2	.....	3	4	2	14	20.29
Total accidents outside,	4	6	2	.....	7	10	7	11	10	12	69	3.78

TABLE K—Giving the number of gaseous and non-gaseous mines, the production of coal from gaseous, non-gaseous mines and washeries, and the percentage of production in each, in the Anthracite districts for the year 1899.

Districts.	Number of non-gaseous mines.		Number of fire bosses.		Production of coal from non-gaseous mines.		Production of coal from gaseous mines.		Production of washeries.		Percentage of production from non-gaseous mines.		Percentage of production from gaseous mines.		Percentage of production from washeries.	
	Number of non-gaseous mines.	Number of gaseous mines.	Number of fire bosses.	Production of coal from non-gaseous mines.	Production of coal from gaseous mines.	Production of washeries.	Percentage of production from non-gaseous mines.	Percentage of production from gaseous mines.	Production of washeries.	Percentage of production from non-gaseous mines.	Percentage of production from gaseous mines.	Percentage of production from washeries.				
First,	18	18	54	2,609,569	4,524,538	240,064	35.38	61.36	3.95							
Second,	3	33	82	351,621	6,326,738	96,053	5.19	93.39	1.42							
Third,	6	35	107	592,316	6,020,976	241,419	8.64	87.83	3.53							
Fourth,	5	42	159	393,318	8,199,454	50,380	4.55	94.86	.59							
Fifth,	21	24	51	1,953,359	4,130,006	107,662	31.57	66.68	1.75							
Sixth,	9	34	135	323,935	7,048,505	165,960	4.29	93.49	2.22							
Seventh,	7	37	241	174,995	6,133,339	.....	2.93	97.07	.....						
Eighth,	6	33	101	94,479	4,169,824	80,264	2.13	95.96	1.55							
Total and percentage,	75	256	928	6,493,588	46,533,380	982,246	12.02	86.16	1.82							

TABLE L.—Giving the number of gaseous and non-gaseous mines, the production of coal from gaseous and non-gaseous mines, percentage of gaseous and non-gaseous mines, and the percentage of production in each in the Bituminous region for the year 1899.

Districts.	Number of non-gaseous mines.	Number of gaseous mines.	Number of fire bosses.	Production of coal from non-gaseous mines.	Production of coal from gaseous mines.	Percentage of production from non-gaseous mines.	Percentage of production from gaseous mines.	Percentage of non-gaseous mines.	Percentage of gaseous mines.
First,	33	43	55	2,289,262	7,005,979	24.63	75.38	49.25	50.75
Second,	39	38	63	3,767,339	8,310,062	31.19	68.81	50.65	49.35
Third,	67	.....	.....	4,230,092	.....	100.	.....	100.	.....
Fourth,	66	2	4	6,242,789	1,004,152	86.15	13.85	97.05	2.95
Fifth,	52	30	54	1,552,356	7,290,158	17.82	82.18	36.59	63.41
Sixth,	106	3	6	7,603,659	990,517	88.48	11.52	97.24	2.76
Seventh,	33	38	65	1,534,650	4,944,504	23.81	76.19	46.48	53.52
Eighth,	85	1	1	4,428,253	48,611	89.14	10.86	98.96	1.04
Ninth,	38	28	42	2,916,397	4,981,397	63.07	36.93	57.57	42.43
Tenth,	65	.....	.....	3,386,762	.....	100.	.....	100.	.....
Total and percentage,	594	183	290	38,491,563	34,575,380	52.68	47.32	76.45	23.55

EXPORT OF AMERICAN COAL.

Mr. Stanley Jevons, who is so often quoted in connection with the coal statistics of England, wrote about twenty-five years ago: "While the export of coal is a vast and growing branch of our trade, a reversal of trade and a future return current of coal is a commercial impossibility and absurdity." Mr. Jevons did not have the clearness of vision of the future that he imagined, and could he see the coal statistics for the past two years, he would find that coal has been carried from America to London, as well as to a number of European countries.

The subject of the export of American coal has attracted a great deal of attention and interest from numerous writers and very many ridiculous prophecies and forecasts have been made upon the subject. Prophesying is unprofitable business at the best, and the quoting of statistics is of but little use as a basis for forecasting future results. Most people agree with the great D'Israeli's assertion that there are three stages of falsification, "lies, damned lies and statistics." There are, however, some figures that show the trend of events, even if they cannot be used as a basis for estimating future results. It may be well, therefore, to consider the facts of the case. There has been an enormous increase in the world's output of coal in recent years, 85,500,000 tons more having been mined in 1899 than in 1897. This shows that the demand is increasing at a rapid rate, and the United States seems to be the only country that is likely to meet this increasing demand.

Within the past thirty years Great Britain has doubled her output of coal. Germany has doubled hers in twenty years; America has increased her output, and her consumption more than six fold, and she now ranks as the world's leading coal producer, with enormous reserves back of the mines that are now producing.

With a rapidly widening market for coal, and as the United States seems to be the only country likely to increase its output to keep pace with this increasing demand, it would seem to be the natural conclusion that America must in time, and that not far distant, become the world's coal celler, as she is now its granary. When that time shall be, depends upon economic conditions. The fact that some cargoes of coal have been shipped to London from America within the past year or two, is interesting as refuting statements made by Jevons and others, that this never could be done, but it has little commercial significance, as it will probably be a number of years, if ever, before we can hope for much of a trade with England.

British industries have been extremely active for several years past, and the mining industry has shared in the general prosperity, so that the price of coal has recently been higher than at any time in the history of the coal industry, except during certain strike periods. This has enabled small cargoes to be landed on British soil with advantage, but the English coal trade will not permit this to become an established industry without a very hard fight, and the profits now being received for English coal are probably such that the price can be materially reduced if necessary to offset American competition. Furthermore, it must be remembered that so many other industries depend for their life upon the coal industry that it will be a long and bitter commercial warfare before the English market is won. With the continental markets, however, this is entirely different. These countries have consumed the export coal of England, and although Great Britain may be able to hold her home market against competition, when it comes to other European markets the case presents a very different aspect. The 50,000,000 tons at present exported yearly from Great Britain are distributed approximately as follows: France, 19 per cent.; Germany, 13 per cent.; Italy, 12 per cent.; Russia, 8 per cent.; Sweden, 6 per cent.; Spain, 5 per cent.; Holland, 4 per cent.; Egypt, 4 per cent.; Denmark, 4 per cent.; Norway, 3 per cent.; Brazil, 2 per cent.; Portugal, 2 per cent.; the East Indies, Malta, Gibraltar and Turkey, each, 1 per cent.; all other countries 14 per cent. While many of the countries thus listed are coal producers, and some of them even exporters to a small extent, this export is largely local with surrounding and neighboring countries, and cannot be classed in the same category as the exports from Great Britain. Many of the countries in this list are great manufacturing centers in which the demand for coal is rapidly and steadily growing, and the reports from the consular agents of the United States during the past two year from all over Europe indicate a practical coal famine, with high prices prevailing almost universally. As far as can be seen these conditions will continue, and will even become more aggravated, and while Great Britain may attempt to meet the demand, it is not at all probable that she can do so, even should the export of coal not be cut off as is proposed by many in England at the present time. It would, therefore, be wise for American coal men to study the conditions in the countries which now consume the greater part of the coal exported from Great Britain.

Since the market is thus shown to exist, what facilities have we in the United States for supplying this market? In the first place we have a practically unlimited supply of coal, much of which is equal to, if not better, than the best English and Welsh coal. Secondly, the coal is more advantageously located for mining, and up to

the present time many of the deposits have merely been skinned. There is a large deposit of coal still remaining above water level, giving the best possible conditions for economic mining. Thirdly, the problem of machine mining has, to a great extent, been solved, and an economic use of machines is an assured fact. The average output for a miner in America is fully 70 per cent. more than in the British mines, not because we have necessarily better miners, for until recently the bone and sinew of every coal mining community was its English and Welsh miners, but by longer hours, and better appliances, the output per man has been greatly increased. Fifth, the transportation problem has been solved, and coal is carried now from the mines to the seaboard at a rate which is much less than prevails in any of the European countries.

This being the case, the problem hinges upon the transport of coal from the Atlantic seaboard to the European ports, and as this same problem has been solved for other commodities, it is perfectly reasonable to assume that it will be solved for this commodity as well, and that as soon as our business men are assured of a steady foreign market, the transportation problem will be solved.

While at present attention is centered on European markets, Mexico, Central and South America must not be forgotten, and the trade which has already sprung up with those countries can be greatly increased.

The present conditions in Europe are somewhat abnormal and will probably not continue as at present, so that our coal men must not base all their estimates on figures secured in the past two or three years.

Although the above reasoning applies to the whole United States, it applies equally and with full force to Pennsylvania, which has been for many years, and will probably continue to be, the great coal storehouse of the United States.

Briefly stated, the facts are these: There is undoubtedly a market for coal in many of the European countries which will probably increase. This market is now supplied with British coal. The demand for coal for home consumption in England will probably prevent the extension of her foreign markets materially and the decrease of the cost of coal in these markets. The United States has plenty of good coal, and wherever she can undersell the British, the market should be hers.

THE GREAT STRIKE IN THE ANTHRACITE COAL MINES.

The strike in the Anthracite coal regions during the year 1900 while not specially bearing upon what usually constitutes the basis

for review in the reports of the Bureau, was so extensive and had such a marked effect upon all branches of industry in this State, that it is deemed proper to note some of its features here. The precipitation of the tie-up, its effects and progress exceeded the expectations of operators, and strike leaders, as well as those who have made a study of such movements in the past. Preceding strikes gave the operators a theory for reasoning that the movement could not be made general in the Anthracite fields, while the strike leaders themselves knew they were attacking a precedent which made such projects ineffective in the past. While it is true that the tie-up was not absolutely complete, it was so effective that the few collieries which continued at work could have had no material effect upon the prostrated market, and this promptly showed the effects of a genuine famine, which was so complete that in no other instance of the checkered history of the Anthracite coal trade had the inconvenience of a hard coal famine been more pronouncedly felt.

The strike movement began on August 13th when the first convention of the United Mine Workers of America opened in the city of Hazleton. At the meeting the grievances of the workmen were formulated and a demand for a joint session of Union officials and operators to be held on August 27th was issued. Epitomized, these grievances were given: First, an unjust dockage system; Second, unjust topping on cars; Third and fourth, non-uniform wage scale; Fifth, dockage of breaker hands while waiting for coal; Sixth, that miners' wages were cut or lowered unjustly by the operators; Seventh, that operators were ignoring the legal ton pounds; Eighth, semi-monthly pay according to law; Ninth, unjust favoritism; Tenth, reduction in the price of powder from \$2.75 to \$1.50 per keg; Eleventh, the abolition of company stores; Twelfth, the abolition of company doctors.

On August 27th the Union delegates re-assembled in Hazleton, but no recognition of the call was vouchsafed by the operators, and on the 28th the delegates expressed their determination to strike in ten days from that date, at the same time referring the matter to the National Executive Board for approval. The National Executive Board in session in Indianapolis approved the strike declaration on September 17th, when the order to quit work was issued, and on October 25th the strike was declared off by President Mitchell, and work was resumed on the 29th after an idleness of seven weeks. During that time the only recognition shown the Union by the operators was at a meeting held on September 4th in New York, from which a statement was issued on the 5th through the press. This statement was a practical recognition of the demands of the Union, since it discussed the question at issue. The return to work was on

the basis of an average of ten per cent. advance in wages over the September scale; reduction in the price of powder to \$1.50 per keg, and the abolition of the sliding scale.

The popular impression is that the seeming difference between the market and selling price of powder as maintained by the coal companies in certain sections of the Anthracite fields, contributed more than any other influence to the precipitation of the strike, but this, in my opinion, is erroneous. I could not accept this theory as correct, for any one who has given the subject serious thought will admit that general conditions were more responsible than any specific reason involving the price of powder.

The rates paid for powder in the different sections were \$1.50 to \$2.75 respectively per keg. Ordinarily this would appear to show a very great difference, and that an imposition was being practiced on the miners of certain sections. The fact is, however, that the miners paying \$1.50 per keg were no better off financially than those paying \$2.75, as the difference in the price of powder was made up to them in other ways. It is not the province of this Bureau to discuss in detail the questions thus involved, because there are features embracing agreements of twenty-years' standing.

When it is considered that the coal worker had been employed for about half time only, for several years, we really have the true incentive for the strike which impressed the country as being extraordinary in extent. These conditions having prevailed for many consecutive years, practically compelled the strike movement. That at least is the only conclusion that I have arrived at after a careful study of the situation.

In view of the adjustment made, there are features to be considered which should receive attention if the general public is to be taken into account. We cannot expect labor and capital to be at peace unless a satisfactory working basis is to be maintained. One of the mediums prescribed for reaching a satisfactory conclusion in such cases is arbitration. This sets forth a method, but it fails to provide the safeguards that are essential to successful operation. The coal companies offer a tangible basis for responsibility, while the workmen have, in the ordinary sense, nothing tangible to offer as a guarantee of good faith. It therefore resolves itself into a question of corporate integrity, and unless the party of the second part can show an amount of responsibility equal or nearly so to that of the party of the first part, there is a void which will be regarded as fatal in the compact. The only way that I can see by which this may be overcome is in granting the existence of labor unions, and recognition thereof by the established corporations.

My knowledge of the cost of mining coal convinces me that the companies cannot continue to pay the ten per cent. advance granted

the men, if the price of coal recedes to that which prevailed last August. Consequently the companies must agree among themselves to keep up the price of domestic coal to a figure which will enable them to pay this rate of wages.

ARBITRATION.

I would suggest that as a means of settling labor disputes, a system of arbitration should be introduced into the State by legal enactment and by the creation of a State Board of Arbitration. Such boards have existed for some years in the states of New York, Massachusetts, Indiana, Ohio and Illinois, where they have effected settlements of labor disputes and brought about results satisfactory to both employer and employe.

Strikes ought to be, under improved economic conditions, the last means that should be resorted to to bring about the desired end, rather than as it is unfortunately at present, the first. Strikes are more wasteful from an economic standpoint than wars. A big strike means more than it ever did before, for the organizations of both labor and capital are more thorough, and this very thoroughness makes the conflict more bitter wherever it is waged. This fact is so well recognized both by capital and labor, that the arbitration proposition is coming into the foreground more and more every day. In this connection it is only fair to state that without exception the leaders of organized labor, pre-eminently Samuel Gompers, President of the American Federation of Labor, John Mitchell, President of the United Mine Workers, and D. D. Wilson, Vice President of the International Association of Machinists, have strongly and repeatedly declared themselves in favor of arbitration. In a recent address before the National Arbitration Conference at Chicago, Mr. Wilson made these significant remarks in the course of a lengthy address on the subject of arbitration, which I consider worthy of reproduction here. Mr. Wilson said:

“It is only when the employer denies the right of the employe to have a voice in the conditions under which he shall work, and the wages he shall be paid; a strike only occurs when the employer uses the stereotyped and notorious argument, ‘There is nothing to arbitrate.’ If there wasn’t anything to arbitrate there would be no strike. If the employe did not think he had a just grievance, he would not be so anxious to leave its adjustment to a court of arbitration. This being the case, organized labor is anxious and willing that all matters of discord between employer and employe shall be adjusted by conciliation and arbitration. This is the way out; this is the fundamental principle for which labor is organized. Give us

a court of arbitration before which we can submit our grievances, and disastrous industrial warfare will cease, but we must have a voice in the choice of arbitrators. This course has been tried by the organization to which I belong, and the result for good has gone beyond my expectations. It has proven more than satisfactory, and during the six months' operation of the plan it has run more smoothly than any new piece of social machinery has ever run before.

It is worthy of note that the International Association of Machinists has had no occasion to call a strike to adjust a grievance in any shop controlled by the National Metal Trades Association since the signing of the New York Agreement. Any trouble that came up, with rare exceptions, has been adjusted by the executive officials of both bodies without recourse to the higher court, the Board of Arbitration. It would be unfair to say that there has been no friction, but it has been the friction of individuals and not of the organizations, for it would be folly to think that perfection was reached and that this new venture was perfect in every detail. It has accomplished much, imperfect as it is, and it will accomplish more as its possibilities are appreciated.

The International Association of Machinists has pointed the way. The rapidity with which other labor organizations will follow is purely a matter of education.

The employer of labor who does not concede the right guaranteed by the Board of Arbitration is behind the times, and the employe who does not take advantage of the opportunities that arbitration has placed within his grasp, is in the same category. The organization, be it capital or labor, that still depends on the policy of the bludgeon and the gun to adjust grievances, may be successful for a time, but it will eventually go under, driven out by an outraged public opinion, and before the placid Board of Arbitration.

The International Association of Machinists points the way out by the simple and scientific process of gradual change, so gradual that the movement is almost imperceptible, yet it is fraught with more benefit to labor in one year than has come to it in many decades. It points the way to the new order of things and heralds the time when the labor problems will receive the attention of our wisest men. It points the way and shows that conciliation and arbitration will prove in every way beneficial if peoples' minds are large and well informed enough to receive it. Nothing could be more satisfactory and encouraging than the general revival of thought on the labor question that this practical demonstration of what arbitration can do has brought back. It is educational, and presages economics and special wisdom. The International Association of Machinists shows the way out by initiating peaceful methods of evolution instead of in-

dustrial war; by rejecting the barbarous methods of the past; by respecting the rights of all and marching on with the progressive tendency of events. It points the way and shows that the working people, strong in numbers, in reason and rectitude, can achieve their emancipation without recourse to any act that will prove repulsive to the best instincts of human nature."

During the recent strike in the Anthracite regions arbitration was proposed and rejected. In view of that fact, in what way can another system be brought about? Shall there be a State Board of Arbitrators, and shall arbitration be made compulsory?

It is unquestionably true that an act under which one of the parties to an industrial dispute has the right to bring all other parties before a public tribunal, smacks very much of State regulation of labor. This has in effect been brought about in New Zealand, and so far, the workings of the arbitration laws in effect there, have not been attended with very deleterious effects. In the first place if the parties to a labor dispute wish to settle their differences in their own way, the State does not meddle with them. Then, in the second place, had the law proved obnoxious, it would have been abrogated long ere this. Speaking of this feature of the law, the author of a recent publication explaining very fully the workings of the arbitration tribunal in New Zealand says:

"The only serious adjustment, beyond the theoretical objection to state interference in any form which has been brought against this law by English writers, has been a statement that it has hampered enterprise and checked the growth of manufactures in the colony."

New Zealanders know this to be quite baseless, for they know that the manufacturers of their colony have fully participated in the prosperity of the last five years. For some years past labor in almost every trade has been fully employed; the numbers of the workless have fallen progressively; new factories have been opened and buildings erected, and the shop keepers with whom the working classes deal, admit that business is better and debts fewer than at any time in the last twenty years in the colony. The annual report of the Chamber of Commerce and the periodical reviews of the trade and business published by the New Zealand newspapers of both sides in politics tell the same tale. But the briefest and most convincing argument for disabusing the minds of any who may favor the idea that the New Zealand Arbitration act has hampered industry, is found in the following figures, which give the number of hands employed in the registered factories of the colony for the past five years.

It may be explained that the factory, in New Zealand, means every workshop, small and large, and that registration is universal.

Year.	Hands employed.	Increase.
1895,	29,879	4,028
1896,	32,287	2,508
1897,	36,913	4,531
1898,	39,672	2,754
1899,	45,305	5,633

It may be, and indeed has been stated, that the strength of the law cannot be fully tested until some powerful organization of labor or capital defies the decision of the court and is successfully dealt with. English critics lay great stress on this, and are wont to ask triumphantly what could be done with the members of a large trade union without funds to enable them to pay the court penalties for disobedience, and at the same time were stubbornly determined not to go to work under the conditions laid down by the court. The answer to this is surely found in a study of the history of labor disputes. These show that it is not unions destitute of funds which carry on stubborn and ultimately successful strikes; and if the impecunious workers cannot successfully cope with the antagonism of employers when resources are, after all, limited, how can they expect to cope with the power of a state tribunal whose will is not to be disputed, which has no factory to be closed or business to be injured, and which is backed by force of law and public opinion?

To my mind, however, the best recommendation of the New Zealand law is that it has not, so far, led to any desperate trial of strength of this kind. By applying the grand old motto that "prevention is better than cure," it has taken labor disputes in hand before they have reached the pitch at which the passions of the disputants on both sides are inflamed, which impels them to wild speeches and still wilder actions. It gets between labor and capital before they have come to the unreasonable stages of their quarrel. It frankly accepts their irresistible tendencies in modern terms, the first of which is that they will differ, and the second that they will organize in order to settle their differences. There are philanthropists who think that the remedy for their conflicts is found in urging them not to quarrel and not to organize. There are some who would sternly forbid them to organize at all. The New Zealand law, on the contrary, frankly encourages organization, admits that they are bound to differ, and only insists that if they cannot settle their dif-

ferences in a friendly and peaceable manner, they must go to the State, which will provide the machinery for doing so.

Although so eminent an authority as Samuel Gompers has expressed himself as being opposed to compulsory arbitration in these vigorous terms: "Arbitration between two parties in dispute implies their voluntary submission of the controversy to disinterested persons. This is invariably organized labor's proposition when efforts at conciliation have failed, but it is submitted that the terms 'arbitration' and 'compulsory' are the very antitheses of each other. We have come to advocate arbitration, and many men, yes, and some very well meaning men, have used it as a phrase so often that they have confounded voluntary action with the desire to enforce compulsion, without understanding its full significance. 'Compulsory arbitration' as the term is generally understood, implies even more than appears upon the surface. If the workers and their employers disagree as to the terms and conditions under which labor shall be performed, it is presupposed by the term 'compulsory arbitration' that both parties shall be summoned before some tribunal created by the state for the purpose of hearing and determining the question at issue and to make an award. The logical sequence of an award made by such tribunal implies its legal enforcement. Let us suppose a case not difficult to conceive. If the award is in favor of the workers, and the employers to abide thereby, the state would then exert its power to legally enforce the award and decree. Would this act not in itself be confiscation, or its alternative punishment, imprisonment? On the other hand, if the award should be in favor of the employers, and the workers refuse to abide by the decision, would they not be compelled by the state to work against their will and judgment, under conditions which they regard as unjust and burdensome, or suffer incarceration in jail?"

Still I am inclined to rather favor the views cited of the New Zealand political economist. Without expressing myself at all as to the value of a State Board of Arbitration in labor disputes, other than those in the field of coal mining, I firmly believe that the creation of such a Board for a settlement of disputes between operators and mine workers would be of incalculable benefit to the State, to the business men of the localities affected and to the people in general. In the mining of coal as it is carried on at present, experience has shown that the manner of compensation of the mine workers by their employers, is bound to create differences of opinion as to its justice or injustice, and strikes innumerable have been resorted to by the men in an endeavor to obtain adjustment.

As it is at present, the results have been arrived at only by the respective "staying powers" of the parties in contention, rather than by the merits of the question at issue. It will ever be thus, unless an

impartial tribunal is created which will decide such matters, the findings of which shall be final. Such a tribunal should, in my opinion, be a State Board of Arbitrators, and the sooner it is brought into existence the better.

Following this will be found a series of tables containing in concentrated form much interesting matter pertaining to this report, viz: Production of coal, anthracite and bituminous, for ten years; production of coke for same period; production of anthracite and bituminous coal and coke by counties for ten years, also number of employes for ten years by inspection districts and counties; number of accidents, fatal and non-fatal, in each inspection district for ten years; number and nationalities of persons killed and injured in 1900; a recapitulation table for both Anthracite and Bituminous regions, and a table showing the number of fatal accidents per each 1,000 employes for a series of years in both regions.

These tables will be of interest to those seeking information of various kinds pertaining to the production and preparation of coal.

TABLE NO. 1—Production of coal in tons from 1891 to 1900, inclusive.

Districts.	1891.	1892.	1893.	1894.	1895.	1896.	1897.	1898.	1899.	1900.
Anthracite.										
First,	3,981,356	5,854,638.30	6,292,131.34	5,907,331	6,510,817	6,217,447	6,249,833	6,515,790	7,374,571	6,368,948.16
Second, .....	.....	6,013,537.19	5,936,476.10	5,674,539	6,189,495	5,895,669	5,983,630	5,496,150	6,774,458	6,429,112.00
Third,	6,125,094.15	5,659,730.09	5,629,914.85	5,541,362	6,213,834	5,714,929	5,875,823	5,964,467	6,854,711	6,296,931.08
Fourth,	6,839,897.65	7,549,606.02	8,065,768.95	7,462,961	8,066,539	8,017,852	7,457,418	7,866,277	8,648,152	8,585,741.05
Fifth,	5,803,964.07	5,842,724.19	6,239,068.50	6,132,627	6,590,966	5,872,427	5,487,550	5,555,850	6,191,027	6,170,784.00
Sixth,	6,492,949.16	6,287,366.06	6,674,807	6,340,631	7,164,888	6,531,510	6,475,300	6,513,155	7,538,404	7,020,571.06
Seventh,	5,302,050.08	5,584,678.17	5,288,892.88	5,404,823	6,184,542	5,594,649	5,108,948	5,074,884	6,308,334	6,070,701.06
Eighth,	3,081,067	3,066,092	3,142,504.63	3,331,315	3,925,013	4,239,847	4,306,222	4,158,651	4,344,567	4,274,528.00
Total,	44,376,179.11	45,858,371.2	47,179,553.25	45,498,179	50,846,104	48,074,230	46,947,554	47,145,174	54,034,224	51,217,318.00
Bituminous.										
First,	3,948,665	4,299,437	4,576,307	5,292,181	5,539,951	6,697,601	6,459,200	8,909,339	9,295,646	8,654,281
Second,	6,753,614	8,063,247	6,653,908	6,424,633	3,128,787	7,364,771	9,123,797	9,820,673	12,077,460	13,648,199
Third,	3,422,551	3,207,814	3,224,130	2,641,120	3,254,947	3,243,851	3,400,302	3,761,085	4,230,092	4,923,877
Fourth,	3,894,245	3,606,142	4,850,122	4,296,596	9,294,351	5,762,765	6,541,943	7,516,944	7,246,941	8,199,027
Fifth,	5,423,801	7,360,101	3,629,559	3,968,348	6,423,802	4,979,410	6,501,545	7,754,835	8,872,514	9,960,273
Sixth,	6,950,036	7,360,158	3,140,284	2,931,088	4,406,750	4,722,873	5,503,611	7,161,333	8,594,067	10,694,627
Seventh,	4,843,174	5,897,942	4,435,416	2,683,875	4,683,508	5,624,825	5,000,375	5,943,567	6,489,157	6,933,576
Eighth,	6,611,559	6,811,735	5,043,478	3,454,078	4,709,962	3,809,472	3,798,198	3,354,840	4,476,814	4,342,176
Ninth, .....	.....	.....	4,814,178	4,690,811	5,652,811	5,210,992	5,074,385	6,624,738	7,897,490	7,571,754
Tenth, .....	.....	.....	2,772,116	1,852,530	2,708,271	2,857,096	3,261,976	3,401,281	3,886,762	4,390,572
Total,	41,737,645	46,576,576	43,421,498	38,000,260	55,813,112	50,273,656	54,662,272	64,247,635	73,066,943	79,318,362

TABLE NO. 2.—Production of coke in tons from 1891 to 1900, inclusive.

Districts.	1891.	1892.	1893.	1894.	1895.	1896.	1897.	1898.	1899.	1900.
First,	1,000	.....	.....	.....	.....	.....	.....	.....	.....	.....
Second,	1,760,264	2,306,788.87	1,511,871.15	1,635,243	2,559,085	1,902,643	2,505,350	3,049,537	4,075,822	4,280,354
Third,	147,897.50	66,458	27,039	3,488	.....	24,523	39,020	95,107	88,717	96,501
Fourth,	108,028.06	70,473	289,844	242,810	303,198	409,080	411,946	573,349	485,264	480,674
Fifth,	3,117,968	4,280,570	2,092,993	2,264,971	3,756,387	2,623,541	3,483,209	3,964,669	4,431,423	4,477,692
Sixth,	1,320,374	1,033,866	109,348	41,662	133,992	151,134	240,559	236,663	267,787	256,481
Seventh,	10,302	12,000	3,000	6,000	5,000	7,450	4,500	625	.....	.....
Eighth,	115,629	128,475	50,557	13,302	24,140	47,877	23,500	15,693	45,955	20,724
Ninth, .....	.....	.....	1,240,163.75	1,473,982	1,985,206	1,265,318	1,543,325	2,028,177	2,535,141	2,241,153
Tenth, .....	.....	.....	224,181	147,786	42,221	175,614	191,882	298,200	252,461	332,533
Total,	6,591,542.56	7,898,630.87	5,549,296.90	5,829,244	8,922,329	6,613,180	8,533,291	10,171,920	12,195,570	12,185,112

TABLE NO. 3.—Production of Anthracite coal in tons, by counties, from 1891 to 1900, inclusive.

Counties.	1891.	1892.	1893.	1894.	1895.	1896.	1897.	1898.	1899.	1900.	Total.
Carbon,	1,191,168.50	1,427,542.55	1,510,289.50	1,580,395	1,577,146	1,488,550	1,327,235	1,043,663	1,630,595	1,663,961	14,749,553.50
Columbia,	761,559.15	889,483.85	741,900.74	510,537	498,042	443,330	481,453	569,175	595,061	875,643	6,661,280.74
Dauphin,	633,568.70	639,873	640,723.17	689,607	712,856	702,335	662,842	667,460	729,757	695,656	6,784,633.87
Lackawanna,	10,184,347.70	11,410,553.95	11,667,550.25	11,170,382	11,859,382	11,638,479	11,946,871	11,588,801	13,248,949	12,282,108	116,397,423.50
Luzerne,	17,726,559.65	17,548,508	18,253,144.75	17,243,928	19,143,101	17,964,900	17,141,809	18,195,398	19,899,742	19,179,573	182,386,607.40
Northumberland,	3,672,828.25	3,724,233.70	3,731,404.63	3,893,660	4,573,144	4,117,563	3,774,667	3,519,305	4,339,547	4,188,343	39,534,701.58
Schuylkill,	9,957,111.10	9,564,534.60	9,992,208.97	9,985,082	11,495,388	11,082,772	10,971,943	11,980,700	12,228,988	11,616,160	108,872,724.67
Sullivan,	74,884.95	76,209.65	70,418	.....	152,141	151,758	164,046	147,533	163,558	209,922	1,210,538.00
Susquehanna,	369,712.45	475,622.30	571,956.19	413,578	840,904	474,637	476,488	423,139	624,125	496,462	5,166,593.94
Wayne,	3,450.10	.....	.....	.....	.....	.....	.....	.....	.....	275,955	298,925.10
Total,	43,575,179.95	45,858,371	47,179,563.20	45,506,179	50,846,104	48,074,330	46,947,354	47,145,474	54,034,224	51,217,318	482,372,991.75

TABLE NO. 4—Production of Bituminous coal in tons, by counties, from 1891 to 1900, inclusive.

Counties.	1891.	1892.	1893.	1894.	1895.	1896.	1897.	1898.	1899.	1900.	Total.
Allegheny.	6,216,428	7,227,370.15	6,894,510	6,415,611	7,146,689	7,888,414	7,122,227	9,079,104	10,313,039	9,978,790	78,952,192
Armstrong.	299,945	349,561.75	300,222	577,928	649,174	566,771	570,313	843,485	1,290,065	1,037,396	6,484,895
Beaver.	139,114	188,379	151,346	135,752	297,863	296,587	383,149	205,295	264,877	273,227	2,046,689
Bedford.	413,557	568,760	490,416	288,753	430,804	319,575	323,489	351,091	489,731	530,648	4,233,854
Blair.	218,365	278,485	170,144	269,211	351,299	321,227	317,535	262,068	118,701	251,997	2,456,582
Bradford.	68,697	53,517	42,739	25,474	57,711	52,467	41,588	22,568	31,885	32,065	428,691
Butler.	160,273	132,040.50	160,443	134,334	220,895	223,015	227,439	161,224	293,170	251,613	1,874,447
Cambla.	3,073,078	3,289,194	3,377,459	3,005,261	4,461,629	4,839,048	5,571,721	7,272,644	11,589,053	7,572,644	53,104,046
Centre.	490,300	372,431.61	1,259,351	174,548	303,813	445,268	406,482	568,128	872,771	987,820	5,890,913
Clarion.	739,068	788,873.25	772,622	401,088	428,675	364,782	581,736	266,476	270,956	366,985	498,261
Clearfield.	6,706,015.80	6,631,013.18	6,081,324	4,156,310	5,442,299	4,889,793	5,392,472	4,885,780	5,860,387	2,819,109	52,864,513
Clinton.	131,619	92,242	94,582	100,000	94,692	134,568	157,388	166,226	221,090	288,881	1,481,288
Elk.	739,058	756,632.19	617,878	515,070	602,428	739,669	765,110	873,448	1,212,102	1,246,783	8,028,398
Payette.	5,758,200	7,791,330	6,105,845	6,684,153	10,124,541	8,562,571	10,112,944	13,090,756	14,765,844	15,043,277	98,039,461
Huntingdon.	277,938	350,095	291,739	187,070	289,092	333,335	285,676	286,020	327,106	363,243	2,891,824
Indiana.	539,623	638,667	359,170	496,878	483,795	332,029	532,989	512,923	619,378	895,547	5,351,004
Jefferson.	3,690,052.45	3,682,774.38	3,072,297	3,467,481	4,828,774	4,717,363	5,309,050	6,648,980	6,412,506	6,989,656	48,428,934
Lawrence.	172,197.50	119,589	197,277	135,411	227,599	198,666	196,506	186,024	191,224	177,807	1,802,251
Lycoming.	17,000	53,192	80,160	83,830	82,730	82,730	91,735	98,118	101,924	98,064	706,753
McKean.	15,737	21,058	19,463	19,844	38,307	56,989	47,022	29,681	25,435	27,618	301,004
Mercer.	579,770	442,632.75	486,049	297,662	502,945	502,317	426,302	340,582	476,618	528,557	4,583,425
Potter.	411,070	423,179	483,770	434,188	521,985	621,980	1,466,327	1,720,662	2,686,299	4,263,239	12,762,709
Somerset.	993,259	964,756	942,252	684,627	781,814	800,658	925,833	917,026	634,301	922,701	8,567,287
Tioga.	2,467,837	3,414,414	7,533,346	3,373,775	3,410,694	4,366,518	3,761,234	4,661,180	4,779,067	4,884,828	37,786,551
Westmoreland.	7,065,867.95	8,696,964.35	7,739,080	10,225,245	8,596,705	10,127,965	11,475,831	14,189,423	14,872,546	14,872,546	101,183,033
Total.	41,787,644.70	46,576,576.11	43,421,498	38,000,290	55,813,112	50,273,656	54,074,322	64,247,625	173,066,943	79,318,362	544,906,017

*Since 1894 in Anthracite region.
126,273 tons of coal, production of small mines not under provisions of law.

TABLE NO. 5—Production of coke in tons, by counties, from 1891 to 1900, inclusive.

Counties.	1891.	1892.	1893.	1894.	1895.	1896.	1897.	1898.	1899.	1900.	Total.
Allegheny,	10,392	12,000	3,000	6,000	5,000	250	4,500	525	.....	.....	41,667
Armstrong,	11,314.50	.....	6,556	.....	.....	.....	.....	.....	.....	1,000	18,870
Beaver,	56	.....	100	80	.....	.....	.....	.....	.....	.....	236
Bedford,	1,759	25,876	3,000	6,016	40,420	39,200	.....	39,708	51,636	101,546	309,161
Blair,	79,252	101,117	39,361	8,200	28,700	36,943	36,904	30,680	17,922	72,539	451,688
Bradford, .....	.....	.....	.....	42,747	142,047	165,435	283,474	.....	.....	.....	613,703
Butler, .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Cambria,	333,889	217,838	122,219	.....	.....	.....	.....	.....	.....	.....	.....
Cameron, .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Centre,	62,976.06	27,600	83,203	13,069	.....	.....	.....	.....	.....	.....	.....
Clarion, .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Clearfield,	197,793	105,568	131,360	45,574	117,800	157,756	191,040	173,106	227,722	155,451	1,503,302
Clinton, .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Elk,	2,500	17,131	29,421	8,257	.....	.....	.....	.....	.....	.....	.....
Fayette,	3,091,301	4,268,825	3,011,054	3,426,791	5,339,887	3,642,337	4,851,918	5,660,209	6,421,534	850	58,502
Greene, .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Huntingdon, .....	.....	4,604	29,103	.....	.....	.....	.....	.....	.....	.....	.....
Indiana,	105,623	40,234	53,620	5,250	7,172	22,798	16,330	15,712	48,760	68,303	363,802
Jefferson,	439,942	394,491	255,473	219,655	276,578	407,865	445,013	619,731	535,427	536,239	4,130,417
Lawrence, .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Lycoming, .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
McKean, .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Mercer, .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Potter, .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Somerset,	26,657	11,745	9,953	5,027	6,862	9,086	.....	.....	.....	.....	.....
Tioga,	1,982	1,093	984	450	976	1,032	476	503	23,971	21,799	130,037
Washington,	1,000	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Westmoreland,	2,185,096	2,626,451.87	1,700,889.90	1,937,128	2,956,908	2,073,291	2,723,636	3,351,525	4,548,121	4,632,243	28,735,292
Total,	6,551,542.50	7,854,029.87	5,459,296.90	5,724,244	8,922,380	6,613,253	8,533,291	10,171,920	12,193,570	12,185,112	84,208,238

TABLE NO. 6—Number of employes in and about the coal mines, from 1891 to 1900, inclusive.

Districts.	1891.	1892.	1893.	1894.	1895.	1896.	1897.	1898.	1899.	1900.
Anthracite.										
First,	23,974	14,121	15,637	16,014	16,272	17,604	18,066	17,890	17,143	17,285
Second, .....	.....	14,111	14,429	15,627	16,269	16,353	16,578	15,725	15,419	16,789
Third,	17,354	15,026	15,779	16,965	17,413	15,577	17,936	18,098	17,156	18,600
Fourth,	19,411	21,406	22,790	22,764	24,669	26,059	25,650	23,377	23,668	23,667
Fifth,	14,961	16,477	17,540	18,361	18,467	17,568	17,119	14,649	14,293	15,111
Sixth,	19,270	20,608	21,872	20,109	19,810	20,979	21,056	20,159	19,905	20,278
Seventh,	18,325	18,437	19,197	19,121	19,359	20,185	19,670	19,557	20,317	20,655
Eighth,	9,740	10,417	10,777	10,734	11,306	13,335	13,492	12,965	12,682	12,041
Total,	123,025	130,197	138,021	139,655	143,605	147,670	149,557	142,420	140,583	143,726
Bituminous.										
First,	8,188	9,393	10,114	11,175	11,086	10,977	10,665	9,720	9,880	10,942
Second,	11,583	12,204	10,993	12,148	11,195	11,040	12,272	12,501	14,758	17,532
Third,	6,118	6,297	6,112	6,734	6,211	5,964	6,131	6,538	6,181	7,650
Fourth,	6,767	6,597	8,293	9,036	8,578	8,558	9,581	9,061	9,630	10,383
Fifth,	10,275	10,361	6,663	7,619	8,389	7,524	8,650	9,321	10,448	13,867
Sixth,	11,569	12,241	6,353	6,944	7,081	8,010	8,966	10,488	11,611	14,879
Seventh,	9,210	10,619	9,398	9,844	9,338	10,564	9,333	9,656	8,390	10,045
Eighth,	10,222	11,277	9,423	8,160	8,071	7,197	6,283	5,812	6,140	7,330
Ninth, .....	.....	.....	8,754	9,279	8,579	8,273	8,509	8,152	8,624	8,969
Tenth, .....	.....	.....	5,697	5,247	5,098	5,359	5,493	5,653	5,778	7,401
Total,	73,923	78,989	81,950	86,186	84,104	83,796	86,483	87,802	91,440	109,018

TABLE NO. 7—Number of employes in and about the mines of the Anthracite region, by counties, from 1891 to 1900, inclusive.

Counties.	1891.	1892.	1893.	1894.	1895.	1896.	1897.	1898.	1899.	1900.
Carbon,	3,312	3,948	4,410	5,391	4,382	4,153	4,748	2,986	2,338	2,517
Columbia,	2,787	2,424	2,694	2,011	1,756	2,074	1,909	2,436	2,309	2,064
Dauphin,	2,125	2,104	2,094	2,092	1,985	1,988	2,072	2,174	2,390	2,577
Lackawanna,	26,490	27,233	29,021	30,629	30,367	32,771	33,892	32,422	30,886	32,813
Luzerne,	48,825	47,944	51,392	52,994	55,798	56,717	55,188	52,817	52,558	53,740
Northumberland,	14,437	12,835	13,487	13,870	14,522	14,787	13,139	13,863	14,697	15,105
Schuylkill,	29,010	32,099	33,611	31,696	32,292	35,060	35,098	34,238	33,508	33,228
Sullivan,	229	261	307	312	312	334	327	321	351	521
Susquehanna,	823	999	1,045	1,012	2,191	1,186	1,284	1,193	1,210	1,250
Wayne,	18	.....	.....	.....	.....	.....	.....	.....	466	.....

TABLE NO. 8—Number of employes in and about the mines of the Bituminous region, by counties, from 1891 to 1900, inclusive.

Counties.	1891.	1892.	1893.	1894.	1895.	1896.	1897.	1898.	1899.	1900.
Allegheny,	12,305	13,447	14,351	15,345	15,022	14,732	14,235	14,052	13,160	15,060
Armstrong,	573	740	632	1,204	1,139	1,100	971	1,527	1,436	2,105
Beaver,	284	467	293	592	582	608	417	441	473	451
Bedford,	842	951	967	845	863	831	803	978	1,112	978
Blair,	624	635	536	707	738	523	516	566	287	510
Bradford,	169	122	83	90	109	115	127	76	68	66
Butler,	282	356	328	461	489	500	590	426	341	513
Cambridge,	5,229	5,672	6,691	7,048	7,219	8,297	8,918	9,284	9,782	17,652
Cameron,	858	729	2,416	617	632	773	664	996	1,165	1,307
Centre,	1,346	1,488	1,626	1,021	842	828	1,185	575	508	735
Clearfield,	10,188	10,639	10,933	9,733	9,416	8,989	9,016	7,847	8,072	4,127
Clinton,	200	173	180	151	198	211	236	206	235	254
Elk,	1,365	1,243	1,332	1,297	1,093	1,287	1,245	1,267	1,786	1,849
Fayette,	11,076	11,921	11,185	12,566	13,387	12,250	13,802	14,563	15,388	18,299
Greene,	597	668	630	689	630	701	533	490	542	675
Huntingdon,	822	1,021	873	760	707	800	675	733	1,791	1,791
Indiana,	5,623	5,974	4,234	6,342	6,166	5,972	6,039	7,273	7,029	7,705
Jefferson,	368	267	460	494	503	500	558	500	352	410
Lawrence,	60	60	118	166	164	166	190	193	203	200
Lycoming,	31	44	30	42	86	94	95	70	53	51
McKean,	1,098	1,112	1,010	1,136	1,118	1,022	1,058	938	782	918
Mercer,	576	554	677	865	618	860	1,499	2,671	3,779	5,672
Potter,	1,969	2,121	2,230	2,207	2,085	1,988	2,089	2,207	1,940	2,024
Somerset,	4,550	5,502	7,110	6,908	6,885	7,306	6,532	5,269	5,263	6,535
Sullivan,	12,958	13,083	13,016	14,570	14,203	13,389	14,270	14,519	16,615	18,897
Tioga,										
Washington,										
Westmoreland,										

TABLE NO. 9—List of fatal and non-fatal accidents that occurred in and about the coal mines from 1891 to 1900, inclusive.

Districts.	Fatal.										Total.
	1891.	1892.	1893.	1894.	1895.	1896.	1897.	1898.	1899.	1900.	
Anthracite.											
First,	69	55	51	47	39	51	53	51	68	40	524
Second, .....	.....	33	35	41	34	39	58	37	49	55	375
Third, .....	.....	50	64	51	69	108	63	85	62	59	671
Fourth,	96	83	84	77	74	73	69	75	81	71	774
Fifth,	53	48	58	58	52	42	33	32	43	40	459
Sixth,	66	54	60	74	59	67	72	54	72	65	643
Seventh,	56	45	77	78	59	76	46	46	52	49	584
Eighth,	28	50	27	20	35	46	33	37	34	32	347
Total,	428	418	456	446	421	502	423	415	461	411	4,381
Bituminous.											
First,	20	24	25	25	25	44	22	42	44	37	308
Second,	134	25	14	18	32	26	21	30	36	56	392
Third,	8	2	3	9	7	3	10	3	8	6	59
Fourth,	6	9	5	11	14	26	8	15	21	21	136
Fifth,	25	23	12	13	13	18	25	14	50	40	233
Sixth,	13	14	12	13	8	11	8	22	28	30	159
Seventh,	17	25	21	9	18	22	22	26	28	23	211
Eighth,	14	11	20	13	13	6	7	7	11	9	111
Ninth, .....	.....	.....	15	11	20	19	19	28	23	21	156
Tenth, .....	.....	.....	4	2	5	4	7	11	9	21	64
Total,	237	133	131	124	155	179	149	198	258	264	1,729
Grand total,	665	551	587	570	576	681	572	609	719	675	6,110

TABLE NO. 9—Continued.

Districts.	Non-Fatal.										
	1891.	1892.	1893.	1894.	1895.	1896.	1897.	1898.	1899.	1900.	Total.
Anthracite.											
First,	215	115	96	98	121	134	125	126	116	118	1,264
Second,	181	173	141	141	192	161	149	154	159	152	1,562
Third,	189	163	178	148	167	209	145	201	206	189	1,745
Fourth,	168	180	221	229	221	225	269	278	188	244	2,223
Fifth,	115	110	99	95	102	91	114	72	86	76	960
Sixth,	93	120	139	94	52	99	73	72	89	139	971
Seventh,	135	101	119	76	114	106	119	112	90	91	1,053
Eighth,	68	53	44	40	106	140	112	119	86	107	875
Total,	1,003	1,023	1,069	921	1,075	1,165	1,106	1,134	1,030	1,057	9,633
Bituminous.											
First,	51	87	77	101	66	123	89	109	114	144	961
Second,	38	41	28	39	55	31	52	66	42	56	448
Third,	34	26	25	12	12	17	24	22	21	53	257
Fourth,	16	14	22	20	32	19	32	28	33	60	266
Fifth,	42	71	44	47	70	48	71	62	70	56	581
Sixth,	20	21	15	17	19	16	20	30	33	38	229
Seventh,	49	56	44	47	55	43	58	66	64	72	560
Eighth,	64	77	31	31	36	31	36	22	29	27	366
Ninth, .....	.....	.....	35	40	40	41	33	26	43	37	295
Tenth, .....	.....	.....	25	17	25	18	18	27	38	50	218
Total,	314	393	346	357	419	398	426	458	487	583	4,181
Grand total,	1,317	1,416	1,415	1,278	1,494	1,563	1,532	1,592	1,517	1,640	13,864

TABLE NO. 10—Showing causes of accidents, number attributable to each cause, and total number of fatal and non-fatal accidents in and about the Anthracite collieries during 1900, with number of wives made widows and children left fatherless by these casualties.

Causes of Accidents.	1st District.		2d District.		3d District.		4th District.	
	Fatal.	Non-Fatal.	Fatal.	Non-Fatal.	Fatal.	Non-Fatal.	Fatal.	Non-Fatal.
	Inside.	Outside.	Inside.	Outside.	Inside.	Outside.	Inside.	Outside.
Explosions of gas and dust,	6	17	2	15	3	15	12	57
Explosions of powder, blasts, etc.,	3	8	3	17	9	26	5	29
Falls of roof, slate, coal, etc.,	25	53	30	54	28	45	22	73
Crushed by cars, machinery, etc.,	5	24	8	39	10	27	18	42
Falling down shafts and slopes, .....	.....	.....	7	1	2	.....	3	1
Kicked or injured by mules, .....	.....	3	.....	4	.....	.....	.....	.....
Miscellaneous causes,	1	4	.....	6	.....	7	3	31
Suffocation, .....	.....	.....	.....	2	.....	.....	.....	.....
Total,	40	108	50	136	52	123	63	224
Number wives left widows, 230.			5	16	7	16	8	20
Children left fatherless, 525.			9	.....	.....	.....	.....	.....

TABLE NO. 10.—Continued.

Causes of Accidents.	5th District.			6th District.			7th District.			8th District.						
	Fatal.		Non-Fatal.	Fatal.		Non-Fatal.	Fatal.		Non-Fatal.	Fatal.		Non-Fatal.				
	Inside.	Outside.	Inside.	Outside.	Inside.	Outside.	Inside.	Outside.	Inside.	Outside.	Inside.	Outside.				
Explosions of gas and dust,	2	.....	.....	.....	9	.....	.....	.....	.....	.....	.....	.....
Explosions of powder, blasts, etc.,	3	1	8	.....	10	.....	.....	.....	.....	.....	.....	.....
Falls of roof, slate, coal, etc.,	11	3	23	7	25	.....	.....	.....	.....	.....	.....	.....
Crushed by cars, machinery, etc.,	6	7	7	17	9	1	.....	.....	.....	.....	.....	.....
Falling down shafts and slopes, .....	.....	.....	.....	.....	2	.....	.....	.....	.....	.....	.....	.....
Kicked or injured by mules, .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Miscellaneous causes,	4	3	7	7	.....	6	.....	.....	.....	.....	.....	.....
Suffocation, .....	.....	.....	.....	.....	3	.....	.....	.....	.....	.....	.....	.....
Total,	26	14	45	31	58	7	124	6	45	4	84	7	24	8	89	18

TABLE NO. 11—Showing causes of accidents, number attributable to each cause and total number of fatal and non-fatal accidents that occurred in and about the Bituminous coal mines for the year 1900, and number of widows and orphans by such accidents.

	1st District.		2d District.		3d District.		4th District.		5th District.	
	Fatal.	Non-Fatal.	Fatal.	Non-Fatal.	Fatal.	Non-Fatal.	Fatal.	Non-Fatal.	Fatal.	Non-Fatal.
	Inside.	Outside.	Inside.	Outside.	Inside.	Outside.	Inside.	Outside.	Inside.	Outside.
By falls of coal,	4	14	6	8	2	15	4	15	2	10
By falls of slate and roof,	22	64	30	20	3	11	8	20	17	18
By mine cars,	3	30	12	16	3	10	3	11	10	18
By machinery,		9		3		1				2
By explosions of gas,	3	5	1	1		1	2	1		
By explosions of powder and dynamite,							4	2		
By explosion of blasts,		2		1	1	2				2
By electric shocks,										
By falling into shafts,	1		2				1		6	
By falling into slopes,										
By falling into manways and breasts,										
By mules,	1							1		2
By suffocation,	3	12	1	7		4				4
By miscellaneous,										
Total,	37	136	52	53	6	48	20	48	39	56

Districts.

TABLE NO. 11.—Continued.

Districts.	6th District.			7th District.			8th District.			9th District.			10th District.			Total.							
	Fatal.	Non-Fatal.		Fatal.	Non-Fatal.		Fatal.	Non-Fatal.		Fatal.	Non-Fatal.		Fatal.	Non-Fatal.		Fatal.	Non-Fatal.						
	Inside.	Outside.	Inside.	Outside.	Inside.	Outside.	Inside.	Outside.	Inside.	Outside.	Inside.	Outside.	Inside.	Outside.	Inside.	Outside.	Inside.	Outside.					
By falls of coal,	7	10	10	6	13	10	13	6	7	13	10	13	6	9	6	5	37	118					
By falls of slate and roof,	13	9	30	2	7	30	7	2	2	13	30	7	2	20	5	11	128	210					
By mine cars,	3	1	1	3	5	1	5	1	1	4	1	4	2	4	5	15	43	10					
By machinery,	1	4	2	1	1	2	1	1	1	1	1	1	1	1	1	2	2	19	20				
By explosions of gas,	1	4	4	1	1	1	1	1	1	1	1	1	1	1	1	1	6	19	19				
By explosions of powder and dynamite,	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	8	11	11				
By explosion of blasts,	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	6	6				
By electric shocks,	4	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	6	6	6				
By falling into shafts,	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	10	10	10				
By falling into slopes,	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	10	10	10				
By falling into manways and breasts,	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	10	10	10				
By mules,	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	4	4				
By suffocation,	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	2	2				
By miscellaneous,	1	1	2	2	1	2	1	1	1	1	2	1	1	1	1	1	2	33	10				
Total,	29	1	85	3	21	2	70	2	9	25	2	20	1	35	3	20	1	47	3	253	12	553	31

Wives left widows, 145.
Children orphaned, 297.

TABLE NO. 12.—Showing the nationalities and number of persons fatally and non-fatally injured in and about the Anthracite collieries during the year 1900, as reported to the Bureau of Mines by the Inspectors.

Nationalities.	1st District.		2d District.		3d District.		4th District.		5th District.		6th District.		7th District.		8th District.		Total.	
	Fatal.	Non-fatal.	Fatal.	Non-fatal.	Fatal.	Non-fatal.	Fatal.	Non-fatal.	Fatal.	Non-fatal.	Fatal.	Non-fatal.	Fatal.	Non-fatal.	Fatal.	Non-fatal.	Fatal.	Non-fatal.
Americans,	6	22	6	24	12	25	15	50	6	12	12	34	18	48	17	52	92	267
English,	6	14	2	12	6	7	2	15	2	2	3	4	4	1	3	5	20	62
Welsh,	2	13	9	28	9	9	7	33	2	2	2	3	1	3	.....	4	23	95
Scottish,	2	2	2	2	2	1	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	4	6
Irish,	5	17	11	36	6	27	5	22	6	16	5	12	2	3	3	10	43	143
Germans,	2	2	4	5	4	6	3	2	1	5	4	2	2	1	3	2	5	21
Poles,	6	24	14	30	12	33	20	81	7	6	21	52	18	22	6	15	104	263
Slavs,	2	9	1	1	5	15	9	16	.....	2	2	7	.....	2	.....	3	19	53
Austrians,	2	4	.....	.....	1	5	5	.....	2	3	.....	1	2	.....	.....	7	14	46
Hungarians,	2	4	2	.....	1	8	.....	.....	9	23	2	3	1	1	1	7	18	46
Italians,	3	6	2	11	8	3	.....	.....	2	7	3	.....	.....	.....	1	1	24	31
Swedes, .....	.....	.....	.....	.....	.....	.....	.....	3	.....	.....	.....	.....	.....	.....	.....	.....	.....	3
French, .....	.....	.....	.....	.....	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1
Belgians, .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	4
Spaniards, .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Bohemians, .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Tyrolean, .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Russians,	4	1	.....	1	1	.....	3	4	.....	2	2	.....	3	1	.....	1	14	9
Lithuanians, .....	.....	.....	2	1	1	.....	6	13	.....	3	5	11	.....	.....	2	3	17	28
Greeks, .....	.....	.....	.....	1	.....	.....	.....	1	.....	1	.....	.....	.....	.....	.....	.....	2	2
Swiss, .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Danes, .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Total,	40	118	55	152	59	139	71	244	40	76	65	130	49	91	32	107	411	1,057

TABLE NO. 13—Showing the nationalities and number of persons fatally and non-fatally injured in and about the Bituminous coal mines during the year 1900, as reported to the Bureau of Mines by the Inspectors.

Nationalities.	1st District.		2d District.		3d District.		4th District.		5th District.		6th District.		7th District.		8th District.		9th District.		10th District.		Total.	
	Fatal.	Non-fatal.	Fatal.	Non-fatal.	Fatal.	Non-fatal.	Fatal.	Non-fatal.	Fatal.	Non-fatal.	Fatal.	Non-fatal.	Fatal.	Non-fatal.	Fatal.	Non-fatal.	Fatal.	Non-fatal.	Fatal.	Non-fatal.	Fatal.	Non-fatal.
Americans,	9	51	16	21	4	27	2	14	15	17	7	13	4	20	.....	3	6	8	8	25	71	199
English,	4	15	3	6	1	5	.....	4	2	6	2	2	2	7	1	5	1	2	1	4	17	54
Welsh, .....	.....	2	1	.....	.....	.....	3	4	.....	1	1	.....	.....	2	.....	1	.....	.....	1	.....	2	8
Scottish,	1	2	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Irish,	5	2	2	2	.....	2	3	3	2	4	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Germans,	2	7	2	5	.....	5	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Poles,	2	7	7	2	.....	1	.....	7	1	3	1	1	4	4	.....	3	3	1	.....	.....	.....	.....
Slavs,	10	16	9	6	1	2	3	3	11	18	10	9	.....	3	3	5	5	7	5	.....	.....	.....
Austrians,	5	3	3	.....	.....	.....	1	6	2	2	3	1	1	2	.....	2	5	1	.....	.....	.....	.....
Hungarians,	4	13	1	.....	.....	.....	.....	.....	3	2	3	1	2	.....	.....	.....	.....	.....	.....	.....	.....	.....
Italians,	4	9	7	6	.....	8	8	4	2	2	4	2	3	5	.....	3	1	9	1	3	15	36
Swedes,	2	1	3	.....	.....	3	.....	.....	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
French,	1	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Belgians, .....	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Spaniards, .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Bohemians, .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Tyrolean,	1	.....	3	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Russians, .....	.....	.....	.....	.....	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Lithuanians, .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Greeks, .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Swiss, .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Fins, .....	.....	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Bavarians, .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Canadians, .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Total,	38	144	56	56	6	53	21	50	40	56	38	23	72	9	27	21	38	21	50	265	584	.....

RECAPITULATION.

TABLE NO. 14—Total number of tons of coal mined, shipped, etc., number of days worked, number of employes, number of persons killed and injured, number kegs of powder and pounds of dynamite used, in the Anthracite districts of Pennsylvania, for the year ending December 31, 1900.

Districts.	Shipments of coal in tons by rail or otherwise.	Number of tons used for steam and heat at collieries.	Number of tons sold to local trade, and used by employes.	Total production of coal in tons.	Average number of days worked.	Number of persons employed.	Number of fatal accidents.	Number of non-fatal accidents.	Number of kegs of powder used.	Number pounds of dynamite used.	Number of horses and mules in use.
First,	5,841,064.00	440,014.00	87,870.00	6,368,948.16	161.5	17,285	40	118	204,359	142,735	1,858
Second,	5,870,752.00	353,408.00	204,932.00	6,429,112.00	160	16,789	55	152	205,490	104,219	1,981
Third,	5,638,947.12	511,230.43	126,763.09	6,296,931.08	154	18,600	59	139	183,122	278,759	2,148
Fourth,	7,561,774.10	780,975.00	242,091.15	8,585,741.05	161.96	23,067	71	244	211,405	443,093	2,736
Fifth,	5,343,291.19	712,921.11	114,570.10	6,170,781.00	195	15,111	40	76	103,943	980,811	1,642
Sixth,	6,053,635.14	870,188.06	96,747.06	7,020,571.06	173	20,278	65	130	141,682	489,060	2,609
Seventh,	5,264,553.05	689,904.19	116,243.02	6,070,701.06	169	20,655	49	91	126,465	563,065	2,029
Eighth,	3,677,589.00	522,301.00	74,638.00	4,274,528.00	195	12,091	32	107	60,714	502,889	1,305
Total,	45,271,608.00	4,880,932.18	1,064,776.20	51,217,318.00	171	143,826	411	1,057	1,237,180	3,454,641	15,708

RECAPITULATION—Continued.

Districts.	Number of Boilers.				Total horse power.			Locomotives.			Number of steam engines of all classes.	Total horse power.	Number of pumps delivering water to surface.	Capacity in gallons per minute.	Quantity in gallons delivered to surface per minute.	Number of electric dynamos.	Number of air compressors.
	Cylindrical.	Tubular.	Horse power.		Horse power.	Steam.	Air.	Electric.									
			Horse power.	Total horse power.													
First,	368	144	15,845	25,388	40	11	11	434	30,076	82	61,416	41,714	15	14			
Second,	371	107	15,585	26,171	24	.....	.....	415	27,123	86	48,384	27,334	6	3	
Third,	342	9,784	292	29,836	39,620	40	3	4	562	50,132	146	90,750	11	26			
Fourth,	827	31,150	236	33,398	63,838	43	.....	7	734	88,888	97	76,929	38,747	7		
Fifth,	678	20,845	285	31,306	52,150	106	9	.....	533	34,689	174	153,082	85,931	31		
Sixth,	550	19,079	281	37,595	57,074	42	6	.....	515	34,570	140	94,870	59,847	2		
Seventh,	372	13,883	260	34,425	49,308	40	1	.....	345	32,788	125	64,308	35,870	5		
Eighth,	396	8,490	228	23,424	35,909	30	.....	1	288	23,980	67	57,886	26,778	1		
Total,	3,834	123,445	1,743	226,814	349,458	365	30	38	3,826	822,246	917	646,025	366,401	60	139		

RECAPITULATION.

TABLE NO. 15—Total number of tons of coal mined and tons of coke produced, number of days worked, number of employees, number of persons killed and injured, number of kegs of powder, etc., used in the Bituminous districts for the year ending December 31, 1900.

Districts.	Shipments of coal in tons by rail or otherwise.	Number of tons used for steam and heat at collieries.	Number of tons sold to local trade, and used by employes.	Total production of coal in tons.	Total production of coke in tons.	Total production of coke in tons.	Number of coke ovens.	Average number of days worked.	Number of persons employed.	Number of fatal accidents.	Number of non-fatal accidents.	Number of kegs of powder used.	Number pounds of dynamite used.	Number of horses and mules in use.
First,	8,542,165	87,962	24,154	8,654,281	.....	.....	.....	182	10,942	38	144	84,302	6,375	823
Second,	6,912,243	247,477	161,137	13,648,199	4,280,354	9,462	9,462	248	17,552	56	56	4,070	10,725	1,480
Third,	4,820,945	51,967	50,965	4,923,877	95,501	403	403	221	7,650	6	53	17,256	9,681	604
Fourth,	7,138,760	192,975	51,814	8,199,027	480,674	1,529	1,529	236	10,383	21	50	38,646	48,314	998
Fifth,	2,831,875	173,583	82,110	3,060,273	4,477,682	11,282	11,282	254	13,867	40	56	84,439	62,924	1,519
Sixth,	10,067,978	136,579	35,812	10,684,627	256,481	787	787	215	14,879	30	38	72,569	56,319	1,167
Seventh,	6,485,977	236,511	211,088	6,933,576	.....	.....	.....	185	10,045	23	72	21,096	1,950	744
Eighth,	4,225,931	57,364	13,078	4,342,176	20,724	50	50	181	7,330	9	27	25,626	18,078	769
Ninth,	3,888,262	112,558	68,962	7,571,754	2,241,153	5,346	5,346	261	8,969	21	31	23,058	9,361	893
Tenth,	3,650,818	30,280	23,011	4,390,572	332,533	1,251	1,251	265	7,401	21	50	25,275	19,790	636
Total,	58,564,954	1,327,256	723,731	73,318,362	12,185,112	30,130	30,130	219	109,018	265	584	296,367	243,517	9,653

RECAPITULATION—Continued.

Districts.	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 in gallons delivered to surface per minute.	Number of electric dynamos.	Number of air compressors.	
	Cylindrical.	Horse power.	Tubular.	Horse power.	Steam.	Air.	Electric.								
															Horse power.
First,	65	2,772	114	11,876	15,173	1	2	16	111	1,682	58	12,454	7,239	32	10
Second,	117	3,491	137	13,334	20,685	36	5	6	230	19,357	102	59,529	24,662	16	29
Third,	29	1,545	84	7,370	8,915	5	.....	4	79	5,027	45	8,051	4,786	4	24
Fourth,	14	725	135	14,100	14,825	22	3	18	78	7,417	42	38,080	7,591	12	30
Fifth,	83	4,626	195	16,671	20,857	28	3	3	157	18,435	92	28,095	16,671	21	31
Sixth,	62	8,965	123	11,685	20,650	3	3	65	124	14,707	37	17,313	9,860	42	52
Seventh,	51	2,633	111	11,870	14,503	5	.....	26	128	11,709	70	9,741	6,600	31	21
Eighth,	29	1,885	61	4,843	6,568	1	.....	16	44	3,140	54	20,911	6,385	10	9
Ninth,	87	3,059	96	8,184	11,243	14	1	12	128	9,777	48	13,747	8,307	23	11
Tenth,	24	900	46	3,720	4,620	4	.....	8	45	3,058	27	9,812	5,302	5	5
Total,	561	30,711	1,162	103,653	138,139	119	17	174	1,124	94,309	575	217,643	96,693	196	225

TABLE NO. 16—Fatal Accidents per each 1,000 employes in and about the Anthracite coal mines, and tons of coal mined per each fatal accident from 1870 to 1900, inclusive.

Years.	Employes.	Fatal accidents.	Fatal accidents per 1,000 employes.	Number of tons of coal mined.	Number of tons mined for each fatal accident.
1870,	35,600	211	5,929	12,653,575	59,970
1871,	37,488	210	5,601	13,868,087	66,838
1872,	44,745	166	3,709	13,899,976	83,734
1873,	48,199	224	4,647	18,751,358	83,711
1874,	53,402	231	4,325	17,794,857	77,034
1875,	69,966	238	3,401	20,895,220	87,795
1876,	70,474	228	3,235	19,611,071	86,013
1877,	66,842	194	2,902	22,077,869	113,803
1878,	63,964	187	2,923	18,661,577	99,794
1879,	68,847	262	3,805	27,711,250	105,708
1880,	73,373	202	2,753	24,843,476	182,987
1881,	76,031	273	3,591	30,210,018	110,659
1882,	83,242	293	3,520	30,867,301	105,349
1883,	91,411	323	3,533	33,200,608	104,336
1884,	101,078	332	3,284	32,561,390	98,076
1885,	100,534	356	3,541	33,520,941	94,160
1886,	103,034	279	2,707	34,064,543	122,095
1887,	106,574	316	2,965	37,137,251	117,522
1888,	117,290	364	3,103	41,638,426	114,391
1889,	119,007	384	3,226	30,015,835	101,604
1890,	109,166	378	3,463	40,080,355	106,033
1891,	123,345	424	3,463	44,320,967	103,796
1892,	129,797	396	3,051	45,738,373	115,500
1893,	138,002	445	3,224	47,179,563	106,021
1894,	139,655	439	3,144	45,506,179	103,659
1895,	143,610	422	2,939	51,207,000	121,344
1896,	149,670	502	3,354	48,074,330	95,766
1897,	149,557	424	2,836	46,947,354	110,725
1898,	142,420	411	2,886	47,145,174	114,708
1899,	140,583	461	3,271	54,034,224	117,211
1900,	143,826	411	2,857	51,217,318	124,611

TABLE NO. 17—Fatal accidents per each 1,000 employes in and about the Bituminous coal mines, and tons of coal mined for each fatal accident from 1884 to 1900, inclusive.

Years.	Employes.	Fatal accidents.	Fatal accidents per 1,000 employes.	Number of tons of coal mined.	Number of tons mined for each fatal accident.
1884,*	39,994	105	2,625	20,553,090	195,743
1885,	44,145	72	1,630	24,030,919	333,763
1886,	51,846	81	1,562	28,607,173	353,175
1887,	57,774	103	1,783	33,902,030	329,146
1888,	61,564	89	1,445	33,832,285	380,138
1889,	55,600	105	1,888	34,625,449	329,766
1890,	66,851	146	2,183	40,740,521	279,045
1891,	74,166	236	3,182	41,831,456	177,252
1892,	78,784	133	1,688	46,225,552	347,560
1893,	79,824	131	1,640	43,422,498	331,469
1894,	86,177	124	1,441	39,800,210	324,194
1895,	84,904	155	1,825	51,813,112	334,278
1896,	83,796	179	2,136	50,273,656	280,858
1897,	86,483	149	1,723	54,674,272	366,941
1898,	87,802	198	2,255	64,247,635	323,483
1899,	91,440	258	2,821	72,866,943	282,429
1900,	109,018	265	2,430	79,318,362	311,311

*Returns prior to 1884 were not reliable, and are therefore not published.



LAWS RELATING
TO
COAL MINING.



LAWS RELATING TO COAL MINING.

AN ACT

To protect miners in the bituminous coal region of the Commonwealth.

Section 1. Be it enacted, &c., That after the period of three months from the passage of this act, any miner employed by an individual, firm or corporation for the purpose of mining coal shall be entitled to receive from his employer, and failing to receive then to collect, by due process of law, at such rates as may have been agreed upon between the employer and the employed, full and exact wages accruing to him for the mining of all sizes of merchantable coal so mined by him, whether the same shall exist in the form of nut or lump coal; and in the adjudication of such wages seventy-six pounds shall be deemed one bushel, and two thousand pounds net, shall be deemed one ton of coal: Provided, That nothing contained in this act shall be construed to prevent operators and miners contracting for any method of measuring and screening the coal mined by such miners, as they may contract for.

Section 2. That at every bituminous coal mine in this Commonwealth, where coal is mined by measurement, all cars, filled by miners or their laborers, shall be uniform in capacity at each mine; no unbranded car or cars shall enter the mine for a longer period than three months, without being branded by the mine inspector of the district, wherein the mine is situated; and any owner or owners, or their agents, violating the provisions of this section, shall be subject to a fine of not less than one dollar per car for each and every day as long as the car is not in conformity with this act, and the mine inspector of the district, where the mine is located, on receiving notice from the check-master or any five miners working in the mine, that a car or cars are not properly branded, or not uniform in capacity according to law, are used in the mine where he or they are employed, then inside of three days from the date of receiving said notice, it shall be his duty to enforce the provisions of this section, under penalty of ten dollars for each and every day he permits such car or cars to enter the mine: Provided, That nothing contained in this section shall be construed or applied to those mines which do not use more than ten cars.

Section 3. That at every bituminous coal mine in this Commonwealth, where coal is mined by weight or measure, the miners or a majority of those present at a meeting called for that purpose, shall have the right to employ a competent person as check-weighman, or check-measurer as the case may require, who shall be permitted at all times to be present at the weighing or measurement of coal, also have power to weigh or measure the same, and during the regular working hours to have the privilege to balance and examine the scales, or measure the cars: Provided, That all such balancing or examination of scales shall only be done in such way, and in such time, as in no way to interfere with the regular working of the mines. And he shall not be considered a trespasser during working hours while attending to the interests of his employers. And in no manner shall he be interfered with or intimidated by any person, agent, owner or miner. And any person violating these provisions shall be held and deemed guilty of a misdemeanor, and upon conviction thereof, he shall be punished by a fine of not less than twenty dollars, and not exceeding one hundred dollars, or imprisonment at the discretion of the court. It shall be a further duty of check-weighman or check-measurer to credit each miner with all merchantable coal mined by him, on a proper sheet or book to be kept by him for that purpose. When differences arise between the check-weighman or check-measurer and the agent or owners of the mine, as to the uniformity, capacity or correctness of scales or cars used, the same shall be referred to the mine inspector of the district where the mine is located, whose duty it shall be to regulate the same at once, and in the event of said scales or cars proving to be correct, then the party or parties applying for the testing thereof to bear all costs and expenses thereof; but if not correct then the owner or owners of said mine to pay the cost and charges of making said examination: Provided further, That should any weighman or weighmen, agent or check-measurer, whether employed by operators or miners, knowingly or willfully adopt or take more or less pounds for a bushel or ton than is provided for in the first section of this act, or willfully neglect the balancing or examining of the scales or cars, or knowingly and willfully weigh coal with an incorrect scale, he shall be guilty of a misdemeanor, and upon conviction thereof, shall be imprisoned in the county jail for three months.

Section 4. All acts or parts of acts inconsistent with this act are hereby repealed.

Approved—The 1st day of June, A. D. 1883.

ROBT. E. PATTISON.

AN ACT

To provide payment to the miner for all clean coal mined by him.

Section 1. Be it enacted, &c., That from and after the passage of this act all individuals, firms and corporations engaged in mining coal in this Commonwealth, who, instead of dumping all the cars that come from the mine into a breaker or chutes, shall switch out one or more of the cars for the purpose of examining them, and determining the actual amount of slate or refuse, by removing said slate or refuse from the car, and who shall, after so doing, willfully neglect to allow the miner in full for all clean coal left after the refuse, dirt or slate is taken out, at the same rate paid at the mine for clean coal less the actual expense of removing said slate or refuse, he shall be deemed guilty of a misdemeanor.

Section 2. That any individual, firm or corporation as aforesaid, violating the provisions of this act, upon suit being brought and conviction had, shall be sentenced by the court to pay a fine of not more than one hundred dollars, and to make restitution by paying to the miner the amount to which, under this act, he would be entitled for the coal mined by him, and for which he was not paid.

Approved—The 13th day of June, A. D. 1883.

ROBT. E. PATTISON

AN ACT

To provide for the recovery of the bodies of workmen enclosed, buried or entombed in coal mines.

Section 1. Be it enacted, &c., That whenever any workman or workmen shall heretofore have been, or shall hereafter be enclosed, entombed or buried in any coal mine in this Commonwealth, it shall be the duty of the court, sitting in equity, in the county wherein such workman or workmen are enclosed, entombed or buried, upon the petition of any of the relatives of those enclosed, entombed or buried, to make an order of court for the petitioner to take testimony in order that the court may ascertain whether such workman or workmen, or the body or bodies of such workman or workmen, can be recovered or taken out of said mine.

If, after full hearing, it shall appear to the court that such undertaking is feasible or practicable, said court may forthwith issue a peremptory mandamus to the owner or owners, lessee or lessees, operator or operators of such coal company, to forthwith proceed to work for and recover and take out the body or bodies of such work-

man or workmen, and said court shall have full authority to enforce such peremptory mandamus in the manner already provided for the enforcement of such process.

Approved—The 9th day of May, A. D. 1889.

JAMES A. BEAVER.

AN ACT

To provide for the health and safety of persons employed in and about the anthracite coal mines of Pennsylvania and for the protection and preservation of property connected therewith.

ARTICLE I.

Section 1. Be it enacted, &c., That this act shall apply to every anthracite coal mine or colliery in the Commonwealth, provided the said mine or colliery employs more than ten (10) persons.

ARTICLE II.

Inspectors and Inspection Districts.

Section 1. The counties of Susquehanna, Wayne, Luzerne, Lackawanna, Carbon, Schuylkill, Northumberland, Columbia, Lebanon and Dauphin, or so much of them as may be included under the provisions of this act, shall be divided into eight (8) inspection districts as follows:

Section 2. First. All that portion of the Lackawanna coal field lying northeast of East and West Market streets in the city of Scranton, and of Slocum and Drinker streets in the borough of Dunmore, including the coal fields of Susquehanna and Wayne counties.

Second. That portion of the Lackawanna coal field in Lackawanna county lying southwest of East and West Market streets in the city of Scranton, and west of Slocum and Drinker streets in the borough of Dunmore.

Third. That portion of the Wyoming coal fields situated in Luzerne county, east of and including Plains and Kingston townships.

Fourth. The remaining portion of the Wyoming coal field west of Plains and Kingston townships, including the city of Wilkes-Barre and the boroughs of Kingston and Edwardsville.

Fifth. That part of Luzerne county lying south of the Wyoming coal field together with Carbon county.

Sixth. That part of the Schuylkill coal field in Schuylkill county lying north of the Broad Mountain and east of a meridian line through the centre of the borough of Girardville.

Seventh. That part of the Schuylkill coal field in Schuylkill county lying north of the Broad Mountain and west of a meridian line through

the centre of the borough of Girardville, together with Columbia, Northumberland and Dauphin counties.

Eighth. All that part of the Schuylkill coal field in Schuylkill county lying south of the Mahanoy Valley, and the county of Lebanon.

Section 3. In order to fill any vacancy that may occur in the office of Inspector of Mines by reason of expiration of term, resignation, removal for cause or from any other reason whatever, the judges of the court of Lackawanna county shall appoint an examining board for the counties of Susquehanna, Wayne and Lackawanna, and the judges of the court of Luzerne county shall appoint an examining board for the counties of Sullivan, Carbon and Luzerne, and the judges of Schuylkill county shall appoint an examining board for the counties of Schuylkill, Northumberland, Lebanon, Columbia and Dauphin.

Section 4. The said Board of Examiners shall be composed of three reputable coal miners in actual practice and two reputable mining engineers, all of whom shall be appointed at the first term of court in each year, to hold their places during the year. Any vacancies that may occur in the Board of Examiners shall be filled by the court as they occur. The said Board of Examiners shall be permitted to engage the services of a clerk, and they, together with the clerk, shall each receive the sum of five dollars per day for every day they are actually engaged in the discharge of their duties under this appointment, and mileage at the rate of six cents per mile from their home to the place of meeting and return by the nearest practicable railway route.

Section 5. Whenever candidates for the office of inspector are to be examined, the said examiner shall give public notice of the fact in not more than five papers published in the inspection district and at least two weeks before the meeting, specifying the time and place where such meeting shall be held. The said examiners shall be sworn to a faithful discharge of their duties, and four of them shall agree in their recommendation of all candidates to the Governor who have answered ninety per centum of the questions; the names of the applicants, the questions asked and answered thereto shall be sent to the Secretary of the Commonwealth, and published in at least two local papers, daily or weekly, and shall recommend only such applicants as they find qualified for the office.

Should the Board of Examiners not be able to agree in their selection and recommendation of a candidate, the judges of the court of common pleas shall dissolve the said board and appoint a new board of like qualifications and powers.

Upon the recommendation of the Board of Examiners as aforesaid, the Governor shall appoint such person or persons to fill the office

of inspector of mines under this act, and shall issue to him a commission for the term of five years, subject, however, to removal for neglect of duty or malfeasance in office as hereinafter provided for.

Section 6. The person so appointed must be a citizen of Pennsylvania and shall have attained the age of thirty years. He must have a knowledge of the different systems of working coal mines, and he must produce satisfactory evidence to the Board of Examiners of having had at least five (5) years' practical experience in anthracite coal mines of Pennsylvania. He must have had experience in coal mines where noxious and explosive gases are evolved.

Before entering upon the duties of his office he shall take an oath or affirmation before an officer properly qualified to administer the same, that he will perform his duties with fidelity and impartiality; which oath or affirmation shall be filed in the office of the prothonotary of the county. He shall also provide himself with the most modern instruments and appliances for carrying out the intentions of this act.

Section 7. The salary of each of the said inspectors shall be three thousand dollars per annum, which salary, together with the expense incurred in carrying into effect the provisions of this act, shall be paid by the State Treasurer out of the Treasury of the Commonwealth upon the warrant of the Auditor General.

Section 8. In case the inspector becomes incapacitated to perform the duties of his office, for a longer period than two weeks, it shall be the duty of the judges of the court of common pleas to deputize some competent person recommended by the Board of Examiners to fill the office of inspector until the said inspector shall be able to fulfill the duties of his office and the person so appointed shall be paid in the same manner as is provided for the Inspector of Mines.

Section 9. Each of the said inspectors shall reside in the district for which he is appointed, and shall give his whole time and attention to the duties of the office. He shall examine all the collieries in his district as often as his duties will permit or as often as the exigencies of the case or the condition of the mines require it; see that every necessary precaution is taken to secure the safety of the workmen and that the provisions of this act are observed and obeyed; attend every inquest held by the coroner, or his deputy, upon the bodies of persons killed in or about the collieries in his district; visit the scene of the accident for the purpose of making an examination into the particulars of the same whenever loss of life or serious personal injury occurs as elsewhere herein provided for, and make an annual report of his proceedings to the Secretary of Internal Affairs of the Commonwealth at the close of every year, enumerating all the accidents in and about the collieries of his district, marking in tabular form those accidents causing death or serious personal injury,

the condition of the workings of the said mines with regard to the safety of the workmen therein and the ventilation thereof, and the result of his labors generally shall be fully set forth.

Section 10. The Board of Examiners, each for its respective district as hereinbefore provided for, in order to divide more equitably among the several mine inspectors the labor to be performed and the territory to be covered by them in the performance of the duties of the office, may, at any time when they shall deem it desirable or necessary, readjust the several districts by the creation of new boundary lines, thereby adding to or taking from, as the case may be, the districts as at present bounded and described, if the court having jurisdiction approve the same.

And in case it shall be deemed desirable or necessary to readjust any contiguous district, comprised by more than one judicial district, by the creation of new boundary lines, then in such case the examining boards of the territory affected or requiring such adjustment, shall, in joint session, make such change or readjustment as they shall jointly agree upon, if the nearest court having jurisdiction to the territory affected to whom the said joint examining boards shall submit the matter, shall approve the same.

Section 11. The mine inspector shall have the right, and it is hereby made his duty to enter, inspect and examine any mine or colliery in his district and the workings and machinery belonging thereto, at all reasonable times, either by day or night, but not so as to impede or obstruct the working of the colliery, and shall have power to take one or more of his fellow inspectors into or around any mine or colliery in the district for which he is appointed, for the purpose of consultation or examination.

He shall also have the right and it is hereby made his duty, to make inquiry into the condition of such mine or colliery workings, machinery, ventilation, drainage, method of lighting or using lights and into all matters and things connected with or relating to, as well as to make suggestions providing for the health and safety of persons employed in or about the same, and especially to make inquiry whether the provisions of this act have been complied with.

The owner, operator or superintendent of such mine or colliery is hereby required to furnish the means necessary for such entry, inspection, examination, inquiry and exit.

The inspector shall make a record of the visit, noting the time and material circumstances of the inspection.

Section 12. No person who shall act or practice as a land agent or as the manager or agent of any coal mine or colliery, who is pecuniarily interested in operating any coal mine or colliery in his district, shall, at the same time, hold the office of inspector of mines under this act.

Section 13. Whenever a petition signed by fifteen or more reputable coal operators or miners, or both, setting forth that any inspector of mines neglects his duties, or is incompetent, or is guilty of malfeasance in office, it shall be the duty of the court of common pleas of the proper county to issue a citation in the name of the Commonwealth to the said inspector to appear at not less than five days' notice, on a day fixed, before said court and the court shall then proceed to inquire into and investigate the allegations of the petitioners. If the court find that said inspector is neglectful of his duties or that he is incompetent to perform the duties of the office, for any cause that existed previous to his appointment or that has arisen since his appointment, or that he is guilty of malfeasance in office, the court shall certify the same to the Governor of the Commonwealth, who shall declare the office of inspector for the district vacant and proceed, in compliance with the provisions of this act, to appoint a properly qualified person to fill the office.

The cost of said investigation shall be borne by the removed inspector; but if the allegations in the petition are not sustained the costs shall be paid by the petitioners.

Section 14. The maps and plans of the mines and the records thereof, together with all the papers relating thereto, shall be kept by the inspector, properly arranged and preserved, in a convenient place in the district for which each inspector has been appointed, and shall be transferred by him with any other property of the Commonwealth that may be in his possession, to his successor in office.

Section 15. The persons who, at the time this act goes into effect, are acting as inspectors of mines under the acts hereby repealed shall continue to act in the same manner as if they had been appointed under this act, and until the term for which they were appointed has expired.

ARTICLE III.

Surveys, Maps and Plans.

Section 1. The owner, operator or superintendent of every coal mine or colliery shall make, or cause to be made, an accurate map or plan of the workings or excavations of such coal mine or colliery, on a scale of one hundred feet to the inch, which map or plan shall exhibit the workings or excavations in each and every seam of coal and the tunnels and passages connecting with such workings or excavations. It shall state in degrees the general inclination of the strata with any material deflection therein in said workings or excavations, and shall also state the tidal elevations of the bottom of each and every shaft, slope, tunnel and gangway, and of any other point in the mine or on the surface where such elevation shall be deemed necessary by the inspector. The map or plan shall show the number of the last survey station and date of each survey on the

gangways or the most advanced workings. It shall also accurately show the boundary lines of the lands of the said coal mine or colliery and the proximity of the workings thereto, and in case any mine contains any water dammed up in any part thereof, it shall be the duty of the owner, operator or superintendent to cause the true location of the said dam to be accurately marked on said map or plan, together with the tidal elevation, inclination of strata and area of said workings containing water, and whenever any workings or excavations is approaching the workings where such dam or water is contained or situated, the owner, operator or superintendent shall notify the inspector of the same without delay.

A true copy of which map or plan the said owner, operator or superintendent shall deposit with the inspector of mines for the district in which the said coal mine or colliery is situated, showing the workings of each seam, if so desired by the inspector, on a separate sheet of tracing muslin. One copy of the said map or plan shall be kept at the colliery.

Section 2. The said owner, operator or superintendent shall, as often as once in every six months place, or cause to be placed, on the said Inspector's map or plan of said coal mine or colliery, the plan of the extensions made in such coal mine or colliery during the preceding six months. The said extensions shall be placed on the inspector's map and the map returned to the inspector within two months from the date of the last survey.

Section 3. When any coal mine or colliery is worked out preparatory to being abandoned, or when any lift thereof is about to be abandoned, the owner, operator or superintendent of such coal mine or colliery shall have the maps or plans thereof extended to include all excavations, as far as practicable, and such portions thereof as have been worked to the boundary lines of adjoining properties; or any part or parts of the workings of which is intended to be allowed to fill with water, must be surveyed in duplicate and such surveys must practically agree, and certified copies be filed with the inspector of the district in which the mines are situated.

Section 4. Whenever the owner, operator or superintendent of any coal mine or colliery shall neglect or refuse, or from any cause not satisfactory to the inspector, shall fail, for a period of three months, to furnish to the inspector the map or plan of said colliery or of the extensions thereto, as provided for in this act, the inspector is hereby authorized to cause an accurate map or plan of such coal mine or colliery to be made at the expense of the owner thereof, which cost shall be recoverable from said owner as other debts are by law recoverable.

Section 5. If the inspector finds or has reason to believe, that any map or plan of any coal mine or colliery, furnished under the provisions of this act, is materially inaccurate, it shall be his duty to make

application to the court of common pleas of the county in which such colliery is situate for an order to have an accurate map or plan of said colliery prepared, and if such survey shall prove that the map furnished was materially inaccurate or imperfect, such owner, operator or superintendent shall be liable for the expense incurred in making the same.

Section 6. If it shall be found that the map or plan furnished by the owner, operator or superintendent was not materially inaccurate or imperfect, the Commonwealth shall be held liable for the expense incurred in making such test survey.

Section 7. If it shall be shown that the said owner, operator or superintendent has knowingly or designedly caused or allowed such map or plan, when furnished, to be incorrect or false, such owner, operator or superintendent thus offending, shall be guilty of a misdemeanor and upon conviction thereof, shall be punished by a fine not exceeding five hundred dollars or imprisonment not exceeding three months, at the discretion of the court.

Section 8. The maps or plans of the several coal mines or collieries in each district and which are placed in the custody of the inspector, shall be the property of the Commonwealth, and shall remain in the care of the inspector of the district in which the said collieries are situated to be transferred by him to his successor in office; and in no case shall a copy of the same be made without the consent of the owner, operator or superintendent.

Section 9. The inspector's map or plan of any particular colliery shall be open for inspection, in the presence of the inspector, to any miner or miners of that colliery, whenever said miner or miners shall have cause to fear that his or their working place or places is becoming dangerous, by reason of its proximity to other workings which may be supposed to contain water or dangerous gases. Said map shall also be open to the inspection and examination of any citizen interested, during business hours.

Section 10. It shall be obligatory on the owners of adjoining coal properties to leave, or cause to be left, a pillar of coal in each seam or vein of coal worked by them, along the line of adjoining property, of such width, that taken in connection with the pillar to be left by the adjoining property owner, will be a sufficient barrier for the safety of the employes of either mine in case the other should be abandoned and allowed to fill with water; such width of pillar to be determined by the engineers of the adjoining property owners together with the inspector of the district in which the mine is situated, and the surveys of the face of the workings along such pillar shall be made in duplicate and must practically agree. A copy of such duplicate surveys, certified to, must be filed with the owners of the adjoining properties and with the inspector of the district in which the mine or property is situated.

ARTICLE IV.

Shafts, Slopes, Openings and Outlets.

Section 1. It shall not be lawful for the owner, operator or superintendent of any mine to employ any person or persons in such mine or permit any person or persons to be in such mine for the purpose of working therein, unless they are in connection with every seam or stratum of coal; and from every lift thereof, worked in such mine, not less than two openings or outlets, separated by a strata of not less than sixty (60) feet in breadth underground, and one hundred and fifty (150) feet in breadth at the surface, at which openings or outlets safe and distinct means of ingress and egress are at all times available for the person or persons employed in the said mine, but it shall not be necessary for the said two openings to belong to the same mine if the persons employed therein have safe, ready and available means of ingress and egress by not less than two openings. This section shall not apply to opening a new mine or to opening any new lift of a mine while being worked for the purpose of making communication between said two outlets, so long as not more than twenty persons are employed at any one time in such mine or new lift of a mine; neither shall it apply to any mine or part of a mine in which the second outlet has been rendered unavailable by reason of the final robbing of pillars previous to abandonment, so long as not more than twenty persons are employed therein at any one time. The cage or cages and other means of egress shall, at all times, be available for the persons employed where there is no second outlet.

Section 2. The owner, operator or superintendent of any mine to which there is only one shaft, slope or outlet may petition the court of common pleas in and for the county in which such mine is situated, which said court is hereby empowered to act in the premises, setting forth that, in consequence of intervening lands between the working of his mine and the most practicable point, or the only practicable point, as the case may be, at which to make or bring to the surface from the working of his mine, he is unable to make an additional shaft, slope or outlet in accordance with the requirements of this act, whereupon the court may make an order of reference and appoint three disinterested persons, residents of the county, viewers, one or more of whom shall be a practical mining engineer, all of whom, after being sworn to a faithful discharge of their duties, shall view and examine the premises and determine as to whether the owner shall have the privilege of making an additional outlet through or upon any intervening lands, as the case may require, and report in writing to the court, which report shall be entered and filed of record. If the finding of the viewers, or any two of them, is in favor of the owner of such coal mine or colliery,

he may make an additional shaft, slope or outlet under, through or upon intervening lands, as may be determined upon and provided for by the award. If the finding of the viewers is against the owner, or if no award be made by reason of any default or neglect on the part of the owner, he shall be bound to comply with the provisions of this act in the same manner as if this section had not been enacted. In case the said owner, operator or superintendent desires to, and claims that he ought to make an additional opening under, through or upon any adjoining or intervening lands, to meet the requirements of this act, for the ingress and egress of the men employed in his or their mine, he or they shall make a statement of the facts in the petition, with a survey, setting forth the point of commencement and the point of termination of the proposed outlet which he or they, their engineers, agents or employes may enter upon said intervening lands and survey and mark, as he or they shall find it proper to adopt for such additional outlet, doing as little damage as possible to the property explored; and the viewers shall state in their report what damage will be sustained by the owner or owners of the intervening lands by the opening, constructing and using of the outlet, and if the report is not appealed from, it shall be confirmed or rejected by said court as to right and justice shall appertain, and any further and all proceedings in relation thereto shall be in conformity with like proceedings as in the case of a lateral railroad across or under intervening lands, under the act in relation to lateral railroads, approved the fifth day of May, Anno Domini one thousand eight hundred and thirty-two, and the supplements thereto, so far as the provisions of the same are applicable hereto; and the notices to the owner of intervening lands, of the intention to apply for the privilege of making an outlet and meeting of the viewers shall be given, and the costs of the case shall be paid as provided in the said act of fifth day of May, Anno Domini one thousand eight hundred and thirty-two, and the supplements thereto.

Section 3. The escapements, shafts or slopes shall be fitted with safe and available appliances by which the persons employed in the mine may readily escape in case an accident occurs deranging the hoisting machinery at the main outlets.

Section 4. In slopes where the angle of inclination is fifteen degrees or less there must be provided a separate traveling way, which shall be maintained in a safe condition for travel and kept free from steam and dangerous gases.

Section 5. No inflammable structure, other than a frame to sustain pulleys or sheaves, shall be erected over the entrance of any opening connecting the surface with the underground workings of any mine, and no "breaker" or other inflammable structure for the preparation or storage of coal shall be erected nearer than two hun-

dred (200) feet to any such opening, but this act shall not be construed to prohibit the erection of a fan drift for the purpose of ventilation, or of a trestle for the transportation of cars from any slope to such breaker or structure, neither shall it apply to any shaft or slope until the work of development and shipment of coal has commenced: Provided, That this section shall not apply to breakers that are now erected.

Section 6. The top of each shaft and also of each slope, if dangerous, or any intermediate lift thereof, shall be securely fenced off by railing or by vertical or flat gates.

Section 7. Every abandoned slope, shaft, air-hole and drift shall be properly fenced around or across its entrance.

Section 8. All underground entrances to any places not in actual course of working or extension shall be properly fenced across the whole width of such entrances, so as to prevent persons from inadvertently entering the same.

Section 9. The owner, operator or superintendent of any coal mine or colliery which is worked by shaft or slope, shall provide and maintain a suitable appliance by or through which conversation can be held by and between persons at the bottom and at the top of the shaft or slope, and also an efficient means of signaling from the bottom of such shaft or slope to the engineer in charge of the hoisting engine.

Section 10. Hand rails and efficient safety catches shall be attached to, and a sufficient cover overhead shall be provided on every cage used for lowering or hoisting persons in any shaft.

Section 11. Wherever practicable, every cage or gun-boat used for lowering or hoisting persons in any slope, shall be provided with a proper protector, so constructed that persons, while on such cage or gun-boat, shall not be struck by anything which may fall or roll down said slope.

Section 12. The main link of the chain connecting the rope to the cage, gun-boat or car in any shaft or slope, shall be made of the best quality of iron; bridle chains made of the same quality of iron shall be attached to the main link, rope or rope socket from the cross-head of the cage or gun-boat when persons are being lowered or hoisted thereon.

Section 13. The ropes, safety catches, links and chains shall be carefully examined every day they are used, by a competent person delegated for that purpose and any defects therein found, by which life or limb may be endangered, shall be immediately remedied.

Section 14. An efficient brake shall be attached to every drum that is used for lowering or raising persons or material in any mine.

Section 15. Flanges or horns of sufficient dimensions to prevent the rope from slipping off the said drum shall be provided and properly attached to the drum, and all machines used for lowering or

hoisting persons in mines shall be provided with an indicator to show the position of the cage, car or gun-boat in the shaft or slope.

Section 16. Over all shafts which are being sunk or shall hereafter be sunk, a safe and substantial structure shall be erected to sustain the sheaves or pulleys, at a height of not less than twenty (20) feet above the tipping-place, and the top of such shaft shall be arranged in such manner that no material can fall into the shaft while the bucket is being emptied.

Section 17. The said structure shall be erected as soon as a substantial foundation is obtained, and in no case shall a shaft be sunk to a depth of more than fifty (50) feet without such structure.

Section 18. If provision is made to land the bucket upon truck, the said truck shall be constructed in such manner that material cannot fall into the shaft.

Section 19. All rock and coal from shafts as they are being sunk, shall not be raised except in a bucket or on a cage, and such bucket or cage must be connected to the rope or chain by a safety hook, clevis or other safe attachment.

Section 20. Such shafts shall be provided with guides and guide attachments applied in such manner as to prevent the bucket from swinging while descending or ascending therein, and such guides and guide attachments shall be maintained at a distance of not more than seventy-five (75) feet from the bottom of such shaft, until its sinking shall have been completed, but this section shall not apply to shafts one hundred (100) feet or less in depth.

Section 21. Where the strata are not safe every shaft shall be securely cased, lined or otherwise made secure.

Section 22. The following rules shall be observed, as far as practicable, in every shaft to which this act applies.

First. After each and every blast the chargeman must see that all loose material is swept down from the timbers before the workmen descend to their work.

Second. After a suspension of work, and also after firing a blast in a shaft where explosive gases are evolved, the person in charge must have the said shaft examined and tested with a safety lamp before the workmen are allowed to descend.

Third. Not more than four persons shall be lowered or hoisted in any shaft on a bucket at the same time, and no person shall ride on a loaded bucket.

Fourth. Whenever persons are employed on platforms in shafts the person in charge must see that the said platforms are properly and safely constructed.

Fifth. While shafts are being sunk all blasts therein must be exploded by an electric battery.

Sixth. Every person who fails to comply with or who violates the provisions of this article shall be guilty of an offense against this act.

ARTICLE V.

Boilers and Connections, Machinery, &c.

Section 1. All boilers used for generating steam in and about mines and collieries shall be kept in good order, and the owner, operator or superintendent shall have them examined and inspected by a qualified person as often as once in six months, and oftener if needed. The result of such examination, under oath, shall be certified in writing to the inspector for the district within thirty (30) days thereafter.

Section 2. It shall not be lawful to place any boiler or boilers, for the purpose of generating steam, under nor nearer than one hundred (100) feet to any coal breaker or other structure in which persons are employed in the preparation of coal: Provided, That this section shall not apply to boilers or breakers already erected.

Section 3. Each nest of boilers shall be provided with a safety valve of sufficient area for the steam to escape and with weights or springs properly adjusted.

Section 4. Every boiler house shall be provided with a steam gauge properly connected with the boilers, to indicate the steam pressure, and another steam gauge shall be attached to the steam pipe in the engine house and placed in such position that the engineer or fireman can readily examine them and see what pressure is carried. Such steam gauges shall be kept in good order, tested and adjusted as often as once in every six months and their condition reported to the inspector in the same manner as the report of boiler inspection.

Section 5. All machinery used in or about the mines and collieries, and especially in breakers, such as engines, rollers, wheels, screens, shafting and belting shall be protected by covering or railing so as to prevent persons from inadvertently walking against or falling upon the same. The sides of stairs, trestles and dangerous plank walks in and around the collieries shall be provided with hand and guard railing to prevent persons from falling over their sides. This section shall not forbid the temporary removal of a fence, guard rail or covering for the purpose of repairs or other operations, if proper precautions are used, and the fence, guard rail or covering is replaced immediately thereafter.

Section 6. A sober and competent person, not under eighteen (18) years of age, shall be engaged to run the breaker engine and he shall attend to said engine while the machinery is in motion.

Section 7. A signal apparatus shall be established at important points in every breaker so that in case of an accident the engineer can be promptly notified to stop the machinery.

Section 8. No person under fifteen (15) years of age shall be appointed to oil the machinery, and no person shall oil dangerous parts of such machinery while it is in motion.

Section 9. No person shall play with, loiter around or interfere with any machinery in or about any mine or colliery.

Section 10. Failure to comply with the provisions of this article shall be deemed an offense against this act.

ARTICLE VI.

Wash Houses.

Section 1. It shall be the duty of the owner, operator or superintendent of each mine or colliery, at the request in writing of twenty or more men employed in any of the mines, to provide a suitable building, not an engine or boiler house, which shall be convenient to the principal entrance of such mine, for the use of the persons employed therein for the purpose of washing themselves and changing their clothes when entering the mine and returning therefrom. The said building shall be maintained in good order, be properly lighted and heated, and supplied with pure cold and warm water, and shall be provided with facilities for persons to wash. If any person or persons shall neglect or fail to comply with the provisions of this article, or maliciously injure or destroy, or cause to be injured or destroyed, the said building, or any part thereof, or any of the appliances or fittings used for supplying light, heat and water therein, or doing any act tending to the injury or destruction thereof, he or they shall be deemed guilty of an offense against this act.

ARTICLE VII.

Ambulances and Stretchers.

Section 1. The owner, operator or superintendent of every mine or colliery, except as hereinafter provided, shall provide and keep at such mine or colliery an ambulance and also at least two (2) stretchers, for the purpose of conveying to their places of abode, any person or persons who may be injured while in the discharge of his or their work at such mine or colliery.

Section 2. The said ambulance shall be constructed upon good, substantial and easy springs. It shall be covered and closed and shall have windows on the sides or ends. It shall be of sufficient size to convey at least two (2) injured persons with two (2) attendants at one time, and shall be provided with spring mattresses or other comfortable bedding to be placed on roller frames, together with sufficient covering and protection and convenient movement of the injured. It shall also be provided with seats for the attendants. The stretchers shall be constructed of such material and in such manner as to afford the greatest ease and comfort in the carriage of the injured person.

Section 3. Whenever any person or persons employed in or about a mine or colliery shall receive such injury by accident or otherwise, while so employed, as would render him or them unable to walk to

his or their place of abode, the owner, operator or superintendent of such mine or colliery shall immediately cause such person or persons to be removed to his or their place of abode or to an hospital as the case may require.

Section 4. It is provided, however, that the owner, operator or superintendent of any mine or colliery shall be excepted from the requirements of an ambulance, as aforesaid, if the places of abode of all the workmen at such mine or colliery be within a radius of a half mile from the principal entrance to such mine.

Section 5. It is provided further, that where two or more mines or collieries are located within one mile of each other, or the ambulance is located within one mile of each colliery, but one ambulance, as aforesaid, shall be required, if the said mines or collieries have ready and quick means of communication, one with the other, by telegraph or telephone.

Section 6. An ambulance, as aforesaid, shall not be required at any mine or colliery at which less than twenty (20) persons are employed.

Section 7. In case the distance from any mine or colliery to the place of abode of the person injured, is such as to permit his conveyance to his home or to an hospital more quickly and conveniently by railway, such mode of conveyance shall be permitted, but in such case the conveyance must be under cover and the comfort of the injured person must be provided for.

ARTICLE VIII.

Certified Mine Foremen.

Section 1. It shall not be lawful, neither shall it be permitted, for any person or persons to act as mine foreman or assistant mine foreman of any coal mines or colliery, unless they are registered as a holder of a certificate of qualification or service under this act.

Section 2. Certificates of qualification to mine foremen and assistant mine foremen shall be granted by the Secretary of Internal Affairs to every applicant who may be reported by the examiners, as hereinafter provided, as having passed a satisfactory examination and as having given satisfactory evidence of at least five years' practical experience as a miner, and of good conduct, capability and sobriety.

The certificate shall be in manner and form as shall be prescribed by the Secretary of Internal Affairs, and a record of all certificates issued shall be kept in his department.

Section 3. For the purpose of examination of candidates for such certificates, a board of examiners shall be appointed in each of the inspection districts provided for by this act. The said board shall consist of the district inspector of mines, two (2) practical miners and one owner, operator or superintendent of a mine. The said inspector shall act *ex-officio*, and the said engineer and owner, operator

or superintendent shall be appointed in like manner and at the same time as the boards of examiners for candidates for mine inspectorship under this act are now appointed. The said board shall act as such for the period of one year from the date of their appointment. Meetings of the board may be held at any time, and they may make such rules and conduct such examinations as in their judgment may seem proper for the purpose of such examinations. The said board shall report their action to the Secretary of Internal Affairs, and at least three (3) of the members thereof shall certify to the qualification of each candidate who has passed such examination. The traveling expenses of the members of such board to and from their place of meeting, together with the sum of five dollars per day each to the said two (2) practical miners and owner, operator or superintendent, members of each board, for each day they are actually engaged therein, not exceeding ten (10) days in all, during the year, shall be paid by the Commonwealth on an order of the Auditor General drawn on the State Treasurer upon the certificate of the mine inspector, member of such board.

Section 4. Certificates of qualification to mine foreman and assistant mine foreman shall be granted by the Secretary of Internal Affairs to every applicant who may be reported by the examiners, as heretofore provided, as having passed a satisfactory examination and as having given satisfactory evidence of at least five (5) years' practical experience as a miner, and of good conduct, capability and sobriety. The certificate shall be in manner and form as shall be prescribed by the Secretary of Internal Affairs, and a record of all certificates issued shall be kept in the department. Certificates of qualification and certificate of service shall contain the full name, age and place of birth of the applicant, as also the length and nature of his previous service in or about the mines.

Section 5. Before certificate as aforesaid shall be granted applicants for same shall pay to the Secretary of Internal Affairs the following fee, namely:

For examination, one dollar; for registration of certificate, one dollar, for certificate, one dollar. All fees so received shall be covered into the treasury of the Commonwealth.

Section 6. No mines shall be operated for a longer period than thirty days without the supervision of a mine foreman. In case any mine is worked a longer period than thirty (30) days without such certified mine foreman, the owner, operator or superintendent thereof shall be subject to a penalty of twenty dollars per day for each day over the said thirty (30) days during which the said mine is operated.

Section 7. In case of the loss or destruction of a certificate the Secretary of Internal Affairs may supply a copy thereof to the person losing the same upon the payment of the sum of fifty (50) cents: Pro-

vided, It shall be shown to the satisfaction of the Secretary that the loss has actually occurred.

Section 8. If any person or persons shall forge or counterfeit a certificate or knowingly make or cause to be made any false statement in any certificate under this act, or in any official copy of the same, or shall urge others to do so, or shall utter or use any such forged or false certificate, or unofficial copy thereof, or shall make, give, utter, produce or make use of any false declaration, representation or statement in any such certificate or copy thereof, or any document containing the same, he or they shall be guilty of a misdemeanor, and upon conviction thereof, shall be fined two hundred dollars, or imprisoned for a term not exceeding one (1) year, or both, at the discretion of the court trying the case.

Section 9. And no person shall be permitted to act as fire boss in any coal mine or colliery, except he has had five (5) years' practical experience in mines as a miner, three (3) of which he shall have as a miner wherein noxious and explosive gases are evolved, and the said fire boss shall certify to the same before entering upon his duties, before an alderman, justice of the peace or other person authorized to administer oaths, and a copy of said deposition shall be filed with the district inspector of mines wherein said person is employed.

ARTICLE IX.

Employment of Boys and Females.

Section 1. No boy under the age of fourteen (14) years, and no woman or girl of any age, shall be employed or permitted to be in any mine for the purpose of employment therein. Nor shall a boy under the age of twelve years or a woman or girl of any age, be employed or permitted to be in or about the outside structures or workings of a colliery for the purpose of employment, but it is provided, however, that this prohibition shall not affect the employment of a boy or female of suitable age in an office or in the performance of clerical work at a colliery.

Section 2. When an employer is in doubt as to the age of any boy or youth applying for employment in or about a mine or colliery, he shall demand and receive proof of the said lawful employment age of such boy or youth, by certificate from the parent or guardian, before said boy or youth shall be employed.

Section 3. If any person or persons contravene or fail to comply with the provisions of this act in respect to the employment of boys, young male persons or females, or if he or they shall connive with or permit others to contravene or fail to comply with said provisions, or if a parent or guardian of a boy or young male person make or give a false certificate of the age of such boy or young male person, or knowingly do or perform any other act for the purpose of secur-

ing employment for a boy or young male person under the lawful employment age and in contravention of the provisions of this act, he or they shall be guilty of an offense against this act.

ARTICLE X.

Ventilation.

Section 1. The owner, operator or superintendent of every mine shall provide and maintain a constant and adequate supply of pure air for the same, as hereinafter provided.

Section 2. It shall not be lawful to use a furnace for the purpose of ventilating any mine wherein explosive gases are generated.

Section 3. The minimum quantity of air thus produced, shall not be less than two hundred (200) cubic feet per minute for each and every person employed in any mine, and as much more as the circumstances may require.

Section 4. The ventilating currents shall be conducted and circulated to and along the face of each and every working place throughout the entire mine, in sufficient quantities to dilute, render harmless and sweep away smoke and noxious or dangerous gases, to such an extent that all working places and traveling roads shall be in a safe and fit state to work and travel therein.

Section 5. All worked out or abandoned parts of a mine in operation, so far as practicable, shall be kept free of dangerous bodies of gases or water, and if found impracticable to keep the entire mine free from an accumulation of gases or water, the mine inspector must be immediately notified.

Section 6. Every mine employing more than seventy-five (75) persons must be divided into two or more districts. Each district shall be provided with a separate split of pure air and the ventilation shall be so arranged, that not more than seventy-five persons shall be employed at the same time in any one current or split of air.

The inlet and return air passages for any particular district must be separated by a pillar of coal or stone, if the thickness and dip of the vein will permit, except where it is necessary to cut through said dividing pillar for the purposes of ventilation, traffic or drainage.

Section 7. All air passages shall be of sufficient area to allow the free passage of not less than two hundred (200) cubic feet of air per minute for every person working therein; and in no case, in mines generating explosive gases, shall the velocity exceed four hundred and fifty (450) lineal feet per minute, in any opening through which the air currents pass, if gauze safety lamps are used, except in the main inlet or outlet air ways.

Section 8. All cross-cuts connecting the main inlet and outlet air passages of every district, when it becomes necessary to close them permanently, shall be substantially closed with brick or other

suitable building material, laid in mortar or cement whenever practicable, but in no case shall said air stoppings be constructed of plank except for temporary purposes.

Section 9. All doors used in assisting or in any way affecting the ventilation shall be so hung and adjusted that they will close automatically.

Section 10. All main doors shall have an attendant whose constant duty it shall be to open them for transportation and travel and prevent them from standing open longer than is necessary for persons or cars to pass through.

Section 11. All main doors shall be so placed that when one door is open, another, which has the same effect upon the same current, shall be and remain closed and thus prevent any temporary stoppage of the air current.

Section 12. An extra main door shall be so placed and kept standing open, so as to be out of reach of accident, and so fixed that it can be at once closed in the event of an accident to the doors in use.

Section 13. The frame work of such main doors shall be substantially secured in stone or brick, laid in mortar or cement unless otherwise permitted in writing by the inspector.

Section 14. All permanent air bridges shall be substantially built of such material and such strength as the circumstances may require.

Section 15. The quantities of air in circulation shall be ascertained with an anemometer or other efficient instrument; such measurements shall be made by the inside foreman or his assistant once a week at the inlet and outlet airways, also at or near the face of each gangway and at the nearest cross-heading to the face of each gangway and at the nearest cross-heading to the face of the inside and outside chamber or breast where men are employed, and the headings shall not be driven more than sixty (60) feet from the face of each chamber or breast and shall be entered in the colliery report book.

Section 16. A report of these air measurements shall be sent to the inspector before the twelfth day of each month, for the preceding month, together with a statement of the number of persons employed in each district.

Section 17. All ventilators used at mines shall be provided with recording instruments by which the speed of the ventilators or the ventilating pressure shall be registered for each hour, and such data shall be preserved at the colliery for future reference, for a period of three months.

Section 18. Any person or persons who shall neglect or fail to comply with the provisions of this article, or who shall make any false report in regard to air measurements, shall be guilty of an offense against this act.

ARTICLE XI.

Props and Timbers.

Section 1. It shall be the duty of the owner, operator, superintendent or mine foreman of every mine to furnish to the miners all props, ties, rails and timbers necessary for the safe mining of coal and for the protection of the lives of the workmen. Such props, ties, rails and timbers shall be suitably prepared and shall be delivered to the workmen as near to their working places as they can be conveyed in ordinary mine cars, free of charge.

Section 2. Every workman in want of props, ties, rails or timbers shall notify the mine foreman or his assistant of the fact at least one day in advance, giving the length of the props or timber required; and in case of danger from loose roof or sides, he shall not continue to cut or load coal until the said props and timber have been properly furnished and the place made secure.

Section 3. A failure to comply with the provisions of this article shall be deemed an offense against this act, and shall be taken to be negligence per se on the part of the owner, operator, superintendent or mine foreman, as the case may be, of such mine, in action for the recovery of damages for accidents resulting from the insufficient propping of such mine, through failure to furnish the necessary props or timbers.

ARTICLE XII.

General Rules.

The following general rules shall be observed in every mine to which this act applies:

Rule 1. The owner, operator or superintendent of a mine or colliery shall use every precaution to ensure the safety of the workmen in all cases, whether provided for in this act or not, and he shall place the underground workings thereof, and all that is related to the same, under the charge and daily supervision of a competent person who shall be called "mine foreman."

Rule 2. Whenever a mine foreman cannot personally carry out the provisions of this act so far as they pertain to him, the owner, operator or superintendent shall authorize him to employ a sufficient number of competent persons to act as his assistants, who shall be subject to his orders.

Rule 3. The mine foreman shall have charge of all matters pertaining to ventilation, and the speed of the ventilators shall be particularly under his charge and direction; and any superintendent who shall cause the mine foreman to disregard the provisions of this act shall be amenable in the same manner as the mine foreman.

Rule 4. All accessible parts of an abandoned portion of a mine in which explosive gases have been found, shall be carefully examined

by the mine foreman or his assistants at least once a week, and all danger found existing therein shall be immediately removed. A report of said examination shall be recorded in a book kept at the colliery for that purpose and signed by the person making the same.

Rule 5. In mines generating explosive gases, the mine foreman or his assistant shall make a careful examination every morning of all working places and traveling roads and all other places which might endanger the safety of the workmen, before the workmen shall enter the mine, and such examination shall be made with a safety lamp within three (3) hours at most, before time for commencing work, and a workman shall not enter the mine or his working place until the said mine or part thereof and working place are reported to be safe. Every report shall be recorded without delay in a book which shall be kept at the colliery for the purpose and shall be signed by the person making the examination.

Rule 6. The person who makes said examination shall establish proof of the same by marking plainly the date thereof at the face of each working place and all other places examined.

Rule 7. A station or stations shall be established at the entrance to each mine or different parts of each mine, as the case may require, and a workman shall not pass beyond any such station until the mine or part of the mine beyond the same has been inspected and reported to be safe. It shall be the duty of the fire boss to remain at the danger station until relieved by some person authorized by himself or the mine foreman, who shall stand guard until said mine or part of mine shall be reported safe, and he shall not let any person pass without permission from the fire boss.

Rule 8. If at any time it is found by the person for the time being in charge of the mine or any part thereof, that by reason of noxious gases prevailing in such mine or such part thereof, or of any cause whatever the mine or the said part is dangerous, every precaution shall be used to ensure the safety of the workmen; and every workman, except such persons as may be required to remove the danger, shall be withdrawn from the mine, or such part thereof as is so found dangerous, until the said mine or said part thereof is examined by a competent person and reported by him to be safe.

Rule 9. In every working approaching any place where there is likely to be accumulation of explosive gases, or in any working in which danger is imminent from explosive gases, no light or fire other than a locked safety lamp shall be allowed or used. Whenever safety lamps are required in any mine they shall be the property of the owner of said mine, and a competent person, who shall be appointed for the purpose, shall examine every safety lamp immediately before it is taken into the workings for use, and ascertain it to be clean, safe and securely locked, and safety lamps shall not be used until they

have been so examined and found safe, clean and securely locked, unless permission be first given by the mine foreman to have the lamps used unlocked.

Rule 10. No one, except a duly authorized person, shall have in his possession a key or any other contrivance for the purpose of unlocking any safety lamp in any mine where locked lamps are used. No lucifer matches or any other apparatus for striking light shall be taken into said mine or parts thereof.

Rule 11. No blast shall be fired in any mine where locked safety lamps are used except by permission of the mine foreman or his assistants, and before a blast is fired, the person in charge must examine the place and adjoining places and satisfy himself that it is safe to fire such blast before such permission is given.

Rule 12. The mine foreman or his assistant shall visit and examine every working place in the mine at least once every alternate day, while the men of such place are or should be at work, and shall direct that each and every working place is properly secured by props or timber, and that safety in all respects is assured by directing that all loose coal or rock shall be pulled down or secured, and that no person shall be permitted to work in an unsafe place unless it be for the purpose of making it secure.

Rule 13. The mine foreman, or some other competent person or persons to be designated by him, shall examine at least once every day all slopes, shafts, main roads, traveling ways, signal apparatus, pulleys and timbering and see that they are in safe and efficient working condition.

Rule 14. Any person having charge of a working place in any mine shall keep the roof and sides thereof properly secured by timber or otherwise so as to prevent such roof and sides from falling, and he shall not do any work or permit any work to be done under loose or dangerous material except for the purpose of securing the same.

Rule 15. Whenever a place is likely to contain a dangerous accumulation of water, the working approaching such place shall not exceed twelve (12) feet in width, and there shall be constantly kept, at a distance of not less than twenty (20) feet in advance, at least one (1) bore hole near the center of the working and sufficient flank bore holes on each side.

Rule 16. No person shall ride upon or against any loaded car, cage or gun-boat in any shaft, slope or plane in or about a mine or colliery.

Rule 17. Not more than ten (10) persons shall be hoisted or lowered at any one time in any shaft or slope, and whenever five persons shall arrive at the bottom of any shaft or slope in which persons are regularly hoisted or lowered they shall be furnished with an empty car or cage and be hoisted, except however, in mines where there is

provided a traveling way having an average pitch of fifteen (15) degrees or less and not more than one thousand (1,000) feet in length. This, however, shall not prohibit the hoisting or lowering of twenty (20) persons at one time on slopes where two (2) or more loaded cars are regularly hoisted: Provided, That not less than thirty (30) workmen working therein, make such request in writing, to the inspector of the district, and if, in his judgment, the hoisting appliances in every respect are of sufficient strength, he may comply with the request of the workmen.

Provided, That in any coal mine or colliery where the hoisting appliances are not of sufficient strength to hoist or lower the number of persons named, he shall have the power to reduce the number of persons to be hoisted or lowered.

Rule 18. An engineer placed in charge of an engine whereby persons are hoisted or lowered in any mine, shall be a sober and competent person of not less than twenty-one (21) years of age.

Rule 19. Every engineer shall work his engine slowly and with great care when any person is being lowered or hoisted in a shaft or slope and no one shall interfere with or intimidate him while in the discharge of his duties.

Rule 20. An engineer who has charge of the hoisting machinery by which persons are lowered or hoisted in a mine, shall be in constant attendance for that purpose during the whole time any person or persons are below ground, and he shall not allow any person or persons, except such as may be deputed by the owner, operator or superintendent, to handle or meddle with the engine under his charge or any part of its machinery.

Rule 21. When any person is about to descend or ascend a shaft or slope, the headman or footman, as the case may be, shall inform the engineer by signal or otherwise of the fact, and the engineer shall return a signal before moving or starting the engine. In the absence of a headman or footman the person or persons about to descend or ascend shall give and receive the signals in the same manner.

Rule 22. The owner, operator or superintendent of a colliery shall place a competent person to be called "outside foreman," in charge of the breaker and the outside work of such colliery and who shall direct, and as far as practicable, see that the provisions of this act are complied with in respect to the breaker, outside machinery, ropes, cages and all other things pertaining to the outside work, unless otherwise provided for in this act.

Rule 23. In all coal breakers where the coal dust is so dense as to be injurious to the health of persons employed therein, the owner, operator or superintendent of said breaker shall, upon the request of the inspector, immediately adopt measures for the removal of the dust, as far as practicable.

Rule 24. Any miner or other workman who shall discover anything wrong with the ventilating current or with the condition of the roof, side, timber or roadway, or with any other part of the mine in general, such as would lead him to suspect danger to himself or his fellow workmen or to the property of his employer, shall immediately report the same to the mine foreman or other person, for the time being in charge of that portion of the mine.

Rule 25. Any person or persons who shall knowingly or wilfully damage, or without proper authority, remove or render useless any fencing, means of signaling, apparatus, instrument or machine, or shall throw open or obstruct any airway, or open a ventilating door and not have the same closed, or enter a place in or about a mine against caution, or carry fire, open lights or matches in places where safety lamps are used, or handle without proper authority, or disturb any machinery or cars, or do any other act or thing whereby the lives or health of persons or the security of the property in or about a mine or colliery are endangered, shall be guilty of an offense against this act.

Rule 26. Gunpowder or any other explosive shall not be stored in a mine, and a workman shall not have at any time in any one place, more than one keg or box containing twenty-five (25) pounds, unless more is necessary for a person to accomplish one day's work.

Rule 27. Every person who has gunpowder or other explosive in a mine, shall keep it in a wooden or metallic box securely locked, and such box shall be kept at least ten (10) feet from the tracks in all cases where room at such a distance is available.

Rule 28. Whenever a workman shall open a box containing explosive or while in any manner handling the same, he shall first place his lamp not less than five (5) feet from such explosive and in such a position that the air current cannot convey sparks to it, and a workman shall not approach nearer than five (5) feet to an open box containing powder, with a lamp, lighted pipe or any other thing containing fire.

Rule 29. When high explosives other than gunpowder are used in any mine, the manner of storing, keeping, moving, charging and firing or in any manner using such explosives, shall be in accordance with special rules as furnished by the manufacturers of the same. The said rules shall be endorsed with his or their official signature and shall be approved by the owner, operator or superintendent of the mine in which such explosives are used.

Rule 30. In charging holes for blasting in slate or rock in any mine, no iron or steel-pointed needle shall be used, and a tight cartridge shall not be rammed into a hole in coal, slate or rock with an iron or steel tamping bar, unless the end of the tamping bar is tipped with at least six (6) inches of copper or other soft metal.

Rule 31. A charge of powder or any other explosive in slate or rock which has missed fire shall not be withdrawn or the hole reopened.

Rule 32. A miner or other person who is about to explode a blast by the use of patent or other squibs or matches, shall not shorten the match, nor saturate it with mineral oil, nor turn it down when placed in the hole, nor ignite it except at its extreme end, nor do anything tending to shorten the time the match will burn.

Rule 33. When a workman is about to fire a blast he shall be careful to notify all persons who may be in danger therefrom, and shall give sufficient alarm before and after igniting the match so that any person or persons who may be approaching shall be warned of the danger.

Rule 34. Before commencing work and also after the firing of every blast, the miner working a breast or any other place in a mine, shall enter such breast or place to examine and ascertain its condition, and his laborer or assistant shall not go to the face or such breast or place until the miner has examined the same and found it to be safe.

Rule 35. No person shall be employed to blast coal or rock unless the mine foreman is satisfied that such person is qualified, by experience and judgment, to perform the work with ordinary safety.

Rule 36. A person who is not a practical miner shall not charge or fire a blast in the absence of an experienced miner, unless he has given satisfactory evidence of his ability to do so with safety, and has obtained permission from the mine foreman or person in charge.

Rule 37. An accumulation of gas in mines shall not be removed by brushing where it is practicable to remove it by brattice.

Rule 38. When gases ignited by blast or otherwise, the person igniting the same shall immediately extinguish it, if possible, and notify the mine foreman or his assistant of the fact, and workmen must see that no gas blowers are left burning upon leaving their working places.

Rule 39. Every fireman in charge of a boiler or boilers for the generation of steam, shall keep a constant watch of the same. He shall see that the steam pressure does not at any time exceed the limit allowed by the outside foreman or superintendent. He shall frequently try the safety valve, and shall not increase the weight on the same. He shall maintain a proper depth of water in each boiler, and if anything should happen to prevent this, he shall report the same without delay to the foreman, for the time being in charge, and take such other action as may under the particular circumstances be necessary for the protection of life and preservation of property.

Rule 40. At every shaft or slope in which provision is made in this act for lowering and hoisting persons, a headman and footman

shall be assigned by the superintendent or foreman to be at their proper places from the time that persons begin to descend, until all the persons who may be at the bottom of said shaft or slope when quitting work shall be hoisted. Such headman and footman shall personally attend to the signals and see that the provisions of this act, in respect to lowering and hoisting persons in shafts or slopes, shall be complied with.

Rule 41. No person, except the man giving the signal, shall jump on a car, cage or gunboat after the signal to start has been given, and if any person should enter a car, cage or gunboat in excess of the lawful number the headman or footman shall notify him of the fact and request him to get off, which request must be immediately complied with. Any violation of this rule must be reported promptly to the mine foreman.

Rule 42. An empty trip shall be hoisted in any shaft or slope where the engine has been standing idle for an hour or more, before men are hoisted or lowered in said shafts or slopes, and no person or persons shall ascend any shaft or slope when working on the night turn, until one trip shall first be hoisted therein.

Rule 43. Every passage-way used by persons in any mines and also used for transportation of coal or other material, shall be made of sufficient width to permit persons to pass moving cars with safety, but if found impracticable to make any passage-way of sufficient width, then holes of ample dimensions, and not more than one hundred and fifty (150) feet apart, shall be made on one side of said passage-way. The said passage-way and safety holes shall be kept free from obstructions and shall be well drained; the roof and sides of the same shall be made secure.

Rule 44. When locomotives are used in any mine their speed shall not exceed six (6) miles per hour, and an efficient alarm shall be provided and attached to the front end of every train of cars pushed by a locomotive in any mine or part of a mine.

Rule 45. Locomotives propelled by steam, if using fire, shall not be used in any passage-way which is also used as an in-take air-way to any mine or part of a mine where persons are employed, unless there be a sufficient quantity of air circulating therein to maintain a healthy atmosphere.

Rule 46. No person shall couple or uncouple loaded or empty cars while the same are in motion: Provided however, That this shall not apply to the top or bottom men of slopes, planes or shafts.

Rule 47. When cars are run on gravity roads by breaks or sprags, the runner shall only ride on the rear end of the last car, and when said cars are run by sprags, a space of not less than two (2) feet from the body of the car shall be made on one or both sides of the track, wherever it may be necessary for the runner to pass along the side

of the moving car or cars, and said space or passage-way shall always be kept free from obstructions.

Rule 48. No miner or laborer shall run cars out of any breast or chamber or on any gravity road unless he is a suitable person, employed by the mine foreman for that particular work; and no person shall be employed by any mine foreman to perform such work, under the age of sixteen (16) years.

Rule 49. Safety holes shall be made at the bottom of all slopes and planes and be kept free from obstruction to enable the footman to escape readily in case of danger.

Rule 50. Safety blocks or some other device for the purpose of preventing cars from falling into a shaft or running away on a slope or plane, shall be placed at or near the head of every shaft, slope or plane, and said safety blocks or other device must be maintained in good working order.

Rule 51. No person shall travel on any gravity train while cars are being hoisted or lowered thereon. Whenever ten (10) persons arrive at the bottom or top of any plane on which it is necessary for men to travel, traffic thereon shall be suspended for a period of time long enough to permit them to reach the top or bottom of said plane.

Rule 52. No mine cars shall be used in any mine unless the bumpers are of sufficient length and width to keep the bodies of said cars separated by not less than twelve (12) inches when the cars stand on a straight level road and the bumpers touch each other.

Rule 53. It shall be the duty of the owner, operator or superintendent of any or all coal breakers, to have them properly heated in order to prevent injury to the health of persons employed therein.

Rule 54. For the purpose of making known the rules and the provisions of this act to all persons employed in or about such mine or colliery to which this act applies, an abstract of the act and rules shall be posted up in legible characters in some conspicuous place or places at or near the mine or colliery, where they may be conveniently read by the persons employed, and so often as the same becomes obliterated or destroyed the owner, operator or superintendent shall cause them to be renewed with all reasonable dispatch. Any person who pulls down, injures or defaces such abstract of the act or rules when posted up in pursuance to the provisions of this act, shall be guilty of an offense against this act.

Rule 55. No person or persons working in any coal mine or colliery shall cut any props or timbers while the same are in position to support the roof or sides. When it becomes necessary to remove any of the said props or timbers for the purpose of mining coal that may be supported by the same, to dislodge any of the said props or timbers, it must be done by blasting.

Rule 56. It shall not be lawful for any mine foreman or superintendent of any mine or colliery to employ any person who is not com-

petent to understand the regulations of any mine evolving explosive gases: Provided, That this rule will not apply to a section of mine, free from the said explosive gases.

Rule 57. Any superintendent or mine foreman who prevents the footman from giving an empty car or cage to the number of men designated in a former rule, shall, upon information by any person engaged in the mines, given the mine inspector, be fined the sum of fifty dollars for each offense.

Rule 58. Every person who fails to comply with any of the foregoing rules or any of the provisions of this article, shall be guilty of an offense against this act.

ARTICLE XIII.

Inquests.

Section 1. Whenever loss of life to a miner or other employe occurs in or about a mine or colliery, notice thereof shall be given promptly to the inspector of mines for the district in which the accident occurred, by the mine foreman or outside foreman or other person having immediate charge of the work at the time of the accident; and when death results from personal injury such notice shall be given promptly after the knowledge of death comes to the said foreman or person in charge.

Section 2. Whenever loss of life occurs or whenever the lives of persons employed in a mine or at a colliery are in danger from any accident, the inspector of mines shall visit the scene of the accident as soon as possible thereafter and offer such suggestions, as in his judgment shall be necessary, to protect the lives and secure the safety of the persons employed. In case of death from such accident, and after examination he finds it necessary that a coroner's inquest shall be held, he shall notify the coroner to hold such inquest without delay, and if no such inquest be held by the coroner within twenty-four (24) hours after such notice, the inspector shall institute a further and fuller examination of such accident, and for this purpose he shall have power to compel the attendance of witnesses at such examination and to administer oaths and affirmations to persons testifying thereat. The inspector shall make a record of all such investigations and accidents, which record shall be preserved in his office. The costs of such investigation shall be paid by the county in which the accident occurred in like manner as costs of inquests held by coroners or justices of the peace are now paid.

Section 3. An inquest held by the coroner upon the body of a person killed by explosion or other accident, shall be adjourned by the coroner if the inspector of mines be not present to watch the proceedings, and the coroner in such case shall notify the inspector, in

writing, of such adjourned inquest, and the time and place of holding the same, at least three (3) days previous thereto.

Section 4. Due notice of an intended inquest to be held by the coroner, shall be given by the coroner to the inspector, and at any such inquest the inspector shall have the right to examine witnesses.

Section 5. If, at any inquest held over the body or bodies of persons whose death was caused by an accident in or about a mine or colliery, the inspector be not present, and it is shown by the evidence given at the inquest that the accident was caused by neglect or by any defect in or about the mine or colliery, which in the judgment of the jury, requires a remedy, the coroner shall send notice in writing to said inspector of such neglect or default.

Section 6. No person who is interested personally, nor a person employed in the mine or at a colliery in or at which loss of life has occurred by accident, shall be qualified to serve on a jury empaneled on the inquest, and a constable or other officer shall not summons such a person so qualified as juror, but the coroner shall empanel a majority of the jury from miners who are qualified to judge of the nature of the accident; every person who fails to comply with the provisions of this article shall be guilty of an offense against this act.

ARTICLE XIV.

Returns, Notices, Et Cetera.

Section 1. Notices of death or serious injuries resulting from accidents in or about mines or collieries, shall be made to the inspector of mines, in writing, and shall specify the name, age and occupation of the person killed or injured, and also the nature and character of the accident and of the injury caused thereby.

Section 2. The owner, operator or superintendent of a mine or colliery, shall, without delay, give notice to the inspector of the district in which said mine or colliery is situated in any or all of the following cases:

First. Where any working is commenced for the purpose of opening a new slope or mine to which this act applies.

Second. Where any mine is abandoned or the workings thereof discontinued.

Third. Where the working of any mine is recommenced after any abandonment or discontinuance for a period exceeding three months.

Fourth. Where any new coal breaker is completed and work commenced therein for the purpose of preparing coal for market.

Fifth. Where the pillars of a mine are to be removed or robbed.

Sixth. Where a squeeze or crush or any other cause or change may seem to affect the safety of persons employed in any mine, or where fire occurs or a dangerous body of gas is found in any mine.

Section 3. On or before the first day of February in each year, the owner, operator or superintendent of every mine or colliery, shall send to the inspector of the district, a correct report specifying with respect to the year ending December thirty-first, previously, the name of the operator and officials of the mine, with his postoffice address; the quantity of coal mined, the amount of powder or other explosives consumed; the number of persons employed above and below ground in or about such colliery, classifying the persons so employed. The report shall be in such form as may be from time to time prescribed by the inspectors of the district. Blank forms for said reports shall be furnished by the Commonwealth.

ARTICLE XV.

Injunctions.

Section 1. Upon application of the inspector of mines of the proper district, acting in behalf of the Commonwealth, any of the courts of law or equity having jurisdiction where the mine or colliery proceeded against is situated, whether any proceedings have or have not been taken, shall prohibit, by injunction or otherwise, the working of any mine or colliery in which any person is employed or is permitted to be for the purpose of working in contravention of the provisions of this act, and may award such costs in the matter of the injunctions or other proceedings as the court may think just; but this section shall be without prejudice to any other remedy permitted by law for enforcing the provisions of this act. Written notice of the intention to apply for such injunction in respect to any mine or colliery, shall be made to the owner, operator or superintendent of such mine or colliery not less than twenty-four (24) hours before the application is made.

ARTICLE XVI.

Arbitration.

Section 1. Whenever an inspector finds any mine or colliery or part thereof, or any matter, thing or practice connected with such mine, which in any respect thereof is not covered by or provided against by any provisions of this act or by any rule, to be dangerous or defective, or in his judgment tends to bodily injury to a person, he shall give notice thereof in writing to the owner, operator or superintendent of such mine or colliery, stating in such notice the particular matter or defect requiring remedy and may demand that the same be remedied; but the owner, operator or superintendent of said mine or colliery shall have the right to refer the demand of the inspector to a board of arbitration, and the matter shall then be arbitrated within forty-eight (48) hours of the time such complaint or demand is made. And the party against whom the award is given shall pay

all cost attending the case. The said board of arbitration shall be composed of three (3) persons, one of whom shall be chosen by the inspector, one by the said owner, operator or superintendent and a third by the two thus selected, and the decision of a majority of such board shall be final and binding in the matter.

ARTICLE XVII.

Penalties.

Section 1. Any judge of the court of quarter sessions of the peace of the county in which the mine or colliery, at which the offense, act or omission as hereinafter stated has occurred, is situated, is hereby authorized and required, upon the presentation to him of the affidavit of any citizen of the Commonwealth setting forth that the owner, operator or superintendent, or any other person employed in or about such mine or colliery had been negligently guilty of an offense against the provisions of this act, whereby a dangerous accident had resulted or might have resulted to any person or persons employed in such mine or colliery, to issue a warrant to the sheriff of said county directing him to cause such person or persons to be arrested and brought before said judge, who shall hear and determine the guilt or innocence of the person or persons so charged; and if convicted he or they shall be sentenced to pay a fine not exceeding five hundred dollars, in all cases not otherwise provided for in this act, or an imprisonment in the county jail for a period not exceeding three (3) months, or both, at the discretion of the court: Provided. That any defendant may waive trial before a judge as herein provided and at any time, at or before the time of such trial, demand a trial by a jury in the court of quarter sessions, in which case he may enter into a recognizance before said judge with such surety or sureties and in such sum as said judge may approve, conditioned for his appearance at the next court of quarter sessions to answer the charge against him and abide the orders of the court in the premises, meanwhile to be of good behavior and keep the peace, or in default of such recognizance to be committed to the county jail to await such trial.

Section 2. If any person shall feel himself aggrieved by such conviction and sentence before a judge as aforesaid, he may appeal therefrom subject to the following conditions, namely: The appellant shall, within seven days after the decree has been made, give notice to the prosecutor of his intention to appeal, and within the same time enter into a recognizance, with such surety or sureties and in such sum as shall be approved by said judge, conditioned to appear and try such appeal before the next court of quarter sessions of the peace and to abide the judgment of the court thereon and to pay

all such costs and penalties as may be there awarded, and upon the compliance with such conditions the judge shall release the appellant from custody pending the appeal.

Section 3. Nothing in this act shall prevent any person from being indicted or liable under any other act, to any higher penalty or punishment than is herein provided, and if the court before whom any such proceeding is had shall be of the opinion that proceedings ought to be taken against such persons under any other act, or otherwise, he may adjourn the case to enable such proceedings to be taken.

Section 4. All offenses under this act are declared to be misdemeanors and in default of payment of any penalty or cost by the party or parties sentenced to pay the same, he or they may be imprisoned for a period not exceeding three (3) months and not less than thirty (30) days.

Section 5. For any violation of duty by the mine inspector prescribed by this act, he shall be deemed guilty of a misdemeanor, and upon conviction, be sentenced to pay a fine of not more than three hundred dollars or be imprisoned for a period not exceeding three months, or either, or both, at the discretion of the court.

Section 6. All fines imposed under this act shall be paid into the county treasury for the use of the county.

Section 7. No conviction or acquittal under this act, in any complaint, shall be received in evidence upon the trial of any action for damages arising from the negligence of any owner, operator or superintendent or employe in any mine or colliery.

Section 8. That for any injury to person or property occasioned by any violation of this act or any failure to comply with its provisions by any owner, operator, superintendent, mine foreman or fire boss of any coal mine or colliery, a right of action shall accrue to the party injured against said owner or operator for any direct damages he may have sustained thereby; and in case of loss of life by reason of such neglect or failure aforesaid, a right of action shall accrue to the widow and lineal heirs of the person whose life shall be lost, for like recovery of damages for the injury they shall have sustained.

ARTICLE XVIII.

Definition of Terms.

In this act, unless the context otherwise requires, the term "coal mine or colliery" includes every operation and work, both under ground and above ground, used or to be used for the purpose of mining and preparing coal.

The term "workings" includes all the excavated parts of a mine, those abandoned as well as the places actually at work.

The term "mine" includes all underground workings and excavations and shafts, tunnels and other ways and openings; also all such

shafts, slopes, tunnels and other openings in course of being sunk or driven, together with all roads, appliances, machinery and materials connected with the same below the surface.

The term "shaft" means a vertical opening through the strata and which is or may be used for the purpose of ventilation or drainage or for hoisting men or material in connection with the mining of coal.

The term "slope" means any inclined way or opening used for the same purpose as a shaft.

The term "breaker" means the structure containing the machinery used for the preparation of coal.

The term "owners" and "operators" means any person or body corporate who is the immediate proprietor or lessee or occupier of any coal mine or colliery or any part thereof. The term "owner" does not include a person or body corporate who merely receives a royalty, rent or fine from a coal mine or colliery or part thereof, or is merely the proprietor of the mine subject to any lease, grant or license for the working or operating thereof, or is merely the owner of the soil and not interested in the minerals of the mine or any part thereof. But any "contractor" for the working of a mine or colliery or any part or district thereof, shall be subject to this act as an operator or owner, in like manner as if he were the owner.

The term "superintendent" means the person who shall have, on behalf of the owner, general supervision of one or more mines or collieries.

ARTICLE XIX.

All laws or parts of laws inconsistent or in conflict with the provisions of this act are hereby repealed.

Approved—The 2d day of June, A. D. 1891.

ROBT. E. PATTISON.

AN ACT

Relating to bituminous coal mines and providing for the lives, health, safety and welfare of persons employed therein.

ARTICLE I.

Survey—Maps and Plans.

Section 1. Be it enacted, &c., That the operator or superintendent of every bituminous coal mine shall make, or cause to be made by a competent mining engineer or surveyor, an accurate map or plan of such coal mine, not smaller than on a scale of two hundred feet to an inch, which map shall show as follows:

First. All measurements of said mine in feet or decimal parts thereof.

Second. All the openings, excavations, shafts, tunnels, slopes, planes, main-entries, cross-entries, rooms, et cetera, in proper numerical order in each opened strata of coal in said mine.

Third. By darts or arrows made thereon by a pen or pencil the direction of air currents in said mine.

Fourth. An accurate delineation of the boundary lines between said coal mine and all adjoining mines or coal lands, whether owned or operated by the same operator or other operator, and the relation and proximity of the workings of said mine to every other adjoining mine or coal lands.

Fifth. The elevation above mean tide at Sandy Hook of all tunnels, and entries, and of the face of working places adjacent to boundary lines at points not exceeding three hundred feet apart.

Sixth. The bearings and lengths of each tunnel or entry, and of the boundary or property lines. The said map or plan, or a true copy thereof, shall be kept in the general mine office by the said operator or superintendent for use of the mine inspectors and for the inspection of any person or persons working in said mine whenever said person or persons shall have cause to fear that any working place is becoming dangerous by reason of its proximity to other workings that may contain water or dangerous gas.

Section 2. At least once in every six months, or oftener if necessary, the operator or superintendent of each mine shall cause to be shown accurately on the map or plan said coal mine, all the excavations made therein during the time elapsing since such excavations were last shown upon said map or plan; and all parts of said mine which were worked out or abandoned during said elapsed period of time shall be clearly indicated by colorings on said map or plan, and whenever any of the workings or excavations of said coal mine have been driven to their destination, a correct measurement of all such workings or excavations shall be made promptly and recorded in a survey book prior to the removal of the pillars or any part of the same from such workings or excavations.

Section 3. The operator or superintendent of every coal mine shall, within six months after the passage of this act, furnish the mine inspector of the district in which said mine is located with a correct copy on tracing muslin or sun print, of the map or plan of said mine hereinbefore provided for. And the inspector of the district shall, at the end of each year or twice a year if he requires it, forward said map or plan to the proper person at any particular mine, whose duty it shall be to place or cause to be placed on said map or plan all extensions and worked out or abandoned parts of the mine during the preceding six or twelve months, as the case may be, and return the

same to the mine inspector within thirty days from the time of receiving it. The copies of the maps or plans of the several coal mines of each district as hereinbefore required to be furnished to the mine inspector shall remain in the care of the inspector of the district in which the said mines are situated, as official records, to be transferred by him to his successor in office; but it is provided that in no case shall any copy of the same be made without the consent of the operator or his agent.

Section 4. If any superintendent or operator of mines shall neglect or fail to furnish to the mine inspector any copies of maps or plans as hereinbefore required by this act, or if the mine inspector shall believe that any map or plan of any coal mine made or furnished in pursuance of the provisions of this act is materially inaccurate or imperfect, then, in either case, the mine inspector is hereby authorized to cause a correct survey and map or plan of said coal mine to be made at the expense of the operator thereof, the cost of which shall be recoverable from said operator as other debts are recoverable by law: Provided, however, That if the map or plan which may be claimed by the mine inspector to be inaccurate shall prove to be correct, then the Commonwealth shall be liable for the expense incurred by the mine inspector in causing to be made said test survey and map, and the cost thereof, ascertained by the Auditor General by proper vouchers and satisfactory proof, shall be paid by the State Treasurer upon warrants which the said Auditor General is hereby directed to draw for the same.

ARTICLE II.

Section 1. It shall not be lawful for the operator, superintendent or mine foreman of any bituminous coal mine to employ more than twenty persons within said coal mine, or permit more than twenty persons to be employed therein at any one time unless they are in communication with at least two available openings to the surface from each seam or stratum of coal worked in such mine, exclusive of the furnace upcast shaft or slope: But provided, That in any mine operated by shaft or slope and ventilated by a fan, if the air shaft shall be divided into two compartments, one of them may be used for an air-way and the other for the purpose of egress and ingress from and into said mine by the persons therein employed and the same shall be considered a compliance with the provisions of this section hereinbefore set forth. And there shall be cut out or around the side of every hoisting shaft, or driven through the solid strata at the bottom thereof, a traveling way not less than five feet high and three feet wide to enable persons to pass the shaft in going from one side of it to the other without passing over or under the cage or other hoisting apparatus.

Section 2. The shaft or outlet, other than the main shaft or outlet shall be separated from the main outlet and from the furnace shaft by natural strata at all points by a distance of not less than one hundred and fifty feet (except in all mines opened prior to June thirtieth, one thousand eight hundred and eighty-five, where such distances may be less, if in the judgment of the mine inspector one hundred and fifty feet is impracticable). If the mine be worked by drift, two openings exclusive of the furnace upcast shaft and not less than thirty feet apart, shall be required (except in drift mines opened prior to June thirtieth, one thousand eight hundred and eighty-five, where the mine inspector of the district shall deem the same impracticable). Where the two openings shall not have been provided as required hereinbefore by this act, the mine inspector shall cause the second to be made without delay; and in no case shall furnace ventilation be used where there is only one opening into the mine.

Section 3. Unless the mine inspector shall deem it impracticable, all mines shall have at least two entries or other passage ways, one of which shall lead from the main entrance and the other from the opening into the body of the mine, and said two passageways shall be kept well drained and in a safe condition for persons to travel therein, throughout their whole length so as to obtain, in cases of emergency, a second way for egress from the workings. No part of said workings shall at any time be driven more than three hundred feet in advance of the aforesaid passageways, except entries, airways or other narrow work, but should an opening to the surface be provided from the interior of the mine, the passageways aforesaid may be made and maintained therefrom into the working part of the mine, and this shall be deemed sufficient compliance with the provisions of this act relative thereto; said two passageways shall be separated by pillars of coal or other strata of sufficient strength and width.

Section 4. Where necessary to secure access to the two passageways required in section three of article two of this act in any slope mine where the coal seam inclines and has workings on both sides of said slope, there shall be provided an overcast for the use of persons working therein, the dimensions of which shall not be less than four feet wide and five feet high. Said overcast shall connect the workings on both sides of said slope and the intervening strata between the slope and the overcast shall be of sufficient strength and thickness at all points for its purpose: Provided, That if said overcast be substantially constructed of masonry or other incombustible material it shall be deemed sufficient.

Section 5. When the opening or outlet, other than the main opening, is made and does not exceed seventy-five feet in vertical depth, it shall be set apart exclusively for the purpose of ingress to or egress from the mine by any person or persons employed therein it shall be

kept in a safe and available condition and free from steam and dangerous gases, and all other obstructions, and if such opening is a shaft it shall be fitted with safe and convenient stairs with steps of an average tread of ten inches and nine inches rise, not less than two feet wide and to not exceed an angle of sixty degrees descent with landings of not less than eighteen inches wide and four feet long, at easy and convenient distances: Provided, That the requirements of this section shall not be applicable to stairways in use prior to June thirtieth, one thousand eight hundred and eighty-five, when in the judgment of the mine inspector, they are sufficiently safe and convenient. And water coming from the surface or out of the strata in the shaft shall be conducted away by rings, casing or otherwise and be prevented from falling upon persons who are ascending or descending the stairway of the shaft.

Section 6. Where any mine is operated by a shaft which exceeds seventy-five feet in vertical depth, the persons employed in said mine shall be lowered into and raised from said mine by means of machinery, and in any such mine the shaft, other than the main shaft, shall be supplied with safe and suitable machinery for hoisting and lowering persons, or with safe and convenient stairs for use in cases of emergency by persons employed in said mine: Provided, That any mine operated by two shafts, and where safe and suitable machinery is provided at both shafts for hoisting coal or persons, shall have sufficiently complied with the requirements of this section.

Section 7. At any mine, where one of the two openings required hereinbefore is a slope and is used as a traveling way, it shall not have a greater angle of descent than twenty degrees and may be of any depth.

Section 8. The machinery used for lowering or raising the employes into or out of the mine and the stairs used for ingress or egress, shall be kept in a safe condition, and inspected once each twenty-four hours by a competent person employed for that purpose. And such machinery and the method of its inspection shall be approved by the mine inspector of the district in which the mine is situated.

ARTICLE III.

Hoisting Machinery, Safety Catches, Signaling Apparatus, Et Cetera.

Section 1. The operator or superintendent shall provide and maintain, from the top to bottom of every shaft where persons are raised or lowered, a metal tube suitably adapted to the free passage of sound through which conversation may be held between persons at the top and bottom of said shaft, and also a means of signaling from the top to the bottom thereof, and shall provide every cage or gear carriage used for hoisting or lowering persons with a sufficient over-

head covering to protect those persons when using the same, and shall provide also for each said cage or carriage a safety catch approved by the mine inspector. And the said operator or superintendent shall see that flanges, with a clearance of not less than four inches, when the whole of the rope is wound on the drum, are attached to the sides of the drum of every machine that is used for lowering and hoisting persons in and out of the mine, and also that adequate brakes are attached to the drum. At all shafts safety gates, to be approved by the mine inspector of the district shall be so placed as to prevent persons from falling into the shaft.

Section 2. The main coupling chain attached to the socket of the wire rope shall be made of the best quality of iron and shall be tested by weights or otherwise to the satisfaction of the mine inspector of the district where the mine is located, and bridle chains shall be attached to the main hoisting rope above the socket, from the top cross-piece of the carriage or cage, so that no single chain shall be used for lowering or hoisting persons into or out of the mines.

Section 3. No greater number of persons shall be lowered or hoisted at any one time than may be permitted by the mine inspector of the district, and notice of the number so allowed to be lowered or hoisted at any one time shall be kept posted up by the operator or superintendent in conspicuous places at the top and bottom of the shaft, and the aforesaid notice shall be signed by the mine inspector of the district.

Section 4. All machinery about mines from which any accident would be liable to occur shall be properly fenced off by suitable guard railing.

ARTICLE IV.

Section 1. The operator or superintendent of every bituminous coal mine, whether shaft, slope or drift, shall provide and hereafter maintain ample means of ventilation for the circulation of air through the main-entries, cross-entries and all other working places to an extent that will dilute, carry off and render harmless the noxious or dangerous gases, generated in the mine, affording not less than one hundred cubic feet per minute for each and every person employed therein; but in a mine where fire damp has been detected the minimum shall be one hundred and fifty cubic feet per minute for each person employed therein, and as much more in either case as one or more of the mine inspectors may deem requisite.

Section 2. After May thirtieth, one thousand eight hundred and ninety-four, not more than sixty-five persons shall be permitted to work in the same air current: Provided, That a larger number, not exceeding one hundred, may be allowed by the mine inspector where,

in his judgment, it is impracticable to comply with the foregoing requirement; and mines where more than ten persons are employed, shall be provided with a fan, furnace or other artificial means to produce the ventilation, and all stoppings between main intake and return air-ways hereinafter built or replaced shall be substantially built with suitable material, which shall be approved by the inspector of the district.

Section 3. All ventilating fans shall be kept in operation continuously night and day, unless operations are indefinitely suspended, except written permission is given by the mine inspector of the district to stop the same, and the said written permission shall state the particular hours the said fan may not be in operation, and the mine inspector shall have power to withdraw or modify such permission as he may deem best, but in all cases the fan shall be started two hours before the time to begin work. When the fan may be stopped by permission of the mine inspector a notice printed in the various languages used by persons employed in the mine, stating at what hour or hours the fan will be stopped, shall be posted by the mine foreman in a conspicuous place at the entrance or entrances to the mine.

Said printed notices shall be furnished by the mine inspector and the cost thereof borne by the State: Provided, That should it at any time become necessary to stop the fan on account of accident or needed repairs to any part of the machinery connected therewith, or by reason of any other unavoidable cause, it shall then be the duty of the mine foreman or any other officials in charge, after first having provided, as far as possible for the safety of the persons employed in the mine, to order said fan to be stopped so as to make the necessary repairs or to remove any other difficulty that may have been the cause of its stoppage. And all ventilating furnaces in mines shall, for two hours before the appointed time to begin work and during working hours, be properly attended by a person employed for that purpose. In mines generating fire-damp in sufficient quantities to be detected by ordinary safety lamps, all main air bridges or overcasts made after the passage of this act shall be built of masonry or other incombustible material of ample strength or be driven through the solid strata.

In all mines the doors used in guiding and directing the ventilation of the mine shall be so hung and adjusted that they will close themselves, or be supplied with spring or pulleys so that they cannot be left standing open, and an attendant shall be employed at all principal doors through which cars are hauled, for the purpose of opening and closing said doors when trips of cars are passing to and from the workings, unless an improved self-acting door is used, which principal doors shall be determined by the mine inspector or

mine foreman. A hole for shelter shall be provided at each door so as to protect said attendant from being run over by the cars while attending to his duties, and persons employed for this purpose shall at all times remain at their post of duty during working hours: Provided, That the same person may attend two doors where the distance between them is not more than one hundred feet. On every inclined plane or road in any mine where haulage is done by machinery and where a door is used, an extra door shall be provided to be used in case of necessity.

ARTICLE V.

Safety Lamps, Fire Bosses, Et Cetera.

Section 1. All mines generating fire-damp shall be kept free of standing gas in all working places and roadways. No accumulation of explosive gas shall be allowed to exist in the worked out or abandoned parts of any mine when it is practicable to remove it, and the entrance or entrances to said worked out and abandoned places shall be properly fenced off, and cautionary notices shall be posted upon said fencing to warn persons of danger.

Section 2. In all mines wherein explosive gas has been generated within the period of six months next preceding the passage of this act, and also in all mines where fire-damp shall be generated, after the passage of this act, in sufficient quantities to be detected by the ordinary safety lamp, every working place without exception and all road ways shall be carefully examined immediately before each shift by competent person or persons appointed by the superintendent and mine foreman for that purpose. The person or persons making such examination shall have received a fire boss certificate of competency required by this act, and shall use no light other than that enclosed in a safety lamp while making said examination. In all cases said examination shall be begun within three hours prior to the appointed time of each shift commencing to work, and it shall be the duty of the said fire boss at each examination to leave at the face and side of every place so examined, evidence of his presence. And he shall also, at each examination, inspect the entrance or entrances to the worked out or abandoned parts which are adjacent to the roadways and working places of the mine where fire-damp is likely to accumulate, and where danger is found to exist he shall place a danger signal at the entrances to such places, which shall be sufficient warning for persons not to enter said place.

Section 3. In any place that is being driven towards or in dangerous proximity to an abandoned mine or part of a mine suspected of containing inflammable gases, or which may be inundated with water, bore holes shall be kept not less than twelve feet in advance of the face, and on the sides of such working places, said side holes

to be drilled diagonally not more than eight feet apart, and any place driven to tap water or gas shall not be more than ten feet wide, and no water or gas from an abandoned mine or part of a mine and no bore holes from the surface, shall be tapped until the employes, except those engaged at such work, are out of the mine, and such work to be done under the immediate instruction of the mine foreman.

Section 4. The fire boss shall at each entrance to the mine or in the main intake air-way near to the mine entrance, prepare a permanent station with the proper danger signal designated by suitable letters and colors placed thereon, and it shall not be lawful for any person or persons, except the mine officials in cases of necessity, and such other persons as may be designated by them, to pass beyond said danger station until the mine has been examined by the fire boss as aforesaid and the same, or certain parts thereof, reported by him to be safe, and in all mines where operations are temporarily suspended the superintendent and mine foreman shall see that a danger signal be placed at the mine entrance or entrances, which shall be a sufficient warning to persons not to enter the mine, and if the ordinary circulation of air through the mine be stopped each entrance to said mine shall be securely fenced off and a danger signal shall be displayed upon said fence and any workman or other person, (except those persons hereinbefore provided for,) passing by any danger signal into the mine before it has been examined and reported to be safe as aforesaid, shall be deemed guilty of a misdemeanor and it shall be the duty of the fire boss, mine foreman, superintendent or any employe to forthwith notify the mine inspector, who shall enter proceedings against such person or persons as provided for in section two of article twenty-one of this act.

Section 5. All entries, tunnels, air ways, traveling ways and other working places of a mine where explosive gas is being generated in such quantities as can be detected by the ordinary safety lamp, and pillar workings and other working places in any mine where a sudden inflow of said explosive gas is likely to be encountered, (by reason of the subsidence of the overlying strata or from any other causes), shall be worked exclusively with locked safety lamps. The use of open lights is also prohibited in all working places, roadways or other parts of the mine through which fire-damp might be carried in the air current in dangerous quantities. In all mines or parts of mines worked with locked safety lamps the use of electric wires and electric currents is positively prohibited, unless said wires and machinery and all other mechanical devices attached thereto and connected therewith are constructed and protected in such a manner as to secure freedom from the emission of sparks or flame therefrom into the atmosphere of the mine.

Section 6. After January first, one thousand eight hundred and ninety-four, the use of the common Davy safety lamp for general work on any bituminous coal mine is hereby prohibited, neither shall the Clanny lamp be so used unless its gauze is thoroughly protected by a metallic shield, but this act does not prohibit the use of the Davy and Clanny lamps by the mine officials for the purpose of examining the workings for gas.

Section 7. All safety lamps used for examining mines or for working therein shall be the property of the operator, and shall be in the care of the mine foreman, his assistant or fire boss, or other competent person, who shall clean, fill, trim, examine and deliver the same, locked, in a safe condition to the men when entering the mine before each shift, and shall receive the same from the men at the end of each shift, for which service a charge not exceeding cost of labor and material may be made by the operator. A sufficient number of safety lamps, but not less than twenty-five per centum of those in use, shall be kept at each mine where gas has at any time been generated in sufficient quantities to be detected by an ordinary safety lamp, for use in case of emergency. It shall be the duty of every person who knows his safety lamp to be injured or defective, to promptly report such fact to the party authorized herein to receive and care for said lamps, and it shall be the duty of that party to promptly report such fact to the mine foreman.

ARTICLE VI.

Mine Foreman and His Duties.

Section 1. In order to better secure the proper ventilation of the bituminous coal mines and promote the health and safety of the persons employed therein, the operator or superintendent shall employ a competent and practical inside overseer for each and every mine, to be called mine foreman; said mine foreman shall have passed an examination and obtained a certificate of competency or of service as required by this act and shall be a citizen of the United States and an experienced coal miner, and said mine foreman shall devote the whole of his time to his duties at the mine when in operation, or in case of his necessary absence, an assistant, chosen by him and shall keep a careful watch over the ventilating apparatus, and the air ways, traveling ways, pump and pump timbers and drainage, and shall often instruct, and as far as possible, see that as the miners advance their excavations all dangerous coal, slate and rock overhead are taken down or carefully secured against falling therein, or on the traveling and hauling ways, and that sufficient props, caps and timbers of suitable size are sent into the mine when required, and all props shall be cut square at both ends, and as near as prac-

licable to a proper length for the places where they are to be used, and such props, caps and timbers shall be delivered in the working places of the mine.

Section 2. Every workman in want of props or timbers and cap pieces shall notify the mine foreman or his assistant of the fact at least one day in advance, giving the length and number of props or timbers and cap pieces required, but in cases of emergency the timbers may be ordered immediately upon the discovery of any danger. (The place and manner of leaving the orders for the timber shall be designated and specified in the rules of the mine.) And if, from any cause, the timbers cannot be supplied when required, he shall instruct the persons to vacate all said working places until supplied with the timber needed, and shall see that all water be drained or hauled out of all working places before the miner enters and as far as practicable kept dry while the miner is at work.

Section 3. It shall be the duty of the mine foreman to see that proper cut-throughs are made in all the room pillars at such distances apart as in the judgment of the mine inspector may be deemed requisite, not more than thirty-five nor less than sixteen yards each, for the purpose of ventilation, and the ventilation shall be conducted through said cut-through into rooms by means of check doors made of canvas or other suitable material, placed on the entries, or in other suitable places, and he shall not permit any room to be opened in advance of the ventilating current. Should the mine inspector discover any room, entry, air-way or other working places being driven in advance of the air current contrary to the requirements of this section, he shall order the workmen working in such places to cease work at once until the law is complied with.

Section 4. In all hauling roads, on which hauling is done by animal power, and whereon men have to pass to and from their work, holes for shelter, which shall be kept clear of obstruction, shall be made at least every thirty yards and be kept whitewashed, but shelter holes shall not be required in entries from which rooms are driven at regular intervals not exceeding fifty feet, where there is a space four feet between the wagon and rib, it shall be deemed sufficient for shelter. On all hauling roads whereon hauling is done by machinery, and all gravity or inclined planes inside mines upon which the persons employed in the mine must travel on foot to and from their work, such shelter holes shall be cut not less than two feet six inches into the strata and not more than fifteen yards apart, unless there is a space of at least six feet from the side of the car to the side of the roadway, which space shall be deemed sufficient for shelter: Provided, That this requirement shall not apply to any parts of mines which parts were opened prior to the passage of this act if deemed impracticable by the mine inspector.

Section 5. The mine foreman shall measure the air current at least once a week at the inlet and outlet and at or near the faces of the entries, and shall keep a record of such measurements. An anemometer shall be provided for this purpose by the operator of the mine. It shall be the further duty of the mine foreman to require the workmen to use locked safety lamps when and where required by this act.

Section 6. The mine foreman shall give prompt attention to the removal of all dangers reported to him by the fire boss or any other person working in the mine, and in mines where a fire boss is not employed, the said mine foreman or his assistant shall visit and examine every working place therein at least once every alternate day while the miners of such place are or should be at work, and shall direct that each and every working place be properly secured by props or timbers, and that no person shall be directed or permitted to work in an unsafe place unless it be for the purpose of making it safe: Provided, That if the owner or operator of any mine employing a fire boss shall require the mine foreman to examine every working place every alternate day, then it shall be the duty of the mine foreman to do so.

Section 7. When the mine foreman is unable personally to carry out all the requirements of this act as pertaining to his duties, he shall employ a competent person or persons, not objectionable to the operator, to act as his assistant or assistants, who shall act under his instructions, and in all mines where fire-damp is generated the said assistant or assistants shall possess a certificate of competency as mine foreman or fire boss.

Section 8. A suitable record book, with printed head lines, prepared by and approved by the mine inspector, the same to be provided at the expense of the Commonwealth, shall be kept at each mine generating explosive gases, and immediately after each examination of the mine made by the fire boss or fire bosses, a record of the same shall be entered in said book, signed by the person or persons making such examinations, which shall clearly state the nature and location of any danger which he or they may have discovered, and the fire boss or fire bosses shall immediately report such danger and the location of the same to the mine foreman, whose duty it shall be to remove the danger, or to cause the same to be done forthwith as far as practicable, and the mine foreman shall also each day countersign all reports entered by the fire boss or fire bosses. At all mines the mine foreman shall enter in a book provided as above by the mine inspector, a report of the condition of the mine, signed by himself, which shall clearly state any danger that may have come under his observation during the day, and shall also state whether he has a proper supply of material on hand for the safe working of the mine, and whether all requirements of the law are strictly com-

plied with. He shall, once each week, enter or cause to be entered, plainly, with ink, in said book, a true record of all air measurements required by this act, and such books shall at all times, be kept at the mine office for examination by the mine inspector of the district and any other person working in the mines.

ARTICLE VII.

Timber and Other Mine Supplies, Et Cetera.

Section 1. It shall be the duty of the superintendent, on behalf and at the expense of the operator to keep on hand at the mines at all times, a full supply of all materials and supplies required to preserve the health and safety of the employes as ordered by the mine foreman and required by this act. He shall at least once a week, examine and countersign—(which countersignature of the superintendent shall be held, under this act to have no further bearing than the evidence of the fact that the mine superintendent has read the matter entered on the book)—all reports entered in the mine record book, and if he finds that the law is being violated in any particular, he shall order the mine foreman to comply with its provisions forthwith. If from any cause he cannot procure the necessary supplies or materials as aforesaid, he shall notify the mine foreman, whose duty it shall be to withdraw the men from the mine or part of mine until such supplies or materials are received.

Section 2. The superintendent of the mine shall not obstruct the mine foreman or other officials in their fulfillment of any of the duties required by this act. At mines where superintendents are not employed, the duties that are herein prescribed for the superintendent shall devolve upon the mine foreman.

ARTICLE VIII.

Steam Boilers, Stables, Regulations for the Use of Oil, Powder, Et Cetera.

Section 1. After the passage of this act it shall be unlawful to place a main or principal ventilating fan shed inside of any bituminous coal mine wherein explosive gas has been detected or in which the air current is contaminated with coal dust. No stationery steam boiler shall be placed in any bituminous coal mine, unless said steam boiler be placed within fifty feet from the bottom of an up-cast shaft, which shaft shall not be less than twenty-five square feet in area, and after May thirtieth, one thousand eight hundred and ninety-five, no stationary steam boiler shall be permitted to remain in any bituminous coal mine, only as aforesaid.

Section 2. It shall not be lawful after the passage of this act to provide any horse or mule stables inside of bituminous coal mines, unless said stables are excavated in the solid strata or coal seams, and

no wood or other combustible material shall be used excessively in the construction of said stables, unless surrounded by or incased by some incombustible material. The air current used for ventilating said stable shall not be intermixed with the air current used for ventilating the working parts of the mine, but shall be conveyed directly to the return air current, and no open light shall be permitted to be used in any stable in any mine.

Section 3. No hay or straw shall be taken into any mine, unless pressed and made up into compact bales, and all hay or straw taken into the mines as aforesaid, shall be stored in a storehouse excavated in the solid strata or built in masonry for that purpose. After January first, one thousand eight hundred and ninety-four, no horse or mule stable or storehouse, only as aforesaid, shall be permitted in any bituminous coal mine.

Section 4. No explosive oil shall be used or taken into bituminous coal mines for lighting purposes, and oil shall not be stored or taken into the mines in quantities exceeding five gallons. The oiling or greasing of cars inside of the mines is strictly forbidden unless the place where said oil or grease is used is thoroughly cleaned at least once every day to prevent the accumulation of waste oil or grease on the roads or in the drains at that point. Not more than one barrel of lubricating oil shall be permitted in the mine at any one time. Only a pure animal or pure cotton-seed oil or oils, that shall be as free from smoke as pure animal or pure cotton-seed oil, shall be used for illuminating purposes in any bituminous mine. Any person found knowingly using explosive or impure oil, contrary to this section, shall be prosecuted as provided for in section two of article twenty-one of this act.

Section 5. No powder or high explosive shall be stored in any mine, and no more of either article shall be taken into the mine at any one time than is required in any one shift, unless the quantity be less than five pounds, and in all working places where locked safety lamps are used blasting shall only be done by the consent and in the presence of the mine foreman, his assistant or fire boss, or any competent party designated by the mine foreman for that purpose; whenever the mine inspector discovers that the air in any mine is becoming vitiated by the unnecessary blasting of the coal, he shall have the power to regulate the use of the same and to designate at what hour of the day blasting may be permitted.

ARTICLE IX.

Opening for Drainage, Et Cetera, on Other Lands.

Section 1. If any person, firm or corporation is or shall hereafter be seized in his or their own right of coal lands, or shall hold such lands under lease and shall have opened or shall desire to open a

coal mine on said land, and it shall not be practicable to drain or ventilate such mines or to comply with the requirements of this act as to ways of ingress and egress or traveling ways by means of openings on lands owned or held under lease by him, them or it, and the same can be done by means of openings on adjacent lands, he, they or it may apply by petition to the court of quarter sessions of the proper county, after ten days' notice to the owner or owners, their agents or attorney, setting forth the facts under oath or affirmation particularly describing the place or places where such opening or openings can be made, and the pillars of coal or other material necessary for the support of such passageway and such right of way to any public road as may be needed in connection with such opening, and that he or they cannot agree with the owner or owners of the land as to the amount to be paid for the privilege of making such opening or openings, whereupon the said court shall appoint three disinterested and competent citizens of the county to view the ground designated and lay out from the point or points mentioned in such petition, a passage or passages not more than eighty feet area by either drift, shaft or slope, or by a combination of any of said methods by any practicable and convenient route to the coal of such person, firm or corporation, preferring in all cases an opening through the coal strata where the same is practicable. The said viewers shall, at the same time, assess the damages to be paid by the petitioner or petitioners to the owner or owners of such lands for the coal and other valuable material to be removed in the excavation and construction of said passage, also for such coal or other valuable material necessary to support the said passage, as well as for a right of way not exceeding fifteen feet in width from any such opening to any public road, to enable persons to gain entrance to the mine through such opening or to provide therefrom, upon the surface, a water course of suitable dimensions to a natural stream to enable the operator to discharge the water from said mine if such right of way shall be desired by the petitioner or petitioners, which damages shall be fully paid before such opening is made. The proceedings shall be recorded in the road docket of the proper county, and the pay of viewers shall be the same as in road cases; if exceptions be filed they shall be disposed of by the court as speedily as possible, and both parties to have the right to take depositions as in road cases. If, however, the petitioner desires to make such openings or roads or waterways before the final disposition of such exceptions, he shall have the right to do so by giving bond, to be approved by the court securing the damages as provided by law in the case of lateral railroads.

Section 2. It shall be compulsory upon the part of the mine owner or operator to exercise the powers granted by the provisions of the

last preceding section for the procuring of a right of way on the surface from the opening of a coal mine to a public road or public roads, upon the request in writing of fifty miners employed in the mine or mines of such owner or operator: Provided however, That with such request satisfactory security be deposited with the mine owner or operator by said petitioners, being coal miners, to fully and sufficiently pay all costs, damages and expenses caused by such proceedings and in paying for such right of way.

Section 3. In any mine or mines, or parts thereof, wherein water may have been allowed to accumulate in large and dangerous quantities, putting in danger the adjoining or adjacent mines and the lives of the miners working therein, and when such can be tapped and set free and flow by its own gravity to any point of drainage, it shall be lawful for any operator or person having mines so endangered, with the approval of the inspector of the district, to proceed and remove the said danger by driving a drift or drifts protected by bore holes as provided by this act, and in removing said danger it shall be lawful to drive across property lines if needful.

And it shall be unlawful for any person to dam or in any way obstruct the flow of any water from said mine or parts thereof, when so set free on any part of its passage to point of drainage.

Section 4. No operator shall be permitted to mine coal within fifty feet of any abandoned mine containing a dangerous accumulation of water, until said danger has been removed by driving a passage way so as to tap and drain off said water as provided for in this act: Provided, That the thickness of the barrier pillars shall be greater and shall be in proportion of one foot of pillar thickness to each one and one-quarter foot of waterhead if, in the judgment of the engineer of the property and that of the district mine inspector, it is necessary for the safety of the persons working in the mine.

Section 5. All operators of bituminous coal mines shall keep posted in a conspicuous place at their mines the general and special rules embodied in and made part of this act, defining the duties of all persons employed in or about said mine, which said rules shall be printed in the English language, and shall also be printed in such other language or languages as are used by any ten persons working therein. It shall be the duty of the mine inspector to furnish to the operator printed copies of such rules and such translations thereof as are required by this section, and to certify their correctness over his signature. The cost thereof shall be borne by the State.

ARTICLE X.

Inspectors, Examining Boards, Et Cetera.

Section 1. The board of examiners appointed to examine candidates for the office of mine inspectors under the provisions of the act

to which this is a supplement, shall exercise all the powers granted, and perform all the duties required by this supplementary act, and at the expiration of their term of office, and every four years thereafter, the Governor shall appoint, as hereinafter provided, during the month of January, two mining engineers of good repute and three other persons, who shall have passed successful examinations qualifying them to act as mine inspectors or mine foremen in mines generating fire-damp, who shall be citizens of this Commonwealth and shall have attained the age of thirty years and shall have had at least five years of practical experience in the bituminous mines of Pennsylvania, and who shall not be serving at that time in any official capacity at mines, which five persons shall constitute a board of examiners whose duty it shall be to inquire into the character and qualification of candidates for the office of inspector of mines under the provisions of this act.

Section 2. The examining board, so constituted shall meet on the first Tuesday of March following their appointment, in the city of Pittsburgh, to examine applicants for the office of mine inspector: Provided, however, The examining board shall meet two weeks previous to the aforesaid time for the purpose of preparing questions, et cetera, and when called together by the Governor on extra occasions at such time and place as he may designate, and after being duly organized and having taken and subscribed before any officer authorized to administer the same the following oath, namely, "We, the undersigned, do solemnly swear (or affirm) that we will perform the duties of examiners of applicants for the appointment as inspectors of bituminous coal mines to the best of our abilities, and that in recommending or rejecting said applicant, we will be governed by the evidence of the qualifications to fill the position under the law creating the same, and not by any consideration of political or personal favor; and that we will certify all whom we may find qualified according to the true intent and meaning of the act and none others."

Section 3. The general examination shall be in writing and the manuscript and other papers of all applicants, together with the tally sheets and the solution of each question as given by the examining board, shall be filed with the Secretary of Internal Affairs as public documents, but each applicant shall undergo an oral examination pertaining to explosive gases and safety lamps, and the examining board shall certify to the Governor the names of all such applicants which they shall find competent to fill this office under the provisions of this act, which names, with the certificates and their percentages and the oaths of the examiners, shall be mailed to the Secretary of the Commonwealth and be filed in his office. No person shall be certified as competent whose percentage shall be less

than ninety per centum, and such certificate shall be valid only when signed by four of the members of the examining board.

Section 4. The qualification of candidates for said office of inspectors of mines to be inquired into and certified by said examiners, shall be as follows, namely: They shall be citizens of Pennsylvania, of temperate habits, of good repute as men of personal integrity, and shall have attained the age of thirty years, and shall have had at least five years of practical experience in working of or in the workings of the bituminous mines of Pennsylvania immediately preceding their examination, and shall have had practical experience with fire-damp inside the mines of this country, and upon examination shall give evidence of such theoretical as well as practical knowledge and general intelligence respecting mines and mining and the working and ventilation thereof, and all noxious mine gases, and will satisfy the examiners of their capability and fitness for the duties imposed upon inspectors of mines by the provisions of this act. And the examining board shall immediately after the examination, furnish to each person who came before it to be examined, a copy of all questions whether oral or written, which were given at the examination on printed slips of paper and to be marked solved, right, imperfect or wrong, as the case may be, together with a certificate of competency to each candidate who shall have made at least ninety per centum.

Section 5. The board of examiners may, also at their meeting, or when at any time called by the Governor together for an extra meeting, divide the bituminous coal regions of the State into inspection districts, no district to contain less than sixty nor more than eighty mines, and as nearly as possible equalizing the labor to be performed by each inspector, and at any subsequent calling of the board of examiners this division may be revised as experience may prove to be advisable.

Section 6. The board of examiners shall each receive ten dollars per day for each day actually employed, and all necessary expenses, to be paid out of the State Treasury. Upon the filing of the certificate of the examining board in the office of the Secretary of the Commonwealth, the Governor shall, from the names so certified, commission one person to be inspector of mines for each district as fixed by the examiners in pursuance of this supplementary act, whose commission shall be for a full term of four years from the fifteenth day of May following: Always provided however, The highest candidate or candidates in percentage shall have priority to be commissioned for a full term or unexpired term before those candidates of lower percentage, and in case of a tie percentage the oldest candidate shall be commissioned.

Section 7. As often as vacancies occur in said office of inspectors of mines, the Governor shall commission for the unexpired term

from the names on file, the highest percentage in the office of the Secretary of the Commonwealth, until the number shall be exhausted, and whenever this may occur, the Governor shall cause the afore-said board of examiners to meet, and they shall examine persons who may present themselves for the vacant office of mine inspector as herein provided, and the board of examiners shall certify to the Governor all persons who shall have made ninety per centum in said examination, one of whom to be commissioned by him according to the provisions of this act for the office of mine inspector for the unexpired term, and any vacancy that may occur in the examining board shall be filled by the Governor of this Commonwealth.

Section 8. Each inspector of mines shall receive for his services an annual salary of three thousand dollars and actual traveling expenses, to be paid quarterly by the State Treasurer upon warrant of the Auditor General, and each mine inspector shall keep an office in the district for which he is commissioned and he shall be permitted to keep said office at his place of residence: Provided, A suitable apartment or room be set off for that purpose. Each mine inspector is hereby authorized to procure such instruments, chemical tests and stationery and to incur such expenses of communication from time to time, as may be necessary to the proper discharge of his duties under this act at the cost of the State, which shall be paid by the State Treasurer upon accounts duly certified by him and audited by the proper department of the State.

Section 9. All instruments, plans, books, memoranda, notes and other material pertaining to the office shall be the property of the State, and shall be delivered to their successors in office. In addition to the expenses now allowed by law to the mine inspectors in enforcing the several provisions of this act, they shall be allowed all necessary expenses by them incurred in enforcing the several provisions of said law in the respective courts of the Commonwealth, the same to be paid by the State Treasurer on warrants drawn by the Auditor General after auditing the same; all such accounts presented by the mine inspector to the Auditor General shall be itemized and first approved by the court before which the proceedings were instituted.

Section 10. Each mine inspector of bituminous coal mines shall, before entering upon the discharge of his duties, give bond in the sum of five thousand dollars, with sureties to be approved by the president judge of the district in which he resides, conditional for the faithful discharge of his duties, and take an oath or affirmation to discharge his duties impartially and with fidelity to the best of his knowledge and ability. But no person who shall act as manager or agent of any coal mine, or as mining engineer or is interested in operating any coal mine, shall, at the same time act as mine inspector of coal mines under this act.

Section 11. Each inspector of bituminous coal mines shall devote the whole of his time to the duties of his office. It shall be his duty to examine each mine in his district as often as possible, but a longer period of time than three months shall not elapse between said examination, to see that all the provisions of this act are observed and strictly carried out, and he shall make a record of all examinations of mines, showing the condition in which he finds them, especially with reference to ventilation and drainage, the number of persons employed in each mine, the extent to which the law is obeyed and progress made in the improvement of mines, the number of serious accidents and the nature thereof, the number of deaths resulting from injuries received in or about the mines with the cause of such accident or death, which record completed to the thirty-first day of December of each and every year, shall, on or before the fifteenth day of March following, be filed in the office of the Secretary of Internal Affairs, to be by him recorded and included in the annual report of his department.

Section 12. It shall be the duty of the mine inspector on examination of any mine, to make out a written, or partly written and partly printed report of the condition in which he finds such mine and post the same in the office of the mine or other conspicuous place. The said report shall give the date of the visit, the number of cubic feet of air in circulation and where measured, and that he has measured the air at the cut through one or more rooms in each heading or entry, and such other information as he shall deem necessary, and the said report shall remain posted in the office or conspicuous place for one year and may be examined by any person employed in or about the mine.

Section 13. In case the inspector becomes incapacitated to perform the duties of his office or receives a leave of absence from the same from the Governor, it shall be the duty of the judge of the court of common pleas of his district to appoint, upon said mine inspector's application or that five miners or five operators of said inspector's district, some competent person, recommended by the board of examiners to fill the office of inspector until the said inspector shall be able to resume the duties of his office, and the person so appointed shall be paid in the same manner as is hereinbefore provided for the inspector of mines.

ARTICLE XI.

Inspectors' Powers, Et Cetera.

Section 1. That the mine inspectors may be enabled to perform the duties herein imposed upon them, they shall have the right at all times to enter any bituminous coal mine to make examinations or obtain information, and upon the discovery of any violation of this act, they shall institute proceedings against the person or persons at

fault under the provisions of section two of article twenty-one of this act. In case, however, where, in the judgment of the mine inspector of the district, any mine or part of mine is in such dangerous condition as to jeopardize life or health, he shall at once notify two of the mine inspectors of the other districts, whereupon they shall at once proceed to the mine where the danger exists and examine into the matter, and if, after full investigation thereof, they shall agree in the opinion that there is immediate danger, they shall instruct the superintendent of the mine in writing to remove such condition forthwith, and in case said superintendent shall fail to do so, then they shall apply, in the name of the Commonwealth, to the court of common pleas of the county, or in case the court shall not be in session, to a judge of the said court in chambers in which the mine may be located for an injunction to suspend all work in and about said mine, whereupon said court or judge shall at once proceed to hear, and determine speedily the same, and if the cause appear to be sufficient after hearing the parties and their evidences, as in like cases, shall issue its writ to restrain the working of said mine until all cause of danger is removed, and the cost of said proceedings shall be borne by the owner, lessee or agent of the mine: Provided, That if said court shall find the cause not sufficient, then the case shall be dismissed and the costs shall be borne by the county wherein said mine is located.

ARTICLE XII.

Inquests, Et Cetera.

Section 1. Whenever, by reason of any explosion or other accidents in any bituminous coal mine or the machinery connected therewith, loss of life or serious personal injury shall occur, it shall be the duty of the person having charge of such mine to give notice thereof forthwith to the mine inspector of the district and also to the coroner of the county, if any person is killed.

Section 2. If the coroner shall determine to hold an inquest, he shall notify the mine inspector of the district of time and place of holding the same, who shall offer such testimony as he may deem necessary to thoroughly inform the said inquest of the cause of the death, and the said mine inspector shall have authority at any time to appear before such coroner and jury and question or cross-question any witness, and in choosing a jury for the purpose of holding such inquest it shall be the duty of the coroner to empanel a jury, no one of which shall be directly or indirectly interested.

Section 3. It shall be the duty of the mine inspector, upon being notified of any fatal accident as herein provided, to immediately repair to the scene of the accident and make such suggestions as may appear necessary to secure the safety of any persons who may be en-

dangered, and if the results of the accident do not require an investigation by the coroner the said mine inspector shall proceed to investigate and ascertain the cause of the accident and make a record thereof, which he shall file as provided for, and to enable him to make the investigation he shall have power to compel the attendance of persons to testify, and to administer oaths or affirmations, and if it is found upon investigation that the accident is due to the violation of any provisions of this act by any person, other than those who may be deceased, the mine inspector may institute proceedings against such person or persons as provided for in section two of article twenty-one of this act.

Section 4. The cost of such investigation shall be paid by the county in which the accident occurred in the same manner as costs of inquests held by coroners or justices of the peace are paid.

ARTICLE XIII.

Neglect or Incompetence of Inspectors.

Section 1. The court of common pleas in any county or district, upon a petition signed by not less than fifteen reputable citizens, who shall be miners or operators of mines, and with the affidavit of one or more of said petitioners attached setting forth that any inspector of mines neglects his duties or is incompetent, or that he is guilty of a malfeasance in office, shall issue a citation in the name of the Commonwealth to the said mine inspector to appear on not less than fifteen days' notice, upon a day fixed, before said court, at which time the court shall proceed to inquire into and investigate the allegations of the said petitioners:

Section 2. If the court find that the said mine inspector is neglectful of his duties or incompetent to perform the duties of his office or that he is guilty of malfeasance in office, the court shall certify the same to the Governor, who shall declare the office of said mine inspector vacant and proceed in compliance with the provisions of this act to supply the vacancy; and the costs of said investigation shall, if the charges are sustained, be imposed upon the mine inspector, but if the charges are not sustained, they shall be imposed upon the petitioners.

ARTICLE XIV.

Discretionary Powers of Inspectors, Arbitration, Et Cetera.

Section 1. The mine inspectors shall exercise a sound discretion in the enforcement of the provisions of this act, and if the operator, owner, miners, superintendent, mine foreman or other persons employed in or about the mine as aforesaid shall not be satisfied with any decision the mine inspector may arrive at in the discharge of his duties under this act, which said decision shall be in writing signed

by the mine inspector, the said owner, operator, superintendent, mine foreman or other person specified above shall either promptly comply therewith or within seven days from date thereof appeal from such decision to the court of quarter sessions of the county wherein the mine is located, and said court shall speedily determine the question involved in said decision and appeal and the decision of said court shall be binding and conclusive.

Section 2. The court or the judge of said court in chambers may in its discretion, appoint three practical, reputable, competent and disinterested persons whose duty it shall be, under instructions of the said court, to forthwith examine such mine or other cause of complaint and report under oath, the facts as they exist or may have been, together with their opinions thereon within thirty days after their appointment. The report of said board shall become absolute unless exceptions thereto shall be filed within ten days after the notice of the filing thereof by the owner, operator, mine superintendent, mine foreman, mine inspector and other persons, as aforesaid, and if exceptions are filed the court shall at once hear and determine the same and the decision shall be final and conclusive.

Section 3. If the court shall finally sustain the decision of the mine inspector, then the appellant shall pay all costs of such proceedings, and if the court shall not sustain the decision of the mine inspector then such costs shall be paid by the county: Provided, That no appeal from any decision made by any mine inspector which can be immediately complied with shall work as a supersedeas to such decisions during the pendency of such appeal, but all decisions shall be in force until reversed or modified by the proper court.

ARTICLE XV.

Examinations of Mine Foremen and Fire Bosses.

Section 1. On the petition of the mine inspector the court of common pleas in any county in said district shall appoint an examining board of three persons, consisting of a mine inspector, a miner and an operator or superintendent, which said miner shall have received a certificate of competency as mine foreman in mines generating explosive gases, and the members of said examining board shall be citizens of this Commonwealth, and the persons so appointed shall after being duly organized take and subscribe before an officer authorized to administer the same, the following oath, namely: "We, the undersigned, do solemnly swear (or affirm) that we will perform the duties of examiners of applicants for the position of mine foremen and fire bosses of bituminous coal mines to the best of our abilities, and that in certifying or rejecting said applicants we will be governed by the evidence of the qualifications to fill the position

under the law creating the same and not by any consideration of personal favor; that we will certify all whom we may find qualified and none others."

Section 2. The examining board shall examine any person applying thereto as to his competency and qualifications to discharge the duties of mine foreman or fire boss.

Applicants for mine foreman or fire boss certificates shall be at least twenty-three years of age, and shall have had at least five years' practical experience, after fifteen years of age, as miners, superintendent at or inside of the bituminous mines of Pennsylvania and shall be citizens of this Commonwealth and men of good moral character and of known temperate habits.

The said board shall be empowered to grant certificates of competency of two grades, namely: certificates of first grade, to persons who have had experience in mines generating explosive gases and who shall have the necessary qualifications to fulfil the duties of mine foreman in such mines; and certificates of second grade, to persons who give satisfactory evidence of their ability to act as mine foreman in mines not generating explosive gases.

Section 3. The said board of examiners shall meet at the call of the mine inspector and shall grant certificates to all persons whose examination shall disclose their fitness for the duties of mine foreman as above classified, or fire boss, and such certificates shall be sufficient evidence of the holder's competency for the duties of said position so far as relates to the purposes of this act: Provided, That all persons holding certificates of competency granted under the provisions of the act to which this is a supplement shall continue to act under this act: And provided further, That any person acting as mine foreman upon a certificate of service under the act to which this is a supplement may continue to act in the same capacity at any mine where the general conditions affecting the health and safety of the persons employed do not differ materially from those at the mine in which he was acting when said certificate was granted: Provided, however, That if such a mine foreman leaves his present employer and secures employment elsewhere at any mine where in the judgment of the mine inspector of the district the conditions affecting the health and safety of the persons employed do differ materially from those at the mine at which he was employed when his certificate was granted, it shall then be the duty of the mine inspector of the district in which he has secured employment to serve written protest against such mine foreman's employment to the operator of said mine.

Section 4. The examining board shall hold their office for a period of four years from the date from their appointment and shall receive five dollars per day for each day necessarily employed and mileage

at the rate of three cents per mile for each mile necessarily traveled, and all other necessary expenses connected with the examination shall be paid by the Commonwealth. Each applicant before being examined shall pay the examining board the sum of one dollar, and one dollar additional for each certificate granted, which shall be for the use of the Commonwealth. The foregoing examination shall be held annually in each inspection district.

ARTICLE XVI.

Suspension of Certificates of Mine Foreman and Fire Bosses.

Section 1. No person shall act as fire boss in any bituminous coal mines, unless granted a certificate of competency by any one of the several examining boards. All applicants applying to any of the examining boards for fire boss certificates shall undergo an oral examination in the presence of explosive gas, and such certificate shall only be granted to men of good moral character and of known temperate habits, and it shall be unlawful for any operator or superintendent to employ any person as fire boss who has not obtained such certificate of competency as required by this act.

Section 2. If the mine foreman or fire boss shall neglect his duties or has incapacitated himself by drunkenness, or has been incapacitated by any other cause for the proper performance of said duties, and the same shall be brought to the knowledge of the operator or superintendent it shall be the duty of such operator or superintendent to discharge such delinquent at once and notify the inspector of the district of such action, whereupon it shall be the duty of said inspector to inform the court of common pleas of the county who shall issue a citation in the name of the Commonwealth to the said operator, superintendent, mine foreman or fire boss to appear at not less than fifteen days' notice upon a day fixed before said court, at which time the court shall proceed to inquire into and investigate the allegations. If the court finds that the allegations are true, it shall notify the examining board of such finding and instruct the said board to withdraw the certificate of such delinquent during any period of time that said court may deem sufficient, and at the expiration of such time he shall be entitled to a re-examination.

ARTICLE XVII.

Employment of Boys and Females.

Section 1. No boy under the age of twelve years, or any woman or girl of any age, shall be employed or permitted to be in the workings of any bituminous coal mine for the purpose of employment, or for any other purpose; and no boy under the age of sixteen shall be permitted to mine or load coal in any room, entry or other working place, unless in company with a person over sixteen years of age. If

the mine inspector or mine foreman has reason to doubt the fact of any particular boy being as old as this act requires for the service which said boy is performing at any mine, it shall be the duty of said mine inspector or mine foreman to report the fact to the superintendent, giving the name of said boy, and the said superintendent shall at once discharge the said boy.

ARTICLE XVIII.

Stretchers.

Section 1. It shall be the duty of operators or superintendents to keep at the mouth of the drift, shaft, or slope, or at such other place about the mine as shall be designated by the mine inspector, a stretcher properly constructed, and a woolen and a waterproof blanket in good condition for use in carrying away any person who may be injured at the mine: Provided, That where more than two hundred persons are employed two stretchers and two woolen and two waterproof blankets shall be kept. And in mines generating fire-damp a sufficient quantity of linseed or olive oil, bandages and linen shall be kept in store at the mines for use in emergencies, and bandages shall be kept at all mines.

ARTICLE XIX.

Annual Reports.

Section 1. On or before the twenty-fifth day of January in each year the operator or superintendent of every bituminous coal mine shall send to the mine inspector of the district in which said mine is located a correct report, specifying with respect to the year ending the thirty-first day of December preceding, the name of the operator and officers of the mine and the quantity of coal mined. The report shall be in such form and give such information regarding said mines as may be from time to time required and prescribed by the mine inspector of the district. Blank forms for such reports shall be furnished by the Commonwealth.

ARTICLE XX.

Additional Duties of Mine Foreman.

Section 1. Rule 1. The mine foreman shall attend personally to his duties in the mine and carry out all the instructions set forth in this act and see that the regulations prescribed for each class of workmen under his charge are carried out in the strictest manner possible, and see that any deviation from or infringements of any of them are promptly adjusted.

Rule 2. He shall cause all stoppings along the airways to be properly built.

Rule 3. He shall see that the entries at such places where road grades necessitate sprags or brakes to be applied or removed shall have a clear level width of not less than two and one-half feet, between the side of car and the rib to allow the driver to pass his trip safely and keep clear of the cars there.

Rule 4. He shall direct that all miners undermine the coal properly before blasting it and that blasting shall be done at only such hours as he shall direct and shall order the miners to set sprags under the coal, when necessary for safety while undermining at distances not exceeding seven feet apart, and he shall not allow the improper drawing of pillars.

Rule 5. In mines where fire damp is generated when the furnace fire has been put out it shall not be relighted, except in his presence, or that of his assistant under his instructions.

Rule 6. In case of accident to a ventilating fan or its machinery, or the fan itself, whereby the ventilation of the mine would be seriously interrupted, it shall be his duty to order the men to immediately withdraw from the mine and not allow their return to their work until the ventilation has been restored and the mine has been thoroughly examined by him or his assistant and reported to be safe.

Rule 7. He shall see that all dangerous places are properly fenced off and proper danger signal boards so hung on such fencing, that they may be plainly seen; he shall also travel all air roads and examine all the accessible openings to old workings as often as is necessary to insure their safety.

Rule 8. He shall provide a book or sheet to be put in some convenient place, or places, upon which shall be made a place for the numbers used by the miners with space sufficient to each number, so that the miners can write plainly the quantity of props, their approximate length and the number of caps and other timbers which they require, together with the date of the order. Said book or sheets shall be preserved for thirty days from their date.

Duties of Fire Boss.

Rule 9. He shall enter the mine before the men have entered it, and before proceeding to examine the same, he shall see that the air current is traveling in its proper course, and if all seems right, he shall proceed to examine the workings.

Rule 10. He shall not allow any person, except those duly authorized to enter or remain in any part of the mine through which a dangerous accumulation of gas is being passed in the ventilating current from any other part of the mine.

Rule 11. He shall frequently examine the edge and accessible parts of new falls and old gobs and air courses, and he shall report at once any violation of this act to the mine foreman.

Duties of Miners.

Rule 12. He shall examine his working place before beginning work and take down all dangerous slate, or otherwise make it safe by properly timbering the same before commencing to dig or load coal, and in mines where fire bosses are employed, he shall examine his place to see whether the fire boss has left the proper marks indicating his examination thereof, and he shall at all times be very careful to keep his working place in a safe condition during working hours.

Rule 13. Should he at any time find his place becoming dangerous either from gas or roof, or from any unusual condition which may have arisen, he shall at once cease working, and inform the mine foreman or his assistant of such danger, and before leaving such place he shall place some plain warning at the entrance thereto to warn others from entering into the danger.

Rule 14. It shall be the duty of every miner to mine his coal properly and to set sprags under the coal while undermining to secure it from falling and, after each blast, he shall exercise great care in examining the roof and coal and shall secure them safely before beginning work.

Rule 15. When places are liable to generate sudden volumes of fire damp, or where locked safety lamps are used, no miner shall be allowed to fire shots except under the supervision and with the consent of the mine foreman, or his assistant, or other competent person designated by the mine foreman for that purpose.

Duties of Drivers.

Rule 16. When a driver has occasion to leave his trip he must be careful to see that it is left, when possible, in a safe place, secure from cars or other dangers, or from endangering drivers of trip following.

Rule 17. The driver must take great care while taking his trips down grades to have the brakes or sprags so adjusted that he can keep the cars under control and prevent them from running onto himself or others.

Rule 18. He shall not leave any cars standing where they may materially obstruct the ventilating current, except in case of accident to the trip.

Duties of Trip Riders or Runners.

Rule 19. He shall exercise great care in seeing that all hitchings are safe for use and see that all the trip is coupled before starting, and should he at any time see any material defect in the rope, link or chain, he shall immediately remedy such defect or, if unable to do so, he shall detain the trip and report the matter to the mine foreman.

Duties of Engineer.

Rule 20. It shall be the duty of the engineer to keep a careful watch over his engine and all machinery under his charge and see that the boilers are properly supplied with water, cleaned and inspected at proper intervals, and that the steam pressure does not exceed at any time the limit allowed by the superintendent.

Rule 21. He shall make himself acquainted with the signal codes provided for in this act.

Rule 22. He shall not allow any unauthorized person to enter the engine house, neither shall he allow any person to handle or run the engine, without the permission of the superintendent.

Rule 23. When workmen are being raised or lowered he shall take special precautions to keep the engine well under control.

Rule 24. The locomotive engineer must keep a sharp lookout ahead of his engine and sound the whistle or alarm bell frequently when coming near the partings or landings; he must not exceed the speed allowed by the mine foreman or superintendent. He must not allow any person except his attendants, to ride on the engine or on the full cars.

Duties of Firemen.

Rule 25. Every fireman and other person in charge of a boiler or boilers for the generation of steam shall keep a careful watch of the same; he shall see that the steam pressure does not at any time exceed the limit allowed by the superintendent; he shall frequently try the safety-valve and shall not increase the weight on the same; he shall maintain a proper depth of water in each boiler, and if anything should happen to prevent this, he shall report the same without delay to the superintendent, or other person designated by the superintendent, and take such other action as may, under the particular circumstances, be necessary for the protection of life and the preservation of property.

Duties of Fan Engineer.

Rule 26. The engineer in charge of any ventilating fan must keep it running at such speed as the mine foreman directs in writing. In case of accident to the boiler or fan machinery, not requiring the immediate withdrawal of the men from the mine by reason of serious interruption of the ventilation, he shall invariably notify the mine foreman. If ordinary repairs of the fan or machinery becomes necessary, he must give timely notice to the mine foreman and await his instructions before stopping it. He shall also examine at the beginning of each shift all the fan bearings, stays and other parts, and see that they are kept in proper working order. Should it become impossible to run the fan or necessary to stop it to preven'

destruction, he shall then at once stop it and notify the mine foreman immediately and give immediate warning to persons in the mine.

Duties of Furnacemen.

Rule 27. The furnace man must attend to his duties with regularity, and in case he should be likely to be off work for any reason whatever, he must give timely notice to the mine foreman.

Rule 28. The furnace man must at all times keep a clear, brisk fire and the fire must not be smothered with coal or slack during working hours, nor shall he allow ashes to accumulate excessively on or under the bars, or in the approaches to the furnace, and ashes shall be cooled before being removed.

Rule 29. The furnace man must promptly obey the instructions of the mine foreman.

SHAFTS AND SLOPES.

Duties of Hookers-On.

Rule 30. The hookers-on at the bottom of any slope shall be very careful to see that the cars are properly coupled to a rope or chain and that the safety-catch or other device is properly attached to the car before giving the signal to the engineer.

Duties of Cagers.

Rule 31. The cager at the bottom of any shaft shall not attempt to withdraw the car until the cage comes to rest, and when putting the full car on the cage he must be very careful to see that the springs or catches are properly adjusted so as to keep the car in its proper place before giving the signal to the engineer.

Rule 32. At every shaft or slope mine in which provision is made in this act for lowering and hoisting persons, a headman and footman shall be designated by the superintendent or mine foreman, who shall be at their proper places from the time that persons begin to descend until all the persons who may be at the bottom of said shaft or slope, when quitting work, shall be hoisted; such headman and footman shall personally attend to the signals and see that the provisions of this act in respect to lowering or hoisting persons in shafts or slopes shall be complied with.

Rule 33. He shall not allow any tools to be placed on the same cage with men or boys, nor on either cage when persons are being hoisted out of the mine, or being lowered into the mine, except when for the purpose of repairing the shaft or machinery therein. The men shall place their tools in cars provided for that purpose which car, or cars, shall be hoisted or lowered before and after the men have been hoisted or lowered. And he shall immediately inform the mine foreman of any violation of this rule.

Rule 34. He shall also see that no driver, or other person, ascends the shaft with any horse or mule, unless the said horse or mule is secured in a suitable box, or safely penned, and only the driver in charge of said horse or mule shall accompany it in any case.

Duties of Top Man.

Rule 35. The top man of any slope, or incline plane, shall be very careful to close the safety block, or other device, as soon as the cars have reached the landing so as to prevent any loose or runaway cars from descending the slope, or incline plane, and in no case shall such safety block, or other device, be withdrawn until the cars are coupled to the rope or chain and the proper signal given. He shall carefully inspect daily all the machinery in and about the check house, and the rope used for lowering the coal and promptly report any defect discovered to the superintendent, and shall use great care in attaching securely the wagons or cars to the rope and carefully lower the same down the incline. He shall ring the alarm bell in case of accident, and when necessary immediately set free to act, the drop logs or safety switch.

Rule 36. The top man of any shaft shall see that the springs or keeps for the cage to rest upon are kept in good working order, and when taking the full car off he must be careful that no coal or other material is allowed to fall down the shaft.

Rule 37. He shall be at his proper place from the time that persons begin to descend until all the persons who may be at the bottom of said shaft or slope when quitting work shall be hoisted. Such headman and footman shall personally attend to the signals, and see that the provisions of this act in respect to lowering and hoisting persons in shafts or slopes shall be complied with.

Rule 38. He shall not allow any tools to be placed on the same cage with men or boys, nor on either cage when persons are being lowered into the mine, except when for the purpose of repairing the shaft or the machinery therein. The men shall place their tools in cars provided for that purpose, which car or cars shall be lowered before and after the men have been lowered.

Rule 39. He shall also see that no driver, or other person, descends the shaft with any horse or mule, unless the said horse or mule is secured in a suitable box or safely penned, and only the driver in charge of said horse or mule shall accompany it in any case.

General Rules.

Rule 40. If any person shall receive any injury in or about the mine and the same shall come within the knowledge of the mine foreman, and if he shall be of the opinion that the injured person

requires medical or surgical treatment, he shall see that said injured person receives the same, and in case of inability of such injured person to pay therefor the same shall be borne by the county. The mine foreman shall report monthly to the mine inspector of the district on blanks furnished by said inspector for that purpose, all accidents resulting in personal injury.

Rule 41. No unauthorized person shall enter the mine without permission from the superintendent or mine foreman.

Rule 42. No person in a state of intoxication shall be allowed to go into or loiter about the mine.

Rule 43. All employes shall inform the mine foreman or his assistant of the unsafe condition of any working place, hauling roads or traveling ways, or of damage to doors, brattices or stoppings, or of obstructions in the air passages when known to them.

Rule 44. No person shall be employed to blast coal, rock or slate, unless the mine foreman is satisfied that such a person is qualified by experience to perform the work with ordinary care.

Rule 45. The mine superintendent or mine foreman shall cause to be constructed safety blocks or some other device for the purpose of preventing cars from falling into the shaft, or running away on slopes or incline planes; and safety switches, drop logs or other device shall be used on all slopes and incline planes; and said safety blocks, safety switches or other device must be maintained in good working order.

Rule 46. Every workman employed in the mine shall examine his working place before commencing work, and after any stoppage of work during the shift he shall repeat such examination.

Rule 47. No person shall be allowed to travel on foot to or from his work on any incline plane, dilly or locomotive roads, when other good roads are provided for that purpose.

Rule 48. Any employe or other person who shall wilfully deface, pull down or destroy any notice board, danger signal, general or special rules or mining laws, shall be prosecuted as provided for in section two, article twenty-one of this act.

Rule 49. No powder or high explosive shall be taken into the mine in greater quantities than required for use in one shift, unless such quantity be less than five pounds, and all powder shall be carried into the mine in metallic canisters.

Rule 50. Powder in quantities exceeding twenty-five pounds, or other explosives in quantities exceeding ten pounds, shall not be stored in any tipple or any weighing office, nor where workmen have business to visit, and no naked lights shall be used while weighing and giving out powder.

Rule 51. All persons except those duly authorized, are forbidden to meddle or tamper in any way with any electric or signal wires in or about the mines.

Rule 52. No greater number of persons shall be hoisted or lowered at any one time in any shaft than is permitted by the mine inspector, and whenever said number of persons shall arrive at the bottom of the shaft in which persons are regularly hoisted or lowered, they shall be furnished with an empty cage and be hoisted, and in cases of emergency a less number shall be promptly hoisted. Any person or persons crowding or pushing to get on or off the cages shall be deemed guilty of a misdemeanor.

Rule 53. Each workman, when engaged shall have his attention directed to the general and special rules by the person employing him.

Rule 54. Workmen and all other persons are expressly forbidden to commit any nuisance or throw into, deposit, or leave coals or dirt, stones or other rubbish in the air way or road so as to interfere with, pollute, or hinder the air passing into and through the mine.

Rule 55. No one, except a person duly authorized by the mine foreman, shall have in his possession a key or other instrument for the purpose of unlocking any safety lamp in any mine where locked safety lamps are used.

Rule 56. Every abandoned slope, shaft, air hole or drift shall be properly fenced around or across its entrance.

Rule 57. No safety lamps shall be entrusted to any person for use in mines until he has given satisfactory evidence to the mine foreman that he understands the proper use thereof and danger of tampering with the same.

Rule 58. No person shall ride upon or against any loaded car or cage in any shaft or slope in or about any bituminous coal mine; no person other than the trip runner shall be permitted to ride on empty trips on any slope, inclined plane or dilly road, when the speed of the cars exceeds six miles per hour. The transportation of tools in and out of the mines shall be under the direction of the mine foreman.

Rule 59. No persons other than the drivers or trip runners shall be permitted to ride on the full cars.

Rule 60. In mines where coal dust has accumulated to a dangerous extent, care shall be exercised to prevent said dust from floating in the atmosphere by sprinkling it with water, or otherwise, as far as practicable.

Rule 61. In cutting of clay veins, spars or faults in entries, or other narrow workings going into the solid coal in mines where explosive gases are generated in dangerous quantities, a bore hole shall be kept not less than three feet in advance of the face of the work, or an advance of any shot hole drilled for a blast to be fired therein.

Rule 62. The engineer placed in charge of an engine whereby persons are hoisted out of or lowered into any mine shall be a sober competent person, and not less than twenty-one years of age.

Rule 63. When a workman is about to fire a blast he shall be careful to notify all persons who might be endangered thereby, and shall give sufficient alarm so that any person or persons approaching shall be warned of the danger.

Rule 64. In every shaft or slope where persons are hoisted or lowered by machinery, as provided by this act, a topman and cager shall be appointed by the superintendent or mine foreman.

Rule 65. Whenever a workman shall open a box containing powder or other explosives, or while in any manner handling the same, he shall first place his lamp not less than five feet from such explosive and in such a position that the air current cannot convey sparks to it, and he shall not smoke while handling explosives.

Rule 66. An accumulation of gas in mines shall not be removed by brushing.

Rule 67. When gas is ignited by blast or otherwise, the person having charge of the place where the said gas is ignited, shall immediately extinguish it if possible, and if unable to do so shall immediately notify the mine foreman or his assistants of the fact. Workmen must see that no gas blowers are left burning upon leaving their working places.

Rule 68. All ventilating fans used at mines shall be provided with recording instruments by which the number of revolutions or the effective ventilating pressure of the fan shall be registered and the registration with its date for each and every day shall be kept in the office of the mine for future reference for one year from its date.

Rule 69. Where the clothing or wearing apparel of employes becomes wet by reason of working in wet places in the mines, it shall be the duty of the operator or superintendent of each mine, at the request in writing of the mine inspector, who shall make such request upon the petition of any five miners of any one mine in the district working in the aforesaid wet places, to provide a suitable building which shall be convenient to the principal entrances of such mine for the use of the persons employed in wet places therein for the purpose of washing themselves and changing their clothes when entering the mine and returning therefrom. The said building shall be maintained in good order and be properly lighted and heated and shall be provided with facilities for persons to wash. If any person or persons shall neglect or fail to comply with the provisions of this article or maliciously injure or destroy, or cause to be injured or destroyed, the said building or any part thereof, or any of the appliances or fittings used for supplying light and heat therein, or doing any act tending to the injury or destruction thereof, he or they shall be deemed guilty of an offense against this act.

Rule 70. In all shafts and slopes where persons, coal or other materials are hoisted by machinery the following code of signals shall be used:

One rap or whistle to hoist coal or other material.

One rap or whistle to stop cage or car when in motion.

Two raps or whistles to lower cage or car.

Three raps or whistles when persons are to be hoisted, and for engineer to signal back ready when persons are to be hoisted, after which persons shall get on the cage or car, then one rap shall be given to hoist.

Four raps or whistles, to turn on steam to the pumps.

But a variation from the above code of signals may be used by permission of the mine inspector: Provided, That in any such case such changed code shall be printed and posted.

Rule 71. No person or persons shall go into any old shaft or abandoned part of the mine or into any other place which is not in actual course of working without permission from the mine foreman, nor shall they travel to and from their work except by the traveling way assigned for that purpose.

Rule 72. No steam pipes through which high pressure steam is conveyed for the purpose of driving pumps or other machinery, shall be permitted on traveling or haulage ways, unless they are encased in asbestos, or some other suitable non-conducting material, or are so placed that the radiation of heat into the atmosphere of the mine will be prevented as far as possible.

Rule 73. Where a locomotive is used for the purpose of hauling coal out of a mine, the tunnel or tunnels through which the locomotive passes shall be properly ventilated and kept free as far as practicable of noxious gases, and a ventilating apparatus shall be provided by the operator to produce such ventilation when deemed necessary and practicable to do so by the mine inspector.

Rule 74. No inexperienced person shall be employed to mine out pillars unless in company with one or more experienced miners, and by their consent.

ARTICLE XXI.

Penalties.

Section 1. Any person or persons whomsoever, who shall intentionally or carelessly injure any shaft, safety lamp, instrument, air-course or brattice, or obstruct or throw open air ways, or take matches for any purpose, or pipes or other smokers' articles beyond any station inside of which locked safety lamps are used, or injure any part of the machinery, or open a door in the mine and not close it again immediately or open any door which opening is forbidden, or disobey any order given in carrying out the provisions of this act, or do any other act whatsoever whereby the lives or the health of persons or the security of the miners or the machinery is endangered, shall be deemed guilty of a misdemeanor and may be punished in a manner provided for in this article.

Section 2. The neglect or refusal to perform the duties required to be performed by any section of this act by the parties therein required to perform them, or the violation of any of the provisions or requirements hereof, shall be deemed a misdemeanor and shall upon conviction thereof in the court of quarter sessions of the county wherein the misdemeanor was committed, be punishable by a fine not exceeding five hundred dollars or imprisonment in the county jail for a period not exceeding six months, or both, at the discretion of the court.

Section 3. That for any injury to person or property occasioned by any violation of this act, or any failure to comply with its provisions by any owner, operator or superintendent of any coal mine or colliery, a right of action shall accrue to the party injured against said owner or operator for any direct damages he may have sustained thereby, and in case of loss of life by reason of such neglect or failure aforesaid, a right of action shall accrue to the widow and lineal heirs of the person whose life shall be lost for like recovery of damages for the injury they shall have sustained.

ARTICLE XXII.

Definition.

Section 1. Coal Mine. In this act the term "coal mine" includes the shafts, slopes, adits, drifts or inclined planes connected with excavations penetrating coal stratum or strata, which excavations are ventilated by one general air current or divisions thereof and connected by one general system of mine railroads over which coal may be delivered to one or more common points outside the mine, when such is operated by one operator.

Excavations and Workings. The term "excavations and workings" includes all the excavated parts of a mine, those abandoned as well as the places actually being worked, also all underground workings and shafts, tunnels and other ways and openings, all such shafts, slopes, tunnels and other openings in the course of being sunk or driven, together with all roads, appliances, machinery and material connected with the same below the surface.

Shaft. The term "shaft" means a vertical opening through the strata, and which is or may be used for the purpose of ventilation or drainage or for hoisting men or material or both in connection with the mining of coal.

Slope. The term "slope" means an incline way or opening used for the same purpose as a shaft.

Operator. The term "operator" means any firm, corporation or individual operating any coal mine or part thereof.

Superintendent. The term "superintendent" means the person who shall have, on behalf of the operator, immediate supervision of one or more mines.

Bituminous Mines. The term "bituminous" coal mines shall include all coal mines in the State not now included in the anthracite boundaries.

The provisions of this act shall not apply to any mine employing less than ten persons in any one period of twenty-four hours.

ARTICLE XXIII.

Section 1. That all acts or parts of acts inconsistent herewith be and the same are hereby repealed.

Approved—The 15th day of May, A. D. 1893.

ROBT. E. PATTISON.

AN ACT

Equalizing and fixing the compensation and mileage of the members of the several boards appointed under the provisions of the act approved June second, one thousand eight hundred and ninety-one, to examine candidates for appointment as Inspectors, foremen and fire bosses, respectively, in the anthracite coal mines, and providing for the employment and compensation and mileage of a clerk to each of said boards.

Section 1. Be it enacted, &c., That from and after the passage of this act the members of the several boards appointed under the provisions of the act approved June second, one thousand eight hundred and ninety-one, to examine candidates for appointment respectively as inspectors and foremen of anthracite coal mines, shall receive in lieu of all compensation, mileage, expenses, emoluments or allowances heretofore paid them, as follows: Six dollars per day for each day during which the said members shall be actually in attendance on the sessions of the board, and mileage at the rate of five cents for each mile actually traveled going from the home of the member to the place of meeting of the board and returning from said place to his said home by the shortest practicable railway route: Provided, That mileage shall be paid but once for each continuous session of the board, and by a continuous session shall be meant a session during the course of which no adjournment for a longer period than forty-eight hours shall take place.

Section 2. Each of the boards enumerated or described in the first section of this act shall be and the same is hereby authorized to employ a clerk, whose compensation and mileage shall be the same as that of a member of the board. So much of section four of the act

of June second, one thousand eight hundred and ninety-one, as authorizes the boards of examiners of candidates for inspectors of anthracite coal mines to engage the services of a clerk is hereby repealed, and all clerks hereafter appointed by the several boards hereinbefore mentioned shall be appointed under the provisions of this act.

Section 3. The members of the said boards shall, on the final adjournment of each session of their respective boards, submit to the Auditor General sworn statements approved by the president or chairman of their respective boards, setting forth the number of days during which each member shall have been actually in attendance on the sessions of the board of which he is a member during said session, as well as the distance from the home of the member to the place of meeting of his board as aforesaid, by the nearest practicable railway route, and the number of miles actually traveled by him; and the clerks of said boards shall submit like statements, and the Auditor General shall, upon the receipt of such sworn statements draw his warrant upon the State Treasurer in favor of each of such members and clerks for such sums as shall appear to be properly due each.

Section 4. All acts and parts of acts or supplements thereto in conflict herewith are hereby repealed.

Approved—The 26th day of June, A. D. 1895.

DANIEL H. HASTINGS.

AN ACT

For the better protection of employes in and about the coal mines by preventing mine superintendent, mine foremen and assistants from receiving or soliciting any sums of money or other valuable consideration from men while in their employ, and providing a penalty for violation of the same.

Section 1. Be it enacted, &c., That on and after the passage of this act any mine superintendent, mine foreman or assistant foreman, or any other person or persons who shall receive or solicit any sum of money or other valuable consideration, from any of his or their employes for the purpose of continuing in his or their employ, shall be guilty of a misdemeanor, and upon conviction shall be subject to a fine not less than fifty dollars, nor more than three hundred dollars, and undergo an imprisonment of not less than six months, or both, at the discretion of the court.

Section 2. All acts or parts of acts inconsistent herewith be and the same are hereby repealed.

Approved—The 15th day of June, A. D. 1897.

DANIEL H. HASTINGS.

AN ACT

Establishing a Bureau of Mines in the Department of Internal Affairs of Pennsylvania, defining its purposes and authority, providing for the appointment of a chief of said bureau and assistants, and fixing their salaries and expenses.

Section 1. Be it enacted, &c., That there is hereby established in the Department of Internal Affairs of Pennsylvania a bureau to be known as the Bureau of Mines, which shall be charged with the supervision of the execution of the mining laws of this Commonwealth, and the care and publication of the annual reports of the inspectors of coal mines.

Section 2. The chief officer of the bureau shall be denominated Chief of the Bureau of Mines, and shall be appointed by the Governor, by and with the advice and consent of the Senate, within thirty days after the final passage of this act, and every four years thereafter, who shall be commissioned by the Governor to serve a term of four years from the date of his appointment, and until his successor is duly qualified, and shall receive an annual salary of three thousand dollars and traveling expenses; and in case of a vacancy in the office of Chief of said Bureau, by reason of death, resignation or otherwise, the Governor shall appoint a qualified person to fill such vacancy for the unexpired balance of the term.

Section 3. The Chief of the Bureau of Mines shall be a competent person having had at least ten years practical experience in the working and ventilation of coal mines of this State, and a practical and scientific knowledge of all noxious and dangerous gases found in such mines. The said Chief of the Bureau of Mines so appointed shall, before entering upon the duties of his office, take and subscribe to the oath of office prescribed by the Constitution, the same to be filed in the office of the Secretary of the Commonwealth, and give to the Commonwealth a bond in the penal sum of ten thousand dollars, with surety to be approved by the Governor and Secretary of Internal Affairs, conditioned for the faithful discharge of the duties of his office.

Section 4. It shall be the duty of the Chief of the Bureau to devote the whole of his time to the duties of his office, and to see that the mining laws of this State are faithfully executed; and for this

purpose he is hereby invested with the same power and authority as the mine inspectors to enter, inspect and examine any mine or colliery within the State, and the works and machinery connected therewith, and to give such aid and instruction to the mine inspectors from time to time as he may deem best calculated to protect the health and promote the safety of all persons employed in and about the mines, and the said Chief of the Bureau of Mines shall have the power to suspend any mine inspector for any neglect of duty, but such suspended mine inspector shall have the right to appeal to the Secretary of Internal Affairs, who shall be empowered to approve of such suspension or restore such suspended mine inspector to duty, after investigating the causes which led to such suspension. Should the Chief of the Bureau of Mines receive information by petition, signed by ten or more miners, or one or more operators, setting forth that any of the mine inspectors are neglectful of their duty, or are incompetent to perform the duties of their office, or are guilty of malfeasance in office, he shall at once investigate the matter, and if he shall be satisfied that the charge or charges are well founded, he shall then petition the court of common pleas, or the judge in chambers, in any county within or partly within the inspection district of the said mine inspector; which court, upon receipt of said petition and a report of the character of the charges and testimony produced, shall at once issue a citation in the name of the Commonwealth to the said inspector, to appear on not less than fifteen days' notice, on a fixed day before said court, at which time the court shall proceed to inquire into the allegations of the petitioners, and may require the attendance of such witnesses on the subpoena issued and served by the proper officer or officers, as the judge of the court and the Chief of said Bureau may deem necessary in the case; the inspector under investigation shall also have similar power and authority to compel the attendance of witnesses in his behalf. If the court shall find by said investigation that the said mine inspector is guilty of neglecting his official duties, or is incompetent to perform the duties of his office, or is guilty of malfeasance in office, the said court shall certify the same to the Governor, who shall declare the office vacant, and shall proceed to supply the vacancy as provided for by the mining laws of this State. The cost of said investigation shall, if the charges are sustained, be imposed upon the mine inspector, but if the charges are not sustained the cost shall be paid out of the State Treasury, upon voucher or vouchers duly certified as to correctness by the judge or proper officer of the court where such proceedings are held. To enable the said Chief of the Bureau of Mines to conduct more effectually his examinations and investigations of the charges and complaints which may be made by petitioners against any of the mine inspectors as

herein provided, he shall have power to administer oaths and take affidavits and depositions in form and manner provided by law: Provided however, That nothing in this section shall be construed as to repeal section thirteen of article two of the act of Assembly approved the second day of June, Anno Domini one thousand eight hundred and ninety-one, entitled "An act to provide for the health and safety of persons employed in and about the anthracite coal mines of Pennsylvania, and for the protection and preservation of property connected therewith," and also articles thirteen and fourteen of an act of Assembly approved the fifteenth day of May, Anno Domini one thousand eight hundred and ninety-three, entitled "An act relating to bituminous coal mines, and providing for the lives, health, safety and welfare of persons employed therein."

Section 5. It shall be the duty of the Chief of the Bureau of Mines to take charge of and preserve in his office the annual reports of the mine inspectors, and transmit a copy of them, together with such other statistical data compiled therefrom and other matter relating to the work of the Bureau as may be of public interest, properly addressed to the Secretary of Internal Affairs for transmission to the Governor and the General Assembly of this Commonwealth; on or before the first day of March in each year. It shall also be the duty of the Chief of the Bureau of Mines to see that said reports, or copy of them, are placed in the hands of the Public Printer for publication at the same date; the same to be published under direction of the Secretary of Internal Affairs as other reports of his Department are now required by law to be published, and in order that the Chief of said Bureau may be able to prepare, compile and transmit his annual report to the Secretary of Internal Affairs within the time herein specified, the mine inspectors are hereby required to deliver their annual reports to the Secretary of Internal Affairs on or before the fifteenth day of February in each year. In addition to the annual reports herein required of the mine inspectors, the said mine inspectors shall furnish the Chief of the Bureau of Mines, monthly and also such special reports or information on any subject regarding mine accidents or other matters pertaining to mining interests, or the safety of persons employed in mines as he at any time may require or may deem necessary in the proper and lawful discharge of his official duties. The Chief of the Bureau of Mines shall also establish as far as may be practicable a uniform style and size of blanks for the annual, monthly and special reports of the mine inspectors, and prescribe the form and character of subject matter to be embraced in the text and the tabulated statements of their reports. The Chief of the Bureau of Mines is hereby authorized to make such examinations and investigations as may enable him to report upon the various systems of

coal mining practiced in the State, method of mining, ventilation, machinery employed, structure and character of the several coal seams operated, and of the associated strata, the circumstances and responsibility of mine accidents, economy of coal production, coal waste, area and exhaustion of coal territory, and such other matters as may pertain to the general welfare of coal miners and others connected with coal mining, and the interests of coal mine owners and operators in this Commonwealth.

Section 6. The Chief of the Bureau of Mines shall keep in his office a journal or record of all examinations made and work done under his administration, and copies of all official communications, and is hereby authorized to procure such books, instruments and chemical or other tests as may be found necessary to the proper discharge of his duties under this act, at the expense of the State. All instruments, plans, books and records pertaining to the office shall be the property of the State, and shall be delivered to his successor in office.

Section 7. The Chief of the Bureau of Mines shall at all times be accountable to the Secretary of Internal Affairs for the faithful discharge of the duties imposed upon him by law, and the administration of his office and the rules and regulations pertaining to said Bureau shall be subject to the approval of the Secretary of Internal Affairs, who is hereby empowered to appoint an assistant to the Chief of the Bureau, at a salary of fourteen hundred dollars per annum, and a messenger at a salary of three hundred dollars per annum: And provided further, That the salaries of the Chief of the Bureau of Mines, his assistant and the messenger, shall be paid out of the State Treasury in the manner as other employes of the Department of Internal Affairs are now paid. Provided, That the Chief of said Bureau of Mines may be removed or suspended at any time by the Secretary of Internal Affairs, when in the opinion of said Secretary there has been a neglect of duty or a failure to comply with the law, or the instructions of the Secretary of Internal Affairs.

Section 8. No person who is acting as a land agent, or as manager, viewer or agent of any mine or colliery, or who is interested in operating any mine or colliery, shall at the same time serve as Chief of the Bureau of Mines under the provisions of this act.

Section 9. That the mine inspectors of each district of this State shall, within six months after the final passage and approval of this act, deposit in the Bureau of Mines an accurate map or plan of such coal mine, which may be on tracing muslin or sun print, drawn to a prescribed scale; which map or plan shall show the actual location of all openings, excavations, shafts, tunnels, slopes, planes, main

headings, cross headings, and rooms or working places in each strata operated; pump, fans or other ventilation apparatus, the entire course and direction of air currents, the relation and proximity of the workings of such coal mines to all other adjoining mines or coal lands, and the relative elevation of all tunnels and headings, and of the face of working places near to or approaching boundary lines or adjacent mines; and on or before the close of each calendar year transmit to the Chief of the Bureau of Mines a supplemental map or plan showing all excavations, changes and additions made in such mine during the year, drawn to the scale as the first mentioned map or plan. All such maps or plans to be and remain in the Bureau of Mines as a part of the records of that office.

Section 10. All acts or parts of acts inconsistent with this act be and the same are hereby repealed.

Approved—The 15th day of July, A. D. 1897.

DANIEL H. HASTINGS.

AN ACT

Requiring the weighing of bituminous coal before screening, and providing a penalty for the violation thereof.

Section 1. Be it enacted, &c., That it shall be unlawful for any mine owner, lessee or operator of any bituminous coal mine in this Commonwealth, employing miners at bushel or ton rates, or other quantity, to pass the output of coal mined by said miners over any screen or other device which shall take any part from the weight, value or quantity thereof, before the same shall have been weighed and duly credited to the employe sending the same to the surface and accounted for at the legal rate of weight fixed by laws of this Commonwealth.

Section 2. Any owner, lessee or operator of any bituminous coal mine, violating the provisions of this act, shall be deemed guilty of a misdemeanor, and shall, upon conviction, for each and every such offense be punished by a fine of not less than one hundred (\$100) dollars nor more than five hundred (\$500) dollars, or by imprisonment in the county jail for a period not to exceed ninety days, or by both such fine and imprisonment, at the discretion of the court; proceedings to be instituted in any court of competent jurisdiction.

Section 3. All acts or parts of acts inconsistent herewith be and the same are hereby repealed.

Approved—The 15th day of July, A. D. 1897.

DANIEL H. HASTINGS.

AN ACT

To protect the lives and limbs of miners from the dangers resulting from incompetent miners working in the anthracite coal mines of this Commonwealth, and to provide for the examination of persons seeking employment as miners in the anthracite region, and to prevent the employment of incompetent persons as miners in anthracite coal mines, and providing penalties for a violation of the same.

Section 1. Be it enacted, &c., That hereafter no person whomsoever shall be employed or engaged in the anthracite coal region of this Commonwealth, as a miner in any anthracite coal mine, without having obtained a certificate of competency and qualification so to do from the "Miners' Examining Board" of the proper district, and having been duly registered as herein provided.

Section 2. That there shall be established in each of the eight inspection districts in the anthracite coal region, a board to be styled the "Miners' Examining Board" of the district, to consist of nine miners who shall be appointed in the same manner as the boards to examine mine inspectors are now appointed from among the most skillful miners actually engaged in said business in their respective districts, and who must have had five years' practical experience in the same. The said persons so appointed shall each serve for a term of two years from the date on which their appointment takes effect, and they shall be appointed upon or before the expiration of the term of the present members of the "Miners' Examining Board," and they shall be and constitute the "Miners' Examining Board" for their respective districts, and shall hold the office for the term for which they were appointed, or until their successors are duly appointed and qualified, and shall receive as compensation for their services three dollars per day for each day actually engaged in this service, and all legitimate and necessary expenses incurred in attending the meetings of said board under the provisions of this act, and no part of the salary of said board or expenses thereof shall be paid out of the State Treasury.

Each of said boards shall organize by electing one of their members president, and one member as secretary, and by dividing them

selves in to three sub-committees for the more convenient discharge of their duties, each of said committees shall have all powers hereinafter conferred upon the board; and whenever in this act the words "Examining Board" are used, they shall be taken to include any of the committees thereof.

Every member of said board shall, within ten days of their appointment or being apprised of the same, take and subscribe an oath or affirmation before a properly qualified officer of the county in which they reside, that they will faithfully and impartially discharge the duties of their office.

Any vacancies occurring in said board shall be filled in the manner hereinbefore provided from among such only as are eligible for original appointment.

Section 3. Each of said examining boards shall designate some convenient place within their districts for the meeting of the several committees thereof, and of which due notice shall be given by advertisement in two or more newspapers of the proper county, and so divided as to reach as nearly as practicable all the mining districts therein; but in no case shall such meeting be held in a building where any intoxicating liquors are sold.

Each of said committee shall open at the designated place of meeting a book of registration, in which shall be registered the name and address of each and every person duly qualified under this act to be employed as a miner in an anthracite coal mine. And it shall be the duty of all persons employed as miners to be properly registered, and in case of a removal from the district in which a miner is registered, it shall be his duty to be registered in the district to which he removes.

Application for registration only may be sent by mail to the board, after being properly attested before any person authorized to administer an oath or affirmation in the county in which the applicant resides. The form of application shall be subject to such regulation as may be prescribed by the boards, but in no case shall any applicant be put to any unnecessary expense in order to secure registration.

Section 4. Each applicant for examination and registration and for the certificate hereinafter provided, shall pay a fee of one dollar to the said board, and a fee of twenty-five cents shall be charged for registering any person who shall have been examined and registered by any other board, and the amount derived from this source shall be held by said boards and applied to the expenses and salaries herein provided and such as may arise under the provisions of this act; and the said boards shall report annually, to the court of common pleas of their respective counties and the Bureau of Mines and Mining all moneys received and disbursed under the provisions of

this act, together with the number of miners examined and registered under this act and the number who failed to pass the required examination.

Section 5. That it shall be the duty of each of the said boards to meet once every month and not oftener, and said meeting shall be public, and if necessary, the meeting shall be continued to cover whatever portion may be required of a period of three days in succession, and examine under oath all persons who shall desire to be employed as miners in their respective districts; and said board shall grant such persons as may be qualified, certificates of competency or qualification which shall entitle the holder thereof to be employed as and to do the work of miners as may be expressed in said certificate, and such certificates shall be good and sufficient evidence of registration and competency under this act; and the holder thereof shall be entitled to be registered without an examination in any other of the anthracite districts upon the payment of the fee herein provided.

All persons applying for a certificate of competency, or to entitle them to be employed as miners, must produce satisfactory evidence of having had not less than two years practical experience as a miner, or as a mine laborer in the mines of this Commonwealth, and in no case shall an applicant be deemed competent unless he appear in person before the said board and answer intelligently and correctly at least twelve questions in the English language pertaining to the requirements of a practical miner, and be perfectly identified under oath, as a mine laborer by at least one practical miner holding miners' certificates. The said board shall keep an accurate record of the proceedings of all its meetings, and in said record shall show a correct detailed account of the examination of each applicant, with the questions asked and their answer, and at each of its meetings the board shall keep said record open for public inspection. Any miner's certificate granted under the provisions of this act, and the hereinafter mentioned act approved the ninth day of May, Anno Domini one thousand eight hundred and eighty-nine, shall not be transferable to any person or persons whatsoever, and any transfer of the same shall be deemed a violation of this act. Certificates shall be issued only at meetings of said board, and said certificates shall not be legal unless then and there signed in person by at least three members of said board.

Section 6. That no person shall hereafter engage as a miner in any anthracite coal mine without having obtained such certificate as aforesaid. And no person shall employ any person as a miner who does not hold such certificate as aforesaid, and no mine foreman or superintendent shall permit or suffer any person to be employed

under him, or in the mines under his charge and supervision as a miner, who does not hold such certificates. Any person or persons who shall violate or fail to comply with the provisions of this act, shall be guilty of a misdemeanor, and on conviction thereof shall be sentenced to pay a fine not less than one hundred dollars and not to exceed five hundred dollars, or shall undergo imprisonment for a term not less than thirty days and not to exceed six months, or either, or both, at the discretion of the court.

Section 7. The persons who are now serving as members of the Miners' Examining Board as created by the act approved the ninth day of May, Anno Domini one thousand eight hundred and eighty-nine, entitled "An act to provide for the examination of miners in the anthracite region of this Commonwealth, and to prevent the employment of incompetent persons as miners in anthracite coal mines," shall continue under the provisions of this act to serve as members of the "Miners' Examining Board" until the terms for which they were appointed under the provisions of the said act approved the ninth day of May, Anno Domini one thousand eight hundred and eighty-nine, shall have expired, and in the performance of the duties of their office they shall be subject to the provisions and requirements of this act.

Section 8. Nothing in this act shall be construed to in any way, excepting as herein provided, effect miners' certificates which have been lawfully issued under the provisions of the herein mentioned act, approved the ninth day of May, Anno Domini one thousand eight hundred and eighty-nine.

Section 9. It shall be the duty of the several Miners' Examining Boards to investigate all complaints or charges of non compliance or violation of the provisions of this act, and to prosecute all persons so offending; and upon their failure so to do, then it shall become the duty of the district attorney of the county wherein the complaints or charges are made to investigate the same and prosecute all persons so offending, and it shall at all times be the duty of the district attorney to prosecute such members of the Miners' Examining Board as have failed to perform their duty under the provisions of this act; but nothing herein contained shall prevent any citizen, a resident of this Commonwealth, from prosecuting any person or persons violating this act, with power to employ private counsel to assist in the prosecution of the same; upon conviction of any member of the Miners' Examining Board for any violation of this act, in addition to the penalties herein provided, his office shall be declared vacant, and he shall be deemed ineligible to act as a member of the said board.

Section 10. For the purposes of this act the members of the said "Miners' Board" shall have power to administer oaths.

Section 11. All acts or parts of acts inconsistent herewith are hereby repealed.

Approved—The 15th day of July, A. D. 1897.

DANIEL H. HASTINGS.

AN ACT

To amend the tenth section of article ten of an act, entitled "An act to provide for the health and safety of persons employed in and about the anthracite coal mines of Pennsylvania, and for the protection and preservation of property connected therewith," approved the second day of June, Anno Domini one thousand eight hundred and ninety-one, providing that self-acting doors are used.

Section 1. Be it enacted, &c., That the tenth section of article ten of an act, entitled "An act to provide for the health and safety of persons employed in and about the anthracite coal mines of Pennsylvania, and for the protection and preservation of property connected therewith," approved the second day of June, Anno Domini one thousand eight hundred and ninety-one, which reads as follows:

"All main doors shall have an attendant whose constant duty it shall be to open them for transportation and travel and prevent them from standing open longer than is necessary for persons or cars to pass through," be and the same is hereby amended to read as follows:

All main doors shall have an attendant, whose constant duty it shall be to open them for transportation and travel and prevent them from standing open longer than is necessary for persons or cars to pass through, unless a self-acting door is used which is approved by the inspector of the district.

Approved—The 20th day of April, A. D. 1899.

WILLIAM A. STONE.

AN ACT

To amend section four of article eight of an act, entitled "An act relating to bituminous coal mines and providing for the lives, health, safety and welfare of persons employed therein," approved the fifteenth day of May, Anno Domini one thousand eight hundred and ninety-three permitting the use of mineral oils in bituminous mines when used in approved safety lamps.

Section 1. Be it enacted, &c., That section four of article eight of an act, entitled "An act relating to bituminous coal mines and providing for the lives, health, safety and welfare of persons employed

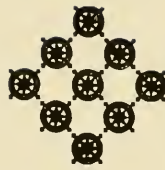
therein," approved the fifteenth day of May, Anno Domini one thousand eight hundred and ninety-three, which reads as follows:

"Section 4. No explosive oil shall be used or taken into bituminous coal mines for lighting purposes and oil shall not be stored or taken into the mines in quantities exceeding five gallons. The oiling or greasing of cars inside of the mines is strictly forbidden unless the place where said oil or grease is used is thoroughly cleaned at least once every day to prevent the accumulation of waste oil or grease on the roads or in the drains at that point. Not more than one barrel of lubricating oil shall be permitted in the mine at any one time. Only a pure animal or pure cotton-seed oil or oils that shall be as free from smoke as pure animal or pure cotton-seed oil shall be used for illuminating purposes in any bituminous mine. Any person found knowingly using explosive or impure oil contrary to this section shall be prosecuted as provided for in section two of article twenty-one of this act," be and the same is hereby amended to read as follows:

Section 4. No explosive oil shall be used or taken into bituminous coal mines for lighting purposes except when used in approved safety lamps and oil shall not be stored or taken into the mines in quantities exceeding five gallons. The oiling or greasing of cars inside of the mines is strictly forbidden unless the place where said oil or grease is used is thoroughly cleaned at least once every day to prevent the accumulation of waste oil or grease on the roads or in the drains at that point. Not more than one barrel of lubricating oil shall be permitted in the mine at any one time. Only a pure animal oil or pure cotton-seed oil or oils that shall be as free from smoke as pure animal or pure cotton-seed oil shall be used for illuminating purposes in any bituminous mine. Any person found knowingly using explosive or impure oil contrary to this section shall be prosecuted as provided for in section two of article twenty-one of this act.

Approved—The 28th day of April, A. D. 1899.

WILLIAM A. STONE.



First Anthracite District.

LACKAWANNA.

Scranton, Pa., February 28, 1901.

Hon. James W. Latta, Secretary of Internal Affairs, Harrisburg, Pa.:

Sir: I now have the honor of herewith transmitting to you my report as Inspector of Mines for the First Anthracite District for the year 1900.

The total production of coal was 6,363,948 tons, which is a decrease of 1,005,623 tons from that of 1899. This was owing to the general strike, which continued six weeks, and another of nine months at one of the best producing collieries of the district.

The average number of days worked was 161.5, or 12.7 days less than in 1899. There were 17,285 persons employed, during the year, an increase of 142 over the number employed the previous year.

The total number employed inside of mines was 12,844, and outside, and outside 4,441, one of whom lost his life; 39 were killed inside, leaving 27 wives widows and 50 orphans under 14 years of age.

The number of tons per fatal accident was 154,223.7, or an increase of 45,774.2 tons per fatal accident over that of the previous year, when there were 68 deaths, while the number last year was 40.

The total number of accidents was 158, and the number of tons mined for each one was 40,309.8, an increase of 230.8 tons over that of 1899. The number of tons produced per person employed was 368.5. There were 204,359 kegs of powder consumed, which is 40,507 less than for the preceding year. There were 31 tons of coal produced per keg of powder used.

Of the 158 persons killed and injured, 97 were citizens and 61 aliens.

Of those who met with accidents, 91 were from among the English speaking nations, namely, Americans, Irish, English, Welsh and Scotch; while the remaining 67 were of the German, Polish, Slavish, Hungarian, Russian, Italian and Austrian nations. The percentage of both classes employed is about equal.

The general conditions in and about the mines are good. Where the ventilation is somewhat deficient, it is the fault of those directly in charge, and not, as a rule, the fault of the general management, for at all mines there are ample means for producing ventilation, but, quite frequently, from a lack of tact on the part of the mine foreman, the air courses and cross-cuts are neglected from day to day until they discover that the "air at the faces" is poor, and when they endeavor to improve it, they find that the task is more than they expected, then a little improvement is made from time to time, so as not to increase the cost per ton too suddenly.

In the meantime, in such cases, which, however, are few, the miners and laborers suffer considerably for a time, and all, simply, because of a false sense of economy, or a want of proper business ability on the part of the mine foreman to economically manage the mine and at the same time keep all sections of it in a satisfactorily safe, healthful and neat condition.

Several new fans were installed during the year, in a few cases to replace old ones, and others at new openings, and in no case is means of producing a strong current of air at any time deficient, and the ventilation at the faces of all workings ought to be good at all times, and, in most cases, from personal observation, I am able to say it is; the only places where I find it poor are where the mine foremen are lax in their methods, and this exists in a few mines where there is no explosive gas evolved, and at no other ones.

The absence of gas removes the possibility of an explosion, and this tends to make some of mine foremen indifferent to the chief object of ventilation, namely, that of keeping the mine healthful at all points for persons to work in.

This indifference leads to neglect, as already stated, the most essential thing for the benefit of all concerned, the miner first, and the operator from a point of economic mining, and it would be well for the superintendents to periodically insist upon a strict compliance, on the part of the mine foremen, with all the requirements of the mine law pertaining to ventilation.

The superintendents, in addition to providing means of producing an ample air current, should also see that a proper distribution of it is made to the workmen at the faces of all working places, as this keeps them in good spirits and enables them to mine and clean the coal better.

In last year's report, in regard with accidents, it was shown that most of them occurred at or close to the faces of working places, and a suggestion as to the means of partially reducing their number was made.

Of the forty fatalities last year, twenty-five, or 65 per cent. happened near or at the face of gangways or chambers.

This fact alone establishes the fact that here the greatest care should be taken, both by the miners and those in charge of them. And I may say, in this connection, that if one-half of the care were exercised by the miners themselves, that is exercised by the foremen and their assistants over them, the accidents at the face would be much fewer.

But, becoming indifferent to danger by long familiarity with it, they become reckless and impatient, and, oftentimes, after having tried for some time to pry down a piece of rock until it is about to fall, which fact, however, is not known to them, they cease their efforts and go to work under it, and in a short time it falls and kills them.

Then again, how many each year are killed by working too far under "top coal;" they fire a shot in the bottom bench which fails to do the work expected of it, and, on reaching the face, at once begin to mine out, regardless of the condition of the coal overhead, until, suddenly, it falls on them.

These, then, are the irregularities that should be prevented, and to prevent them, persons properly qualified, such as a practical miner in whose judgment the miners have confidence, should be employed to oversee the methods of mining, and prevent them from taking reckless and unnecessary risks.

This person could soon adopt the best method of mining or working a vein, and as he would have but a certain number of places, he would soon learn the peculiarities of the vein and roof, and govern himself and the miners accordingly.

Being a practical miner, he would know how props should be placed, so as not to be easily displaced by shots, unless broken; he would know when it was advisable to put up a set of timber, and whether a slab of rock should be "propped" or taken down.

As an assistant, and a practical miner, he could see to the cleaning and loading of coal; see that no coal was wasted by being thrown on the "gob," could see that the cross-cuts were kept clean for the free passage of the air current, also that the roads were kept clean and safe; in fact, have general charge, under the foreman, of one section of a mine, instead of being held responsible for what might occur in any section of it.

This is now in practice to a considerable extent, and with very satisfactory results in sections of mines where the pillars are being removed previous to abandonment, and there are thirty-five openings in this district in which more or less of this work is being done, and in a few, this is the chief source of production.

Notwithstanding this, however, and from the fact that over a million and a half tons of coal were produced from pillars in remote sections of many of the mines, and that the work is extremely dan-

gerous, not one accident occurred by the roof caving, which necessarily must, and does occur, as the work progresses, and as very few occurred by small pieces falling while the men were engaged barring down rock or coal, as the case might be, goes to show that careful and systematic working, under the immediate direction of a qualified person, is productive of very much good, and would apply with equal force to "live workings" as well as to "pillar robbing," and this constant supervision of the miners' methods of working seems to me to be the most necessary thing to prevent the frequent occurrence of accidents by falls of rock and coal at the faces of working places; hence, I would recommend the system be given a trial.

The report contains the usual statistics, a description of the fatal accidents, and of a few of the improvements, together with a report of the mine foremen's examination.

All of which is respectfully submitted.

EDWARD RODERICK,
Inspector.

Table A—Total Production in Tons During the Year 1900.

Delaware and Hudson Company,	2,408,744
Hillside Coal and Iron Company,	738,415
Temple Iron Company,	797,551
Delaware, Lackawanna and Western Railroad Company,	556,985
Elk Hill Coal and Iron Company,	426,165
Johnson Coal Company,	368,889
Pennsylvania Coal Company,	281,543
Riverside Coal Company,	100,747
Murray Coal Company,	58,140
Clark Tunnel Coal Company,	20,399
Dolph Coal Company,	160,049
Mt. Jessup Coal Company,	74,086
Moosic Mountain Coal Company,	108,369
Price Pancoast Coal Company,	241,914
Kingsley Coal Company,	19,520
Black Diamond Coal Company,	2,555
W. L. Barton Coal Co.,	4,877
Total,	6,368,948

The total production was made up as follows:

Shipments by railroad to market,	5,841,064
Sold at mines for local use,	87,870
Consumed to generate steam,	440,014
Total,	<u>6,368,948</u>

TABLE B—Number of Fatal Accidents and Tons of Coal Produced Per Accident.

Names of Companies.	Number of fatal accidents.	Number of tons produced per accident.
Delaware and Hudson Coal Company,	15	160,583
Hillside Coal and Iron Company,	3	546,138
Temple Iron Company,	4	198,388
Delaware, Lackawanna and Western Railroad Company,	4	135,246
Elk Hill Coal and Iron Company,	2	213,682
Johnson Coal Company,	5	73,778
Pennsylvania Coal Company,	3	93,848
Murray Coal Company,	1	58,140
Moosic Mountain Coal Company,	1	108,369
Price Pancoast Coal Company,	2	120,957
Total	40	154,223

TABLE C—Number of Fatal and Non-Fatal Accidents and Tons of Coal Produced Per Accident.

Names of Companies.	Number of accidents.	Tons produced per accident.
Delaware and Hudson Coal Company,	45	53,527
Hillside Coal and Iron Company,	13	56,801
Temple Iron Company,	16	49,847
Delaware, Lackawanna and Western Railroad Company,	14	38,785
Elk Hill Coal and Iron Company,	17	25,068
Johnson Coal Company,	12	20,741
Pennsylvania Coal Company,	15	18,769
Murray Coal Company,	1	58,140
Moosic Mountain Coal Company,	3	36,123
Price Pancoast Coal Company,	19	12,732
Miscellaneous coal companies,	3	127,411
Total,	158	40,369

TABLE D—Showing Occupations of Persons Killed or Injured.

Occupation.	Killed or fatally injured.	Injured.	Total.
Miners,	23	42	65
Laborers,	13	33	46
Drivers,	3	14	17
Runners,	1	6	7
Rockmen,		3	3
Timbermen,		3	3
Slate pickers,		3	3
Carpenters,		2	2
Track layers,		2	2
Firemen,		2	2
Door tenders,		1	1
Company hand,		1	1
Head men,		1	1
Foot men,		1	1
Fire bosses,		1	1
Assistant foremen,		1	1
Mine foremen,		1	1
Motor man,		1	1
Total,	40	118	158

TABLE E—Classification of Accidents.

Causes of Accidents.	Killed or fatally injured.	Injured.	Total.
By falls of rock,	23	43	66
By cars (inside),	5	24	29
By explosion of gas,	6	17	23
By explosion of powder,	1	1	2
By falls of coal,	2	10	12
By cars (outside),	1	7	7
By flying coal from blasts,	1	4	5
By premaure blast,	1	3	4
By kicks from mules,		3	3
By machinery,		2	2
By bursting air pipe,		2	2
By falling prop,		1	1
Struck by board,		1	1
Caught by revolving shaft,		1	1
By falling shaft tower,	1		1
Total,	40	118	158

TABLE F—Nationalities of Persons Killed or Injured.

Nationalities.	Killed.	Injured.	Totals.
Pole,	6	24	30
American,	6	22	28
Irish,	5	17	22
English,	6	14	20
Welsh,	2	13	15
Slavs,	2	9	11
Italian,	3	6	9
Austrian,	2	4	6
Hungarian,	2	4	6
Russian,	4	1	5
German,	2	2	4
Scotch,	2	2	4
Totals,	40	118	158

Improvements at Collieries.

Delaware and Hudson Company's Improvements.

At Clinton a new air shaft 10x12 feet and 240 feet deep was sunk for ventilating purposes, and a new fan was installed to ventilate the East Side tunnel.

At Coal Brook a rock plane 300 feet long was driven from bottom to top vein, and an air shaft sunk. A new air compressor was installed and three new air motors added for haulage. A new drift was opened on East Mountain; and an air shaft sunk.

At Jermyn No. 1 a new 22-foot fan was installed, to replace the old one. A rock plane 600 feet long, driven to shorten transportation, and improve ventilation, was made.

Grassy Island.—The rock vein was opened and air connections made.

At Eddy Creek a slope was sunk from surface to rock vein to improve ventilation on Mills tract workings.

Hillside Coal and Iron Company.

A new breaker was built at Forest City to replace the old one, which was destroyed by fire in early part of the year.

The Price Pancoast Coal Company has sunk the main shaft to Dunmore veins; also, installed a new fan 35 feet in diameter.

The Johnson Coal Company has driven a 1,000-foot tunnel from prove ventilation on mills tract workings.

Several other improvements, such as driving tunnels, sinking slopes and installing motor and rope haulage system have been made in many of the mines.

The annual examination of applicants for mine foremen certificates of qualification was held at Carbondale on the 16th and 17th of August.

The following were recommended for mine foremen certificates: Thomas Rumford, Peckville; Thos. C. Hodgson, David Evans, Alex. Frew, Walter Knight, Morgan L. Watkins and John Reese, Olyphant; Ben Milton, of Vandling; Milton Hoodmacher, Marchwood, and James Johnson, Priceburg.

Assistant mine foremen: William H. Himmelreich, Jermyn; David D. Lewis, Scranton; John J. Barbour, Mayfield; John Elvidge, Olyphant; Evan Gabriel, Scranton; Charles Robinson, Peckville; Edward Lewis, Scranton; Michael C. Moran, and P. A. Walsh, Carbondale; John E. Powell, Scranton; Milton J. Thomas, Scranton, and Seward Button, Vandling.

The board consisted of Charles P. Ford, superintendent; James E. Morrison and Joseph T. Roberts, miners, and Edward Roderick, Inspector.

TABLE I—Showing Names of Operators, Railroads, etc., etc., and Location of Collieries in the First Anthracite District for the Year 1900.

Names of Operators and Collieries.	County.	Name of General Superintendent.	P. O. Address.	Name of Superintendent.	P. O. Address.	Railroad to Mine.
Delaware and Hudson Co.	Lackawanna,	C. C. Rose,	Scranton,			Dela. & Hudson R. R.
Leggerts Creek,	Lackawanna,	C. C. Rose,	Scranton,			Dela. & Hudson R. R.
Marvine,	Lackawanna,	C. C. Rose,	Scranton,			Dela. & Hudson R. R.
Eddy Creek,	Lackawanna,	C. C. Rose,	Scranton,			Dela. & Hudson R. R.
Olyphant,	Lackawanna,	C. C. Rose,	Scranton,			Dela. & Hudson R. R.
Grassy Island,	Lackawanna,	C. C. Rose,	Scranton,			Dela. & Hudson R. R.
Grassy Island washery,	Lackawanna,	C. C. Rose,	Scranton,			Dela. & Hudson R. R.
White Oak,	Lackawanna,	C. C. Rose,	Scranton,			Dela. & Hudson R. R.
Jenny No. 1,	Lackawanna,	C. C. Rose,	Scranton,			Dela. & Hudson R. R.
Pony,	Lackawanna,	C. C. Rose,	Scranton,			Dela. & Hudson R. R.
No. 1,	Lackawanna,	C. C. Rose,	Scranton,			Dela. & Hudson R. R.
Racket Brook washery,	Lackawanna,	C. C. Rose,	Scranton,			Dela. & Hudson R. R.
Coal Brook,	Lackawanna,	C. C. Rose,	Scranton,			Dela. & Hudson R. R.
Clinton,	Lackawanna,	C. C. Rose,	Scranton,			Dela. & Hudson R. R.
Hillside Coal and Iron Co.	Lackawanna,	W. A. May,	Scranton,	C. L. Peterson,	Forest City,	Erie Railroad.
Clifford,	Lackawanna,	W. A. May,	Scranton,	C. L. Peterson,	Forest City,	Erie Railroad.
Forest City,	Lackawanna,	W. A. May,	Scranton,	Wm. Walker,	Mayfield,	Dela. & Hudson R. R.
Erie,	Lackawanna,	W. A. May,	Scranton,	Wm. Walker,	Mayfield,	Dela. & Hudson R. R.
Keystone,	Lackawanna,	W. A. May,	Scranton,	Wm. Walker,	Mayfield,	Dela. & Hudson R. R.
Glenwood,	Lackawanna,	W. A. May,	Scranton,	Wm. Walker,	Mayfield,	Dela. & Hudson R. R.
Temple Iron Company.	Lackawanna,	Jas. G. Shepherd,	Scranton,	John G. Hayes,	Olyphant,	Dela., Lack. & W. R. R.
Lackawanna,	Lackawanna,	Jas. G. Shepherd,	Scranton,	John C. Hayes,	Olyphant,	Dela. & Hudson R. R.
Sternick Creek,	Lackawanna,	Jas. G. Shepherd,	Scranton,	Frank Hensbright,	Jermyn,	Dela. & Hudson R. R.
Edgerton,	Lackawanna,	Jas. G. Shepherd,	Scranton,	Frank Hensbright,	Jermyn,	Erie Railroad.
North West,	Lackawanna,	Jas. G. Shepherd,	Scranton,	R. A. Phillips,	Scranton,	Dela., Lack. & W. R. R.
Del., Lack. & W. R. R. Co.	Lackawanna,	E. E. Loomis,	Scranton,			
Storrs Nos. 1, 2 and 3,	Lackawanna,	W. H. Storrs,	Scranton,	W. L. Allen,	Peckville,	Ontario & Western R. R.
Elk Hill Coal and Iron Co.	Lackawanna,	W. H. Storrs,	Scranton,	W. L. Allen,	Peckville,	Ontario & Western R. R.
Ontario,	Lackawanna,	W. H. Storrs,	Scranton,	W. L. Allen,	Peckville,	Ontario & Western R. R.
Richmond No. 3,	Lackawanna,	W. H. Storrs,	Scranton,	W. L. Allen,	Peckville,	Ontario & Western R. R.
Richmond No. 4,	Lackawanna,	W. H. Storrs,	Scranton,	J. K. Berkheliser,	Olyphant,	Ontario & Western R. R.
Raymond,	Lackawanna,	John R. Bryden,	Scranton,			
Johnson's Coal Company.	Lackawanna,	John R. Bryden,	Scranton,			
Johnson's Nos. 1 and 2,	Lackawanna,	John R. Bryden,	Scranton,			

TABLE I—Continued.

Names of Operators and Collieries.	County.	Name of General Superintendent.	P. O. Address.	Name of Superintendent.	P. O. Address.	Railroad to Mine.
Pennsylvania Coal Company. No. 1	Lackawanna.	Sidney Williams.	Dunmore,	Jas. Young,	Dunmore,	Erie & Wyoming R. R.
Gipsy Grove,	Lackawanna.	Sidney Williams.	Dunmore,	Jas. Young,	Dunmore,	Erie & Wyoming R. R.
Riverside Coal Company.	Lackawanna.	J. M. Rice,	Scranton, .....	.....	.....	Ontario & Western R. R.
Murray Coal Company.	Lackawanna.	A. J. Murray,	Dunmore, .....	.....	.....	Dela., Lack. & W. R. R.
Clark Tunnel Coal Company.	Lackawanna.	Morgan Davis, Jr., .....	.....	.....	.....	Ontario and Western
Clyphant,	Lackawanna.	M. G. Robertson,	Scranton, .....	.....	.....	Erie & Wyoming R. R.
Mooste Mountain,	Lackawanna.	Chas. P. Ford,	Marshwood, .....	.....	.....	Dela., Lack. & W. R. R.
Pancoast,	Lackawanna.	Chas. P. Ford,	Marshwood, .....	.....	.....	Dela., Lack. & W. R. R.
Kingsley Coal Company.	Wayne,	John R. Bryden,	Scranton, .....	.....	.....	Dela., Lack. & W. R. R.
Hawley washery,	Wayne,	B. E. Kingsley,	Olyphant,	W. H. Shipman,	Hawley,	Erie and Wyoming.
Black Diamond Coal Co.	Lackawanna.	M. G. Thomas,	Pittston,	G. J. Thomas,	Carbondale,	Ontario & Western.
Black Diamond,	Lackawanna.	W. L. Barton,	Carbondale, .....	.....	.....	Local sales.
Barton,	Lackawanna.	.....	.....	.....	.....	.....

TABLE II—Gives the total number of tons of coal mined in each colliery, number of days worked, number of employes, number of persons killed and injured, number of kegs of powder, etc., used in the First Anthracite District for the year ending December 31, 1900.

Names of Operators and Collieries.	County.	Shipments of coal in tons by rail or otherwise.	Number and heat at colliery.	Sold to local trade and used by employes—tons.	Total production of coal in tons.	Number days worked.	Number persons employed.	Number fatal accidents.	Number non-fatal accidents.	Number kegs powder used.	Number pounds of dynamite used.	Number horses and mules.
Delaware and Hudson Company.												
Leggetts Creek,	Lackawanna,	178,042	25,554	4,014	207,610	171.50	552	2	9	6,738	3,700	59
Marvine,	Lackawanna,	251,947	21,355	2,847	276,149	182.25	668	4	4	8,249	2,056	55
Eddy Creek,	Lackawanna,	132,828	5,187	570	142,585	142.60	558	1	4	6,470	1,017	46
Olyphant,	Lackawanna,	355,781	25,794	5,950	387,525	177.25	580	1	3	7,389	1,677	52
Grassy Island washery,	Lackawanna,	97,607	.....	.....	97,607	191.50	30	.....	.....	.....	.....	.....
Grassy Island,	Lackawanna,	.....	.....	.....	.....	177.25	425	.....	1	5,754	1,069	46
White Oak,	Lackawanna,	191,907	2,010	1,741	195,658	183.25	4-2	2	4	3,884	10,350	55
Jermyn No. 1,	Lackawanna,	233,143	11,532	4,708	249,603	190.50	561	.....	1	4,110	1,200	46
Kowderly,	Lackawanna,	44,604	5,346	.....	49,950	160	317	.....	.....	3,679	532	41
Yonkers,	Lackawanna,	67,823	3,818	.....	79,642	150	422	.....	.....	2,839	414	68
Racket Brook washery,	Lackawanna,	12,565	3,201	.....	15,766	122.75	30	.....	.....	.....	.....	1
Racket Brook,	Lackawanna,	377,249	8,687	.....	385,936	182.75	868	.....	.....	.....	.....	7
Coal Brook,	Lackawanna,	246,100	9,965	.....	257,765	180.25	511	.....	2	8,093	3,919	1
Clinton,	Lackawanna,	.....	.....	1,700	.....	.....	.....	.....	.....	8,285	4,062	50
Total and averages,		2,258,619	128,583	21,532	2,408,744	162.25	6,077	15	30	65,000	29,889	597
Hillside Coal and Iron Company.												
Clifford,	Susquehanna,	370,902	11,413	5,113	375,201	180.50	421	.....	1	6,790	7,387	53
Forest City,	Susquehanna,	98,529	10,863	4,612	221,171	63.25	829	.....	4	11,742	5,880	69
Eric,	Lackawanna,	95,129	9,918	3,815	108,862	128.25	382	.....	1	3,506	2,853	42
Keystone,	Lackawanna,	38,776	911	.....	39,687	138.75	117	.....	.....	1,022	307	19
Glenwood,	Lackawanna,	83,617	9,798	19	93,434	118.25	294	.....	3	2,302	6,736	32
Total and averages,		681,952	42,903	13,559	738,415	126.4	2,043	3	10	25,363	23,163	215

TABLE II—Continued.

Names of Operators and Collieries.	County.	Shipments of coal in tons by rail or otherwise.	Number of tons used for steam and heat at colliery.	Sold to local trade and used by employes—tons.	Total production of coal in tons.	Number days worked.	Number persons employed.	Number fatal accidents.	Number non-fatal accidents.	Number kegs powder used.	Number pounds of dynamite used.	Number horses and mules.
Temple Iron Company.												
Lackawanna,	Lackawanna,	181,059	32,533	3,292	216,854	171,00	613	.....	3	7,396	195	84
Sterrick Creek,	Lackawanna,	199,527	12,468	1,355	213,850	152,50	585	2	2	7,632	18,000	73
Edgerton,	Lackawanna,	147,356	8,818	437	156,611	122,20	372	1	3	3,726	400	66
North West,	Lackawanna,	189,821	10,651	864	210,736	179,9	511	1	4	5,416	775	93
Total and averages, .....	.....	727,763	63,870	5,918	7 7, 551	158,9	2,081	4	12	24,080	17,310	316
Delaware, Lacka. & Western R. R. Co.												
Storrs,	Lackawanna,	527,686	26,313	2,916	556,985	211,9	1,199	4	10	19,453	4,323	115
Elk Hill Coal and Iron Company.												
Ritchmond No. 3,	Lackawanna,	32,900	7,640	465	41,005	142,8	230	1	7	2,250	5,450	17
Ritchmond No. 4,	Lackawanna,	34,055	7,000	2,745	43,800	132,6	189	.....	2	2,750	6,000	57
Ontario,	Lackawanna,	222,536	25,000	4,171	251,707	221,1	776	1	5	11,450	6,250	61
Raymond,	Lackawanna,	82,019	7,000	634	89,653	60,7	689	.....	1	2,765	100	46
Total and averages, .....	.....	371,510	46,640	8,015	426,165	136,8	1,874	2	15	18,915	20,700	181
Johnson Coal Company.												
Johnson's,	Lackawanna,	383,273	33,580	2,046	368,889	193	940	5	7	12,415	7,250	96
Pennsylvania Coal Company.												
No. 1,	Lackawanna,	166,116	4,185	.....	170,201	153,5	487	3	9	7,275	1,707	41
Gipsy Grove,	Lackawanna,	108,085	3,247	.....	111,342	133,25	342	.....	3	4,117	375	39
Total and averages, .....	.....	274,111	7,432	.....	281,543	153,4	829	3	12	11,392	2,082	80
Riverside Coal Company.												
Riverside,	Lackawanna,	89,221	10,950	566	100,747	295,5	303	.....	2	4,063	100	32

Murray,	Murray Coal Company.	Lackawanna,	49,111	729	8,300	38,140	184.4	113	1	.....	2,402	84	21
Clark Tunnel,	Clark Tunnel Company.	Lackawanna,	8,787	918	10,694	20,339	243.8	111	.....	.....	633	290	19
Dolph,	Dolph Coal Company.	Lackawanna,	135,595	23,000	1,454	160,049	140.1	526	.....	.....	3,800	4,500	40
Mt. Jessup,	Mt. Jessup Coal Company.	Lackawanna,	47,855	25,000	1,231	74,086	182	227	.....	1	1,000	18,984	23
Moosic Mountain,	Moosic Mountain Coal Company.	Lackawanna,	102,166	3,650	2,553	108,369	165	278	1	2	4,474	300	37
Pancoast,	Price Pancoast Coal Company.	Lackawanna,	213,369	24,496	4,049	241,914	207.75	628	2	17	11,259	11,715	78
Hawley washery,	Kingsley Coal Company.	Wayne,	19,020	500	.....	19,520	201	11	.....	.....	.....	.....	.....
Black Diamond,	Black Diamond Coal Company.	Lackawanna,	823	900	832	2,555	25	3)	.....	.....	150	2,090	4
Barton,	W. L. Barton Coal Company.	Lackawanna,	202	500	4,175	4,877	259	23	.....	.....	200	25	4
Grand total and average,			5,841,064	440,014	87,870	6,368,948	161.5	17,285	40	118	294,359	142,735	1,858

TABLE II—Continued.

Name of Operators.	County.	Number of Boilers.			Total horse power.	Locomotives.			Number steam engines of all classes.	Total horse power.	Number pumps delivering water to surface.	Capacity in gallons per minute.	Quantity delivered to surface per minute-gallons.	Number electric dynamos.	Number air compressors.
		Cylindrical.	Tubular.	Horse power.		Steam.	Air.	Electric.							
Delaware and Hudson Company,	Lackawanna, ..	166	21	3,710	7,015	7	11	169	9,887	22	27,610	13,982	.....	4
Hillside Coal and Iron Company,	Susc. & Lack'a,	30	35	900	3,745	4	4	37	3,490	22	11,252	3,470	.....	1
Temple Iron Company,	Lackawanna, ..	61	10	1,385	3,533	11	4	33	3,413	7	11,250	4,476	.....	7
Dela., Lackawanna & West, R. R. Co., ..	Lackawanna, ..	12	480	1,250	1,730	3	.....	20	1,860	1	9,160	1,181	.....	3
Elk Hill Coal and Iron Company,	Lackawanna, ..	38	20	2,040	2,985	7	.....	53	3,665	10	4,156	2,629	.....	2
Johnson Coal Company,	Lackawanna, ..	11	11	1,375	1,375	1	2	19	1,850	4	3,854	1,472	.....	1
Pennsylvania Coal Company,	Lackawanna, ..	7	1,000	1,000	1,000	2	.....	31	1,252	2	790	715	.....	1
Wiverside Coal Company,	Lackawanna, ..	9	2	1,600	340	1	.....	10	811	1	550	525	.....	1
Clarke Fuel Company,	Lackawanna, ..	3	3	125	375	.....	.....	5	170	.....	.....	.....	.....	.....
Clarke Fuel Company,	Lackawanna, ..	2	2	140	140	.....	.....	3	95	.....	.....	.....	.....	.....
Dolph Coal Company,	Lackawanna, ..	4	6	320	700	2	.....	15	1,500	4	670	100	.....	3
Mt. Jessup Coal Company,	Lackawanna, ..	23	4	575	700	.....	.....	10	400	3	2,000	2,000	.....	1
Moosic Mountain Coal Company,	Lackawanna, ..	7	2	150	335	1	.....	4	300	1	400	400	.....	1
Price Hancock Coal Company,	Lackawanna, ..	15	3	315	600	.....	.....	12	1,225	2	753	500	.....	2
Kingsley Coal Company,	Wayne, ..	3	6	330	330	.....	.....	1	125	2	400	.....	.....	1
Black Diamond Coal Company,	Lackawanna, ..	3	.....	90	90	.....	.....	1	25	.....	.....	.....	.....	.....
W. L. Barton Coal Company,	Lackawanna, ..	.....	2	80	160	.....	.....	5	100	.....	30	10	.....	.....
Grand total and average, .....	.....	368	144	15,845	25,388	40	11	434	39,075	82	61,416	41,714	.....	15

TABLE III—Showing the number of employees at each colliery in the First Anthracite District, during the year 1900.

Names of Operators and Collieries.	County.	Occupations of Persons Employed Inside.							Occupations of Persons Employed Outside.								
		Occupations of Persons Employed Inside.							Occupations of Persons Employed Outside.								
		Inside foreman or mine boss.	Fire bosses.	Miners.	Miners' laborers.	Drivers and runners.	Door boys and helpers.	All other employes.	Total inside.	Outside foreman.	Blacksmiths and carpenters.	Engineers and firemen.	Slate pickers.	Superintendents, bookkeepers and clerks.	All other employes.	Total outside.	Grand total, inside and outside.
Delaware and Hudson Company.	Lackawanna.	1	3	144	144	60	12	60	427	1	7	20	28	1	50	196	552
Leggetts Creek.	Lackawanna.	2	6	155	155	92	30	86	526	1	1	8	12	1	57	119	688
Marvine.	Lackawanna.	2	3	147	147	68	19	40	457	1	1	8	10	1	44	121	558
Eddy Creek.	Lackawanna.	2	3	144	151	47	14	49	410	1	1	10	10	1	77	170	580
Olyphant.	Lackawanna.	3	1	149	152	41	4	34	386	1	1	11	11	1	16	30	300
Grassy Island washery.	Lackawanna.	1	1	129	129	41	5	17	383	1	1	6	28	1	25	29	425
Grassy Island.	Lackawanna.	1	1	196	170	63	14	33	483	1	1	4	6	1	60	69	482
White Oak.	Lackawanna.	1	1	184	170	45	2	29	271	1	1	5	5	1	31	78	561
Jermyn No. 1.	Lackawanna.	1	1	210	44	54	7	38	354	1	1	3	13	2	43	68	317
Powderly.	Lackawanna.	1	1	.....	.....	.....	.....	.....	.....	1	1	1	1	1	16	20	40
No. 1 shaft.	Lackawanna.	1	1	.....	.....	.....	.....	.....	.....	1	1	1	1	1	25	22	47
Black Brook washery.	Lackawanna.	1	1	287	182	97	19	48	634	1	1	2	42	1	172	234	898
Black Brook.	Lackawanna.	1	1	125	148	57	17	30	379	1	1	6	10	1	68	132	511
Coal Brook.	Lackawanna.	2	1	.....	.....	.....	.....	.....	.....	1	1	10	15	1	172	234	898
Clinton.	Lackawanna.	1	1	1,915	1,438	688	143	469	4,630	13	60	106	547	8	652	1,387	6,077
Total and averages.	.....	19	18	1,915	1,438	688	143	469	4,630	13	60	106	547	8	652	1,387	6,077
Hillside Coal and Iron Company.	Susquehanna.	1	1	120	62	42	5	26	226	1	4	8	76	3	63	155	421
Clifford.	Susquehanna.	3	3	457	252	81	10	71	678	1	11	13	61	3	62	151	829
Forest City.	Lackawanna.	2	2	67	85	36	8	36	274	1	6	10	60	3	28	108	382
Erie.	Lackawanna.	2	2	28	28	16	4	4	81	1	1	2	17	1	18	36	117
Keystone.	Lackawanna.	2	2	82	67	19	12	22	197	1	4	2	44	1	23	97	291
Glenwood.	Lackawanna.	2	2	.....	.....	.....	.....	.....	.....	1	1	1	1	1	1	1	1
Total and averages.	.....	9	9	589	504	87	48	159	1,436	5	27	42	278	11	204	547	2,043

TABLE III—Continued.

Name of Operators.	County.	Number of Days Worked Each Month in Breaker.												Total.
		January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	
Delaware and Hudson Company,	Lackawanna,	20.95	17.40	14.29	12.83	13.95	15.42	10.88	13.47	6.38	3.83	15.86	16.99	162.25
Hillside Coal and Iron Company,	Lackawanna,	15.05	8.1	7.3	10	11.8	12.05	11.15	13.55	6.25	1.55	13.85	16.25	126.4
Temple Iron Company,	Lackawanna,	12.77	11.12	13.7	12.45	15.35	15.15	16.75	17.17	6.92	1.82	17.20	18.15	138.4
Daniane, Lackawanna and Western R. R.,	Lackawanna,	13.1	14.4	10.5	10.2	20.6	23	20.6	23.7	9.4	2.7	23.2	23.6	201.9
Edinboro Coal Company,	Lackawanna,	17.5	12.2	16.9	18.4	20.5	11.8	13.1	13.7	5.5	.9	14.9	18.8	136.8
Johns Creek Coal Company,	Lackawanna,	14.5	16.3	16.9	18.4	20.5	19.8	19.6	21.3	7.6	.5	16.9	17.7	193
Pennsylvania Coal Company,	Lackawanna,	12.88	7	8.25	8.25	11.5	12.62	16.87	18.75	11.25	.....	20.25	19.3	153.17
Riverside Coal Company,	Lackawanna,	16.1	18.4	16.3	18.4	19.1	21.5	20.2	22.7	10.6	1.4	21	19.8	205.5
Murray Coal Company,	Lackawanna,	19.25	14.75	16.50	17.75	20	22.25	26	14	11	2.3	22.5	19.3	205.5
Clark Tunnel Coal Company,	Lackawanna,	15.9	20.9	24.6	24.7	23.9	25.1	23.6	26.5	10.1	1	25.5	22	146.8
Dolph Coal Company,	Lackawanna,	13.2	12.5	10.4	9.6	12.2	13.2	13.5	16.3	4.4	.....	19.7	16	182.1
Mt. Jessup Coal Company,	Lackawanna,	16	13	14	17	20	20	20	22	4	2	9	16	165
Moosic Mountain Coal Company,	Lackawanna,	16	12	14	19	18	17	18.25	21	4	2.95	24.25	23.75	207.75
Price Pancoast Coal Company,	Lackawanna,	13	15.5	19	18.25	18.5	18	20	15	18	26	19	12	205
Kingsley Coal Company,	Wayne,	10	14	20	15	17	15	20	15	18	26	19	8	22
Black Diamond Coal Company,	Lackawanna, .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	24	280
W. L. Barton,	Lackawanna,	23	23	24	22	24	23	23	23	23	24	24	24	.....
Grand total and averages, .....	.....	15.5	14.6	14.8	15.5	17.2	17.8	17.4	19.2	9.2	5.2	18.3	19.2	183.9

TABLE IV.—List of fatal accidents that occurred in and about the mines of the First Anthracite District for the year ending December 31, 1900.

Date of accident.	Name of Person.	Nationality by birth.	Occupation.	Age.	Married or single.	Number of widows.	Number of orphans.	Name of Colliery.	County.	Nature and Cause of Accident in Brief.
Jan. 2	Thomas Devinney,	American, ..	Driver, ..	16	S. ....	.....	.....	Storrs No. 3,	Lackawanna,	Fatally injured by a fall of rock near the face of a new roadway. A prop and bow were displaced by a shot, causing the roof to fall and just as he was about to return it fell on him. He died on the 6th.
22	Thomas Coleman,	American, ..	Runner, ..	18	S. ....	.....	.....	Marvine,	Lackawanna,	Fatally burned by an explosion of gas near the face of a breast. The gas gathered between the time of running out two loaded cars and the taking in of two empty ones; door was left open by some unknown person. Was barring down a piece of bad roof near the face of his chamber, when the gas struck the face, killing him instantly.
24	William Thomas,	Welsh,	Miner,	48	M. 1	6	.....	Coal Brook,	Lackawanna,	While picking at some bottom coal at the face of his chamber in the Dunmore vein, shortly after firing a blast a rock fell and instantly killed him.
29	Bartolo Frozzo,	Italian,	Miner,	30	S. ....	.....	.....	Moosic Mountain,	Lackawanna,	Instantly killed by a fall of rock at the face of a chamber in the Archbald seam, while shoveling coal back. Timber was within nine feet of the face. Roof sand stone.
Feb. 8	John Klittick,	Russian,	Laborer, ...	30	M. 1	1	.....	Glenwood,	Lackawanna,	.....

TABLE IV—Continued.

Date of accident.	Name of Person.	Nationality by birth.	Occupation.	Age.	Married or single.	Number of widows.	Number of orphans.	Name of Colliery.	County.	Nature and Cause of Accident in Brief.
Feb. 16	John Price,	Welsh,	Miner,	40	M.	1	1	Leggetts Creek,	Lackawanna,	Instantly killed by a fall of rock, the face of a chamber in Clark seam. Roof was the clean and very bad. A leg had been displaced from under a collar by a shot, and when he was going back to face the fall occurred. Fatally burned by an explosion of gas at the face of his chamber. A door which the laborer should have closed after the driver was left open by him. The gas gathered at face and was ignited by one of the lamps.
March 9	Alexander Harris,	English,	Miner,	48	M.	1	2	Pancoast,	Lackawanna,	While helping a fellow miner to place a set of timber near the face of a chamber, a slab of rock fell on his head, causing his death two days later.
10	Anthony Habger,	Pole,	Miner,	32	M.	1	2	Johnson No. 2,	Lackawanna,	Fatally burned by the explosion of a small body of gas at the face of a chamber in Punmore No. 3 seam. Died on the 23th.
21	John Washick,	Russian,	Laborer,	24	S.	.....	.....	Richmond No. 3,	Lackawanna,	Was mining out bottom bench of coal at face of chamber in Diamond seam when a piece of rock fell and instantly killed him.
29	John Slnkoski,	Pole,	Miner,	34	M.	1	.....	Johnson No. 1,	Lackawanna,	Struck by a car and fatally injured while on his way from a crosscut to face of chamber with a quantity of powder, died the following day.
31	Edward McNeats,	Irish,	Miner,	50	M.	1	1	Johnson No. 1,	Lackawanna,	

April	4	Michael Samon,	Russian, ...	Miner, ...	52	M.	1	2	Sturges,	Lackawanna.	Miner in adjoining place was driving a cross cut to Samon's place, who told Samon of his intention to fire a shot, and he (Samon) started back from the face, but by mistake, almost opposite where shot was being fired and was killed by it blowing through pillar.
	18	Robert Eddy,	English,	Miner,	30	S.	.....	.....	Johnson's No. 1,	Lackawanna.	He ignited a snub (after shortening the match) to fire a blast and instantly the shot exploded and the flying pieces of coal fractured his skull, causing death two days later.
May	3	Steve Cerbus,	Hungarian,	Laborer, ..	35	M.	1	.....	Eddy Creek,	Lackawanna.	Fatally injured by a fall of rock at face of a chamber in the road while working on a pillar. Place seam well timbered. Roof was fire-clay and seamy; died on the 2d.
	9	Stanley Segana,	Pole,	Laborer, ..	21	S.	.....	.....	Coal Brook,	Lackawanna.	While loading a car at face of a chamber, a fall of fire-clay instantly killed him.
	15	Michael Crockdaw,	Russian, ...	Laborer, ..	42	M.	1	6	Jermyn No. 1,	Lackawanna.	Fatally injured at face of gangway in Clark seam by a fall of top coal while he was barring at a small bench under it.
	22	Michael Coyle,	Irish,	Miner,	40	M.	1	3	Storrs No. 3,	Lackawanna.	Instantly killed by fall of rock at face of chamber as he returned after a blast. Chamber was in Clark vein, which usually has a sand rock roof, but here it was sand-clay.
June	11	Steve Koshehlc,	Pole,	Driver, ...	21	S.	.....	.....	Simpson,	Lackawanna.	Instantly killed by falling under a trip of loaded cars on gangway.
	12	Anthony Cominski,	Pole,	Driver, ...	16	S.	.....	.....	Johnson's No. 2,	Lackawanna.	Instantly killed by his skull being crushed between mule and cars.
	20	Michael Loftus,	Irish,	Miner,	50	M.	1	1	White Oak,	Lackawanna.	Fatally injured by fall of coal at face of chamber in Archbald bed; his partner had, but a few minutes previously tried to bar it down, but failed.
	29	Jacob Ronger,	German,	Laborer, ..	64	M.	1	.....	White Oak,	Lackawanna.	Killed by a fall of rock, at working place shortly after miners had trimmed down the place seam; they thought place was well timbered but at this place there was exceptionally shelly or slippery roof; Archbald seam.

TABLE IV—Continued.

Date of accident.	Name of Person.	Nationality by birth.	Occupation.	Age.	Married or single.	Number of widows.	Number of orphans.	Name of Colliery.	County.	Nature and Cause of Accident in Brief.
July 3	Peter Donott,	Italian,	Miner,	26	M.	1	.....	Edgerton,	Lackawanna,	While preparing to place a prop under a loose piece of rock near the face of his chamber in Clark seam, the rock fell and killed him.
6	John Govoula,	Austrian, ...	Laborer, ..	47	M.	1	.....	Murrays,	Lackawanna,	During a severe thunder storm the tower over the shaft on which he was working was struck by lightning and knocked down, and he fell with it and was killed.
10	John Rogiski,	Pole,	Laborer, ..	42	M.	1	.....	Storrs No. 3,	Lackawanna,	Instantly killed by a fall of rock from a gangway short of Clark seam. He was shot through the face of his chamber, and previously had examined the roof and thought it safe.
10	Henry Williams,	American, ..	Miner,	48	S.	.....	.....	Glenwood,	Lackawanna,	While preparing to place a prop under a bad piece of rock near the face of his chamber the slab fell and caused his death.
28	Thomas Edwards,	American, ..	Laborer, ..	38	M.	1	2	Sterrick Creek,	Lackawanna,	While cleaning roads on a branch he made to get out of the way of a trip of cars, but did not step far enough and was struck and fatally injured and died on the following day.
Aug. 7	Henry Maynes,	English,	Miner,	26	M.	1	1	Glenwood,	Lackawanna,	While sitting about seven feet from the face of his place looking at the roof, he was suddenly shot a slab of rock fell and fatally injured him. The place was well propped but the fall occurred inside of props.
10	Andrew Kilenski,	Slav,	Laborer, ..	26	S.	.....	.....	Olyphant No. 2,	Lackawanna,	Fatally injured by a fall of rock at the face of a gangway in Rock seam. The roof is fire-clay and slippery.

11	George Chaps,	Slav,	Laborer, ..	30	S.	No. 1 shaft,	Lackawanna,	Fatally burned by the explosion of a small body of gas in a cavity in the roof near the face of a chamber. He was told not to go to the face until he arrived to clear the gas by means of a brattice. He died on the 18th. Instantly killed by a fall of rock at the face of his chamber in Dunmore No. 3 seam, while preparing a place for a prop to secure the roof.
Sept.	4 James Brown,	Irish,	Miner,	38	M. 1	2 No. 2 shaft, No. 1 colliery.	Lackawanna,	Instantly killed by a large slab falling on him while loading a car at the face of a chamber in Dunmore No. 3 seam. These two men cut enough coal for their laborers strolled into some old chambers which were to be cut off by a road that was being driven from one chamber to another. On the top of a fall of rock in the second chamber beyond theirs they encountered a small body of gas which was exploded by one of their lamps and both were so seriously burned that they died the following day.
Nov.	1 William Middleton,	English,	Miner,	32	M. 1	2 Marvinne,	Lackawanna,	Instantly killed by a fall of rock on his back as going out.
	1 Henry Russell,	American, ..	Miner,	36	M. 1	6 Marvinne,	Lackawanna,	Fatally injured by a fall of roof. Roof was fire-clay. He died on the following day.
Dec.	27 Robert Harrison,	English,	Miner,	30	M. 1	3 Marvinne,	Lackawanna,	Fatally injured by an explosion of powder which he caused while looking for the lid of his squib box in a powder keg, and died on the 25th.
	5 Frank Aekart,	Hungarian, ..	Miner,	33	S.	Pancoast,	Lackawanna,	Fatally injured by a fall of rock near face of a gangway in Clark seam. He was preparing a place for a set of timber, and while barring down some top coal the rock above it fell.
	10 Jacob Prebor,	German,	Miner,	45	M. 1	5 Storrs No. 1,	Lackawanna,	Fatally injured by a fall of rock in the face of his working place in the 14 foot seam. The place was well timbered; the roof proper was sand rock and very safe, but a six inch slab which he was watching while the laborer was barring out coal fell and caused his death.
	10 James Burns,	English,	Miner,	45	M. 1	Clinton,	Lackawanna,	
	13 Anthony Guildish,	Austrian, ..	Miner,	31	M. 1	Stierick Creek,	Lackawanna,	

TABLE IV—Continued.

Date of accident.	Name of Person.	Nationality by birth.	Occupation	Age.	Married or single.	Number of widows.	Number of orphans.	Name of Colliery.	County.	Nature and Cause of Accident in Brief.
Dec. 14	Thomas J. Evans,	American, ..	Laborer, ..	25	S.	.....	.....	Leggetts Creek,	Lackawanna,	Instantly killed by a fall of rock at face of a gangway in Clark seam while he was assisting another man to lift a collar to secure the roof, which was fire-clay.
26	John Roach,	Irish,	Miner,	40	M.	1	4	Coal Brook,	Lackawanna,	Fatally injured by a fall of rock at face of a chamber in Clark seam. Roof was fire-clay, and was well propped, but fall occurred three feet from rib.

TABLE V—List of non-fatal accidents that occurred in and about the mines of the First Anthracite District for the year ending December 31, 1900.

Date of accident.	Name of Person.	Nationality by Birth.	Occupation.	Age.	Married or single.	Name of Colliery.	County.	Nature and Cause of Accident in Brief.
Jan. 2	Owen Larkin,	Irish,	Driver,	17	S.	Powderly,	Lackawanna, ..	Skull fractured by a kick from a mule.
4	Stephen Lewis,	American, ..	Miner,	50	M.	No. 1 shaft,	Lackawanna, ..	Leg fractured by a fall of rock at face of chamber.
6	William J. Price,	American, ..	Driver,	18	S.	Leggett's Creek,	Lackawanna, ..	Badly cut on face by coal blown by bursting air pipe.
9	Walter Walasavitz,	Pole,	Miner,	28	S.	Johnson's No. 1,	Lackawanna, ..	Thigh fractured and teeth knocked out by fall of rock at face of chamber.
12	Andrew Shutoski,	Hungarian, ..	Miner,	45	M.	Pancoast,	Lackawanna, ..	Struck by coal from a shot and cut on body.
13	Chesero Moracini,	Italian,	Miner,	30	S.	Forest Mine,	Lackawanna, ..	Leg fractured by fall of coal at face of chamber.
16	Andrew Dobeistine,	American, ..	Doortender, ..	15	S.	Johnson's No. 1,	Lackawanna, ..	Shoulder dislocated by cars running against him.
18	James Williams,	Welsh,	Miner,	46	M.	Leggett's Creek,	Lackawanna, ..	Cut on thigh by coal from a premature blast.
18	Frank Mayor,	English,	Miner,	55	M.	Johnson's No. 1,	Lackawanna, ..	Bruised on back by coal from a premature blast.
22	Frank Parks,	American, ..	Driver,	17	S.	Marvine,	Lackawanna, ..	Burned on face and hands by explosion of gas.
22	Joseph Romisko,	Pole,	Laborer,	26	S.	Marvine,	Lackawanna, ..	Burned on face and hands by explosion of gas.
27	George Smith,	American, ..	Rockman,	30	M.	Johnson's No. 1,	Lackawanna, ..	Burned on face and hands by explosion of gas.
27	John Donovan,	American, ..	Rockman,	29	S.	Johnson's No. 1,	Lackawanna, ..	Burned on face and hands by explosion of gas.
30	J. C. Palmer,	English,	Laborer,	32	M.	Eddy Creek,	Lackawanna, ..	Burned on face and hands by explosion of gas.
5	Iteese Owens,	American, ..	Laborer,	27	M.	Storrs No. 3,	Lackawanna, ..	Back severely injured by a prop striking him.
7	Patrick Kenny,	American, ..	Laborer,	35	M.	White Oak,	Lackawanna, ..	Face cut and teeth knocked out by a kick from a mule.
12	William J. Rolls,	English,	Runner,	16	S.	Storrs,	Lackawanna, ..	Body bruised by a fall of rock.
17	Patrick Rolly,	Irish,	Timberman, ..	26	M.	Storrs No. 3,	Lackawanna, ..	Leg fractured by falling under cars. Body bruised and ribs fractured by fall of rock, at face of chamber.

TABLE V—Continued.

Date of accident.	Name of Person.	Nationality by Birth.	Occupation.	Age.	Married or single.	Name of Colliery.	County.	Nature and Cause of Accident in Brief.
Feb. 17	Joe Bevoek,	Italian,	Laborer, ...	25	S.	Edgerton,	Lackawanna, ..	Leg fractured by fall of rock, at face of chamber.
March 1	George Marshall,	Austrian, ..	Miner,	32	M.	Mt. Jessup,	Lackawanna, ..	Arm fractured by fall of rock, at face of chamber.
2	Frank Farrell,	American, ..	Laborer, ...	18	S.	Olyphant No. 2,	Lackawanna, ..	Arm fractured; clothes caught in revolving shaft.
5	Thomas Richards,	Welsh,	Laborer, ...	47	M.	Eddy Creek,	Lackawanna, ..	Struck by coal from shot, hip injured.
8	Steve Pete,	Slav,	Driver,	17	S.	Pancoast,	Lackawanna, ..	Leg fractured by falling under car.
8	John Blockberger,	German,	Carpenter, ..	40	M.	Ontario,	Lackawanna, ..	Struck by a board and ribs fractured.
9	Robert Senaski,	Hungarian, ..	Laborer, ...	30	S.	Pancoast,	Lackawanna, ..	Burned on face and hands by explosion of gas.
12	James Glencross,	Scotch,	Headman, ...	30	S.	No. 1 shaft,	Lackawanna, ..	Squeezed by cars at head of shaft.
12	David Morgan,	American, ..	Driver,	17	S.	Marvine,	Lackawanna, ..	Part of two fingers cut off by a piece of coal falling from car.
19	John Flaggerty,	Irish,	Miner,	44	M.	Richmond No. 4,	Lackawanna, ..	Shot in a chamber by car as he was walking in a plane.
21	John Sowiski,	Pole,	Laborer, ...	31	M.	Richmond No. 3,	Lackawanna, ..	Hands and face burned by explosion of small body of gas at face of chamber.
27	James O'Conner,	American, ..	Carpenter, ..	39	M.	Sterrick Creek,	Lackawanna, ..	Head injured by a falling shaft of engine.
April 4	William G. Jones,	Welsh,	Chargeman, ..	35	M.	Leggett's Creek,	Lackawanna, ..	Face and hands burned by explosion of small body of gas.
5	Steve Bolent,	Slav,	Laborer, ...	25	M.	Ontario,	Lackawanna, ..	Leg fractured by cars and chain.
7	Edward Thomas,	Welsh,	Driver,	17	S.	Pancoast,	Lackawanna, ..	Leg fractured by falling under cars.
10	Benjamin Jarvis,	English,	Miner,	23	M.	Storrs No. 2,	Lackawanna, ..	Injured at face of chamber by a fall of rock.
18	John Buralick,	Slav,	Laborer, ...	24	M.	No. 1 shaft,	Lackawanna, ..	Back injured at face of chamber by a fall of rock.
19	George Rotchick,	Slav,	Laborer, ...	54	M.	Riverside,	Lackawanna, ..	Back injured at face of chamber by a fall of rock.
23	Peter Burke,	American, ..	Driver,	14	S.	Sterrick Creek,	Lackawanna, ..	Leg fractured by runaway cars.
26	John Consla,	Scotch,	Miner,	57	M.	Marvine,	Lackawanna, ..	Face injured by flying coal from a blast, which exploded before he could get away.

May	1	John Miko,	Slav,	Laborer, ...	35	M.	Eddy Creek,	Lackawanna, ..	.. Fall of rock.
	2	Steve She-rock,	Russian,	Miner,	26	M.	Glenwood,	Lackawanna, ..	.. Fall of rock.
	5	Simon Gezo,	Hungarian,	Slate picker, ..	14	S.	Ontario,	Lackawanna, ..	.. Run over by car.
	7	Adam Auguliewicz,	Pole,	Miner,	23	S.	Lackawanna, ..	Lackawanna, ..	.. Fall of rock.
	8	Geo. Auboubus,	Pole,	Laborer,	26	S.	Forest City,	Susquehanna, ..	.. While pulling a block from under a wheel a car run over his hand.
	10	John Slacher,	Pole,	Laborer, ...	38	M.	Leegetts Creek,	Lackawanna, ..	.. Fall of rock injuring his back.
	10	David Reese,	Welsh,	Miner,	29	M.	Leegetts Creek,	Lackawanna, ..	.. Some of leg fractured by a fall of rock at face of this chamber.
	11	Pat. M. Quinn,	American, ..	Miner,	33	M.	Eddy Creek,	Lackawanna, ..	.. Back badly injured by a fall of rock at face of chamber.
	16	Antonio Montgerl,	Italian,	Laborer, ...	27	M.	Riverside,	Lackawanna, ..	.. While placing a prop near the face of a chamber a slab of rock fell, fracturing his leg.
	17	James Brace,	Welsh,	Foreman,	32	M.	Richmond No. 3,	Lackawanna, ..	.. These four men were slightly burned by the explosion of a small body of gas that accumulated in a cavity near the face of a gangway, where they were fighting a small fire, caused by the ignition of a "blower" by a blast.
	17	Frank Karalavish,	Pole,	Track layer, ..	30	S.	Forest City,	Susquehanna, ..	.. Leg fractured by a fall of rock near the face of chamber.
	17	William Patch,	Pole,	Miner,	38	S.	Sturges,	Lackawanna, ..	.. Leg fractured by having been caught between a car and a post.
	17	Edward Bench,	Pole,	Laborer,	23	S.	Moosic Mountain,	Lackawanna, ..	.. Skull fractured by coal from a blast fired while he was on his way through the chamber in the morning.
June	1	Milton Hoodmacher,	American, ..	Asst. f man, ..	37	S.	Clinton,	Lackawanna, ..	.. Internally injured by a fall of coal at face of a chamber while he was working out a shot.
	5	Richard Jones,	Welsh,	Miner,	41	M.	Clifford,	Susquehanna, ..	.. Stepped in front of a trip of cars, was knocked down and his arm was fractured.
	8	Joe Madden,	Pole,	Driver,	16	S.	Gipsey Grove,	Lackawanna, ..	.. While barring coal at face of chamber a piece of fell on him, knocking out one of his teeth.
	8	John Parker,	English,	Miner,	30	S.	Simpson,	Lackawanna, ..	.. Back and shoulder injured by fall of rock at face of chamber.
	12	Steve Klucke,	Pole,	Miner,	30	M.	Olyphant,	Lackawanna, ..	.. Back and head injured by fall of rock at face of chamber.
	15	John Medgo,	Slav,	Laborer, ...	24	S.	Pancoast,	Lackawanna, ..	.. Back of face injured by fall of rock at face of chamber.
	16	Michael Martunko,	Hungarian, ..	Miner,	36	M.	Edgerton,	Lackawanna, ..	.. Squeezed between car and pillar and shoulder bone fractured.
	19	James Yarrow,	Italian,	Laborer, ...	25	M.	Pancoast,	Lackawanna, ..	.. Knee cap fractured by cars jumping track.
	21	Jacob Wallace,	English,	Footman,	22	S.	Edgerton,	Lackawanna, ..	.. Arm crushed (so that amputation was necessary) by locomotive slipping off track.
	24	Jas. Corrikan,	Irish,	Fireman, ...	26	M.	Edgerton,	Lackawanna, ..	.. Back of leg by a mule on abdomen.
	25	Jas. McGrall,	Irish,	Laborer, ...	71	S.	No. 2 shaft, Penna C. Co., ..	Lackawanna, ..	.. Back injured by fall of rock at face of chamber.
	26	John Holland,	Irish,	Miner,	37	M.	Erle,	Lackawanna, ..	.. Arm fractured while preparing to put up a prop at face of chamber.
June	27	Moses Jones,	Welsh,	Miner,	38	M.	Grassy Island,	Lackawanna, ..	..

TABLE V—Continued.

Date of accident.	Name of Person.	Nationality by Birth.	Occupation.	Age.	Married or single.	Name of Colliery.	County.	Nature and Cause of Accident in Brief.
July 2	Charles Melvin,	Irish,	Runner,	24	S.	No. 3 Storrs,	Lackawanna, ..	Leg fractured by car jumping track while he was passing it.
3	John Butler,	American, ..	Fireman, ...	38	M.	Simpson,	Lackawanna, ..	Leg bruised by car jumping track.
14	Geo. Bula,	Austrian, ..	Laborer, ...	23	S.	Moosic Mountain,	Lackawanna, ..	Skull fractured by a fall of rock at face of chamber while shoveling coal.
16	Frank Wichalofski,	Pole,	Laborer, ...	26	M.	No. 1 Storrs,	Lackawanna, ..	Leg fractured by a fall of rock at face of chamber while loading a car.
17	Thomas Thornton,	American, ..	Miner,	26	M.	No. 1 shaft, Penna. C. Co.,	Lackawanna, ..	Arm dislocated by a fall of rock at face of chamber while replacing a prop.
23	Mike Miseski,	Pole,	Miner,	38	M.	Forest City,	Susquehanna, ..	Leg fractured by a fall of rock at face of chamber while replacing a prop.
24	Edward Greatrex,	English,	Miner,	52	M.	} Storrs No. 2,	Lackawanna, ..	These men were severely injured by a fall of coal at face of chamber while the former was working out a shot.
24	Adam Price,	Pole,	Laborer, ...	35	S.			
25	Francis Hughes,	Welsh,	Miner,	45	M.	Simpson,	Lackawanna, ..	While mining out a shot at face of chamber a rock fell on him and broke his leg.
7	George Jones,	American, ..	Laborer, ...	21	S.	Clinton,	Lackawanna, ..	While mining out a shot at face of chamber a rock fell on him and broke his leg.
7	Pat. McDonald,	Irish,	Miner,	52	M.	Gipsy Grove,	Lackawanna, ..	While filling a hole at face a slab of rock fell, cutting his head and face.
7	Geo. Martin,	English,	Laborer, ...	46	M.	Glenwood,	Lackawanna, ..	Leg fractured by a fall of rock near face of chamber, while sitting down.
8	Julian Slipp,	Pole,	Slate picker, ..	45	M.	Johnson's,	Lackawanna, ..	Leg fractured by being caught in machinery while replacing a belt.
11	Andrew Stutts,	Slav,	Laborer, ...	26	S.	No. 1 shaft,	Lackawanna, ..	Slightly burned by explosion of gas at face of chamber.
15	John Farley,	Irish,	Track layer, ..	38	M.	No. 2 shaft,	Lackawanna, ..	Toes fractured by a car slipping from blocking while replacing it on track.
15	Chas. Burkoski,	Pole,	Miner,	43	M.	Storrs No. 2,	Lackawanna, ..	Back injured by fall of rock while working out a shot at face of chamber.

18	James McGowen,	American, ..	Runner,	21	S.	Leggetts Creek,	Lackawanna, ..	Leg fractured by fall of rock in chamber, where car had tipped the track knocking out two collar bolts.
18	Timothy Foster,	American, ..	Miner,	62	M.	Gipsy Grove,	Lackawanna, ..	While standing in a safe place, as he supposed, awaiting explosion of a blast, a piece of coal struck him and fractured his arm.
21	Peter Berna,	Pole,	Laborer, ...	24	S.	Simpson,	Lackawanna, ..	Head cut at face of chamber by fall of rock, while barring out coal.
24	Anthony Zamie,	Pole,	Miner,	35	M.	Richmond No. 3,	Lackawanna, ..	Slightly burned on face by explosion of small body of gas at face of chamber.
28	Hugh Smith,	Pole,	Driver,	16	S.	Leggetts Creek,	Lackawanna, ..	Seriously injured by falling under a trip car in gangway road.
29	Samuel Cost,	Italian,	Laborer, ...	46	M.	Coal Brook,	Lackawanna, ..	Leg fractured in face of chamber, standing close to face of chamber.
Sept. 12	John Gaskulski,	Pole,	Driver,	16	S.	Johnson's,	Lackawanna, ..	Fell under a trip of two cars which passed over him, fracturing both legs and one arm.
14	John Pengilley,	English,	Miner,	48	M.	Ontario,	Lackawanna, ..	Leg fractured by a fall of rock while he was putting a prop under it.
Oct. 30	Thomas W. Evans,	Welsh,	Driver,	19	S.	Lackawanna,	Lackawanna, ..	Collar bone fractured by a car being pulled by a mule against him.
30	Mike Murphey,	Irish,	Laborer, ...	23	M.	No. 1 shaft,	Lackawanna, ..	Struck on stomach by a lever which slipped while he was putting a car on track.
31	Geo. Barron,	English,	Fire boss, ..	35	M.	Pancoast,	Lackawanna, ..	Three men were removing a small body of gas from the chamber roof and instead of using safety lamps when building a brattice used naked lights and thus exploded the gas, and all were severely burned on faces and hands.
31	Peter McGirick,	Irish,	Timberman, ..	32	S.			
31	Thomas King,	Irish,	Timberman, ..	35	M.			
31	Peter Motts,	Italian,	Miner,	40	M.			
Nov. 2	Herbert Reynolds,	Welsh,	Motorman, ..	18	S.	Forest City,	Susquehanna, ..	Leg fractured by cars jumping the track.
5	Frank Eldringham,	English,	Miner,	35	M.	White Oak,	Lackawanna, ..	Leg fractured by fall of rock at face of a tunnel.
6	William A. Thompson,	American, ..	Runner,	17	S.	Coal Brook,	Lackawanna, ..	Slipped under cars and badly injured.
10	James Lally,	Irish,	Runner,	19	S.			
14	Fred. Fryor,	English,	Miner,	50	M.	Pancoast,	Lackawanna, ..	Leg fractured by fall in front of a trip of cars.
21	Owen Williams,	Welsh,	Miner,	32	M.	Pancoast,	Lackawanna, ..	Ribs and collar bone fractured by a shot at face of chamber while he was working out a shaft.
21	Joseph Zelo,	Slav,	Slate picker, 13	S.				
22	Manuel Owen,	American, ..	Driver,	16	S.	Olyphant,	Lackawanna, ..	While at work in a shaft a piece of rock fell fracturing his collar bone.
Nov. 30	Edward Brown,	Irish,	Miner,	47	S.	Richmond No. 4,	Lackawanna, ..	Flesh torn from leg by falling under a car.
Dec. 3	Peter Butcaviez,	Polish,	Driver,	17	S.			
								Leg fractured by a mule turning out too soon and squeezing the boy between car and stretcher.
								Fall of rock.
								Leg fractured by being struck by a rope.

TABLE V—Continued.

Date of accident.	Name of Person.	Nationality by Birth.	Occupation.	Age.	Married or Single.	Name of Colliery.	County.	Nature and Cause of Accident in Brief.
3	Peter Hertes,	Slav,	Miner,	24	S.	No. 1 shaft,	Lackawanna, ..	Falling to pry down a piece of roof he went under the rock, and so got coal and while so engaged the rock fell on him, fracturing his leg.
6	William Proudlock,	English,	Miner,	30	S.	Richmond No. 3,	Lackawanna, ..	While thawing out some dynamite he set fire to some black powder and was severely burned.
6	John McNulty,	Irish,	Runner,	24	S.	Pancoast,	Lackawanna, ..	Hip dislocated by falling under a trip of cars.
7	John Slater,	Slav,	Miner,	22	M.	Lackawanna,	Lackawanna, ..	Severely injured by a fall of rock at face of chamber while drilling a hole.
14	Patrick McLaughlin,	Irish,	Miner,	42	M.	Leggetts Creek,	Lackawanna, ..	Slightly injured at face of gangway by a fall of rock, which happened as along with three others were lifting a coal car to its place for the purpose of securing it.
15	Edward Padden,	American, ..	Laborer, ...	20	S.	White Oak,	Lackawanna, ..	Leg fractured by a car jumping the track.
17	John Shinaski,	Pole,	Laborer, ...	17	S.	Storrs No. 2,	Lackawanna, ..	Slightly injured by fall of rock at face of chamber.
19	Peter Shecoucki,	Pole,	Laborer, ...	19	S.	Pancoast,	Lackawanna, ..	Arm fractured by a car jumping track.
22	Evan Reese,	Welsh,	Miner,	56	M.	Leggetts Creek,	Lackawanna, ..	Leg fractured by fall of coal at face of chamber.
24	John Walsh,	Irish,	Laborer, ...	45	M.	White Oak,	Lackawanna, ..	Leg fractured by fall of coal at face of a chamber while loading a car.
29	John Lasoski,	Pole,	Miner,	40	M.	Pancoast,	Lackawanna, ..	Back injured by fall of rock while working at face of a chamber.
31	Mike Rokshak,	Russian, ...	Laborer, ...	38	M.	Glenwood,	Lackawanna, ..	Leg fractured by a fall of coal while loading a car at face of a chamber.

Second Anthracite District.

LACKAWANNA COUNTY.

Scranton, Pa., February 18, 1901.

Hon. James W. Latta, Secretary of Internal Affairs, Harrisburg, Pa.:

Sir: I have the honor of presenting my report as Inspector of Mines for the Second Anthracite District for the year 1900, as required by section 9, article 2, anthracite mine law, 1891, etc. It contains the usual statistics, with accounts of the accidents which occurred in the district during the year in tabulated forms, followed by remarks and a suggestion.

Respectfully submitted,

H. O. PRYTHERCH,

Inspector.

Table A—Production of Coal in Tons During 1900.

Delaware, Lackawanna and Western Railroad Company,	3,172,806
Austin Coal Company,	64,437
Delaware and Hudson Company,	402,098
Scranton Coal Company,	618,735
Mount Pleasant Coal Company,	172,141
Green Ridge Coal Company,	126,230
Pennsylvania Coal Company,	341,998
William Connell & Co.,	107,679
The Connell Coal Co.,	216,154
Greenwood Coal Company,	193,210
Brooks Coal Co.,	31,150
John & J. J. Jermyn,	170,916
Elliott McClure & Co.,	136,957
Elk Hill Coal and Iron Company,	96,344
A. D. & F. M. Spencer,	71,169
Nay Aug Coal Company,	98,592
Gibbons Coal Co.,	15,904
North American Coal Company,	269,514

Bowen Coal Company,	32,834
Bull's Head Coal Company,	23,791
Carbon Coal Company,	44,101
People's Coal Company,	4,150
Spring Brook Coal Company,	18,202
Total,	6,429,112

The total production is made up as follows:

Shipped by railroad to market,	5,870,752
Sold at mines for local use,	204,952
Consumed to generate steam,	353,408
Total,	6,429,112

TABLE B—Number of Fatal Accidents and Tons of Coal Produced per Life Lost.

Names of Companies.	Number of fatal accidents.	Number of tons of coal produced per life lost.
Delaware, Lackawanna and Western Railroad,	21	151,086
Austin Coal Company,	1	64,437
Delaware and Hudson Coal Company,	8	50,262
Scranton Coal Company,	5	123,747
Mount Pleasant Coal Company,	5	34,423
Green Ridge Coal Company,	2	63,115
Pennsylvania Coal Company,	1	341,998
William Connell and Company,	1	107,679
The Connell Coal Company,	3	72,051
Greenwood Coal Company,	3	64,403
Brooks Coal Company,	1	31,150
John and J. J. Jermyn,	1	170,916
Elliott, McClure and Company,	1	136,957
Elk Hill Coal and Iron Company,	1	96,344
A. D. and F. M. Spencer,	1	71,169
Nay Aug Coal Company,	1	98,592
Gibbons Coal Company,	1	15,904
North American Coal Company,	1	269,514
Bowen Coal Company,	1	32,834
Bull's Head Coal Company,	1	23,791
Carbon Coal Company,	1	44,101
People's Coal Company,	1	4,150
Spring Brook Coal Company,	1	18,202
Total and average,	55	116,891

TABLE C—Showing the Number of Fatal and Non-Fatal Accidents and the Number of Tons of Coal Produced per Accident.

Names of Companies.	Number of accidents.	Number of tons of coal produced per accident.
Delaware, Lackawanna and Western Railroad,	92	34,487
Austin Coal Company,	10	64,437
Delaware and Hudson Company,	10	40,209
Scranton Coal Company,	19	32,565
Mount Pleasant Coal Company,	19	9,061
Green Ridge Coal Company,	3	42,076
Pennsylvania Coal Company,	10	34,199
William Connell and Company,	7	15,382
The Connell Coal Company,	8	27,019
Greenwood Coal Company,	12	16,100
Brooks Coal Company,	12	31,150
John and J. J. Jermy,	12	14,243
Elliott, McClure and Company,	4	34,239
Elk Hill Coal and Iron Company,	2	48,172
A. D. and F. M. Spencer,	4	17,792
Nay Aug Coal Company,	4	49,296
Gibbons Coal Company,	2	15,994
North American Coal Company,	1	269,514
Bowen Coal Company,	1	32,834
Carbon Coal Company,	1	44,101
People's Coal Company,	1	4,150
Spring Brook Coal Company,	1	18,202
Bull's Head Coal Company,	1	23,791
Total and average,	207	31,058

TABLE D—Classification of Accidents.

Classification of Accidents.	Killed or fatally injured.	Injured.	Total.
Falls of roof and coal,	30	54	84
Explosion of gas,	2	15	17
Explosions of blast,	3	17	20
Mules,	4	4	4
Cars inside,	8	39	47
Cars outside,	2	5	7
Falling down shaft,	7	1	8
Breaker machinery,	1	5	6
Miscellaneous, inside,	1	6	6
Miscellaneous, outside,	2	6	8
Total,	55	152	207

TABLE E—Occupations of Persons Killed and Injured.

Occupations.	Killed or fatally injured.	Injured.	Total.
Miners,	25	42	67
Laborers,	14	37	51
Doorboys,	2	8	10
Drivers,	7	25	32
Outside laborers,	2	6	8
Company men, inside,	2	12	14
Headmen,	1	1	2
Footmen,	1	6	7
Pumpmen,	1	1	2
Fire bosses,	1	1	2
Runners,	1	4	5
Slate pickers,	1	7	8
Surveyors,	1	3	4
Total,	55	152	207

TABLE F—Nationalities of Persons Killed and Injured.

	Welsh.	English.	Scotch.	Irish.	Poles.	Slavs.	Americans.	Hungarians.	Italians.	Germans.	Russians.	Lithuanians.	Greeks.	Total.
Killed,	9	2	2	11	14	1	6	2	2	4	...	2	...	55
Injured,	28	12	2	36	30	1	24	...	11	5	1	1	1	152
Total,	37	14	4	47	44	2	30	2	13	9	1	3	1	207

Accidents of 1900.

The following remarks on the accidents are justified by the figures of the several tables:

The injured are divided as follows: Citizens, 86; aliens, 66; married, 72; single, 80.

The killed as follows: Citizens, 31; aliens, 24; married, 32; single, 23. There are 32 widows and 80 orphans left without support as the result of the fatal accidents in the district during the year 1900.

The following percentages also hold good:

Causes of Accidents.	Fatal accidents. Per cent.	Total accidents.
Fall of roof and coal,	54.5	40.5
Explosion of gas,	3.6	8.2
Explosion of blast,	5.5	9.6
Mules,		1.9
Cars, inside,	14.6	22.7
Cars, outside,	3.6	3.3
Falling down shaft,	12.7	3.8
Breaker machinery,	1.9	2.9
Miscellaneous, inside,		2.9
Miscellaneous, outside,	3.6	3.8

Occupations of Victims.	Fatal. Per cent.	Total. Per cent.
Miners,	45.5	32.3
Laborers,	25.5	24.6
Door boys,	3.6	4.8
Drivers,	12.8	15.5
Outside laborers,	3.6	3.9
Company men, inside,	3.6	6.8
Headmen, .....		.4
Footmen,		2.9
Pumpmen,	1.9	.4
Fire bosses, .....		.9
Runners,	1.9	1.9
Slate pickers,		3.8
Surveyors,		1.4

Nationalities of Victims.	Fatal. Per cent.	Total. Per cent.
Welsh,	16.4	17.9
English,	3.6	6.7
Scotch,	3.6	1.9
Irish,	20.0	22.7
Poles,	25.5	21.2
Slavs,	1.9	0.9
Americans,	9.1	14.0
Hungarians,	3.6	0.9
Italians,	3.6	6.3
Germans,	7.3	4.4
Russians,		0.4
Lithuanians,	3.6	1.4
Greeks,		0.4

1899 and 1900 Compared.

In 1899 the following list of accidents was returned: Fatal, 49; non-fatal, 159; total, 208.

The tables which accompany and form a part of this report show the following to be the list for 1900: Fatal, 55; non-fatal, 152; total, 207.

By comparison there is for 1900, an increase of 6 fatal accidents, a decrease of 7 non-fatal accidents, and a decrease of 1 in the list of total accidents. It is worthy of remark that during 1899 one accident only occurred by which two lives were lost at the same time, while in 1900 one accident resulting in the loss of four lives, and two by which two lives each were lost occurred. Perhaps this will partly explain the increase in the fatal list, as it will be seen that the number of fatal accidents in the years under comparison are the same, but those of the latter, claim six more victims.

The total production of coal for 1900 shows a decrease of 345,346 tons, as compared with 1899, and an increase of 1,368 in the total number of persons employed in and about the mines.

The decrease in the production was caused by the general strike and numerous other minor disagreements between employers and employes in the district during the year.

Remarks on Accidents.

It will be seen that in addition to the tables which have always accompanied these reports, tables of percentages have been prepared in order to show in a more conspicuous manner the causes which result in the greater number of accidents, as well as the classes of employes which contribute to the list of victims.

An "explosion of gas" in a mine resulting in the loss of a number of lives at the same time, attracts wide attention, while the every day accidents from "falls of roof and coal" occur almost unnoticed. The tables referred to, show "falls of roof and coal" to be responsible for 55 per cent. of the fatal accidents, and 41 per cent. of the total number of accidents in the district during 1900, and "explosions of gas" are responsible for 4 per cent. of the fatal and 8 per cent. of the total accidents.

Following the tables of percentages further, it will be seen that miners make up 46 per cent. of the victims of fatal accidents and 32 per cent. of the total number of accidents.

Laborers, 26 per cent. of the fatal and 25 per cent. of the total number of accidents.

These two classes of workmen work in close contact, in fact they

work together, and if our interpretation of the provision of the mine law be correct, the miner is to a great extent responsible for the safety of his laborer.

These two classes together make up 72 per cent. of the victims of fatal accidents, and 57 per cent. of the total number of accidents.

Inasmuch as "falls of roof and coal" are responsible for 55 per cent. of the fatal and 41 per cent. of the total number of accidents, I feel that the provisions of the anthracite mine law of 1891 guarding particularly against this class of accidents should be quoted:

Article 12, Rule 14. "Any person having charge of a working place in any mine shall keep the roof and sides thereof properly secured by timber or otherwise, so as to prevent such roof and sides from falling, and he shall not do any work or permit any work to be done under loose or dangerous material except for the purpose of securing the same."

Again Article 12, Rule 34: "Before commencing work, and also after the firing of every blast, the miner working a breast or any other place in a mine, shall enter such breast or place to ascertain its condition, and his laborer or assistant shall not go to the face of such breast or place until the miner has examined the same and found it to be safe."

The rules quoted are to guard particularly against accidents from "falls of roof and coal," and if those whose safety is to be guarded respected their provisions, accidents from this cause would be materially reduced.

This matter has received much attention during the inspections made of the mines of the district in 1900, and from many observations, I have concluded that a very large number of miners are unaware of these provisions or are careless in observing them.

The fact that eighty-four of the total number of accidents are classed under the heading of "falls of coal and roof" fully justifies me in calling attention to this subject, and it is my object to secure co-operation on the parts of all concerned, namely, miners, assistant foremen, mine foremen and superintendents so guard diligently against accidents from this source, that by so doing the number of accidents may be reduced.

A Suggestion.

If, in addition to the extracts of the mine law which are now posted about the mines, the sections of the law which apply to the duties of the several classes of persons employed in and about the collieries, were printed on separate sheets, and liberally distributed, it would, in my opinion, have a beneficial effect. The miner, driver, runner, etc., would learn at a glance the provision of the law regarding his

own particular duties, which would save them the necessity of reading the whole document in order to learn the portions which apply to them.

The result of the work performed by this office during the year has been forwarded to the Bureau of Mines, in narrative reports, from month to month. These reports also set forth the conditions of the several mines at the time of the several inspections and the investigations of fatal and serious accidents.

Mine Foreman's Examination.

The annual mine foreman's examination for the district was held on May 11th and 12th, 1900, in the City Hall, Scranton.

The following persons were recommended by the board of examiners to receive foreman's certificates: Richard R. Hughes, H. J. Davies, Mathias Clemons and Thomas Edwards, and nineteen persons were recommended to receive certificates as assistant foremen.

TABLE I—Showing Names of Operators, Railroads, etc., and location of collieries in the Second Anthracite District for the Year 1900.

Names of Operators and Collieries.	County.	Name of General Superintendent.	P. O. Address.	Name of Superintendent.	P. O. Address.	I. O. Address.	Railroad to Mine.
Del., Lack. & West. R. R. Co.							
Archbald,	Lackawanna,	E. E. Loomis,	Scranton,	T. J. Williams,	Scranton,	Scranton,	Del., Lack. & West. R. R.
Bellevue shaft,	Lackawanna,	E. E. Loomis,	Scranton,	E. J. Evans,	Scranton,	Scranton,	Del., Lack. & West. R. R.
Bellevue slope,	Lackawanna,	E. E. Loomis,	Scranton,	E. J. Evans,	Scranton,	Scranton,	Del., Lack. & West. R. R.
Brishin,	Lackawanna,	E. E. Loomis,	Scranton,	R. A. Phillips,	Scranton,	Scranton,	Del., Lack. & West. R. R.
Cayuga,	Lackawanna,	E. E. Loomis,	Scranton,	R. A. Phillips,	Scranton,	Scranton,	Del., Lack. & West. R. R.
Sloan,	Lackawanna,	E. E. Loomis,	Scranton,	T. J. Williams,	Scranton,	Scranton,	Del., Lack. & West. R. R.
Central,	Lackawanna,	E. E. Loomis,	Scranton,	T. J. Williams,	Scranton,	Scranton,	Del., Lack. & West. R. R.
Continental,	Lackawanna,	E. E. Loomis,	Scranton,	T. J. Williams,	Scranton,	Scranton,	Del., Lack. & West. R. R.
Dodge,	Lackawanna,	E. E. Loomis,	Scranton,	E. J. Evans,	Scranton,	Scranton,	Del., Lack. & West. R. R.
Diamond,	Lackawanna,	E. E. Loomis,	Scranton,	R. A. Phillips,	Scranton,	Scranton,	Del., Lack. & West. R. R.
Tripp shaft,	Lackawanna,	E. E. Loomis,	Scranton,	R. A. Phillips,	Scranton,	Scranton,	Del., Lack. & West. R. R.
Tripp shaft,	Lackawanna,	E. E. Loomis,	Scranton,	R. A. Phillips,	Scranton,	Scranton,	Del., Lack. & West. R. R.
Hyle Park,	Lackawanna,	E. E. Loomis,	Scranton,	T. J. Williams,	Scranton,	Scranton,	Del., Lack. & West. R. R.
Manville,	Lackawanna,	E. E. Loomis,	Scranton,	R. A. Phillips,	Scranton,	Scranton,	Del., Lack. & West. R. R.
Holden,	Lackawanna,	E. E. Loomis,	Scranton,	R. A. Phillips,	Scranton,	Scranton,	Del., Lack. & West. R. R.
Hampton,	Lackawanna,	E. E. Loomis,	Scranton,	E. J. Evans,	Scranton,	Scranton,	Del., Lack. & West. R. R.
Lyne,	Lackawanna,	E. E. Loomis,	Scranton,	T. J. Williams,	Scranton,	Scranton,	Del., Lack. & West. R. R.
Taylor shaft,	Lackawanna,	E. E. Loomis,	Scranton,	T. J. Williams,	Scranton,	Scranton,	Del., Lack. & West. R. R.
Taylor shaft,	Lackawanna,	E. E. Loomis,	Scranton,	E. J. Evans,	Scranton,	Scranton,	Del., Lack. & West. R. R.
Washeries—							
Bellevue,	Lackawanna,	E. E. Loomis,	Scranton,	E. J. Evans,	Scranton,	Scranton,	Del., Lack. & West. R. R.
Diamond,	Lackawanna,	E. E. Loomis,	Scranton,	R. A. Phillips,	Scranton,	Scranton,	Del., Lack. & West. R. R.
Hamton,	Lackawanna,	E. E. Loomis,	Scranton,	R. A. Phillips,	Scranton,	Scranton,	Del., Lack. & West. R. R.
Oxford,	Lackawanna,	E. E. Loomis,	Scranton,	E. J. Evans,	Scranton,	Scranton,	Del., Lack. & West. R. R.
Austin Coal Company.	Lackawanna,	W. G. Robertson, ...	Scranton,	John H. Robertson, ...	Old Forge,	Old Forge,	Lehigh Valley Railroad.
Delaware and Hudson Co.							
Dickson,	Lackawanna,	C. C. Rose,	Scranton,	J. J. Williams,	Scranton,	Scranton,	Delaware & Hudson Co.
Von Storch slope,	Lackawanna,	C. C. Rose,	Scranton,	J. J. Williams,	Scranton,	Scranton,	Delaware & Hudson Co.
Von Storch shaft,	Lackawanna,	C. C. Rose,	Scranton,	J. J. Williams,	Scranton,	Scranton,	Delaware & Hudson Co.
Manville,	Lackawanna,	C. C. Rose,	Scranton,	J. J. Williams,	Scranton,	Scranton,	Delaware & Hudson Co.
Scranton Coal Company.							
Pine Hook,	Lackawanna,	Jno. R. Bryden,	Scranton,	Jno. Van Bergen, ...	Scranton,	Scranton,	O. & W.
Capouse,	Lackawanna,	Jno. R. Bryden,	Scranton,	Jno. Van Bergen, ...	Scranton,	Scranton,	O. & W.
Capouse washery,	Lackawanna,	Jno. R. Bryden,	Scranton,	Jno. Van Bergen, ...	Scranton,	Scranton,	O. & W.

TABLE I—Continued.

Names of Operators and Collieries.	County.	Name of General Superintendent.	P. O. Address.	Name of Superintendent.	P. O. Address.	Railroad to Mine.
Mount Pleasant Coal Co.	Lackawanna,	Jno. R. Bryden,	Scranton,	Jno. Van Bergen, ...	Scranton,	Del., Lack. & West. R. R.
Mount Pleasant	Lackawanna,	W. L. Connell,	Scranton, .....	.....	.....	Erle Railroad.
Green Ridge Coal Co.	Lackawanna,	Sidney Williams, ...	Dunmore,	James Young,	Dunmore,	F. & W. V. R. R.
Pennsylvania Coal Company.	Lackawanna,	Sidney Williams, ...	Dunmore,	John Reid,	Moosic,	E. & W. V. R. R.
No. 5 shaft,	Lackawanna,	Sidney Williams, ...	Dunmore, .....	.....	.....	E. & W. V. R. R.
Old Forge No. 1 shaft,	Lackawanna,	.....	.....	.....	.....	.....
Old Forge No. 2 shaft,	Lackawanna,	.....	.....	.....	.....	.....
William Connell & Company.	Lackawanna,	Col. E. H. Ripple, ..	Scranton,	S. T. Jones,	Scranton,	Del., Lack. & West. R. R.
Meadow Brook tunnel,	Lackawanna,	Col. E. H. Ripple, ..	Scranton,	S. T. Jones,	Scranton,	Del., Lack. & West. R. R.
National shaft,	Lackawanna,	.....	.....	.....	.....	.....
The Connell Coal Company.	Lackawanna,	S. T. Jones,	Duryea,	A. H. Hale,	Duryea,	Lehigh Valley Railroad.
Wm. A.	Lackawanna,	S. T. Jones,	Duryea,	R. McCutcheon, ...	Old Forge,	Lehigh Valley Railroad.
Lawrence shaft,	Lackawanna,	S. T. Jones,	Duryea,	R. McCutcheon, ...	Old Forge,	Lehigh Valley Railroad.
Lawrence, Upper, drift,	Lackawanna,	S. T. Jones,	Duryea, .....	.....	.....	Lehigh Valley Railroad.
Lawrence, Lower, drift,	Lackawanna,	.....	.....	.....	.....	.....
The Greenwood Coal Co., Ltd.	Lackawanna,	John Lovering,	Minooka, .....	.....	.....	N. Y. S. & W. R. R.
Greenwood No. 1 shaft,	Lackawanna,	John Lovering,	Minooka, .....	.....	.....	N. Y. S. & W. R. R.
Greenwood, New, No. 1 shaft,	Lackawanna,	John Lovering,	Minooka, .....	.....	.....	N. Y. S. & W. R. R.
Greenwood No. 2 shaft,	Lackawanna,	John Lovering,	Minooka, .....	.....	.....	N. Y. S. & W. R. R.
Greenwood shaft,	Lackawanna,	John Lovering,	Minooka, .....	.....	.....	N. Y. S. & W. R. R.
Greenwood drift No. 1,	Lackawanna,	John Lovering,	Minooka, .....	.....	.....	N. Y. S. & W. R. R.
Greenwood drift No. 2,	Lackawanna,	John Lovering,	Minooka, .....	.....	.....	N. Y. S. & W. R. R.
Greenwood drift No. 3,	Lackawanna,	John Lovering,	Minooka, .....	.....	.....	N. Y. S. & W. R. R.
Greenwood drift No. 4,	Lackawanna,	John Lovering,	Minooka, .....	.....	.....	N. Y. S. & W. R. R.
Greenwood drift No. 5,	Lackawanna,	John Lovering,	Minooka, .....	.....	.....	N. Y. S. & W. R. R.
Greenwood drift No. 6,	Lackawanna,	John Lovering,	Minooka, .....	.....	.....	N. Y. S. & W. R. R.
Greenwood drift No. 7,	Lackawanna,	John Lovering,	Minooka, .....	.....	.....	N. Y. S. & W. R. R.
Greenwood drift No. 8,	Lackawanna,	John Lovering,	Minooka, .....	.....	.....	N. Y. S. & W. R. R.
Greenwood drift No. 9,	Lackawanna,	John Lovering,	Minooka, .....	.....	.....	N. Y. S. & W. R. R.
Greenwood drift No. 10,	Lackawanna,	John Lovering,	Minooka, .....	.....	.....	N. Y. S. & W. R. R.
Greenwood drift No. 11,	Lackawanna,	John Lovering,	Minooka, .....	.....	.....	N. Y. S. & W. R. R.
Greenwood drift No. 12,	Lackawanna,	John Lovering,	Minooka, .....	.....	.....	N. Y. S. & W. R. R.
Greenwood drift No. 13,	Lackawanna,	John Lovering,	Minooka, .....	.....	.....	N. Y. S. & W. R. R.
Greenwood drift No. 14,	Lackawanna,	John Lovering,	Minooka, .....	.....	.....	N. Y. S. & W. R. R.
Greenwood drift No. 15,	Lackawanna,	John Lovering,	Minooka, .....	.....	.....	N. Y. S. & W. R. R.
Greenwood drift No. 16,	Lackawanna,	John Lovering,	Minooka, .....	.....	.....	N. Y. S. & W. R. R.
Greenwood drift No. 17,	Lackawanna,	John Lovering,	Minooka, .....	.....	.....	N. Y. S. & W. R. R.
Greenwood drift No. 18,	Lackawanna,	John Lovering,	Minooka, .....	.....	.....	N. Y. S. & W. R. R.
Brooks Coal Company.	Lackawanna,	.....	.....	.....	.....	.....
Washery No. 2,	Lackawanna,	John Lovering,	Minooka, .....	.....	.....	N. Y. S. & W. R. R.
J. & J. J. Jermyu.	Lackawanna,	Jos. J. Jermyu,	Rendham,	F. P. Jermyu,	Scranton,	N. Y. S. & W. R. R.
Jermyu No. 1,	Lackawanna,	Jos. J. Jermyu,	Rendham,	E. B. Jermyu,	Scranton,	N. Y. S. & W. R. R.
Jermyu No. 2,	Lackawanna,	.....	.....	.....	.....	N. Y. S. & W. R. R.
Elliott, McClure & Co.	Lackawanna,	Jas. C. McClure,	Scranton, .....	.....	.....	Lehigh Valley Railroad.
Shley,	Lackawanna,	.....	.....	.....	.....	.....

Elk Hill Coal and Iron Co. West Ridge,	Lackawanna,	W. H. Storrs,	Scranton,	W. L. Allen,	Peckville,	O. & W.,
A. D. & F. M. Spencer. Spencer's shaft,	Lackawanna,	A. D. & F. M. Spencer, A. D. & F. M. Spencer,	Dunmore, Dunmore,	H. M. Spencer, H. M. Spencer,	Dunmore, Dunmore,	E. & W. V. R. R. E. & W. V. R. R.
Spencer's washery,	Lackawanna, .....	.....	.....	J. D. Caryl, J. D. Caryl,	Scranton, Scranton,	Del., Lack. & West. R. R. Del., Lack. & West. R. R.
Nay Aug Coal Company. Nay Aug slope,	Lackawanna, .....	.....	.....	.....	.....	.....
Nay Aug washery,	Lackawanna, .....	.....	.....	.....	.....	.....
Gibbons Coal Company. Gibbons mine,	Lackawanna,	Michael Gibbons, ..	Scranton, .....	.....	.....	.....
North American Coal Co. Meadow Brook washery,	Lackawanna,	A. R. Anthony, A. R. Anthony,	Wilkes-Barre, Wilkes-Barre,	C. B. Sharkey, C. B. Sharkey,	Scranton, Scranton,	Delaware and Hudson, Delaware and Hudson.
National washery,	Lackawanna, .....	.....	.....	.....	.....	.....
Bowen Coal Company. Bowen washery,	Lackawanna,	W. H. Davies,	Scranton, .....	.....	.....	Delaware and Hudson.
Bull's Head Coal Company. Bull's Head slope,	Lackawanna, .....	.....	.....	Thomas Baggot,	Scranton, .....	.....
Carbon Coal Company. Carbon washery,	Lackawanna, .....	.....	.....	C. R. Acker,	Scranton,	O. & W. R. R.
People's Coal Company. Oxford shaft,	Lackawanna, .....	.....	.....	Jno. A. Mears,	Scranton,	Del., Lack. & West. R. R.
Spring Brook Coal Company. Spring Brook shaft,	Lackawanna,	Chas. R. Ford,	Moosic, .....	.....	.....	Delaware and Hudson.
Spring Brook slope,	Lackawanna,	Chas. R. Ford,	Moosic, .....	.....	.....	Delaware and Hudson.

TABLE II—Gives the total number of tons of coal mined in each colliery, number of days worked, number of employees, number of persons killed and injured, number of kegs of powder, etc., used in the Second Anthracite District for the year ending December 31, 1900.

Names of Operators and Collieries.	County.	Shipments of coal in tons by rail or otherwise.	Number of tons used for steam and heat at colliery.	Sold to local trade and used by employees—tons.	Total production of coal in tons.	Number days worked.	Number persons employed.	Number fatal accidents.	Number non-fatal accidents.	Number kegs powder used.	Number pounds of dynamite used.	Number horses and mules.
Delaware, Lackawanna and Western.												
Archbold,	Lackawanna,	148,060	9,000	504	157,564	121	610	3	3	5,538	125	66
Bellevue,	Lackawanna,	284,256	24,055	15,838	324,149	196	664	10	10	9,332	473	92
Basbin,	Lackawanna,	145,635	12,659	1,598	159,892	127	541	3	4	4,804	319	55
Cayuga,	Lackawanna,	161,392	14,500	6,177	182,069	136	574	4	4	5,243	2,296	58
Sloan and Central,	Lackawanna,	203,888	18,600	755	223,243	189	586	1	9	5,861	100	83
Continental,	Lackawanna,	324,415	8,093	1,345	201,853	187	501	10	10	5,679	.....	76
Diamond,	Lackawanna,	390,380	10,537	982	201,890	173	500	4	4	6,692	50	68
Edwards,	Lackawanna,	285,695	18,859	7,438	311,923	213	656	3	5	5,562	775	59
Hyde Park,	Lackawanna,	234,531	7,300	10,514	232,355	200	569	.....	.....	7,332	1,025	76
Lackawanna,	Lackawanna,	124,584	12,327	1,602	119,113	158	411	.....	.....	7,229	8,000	59
Manville,	Lackawanna,	197,784	9,549	1,593	44,385	109	71	1	.....	363	74	17
Holden,	Lackawanna,	69,547	9,178	2,038	240,373	103	311	.....	.....	2,075	.....	38
Hampton,	Lackawanna,	326,231	11,708	2,512	240,373	103	311	.....	.....	2,075	516	184
Pyne,	Lackawanna,	248,335	12,367	5,293	263,972	157	614	2	6	7,911	721	81
Taylor,	Lackawanna, .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Total and average, .....	.....	2,611,023	177,945	57,012	2,848,980	160	7,290	21	71	87,765	14,474	945
Washeries—												
Bellevue,	Lackawanna,	58,350	.....	.....	58,350	86	39	.....	.....	.....	.....	.....
Diamond,	Lackawanna,	160,530	5,000	431	165,991	170	46	.....	.....	.....	.....	.....
Hampton,	Lackawanna,	52,778	2,250	.....	55,028	88	42	.....	.....	.....	.....	2
Oxford,	Lackawanna,	39,690	865	6,832	47,487	196	29	.....	.....	.....	.....	.....
Total and average, .....	.....	311,348	8,115	7,363	326,826	175	156	.....	.....	.....	.....	2
Austin Coal Company.												
Austin tunnel,	Lackawanna,	58,549	4,694	1,194	64,337	129	162	.....	.....	1,655	1,159	17

Delaware and Hudson Company.											
Dickson,	182,652	6,177	3,062	191,891	177	593	3	1	9,778	6,613	46
Von Storch,	194,321	14,494	4,192	210,277	179	626	5	1	7,974	5,753	80
Manville, see D., L. & W.,											
Total and average,	374,173	20,671	7,254	402,098	178	1,219	8	2	17,752	12,366	126
Scranton Coal Company.											
Pine Brook,	246,744	16,000	9,668	272,412	187	733	4	9	14,715	9,811	77
Capouse,	298,361	14,200	4,709	317,270	197	625	1	5	8,822	4,502	83
Capouse Washery,	28,233	829		29,063	40	30					
Total and average,	573,338	31,029	14,377	618,735	192	1,388	5	14	23,537	14,313	160
Mount Pleasant Coal Company.											
Mount Pleasant,	109,786	29,000	42,355	172,141	139	559	5	14	8,258	4,875	45
Green Ridge Coal Company.											
Green Ridge slope,	17,288		18,942	126,230	141	501	2	1	6,754	1,475	51
Pennsylvania Coal Company.											
Pennsylvania No. 5,	123,178	3,441		126,619	158	370		4	5,484	2,467	38
Old Forge,	209,617	5,762		215,379	155	627	1	5	7,812	9,165	63
Total and average,	332,795	9,203		341,998	156	997	1	9	13,296	11,632	101
William Connell and Company.											
National,	95,721	5,600	8,358	107,673	131	407	1	6	6,501	13,400	50
The Connell Coal Company.											
William A.,	209,100	10,000	6,054	216,154	146	698	3	5	7,470	7,300	60
Greenwood Coal Company, Limited.											
Greenwood No. 1,	126,231	11,000	2,073	139,307	124	464	2	5	8,401	5,970	92
Greenwood No. 2,	49,463	4,500		53,963	100	223	1	4	3,658	3,500	38
Total and average,	175,697	15,500	2,073	193,270	112	687	3	9	11,759	8,750	130
Brooks Coal Company.											
Washery,	59,650	1,500		31,150	133	21					1
John and J. J. Jermyn Company.											
Jermyn No. 1,	88,530	9,240	2,893	100,663	82	537	1	7	4,766	450	48
Jermyn No. 2,	64,953	5,300		10,253	63	467		4	2,357	1,125	36
Total and average,	153,483	14,540	2,893	170,916	72	1,004	1	11	7,123	1,575	84
Elliott, McClure and Company.											
Sibley,	127,968	7,300	1,689	136,957	179	497	1	3	4,100	9,100	45
Elk Hill Coal and Iron Company.											
West Ridge,	78,978	6,000	11,366	96,344	154	332		2	5,247	1,690	43

TABLE III—Showing the number of each class of employes at each colliery in the Second Anthracite District, during the year 1900.

Names of Operators and Collieries.	County.	Occupations of Persons Employed Inside.							Occupations of Persons Employed Outside.							Grand total, inside and outside.
		Occupations of Persons Employed Inside.							Occupations of Persons Employed Outside.							
		Inside foreman or mine boss.	Fire bosses.	Miners.	Miners' laborers.	Drivers and runners.	Door boys and helpers.	All other employes.	Total inside.	Outside foreman.	Blacksmiths and carpenters.	Engineers and firemen.	State pickers.	Superintendents, bookkeepers and clerks.	All other employes.		Total outside.
Delaware, Lackawanna and Western.	Lackawanna.	1	2	187	170	56	14	50	481	1	7	8	96	45	159	640
Archbald,	Lackawanna.	2	3	165	165	69	15	63	485	1	6	16	105	49	179	664
Bellevue,	Lackawanna.	2	3	139	149	48	10	48	389	1	6	13	76	44	142	511
Brislin,	Lackawanna.	2	2	146	146	71	9	55	432	1	6	8	76	49	142	544
Cayuga,	Lackawanna.	2	2	134	138	45	36	57	416	1	3	20	73	71	170	501
Sloan and Central,	Lackawanna.	2	2	119	117	46	15	50	351	2	6	7	76	50	192	500
Continental,	Lackawanna.	2	2	135	135	40	9	55	378	1	8	20	62	70	183	656
Dodge,	Lackawanna.	6	6	174	174	40	17	30	379	1	4	8	69	46	130	509
Diamond,	Lackawanna.	2	2	130	135	53	15	28	333	1	5	10	61	30	108	441
Hyde Park,	Lackawanna.	1	1	113	114	55	19	24	241	1	2	5	16	22	47	71
Marville,	Lackawanna.	1	1	66	59	24	11	21	187	1	4	8	55	54	124	311
Holtzen,	Lackawanna.	1	2	176	184	60	13	59	496	1	7	6	111	59	186	682
Hampton,	Lackawanna.	1	2	162	150	51	16	45	428	1	6	13	90	73	188	614
Taylor,	Lackawanna.	1	3	162	150	51	16	45	428	1	6	13	90	73	188	614
Total and average, .....	.....	24	42	1,852	1,839	695	201	629	5,282	15	74	153	1,022	26	2,008	7,290
Delaware, Lackawanna and Western.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Washeries—	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Bellevue,	Lackawanna.	1	1	.....	.....	.....	.....	.....	.....	1	1	1	5	1	30	39
Diamond,	Lackawanna.	1	1	.....	.....	.....	.....	.....	.....	1	2	2	2	1	25	46
Hampton,	Lackawanna.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Oxford,	Lackawanna.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Total and average, .....	.....	1	.....	.....	.....	.....	.....	.....	.....	4	7	7	17	3	105	141

Pennsylvania Coal Company.	1	2	116	92	34	7	31	283	1	3	5	51	6	370
Pennsylvania No. 5,	4	5	128	128	55	11	45	415	2	5	14	109	4	627
Old Forge,	5	7	244	220	129	18	76	639	3	8	19	180	5	997
Total and average,														
William Connell and Company.	2	1	118	76	49	17	28	291	1	8	9	67	3	407
National,														
The Connell Coal Company.	2	1	189	80	88	14	66	440	1	6	12	85	4	608
Lackawanna,														
Greenwood Coal Company, Limited.	2	2	120	110	28	36	21	319	1	8	9	62	2	464
Greenwood No. 1,	1	1	62	61	19	12	5	161	1	4	6	35	1	253
Greenwood No. 2,	3	3	182	171	47	48	26	480	2	12	15	97	3	687
Total and average,														
Brooks Coal Company.														
Washery,														
Lackawanna,														
John and J. J. Jermyn Company.	1	2	150	125	38	31	74	38	1	5	11	66	5	537
Jermyn No. 1,	1	2	160	92	27	29	40	351	1	5	9	46	1	467
Jermyn No. 2,	2	4	310	217	65	60	74	732	2	10	20	112	6	1,094
Total and average,														
Elliott, McClure and Company.	2	1	139	100	54	6	31	324	1	5	6	115	3	497
Sibley,														
Lackawanna,														
Elk Hill Coal and Iron Company.	1	2	77	65	41	11	29	226	1	5	5	59	2	332
West Ridge slope,														
Spencer shaft and washery,	1	1	22	48	18	.....	25	115	2	13	11	20	2	206
A. D. and F. M. Spencer.														
Nay Aug Coal Company.	1	.....	26	26	21	2	8	81	1	3	6	14	2	139
Nay Aug slope and washery,														
Gibbons Coal Company.	1	.....	13	13	3	.....	.....	30	.....	.....	1	6	2	41
Gibbons,														
Lackawanna,														
North American Coal Company.	.....	.....	.....	.....	.....	.....	.....	.....	1	.....	2	4	2	92
Meadow Brook washery, .....	.....	.....	.....	.....	.....	.....	.....	.....	1	.....	1	4	2	30
National washery, .....	.....	.....	.....	.....	.....	.....	.....	.....	2	1	6	8	4	52
Total and average,														
Bowen Coal Company.	.....	.....	.....	.....	.....	.....	.....	.....	1	.....	3	1	1	18
Bowen washery, .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Lackawanna,														
Bull's Head Coal Company.	2	1	21	18	16	2	11	71	1	2	3	20	2	113
Bull's Head slope,														
Lackawanna,														

TABLE III—Continued.

Names of Operators and Collieries.	County.	Occupations of Persons Employed Inside.										Occupations of Persons Employed Outside.					Grand total, inside and outside.
		Inside foreman or mine boss.	Fire bosses.	Miners.	Miners' laborers.	Drivers and runners.	Door boys and helpers.	All other employes.	Total inside.	Outside foreman.	Blacksmiths and carpenters.	Enginners and firemen.	State pickers.	Superintendents, bookkeepers and clerks.	All other employes.	Total outside.	
Carbon Coal Company.	Lackawanna,	1	1	22	34	10	8	17	93	1	4	6	57	1	33	107	200
Carbon washery,	Lackawanna,	1	1	30	25	15	2	12	86	1	2	4	26	2	9	44	130
People's Coal Company.	Lackawanna,	1	1	30	25	15	2	12	86	1	2	4	26	2	9	44	130
Oxford,	Lackawanna,	1	1	30	25	15	2	12	86	1	2	4	26	2	9	44	130
Spring Brook Coal Company.	Lackawanna,	1	1	30	25	15	2	12	86	1	2	4	26	2	9	44	130
Spring Brook,	Lackawanna,	1	1	30	25	15	2	12	86	1	2	4	26	2	9	44	130
Grand total and average, .....	.....	59	86	4,230	3,945	1,706	517	1,424	11,967	48	216	355	2,321	89	1,791	4,820	16,787

TABLE III—Continued.

Names of Operators.	County.	Number of Days Worked Each Month in Breaker.												Total.
		January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	
Delaware, Lackawanna and Western,	Lackawanna,	13.3	9.6	5.4	8.9	13.2	17.5	15.3	18.2	8.7	2.2	21.5	21.8	100.6
Delta, Lackawanna & Western washeries, ..	Lackawanna,	21.3	25.9	18.5	21.4	24.4	9.7	8.6	8.1	13.8	21.8	18.3	20.2	135.6
Austin Coal Company,	Lackawanna,	14.7	10.8	11.3	9.6	13.0	18.8	15.7	12.8	3.9	.....	8.2	8.1	123.9
Warfare Hudson Company,	Lackawanna,	19.8	19.2	13.1	11.4	14.7	16.0	14.4	28.3	7.9	.....	1.5	9.1	176.5
Serant Coal Company,	Lackawanna,	17.9	12.7	14.3	17.8	14.7	12.8	12.3	18.3	8.1	0.5	16.9	18.7	193.5
Mount Pleasant Coal Company,	Lackawanna,	14.9	11.8	11.8	11.8	15.2	13.4	13.7	15.2	6.5	.....	12.5	14.4	139.1
Green Ridge Coal Company,	Lackawanna,	18.1	13.2	13.5	8.0	10.7	10.4	15.2	21.1	9.7	.....	18.4	18.6	141.2
Pennsylvania Coal Company,	Lackawanna,	11.1	8.2	9.8	10.2	13.1	14.6	12.9	14.2	7.3	.....	15.1	14.2	156.9
William Connell and Company,	Lackawanna,	20.1	12.6	11.7	7.7	.....	.....	.....	13.1	23.6	12.1	2.3	21.8	131.9
Greenwood Coal Company,	Lackawanna,	11.7	7.0	7.0	8.8	12.1	12.3	11.7	12.4	5.8	0.7	11.0	11.6	146.0
Brooks Coal Company,	Lackawanna,	7.7	9.1	18.0	21.5	10.1	2.8	9.7	19.8	9.3	2.2	12.8	10.4	133.4
John and J. J. Jermyn Company,	Lackawanna,	13.7	6.4	9.6	12.5	.....	.....	.....	.....	.....	.....	16.0	16.2	73.2
Elliot, McClure and Company,	Lackawanna,	14.7	14.8	11.5	11.7	12.6	21.1	20.6	20.0	8.4	1.8	20.7	21.5	179.4
Elk Hill Coal and Iron Company,	Lackawanna,	15.6	14.4	13.8	14.8	14.7	13.6	14.5	16.1	5.9	1.2	15.6	14.6	134.8
A. D. and F. M. Spencer,	Lackawanna,	10.2	4.4	7.5	11.5	6.9	11.1	11.6	14.0	6.0	.....	0.8	5.6	189.1
Nay Aug Coal Company,	Lackawanna,	16.0	8.2	36.8	19.5	30.7	13.0	16.3	18.8	9.0	.....	14.5	4.2	216.0
Gibbons Coal Company,	Lackawanna,	19.5	16.7	24.5	23.3	22.0	14.5	12.0	23.2	19.8	.....	29.6	18.2	262.0
North American Coal Company,	Lackawanna,	26.0	24.0	25.0	23.0	23.0	22.0	19.0	23.5	24.5	.....	17.5	17.5	285.5
Bowen Coal Company,	Lackawanna,	2.0	14.0	22.0	13.5	5.5	.....	.....	.....	.....	.....	15.5	15.5	106.5
Bull's Head Coal Company,	Lackawanna,	3.5	12.0	24.0	13.5	11.0	12.0	.....	.....	.....	.....	13.0	9.8	108.5
Carbon Coal Company,	Lackawanna, .....	.....	23.0	22.0	26.5	30.0	27.0	24.0	41.0	5.0	1.0	13.0	12.0	102.0
People's Coal Company,	Lackawanna,	19.0	23.0	22.0	.....	.....	.....	.....	.....	.....	.....	32.0	24.5	318.0
Spring Brook Coal Company,	Lackawanna, .....	.....	.....	.....	3.6	10.4	10.1	9.3	15.1	7.3	1.0	13.1	14.8	84.7
Grand total and average, .....	.....	17.2	15.9	15.3	15.1	15.5	15.9	15.2	18.8	9.0	5.6	16.8	16.0	167.0

TABLE IV—List of fatal accidents that occurred in and about the mines of the Second Anthracite District for the year ending December 31, 1900.

Date of accident.	Name of Person.	Nationality by Birth.	Occupation.	Age.	Married or single.	Number of widows.	Number of orphans.	Name of Colliery.	County.	Nature and Cause of Accident in Brief.
Jan. 22	Michael Hart,	Irish,	Miner,	48	M	1	5	Hampton,	Lackawanna, ..	Hart was preparing a place for a prop under a defective piece of roof rock in the Rock vein, when the piece fell, inflicting fatal injuries.
Feb. 3	Peter Shinicavich,	Pole,	Laborer,	34	S	.....	.....	Greenwood No. 2,	Lackawanna, ..	Killed by a fall of rock at the face of a chamber in Dunmore No. 2.
9	William Walsh,	German, ...	Driver, outside, ..	14	S	.....	.....	Nay Aug slope,	Lackawanna, ..	Walsh had uncoupled the rope from a trip, coming out of the slope. As he jumped off he fell under.
13	Richard Franklin,	Irish,	Miner,	40	M	1	1	Von Storch slope,	Lackawanna, ..	Injured Feb. 13, by a fall of roof at face of a gangway in Diamond vein while examining the roof after a blast. He died Feb. 16.
26	Edward Murphy,	Irish,	Miner,	38	M	1	.....	Von Storch slope,	Lackawanna, ..	Injured while making an examination of the roof after a blast. Died Feb. 23.

26	William Gilbert,	Welsh,	Miner,	43	M. 1	6	Mount Pleasant,	Lackawanna, ..	These men were descending the main hoisting shaft in the morning to work in the Dunmore No. 2 vein. The cage was wrecked at or near the Clark vein fans, the men fell to the bottom of the shaft and were instantly killed.
26	Thomas Williams,	Welsh,	Miner,	33	M. 1	2	Mount Pleasant,	Lackawanna, ..	
26	Frank Woodward,	American, ..	Miner,	24	M. 1	...	Mount Pleasant,	Lackawanna, ..	
26	John Ryan,	Irish,	Laborer,	35	M. 1	3	Mount Pleasant,	Lackawanna, ..	
March	3	Steve Lukick,	Hungarian, ..	23	M. 1	....	Carbon Coal Company,	Lackawanna, ..	Instantly killed; a piece of iron fell from the edge of the bank causing him to fall into the scraper line.
7	James Boyd,	Irish,	Company man, ...	45	M. 1	3	Brisbin,	Lackawanna, ..	Boyd with others was engaged on a platform in the main shaft; the descending bucket struck him, causing him to fall a distance of 25 feet. He died from his injuries Mar. 29.
23	Peter Dewy,	Italian,	Miner,	47	M. 1	5	Green Ridge slope,	Lackawanna, ..	Dewy was riding on the front bumper of a car coming up the slope. He was squeezed between the car and the rib and instantly killed.
April	13	Benjamin Seaman,	English,	26	M. 1	1	Old Forge No. 2,	Lackawanna, ..	Killed by a fall of roof at face of chamber shortly after a blast had been fired.
26	James Long,	Irish,	Miner,	38	M. 1	3	Von Storch slope,	Lackawanna, ..	Fatally injured by a fall of rock at face of chamber; died next day.
May	5	John Coots,	German, ...	48	M. 1	8	Green Ridge slope,	Lackawanna, ..	Had been standing some props, remarking as he finished "that rock will never fall." The rock fell just at that time, causing instant death.
15	Frank Jasuta,	Pole,	Miner,	45	S. ....	....	Greenwood No. 1,	Lackawanna, ..	Fatally injured by fall of roof rock while he was barring down some coal. He died in the Lackawanna hospital May 26th.

TABLE IV—Continued.

Date of accident.	Name of Person.	Nationality by Birth.	Occupation.	Age.	Married or single.	Number of widows.	Number of orphans.	Name of Colliery.	County.	Nature and Cause of Accident in Brief.
May	18 Paul Cardos,	Hungarian,	Miner,	40	M.	1	4	Taylor drift,	Lackawanna, ..	The overhanging top coal fell while he was mining in the bottom bench. He was instantly killed.
	21 Joe Belowsky,	Pole,	Laborer,	22	S.	.....	.....	Cayuga,	Lackawanna, ..	Belowsky was fatally injured by a blast, the result of a fellow workman giving insufficient alarm. He died July 20.
	25 Rowles Poukus,	Lithuanian, ..	Laborer,	26	S.	.....	.....	Cayuga,	Lackawanna, ..	Poukus was fatally injured by an explosion of gas in old workings on May 20, at O'Hara, was killed at 9.30 A. M. by a mass of coal falling on him.
June	11 Hugh O'Hara,	Irish,	Laborer,	26	S.	.....	.....	Capouse,	Lackawanna, ..	Was engaged examining the workings with a corps of engineers, when a body of gas was ignited; was instantly killed.
	13 John W. Jenkins,	Welsh,	Fire boss,	30	M.	1	2	William A.,	Lackawanna, ..	The victim, with nine fellow workmen, was on the ascending cage in the shaft and fell into the shaft and was instantly killed.
	28 Anthony Wershal,	Lithuanian,	Laborer,	31	M.	1	2	Dickson,	Lackawanna, ..	Killed by a fall of rock at the face of a chamber in the Rock vein.
July	9 Anthony Gusky,	Pole,	Laborer,	25	S.	.....	.....	Brisbin,	Lackawanna, ..	

19	John McManamy,	Irish,	Door man,	60	S.	Dickson,	Lackawanna, ..	Killed by a runaway car while he was opening a door.
24	Carlo Zonetti,	Italian,	Miner,	29	M. 1	Meadow Brook tunnel,	Lackawanna, ..	He examined the roof after a blast and pronounced it safe. Shortly after a slab of rock fell killing him instantly.
27	J. S. Davies,	Welsh,	Miner,	32	M. 1	Sibley,	Lackawanna, ..	Fatally injured by a fall of bony coal at face of chamber; died from shock, 6th.
27	Stanley Dorst,	Pole,	Laborer,	30	M. 1	Pyne,	Lackawanna, ..	Fatally injured. Fall of bony coal at face of chamber; died from his injuries in the Moses Taylor hospital August 24.
Aug. 7	William Gilbert,	Welsh,	Door boy,	15	S.	Mount Pleasant,	Lackawanna, ..	Gilbert was killed by a fall of roof in a cross cut. He was assisting other boys to stow kegs at the time, at a point 40 feet from his struck by a trip of empty cars as he was crossing the slope and was instantly killed.
9	Thomas Rolly,	Irish,	Company man, ..	65	M. 1	Von Storeh slope,	Lackawanna, ..	Killed by a fall of top coal at face of chamber in Big vein.
22	John Durando,	Slav,	Laborer,	22	S.	Archbald,	Lackawanna, ..	Killed by falling under a gondola car.
24	Patrick Murray,	Irish,	Slate picker,	13	S.	Holden breaker,	Lackawanna, ..	Instantly killed at face of gangway by a "bell" falling on him.
24	Joseph Slesarskie,	Pole,	Laborer,	26	S.	Archbald,	Lackawanna, ..	Instantly killed at face of chamber by a "bell" falling on him.
31	Haver Johnson,	American, ..	Laborer,	25	S.	Dickson,	Lackawanna, ..	Fatally injured by falling under a train of loaded cars.
31	Antoni Kelly,	Pole,	Driver,	18	S.	William A.,	Lackawanna, ..	Both men were instantly killed at the face of a chamber in the Rock vein by a fall of a rock. There were no indications of the danger visible before the accident.
Sept. 4	Stephen W. Roberts,	American, ..	Miner,	35	M. 1	Tripp slope,	Lackawanna, ..	
4	Anthony Kileskie,	Pole,	Laborer,	21	S.	Tripp slope,	Lackawanna, ..	

TABLE IV—Continued.

Date of accident.	Name of Person.	Nationality by Birth.	Occupation.	Age.	Married or single.	Number of widows.	Number of orphans.	Name of Colliery.	County.	Nature and Cause of Accident in Brief.
Sept. 10	Wallace Singco,	German, ...	Fireman,	33	M.	1	2	Pine Brook (No. 2 Penna.),	Lackawanna, ..	Fatally injured by escaping steam outside; while looking a steam pipe that was under pressure and died the following day.
11	Patrick McLane,	Irish,	Miner,	35	M.	1	1	Spencer,	Lackawanna, ..	Instantly killed by a fall of rock at a point 30 feet from the face of his chamber. He was on his way to examine the roof after a blast. Killed by a fall of roof at face of chamber in Clark vein. The coroner's jury rendered a verdict of accidental death.
12	Edward Burke,	Pole,	Laborer,	21	S.	.....	.....	Sloan,	Lackawanna, ..	Fatally injured by falling under cars inside. He died from his injuries Sept. 17, 1900.
12	John Hobbs,	Welsh,	Driver,	15	S.	.....	.....	Cayuga,	Lackawanna, ..	Fatally injured by being squeezed between cars and rib on the narrow side of the gangway, and died the following day.
13	Byrden Polindexter,	American, ..	Driver,	20	S.	.....	.....	Taylor shaft,	Lackawanna, ..	Fatally injured by being squeezed between cars and rib on the narrow side of the gangway, and died the following day.
Oct. 18	James Chambers,	Irish,	Barn boss,	55	M.	1	.....	Archbald,	Lackawanna, ..	Fell from the hay loft of inside barn. He died from his injuries Oct. 25th.

31	William Walbran,	English,	Driver,	16 S.	Cayuga,	Lackawanna, ..	Instantly killed by a piece of rock striking him on the head. He was not at work, but was sitting 150 feet from face, the other fellow with several of his fellow workmen when the accident occurred. Instantly killed by flying coal from a blast; he thought the squib had "missed" and was on his way back to relight it, when the explosion took place.
Nov. 12	Jguoto Humminkste, ..	Pole,	Miner,	52 M. 1 2	Greenwood No. 1,	Lackawanna, ..	Fatally injured by a shaft of roof at face of Chas. in Roomore No. 1 vein. His attention had been called to the roof by a fellow miner, but he said he would attend to it next day. He died from his injuries next day.
13	Paul Shultz,	Pole,	Miner,	35 M. 1	Pine Brook,	Lackawanna, ..	Head crushed between a derailed mine car and the rib, and died from his injuries Nov. 19th. Instantly killed by fall of timber in the "Chin's" net. The miner had neglected to restand the props which had been dislodged from under the rock which fell.
17	David Richards,	Welsh,	Driver,	21 S.	Oxford,	Lackawanna, ..	Fatally injured while trying to board a moving car inside; and died the following day.
23	Wm. Lammond,	Irish,	Miner,	24 S.	Pine Brook,	Lackawanna, ..	Hughes was instantly killed by falling from the surface landing of the main hoisting shaft, a distance of 166 feet. He was working on the night shift.
23	Joe. McCloskte,	Pole,	Laborer,	22 M. 1 1	Pine Brook,	Lackawanna, ..	
23	George Wyatt,	American, ..	Driver,	16 S.	Diamond shaft,	Lackawanna, ..	
Dec. 13	Thomas A. Hughes, ...	Welsh,	Pump man,	45 M. 1 3	Brisblh,	Lackawanna, ..	

TABLE IV—Continued.

Date of accident.	Name of Person.	Nationality by Birth.	Occupation.	Age.	Married or single.	Number of widows.	Number of orphans.	Name of Collery.	County.	Nature and Cause of Accident in Brief.
Dec. 17	Samuel McConnell,	American, ..	Miner,	36	M.	1	3	Von Storch slope,	Lackawanna, ..	Killed by a fall of roof at face of chamber in "Four Foot" vein. His brother had called his attention to the condition of the roof, which he examined and pronounced safe. Was assisting his miner to pull down a piece of rock with arms. He fell, was struck by the way of the falling rock and was instantly killed.
19	Joe Zegloskie,	Pole,	Laborer,	29	S.	.....	.....	"William A.,"	Lackawanna, ..	Instantly killed by explosion of dynamite while working on a chamber by holding his lamp under the key lid containing the explosive. Instantly killed by falling top coal at face of chamber in Clark vein immediately after firing a blast.
19	E. Evans,	Welsh,	Miner,	53	M.	1	4	Fyne,	Lackawanna, ..	Fatally injured by fall of bony coal. He was pulling down some top coal when the overhanging bony came away with it; died the same day.
22	Antony Lipskie,	Pole,	Miner,	34	M.	1	5	Jermyn No. 1,	Lackawanna, ..	Instantly killed by explosion of dynamite while working on a chamber by holding his lamp under the key lid containing the explosive. Instantly killed by falling top coal at face of chamber in Clark vein immediately after firing a blast.
26	Adam Kher,	German,	Miner,	39	M.	1	10	Pyne,	Lackawanna, ..	Instantly killed by explosion of dynamite while working on a chamber by holding his lamp under the key lid containing the explosive. Instantly killed by falling top coal at face of chamber in Clark vein immediately after firing a blast.

TABLE V—List of non-fatal accidents that occurred in and about the mines of the Second Anthracite District for the year ending December 31, 1900.

Date of accident.	Name of Person.	Nationality by Birth.	Occupation.	Age.	Married or single.	Name of Colliery.	County.	Nature and Cause of Accident in Brief.
Jan. 1	Ezra Cann,	German, ..	Driver,	18	S.	Archbald,	Lackawanna, ..	Scorched by burning oil. Cann with a number of other boys were burning oil in keg lids in the mine, when one of the lids was kicked over and he was injured.
2	Mike Grady,	American, ..	Runner,	22	S.	Taylor,	Lackawanna, ..	Leg fractured by being struck by cars.
8	Marthin Molony,	Irish,	Driver,	17	S.	Greenwood No. 1,	Lackawanna, ..	Leg fractured by being kicked by a mule, and falling under moving cars.
9	Thomas Healey,	Irish,	Miner,	40	M.	Greenwood No. 2,	Lackawanna, ..	Injured by flying coal from a blast near the face of his chamber.
12	Lorenz Carsilli,	Italian,	Laborer,	36	M.	Jermyn No. 2,	Lackawanna, ..	Slightly injured by an explosion of gas at face of chamber.
15	Anty Moran,	Irish,	Driver,	21	S.	Pine Brook,	Lackawanna, ..	Arm fractured by falling off a trip of cars in motion.
16	David Hughes,	Welsh,	Miner,	43	S.	Continental,	Lackawanna, ..	Injured by being struck by a fall of roof.
19	Adam Johnson,	Pole,	Driver,	16	S.	Green Ridge slope,	Lackawanna, ..	Leg and arm fractured; fell in front of mine cars.
22	Stanley Josiski,	Pole,	Laborer,	30	M.	Spencer,	Lackawanna, ..	Leg fractured by a fall of roof.
31	Michael Culklin,	Irish,	Trackman,	27	S.	Capouse,	Lackawanna, ..	Shoulders injured by fall of rock.
3	John Humberlek,	Slav,	Laborer,	30	M.	Archbald,	Lackawanna, ..	Leg fractured by fall of coal.
6	H. Wetakind,	German, ..	Laborer, outside, ..	16	S.	No. 2 Penna. Breaker, ..	Lackawanna, ..	Leg broken, 'billy' riding on the dirt plane 'billy'.
	Anthony Conway,	Irish,	Foot-tender, outside, ..	16	S.	Spencer,	Lackawanna, ..	Was injured by being squeezed between cars while trying to uncouple them when they were in motion.
14	Jos. Palermo,	Greek,	Miner,	48	M.	William A.,	Lackawanna, ..	Cut on head and back by fall of rock.

TABLE V—Continued.

Date of accident.	Name of Person.	Nationality by Birth.	Occupation.	Age.	Married or single.	Name of Colliery.	County.	Nature and Cause of Accident in Brief.
Feb. 19	Charles Engdel,	Irish,	Laborer,	35	S	Dodge,	Lackawanna, ..	Leg fractured by fall of roof.
21	John O'Malley,	Irish,	Miner,	39	S	Cayuga,	Lackawanna, ..	Leg fractured by fall of roof at face of chamber.
21	Stanley Ferriek,	Pole,	Laborer,	35	M	Pyne,	Lackawanna, ..	Four toes cut off by fall of roof at face of chamber.
March 1	Daniel Davies,	American, ..	Driver,	16	S	Mount Pleasant,	Lackawanna, ..	Injured by being squeezed between logs on the foot of the shaft in Rider vein.
5	Mike Malruis,	Pole,	Miner,	36	S	Manville,	Lackawanna, ..	Injured by a premature blast which was caused by the miner shortening the squib.
7	Michael Flynn,	American, ..	Miner,	24	S	Mount Pleasant,	Lackawanna, ..	These men were injured by a blast. The blast had been prepared. It was accidentally touched by the lamp of one of the victims. The explosion took place before the men had retired to a place of safety.
7	Thomas Tigne,	Irish,	Laborer,	48	S	Mount Pleasant,	Lackawanna, ..	Ankle sprained by uncoupling cars in motion.
7	Thomas Burke,	Irish,	Laborer,	47	S	Mount Pleasant,	Lackawanna, ..	Not injured by a kick from a mule.
7	Kenith Madison,	Welsh,	Footman,	20	S	Jermyn No. 2,	Lackawanna, ..	Leg fractured by a fall of coal at face of chamber.
7	William Jones,	Welsh,	Door boy,	15	S	Jermyn No. 2,	Lackawanna, ..	Hand crushed in elevators.
12	Antoni Tunnell,	Italian,	Laborer,	20	S	Greenwood No. 2,	Lackawanna, ..	Injured by a fall of roof while resting a dislodged prop.
12	Wilson Frankland,	English,	Laborer,	21	S	Jermyn No. 1,	Lackawanna, ..	Thigh fractured by a fall of rock at face of chamber.
15	James Cooney,	Irish,	Miner,	57	M	Manville,	Lackawanna, ..	Back injured by a fall of roof at face of chamber.
16	John Purdy,	English,	Miner,	49	M	Pyne,	Lackawanna, ..	Injured by a kick from a mule.
20	Paul Jundack,	Pole,	Laborer,	34	M	Jermyn No. 1,	Lackawanna, ..	Head injured while blocking a car at the face of chamber.
22	Aurust Martin,	Pole,	Driver,	18	S	Pine Brook,	Lackawanna, ..	
21	Peter Zanolli,	Italian,	Laborer,	42	M	Meadow Brook tunnel,	Lackawanna, ..	

26	Anthony Canavan,	Irish,	Miner,	40	M. Mount Pleasant,	Lackawanna, ..	Leg fractured and hip dislocated by a fall of rock.
April	3 James Oloco,	Irish,	Driver's helper,	14	S. Hyde Park,	Lackawanna, ..	Leg fractured by falling between mine cars.
4	John Collins,	Scott,	Miner,	43	M. Manville,	Lackawanna, ..	Head and shoulders injured by fall of roof.
7	Joseph Smith,	Pole,	Laborer,	22	S. Mount Pleasant,	Lackawanna, ..	Leg fractured by falling roof.
7	Geo. Gleason,	American, ..	Runner,	29	S. Continental,	Lackawanna, ..	Severely squeezed by falling under a mule.
11	Toni Vender,	Italian,	Miner,	30	M. Jermyn No. 1,	Lackawanna, ..	These men were resting 3 dis-
11	Louis Cavotz,	Italian,	Laborer,	26	M. Jermyn No. 2,	Lackawanna, ..	abled on the roof when they were caught under a fall of roof.
12	Angeli Nullo,	Italian,	Laborer,	45	M. Nay Aug slope,	Lackawanna, ..	The miner's arm was fractured and the laborer's scalp cut.
18	Chas. McKwood,	Pole,	Laborer,	36	M. Pine Brook,	Lackawanna, ..	Leg fractured by a fall of roof at face of working place.
24	Anthony McDonnell, ..	American, ..	Slate picker,	12	S. Cayuga breaker,	Lackawanna, ..	Small bone of leg fractured by a fall of top coal.
May	1 John Holcomb,	English,	Miner,	50	M. Pyne,	Lackawanna, ..	Fell a distance of 30 feet at breaker and received severe in-
3	L. D. Bigelow,	American, ..	Carpenter,	48	M. Hampton breaker,	Lackawanna, ..	juries to the head.
3	Michael Narry,	Irish,	Miner,	55	M. Von Storch slope,	Lackawanna, ..	Struck by a piece of rock which he was barring down.
7	James Robinson,	English,	Not employed,	25	M. Sloan,	Lackawanna, ..	Foot injured. Accident occurred outside. Accident occurred
7	Peter Coppa,	Pole,	Not employed,	30	M. Sloan,	Lackawanna, ..	Leg fractured by fall of roof at face of chamber.
9	Hubert Yearsley,	English,	Driver,	19	S. Central,	Lackawanna, ..	While leaving the mine these men wandered into old work-
11	Eddie Wade,	American, ..	Driver,	16	S. Trippl drift,	Lackawanna, ..	ings and were injured by an explosion of gas.
14	Edward Donnelly,	American, ..	Truckman,	33	M. Taylor shaft,	Lackawanna, ..	Injured by falling under a car.
15	Joe Flower,	Russian,	Driver,	19	S. West Ridge,	Lackawanna, ..	Leg fractured by being struck by haulage rope.
15	Anthony Brown,	American, ..	Door boy,	14	S. West Ridge,	Lackawanna, ..	Injured by an explosion of gas in China vein.
17	Reese Thomas,	Welsh,	Driver,	15	S. Trippl drift,	Lackawanna, ..	Injured by an explosion of gas in China vein.
19	Herbert Hamer,	English,	Miner,	48	M. Bellevue shaft,	Lackawanna, ..	Thigh injured by cars.
21	Richard Reese,	Welsh,	Wheelman,	18	S. Pine Brook,	Lackawanna, ..	Severely injured by a fall of coal at face of chamber.
22	Jeremiah McCarthy, ..	Irish,	Miner,	37	M. Old Forge No. 2,	Lackawanna, ..	Painfully injured by a car jumping the track and striking him.
24	Tony Daniel,	Italian,	Laborer,	39	S. Spencer,	Lackawanna, ..	Jaw fractured by fall of coal in chamber.
25	Benj. Amos,	Welsh,	Miner,	35	M. Cayuga,	Lackawanna, ..	Injured by fall of roof rock.
25	Adam Ramus,	Lithuanian, ..	Laborer,	26	S. Cayuga,	Lackawanna, ..	These men were injured by ex-
29	James W. Reese,	Welsh,	Miner,	51	M. Capouse,	Lackawanna, ..	losion of gas in old working.
June	1 William Schell,	American, ..	Slate picker,	12	S. Sibley breaker,	Lackawanna, ..	Leg fractured by fall of roof in chamber.
							Light rock struck him. Was sliding on a stair hand rail and fell, fracturing his arm.

TABLE V—Continued.

Date of accident.	Name of Person.	Nationality by Birth.	Occupation.	Age.	Married or Single.	Name of Colliery.	County.	Nature and Cause of Accident In Brief.
June 5	Benjamin Evans,	Welsh,	Miner,	54	M.	Bellevue shaft,	Lackawanna, ..	Outside accident. Was sliding on a stair-hand rail and fell, fracturing his arm.
9	Harry Shamburgh,	German, ..	Driver,	17	S.	Sloan,	Lackawanna, ..	Fell under car and was injured; was riding on the bumper.
12	Wm. J. Lewis,	Welsh,	Miner,	29	M.	Continental,	Lackawanna, ..	Slightly injured by a fall of roof in chamber.
13	J. W. Jones,	Welsh,	Surveyor,	32	M.	Wm. A.,	Lackawanna, ..	These men were injured by an explosion of gas, while engaged making a survey of the mine workings.
13	Herbert Johnson,	Irish,	Surveyor,	28	S.	Wm. A.,	Lackawanna, ..	
13	Eugene Powell,	American, ..	Surveyor,	18	S.	Wm. A.,	Lackawanna, ..	
14	James Skinnoni,	Italian,	Driver,	18	S.	Meadow Brook,	Lackawanna, ..	Foot injured by fall of roof on gangway road.
15	Adam Stonnit,	Pole,	Laborer,	23	S.	Manville,	Lackawanna, ..	Seriously injured by fall of roof in chamber, the result of insufficient care on the part of the miner.
15	David Brown,	Welsh,	Footman,	23	S.	Sloan,	Lackawanna, ..	Leg injured between the bumpers of two cars. He was stepping on the coupling.
16	Noah Davies,	Welsh,	Door boy,	15	S.	Hyde Park,	Lackawanna, ..	Injured by a door which was struck by a car.
21	James Watkins,	American, ..	Miner,	40	M.	Hyde Park,	Lackawanna, ..	Leg fractured by fall of "bony" coal at face of chamber.
24	Martin Cummings,	American, ..	Slate picker,	20	S.	Bellevue breaker,	Lackawanna, ..	Hands and knees scalded while engaged cleaning out bolters.
24	Harry Dageao,	American, ..	Slate picker,	17	S.	Bellevue breaker,	Lackawanna, ..	Injured by explosion of gas in a gangway. It is probable that he was carrying a safety and a naked light.
25	Wm. Jones,	Welsh,	Miner,	47	M.	National,	Lackawanna, ..	Injured by fall of roof at face of chamber in Rock vein.
25	Wm. Sheldon,	Welsh,	Laborer,	25	M.	National,	Lackawanna, ..	
25	Mike Gusstek,	Pole,	Laborer,	41	M.	Continental,	Lackawanna, ..	Arm fractured between car and rib on the side of gangway.
25	James McCann,	Irish,	Driver,	17	S.	Manville,	Lackawanna, ..	

27	Thomas Ifowells,	Welsh,	Miner,	54	M.	Hyde Park,	Lackawanna, ..	Injured by fall of roof while standing a prop to support the same.
28	John Hunt,	Irish,	Miner,	56	M.	Pennsylvania,	Lackawanna, ..	Hip broken by fall of roof at face of working place.
28	John Kassavitch,	Pole,	Laborer,	19	S.	Dickson,	Lackawanna, ..	The alarm had been given, the victim ran towards the blast, instead of away from it. He did not understand English.
28	Aif. Hughes,	American, ..	Driver,	17	S.	Continental,	Lackawanna, ..	A prop which held the side of gangway road fell, striking Hughes, injuring his leg.
28	David Lewis,	Welsh,	Driver,	18	S.	Continental,	Lackawanna, ..	Leg injured between the bumpers of cars, at "foot" of shaft.
July	2 Ben. Lesh,	German,	Laborer,	42	M.	Belevue slope,	Lackawanna, ..	Injured by premature blast. The explosion took place as soon as the squib was touched.
	2 Robt. Davies,	Welsh,	Miner,	64	M.	Belevue slope,	Lackawanna, ..	Two toes cut off by the wheel of a car passing over it in the mine.
	7 John Patterson,	Irish,	Driver,	16	S.	Greenwood No. 1,	Lackawanna, ..	Struck by flying coal from blast, as he was retreating to a place of safety.
	9 Pat. Flaherty,	Irish,	Miner,	55	M.	Mount Pleasant,	Lackawanna, ..	Injured by a fall of roof in a chamber in the Rock vein. The miner had not used sufficient care to secure the roof.
	17 Joseph Pksarstl,	Pole,	Laborer,	35	M.	Continental,	Lackawanna, ..	Heel injured by fall of roof.
	17 Albert Drine,	Pole,	Laborer,	43	M.	Continental,	Lackawanna, ..	Foot injured by falling off bumper of moving car in the mine.
	21 Ignatz Babtcha,	Pole,	Laborer,	40	M.	Belevue shaft,	Lackawanna, ..	Fingers crushed in breaker machinery.
	26 Byron Watkins,	American, ..	Driver,	17	S.	Tripp slope,	Lackawanna, ..	Injured by premature blast.
	26 Thos. J. Bevan,	Welsh,	Slate picker,	19	S.	Pyne breaker,	Lackawanna, ..	Slightly injured by explosion of gas. The accumulation was caused by a trip of cars becoming deranged at the door.
	30 Ed. Phillips,	English,	Miner,	67	M.	West Ridge,	Lackawanna, ..	Injured by falling roof at face of chamber, injured by a fall of dividing slate.
	30 Anthony Brovonsky,	Pole,	Miner,	40	M.	Mount Pleasant,	Lackawanna, ..	Struck by flying coal from blast. He had neglected to retreat to a place of safety.
	30 John Brovonsky,	Pole,	Laborer,	42	M.	Mount Pleasant,	Lackawanna, ..	Squeezed between cars. Face cut by fall of roof.
Aug.	1 J. J. Sullivan,	Irish,	Miner,	34	M.	Greenwood No. 1,	Lackawanna, ..	Rib fractured by a piece of coal rolling on him.
	2 Frank Donifus,	Italian,	Miner,	23	M.	Jermyn No. 1,	Lackawanna, ..	Injured by a fall of roof in the Dunmore vein while collecting keys.
	6 Jacob Yakablskile,	Pole,	Laborer,	27	S.	Greenwood No. 1,	Lackawanna, ..	Injured by fall of coal while undetermining the same.
	3 John Young,	English,	Driver,	17	S.	Mount Pleasant,	Lackawanna, ..	
	7 Paul,	Pole,	Laborer,	27	M.	Manville,	Lackawanna, ..	
	10 Geo. Burge,	English,	Miner,	55	M.	Pine Brook,	Lackawanna, ..	
	7 Andrew Dardis,	Pole,	Driver,	19	S.	Mount Pleasant,	Lackawanna, ..	
Aug.	18 John Dalley,	American, ..	Miner,	30	M.	Tripp drift,	Lackawanna, ..	

14	Thos. Galbraith,	Scottish,	Foot-tender,	20	S.	Old Forge breaker,	Lackawanna, ..	Hand injured while trying to block a car.
17	Wm. Palfitt,	Welsh,	Fire boss,	49	M.	Greenwood No. 2,	Lackawanna, ..	Foot injured by cars.
1	Richard Reese,	Welsh,	Company man,	25	S.	Pine Brook,	Lackawanna, ..	Injured by a kick from a mule.
1	Joe Soboloff,	Pole,	Laborer,	30	S.	Pine Brook,	Lackawanna, ..	Leg fractured by a fall of roof at face of chamber in Dunmore No. 2.
2	Jenkin Reynolds,	Welsh,	Company man,	24	S.	Continental,	Lackawanna, ..	Leg fractured by falling off the bumper of a moving car.
2	James Stevens,	English,	Miner,	43	M.	Archbald,	Lackawanna, ..	Leg fractured by fall of roof at face of chamber in Pine vein.
3	Wm. Shinsky,	Pole,	Slate picker,	12	S.	Pine Brook breaker,	Lackawanna, ..	Arm fractured by falling while stepping from one seat to another in breaker.
5	Henry Hogan,	American,	Company man,	28	S.	Dodge,	Lackawanna, ..	Toe injured while uncoupling haul- age rope from train.
5	Pat'k Kane,	Irish,	Company man,	54	M.	Dodge,	Lackawanna, ..	Injured by explosion of gas in old workings.
6	Antony Caralarle,	Italian,	Miner,	23	S.	Meadow Brook tunnel,	Lackawanna, ..	Injured by explosion of powder while he was ramming a charge into a hole.
8	Wm. Walsh,	Irish,	Miner,	43	M.	Mount Pleasant,	Lackawanna, ..	Injured by flying coal from blast; though the squib had "missed."
9	James Maken,	Irish,	Driver,	22	S.	Greenwood No. 2,	Lackawanna, ..	Finger injured by fall of roof in the New County.
13	James Bany,	Pole,	Laborer,	39	M.	Pine Brook,	Lackawanna, ..	Arm fractured by fall of roof in Dunmore No. 1.
13	Joseph Reese,	Welsh,	Driver,	18	S.	Taylor shaft,	Lackawanna, ..	Severely injured by falling in front of a train of cars.
19	John Molloy,	Irish,	Door boy,	14	S.	Pine Brook,	Lackawanna, ..	Leg fractured by falling under cars.
21	Tony Zelinsky,	Pole,	Miner,	29	M.	Mount Pleasant,	Lackawanna, ..	Face injured by flying coal from blast. He thought the squib had "missed."
20	John McNulty,	Irish,	Door man,	68	M.	Continental,	Lackawanna, ..	Leg fractured by a derailed car.
27	John Piano,	Pole,	Laborer,	40	M.	Taylor shaft,	Lackawanna, ..	Leg fractured by a car which the miner sent into his chamber by mistake between two trips of loaded cars.
28	David Hughes,	American,	Runner,	17	S.	Jermyn No. 2,	Lackawanna, ..	Bumped between two trips of loaded cars.
Dec. 1	Michael Ruddy,	Irish,	Laborer,	31	M.	Hyde Park,	Lackawanna, ..	Back injured by fall of roof while he was assisting the miner to restand a prop.
4	Simon Amarago,	Pole,	Laborer,	26	S.	Continental,	Lackawanna, ..	Struck by a piece of rock rolling down manway.
7	Fred. Shump,	German,	Driver,	18	S.	Dodge,	Lackawanna, ..	Leg fractured by cars inside.
8	John Tighe,	Irish,	Oiler, outside,	17	S.	Brisbin,	Lackawanna, ..	Arm fractured by falling under trip of cars on culm dump.
10	Dinning Motts,	American,	Runner,	20	S.	Jermyn No. 1,	Lackawanna, ..	Arm fractured by falling under moving cars in mine.
11	James Dirbaske,	Pole,	Laborer,	38	M.	Taylor shaft,	Lackawanna, ..	Severely injured by fall of roof while he was accompanying the miner to examine the roof after a blast.

TABLE V—Continued.

Date of accident.	Name of Person.	Nationality by Birth.	Occupation.	Age.	Married or single.	Name of Colliery.	County.	Nature and Cause of Accident in Brief.
Dec. 15	George Hopkins,	Welsh,	Footman,	38	M.	Capouse,	Lackawanna, ..	Severely injured while descending the shaft in cage by being loaded as usual, but falling at an upper landing.
17	James Durkin,	Irish,	Miner,	57	M.	Sloan,	Lackawanna, ..	Injured by fall of "bony" coal at face of workings.
17	Lawrence Daly,	American, ..	Driver,	15	S.	Old Forge No. 1,	Lackawanna, ..	Leg bruised by falling under cars.
18	Patrick Norton,	Irish,	Miner,	38	M.	Penna. No. 5,	Lackawanna, ..	Foot injured by fall of roof in chamber.
18	George Wilbur,	American, ..	Driver,	17	S.	Old Forge No. 2,	Lackawanna, ..	Flesh wound on leg by cars.
19	Frank Hughes,	English,	Driver,	20	S.	"William A.,	Lackawanna, ..	Leg cut by flying coal from blast.
20	John Burke,	American, ..	Footman,	23	S.	Greenwood No. 1,	Lackawanna, ..	Foot crushed by cars.
20	Moses Howell,	American, ..	Miner,	40	M.	M. Mount Pleasant,	Lackawanna, ..	Injured by flying coal from blast while seeking a place of safety.
22	Steven Gladish,	Pole,	Laborer,	37	M.	Jermyn No. 1,	Lackawanna, ..	Leg injured by premature explosion of coal, while the miner was trying to thaw in an improper manner.
24	Louis Bonn,	Italian,	Laborer,	30	S.	Meadow Brook tunnel,	Lackawanna, ..	Hip dislocated by cars inside.

Third Anthracite District.

LUZERNE AND SULLIVAN COUNTIES.

Pittston, February 21, 1901.

Hon. James W. Latta, Secretary of Internal Affairs, Harrisburg, Pa.:

Sir: I have the honor of herewith submitting for your consideration my annual report as Inspector of Coal Mines for the Third Anthracite District for the year 1900.

There were 6,296,931 tons of coal produced, being 557,780 tons less than the production of the preceding year. Fifty-nine fatal accidents occurred, which is a decrease of three from those of the year 1899.

The number of non-fatal accidents was 139, being a decrease of 70 from 1899.

Thirty-three wives were made widows by the fatal accidents, and 82 children under 14 years of age were left fatherless.

The average number of days worked was 154.10, against 166.63 in 1899.

The production per day was 40,889 tons, and 106,727 tons were produced per fatal and 45,302 tons per non-fatal accident.

Very respectfully,

H. McDONALD,
Inspector of Mines.

Total Production of Coal in Tons During the Year 1900.

Pennsylvania Coal Company,	1,597,726.10
Lehigh Valley Coal Company,	1,142,348.01
Butler Mine Company, Limited,	128,669.10
Delaware, Lackawanna and Western Railroad Com- pany,	393,428.06
Temple Iron Company,	530,582.15
Seneca Coal Company,	206,772.06
Delaware and Hudson Coal Company,	108,149.08

Raub Coal Company,	168,437.16
John C. Haddock,	111,676.07
Clear Spring Coal Company,	212,857.17
Florence Coal Company, Limited,	72,897.19
W. G. Payne & Co.,	187,449.11
Traders' Coal Company,	29,506.06
Avoca Coal Company,	44,265.05
Langcliffe Coal Company,	120,718.11
Latlin Coal Company,	52,078.00
Robertson & Law,	73,205.00
Algonquin Coal Company,	225,174.00
Laurel Run Coal Company,	123,742.00
State Line and Sullivan Railroad Company,	181,516.07
W. B. Gunton,	28,406.10
Old Forge Coal Company,	50,402.02
Stevens Coal Company,	167,953.02
Wyoming Coal and Land Company,	118,665.01
Gardner Creek Coal Company,	37,749.11
Crescent Coal Company,	15,122.06
North American Coal Company,	59,540.17
Brookside Coal Company,	86,338.19
Hillside Coal and Iron Company,	21,551.00
	<hr/>
Total,	6,296,931.03
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The above production was made up as follows:

Shipped to market by railroad,	5,658,947.11
Sold at the mine for local use,	126,763.09
Consumed to generate steam (estimated),	511,220.03
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Total,	6,296,931.03
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Annual Examination for Mine Foremens' Certificates.

The annual examination of applicants for certificates of qualification for mine foreman and assistant mine foreman was held at the Butler Hill school building, Pittston, June 14th, 15th and 16th, 1900. The board of examiners was H. McDonald, Inspector of Mines; David W. Evans, superintendent; M. W. Tigue and J. J. Morahan, miners.

The following named persons were recommended to have mine foreman certificates issued to them: Allan Alexander, John J. Moran, John J. Walsh, Frank J. McHale and David Laird Pittston; Patrick Conlon, Thos. H. Morahan, Thomas J. Fitzsimmons, Peter Boylan,

Frank McCarty and James H. Ryder, Avoca; George L. Walker, John Duddy, Plainsville; John J. Morris, Forty Fort; John S. Hammonds, Wilkes-Barre; Michael J. McHale, Dupont; James Mitchell, Inkerman.

Twenty-four persons were recommended for certificates of qualification as assistant mine foreman.

TABLE A—Showing the number of lives lost, tons of coal produced per life lost and per person injured, number of employes and number of employes per life lost and per person injured in the year 1900.

Names of Operators.	Number of lives lost.	Tons of coal produced per life lost.	Number of persons severely injured.	Tons of coal produced per person severely injured.	Number of persons employed.	Number of employes per life lost.	Number of employes per person severely injured.
Pennsylvania Coal Company,	12	133,144	43	69,466	5,059	421	220
Lehigh Valley Coal Company,	12	55,195	25	45,694	2,839	236	113
Butler Mine Company, Limited,	3	42,889	5	25,734	813	271	162
Delaware, Laca. & Western R. R. Co.,	1	393,428	9	43,714	1,020	1,020	113
Temple Iron Company,	6	88,430	18	29,476	1,830	305	102
Seneca Coal Company,	6	34,462	12	17,231	612	102	51
Old Forge Coal Company,					68		
Delaware and Hudson Company,			1	108,149	361		361
John C. Haddock,	2	55,838	4	27,919	235	117	59
Clear Spring Coal Company,	2	106,428	1	212,857	658	329	658
Florence Coal Company, Limited,	3		7	24,299	182		69
W. G. Payne and Company,	2	62,483	1	26,773	504	163	72
Traders' Coal Company,			1	29,506	316		316
Avoca Coal Company,	1	44,265		245	245		
Langcliffe Coal Company,	1	120,718	6	20,119	348	348	58
Lafin Coal Company,				204			
Robertson and Law,				190			
Raub Coal Company, Limited,	2	84,218	3	56,145	552	276	184
Algonquin Coal Company,	3	75,058	5	45,135	618	206	123
Laurel Run Coal Company,				24,748	454		91
Stevens Coal Company,			6	27,992	306		51
Gardner Creek Coal Company,				118			
Crescent Coal Company,				87			
Wyoming Coal and Land Company,	2	59,332	2	59,332	210	109	109
State Line and Sullivan Railroad Co.,	1	151,516		397	397		
W. B. Gunten,	1	14,203	3	9,408	124	62	41
North American Coal Company,				24			
Hillside Coal and Iron Company,				195			
Brookside Coal Company,				22			
Total,	59	106,727	129	45,302	18,600	318	131

TABLE C—Classification of non-fatal accidents for the year.

	Causes of Non-Fatal Accidents.										Occupation of Persons Severely Injured.										Nationality of Persons Severely Injured.										
	Explosions of gas.	Falls of roof and coal.	By mine cars, inside.	Explosions of powder and blasts.	Miscellaneous, inside.	Miscellaneous, outside.	Total.	Miners.	Laborers.	Mine foremen and fire bosses.	Timber and brattice men.	Head and foot men.	Company men.	Track layers.	Runners.	Drivers.	Door tenders.	On surface.	Total.	Americans.	Welsh.	Irish.	English.	Scotch.	Poles.	Slavs.	Germans.	Austrians.	Italians.	Hungarians.	Total.
January,	1	6	4	4	4	2	17	8	4	1	1	1	1	1	1	1	1	1	17	6	2	3	1	8	3	3	3	2	1	1	17
February,	1	1	1	1	1	1	10	5	2	1	1	1	1	1	1	1	1	1	10	3	1	4	1	1	1	1	1	1	1	10	
March,	1	1	1	1	1	1	13	6	2	1	1	1	1	1	1	1	1	1	13	4	1	2	1	1	1	1	1	1	1	13	
April,	1	1	1	1	1	1	13	5	2	1	1	1	1	1	1	1	1	1	13	4	1	2	1	1	1	1	1	1	1	13	
May,	1	1	1	1	1	1	13	5	2	1	1	1	1	1	1	1	1	1	13	4	1	2	1	1	1	1	1	1	1	13	
June,	1	1	1	1	1	1	13	5	2	1	1	1	1	1	1	1	1	1	13	4	1	2	1	1	1	1	1	1	1	13	
July,	1	1	1	1	1	1	13	5	2	1	1	1	1	1	1	1	1	1	13	4	1	2	1	1	1	1	1	1	1	13	
August,	1	1	1	1	1	1	13	5	2	1	1	1	1	1	1	1	1	1	13	4	1	2	1	1	1	1	1	1	1	13	
September,	1	1	1	1	1	1	13	5	2	1	1	1	1	1	1	1	1	1	13	4	1	2	1	1	1	1	1	1	1	13	
October,	1	1	1	1	1	1	13	5	2	1	1	1	1	1	1	1	1	1	13	4	1	2	1	1	1	1	1	1	1	13	
November,	1	1	1	1	1	1	13	5	2	1	1	1	1	1	1	1	1	1	13	4	1	2	1	1	1	1	1	1	1	13	
December,	1	1	1	1	1	1	13	5	2	1	1	1	1	1	1	1	1	1	13	4	1	2	1	1	1	1	1	1	1	13	
Total,	15	45	27	26	10	16	139	62	26	4	6	1	4	1	4	14	4	13	139	25	9	27	7	1	33	15	6	5	3	8	139

General Remarks.

The condition of the mines so far as ventilation and safety are concerned, is fairly good, and they are well attended to, as every year adds more open territory to be taken care of and kept in a safe and secure condition for transportation and ventilation.

On December 13th, 1900, a fire was discovered in the old workings of the Cooper, or top split of the Baltimore seam of the Delaware shaft, operated by the Delaware and Hudson Company, which gave considerable trouble and anxiety to those in charge to subdue, which, at this writing, they have failed to accomplish, which necessitated the closing down of Laurel Run colliery with the Delaware, as they are opened into one another throughout the Baltimore vein, on account of the fire.

The usual improvements pertaining to the mining of coal in and about the collieries have gone on as in former years, so that there is nothing new or special to report.

The Butler and Fernwood collieries, which were operated by the Butler Mine Company, Limited, passed into the possession of the Hillside Coal and Iron Company December 1st, 1900, and are now operated by that company.

I desire to make a short statement in regard to accidents caused by premature explosions of blasts and by careless handling of powder. In this district for the year 1900, as shown by report, there were 9 fatal and 22 non-fatal accidents from the above cause, which might have been averted by ordinary care on the parts of the victims. So much has been written regarding accidents and their causes in previous reports, that I shall not attempt to go over the subject again at this time. But the above requires a few remarks. In investigating accidents as above referred to, I found that the victim was either instantly killed or fatally injured, or seriously cut and bruised from the following causes: By forcing the cartridge into the hole with the butt end of their drills, cutting the match on the squib so short that they could not get to a place of safety in time before the blast exploded or handling powder with their lamps on their caps. Now, as to the first mentioned method, no sensible man who regards his own safety would be guilty of such a practice, yet such is the case, I am sorry to say. As to the second violation of the mine law above mentioned, in my opinion, it is the most prevalent. There are two kinds of matches used for blasting, one called the saltpetre and the other the sulphur match. The first is used principally where open lights are forbidden on account of explosive gas; the other is used where an open light may be used to ignite it. Both those matches are twisted and dipped into a solution of the above and are from two to two and a half inches long, and will

burn from three to four minutes before the powder in the squib becomes ignited. The miner being in a hurry or knowing that he can get to a place of safety, either cuts the match or untwists it to cause it to burn faster, and in doing so, the powder in the squib runs down on the match and when the light comes in contact with it, the explosion takes place and the miner is very fortunate indeed if he escapes with his life.

In one instance in investigating a fatal accident from a premature blast and on inquiring of the laborer who worked with the man is he saw him cut the squib, he, in a positive manner, said he did not cut it, as he seen him put the squib in the needle hole before he left. I was at a loss to understand how the match burned so quickly and I secured the box that the squibs were kept in and discovered that all the matches had been saturated with kerosene. Is there any wonder that he failed to get from in front of the blast when he ignited the squib?

TABLE I—Showing Names of Operators, Railroads, etc., and Location of Collieries in the Third Anthracite District for the year 1901.

Names of Operators and Collieries.	County.	Name of General Superintendent.	P. O. Address.	Name of Superintendent.	P. O. Address.	Railroad to Mine.													
Pennsylvania Coal Company. Barnum No. 1 shaft, Barnum No. 2 shaft, Barnum No. 3 shaft, Laws shaft, No. 13 shaft, No. 9 shaft, No. 10 shaft, No. 10 Jr. shaft, No. 1 shaft, No. 8 shaft, No. 7 shaft, Hoyte shaft, No. 6 shaft, No. 5 shaft, No. 11 shaft, No. 14 shaft, No. 6 washery, No. 8 washery,	Luzerne, Luzerne, Luzerne, Luzerne, Lackawanna, Luzerne, Luzerne, Luzerne, Luzerne, Luzerne, Luzerne, Luzerne, Luzerne, Luzerne, Luzerne, Luzerne, Luzerne, Luzerne,	Sidney Williams, Sidney Williams, Sidney Williams, Sidney Williams, Sidney Williams, Sidney Williams, Sidney Williams, Sidney Williams, Sidney Williams, Sidney Williams, Sidney Williams, Sidney Williams, Sidney Williams, Sidney Williams, Sidney Williams, Sidney Williams, Sidney Williams, Sidney Williams,	Dunmore, Dunmore, Dunmore, Dunmore, Dunmore, Dunmore, Dunmore, Dunmore, Dunmore, Dunmore, Dunmore, Dunmore, Dunmore, Dunmore, Dunmore, Dunmore, Dunmore, Dunmore,	John Popling and John W. Reid, John W. Reid, John W. Reid, John W. Reid, John W. Reid, John W. Reid, John W. Reid, John W. Reid, John W. Reid, John W. Reid, John W. Reid, John W. Reid, John W. Reid, John W. Reid, John W. Reid, John W. Reid, John W. Reid,	Pittston, Mooste, Mooste, Mooste, Mooste, Mooste, Mooste, Mooste, Mooste, Mooste, Mooste, Mooste, Mooste, Mooste, Mooste, Mooste, Mooste, Mooste,	Erie and Wyoming, Erie and Wyoming, Erie and Wyoming, Erie and Wyoming, Erie and Wyoming, Erie and Wyoming, Erie and Wyoming, Erie and Wyoming, Erie and Wyoming, Erie and Wyoming, Erie and Wyoming, Erie and Wyoming, Erie and Wyoming, Erie and Wyoming, Erie and Wyoming, Erie and Wyoming, Erie and Wyoming, Erie and Wyoming, Erie and Wyoming,													
							Lehigh Valley Coal Company. Prospect shaft, Oakwood shaft, Meadowcroft shaft, Womble shaft, Womble hillman slope, Henry shaft, Maltby shaft, Fexter No. 1 shaft, Fexter No. 2 shaft, Heidelberg shaft, Heidelberg slope,	Luzerne, Luzerne, Luzerne, Luzerne, Luzerne, Luzerne, Luzerne, Luzerne, Luzerne, Luzerne,	W. A. Lathrop, W. A. Lathrop, W. A. Lathrop, W. A. Lathrop, W. A. Lathrop, W. A. Lathrop, W. A. Lathrop, W. A. Lathrop, W. A. Lathrop, W. A. Lathrop,	Wilkes-Barre, Wilkes-Barre, Wilkes-Barre, Wilkes-Barre, Wilkes-Barre, Wilkes-Barre, Wilkes-Barre, Wilkes-Barre, Wilkes-Barre, Wilkes-Barre,	Eli P. Conner, Eli P. Conner, Eli P. Conner, Eli P. Conner, Eli P. Conner, Eli P. Conner, Eli P. Conner, Eli P. Conner, Eli P. Conner, Eli P. Conner,	Wilkes-Barre, Wilkes-Barre, Wilkes-Barre, Wilkes-Barre, Wilkes-Barre, Wilkes-Barre, Wilkes-Barre, Wilkes-Barre, Wilkes-Barre, Wilkes-Barre,	Lehigh Valley Railroad, Lehigh Valley Railroad, Lehigh Valley Railroad, Lehigh Valley Railroad, Lehigh Valley Railroad, Lehigh Valley Railroad, Lehigh Valley Railroad, Lehigh Valley Railroad, Lehigh Valley Railroad, Lehigh Valley Railroad,						
														Butler Mine Company, Ltd. Butler shaft, Chatter tunnel, Herman shaft, Fernwood tunnel,	Luzerne, Luzerne, Luzerne, Luzerne,	B. Bennett, B. Bennett, B. Bennett, B. Bennett,	Pittston, Pittston, Pittston, Pittston,	Pittston, Pittston, Pittston, Pittston,	Erie, & Lehigh Valley, Erie, & Lehigh Valley, Erie, & Lehigh Valley, Erie, & Lehigh Valley,

Del., Lacka, and West, R. R. Haltstead shaft,	Luzerne,	E. E. Loomis, E. E. Loomis,	Scranton, Scranton,	Evan J. Evans, Montrose Barnard,	Scranton, Wilkes-Barre,	D., L. & W. R. R. D., L. & W. R. R. R.
Temple Iron Company. Harry E. shaft,	Luzerne,	Richard Mainwaring, Richard Mainwaring,	Pittston, Pittston,	Gilbert S. Jones, Gilbert S. Jones,	Pittston, Pittston,	Lehigh Valley Railroad, Lehigh Valley Railroad,
Forty Fort shaft,	Luzerne,	Richard Mainwaring, Richard Mainwaring,	Pittston, Pittston,	Gilbert S. Jones, Gilbert S. Jones,	Pittston, Pittston,	Lehigh Valley Railroad, Lehigh Valley Railroad,
Mt. Lookout shaft,	Luzerne,	Richard Mainwaring, Richard Mainwaring,	Pittston, Pittston,	Gilbert S. Jones, Gilbert S. Jones,	Pittston, Pittston,	Lehigh Valley Railroad, Lehigh Valley Railroad,
Babylon shaft,	Luzerne,	Richard Mainwaring, Richard Mainwaring,	Pittston, Pittston,	Gilbert S. Jones, Gilbert S. Jones,	Pittston, Pittston,	Lehigh Valley Railroad, Lehigh Valley Railroad,
Babylon tunnel,	Luzerne,	Richard Mainwaring, Richard Mainwaring,	Pittston, Pittston,	Gilbert S. Jones, Gilbert S. Jones,	Pittston, Pittston,	Lehigh Valley Railroad, Lehigh Valley Railroad,
Seneca Coal Company. Twin No. 1 shaft,	Luzerne,	James B. Neale, James B. Neale,	Scranton, Scranton,	John J. Jetter, John J. Jetter,	Wilkes-Barre, Wilkes-Barre,	Lehigh Valley Railroad, Lehigh Valley Railroad,
Twin No. 2 shaft,	Luzerne,	James B. Neale, James B. Neale,	Scranton, Scranton,	John J. Jetter, John J. Jetter,	Wilkes-Barre, Wilkes-Barre,	Lehigh Valley Railroad, Lehigh Valley Railroad,
Old Forge Coal Company. Phoenix shaft,	Luzerne,	James B. Neale, James B. Neale,	Scranton, Scranton,	John J. Jetter, John J. Jetter,	Wilkes-Barre, Wilkes-Barre,	Lehigh Valley Railroad, Lehigh Valley Railroad,
Columbia shaft,	Luzerne,	James B. Neale, James B. Neale,	Scranton, Scranton,	John J. Jetter, John J. Jetter,	Wilkes-Barre, Wilkes-Barre,	Lehigh Valley Railroad, Lehigh Valley Railroad,
Dela. and Hudson Coal Co. Delaware shaft,	Luzerne,	C. C. Rose,	Scranton,	E. R. Fettebone,	Dorrancceton,	Dela. & Hudson R. R.
Raub Coal Company. Louise slope,	Luzerne,	C. R. Marcy, C. R. Marcy,	Luzerne, Luzerne, .....	.....	.....	Lehigh Valley Railroad, Lehigh Valley Railroad,
Louise tunnel,	Luzerne,	C. R. Marcy, C. R. Marcy,	Luzerne, Luzerne, .....	.....	.....	Lehigh Valley Railroad, Lehigh Valley Railroad,
Black Diamond shaft,	Luzerne,	James B. Davis,	Plymouth, .....	.....	.....	D., L. & W. R. R.
Clear Spring Coal Co. Clear Spring shaft,	Luzerne,	J. L. Cake,	Pittston, .....	.....	.....	D., L. & W. R. R.
Florence Coal Company, Ltd. Elmwood No. 1 shaft,	Luzerne,	Charles P. Ford, Charles P. Ford,	Scranton, Scranton, .....	.....	.....	Lehigh Valley, & Erie, Lehigh Valley, & Erie,
Elmwood No. 2 shaft,	Luzerne,	Charles P. Ford, Charles P. Ford,	Scranton, Scranton, .....	.....	.....	Lehigh Valley, & Erie, Lehigh Valley, & Erie,
W. G. Payne and Co. East Boston shaft,	Luzerne,	W. E. Payne,	Kingston,	Wm. O. Williams,	Kingston,	Del., Lack. & Western.
Traders' Coal Company. Ridgewood slope,	Luzerne,	Solomon Deeble,	Avoca, .....	.....	.....	N. Y. & W. and C. R. R. of N. J.
Avoca Coal Company. Avoca shaft,	Luzerne,	W. H. Hollister,	Avoca, Avoca, .....	.....	.....	D., L. & W. R. R. & E. & W. V.
Lancliffe Coal Company. Lancliffe shaft,	Luzerne,	John Lovering,	Minooka, .....	.....	.....	L. V., Erie & Wyoming & D., & H.
Lancliffe tunnel,	Luzerne,	John Lovering,	Minooka, .....	.....	.....	L. V., Erie & Wyoming & D., & H.
Ladlin Coal Company. Ladlin shaft,	Luzerne,	John Lovering,	Minooka, .....	.....	.....	D. & H. & L. V. R. R.

TABLE I—Continued.

Names of Operators and Collieries.	County.	Name of General Superintendent.	P. O. Address.	Name of Superintendent.	P. O. Address.	Railroad to Mine.
Robertson and Law. Katy Dip slope,	Luzerne,	John M. Robertson, ...	Moosic, .....	.....	.....	E. & W. V. R. R.
Algonquin Coal Company. Pine Ridge shaft,	Luzerne,	George T. Neally,	Wilkes-Barre, ....	.....	.....	Erie.
Laurel Run Coal Company. Laurel Run slope,	Luzerne,	George T. Neally,	Wilkes-Barre, ....	.....	.....	Erie.
State Line & Sullivan R. R. Co. Bernice drift,	Sullivan,	O. A. Baldwin,	Towanda,	R. E. Dunston, ...	Towanda,	Lehigh Valley.
W. B. Gunton. Lýkens drift,	Sullivan,	W. B. Gunton,	Bernice, .....	.....	.....	Lehigh Valley.
Stevens Coal Company. Stevens shaft,	Luzerne,	Henry W. Kingsbury, ..	Scranton,	David W. Evans, ..	Pittston,	Lehigh Valley.
Stevens slope,	Luzerne,	Henry W. Kingsbury, ..	Scranton,	David W. Evans, ..	Pittston,	Lehigh Valley.
Wyoming Coal and Land Co. Griffith tunnel,	Luzerne,	F. H. Clemens,	Scranton,	S. B. Williams, ...	Wyoming,	Lehigh Valley.
Gardner Creek Coal Company. Gardner Creek tunnel,	Luzerne,	Clarence B. Sturges, ..	Scranton,	Henry G. Williams, ..	Wilkes-Barre,	New York and Erie.
Crescent Coal Company. Crescent tunnel,	Luzerne,	Mathew Hart,	Lafin, .....	.....	.....	Lehigh Valley.
North American Coal Co. Luzerne washery,	Luzerne,	James T. Sharkey,	Pittston, .....	.....	.....	Lehigh Valley.
Hillside Coal and Iron Co. Butler shaft,	Luzerne,	W. A. May,	Scranton,	J. F. Gallagher & Fremont B. Stokes, ..	Moosic,	E. & W. V. R. R., W., B. & Eastern, L. V. & N. Y. E. & W.
Butler tunnel,	Luzerne,	W. A. May,	Scranton,	Fremont B. Stokes, ..	Pittston,	L. V. & N. Y. E. & W.
Chapman shaft,	Luzerne,	W. A. May,	Scranton,	Fremont B. Stokes, ..	Pittston,	L. V. & N. Y. E. & W.
Fernwood shaft,	Luzerne,	W. A. May,	Scranton,	Fremont B. Stokes, ..	Pittston,	L. V. & N. Y. E. & W.
Consolidated shaft and slope, ..	Luzerne,	W. A. May,	Scranton,	Fremont B. Stokes, ..	Pittston,	L. V. & N. Y. E. & W.
Brookside Coal Company. Brookside washery,	Luzerne,	Charles Waters,	Scranton, .....	.....	.....	Erie.

TABLE II—Gives the total number of tons of coal mined in each colliery, number of days worked, number of employees, number of persons killed and injured, number of kegs of powder, etc., used in the Third Anthracite District for the year ending December 31, 1900.

Names of Operators and Collieries.	County.	Statistics										
		Shipments of coal in tons by rail or otherwise.	Number of tons used for steam and heat at colliery.	Sold to local trade and used by employees—tons.	Total production of coal in tons	Number days worked.	Number persons employed.	Number fatal accidents.	Number non-fatal accidents.	Number kegs powder used.	Number pounds of dynamite used.	Number horses and mules.
Pennsylvania Coal Company.												
Barnum No. 1, 2 and 3 shafts,	Luzerne,	252,438.16	7,509.19	.....	259,648.15	159.50	769	5	4	9,682	511	55
Laws and No. 13 shafts,	Luzerne,	183,273.15	4,863.04	.....	188,136.19	162.75	552	1	2	4,646	1,181	49
Shafts No. 9, 10 and 10 Jf.,	Luzerne,	185,192.04	11,883.14	.....	196,680.18	161	800	.....	2	5,825	823	71
Shafts No. 1 and 8,	Luzerne,	128,717.18	2,848.00	.....	131,565.18	160.50	385	1	.....	3,773	819	43
Shafts No. 4, 7 and Hoyte,	Luzerne,	215,247.19	11,805.07	.....	227,052.06	141.50	885	2	3	8,037	1,385	72
Shafts No. 5, 6 and H.,	Luzerne,	259,683.16	16,962.01	.....	250,645.17	141.50	944	2	10	9,412	6,340	67
No. 14 shaft and tunnels,	Luzerne,	197,363.04	8,504.15	.....	205,878.19	154.50	628	3	2	5,537	1,414	51
No. 6 washery,	Luzerne,	55,781.13	2,861.16	.....	58,649.09	135	86	.....	.....	.....	.....	2
No. 8 washery,	Luzerne,	76,488.02	2,378.07	.....	19,466.09	102	30	.....	.....	.....	.....	.....
Total, .....	.....	1,533,893.07	*63,833.03	.....	1,597,726.10	155.83	5,059	12	23	46,912	12,373	416
Lehigh Valley Coal Company.												
Prospect and Oakwood shafts,	Luzerne,	242,619.18	23,775.00	.....	272,668.00	146.75	816	2	5	4,839	37,707	60
Wyoming and Midvale slopes,	Luzerne,	145,681.04	11,680.00	.....	160,420.14	146.75	389	.....	6	4,553	6,690	73
Henry shaft,	Luzerne,	230,428.13	15,167.00	.....	252,892.13	149.50	517	5	5	4,771	81,318	84
Exeter No. 1 and 2 shafts,	Luzerne,	114,998.14	10,130.00	.....	127,687.14	146.50	301	2	.....	4,158	6,578	41
Heidelberg shaft,	Luzerne,	119,457.09	4,278.00	.....	124,245.01	151.25	295	1	.....	3,182	2,025	45
Heidelberg slope,	Luzerne,	171,265.14	29,784.00	.....	204,333.19	132	621	2	9	5,658	21,075	71
Total, .....	.....	1,024,455.12	*94,814.00	.....	1,142,348.01	145.50	2,839	12	25	27,161	155,393	404
Butler Mine Company, Limited.												
Butler and Charman shafts,	Luzerne,	86,076.05	5,760.00	.....	92,914.14	142	473	1	3	3,372	750	45
Fernwood shaft and tunnel,	Luzerne,	39,890.18	5,040.00	.....	35,754.16	92.75	340	2	3	1,487	2,900	46
Total, .....	.....	116,476.03	*10,800.00	.....	1,393.07	117.50	813	3	5	4,859	3,650	91

Clear Spring Coal Company. Clear Spring shaft,	182,610.16	15,000.00	14,247.01	212,857.17	200.75	.....	2	1	7,648	7,250	71
Florence Coal Company, Limited. Elmwood No. 1 and 2 shafts,	59,887.00	11,000.00	2,010.19	72,897.19	127.75	181	.....	3	1,689	275	22
W. G. Payne and Company. East Boston shaft,	170,533.05	11,282.00	5,684.06	187,449.11	167.75	504	3	7	5,569	800	47
Traders' Coal Company. Ridgewood slope,	26,111.06	3,102.00	293.00	29,506.06	58	316	.....	1	1,558	800	36
Avoca Coal Company. Avoca shaft,	37,276.00	3,189.00	3,800.05	44,265.05	138.75	245	1	.....	2,069	1,300	35
Langcliffe Coal Company. Langcliffe shaft and tunnel,	114,000.11	5,980.00	729.00	120,718.11	170.75	348	1	6	4,687	.....	57
Lafin Coal Company. Lafin shaft,	41,898.00	8,184.00	1,996.00	52,078.00	72.50	204	.....	.....	2,810	12,500	35
Robertson and Law. Katy Dd slope,	68,914.00	3,000.00	1,291.00	73,205.00	173.25	190	.....	.....	2,257	746	23
Algonquin Coal Company. Pine Ridge shaft,	198,219.00	18,000.00	8,955.00	225,174.00	203.25	618	3	5	6,827	1,500	64
Laurel Run Coal Company. Laurel Run slope,	111,612.00	7,500.00	4,600.00	123,742.00	169.75	454	.....	5	4,900	3,000	58
State Line and Sullivan Railroad Co. Bernice drift,	175,668.00	4,346.08	1,501.10	181,516.07	244.50	387	1	.....	4,200	1,500	45
W. B. Ganton. Lykens drift,	25,513.10	365.00	2,528.00	28,406.10	128.25	124	2	3	752	100	20
Stevens Coal Company. Stevens shaft and slope,	149,335.17	14,860.00	4,657.05	167,953.02	119.75	306	.....	6	5,104	7,725	47
Wyoming Coal and Land Company. Griffith tunnel,	105,797.14	10,440.00	2,427.07	118,665.01	172.25	219	2	2	5,575	12,150	30
Gardner Creek Coal Company. Gardner Creek tunnel,	34,531.11	2,982.00	235.00	37,749.11	184.75	118	.....	.....	1,567	700	7
Crescent Coal Company. Crescent tunnel,	14,002.06	1,045.00	75.00	15,122.06	84.50	87	.....	.....	699	77	9
North American Coal Company. Luzerne washery,	55,011.12	1,728.00	2,798.05	59,540.17	204	24	.....	.....	.....	.....	.....

TABLE II—Continued.

Names of Operators and Collieries.	County.	Shipments of coal in tons by rail or otherwise.	Number of tons used for steam and heat at colliery.	Sold to local trade and used by employes—tons.	Total production of coal in tons.	Number days worked.	Number persons employed.	Number fatal accidents.	Number non-fatal accidents.	Number kegs powder used.	Number pounds of dynamite used.	Number horses and mules.
Hillside Coal and Iron Company.												
Butler and Chapman shafts,	Luzerne,	11,559.06	2,000.00	175.00	13,734.06	18	.....	.....	.....	519	17	.....
Fernwood shafts,	Luzerne,	6,378.06	726.00	52.00	7,156.06	16.25	.....	.....	.....	320	82	.....
Consolidated shaft and slope,	Luzerne,	430.08	230.00	.....	680.08	3	198	.....	.....	46	50	22
Brookside Coal Company.												
Brookside washery,	Luzerne,	82,834.19	3,504.00	.....	86,338.19	197	22	.....	.....	.....	.....	.....
Total miscellaneous companies, .....	.....	2,185,958.11	*222,841.08	85,876.02	2,594,176.01	168.7	7,039	25	59	76,766	87,073	831
Recapitulation.												
Pennsylvania Coal Company, .....	.....	1,592,893.07	63,823.03	.....	1,597,726.10	155.36	5,059	12	23	46,912	12,373	416
Lehigh Valley Coal Company, .....	.....	1,024,445.72	90,871.00	23,758.09	1,142,338.01	145.20	2,839	12	25	27,161	153,333	404
Butler Mine Company, Limited, .....	.....	116,475.03	10,800.00	363.07	328,669.10	117.37	813	3	5	4,859	3,650	91
Delaware, Lacka. & Western R. Co., .....	.....	847,106.08	36,887.12	9,734.00	933,727.20	101.75	1,020	1	9	11,865	4,870	121
Temple Iron Company, .....	.....	451,057.10	72,844.00	6,681.05	530,582.15	130.00	1,830	6	18	15,823	15,400	282
Miscellaneous coal companies, .....	.....	2,185,958.11	232,341.08	85,876.02	2,504,176.01	153.97	7,039	23	59	76,766	87,073	834
Total, .....	.....	5,658,847.11	*511,220.03	128,763.09	6,236,931.03	1154.10	18,600	59	139	183,122	273,759	2,148

*Coal estimated.
†Average time.

TABLE II—Continued.

Name of Operators.	County.	Number of Boilers.			Total horse power.	Locomotives.			Number steam engines of all classes.	Total horse power.	Number pumps delivering water to surface.	Capacity in gallons per minute.	Quantity delivered to surface per minute—gallons.	Number electric dynamos.	Number air compressors.
		Cylindrical.	Horse power.	Tubular.		Horse power.	Steam.	Electric.								Number steam engines of all classes.
Pennsylvania Coal Company,	Luzerne,	55	1,400	51	7,665	9,065	10	3	123	15,041	30	23,732	11,290	6	
Lehigh Valley Coal Company,	Luzerne,	24	897	54	6,322	7,328	7	.....	32	13,661	26	19,033	13,083	4
Bethlehem Coal Company,	Luzerne,	24	880	7	7,730	7,730	2	.....	16	350	14	3,000	800	.....
Delaware, Lack & West. R. R. Co.,	Luzerne,	41	1,000	7	995	1,995	.....	.....	31	1,674	16	5,360	2,450	.....
Temple Iron Company,	Luzerne,	30	800	20	4,675	5,475	4	3	72	3,800	10	11,450	5,450	6	
Miscellaneous Coal Companies.															
Seneca Coal Company,	Luzerne,	27	1,135	1	100	1,235	4	.....	16	716	11	3,500	1,500	1
Old Forge Coal Company,	Luzerne,	6	200	4	450	650	.....	.....	7	386	.....	800	.....	.....
Delaware and Hudson Canal Co.,	Luzerne,	15	450	5	750	1,200	.....	.....	19	1,350	3	1,760	1,350	1
Raub Coal Company,	Luzerne,	13	440	5	610	1,050	1	.....	14	793	1	500	300	.....
John C. Haddock,	Luzerne,	15	288	10	1,070	1,358	1	.....	36	1,902	3	1,580	1,200	1
Clear Spring Coal Company,	Luzerne,	8	275	5	750	1,025	.....	.....	8	800	2	1,200	600	.....
Florence Coal Company, Limited,	Luzerne,	14	350	3	150	500	1	.....	12	366	6	2,000	1,800	.....
W. G. Payne and Company,	Luzerne,	24	444	2	200	644	.....	.....	12	453	1	2,000	1,200	1
Avoca Coal Company,	Luzerne,	8	160	2	190	350	.....	.....	10	315	2	600	400	.....
Lancaster Coal Company,	Luzerne,	9	315	1	42	327	.....	.....	5	370	1	485	280	.....
Laflin Coal Company,	Luzerne, .....	.....	.....	5	450	450	.....	.....	9	791	1	688	.....	.....
Robertson and Law,	Luzerne, .....	.....	.....	5	320	320	1	.....	5	153	3	1,041	693	.....
Algonquin Coal Company,	Luzerne, .....	.....	.....	6	1,400	1,400	.....	.....	9	1,900	3	3,700	2,300	.....
Laurel Run Coal Company,	Luzerne, .....	.....	.....	2	500	500	.....	.....	10	700	3	3,700	2,300	1
State Line and Sullivan Railroad Co.,	Luzerne,	8	620	.....	620	620	2	1	10	700	5	1,228	500	2
W. E. Guntton,	Sullivan, .....	.....	.....	2	150	150	.....	.....	1	100	.....	.....	.....	.....
Stevens Coal Company,	Luzerne,	12	350	7	950	1,300	1	.....	9	2,415	5	6,200	3,070	1
Wyoming Coal and Land Company,	Luzerne, .....	.....	.....	5	527	527	.....	.....	5	450	2	110	.....	.....
Gardiner Creek Coal Company,	Luzerne, .....	.....	.....	4	240	240	1	.....	5	260	1	250	180	.....
Trenton Coal Company,	Luzerne, .....	.....	.....	.....	.....	80	.....	.....	1	75	.....	.....	.....	.....
North American Coal Company,	Luzerne,	1	80	2	250	250	.....	.....	2	140	.....	.....	.....	.....

TABLE II—Continued.

Name of Operators.	County.	Number of Boilers.			Total horse power.	Locomotives.			Number steam engines of all classes.	Total horse power.	Number pumps delivering water to surface.	Capacity in gallons per minute.	Quantity delivered to surface per minute—gallons.	Number electric dynamos.	Number air compressors.	
		Cylindrical.	Horse power.	Tubular.		Horse power.	Steam.	Air.								Electric.
Hillside Coal and Iron Company,	
Brookside Coal Company,	9	270	3	210	.....	480	2	7	315	.....	.....	.....	.....	.....
Consolidated shaft and slope,	200	.....	.....	.....	3	90	.....	.....	.....	.....	.....
Brookside washery,	185	5,467	84	9,619	15,086	17	.....	1	218	15,626	50	27,575	16,601	2	10
Total,
Recapitulation.																
Pennsylvania Coal Company,	35	1,406	51	7,605	9,005	10	3	.....	133	15,041	30	23,792	11,290	.....	6
Lehigh Valley Coal Company,	27	837	34	6,592	7,429	7	.....	.....	92	13,661	26	19,033	13,089	.....	4
Burler Mine Company, Limited,	24	280	6	440	726	2	.....	.....	16	570	14	3,060	800	.....	.....
Delta, Lacka, & Western R. R. Co.,	41	1,600	7	905	1,905	.....	.....	.....	31	1,674	16	5,900	2,950	.....	.....
Temple Iron Company,	30	800	20	4,675	5,475	4	.....	.....	72	3,606	10	11,450	5,450	.....	6
Miscellaneous coal companies,	185	5,467	84	9,619	15,086	17	.....	.....	218	15,626	50	27,575	16,601	2	10
Total,	342	9,784	202	29,836	39,620	46	3	4	562	50,132	146	90,750	50,180	11	26

TABLE III—Showing the number of each class of employes at each colliery in the Third Anthracite District, during the year 1900.

Names of Operators and Collieries.	County.	Occupations of Persons Employed Inside.								Occupations of Persons Employed Outside.						Grand total, inside and outside.	
		Inside foreman or mine boss.	Fire bosses.	Miners.	Miners' laborers.	Drivers and runners.	Door boys and helpers.	All other employes.	Total inside.	Outside foreman.	Blacksmiths and carpenters.	Engineers and firemen.	State pickers.	Superintendents, bookkeepers and clerks.	All other employes.		Total outside.
Pennsylvania Coal Company.																	
Barnum No. 1, 2 and 3 shafts,	Luzerne,	2	2	194	194	65	25	80	562	2	6	14	119	4	62	207	769
Laws and No. 13 shafts,	Luzerne,	2	4	148	148	38	7	36	383	2	4	6	88	2	67	169	552
Shafts No. 9, 10 and 10 Jr.,	Luzerne,	4	5	178	178	67	18	144	594	2	4	19	113	2	66	206	800
Shafts No. 1 and 5,	Luzerne,	1	2	100	100	22	6	34	265	2	3	10	64	2	39	120	385
Shafts No. 5, 6 and Hoyte,	Luzerne,	3	8	238	238	69	27	54	637	1	8	21	135	1	82	248	885
Shafts No. 5, 6 and 11,	Luzerne,	3	6	254	229	97	25	98	742	2	5	22	90	3	81	202	944
No. 14 shaft and tunnel,	Luzerne,	3	5	176	176	51	11	41	463	2	2	10	93	3	55	165	628
No. 6 washery,	Luzerne, .....	.....	.....	.....	.....	.....	.....	.....	.....	1	.....	1	10	.....	24	36	36
No. 8 washery,	Luzerne, .....	.....	.....	.....	.....	.....	.....	.....	.....	1	.....	1	11	.....	47	60	60
Total, .....	.....	18	32	1,318	1,263	409	119	487	3,646	15	32	104	723	16	523	1,413	5,059
Lehigh Valley Coal Company.																	
Prospect and Oakwood shafts,	Luzerne,	3	8	140	140	70	22	161	544	1	15	19	49	5	183	272	816
Wyoming shaft and slope,	Luzerne, .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Midvale slope,	Luzerne, .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Henry shaft,	Luzerne,	3	3	111	90	30	14	66	317	1	11	14	.....	.....	44	72	389
Exeter No. 1 and 2 shafts,	Luzerne,	1	4	140	98	62	.....	38	343	1	10	9	48	5	101	174	517
Heidelberg shaft,	Luzerne,	1	1	60	55	26	1	19	163	1	7	7	60	4	59	138	301
Heidelberg slope,	Luzerne,	1	1	68	45	23	1	19	153	1	5	6	71	4	50	137	295
Maltby shaft,	Luzerne,	2	5	157	58	53	13	37	325	1	13	15	46	3	118	196	521
Total, .....	.....	11	22	676	486	264	51	340	1,850	6	61	70	274	23	555	989	2,833

Delaware and Hudson Canal Co. Delaware shaft,	1	4	57	57	29	7	53	208	1	6	16	91	1	38	153	361
Raub Coal Company. Louise slope and tunnel,	2	2	168	106	71	8	48	405	1	8	16	79	3	40	147	552
John C. Haddock. Black Diamond shaft,	1	3	33	28	24	6	30	125	1	5	16	39	3	46	110	235
Clear Spring Coal Company. Clear Spring shaft,	3	3	160	160	67	47	69	509	1	5	9	71	5	58	149	658
Florence Coal Company, Limited. Elmwood No. 1 and 2 shaft,	1	2	32	35	15	1	12	98	1	4	11	41	4	23	84	182
W. G. Payne and Company. East Boston shaft,	3	3	104	75	64	17	46	312	1	4	14	75	5	93	192	504
Traders' Coal Company. Ridgewood slope,	1	1	98	50	45	12	11	213	1	9	8	31	2	52	103	316
Avoca Coal Company. Avoca shaft,	1	2	61	48	34	8	13	167	1	5	4	40	3	25	78	245
Langeliffe Coal Company. Langeliffe shaft and tunnel,	2	1	98	64	41	4	38	248	1	6	8	49	2	34	100	348
Ladlin Coal Company. Ladlin shaft,	1	1	61	49	17	2	18	149	1	3	6	24	2	19	55	204
Robertson and Law. Katy Did slope,	1	.....	50	40	16	3	6	116	1	2	7	32	4	28	74	190
Algonquin Coal Company. Pine Ridge shaft,	2	4	136	122	76	6	58	414	1	8	10	122	1	62	204	618
Laurel Run Coal Company. Laurel Run slope,	1	2	91	89	55	16	60	314	1	6	7	80	1	45	140	454
State Line and Sullivan R. Co. Bernice drift,	1	.....	187	10	16	15	24	253	1	10	14	26	3	90	144	397
W. B. Gunton. Lykens drift,	1	.....	50	25	6	.....	2	84	1	2	2	20	1	14	40	124
Stevens Coal Company. Stevens shaft and slope,	2	2	70	65	21	6	37	203	1	5	11	30	4	52	103	306
Wyoming Coal and Land Company. Griffith tunnel,	1	1	69	33	26	4	13	147	1	6	7	23	3	32	72	219
Gardner Creek Coal Company. Gardner Creek tunnel,	1	1	32	31	8	.....	5	78	1	2	8	16	.....	13	40	118

TABLE III—Continued.

Names of Operators and Collieries.	County.	Occupations of Persons Employed Inside.							Occupations of Persons Employed Outside.							Grand total, inside and outside.	
		Inside foreman or mine boss.	Fire bosses.	Miners.	Miners' laborers.	Drivers and runners.	Door boys and helpers.	All other employes.	Total inside.	Outside foreman.	Blacksmiths and carpenters.	Enginers and firemen.	Slate pickers.	Superintendents, bookkeepers and clerks.	All other employes.		Total outside.
Crescent Coal Company.	Luzerne,	1	.....	22	19	8	2	.....	52	1	2	2	20	1	9	35	87
Crescent tunnel,	Luzerne,	1	.....	22	19	8	2	.....	52	1	2	2	20	1	9	35	87
North American Coal Company.	Luzerne, .....	.....	.....	.....	.....	.....	.....	.....	.....	1	.....	4	7	2	10	24	24
Luzerne washery,	Luzerne, .....	.....	.....	.....	.....	.....	.....	.....	.....	1	.....	4	7	2	10	24	24
Hillside Coal and Iron Company.†	Luzerne, .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Butler and Chapman shafts,	Luzerne, .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Fernwood shaft and tunnel,	Luzerne, .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Consolidated slope and shaft,	Luzerne,	2	.....	21	21	13	.....	31	88	1	10	11	35	2	48	107	195
Brookside Coal Company.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Brookside washery, .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	.....	3	.....	1	17	22	22
Total, .....	.....	32	36	1,730	1,272	703	178	729	4,680	24	117	221	996	58	943	2,659	7,039

Recapitulation.

Pennsylvania Coal Company,	18	1,318	1,963	409	119	487	3,646	15	32	104	723	16	523	1,413	5,059
Lehigh Valley Coal Company,	11	676	486	264	51	340	1,850	6	61	70	274	23	555	989	2,839
Butler Mine Company, Limited,	2	218	122	105	12	80	544	2	8	19	178	3	59	269	813
Dela., Lacka. and Western R. Co.,	3	256	242	96	28	96	726	2	8	25	149	3	107	294	1,020
Temple Iron Company,	4	11	538	358	184	39	205	3	16	39	209	12	212	491	1,830
Miscellaneous companies,	32	36	1,730	1,272	703	178	729	24	117	221	996	58	943	2,359	7,039
Total,	73	108	4,736	3,743	1,761	427	1,337	52	242	478	2,529	115	2,309	5,815	18,690

*The men and boys are included in the Butler Mine Company, Limited, for Butler, Chapman and Fernwood collieries.

TABLE III—Continued.

Name of Operators.	County.	Number of Days Worked Each Month in Breaker.												Total.
		January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	
Pennsylvania Coal Company,	Luzerne,	16	12.6	12.4	12.2	13.9	14.2	15.2	19.8	9	21.6	16.5	15.8	*185.36
Lehigh Valley Coal Company,	Luzerne,	17.1	10	10.1	8.2	12.8	18.4	13.7	16.4	7.2	.....	16.3	17.1	*145.20
Butler Mine Company, Limited,	Luzerne,	18.7	10.8	17.7	5.8	.....	4.1	17.2	20.7	10.5	.....	20.2	.....	*117.37
Delaware, Lacka, and Western R. R. Co.,	Luzerne,	14.2	11	11.7	12.5	18	16.2	12.2	19.2	8.2	.....	17.8	18.2	*161.75
Temple Iron Company,	Luzerne,	18.6	12.3	12.1	8.9	16	18.6	17	17	8	1.4	18.2	18.3	*130.70
Miscellaneous Coal Companies.														
Seneca Coal Company,	Luzerne,	20.25	17	19.25	15.75	20.25	21.75	20	20.50	10	1.50	16.75	16.75	199.75
Old Forge Coal Company,	Luzerne,	14.75	11.50	16.25	.....	.....	.....	.....	12.50	6	.....	.....	5	42.50
Delaware and Hudson Canal Company,	Luzerne,	12.75	11.50	11.75	11	12.50	13	12	12.50	.....	.....	10.25	.....	118.50
Ramb Coal Company,	Luzerne,	22	17	18.75	20.25	15.25	12.50	19.25	20.25	9.50	.....	16	17.25	188
John C. Haddock,	Luzerne,	15	13.75	15.50	13.50	14.75	14.75	13.50	12.75	6.50	.....	10.75	12.75	138
Clear Spring Coal Company,	Luzerne,	14.75	12	13.50	15.50	19.50	24.50	18.50	24.75	12	2	22.25	21.50	200.75
Florence Coal Company, Limited,	Luzerne,	14.50	10	12.50	7.50	9.75	9.75	11	14.50	6.25	1.50	16.25	14.25	127.75
W. G. Payne and Company,	Luzerne,	19.25	10	12	15.25	16.25	17.25	18.75	19	9.25	.....	12.25	18.50	167.75
Traders' Coal Company,	Luzerne,	.....	.....	.....	.....	.....	6.50	9	9	4.50	.....	13	15.75	58
Avoca Coal Company,	Luzerne,	13.50	12.25	9.50	15.25	10.25	12.25	12.25	13.75	7.75	.....	16.50	15.50	138.75
Lancaster Coal Company,	Luzerne,	19	10.75	11	7	19	20.25	16.25	18	7.75	1.75	17.75	17.75	170.75
Lefflin Coal Company,	Luzerne,	8.25	6.75	6.25	5.50	7	7	6	7.50	3.50	.....	7.25	7.50	72.50
Robertson and Leav,	Luzerne,	18.75	8	18.25	10	12	16.50	19	25.75	10	.....	21.75	24	173.25
Geopline Coal Company,	Luzerne,	16.75	11.75	15.25	15.50	18.25	16.75	14.25	18.25	1.95	.....	12	12.50	163.75
State Line and Sullivan Railroad Company,	Sullivan,	25	21.25	17.25	16	17.25	15.25	18.50	21.55	20.25	1.25	19.75	21.75	244.50
W. B. Gunton,	Sullivan,	17.75	14.50	8.50	4	4	4.50	4.50	4.50	11.75	24.25	15.50	19.50	128.25
Stevens Coal Company,	Luzerne,	14.75	9.25	8.25	6.75	10.25	13.75	11.25	13	6.25	.....	12.75	13.75	119.75
Wyoming Coal and Land Company,	Luzerne,	16.50	14	17	15.25	18	15.50	15.25	17.50	7.25	1.50	17.50	17	172.25

Gardner Creek Coal Company,	16.75	17.75	16.25	18	19.75	17.25	17.50	17.50	8	19.50	16.50	184.75
Crescent Coal Company,	19	8	8	6	16.50	7	19	19	5	18	8	184.50
North American Coal Company,	20	13	14	20	16	12	15	23	14	6	25	204
Hillside Coal and Iron Company,*												
Butler and Chapman shafts,												
Fernwood shaft and tunnel,												
Consolidated shaft and tunnel,												
Brookside Coal Company,	18.75	13.50	19.75	15.50	24.25	18.50	18.75	15	12.75	2	19.50	18
												18.25
												3
												18.75
												197
Total,	17.7	12.9	14.7	13.3	15.9	15.4	15.4	16.4	9.6	4.8	16.3	*153.97

Recapitulation.

Pennsylvania Coal Company,	16	12.6	12.4	12.2	13.9	14.2	15.2	19.8	9.2	16.5	15.8	155.36
Lehigh Valley Coal Company,	17.1	10	10.1	8.2	12.8	18.4	13.7	16.3	7.2	16.3	17.1	145.33
Butler Mine Company, Limited,	18.7	10.8	17.7	5.8	.....	4.1	17.2	20.7	10.5	20.2	18.2	145.27
Delaware, Lacka. and Western R. R. Co.,	14.2	11	11.7	12.5	18	16.2	12.2	19.2	8.2	17.8	18.2	161.75
Temple Iron Company,	18.6	12.3	12.1	8.9	16	18.6	17	17	8	1.4	18.2	130.70
Miscellaneous companies,	17.7	12.9	14.7	13.3	15.9	15.4	15.4	16.4	9.6	4.8	16.3	153.97
Total,	17	11.6	13.1	10.1	15.3	14.5	16.7	18.2	8.7	2.8	17.1	†154.10

*The men and boys are included in the Butler Mine Company, Limited, for Butler, Chapman and Fernwood collieries.
 †Average time worked by all the coal companies.

TABLE IV—List of fatal accidents that occurred in and about the mines of the Third Anthracite District for the year ending December 31, 1900.

Date of accident.	Name of Person.	Nationality by Birth.	Occupation.	Age.	Married or single.	Number of widows.	Number of orphans.	Name of Colliery.	County.	Nature and Cause of Accident in Brief.
Jan. 5	John Bayaka,	Pole,	Laborer,	35	M.	1	2	Twin No. 1 shaft, ..	Luzerne, ...	Fatally injured by fall of rock at face of gangway in Red Ash vein. Was told by his miner to keep out as roof was bad, but he disobeyed him. Fatally squeezed between empty cars at head of shaft while pushing a car on cage.
8	John Bainbridge,	English,	Shaft headman,	36	M.	1	3	Maltby Outside,	Luzerne, ...	Fatally burned by powder in the airway Koss vein; fired a blast in face of airway, a piece of coal flew and broke a leg of powder choker, which was gathering it up with his lamp on his cap when a spark from his lamp fell in it and ignited the powder, causing his death.
9	John T. Ladena,	Slav,	Miner,	35	M.	1	5	Harry E. shaft,	Luzerne, ...	Fatally injured by falling down shaft. While riding up on truck with dead mule from Red Ash vein was thrown off by some cause.
13	Fred. Smaltz,	American, ...	Driver boss,	22	S.	.....	.....	Barnum No. 2,	Luzerne, ...	Fatally injured by fall of top coal while drilling a hole under it in face of his breast.
18	Frank Peterson,	English,	Miner,	50	M.	1	1	Harry E. shaft,	Luzerne, ...	Fatally injured by fall of rock in Red Ash vein, Dec. 1, 1900.
31	Anthony Usitas,	Slav,	Laborer,	25	S.	.....	.....	Harry E. shaft,	Luzerne, ...	Fatally injured in a breast in Koss seam.

Feb.	6	Michael Megdo,	Slav,	Slope footman,	23	S.	Prospect shaft,	Luzerne, ...	Crushed between cars at foot of inside slope Baltimore vein; tried to uncouple the cars while they were moving on the inside of curve, and was caught by cars coming together; his own carelessness. Fatally injured while riding on bumper of mine car in Red Ash vein and sliding his foot along the rail, it caught and killed him.
	14	Joseph Burns,	American, ..	Driver,	19	S.	Twin No. 1 shaft, ..	Luzerne, ...	Fatally killed by a large piece of coal falling from the gangway rib in Red Ash vein while measuring a rail to put in the track.
March	21	Patrick Coyle,	American, ..	Track layer,	35	M. 1	Louise slope,	Luzerne, ...	Instantly killed by a large piece of coal falling from the gangway rib in Red Ash vein while measuring a rail to put in the track.
	20	Bryan Monohan,	Irish,	Miner,	63	M. 1	Black Diamond shaft, ..	Luzerne, ...	Killed by fall of rock at face of breast while shoveling coal back.
April	27	George Chester,	Scotch,	Miner,	50	M. 1	Laws shaft,	Luzerne, ...	Fatally injured by fall of rock in face of breast in Babylon vein while barring out loose coal.
	30	Maxwell Stein,	Austrian, ..	Laborer,	43	M. 1	East Boston shaft, ..	Luzerne, ...	Fatally injured by fall of coal at face of breast in Roseman; tried to bar it down, but fell; went in under top coal to a hole, when it fell on him.
May	1	Chas. Conrod,	Russian, ..	Laborer, ..	42	M. 1	No. 14 tunnel,	Luzerne, ...	Instantly killed in face of chamber by fall of rock while loading a car with coal.
	2	Michael Pasquail,	Italian, ..	Miner,	30	M. 1	Heldberg slope, ...	Luzerne, ...	Killed by fall of top coal while drawing back pillar in Red Ash vein while shoveling coal under it.
	5	Patrick Connelly,	Irish,	Driver,	17	S.	Twin No. 1 shaft, ..	Luzerne, ...	Killed in No. 1 inside slope Red Ash vein, by runaway trip of empty cars.
	21	Peter Rodwynowsky, ..	Pole,	Miner,	41	M. 1	No. 4 shaft,	Luzerne, ...	Fatally injured by premature blast in his breast in Red Ash vein caused by saturating the match with kerosene.
	22	Wm. Pabcock,	American, ..	Driver,	16	S.	Griffith tunnel,	Luzerne, ...	Killed while unhitching a mule from a trip of cars while they were in motion by falling under cars.
June	4	Daniel Shawlaugh,	German, ...	Laborer,	56	M. 1	No. 14 shaft,	Luzerne, ...	Fatally injured by fall of rock in a breast in Checker vein.
	6	August Basko,	German, ...	Miner,	28	M. 1	Babylon slope,	Luzerne, ...	Killed by a fall of rock in cross entrance in Marcy vein; fired a blast which knocked a set of timber out; went back to examine the roof, when it fell on him.

TABLE IV—Continued.

Date of accident.	Name of Person.	Nationality by Birth.	Occupation.	Age.	Married or single.	Number of widows.	Number of orphans.	Name of Colliery.	County.	Nature and Cause of Accident in Brief.
June 6	Michael Ford,	Irish,	Laborer,	28	S. ....	.....	.....	Maltby shaft,	Luzerne, ...	Fatally injured by fall of rock in Lower Baltimore vein. His brother was the miner in the heading and was told by his assistant boss to take the rock down but failed to do so. Instantly killed by a premature blast in breast in which he worked in Red Ash seam; cut the match too short.
8	Wm. Norris,	English,	Miner,	37	M. 1	5	.....	Clear Spring shaft,	Luzerne, ...	Fatally injured by trip of cars while running trip of cars slipped and fell under them while spragging. Died June 25.
14	Patrick Gavingan,	American, ..	Plane runner,	18	S. ....	.....	.....	Twin No. 2 shaft, ..	Luzerne, ...	Fatally injured by premature blast in breast Lower Baltimore vein.
15	John Unko,	Austrian, ..	Miner,	30	M. 1	3	.....	Prospect shaft,	Luzerne, ...	Killed by trip of loaded cars.
18	Stanley Crusheski,	Pole,	Laborer,	25	S. ....	.....	.....	Heidelberg shaft, ..	Luzerne, ...	Fatally injured by being run over by railroad cars under breaker. He got on top of car while it was being loaded when, to drop the cars down to be loaded, lost control of an empty car which struck the car Rowett was standing on knocking him off under the car; he died same day.
26	Howard Rowett,	American, ..	Slate picker,	14	S. ....	.....	.....	Louise breaker,	Luzerne, ...	Fatally injured by an explosion of gas in Marcy vein, caused by one of the miners who went down the slope when forbidden by fire boss and crossed the danger fence; died June 17.
July 10	Joseph Lacovich,	Pole,	Laborer,	23	S. ....	.....	.....	Twin No. 2 shaft, ..	Luzerne, ...	

12	Peter Chickispha,	Pole,	Miner,	26	S.	No. 5 shaft,	Luzerne, ...	Instantly killed by a piece of rock falling from the roof in face of the breast in which he worked in Red Ash vein.
12	Christopher Fruitt,	Irish,	Miner,	53	M. 1	Bernice drift,	Sullivan, ...	Fatally injured by fall of rock in Bernice vein; while breaking coal with a pick the rock struck him, forcing the pick handle through his body.
14	Joseph Pratraska,	Pole,	Miner,	34	M. 1	Avoca shaft,	Luzerne, ...	Instantly killed by a premature blast in face of breast, Red Ash vein.
14	Joseph Davis,	American, ..	Footman at breaker tower,	22	S.	Pettebone breaker,...	Luzerne, ...	Killed by falling from cage at breaker. While lifting an empty cage the engineer pushed the cage, thinking he got the sign to hoist; Davis jumped from the cage and his neck was broken in cage pit.
14	Wm. Mickaloss,	Pole,	Miner,	38	S.	Black Diamond shaft,	Luzerne, ...	Fatally injured by fall of rock in Ross vein. He went under the rock to drill a hole when it should have been taken down, as he knew it was bad. Died July 16th.
24	Vehanco Goettle,	Italian,	Laborer,	24	S.	Exeter No. 1 shaft,	Luzerne, ...	Fatally injured by fall of rock in Pittston vein on gangway road; they fired a blast which knocked out two props and while cleaning road, rock fell on him same day.
25	Joseph Hovak, †.....	German,	Miner,	34	M. 1	Exeter No. 1 shaft,	Luzerne, ...	Fatally injured by premature blast. Drilled a hole in roof and tamped it and put squab in hole and while collecting the tools with lamp on his cap it came in contact with the squab, igniting it.
Aug. 14	John Blonskospo,	Pole,	Laborer,	19	S.	Langcliffe tunnel, ..	Luzerne, ...	Killed by fall of bony coal and rock in breast in Marcy vein while loading a car of coal.
18	Michael Doraska,	Pole,	Laborer,	35	M. 1	East Boston shaft,...	Luzerne, ...	Killed in a cross entrance in Ross vein. They had fired a blast which opened up this entrance and in going back to examine the place the top coal fell on him.

TABLE IV—Continued.

Date of accident.	Name of Person.	Nationality by Birth.	Occupation.	Age.	Married or single.	Number of widows.	Number of orphans.	Name of Colliery.	County.	Nature and Cause of Accident in Brief.
Aug. 18	Louis Deras,	Italian,	Laborer,	40	M.	1	6	No. 6 shaft,	Luzerne, ...	Instantly killed by falling down the shaft from Checker to Red Ash vein. The cage stopped to take a few men on at Checker vein and after signal was given to hoist, Deras ran to back but refused to do so and fell 100 feet.
28	Thomas Tigue,	American, ..	Laborer,	31	S.	.....	.....	Butler strippings, ..	Luzerne, ...	Fatally injured by a fall of clay at the Butler strippings; was working close to bank which was 8 feet in height, when it fell on him; died same day.
29	John McCormack,	Irish,	Miner,	50	M.	1	2	Clear Spring shaft,	Luzerne, ...	Instantly killed by fall of rock in Marcy vein.
31	Daniel Donovan,	American, ..	Driver,	15	S.	.....	.....	Hoyte shaft,	Luzerne, ...	Killed by being caught between car and rib on gangway in Checker vein. How he came on the lower side of road cannot be determined as on the upper side there was 7 feet of space.
Sept. 1	Dominick Lombard,	Italian,	Miner,	50	M.	1	3	Fernwood tunnel, ..	Luzerne, ...	Fatally injured while forcing a charge of powder into the drill hole with his drill in face of breast, Red Ash vein. The powder became ignited, injuring him so that he died in hospital same day.
Oct. 5	D. A. Wood,	German,	Miner,	72	M.	1	.....	Lykens drift,	Sullivan, ...	Fatally injured by fall of rock and bony coal in the breast in Bernice vein, in which he worked.

27	John Clark,	English,	Fire boss,	M	1	4	Barnum No. 3 shaft,	Luzerne, ...	Clark was killed and Edwards fatally injured in the Pittston vein while going up a breast to get tools to clear a fall on gangway road. They went with open lights and ignited a body of gas, causing an explosion, which proved fatal to both. Clark had his safety lamp in his pocket but failed to use it, thinking all was safe, and died next day. Stephens and Connor were killed by a rush of coal in a new breast they were turning off the gangway road in the upper Baltimore seam. They had fired a blast which failed to cut, and in going back immediately they were caught on gangway road.
27	Mathew Edwards,	English,	Fire boss,	M	1	.....	Barnum No. 3 shaft,	Luzerne, ...
31	Wm. Shepherd,	English,	Miner,	M	1	Pine Ridge shaft, ..	Luzerne, ...	Killed by fall of rock in face of breast in which he worked in Pittston vein while working out some loose coal. Killed at foot breast in Red Ash vein by runaway car that the runner was running down the chamber.
31	Calvin Conner,	American, ...	Laborer,	S.	.....	.....	Pine Ridge shaft, ..	Luzerne, ...
Nov.	6	James Johns,	American, ..	Miner,	M	1	No. 14 tunnel,	Luzerne, ...	Fatally injured by getting into Tony rollers at breaker. He lifted the cover off to shovel dirt into them; died next day. Fatally crushed on surface while crawling under rocking bob of Pole pump.
8	Adam Chlisceck,	Lithuanians.	Miner,	M	1	2	Twin No. 1 shaft, ..	Luzerne, ...	
8	Chas. McCall,	American, ...	Slate picker,	S.	Babylon breaker, ...	Luzerne, ...	These men were fatally injured by a premature blast while forcing a cartridge into the drill hole, which had stuck. Killed by fall of coal at face of breast, was told by his laborer to come out as the roof was bad, but he failed to do so.
13	Anthony Pirror,	Italian,	Laborer,	S.	.....	.....	No. 8 pump shaft, ..	Luzerne, ...
19	Anthony Sabelesky,	Pole,	Miner,	M	1	1	Exeter No. 1 shaft,	Luzerne, ...	Fatally injured by fall of rock at face of breast in Red Ash vein.
19	Anthony Usitus,	Pole,	Miner,	M	1	1	Exeter No. 1 shaft,	Luzerne, ...	
23	Joseph Azro,	Hungarian,	Miner,	M	1	1	East Boston shaft, ..	Luzerne, ...	Fatally injured by being struck on the head by a lever which dumps the cars on rock dump outside; died same day in hospital.
28	Mike Lyback,	Italian,	Miner,	M	1	1	Fernwood shaft,	Luzerne, ...	
30	Felix Connor,	Slav,	Rock dumper,	S.	.....	.....	Heidelberg No. 2, ...	Luzerne, ...

TABLE IV—Continued.

Date of accident.	Name of Person.	Nationality by Birth.	Occupation.	Age.	Married or single.	Number of widows.	Number of orphans.	Name of Colliery.	County.	Nature and Cause of Accident in Brief.
Dec. 1	Andrew Hincheck,	Pole,	Laborer,	28	S.	.....	.....	Pine Ridge shaft, ...	Luzerne, ...	Killed by fall of rock in face of breast. Hillman vein.
6	Robert Bran,	Irish,	Runner,	22	S.	.....	.....	Harry E. shaft,	Luzerne, ...	Fatally injured; while riding up engine plane cars got off track throwing him under them.
7	John Ostrich,	Slav,	Laborer,	19	S.	.....	.....	Exeter shaft,	Luzerne, ...	Killed by fall of rock at face of breast while loading car in Pittston vein.
17	Rocco Mollo,	Italian,	Miner,	42	M.	1	1	Griffith tunnel,	Luzerne, ...	Fatally squeezed on inside scribe between trip of cars and rib; he had no business on the scribe but took for a short time of the mine.
31	John Sharp,	Irish,	Miner,	30	S.	.....	.....	Lykens drift,	Sullivan, ...	Fatally injured by fall of top coal at face of breast after going back from firing a blast.

TABLE V—List of non-fatal accidents that occurred in and about the mines of the Third Anthracite District for the year ending December 31, 1900.

Date of accident.	Name of Person.	Nationality by Birth.	Occupation.	Age.	Married or single.	Name of Colliery.	County.	Nature and Cause of Accident in Brief.
Jan. 2	Patrick Lally,	Irish,	Plateman,	55	M.	No. 6 breaker,	Luzerne,	Foot crushed while olling slide on gate in breaker.
2	John Griffith,	Welsh,	Brattice man,	49	M.	Twin No. 1 shaft,	Luzerne,	Face and hands burned by gas; admitted that he went into place without safety lamp, thinking all was safe.
9	John Solon,	Slav,	Miner,	28	M.	Harry E. shaft,	Luzerne,	These two men were burned by powder which was spilled by a blast.
9	Joseph Selmon,	Slav,	Laborer,	27	S.	Harry E. shaft,	Luzerne,	Painfully bruised by fall of rock in Red Ash ch.
11	Ignatz Karfut,	Austrian, ..	Miner,	29	S.	Elmwood shaft,	Luzerne,	Hip bruised by fall of rock in Red Ash vein.
12	Jerry Dantie,	Italian,	Miner,	30	M.	Stevens shaft,	Luzerne,	Back severely bruised by fall of rock. Painfully bruised by falling down steps in breaker while olling machinery.
13	Peter Shroskey,	Pole,	Miner,	31	S.	Louise slope,	Luzerne,	Painfully crushed between car and collar while riding up plane in violation of mine law.
13	James Yetter,	American, ..	Breaker oiler,	50	M.	Maltby breaker,	Luzerne,	Leg broken and top of finger cut off while helping lift a collar on the legs in Ross vein by a fall of rock.
19	John Lavelle,	Irish,	Timberman,	33	M.	Pettebone shaft,	Luzerne,	Arm broken while riding in a car when he stepped on the side of car, throwing him against the side of car.
22	Joseph Parrin,	English,	Miner,	54	M.	Harry E. shaft,	Luzerne,	Ribs broken; struck by flying coal from a blast.
22	John Ihnes,	American, ..	Laborer,	38	M.	Barnum No. 2 shaft, ..	Luzerne,	Face and hands cut by flying coal from a blast.
24	Anthony Wargo,	Slav,	Laborer,	48	S.	Hallstead shaft,	Luzerne,	Fingers painfully crushed while blocking a car.
26	Matthew Christian, ..	Austrian, ..	Miner,	58	S.	East Boston shaft, ..	Luzerne,	Leg broken; ran to open his door and climbed over some prop timber to do so, when they rolled on top of him, breaking his leg.
27	Peter Erosavitch,	Pole,	Miner,	30	S.	Langcliff shaft,	Luzerne,	
29	Edward McCabe,	Irish,	Door boy,	15	S.	Oakwood shaft,	Luzerne,	

TABLE V—Continued.

Date of accident.	Name of Person.	Nationality by Birth.	Occupation.	Age.	Married or single.	Name of Colliery.	County.	Nature and Cause of Accident in Brief.
Jan. 29	Daniel Morgan,	Welsh,	Miner,	54	M.	Pine Ridge shaft,	Luzerne,	Leg broken by fall of roof in Kidney vein.
30	Louis Mugardees,	Pole,	Laborer,	26	S.	Babylon tunnel,	Luzerne,	Leg broken by fall of rock in Marcy vein while loading a car.
Feb. 1	John Wallek,	Slav,	Laborer,	20	S.	Maltby shaft,	Luzerne,	Face and hands burned by gas; went into abandoned breast.
6	M. F. Sullivan,	Irish,	Brattice man,	26	S.	Harry E. shaft,	Luzerne,	Cut an artery in his foot while using an ax preparing timber.
7	Wm. Fadden,	Irish,	Laborer,	25	S.	No. 6 shaft,	Luzerne,	Leg broken, while running car out of breast in Marcy vein jumped track in mine.
10	James Gabridge,	Pole,	Miner,	40	M.	Langcliffe tunnel,	Luzerne,	Arm broken; while bearing down coal a piece fell on him.
16	John P. Murphy,	Irish,	Miner,	27	S.	Lykens drift,	Sullivan,	Leg broken by fall of ton coal.
9	Joseph Fletcher,	English,	Asst foreman,	51	M.	Stevens shaft,	Luzerne,	Both legs broken by coal flying from a blast through a pillar.
16	Michael Boland,	American, ..	Driver,	18	S.	Delaware shaft,	Luzerne,	Leg broken; kicked by a mule he was driving.
19	Michael Boeka,	Slav,	Fireman,	27	S.	Maltby breaker,	Luzerne,	Head cut and bruised; fell into fan pit while turning engine off center.
21	Thomas Maloy,	Irish,	Road cleaner,	67	M.	Prospect shaft,	Luzerne,	Hips painfully squeezed between mule and car on gangway road.
26	Thomas Cawley,	American, ..	Door boy,	15	S.	Barnum No. 3 shaft, ..	Luzerne,	Kicked on face by a mule while hitching mules to car. Had no business in mine.
March 2	Anthony Kirchis,	Slav,	Miner,	49	M.	Harry E. shaft,	Luzerne,	Arm broken by coal flying from a blast he was firing in his chamber.
5	Joseph Watson,	English,	Company laborer, ..	34	S.	Twin No. 1 shaft,	Luzerne,	These two persons were slightly burned on face and hand by gas by going into abandoned workings in
5	James Maine,	Scotch,	Company miner, ..	38	M.	Twin No. 1 shaft,	Luzerne,	Red Ash vein against orders.
5	Martin Coyne,	Irish,	Driver,	18	S.	Twin No. 2 shaft,	Luzerne,	Kicked on the face by a mule while unhitching it.
6	George King,	Irish,	Driver,	17	S.	No. 11 shaft,	Luzerne,	Leg broken while whipping his mule; slipped and fell in front of cars.

6	Michael Hanahue,	Irish,	Miner,	60	M.	No. 5 shaft,	Luzerne,	Face burned by gas; fired a blast, sat down at his box for some time, went back and gas had accumulated in entrance, which he ignited with his open lamp.
6	Martin Borek,	Austrian, ..	Laborer,	26	S.	Elmwood shaft,	Luzerne,	Leg broken by piece of rock sliding from the goin on him.
8	John Rudlek,	Pole,	Miner,	27	S.	No. 11 shaft,	Luzerne,	Face and hands burned by gas; fired blast in breast, which cut a feeder of gas.
12	Phenis Myers,	American, ..	Laborer,	35	M.	Louise breaker,	Luzerne,	Arm broken; hook on car hoist at breaker broke.
19	John McCue,	American, ..	Driver,	47	S.	Butler breaker,	Luzerne,	Collar bone broken; fell from culm car.
19	Richard Gorman,	Irish,	Miner,	19	S.	No. 11 shaft,	Luzerne,	Face and hands slightly burned by gas while examining the face of breast.
28	Albert Richins,	English, ..	Driver,	15	S.	Langeliffe tunnel,	Luzerne,	Wrist broken by falling while running.
30	John Hart,	Irish,	Miner,	47	W.	No. 9 shaft,	Luzerne,	Jaw and ribs broken and head bruised by fall of coal.
April	2 John Gravel,	Welsh,	Miner,	47	M.	Stevens slope,	Luzerne,	Leg broken and head bruised by fall of rock.
10	Michael Pezwalish,	Slav,	Laborer,	36	M.	East Boston shaft,	Luzerne,	Shank broken by fall of coal.
17	Simon Keges,	Pole,	Mason,	46	M.	Clear Spring shaft,	Luzerne,	Slope fractured by trip of cars on slope.
17	Michael Powvol,	Hungarian, ..	Culm dumper,	33	M.	Maitly, outside,	Luzerne,	Leg broken; while cleaning track under breaker was struck by culm car.
19	John Urban,	Pole,	Miner,	30	M.	Black Diamond shaft,	Luzerne,	Two fingers crushed in pulley chain.
21	Herman Donner,	German,	Track layer,	37	M.	East Boston shaft,	Luzerne,	Toe crushed by fall of rock.
21	Patrick Kelley,	American, ..	Mine foreman,	52	M.	Black Diamond shaft,	Luzerne,	Two middle fingers cut off by fall of rock.
21	Wallace Glennon,	Irish,	Runner,	26	M.	Pettebone shaft,	Luzerne,	Abdomen ruptured by lifting a car which was off the track.
24	Patrick Brogan,	Irish,	Miner,	50	M.	Pine Ridge shaft,	Luzerne,	Body severely bruised by fall of fire clay.
25	Edward Reap,	American, ..	Laborer,	17	S.	Laws shaft,	Luzerne,	Skull fractured; fall of coal.
25	Lepold Slang,	German,	Miner,	36	M.	East Boston shaft,	Luzerne,	Wrist broken and hip bruised by fall of coal.
25	Eugene Hoffman,	German,	Door boy,	15	S.	Pettebone shaft,	Luzerne,	Leg squeezed and cut while riding between cars.
28	Peter Walkenisky,	Pole,	Miner,	30	M.	East Boston shaft,	Luzerne,	Body and legs bruised by fall of top coal.
May	8 Nancy Karnoski,	Pole,	Miner,	35	M.	Henry shaft,	Luzerne,	Face and hands burned by powder from exploding cartridge.
12	Jay Rust,	American, ..	Machinist,	19	S.	Maitly, outside,	Luzerne,	Finger cut off by a pump.
15	Michael Hofferon,	Irish,	Miner,	69	W.	Barnum No. 2 shaft, ...	Luzerne,	Scalp wound and leg bruised by premature blast.
19	Thomas Dawson,	English, ..	Prattice man,	33	M.	Hallstead shaft,	Luzerne,	Leg broken; started up the plane and was caught by descending cars.
21	James Transue,	American, ..	Slope headman, ...	24	M.	Stevens, outside,	Luzerne,	Shoulder broken while unbitchoing trip of cars from rope; slipped under cars.
24	Michael Loughney,	Irish,	Miner,	35	M.	Mt. Lookout shaft, ...	Luzerne,	Face cut and leg bruised by premature blast.

TABLE V—Continued.

Date of accident.	Name of Person.	Nationality by Birth.	Occupation.	Age.		Name of Colliery.	County.	Nature and Cause of Accident in Brief.
				Married	or single.			
May	25 John Stahnlack,	Pole,	Miner,	39	M.	Mt. Lookout shaft, ..	Luzerne,	Leg broken by fall of rock while bat- ring down coal.
	28 Joseph Cawley,	American, ..	Outside laborer, ..	24	S.	Batler, outside,	Luzerne,	Spine injured by a falling pole.
June	1 James Eple,	Italian,	Driver,	17	S.	Stevens slope,	Luzerne,	Kicked on the mouth by mule.
	5 Robert Richardson, ..	English,	Driver,	22	S.	Hallstead shaft,	Luzerne,	Hips bruised, squeezed between car and roof.
	6 Anthony Brush,	German,	Miner,	44	M.	Langcliffe shaft,	Luzerne,	Leg broken; caught between car and prop timber.
	6 Frank Zendo,	Austrian, ..	Miner,	38	M.	Elmwood No. 1 shaft, Laurel Run slope,	Luzerne,	Head cut by fall of coal.
July	6 Frank Racks,	Hungarian, ..	Laborer,	19	S.	Langcliffe shaft,	Luzerne,	Leg broken by fall of rock, back and legs bruised by fall of rock.
	9 W. R. Hughes,	Welsh,	Miner,	36	M.	Mt. Lookout shaft, ..	Luzerne,	Eye cut and back bruised by fall of coal.
	13 Michael Gozda,	Slav,	Miner,	42	S.	Mt. Lookout shaft, ..	Luzerne,	Leg broken by fall of coal.
	14 Joseph Smith,	Hungarian, ..	Miner,	26	M.	East Boston shaft, ..	Luzerne,	Leg cut by a premature blast.
	21 Thomas Dimblek,	Pole,	Miner,	21	S.	No. 6 shaft,	Luzerne,	Leg broken by fall of top coal.
	26 Stanley Kobak,	Pole,	Laborer,	30	S.	Langcliffe shaft,	Luzerne,	Leg broken by fall of top coal.
	28 Frank Kullwell,	Pole,	Miner,	40	M.	Twin No. 1 shaft,	Luzerne,	These men were burned by powder which ignited from a lamp; they were putting in a hole to blast in the gangway, Red Ash vein.
	29 Simon Moketels,	Pole,	Miner,	37	S.	Babylon shaft,	Luzerne,	Leg broken by fall of rock.
	3 George Lilly,	American, ..	Laborer,	26	M.	Twin No. 1 shaft,	Luzerne,	Leg and body bruised by car.
	6 Adam Sinsaw,	American, ..	Door boy,	16	S.	Black Diamond shaft, Twin No. 1 shaft,	Luzerne,	Leg painfully cut by protruding bolt on mine car while passing it on gang- way.
10 Froch Breski,	Pole,	Laborer,	35	M.	Twin No. 2 shaft,	Luzerne,	These three men's faces and hands were burned by an explosion of gas in the Marcy vein slope caused by one of them going over the danger mark put up by fire boss, to put his tools in his box.	
10 Michael Ules,	Pole,	Laborer,	21	M.	Twin No. 2 shaft,	Luzerne,		
10 Wm. Scranton,	Pole,	Company man, ..	25	S.	Twin No. 2 shaft,	Luzerne,		
18 Anthony Renere,	Italian,	Miner,	50	M.	Black Diamond shaft, Twin No. 2 shaft,	Luzerne,	Ribs fractured by fall of rock.	
19 Edward Kane,	Irish,	Miner,	36	M.	Pettebone shaft,	Luzerne,	Jaw broken and face cut by premature blast.	

20	James Leary,	Irish,	Runner,	20	S. Ridgewood slope,	Luzerne,	Leg broken; while riding between cars; they jumped track.
21	Frances McKenna,	American, ..	Driver,	24	M. Babylon, outside,	Luzerne,	Hips and back bruised; dragged by a mule.
25	Charles Boholo,	Pole,	Miner,	26	M. Exeter No. 1 shaft,	Luzerne,	Head severely cut by premature blast.
26	John Donsavage,	Hungarian, ..	Miner,	38	M. Henry shaft,	Luzerne,	Leg broken and body bruised by premature blast.
31	John Kashema,	Hungarian, ..	Breaker platemán,	40	M. Maltby breaker,	Luzerne,	Leg broken while helping turn a screen. Heel of his shoe caught in mesh of segment, pulling him over the screen. These two men while going along main way to work in the morning in Eastern part of shaft were slightly injured by fall of rock.
31	David B. Jones,	Welsh,	Timberman,	40	M. Henry shaft,	Luzerne,	Hand blown off by dynamite caps while handling them.
31	Michael Savol,	Hungarian, ..	Miner,	38	M. Henry shaft,	Luzerne,	Slide and leg badly cut by premature blast.
2	Alex. Slaterzinsky,	Pole,	Miner,	30	S. Exeter No. 1 shaft,	Luzerne,	Leg broken; caught in revolving screen and jig chains; he climbed over fence to go a short cut to chute.
6	Michael Reddington,	Irish,	Miner,	57	M. No. 9 shaft,	Luzerne,	Arm broken; fell in front of car.
6	John Swete,	Slav,	Slate picker,	17	7. Maltby breaker,	Luzerne,	Eye injured by premature blast.
6	Anthony Duffey,	American, ..	Runner,	18	S. Twin No. 1 shaft,	Luzerne,	Face and hands burned by gas.
8	Thomas Healey,	Irish,	Miner,	45	W. Twin No. 1 shaft,	Luzerne,	Wrist severely cut while lifting piece of coal in car to break.
8	Frank Andreas,	German,	Miner,	44	M. No. 6 shaft,	Luzerne,	Head cut and foot bruised by premature blast and leg cut by coal flying from a blast.
8	John Wayne,	Irish,	Laborer,	41	S. Barnum No. 2 shaft,	Luzerne,	Head severely injured by fall of rock in Chester vein.
9	Paul Hurshick,	Slav,	Miner,	45	M. Oakwood shaft,	Luzerne,	Leg broken by fall of coal.
10	Frank Teirney,	American, ..	Laborer,	22	S. No. 6 shaft,	Luzerne,	Head and chest bruised; fell under cars.
14	Peter Didjeon,	Pole,	Miner,	30	M. Exeter No. 1 shaft,	Luzerne,	Leg crushed by car on gangway road striking him.
17	Michael Rednock,	Pole,	Laborer,	40	M. Fernwood shaft,	Luzerne,	Leg broken by fall of coal.
17	Samuel Ziskey,	Pole,	Driver,	16	S. Pine Ridge shaft,	Luzerne,	Head and chest bruised; fell under cars.
21	Philip McManamon,	Irish,	Miner,	33	M. No. 7 shaft,	Luzerne,	Leg crushed by fall of coal.
21	George Jukue,	Hungarian, ..	Miner,	40	M. Stevens shaft,	Luzerne,	Leg broken by fall of rock.
23	John Kelley,	American, ..	Runner,	17	S. No. 4 shaft,	Luzerne,	Leg broken by fall of rock.
25	George Slacey,	American, ..	Driver,	22	M. Louise mine,	Luzerne,	Leg broken by fall of rock.
30	Thomas F. Cavanaugh,	American, ..	Laborer,	21	M. No. 3 shaft,	Luzerne,	Shoulder dislocated by fall of rock.
1	Frank Selaskie,	Pole,	Driver,	17	S. Pine Ridge shaft,	Luzerne,	While riding on front of car it left track and caught his arm against roof, breaking it.
8	Alex. Jerlnski,	Pole,	Miner,	40	S. Henry shaft,	Luzerne,	These two men were burned on face and hands by gas.
8	Charles Crohan,	Pole,	Laborer,	45	S. Henry shaft,	Luzerne,	Head and face cut by coal from premature blast.
11	Andrew Gresnack,	Pole,	Miner,	27	M. Mt. Lookout shaft, ...	Luzerne,	Leg broken by rock falling on him.
12	Oliver Lewis,	Hungarian, ..	Miner,	26	S. Maltby shaft,	Luzerne,	Hand crushed by gates under breaker.
22	Joseph Bosheka,	Hungarian, ..	Outside laborer, ..	35	M. Mt. Lookout breaker, ..	Luzerne,	The balance rope broke, allowing gate to fall on his hand.
3	Thomas Murphy,	Irish,	Miner,	36	S. No. 14 shaft,	Luzerne,	Hip severely cut by fall of rock.

Sept.

Nov.

TABLE V—Continued.

Date of accident.	Name of Person.	Nationality by Birth.	Occupation.	Age.	Married or single.	Name of Colliery.	County.	Nature and Cause of Accident in Brief.
Nov. 3	Anthony Paizl,	Pole,	Miner,	38	M.	Babylon slope,	Luzerne,	Face and arm painfully burned by powder which exploded while forcing a cartridge into a hole with drill.
5	John Thornton,	Irish,	Timberman,	28	M.	Laurel Run slope,	Luzerne,	Head and fingers cut by coal falling on him.
5	Frederick Saback,	Pole,	Miner,	46	S.	Griffith tunnel,	Luzerne,	Ribs broken; struck by car.
6	Pat. Garthian,	American, ..	Miner,	35	S.	No. 14 tunnel,	Luzerne,	Head severely cut and bruised by fall of rock.
8	Joseph Williams,	Welsh,	Miner,	28	M.	Pettehone shaft,	Luzerne,	Bruised and cut by fall of coal.
10	David Griffith,	Welsh,	Miner,	58	M.	Laurel Run slope,	Luzerne,	Face and hands bured by gas. Went to face of chamber of Ross vein with open light, which was forbidden.
10	Edward Walsh,	American, ..	Driver,	16	S.	Fernwood shaft,	Luzerne,	Back and neck, injured by gas.
12	Stanley Manitts,	Pole,	Miner,	42	M.	Oakwood shaft,	Luzerne,	Face and hands burned by powder while filling cartridges.
13	Patrick Owens,	Pole,	Miner,	30	S.	Lykens drift,	Sullivan,	Skull fractured by fall of top coal.
19	Mathias Kimborsky, ..	Pole,	Laborer,	29	S.	Exeter No. 1 shaft, ..	Luzerne,	Slightly cut and bruised by premature blast.
20	David Roat,	American, ..	Breaker oiler,	23	M.	Butler breaker,	Luzerne,	Large toe cut off by engine crank while oiling it.
21	John E. Jones,	Welsh,	Mine boss,	47	M.	Hallstead shaft,	Luzerne,	Hips and shoulder squeezed by fall of rock.
24	Daniel Bolback,	Pole,	Laborer,	43	M.	Laurel Run slope,	Luzerne,	Head bruised and cut; struck by lever while putting car on track.
24	James Murphy,	Irish,	Driver,	21	S.	Laurel Run slope,	Luzerne,	Kicked on the abdomen by the mule he was driving.
4	Andrew Covel,	Slav,	Miner,	36	M.	Forty Foot shaft,	Luzerne,	Face and hands burned by gas.
4	John Lukash,	Slav,	Laborer,	33	M.	McCookout shaft,	Luzerne,	Back and hips bruised by fall of rock.
5	Edward Cobb,	American, ..	Carpenter,	53	M.	Babylon, outside,	Luzerne,	Hip broken; while prying a small engine off center with a lever, engine started and lever struck him.
7	John Humphries,	Welsh,	Miner,	40	M.	Exeter No. 2 shaft, ..	Luzerne,	Face and hands cut and bruised by explosion of blast.
8	Mike Stefan,	German,	Miner,	47	M.	No. 5 shaft,	Luzerne,	Leg broken by a car running on him.
11	Lepold Partuskie,	Pole,	Miner,	24	S.	Pine Ridge shaft,	Luzerne,	Hips bruised by fall of coal.

13	Paul Zuella,	Lithuanian,	Laborer,	36	M. East Boston shaft, ...	Luzerne,	Leg broken by fall of rock
15	Wm. J. Moffatt,	American,	Outside trackman,	28	M. Ewen breaker,	Luzerne,	Leg twisted off at knee joint, while lowering a car of rock down plane at breaker by a rope around a post; his foot caught in rope.
17	Adam Olapandvich,	Slav,	Miner,	50	M. Harry E. shaft,	Luzerne,	Head cut and body bruised by flying coal from blast.
19	Mike Boshovich,	Slav,	Leader,	45	M. Malthy breaker,	Luzerne,	Back bruised; struck by car.
27	David Harris,	English,	Driver,	7	M. Oakwood shaft,	Luzerne,	Kicked in stomach by mule.
28	Joe Yosock,	Austrian,	Laborer,	56	M. Griffith tunnel,	Luzerne,	Leg broken; struck by a car.
31	John Walls,	Irish,	Laboret,	18	S. Lykens drift,	Sullivan,	Leg broken by fall of top coal.



Fourth Anthracite District.

LUZERNE COUNTY.

Office of Inspector of Mines,
 Wilkes-Barre, Pa., February 27, 1901.

Hon. James W. Latta, Secretary of Internal Affairs, Harrisburg, Pa..

Sir: I have the honor of presenting herewith my annual report as Mine Inspector of the Fourth Anthracite District for the year 1900. It contains the usual tabular statements of mine accidents, the number of each class of employes, quantity of coal produced and other useful memoranda. Comparing these with the records for 1899, the result is as follows:

Production of coal in 1899 was (tons),	8,648,152.06
Production of coal in 1900 was (tons),	8,585,741.05
Being a reduction of production of (tons),	62,411.01
Number of employes in 1899 was,	23,668
Number of employes in 1900 was,	23,067
A reduction in number of,	601
Average number of days work in 1899 was,	168.61
Average number of days worked in 1900 was,	161.96
Being 6.65 days less than in 1899.	
Number of fatal accidents in 1899 was,	81
Number of fatal accidents in 1900 was,	71
Number of non-fatal accidents in 1899 was,	188
Number of non-fatal accidents in 1900 was,	244
An increase of non-fatal accidents in 1900 of,	56

Number of widows in 1899 was 44; orphans, 109.

Number of widows in 1900 was 36; orphans, 75.

Tons of coal mined per life lost in 1899 was, 106,767

Tons of coal mined per life lost in 1900 was, 120,925

An increase of production per life lost of (tons), 14,158

Quantity of coal produced per person seriously injured in 1899 was 46,000 tons. In the year 1900 it was 35,187.

All the collieries except the West End were idle on strike from Monday, September 17th, to Saturday, October 27th, 1900. During the strike the mines were greatly damaged by falls of roof at many points, and it took the labor of several months to repair them. The falls were so high in some of the rock tunnels that the work of clearing the rock and securing the roof was very dangerous, but it was accomplished in each case without accident. The mines are now all working full handed, are well ventilated and generally in good, safe condition.

Yours very respectfully,

G. M. WILLIAMS,

Mine Inspector.

Production of Coal in Tons for the Year 1900 by the Several Companies.

Lehigh and Wilkes-Barre Coal Company,	2,641,484.18
Delaware and Hudson Canal Company,	1,363,997.00
Susquehanna Coal Company,	1,047,295.09
Kingston Coal Company,	912,569.17
Delaware, Lackawanna and Western Railroad Company,	799,515.15
Lehigh Valley Coal Company,	327,196.07
Red Ash Coal Company,	174,987.12
Parrish Coal Company,	502,226.01
Alden Coal Company,	210,218.15
West End Coal Company,	196,480.00
Warrior Run Coal Company,	160,236.11
Crescent Coal Mining Company,	53,294.09
Hillman Vein Coal Company,	32,992.03
Melville Coal Company,	71,326.11

Plymouth Coal Company,	7,744.17
Ayers & Brothers (Chauncey),	50,175.00
Sterling Coal Company Washery,	34,000.00
	<hr/>
Total,	8,585,741.05
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The above production was made up as follows:

	Tons.
Shipped to market by railroad,	7,561,774.10
Sold at mines for local use,	242,991.15
Consumed to generate steam at mines,	780,975.00
	<hr/>
Total,	8,585,741.05
	<hr/> <hr/>

TABLE A.—Showing number of lives lost, tons of coal produced per life lost and per person injured, number of employes and number of employes per life lost and per person injured in 1900.

	Number of lives lost.	Tons of coal produced per life lost.	Number of persons seriously injured.	Tons of coal produced per person seriously injured.	Number of persons employed.	Number of employes per life lost.	Number of employes per person seriously injured.
Lehigh and Wilkes-Barre Coal Company,	20	1 2 074	85	81,076	6,018	300.9	70.8
Delaware and Hudson Canal Company,	11	123,899	21	56,833	3,610	330.9	151.6
Schenectady Coal Company,	14	74,806	39	26,853	3,843	274.5	98.8
Knox Coal Company,	10	91,257	23	39,676	2,226	222.6	96.7
Delaware, Lehigh and Western Railroad Company,	2	398,757	31	25,790	2,121	1,060.5	68.4
Lehigh Valley Coal Company,	2	163,598	2	163,598	941	470.5	470.5
Red Ash Coal Company,	1	29,164	6	29,164	500	500.0	83.3
Farrish Coal Company,	1	503,291	13	58,622	1,384	1,384.0	106.4
Alden Coal Company,	1	210,248	1	58,622	467	467.0	146.7
West End Coal Company,	2	98,240	3	65,493	477	208.3	122.8
Warrior Run Coal Company,	2	80,118	7	22,890	419	208.3	122.8
Crescent Coal Mining Company,	3	17,764	1	53,294	189	63.0	189.0
Hillman Vein Coal Company,	2	16,486	2	35,663	425	212.5	212.5
Melville Coal Company,	3	.....	3	2,581	107	35.6	35.6
Plymouth Coal Company,	1	.....	1	50,175	190	190.0	190.0
Ayers and Brothers, .....	.....	.....	.....	.....	.....	.....	.....
Sterling Coal Company washery, .....	.....	.....	.....	.....	.....	.....	.....
Total and average,	71	120,925	244	35,187	23,065	324.8	94.5

Classification of Fatal and Non-Fatal Accidents.

Causes of Accidents.	Fatal.	Non-fatal.
By explosions* of fire damp,	12	57
By falls of roof and coal,	22	73
By mine cars in the mines,	18	42
By explosions of powder and blasts,	5	20
By falling down shafts,	5	11
By miscellaneous causes in the mines,	3	31
By miscellaneous causes on surface,	8	20
Total,	71	244

In addition to the above, 98 slight accidents were reported, which were not included as serious accidents.

William Williams committed suicide by crawling through a window and falling a depth of 80 feet to the ground at the Buttonwood breaker, August 3, 1900. This was not recorded as a mining accident.

John Kelley, who died suddenly of heart failure at the Nottingham mine, June 26th, 1900, was not recorded as a mining accident.

TABLE B—Classification of fatal accidents for the year 1900, Fourth Anthracite District.

Causes of Fatal Accidents.		Occupations of Persons Killed or Fatally Injured.										Nationality of Persons Killed or Fatally Injured.																			
Total.		Explosions of gas.	Falls of roof and coal.	By mine cars, underground.	Falling down shafts.	By explosion of powder and blasts.	Miscellaneous causes, inside.	Miscellaneous causes, outside.	Total.	Miners.	Laborers.	Runners.	Drivers.	Door tenders.	Timbermen.	Headmen and footmen.	Company men.	Shaft sinkers.	On surface.	Total.	American.	Welsh.	Irish.	English.	Poles.	Lithuanians.	Slav.	Russian.	German.	French.	Total.
January	5	1	1	1	1	1	1	1	2	1	1	1	1	1	1	1	1	1	1	10	1	1	1	1	1	1	1	1	1	1	10
February	10	1	1	1	1	1	1	1	6	3	1	1	1	1	1	1	1	1	1	10	1	1	1	6	1	1	1	1	1	16	
March	6	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	9	1	1	1	1	1	1	1	1	1	9	
April	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	9	1	1	1	1	1	1	1	1	1	9	
May	5	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	5	1	1	1	1	1	1	1	1	1	5	
June	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
July	9	1	1	1	1	1	1	1	3	1	1	1	1	1	1	1	1	1	1	9	1	1	1	1	1	1	1	1	1	9	
August	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
September	5	1	1	1	1	1	1	1	1	2	1	1	1	1	1	1	1	1	1	4	1	1	1	2	1	1	1	1	1	4	
October	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
November	5	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	5	1	1	1	1	1	1	1	1	1	5	
December	4	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	4	1	1	1	1	1	1	1	1	1	4	
Totals	71	22	18	8	8	5	3	8	71	24	13	2	5	5	1	2	9	2	8	71	15	7	5	2	20	6	9	3	3	71	

1900.

Accidents by Fire-Damp Explosions.

As shown in the foregoing table, 12 fatal and 57 non-fatal accidents occurred in this district in the year 1900, by explosions of fire-damp, being nearly 22 per cent. of the whole number of accidents. Nearly all occurred through the careless use of "naked lights," where safety lamps only should have been used. If the use of naked lights were prohibited to all classes of employes at the working faces in gaseous mines, the number of accidents from explosions of gas and the risk of causing mine fires would be greatly reduced.

Sometimes explosions of gas take place from mine fires ignited by blasts, but these are only a small number as compared with those-caused by the careless use of naked lights.

A mine fire most invariably produces an atmosphere of non-combustible gases around itself, affording a high degree of security against explosions of fire damp if the air current is directed to convey the fire damp away from contact with the fire, but the unprotected flame of a lamp does not provide such security. It is safer even when fighting fires to use safety lamps only.

Compliance with the following rules would prevent many accidents from explosions of fire damp:

1. Have no naked lights used in places where there are gas feeders issuing, nor in any other place where a body of gas may accumulate when the air current is reduced through the opening of a door or otherwise.

2. When examining a mine with a safety lamp, the person doing so should have a clean safe lamp, and as far as practicable he should walk with the air current, and should, if possible, avoid walking against the air current at any time. The reason for this is obvious. If a man unexpectedly enters a body of gas when walking with the air current and loses his light, he can retreat to a point where he knows that it is safe to relight it, but if he should enter a body of gas when walking against the current, it would be dangerous because the gas would be moving with him in his retreat, and he could not determine where it would be safe to strike a light.

3. In fighting a fire, the burning timber and coal should be extinguished first and the burning gas feeders last. As long as the gas feeders are permitted to burn there is less cause to expect an accumulation of fire damp, and to prevent an accumulation, the water should be frequently played against the top so as to dissipate the gas.

4. Brattices should be extended invariably before a body of gas can accumulate. It is the prevailing practice and a bad one to wait

for the appearance of gas before the brattice is extended, for it is at all times dangerous to remove even a small body of it, and the majority of the miners now employed cannot be trusted to do so.

Accidents by Falls of Roof and Coal.

Twenty-two fatal and 73 serious non-fatal accidents occurred in the year 1900 from falls of roof and coal, being 30 per cent. of the whole number of accidents from all causes. Every year, as the records show, this is the cause of the greatest number of accidents. The records show also that the greatest number of these occur owing to the inexperience and carelessness of the victims of such accidents. The writer has worked in the anthracite mines of this Commonwealth for forty-two years and is perhaps familiar with a greater number of mines than any other person now living, and he can state truly that there never has been a time when there was such a large proportion of the miners employed in the mines so incompetent as they are at present. Considering this, one is surprised that the number of accidents is not greater. A large proportion of the accidents from falls of roof and coal occur when the miner is barring loose rock or coal down. He stands to do so in such a position that the rock or coal in falling, falls against or upon him. Accidents from falls of roof and coal frequently occur when the miner returns to the face too soon after a blast is fired. It takes a few minutes sometimes for a piece of coal or roof to fall after its support is taken away by a blast, and if any one approaches the face before this happens he is likely to be caught under when it falls, and this is the manner in which a large number of the accidents by falls of roof and coal occurred in the year 1900.

A large number of miners not knowing how to fasten a prop to advantage, and not knowing the amount of powder to charge a hole with, discharge the props by blasting, and on returning to replace the prop the roof falls upon them.

It is impossible to reduce this class of accidents by any system of mine inspection, for the cause does not arise from the condition of mines, but rather from the conduct of the men who are the victims of the accidents.

Accidents by Mine Cars in the Mines.

The number of accidents caused in various ways by mine cars was 18 fatal and 42 non-fatal. Runners, drivers and door-tenders furnish the greater number of victims in this class of mine accidents, but a number of miners or laborers were among them. A

number were hurt by standing in dangerous positions to block a car or to pull a block from before the wheel of a car. Some were hurt by turning to a narrow side to let a trip of cars pass and were crushed between cars and side of gangways. Drivers, runners and door-tenders were hurt by falling off when riding between or on the front end of cars, by falling under when running along side and by being crushed between when coupling or uncoupling cars while they were in motion.

To prevent this class of accidents it is obviously needed that men and boys who are employed in moving mine cars should take care of themselves. Those in charge of young boys should caution them and try to stop their recklessness. A strict discipline would perhaps prevent a number of all classes of mine accidents.

Accidents by Explosions of Powder and Blasts.

Five fatal and 20 non-fatal occurred from this cause during the year 1900. The largest number of these occur because the miner cuts the match shorter than it is made by the squib manufacturer. By untwisting the match to cut it, the powder falls back into the match from the squib, and when the match is ignited, the blasts explode before the miner can get out of the way. Sometimes a blast is fired sooner than expected owing to the issuance of gas from the hole, but these are very few.

Firing two holes together is very dangerous when it is done by squibs, and it should never be practiced. It is rare that an accident occurs from blasts, that cannot be justly attributed to some kind of carelessness on the part of the man who fires the blast.

There is ready means always at hand for testing whether or not a feeder of gas is issuing, and the necessary precaution should never be neglected, and the squibs or matches should never be tampered with.

Accidents from Miscellaneous Causes Inside and on Surface at Mines.

It has been stated many times in the Mine Inspector's reports of past years that nearly all the victims of mine accidents have contributed more or less to their cause. There is no more than about one-fourth that occur where it can be truthfully stated that the sufferer was blameless.

Three were killed last year and one injured by falling down shafts. One stepped off the cage on wrong side and back into the shaft at night. Another had stepped off the bucket to a bunton and fell off, while the other fell down the shaft from an ascending cage.

Three fatal and 31 non-fatal accidents took place in the mines and 8 fatal and 20 non-fatal on the surface. These occurred in divers ways which could not be classed with the others. Some struck themselves while using axes. Some were struck by pieces of ice falling down the shafts from the sides. Some were caught in machinery, etc.

This class of accidents can be reduced only by a rigid discipline on the part of officials, and a greater care for their own safety by the men themselves.

Fires in Mines.

The year 1900 was remarkably free from mine fires of any magnitude. The Empire mine fire, reported last year, and the Maxwell mine fire are still sealed in, so that they cannot be examined, but there is no discernible evidence of the existence of fire in either mine.

Abandonment of the Hillman Vein Colliery.

The coal of the Hillman Vein colliery of the Hillman Vein Coal Company having become exhausted, the mine was abandoned on August 16, 1900. This colliery started to prepare and ship coal on September 28, 1883, and produced, including the coal used at the colliery for steam purposes, 1,244,972 tons. The Hillman, Kidney and Abbott seams were mined out.

The size of the hoisting shaft was 16x11 feet, sunk to the Five Foot seam, a depth of 280 feet.

The Dodson Colliery of the Plymouth Coal Company.

The damage done to this colliery by the burning of the breaker July 13, 1899, has been nearly all repaired. Nearly every yard of the gangways and airways was closed by falls of roof caused by destructive explosions of gas and the flooding of the workings with water. The airways having been closed the workings were filled with explosive gases, and it has been a slow and tedious work to reopen the mine, but, by working entirely with safety lamps the work was accomplished without accident. A new breaker is being constructed which will be ready to prepare coal about the middle of March, 1901.

Examination of Mine Foremen.

The annual examination of applicants for certificates of qualification for mine foreman and assistant mine foreman was held in this district on the 14th, 15th and 16th of June, 1900, at the council room, city hall, Wilkes-Barre.

The board of examiners was G. M. Williams, Mine Inspector; Edward Mackin, superintendent, and Frank Mills and David L. John, miners. Seventeen applicants for mine foreman certificates were examined, and the following named were recommended to have certificates: William T. Davies, Charles A. Brown, Harry Gaughan and Thomas E. Edwards, of Wilkes-Barre; William S. Davies and Oliver Rhydderch, of Edwardsdale; James Wilson and Gomer Evans, of Plymouth; John Rousing and James Stirling, of Westmore.

The following named persons received certificates of qualification for assistant mine foreman: James Coughline, Luzerne; Peter Tully, John Dietz, John C. Parry, Lewis Lewis, William E. Thomas, Edward H. Williams, Thomas W. Jones and Ivor Davies, of Wilkes-Barre; Michael Nork and Thomas Morgans, Glen-Lyon; David Morris and James H. Davy, Wanamie; William Newland, Alden Station; John P. Evans, Hltyd Evans, William H. Faust, Benjamin A. Waters, Arthur D. Evans, Lewis B. Lewis, William E. Bowen, Llewelyn Williams and Ivor T. Phillips, of Nanticoke; John Whittington and David Roberts, Sugar Notch; John Abrahamson, William A. Roberts and John Boyer, of Parsons.

Improvements by the Lehigh and Wilkes-Barre Coal Company in the Year 1900.

Hollenbach Colliery.—Tunnel from bottom to top split Red Ash, 49 yards. Return airway in rock, 19 yards.

South Wilkes-Barre Colliery—Bore hole to drain water from Kidney to Hillman Vein. Tunnel Hillman to Stanton, 159 yards. No. 4 tunnel extended 50 yards. Tunnel Baltimore to Five-Foot, 63 yards. Fuel conveyer breaker to boiler house.

Stanton Colliery—Rock plane Hillman to Kidney vein, 60 yards. One pair 24x48-inch first motion engines erected at Stanton air shaft for operation of No. 4 rock plane. One thousand horse power. Babcock & Wilcox boilers to replace cylinder boilers at breaker plant. Additional 6-inch steam line from breaker plant to air shaft.

Sugar Notch—Tunnel from bottom to top split, Baltimore vein. Tunnel from Ross to Red Ash vein, 70 yards.

Lance Colliery—Tunnel Five-Foot to Hillman, 189 yards, partly finished. Tunnel bottom split to top split, Baltimore, 57 yards. Annex to breaker to prepare buckwheat coal.

Nottingham Colliery—One pair 24x48-inch first motion engines for operation of new slope in Ross vein. An 8-inch bore hole, 280 feet long, to conduct rope from surface to head of slope.

Reynolds Colliery.—Rock plane Red Ash to Ross, 50 yards. Partly finished.

Wanamie Colliery.—Tunnel top to bottom split, Baltimore, 44 yards. Tunnel Red Ash to Ross, 85 yards.

Maxwell Colliery.—Opening Red Ash vein in deep shaft. Two tunnels from bottom to top split Red Ash vein, each 30 yards. Remodelled portion of breaker and installed jigs. Two hundred and fifty horse-power Babcock & Wilcox boilers installed.

Improvements by the Delaware and Hudson Company During the Year 1900.

Baltimore Slope—Sinking No. 5 shaft, which is the old Meadow shaft, enlarged from 9 feet 6 inches x 19 feet to 12x28 feet from surface to Baltimore vein, 385 feet. This shaft will be continued in solid, same size to Red Ash vein.

Baltimore No. 2.—No. 6 slope, in Red Ash vein, sunk 700 feet, operated by 10x12 inch engines, with air, only temporary.

Washery relieving breaker and saving small sizes. Refuse is taken down a new 10-inch bore hole 530 feet deep to Red Ash vein.

Baltimore Tunnel.—No. 6 slope, Red Ash vein, extended 800 feet, with a total depth of 1,400 feet.

No. 10 plane completed 3,300 feet, and is operated by pair of 16x36 inch engines, the rope running through bore hole 132 feet deep. New engine house, brick, 20x40 feet, for No. 10 plane engines.

Conyngham.—No. 6 plane, in Abbott vein, now up 1,450 feet.

No. 2 slope, in Baltimore vein, down 900 feet, completed.

Rope haulage operating No. 6 Abbott and No. 7 Kidney planes and delivering coal to foot of No. 1 Hillman slope. Operated by 14x30 inch engines, located on surface, ropes running through 8-inch bore hole, 477 feet deep, to Hillman vein. Haulage is 4,750 feet long.

Plymouth No. 1.—This shaft is completed to the Bennett vein. Plymouth pumping plant.

Another pump room, 22x54 feet, stone side walls and brick arch, is completed.

A compound pump steam cylinder, one 26-inch and two 38-inch, with three plungers 11x48 inches, built by the Dickson Manufacturing Co., has been set up, and will soon be in running order. This pump has a capacity of 3,000 gallons per minute.

New fan 10x28 feet, brick house 48x48 feet.

Fan driven by two engines, 16x36 inches, to ventilate Plymouth No. 2, Red Ash vein.

Plymouth No. 2.—New set hoisting engines, 26x48 inches, with half cone drums. Engine house brick, 42x38 feet.

Washery, relieving breaker and saving small sizes; refuse is taken down a new 10-inch bore hole, 600 feet long, to Bennett vein. No. 13 tunnel to top split in 200 feet; still driving.

Plymouth No. 3.—Foot in Red Ash vein has been opened out, and is now connected with slope sunk from Boston vein. This slope is now an engine plane for No. 3.

No. 9 tunnel to Stanton vein completed 563 feet.

New fan, 10x28 feet, in brick engine house 48x48 feet, ventilating Red Ash vein, running since July.

Plymouth No. 4.—No. 2 Ross slope down 2,200 feet; still driving.

No. 1 Red Ash slope down 2,250 feet, still driving.

No. 7 plane, in Red Ash up 600 feet; still driving.

Plymouth No. 5.—No. 5 plane, in Red Ash, top split, up 500 feet; still driving.

Boston.—No. 4 plane, top split, Red Ash, completed up 1,400 feet.

Improvements by the Susquehanna Coal Company During the Year 1900.

Stearns.—No. 4 shaft, sunk 205 feet to 651 feet total depth.

No. 4 air shaft sunk 553 feet to 663 feet, total depth.

No. 5 shaft, sunk 172 feet to 220 feet, total depth. The sinking of these three shafts is now completed.

Rock foot No. 4 shaft driven 80 feet.

Nanticoke.—No. 14 slope, Lee seam, Nanticoke, rock work for head completed.

No. 12 rock plane, from Lee toward Ross, driven on 20-degree pitch 100 feet.

No. 13 rock plane, 7x14 feet, 20-degree pitch, driven up 100 feet from No. 21 tunnel, completed.

Outside Improvement—New narrow gauge railroad, three miles, from Nanticoke to Stearns.

New compressor plant for No. 14. Slope engines, Nanticoke, Pa. Engines to be inside at head of slope, and compressed air to pass through bore hole.

One thousand horse power new Babcock & Wilcox boilers, No. 5 breaker, Nanticoke.

One thousand horse power new Babcock & Wilcox boilers, No. 1 shaft, Nanticoke.

Improvements by Delaware, Lackawanna and Western Company During the Year 1900.

Woodward.—One 500-horse power engine directly connected with one G. E. 330 K. W. Multipolar Electric Generator.

One 80-horse power electric hoist in the Cooper seam.

One 120-horse power electric hoist in the Red Ash seam.

One 7x8-inch Triplex electric pump, 20-horse power motor.

Avondale.—One 300-horse power McEven engine to one C. W. 200 K. W. Multipolar electric generator.

Bliss.—One 200-horse power McEven engine, directly connected with one Bullock 150 K. W. Multipolar electric generator.

One rock tunnel, 7x16 feet, from Forge to the Red Ash seam, 650 feet long.

Improvements by the Kingston Coal Company.

At the Nos. 1 and 4 shafts electric haulage was installed during the year 1900. The length of haul in each shaft is 3,500 feet. The motors are ten tons each in weight, 25 horse power, constructed by the General Electric Company. Each does the work of 12 mules and hauls 20 car trips on level road. The generator is located on surface. A McEven engine 22x24½ inches, 350 horse power. Multipolar generator operated by belt gearing. Voltage, 250. Full load, 275 volts. Speed, 450. Amperes, 727.

TABLE I—Showing names of operators, railroads, etc., and location of collieries in the Fourth Anthracite District for the year 1900.

Names of Operators and Collieries.	County.	Name of General Superintendent.	P. O. Address.	Name of Superintendent.	P. O. Address.	Railroad to Mine.
Lehigh and Wilkes-Barre Coal Company.						
Hollenback	Luzerne	William J. Richards	Wilkes-Barre	Morgan R. Morgans, inside superintendent; John F. Jones, asst. supt.; W. H. Herring, outside superintendent.	Wilkes-Barre	C. R. R. of N. J.
Empire	Luzerne	William J. Richards	Wilkes-Barre	do.	Wilkes-Barre	C. R. R. of N. J.
No. 3 South Wilkes-Barre	Luzerne	William J. Richards	Wilkes-Barre	do.	Wilkes-Barre	C. R. R. of N. J.
No. 5 South Wilkes-Barre	Luzerne	William J. Richards	Wilkes-Barre	do.	Wilkes-Barre	C. R. R. of N. J.
Stanton	Luzerne	William J. Richards	Wilkes-Barre	do.	Wilkes-Barre	C. R. R. of N. J.
Maxwell	Luzerne	William J. Richards	Wilkes-Barre	do.	Wilkes-Barre	C. R. R. of N. J.
No. 9 Sugar Notch	Luzerne	William J. Richards	Wilkes-Barre	H. W. Saums, asst. outside superintendent; Chas. F. Huber, mining engineer.	Wilkes-Barre	C. R. R. of N. J.
Lance No. 11	Luzerne	William J. Richards	Wilkes-Barre	do.	Wilkes-Barre	C. R. R. of N. J.
Nottingham	Luzerne	William J. Richards	Wilkes-Barre	do.	Wilkes-Barre	C. R. R. of N. J.
Reynolds No. 16	Luzerne	William J. Richards	Wilkes-Barre	do.	Wilkes-Barre	C. R. R. of N. J.
Vanantne No. 18	Luzerne	William J. Richards	Wilkes-Barre	do.	Wilkes-Barre	C. R. R. of N. J.
Wanamie No. 19	Luzerne	William J. Richards	Wilkes-Barre	do.	Wilkes-Barre	C. R. R. of N. J.
Del. & Hud. Canal Co.						
Baltimore No. 2	Luzerne	C. C. Rose	Scranton	E. R. Pettebone engineer of mines.	Scranton	Del. & Hudson R. R.
Baltimore No. 3	Luzerne	C. C. Rose	Scranton	do.	Scranton	Del. & Hudson R. R.
Baltimore No. 4	Luzerne	C. C. Rose	Scranton	John B. Davis.	Wilkes-Barre	Del. & Hudson R. R.
Conyngnam No. 1	Luzerne	C. C. Rose	Scranton	John B. Davis.	Wilkes-Barre	Del. & Hudson R. R.
Conyngnam No. 2	Luzerne	C. C. Rose	Scranton	John B. Davis.	Wilkes-Barre	Del. & Hudson R. R.
Boston	Luzerne	C. C. Rose	Scranton	E. R. Pettebone, engineer of mines.	Scranton	Del. & Hudson R. R.
Plymouth Mountath	Luzerne	C. C. Rose	Scranton	do.	Scranton	Del. & Hudson R. R.
Plymouth No. 1	Luzerne	C. C. Rose	Scranton	Thomas Stoneham	Parsons	Del. & Hudson R. R.
Plymouth No. 2	Luzerne	C. C. Rose	Scranton	do.	Parsons	Del. & Hudson R. R.
Plymouth No. 3	Luzerne	C. C. Rose	Scranton	Thomas Stoneham	Parsons	Del. & Hudson R. R.
Plymouth No. 4	Luzerne	C. C. Rose	Scranton	do.	Parsons	Del. & Hudson R. R.
Plymouth No. 5	Luzerne	C. C. Rose	Scranton	Thomas Stoneham	Parsons	Del. & Hudson R. R.
Plymouth No. 6	Luzerne	C. C. Rose	Scranton	do.	Parsons	Del. & Hudson R. R.
Susquehanna Coal Co.						
Shaft No. 1, George seam,	Luzerne	Morris Williams, Manager.	Wilkes-Barre	John H. Tomkln, supt.; John T. Thomas, asst. supt.	Nanticoke	Penn'a Railroad
Shaft No. 1, Forge seam,	Luzerne	do.	Wilkes-Barre	Eugene A. Rhoads, asst. supt.	Nanticoke	Penn'a Railroad
Shaft No. 2	Luzerne	do.	Wilkes-Barre	do.	Nanticoke	Penn'a Railroad
Shaft No. 4	Luzerne	do.	Wilkes-Barre	do.	Nanticoke	Penn'a Railroad
Shaft No. 5	Luzerne	do.	Wilkes-Barre	do.	Nanticoke	Penn'a Railroad
Shaft No. 6	Luzerne	do.	Wilkes-Barre	do.	Nanticoke	Penn'a Railroad
Slope No. 4	Luzerne	do.	Wilkes-Barre	do.	Nanticoke	Penn'a Railroad
Slope No. 6	Luzerne	do.	Wilkes-Barre	do.	Nanticoke	Penn'a Railroad
Tunnel No. 6	Luzerne	do.	Wilkes-Barre	do.	Nanticoke	Penn'a Railroad

TABLE II—Gives the total number of tons of coal mined in each colliery, number of days worked, number of employes, number of persons killed and injured, number of kegs of powder, etc., used in the Fourth Anthracite District for the year ending December 31, 1900.

Names of Operators and Collieries.	County.	Shipments of coal in tons by rail or otherwise.	Number and heat at colliery, steam and heat used for.	Sold to local trade and used by employes—tons.	Total production of coal in tons.	Number days worked.	Number persons employed.	Number fatal accidents.	Number non-fatal accidents.	Number kegs powder used.	Number pounds of dynamite used.	Number horses and mules.
Lehigh and Wilkes-Barre Coal Company.	Luzerne.	195,135.19	20,292	23,492.10	288,920.09	168.20	575	.....	7	6,361	20,025	71
Hollenback No. 2,	Luzerne.	306,006.07	23,616	46,262.15	375,885.02	109.50	779	6	16	5,743	42,750	71
Empire No. 4,	Luzerne.	215,403.02	27,960	7,532.10	250,895.12	141.50	683	4	16	6,320	4,800	86
South Wilkes-Barre Nos. 3 and 5,	Luzerne.	255,929.47	25,200	7,427.10	288,557.07	149.30	721	5	14	6,219	42,475	68
Stanton No. 7,	Luzerne.	189,195.18	14,400	1,834.00	245,426.18	174.15	500	2	8	5,580	2,605	60
Maxwell No. 20,	Luzerne.	228,521.07	18,936	3,513.00	250,970.07	168.30	378	.....	5	7,012	33,316	74
Sugar Notch No. 9,	Luzerne.	461,479.04	28,464	7,744.15	497,687.19	181.20	918	1	11	9,978	9,969	108
Lance No. 11,	Luzerne.	205,674.03	9,356	357.00	215,387.03	107.20	713	1	2	5,064	1,180	71
Nottingham No. 15,	Luzerne.	224,291.19	18,036	1,837.00	244,164.19	151.19	735	1	4	5,787	30,950	76
Reynolds No. 16,	Luzerne.	63,106.02	.....	.....	63,106.02	196.85	35	.....	2	.....	.....	.....
Wanamie Nos. 18 and 19,	Luzerne.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Jersey Annex,	Luzerne.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Total, .....	.....	2,354,743.18	186,840	99,901.00	2,641,484.18	163.62	6,018	20	85	58,064	188,076	606
Delaware and Hudson Canal Company.	Luzerne.	211,273.11	39,528	2,143.14	252,945.05	155.75	619	.....	3	7,196	625	79
Baltimore shafts Nos 2 and 4,	Luzerne.	120,216.14	17,209	1,747.06	148,173.00	155.50	436	1	3	4,479	487	61
.....	Luzerne.	106,406.16	20,377	1,737.18	128,521.14	158.25	392	2	6	3,572	1,750	30
.....	Luzerne.	154,669.07	10,530	.....	165,199.07	157.00	485	.....	1	4,856	225	55
.....	Luzerne.	130,716.02	18,959	108.08	149,783.10	156.75	493	.....	8	5,241	783	64
.....	Luzerne.	164,029.15	16,692	3,051.10	183,773.05	128.50	518	2	2	6,456	350	80
.....	Luzerne.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	Luzerne.	295,369.04	35,307	4,924.15	335,690.19	186.00	260	3	1	4,281	348	46
.....	Luzerne.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Total, .....	.....	1,191,631.09	185,602	13,713.11	1,363,997.00	156.82	3,640	11	24	40,732	4,687	468

TABLE II—Continued.

Names of Operators and Collieries.	County.	Shipments of coal in tons by rail or otherwise.	Number of tons used for steam and heat at colliery.	Sold to local trade and used by employes—tons.	Total production of coal in tons.	Number days worked.	Number persons employed.	Number fatal accidents.	Number non-fatal accidents.	Number kegs powder used.	Number pounds of dynamite used.	Number horses and mules.
Warrior Run Coal Company.	Luzerne,	141,675.11	17,118	1,443.00	160,236.11	141.60	419	2	7	3,117	2,000	27
Warrior Run,	Luzerne,											
Crescent Coal Mining Company.	Luzerne,	42,832.45	10,000	441.14	53,294.09	80.55	189	3	1	1,882	451	21
Hadleigh,	Luzerne,											
Hillman Vein Coal Company.	Luzerne,	19,392.18	6,720	6,875.05	32,992.03	68.00	.....	2	.....	906	100	27
Hillman Vein,	Luzerne,											
Lee,	Luzerne,	58,216.11	12,775	335.00	71,326.11	99.80	427	.....	2	2,246	2,400	26
Melville Coal Company.	Luzerne,											
Plymouth Coal Company.	Luzerne,	7,744.17	.....	.....	7,744.17	.....	107	.....	3	.....	.....	15
Dodson,	Luzerne,											
Ayers and Brothers.	Luzerne,	44,975.00	4,500	700.00	50,175.00	170.00	190	.....	1	900	1,500	24
Chauncey,	Luzerne,											
Total miscellaneous coal companies, .....	.....	665,102.18	93,113	24,252.08	782,468.06	*129.81	2,376	10	21	16,512	52,556	292
Washeries.	.....										
Sterling Coal Company,	Luzerne,	31,000.00	3,000	.....	34,000.00	166.00	18	.....	.....	.....	.....	.....

Recapitulation.

Lehigh and Wilkes-Barre Coal Company, ..	2,354,743.18	186,840	99,901.00	2,641,484.18	163.62	6,018	20	55	58,064	188,070	696
Delaware and Hudson Canal Company, ..	1,791,683.09	158,602	13,713.11	1,392,997.09	106.82	3,640	11	24	40,732	4,087	468
Susquehanna Coal Company, ..	882,785.91	137,078	21,422.68	1,047,285.09	188.40	3,833	14	39	24,408	40,275	420
Kingston Coal Company, ..	860,646.16	90,450	24,422.68	742,669.11	172.48	2,426	10	23	25,628	3,563	272
Lehigh Valley and Schuylkill Railroad Co., ..	262,944.16	93,455	49,395.17	712,343.07	126.47	2,741	11	24	1,639	11,355.5	255
Lehigh Valley Coal Company, ..	262,943.17	21,665	49,297.10	327,343.07	126.47	941	2	6	8,699	14,550	141
Red Ash Coal Company, ..	183,673.12	9,503	2,112.00	174,487.12	165.05	500	1	2	5,263	5,567	49
Parrish Coal Company, ..	461,776.01	25,200	15,250.00	502,226.01	180.92	1,384	1	13	15,133	58,160	174
Miscellaneous coal companies, ..	665,102.18	98,113	24,252.08	782,468.05	129.81	2,376	10	21	16,512	52,556	292
Washeries, ..	31,000.00	3,060	.....	34,000.00	166.00	18	.....	.....	.....	.....	.....
Grand totals, ..	7,564,774.10	780,975	242,991.15	8,585,741.05	*161.96	23,067	71	244	211,405	132,643.5	2,736

*Average.
 In addition to the above quantity of dynamite 70,450 pounds were used by private contractors, which makes the quantity used 448,093.5 pounds.

TABLE II—Continued.

Name of Operators.	County.	Number of Boilers.			Total horse power.		Locomotives.			Number steam engines of all classes.	Total horse power.	Number pumps delivering water to surface.	Capacity in gallons per minute.	Quantity delivered to surface per minute—gallons.	Number electric dynamos.	Number air compressors.
		Cylindrical.	Horse power.	Tubular.	Horse power.	Steam.	Air.	Electric.								
Lehigh and Wilkes-Barre Coal Co.,	Luzerne,	172	8,142	57	8,002	16,144	9	.....	295	27,358	21	19,816	9,044	.....	6
Delaware and Hudson Canal Co.,	Luzerne,	177	5,310	15	2,850	8,160	3	.....	141	19,100	19	14,840	5,670	.....	3
Susquehanna Coal Company,	Luzerne,	189	9,175	44	6,766	15,941	14*	.....	63	12,000	12	12,500	6,500	.....	9
Kingston Coal Company,	Luzerne,	127	3,540	13	1,520	5,060	4	.....	44	4,780	6	3,600	1,250	.....	2
Del., Lacka. and Western R. R. Co.,	Luzerne,	42	1,260	40	5,330	6,650	4	.....	74	9,061	10	11,633	5,125	.....	3
Lehigh Valley Coal Company,	Luzerne,	18	540	15	2,250	2,790	2	.....	27	5,600	3	2,940	1,940	.....	3
Red Ash Coal Company,	Luzerne,	17	765	.....	.....	765	2	.....	9	1,011	3	920	920	.....	2
Parrish Coal Company,	Luzerne,	18	600	10	1,500	2,100	.....	.....	21	4,100	2	1,800	1,500	.....	.....
Miscellaneous Coal Companies.																
Alden Coal Company,	Luzerne,	18	720	3	550	1,270	1	.....	8	1,300	2	1,500	1,000	.....	2
West End Coal Company,	Luzerne,	.....	.....	10	1,200	1,200	3	.....	10	755	4	.....	3,000	.....	.....
Warrior Run Coal Company,	Luzerne,	21	378	4	600	978	.....	.....	6	1,130	4	3,000	1,000	.....	.....
Crescent Coal Mining Company,	Luzerne,	6	360	2	160	520	.....	.....	8	620	6	830	560	.....	.....
Hillman Vein Coal Company,	Luzerne,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Melville Coal Company,	Luzerne,	12	360	3	400	760	.....	.....	6	670	3	650	564	.....	.....
Plymouth Coal Company,	Luzerne,	.....	.....	12	1,500	1,500	.....	.....	17	1,283	2	2,500	674	.....	2
Ayers and Brothers,	Luzerne,	.....	.....	5	560	.....	.....	.....	1	.....	.....	.....	.....	.....	.....
Total miscellaneous coal companies,		57	1,818	39	4,970	6,228	5	.....	55	5,758	21	8,480	6,798	.....	4
Washeries.																
Sterling Coal Company,		.....	.....	3	150	.....	.....	.....	5	120	.....	.....	.....	.....	.....

Recapitulation.

Lehigh and Wilkes-Barre Coal Co., ..	172	8,142	57	8,002	16,144	9	.....	295	27,258	21	19,816	9,044	6
Delaware and Hudson Canal Co., ..	177	5,310	15	2,856	8,166	3	.....	141	19,100	10	14,840	5,670	3
Susquehanna Coal Company,	199	9,175	44	6,766	15,941	14	.....	63	12,000	12	12,500	6,500	9
Kingston Coal Company,	127	3,540	13	1,620	5,060	4	.....	43	4,789	6	3,600	1,250	1
Del., Lacka. and Western R. Co., ..	42	1,260	40	5,390	6,650	4	.....	74	9,061	10	11,033	5,125	6
Lehigh Valley Coal Company,	18	540	15	2,250	2,790	2	.....	27	5,000	3	2,940	1,940	2
Red Ash Catl Company,	17	765	.....	.....	765	2	.....	9	1,011	3	920	920	.....
Parrish Coal Company,	18	600	10	1,500	2,100	.....	.....	21	4,100	2	1,800	1,500	2
Miscellaneous coal companies, ..	57	1,818	39	4,970	6,228	5	.....	55	5,758	21	8,480	6,798	4
Washeries, .....	.....	.....	3	150	.....	.....	.....	3	120	.....	.....	.....	.....
Grand totals,	827	31,150	236	33,398	63,838	43	.....	734	88,888	97	75,929	38,747	31

TABLE III—Showing the number of each class of employes at each colliery in the Fourth Anthracite District during the year 1900.

Names of Operators and Collieries.	County.	Occupations of Persons Employed Inside.										Occupations of Persons Employed Outside.						Grand total, inside and outside.
		Occupations of Persons Employed Inside.										Occupations of Persons Employed Outside.						
		Inside foreman or mine boss.	Fire bosses.	Miners.	Miners' laborers.	Drivers and runners.	Door boys and helpers.	All other employes.	Total inside.	Outside foreman.	Blacksmiths and carpenters.	Engineers and firemen.	State pickers.	Superintendents, bookkeepers and clerks.	All other employes.	Total outside.		
Lehigh and Wilkes-Barre Coal Co. Hollenback No. 2, Empire No. 4, South Wilkes-Barre Nos. 3 and 5, Straw No. 7, Luzerne, Maxwell No. 20, Luzerne, Sugar Notch No. 9, Luzerne, Lance No. 11, Luzerne, Nottingham No. 15, Luzerne, Reynolds No. 16, Luzerne, Wanamie Nos. 18 and 19, Jersey Annex,	Luzerne,	1	7	182	75	49	24	45	383	1	5	16	103	2	65	192	575	
	Luzerne,	1	1	1	1	1	1	17	563	1	7	32	112	3	77	210	779	
	Luzerne,	1	1	309	15	65	11	176	472	1	6	23	108	3	77	221	693	
	Luzerne,	1	6	170	140	25	52	93	487	1	5	23	100	3	102	234	721	
	Luzerne,	1	4	140	81	32	24	62	334	1	5	13	100	3	53	156	500	
	Luzerne,	1	6	150	130	49	24	82	442	1	5	21	70	3	84	133	575	
	Luzerne,	1	10	250	196	74	14	100	645	1	7	27	159	3	76	273	918	
	Luzerne,	1	3	108	102	49	23	59	345	1	4	12	61	2	48	128	473	
	Luzerne,	1	6	160	245	40	25	70	547	1	6	23	81	2	75	188	735	
	Luzerne,	10	60	1,536	1,204	417	306	699	4,222	10	50	196	880	22	628	1,786	6,018	
	Delaware and Hudson Canal Co. Delaware shafts Nos. 2 and 4, Batimore shaft Nos. 3 and 4, Corry shaft No. 3, Corry Nos. 1 and 2, Boston, Plymouth Mountain, No. 2 Plymouth,	Luzerne,	2	6	116	100	44	8	95	371	1	10	96	144	1	66	248	619
		Luzerne,	1	2	168	151	51	3	106	391	1	7	26	77	1	44	145	436
		Luzerne,	1	1	68	62	25	20	81	264	1	6	10	61	1	43	128	392
		Luzerne,	1	1	72	72	29	8	23	216	1	6	11	81	2	47	148	364
Luzerne,		1	2	24	24	4	2	5	60	1	5	5	11	1	6	71	111	
Luzerne,		1	2	100	80	40	14	89	326	1	5	12	87	2	60	197	493	

Dela. & Hud. Canal Co.—Continued. No. 3 Plymouth,	1	2	317	117	58	19	55	369	1	7	16	86	2	87	149	518
	1	2	80	80	31	6	38	286	1	2	9	104	2	12	24	260
	1	2	94	94	40	8	50	259	1	5	13	104	2	70	188	487
	11	20	772	700	311	111	497	2,422	8	51	128	685	11	385	1,218	3,640
Total,																
Susquehanna Coal Company. Shaft No. 1, breaker No. 1,	2	11	315	355	118	57	180	1,088	1	24	28	182	2	163	400	1,488
	3	10	237	320	70	36	212	908	1	18	46	116	2	140	323	1,231
	3	8	340	250	110	6	146	863	1	16	22	138	1	133	311	1,174
	3	8	340	250	110	6	146	863	1	16	22	138	1	133	311	1,174
	3	8	340	250	110	6	146	863	1	16	22	138	1	133	311	1,174
	3	8	340	250	110	6	146	863	1	16	22	138	1	133	311	1,174
Total,																
Kingston Coal Company. Shafts Nos. 1 and 3, breaker No. 4, ..	2	6	246	132	73	22	76	537	1	18	19	175	2	126	341	898
	3	1	285	160	108	53	61	671	2	19	16	230	3	83	353	1,024
	1	1	70	22	30	12	22	157	1	5	6	80	1	54	147	304
	6	7	601	314	211	87	159	1,385	4	42	41	485	6	263	841	2,226
	6	7	601	314	211	87	159	1,385	4	42	41	485	6	263	841	2,226
Total,																
Dela., Lacka. and West. R. R. Co. Aوندale,	1	3	114	114	42	11	60	345	1	5	13	60	1	44	124	469
	2	1	302	300	77	33	167	688	1	6	22	126	2	106	263	951
	1	3	133	133	58	10	89	427	1	4	13	177	2	73	270	697
	4	13	449	447	177	54	316	1,460	3	15	51	363	5	224	661	2,121
	4	13	449	447	177	54	316	1,460	3	15	51	363	5	224	661	2,121
	4	13	449	447	177	54	316	1,460	3	15	51	363	5	224	661	2,121
Total,																
Lehigh Valley Coal Company. Dorrance,	2	5	102	90	46	23	63	331	1	13	21	63	5	85	188	529
	2	2	95	59	47	14	54	273	1	11	10	25	3	89	189	412
	4	7	197	149	93	37	117	601	2	24	31	88	8	181	337	941
	4	7	197	149	93	37	117	601	2	24	31	88	8	181	337	941
Total,																
Red Ash Coal Company. No. 1 Red Ash,	1	1	45	45	16	3	21	131	1	1	6	83	1	5	12	143
	1	1	73	69	26	9	20	138	1	6	5	83	3	61	159	357
	2	2	178	114	42	12	41	329	1	7	11	83	3	66	171	500
Total,																
Parrish Coal Company. Parrish,	1	5	125	130	53	27	68	469	1	6	16	86	4	64	177	586
	1	6	180	196	67	42	97	589	1	5	10	111	4	78	209	798
	2	11	305	326	120	69	165	998	1	11	26	197	8	142	386	1,384
	2	11	305	326	120	69	165	998	1	11	26	197	8	142	386	1,384
Total,																

TABLE III—Continued.

Name of Operators.	County.	Number of Days Worked Each Month in Breaker.												Total.
		January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	
Lehigh and Wilkes-Barre Coal Company,	18.38	15.59	11.86	9.83	12.48	16.04	13.55	17.96	9.05	1.59	18.17	18.81	163.62
Delaware and Hudson Canal Company,	17.75	16.54	13.43	12.82	13.79	12.32	13.86	15.89	7.43	1.47	15.53	16.00	156.82
Susquehanna Coal Company,	17.81	13.89	14.48	17.37	15.48	20.73	18.61	20.78	9.47	.....	20.67	17.50	188.40
Kingshannon Coal Company,	18.06	10.25	12.08	14.90	17.30	17.73	17.28	18.80	8.91	1.65	18.57	16.93	172.48
Delaware, Lackawanna and West. R. R. Co.,	14.07	8.69	11.43	12.47	13.07	21.40	16.20	20.17	9.70	2.57	21.50	22.30	166.93
Lehigh Valley Coal Company,	15.77	9.45	8.37	6.37	8.37	12.20	12.42	14.85	7.05	.....	15.15	13.25	124.17
Red Ash Coal Company,	20.69	19.09	13.85	12.90	13.55	18.40	16.65	20.20	3.25	.....	6.20	20.95	165.05
Parrish Coal Company,	19.12	14.15	15.62	12.07	8.55	20.70	20.40	20.07	9.05	1.80	19.20	20.17	180.92
Miscellaneous Coal Companies.														
Alden Coal Company,	20.90	13.05	14.50	15.10	17	19	16.60	15.65	7.30	.....	18.65	17.50	173.25
West End Coal Company,	17	11.45	11.40	12.05	12.75	13.95	14.85	17.40	12.30	.....	11.30	16.50	163.50
Warrior Run Coal Company,	16.30	11.85	9.09	9.20	12.55	13.70	13.40	15.15	4.25	1.29	13.20	16.40	150.50
Crescent Coal Mining Company,	19.00	7.85	10.40	7.40	6.40	6.25	6.25	5.50	4.10	.....	6.80	8.70	80.55
Melville Coal Company,	17.00	14.00	10.50	10.50	12.10	13.20	15.00	3.00	.....	1.00	.....	1.00	99.80
Ayers and Brothers,	15.00	12.00	18.00	14.00	17.00	15.00	15.00	14.00	10.00	.....	.....	20.00	170.00
Total miscellaneous coal companies, ...		16.18	11.83	12.40	11.37	13.01	13.86	13.46	11.78	7.00	2.25	12.83	13.20	139.28

Recapitulation.

Lehigh and Wilkes-Barre Coal Company,	18.28	15.59	11.86	9.82	12.48	16.04	13.85	17.96	9.05	1.59	18.17	18.81	163.62
Delaware and Hudson Canal Company,	17.75	16.54	13.43	12.82	13.79	12.32	13.86	15.89	7.43	1.47	15.53	16.00	156.82
Susquehanna Coal Company,	17.81	13.80	14.48	17.37	15.18	20.73	18.61	20.78	9.47	.....	20.67	19.50	188.40
Kingston Coal Company,	18.06	10.25	12.08	14.90	17.30	17.73	17.28	18.80	8.91	.....	18.57	16.83	172.48
Delaware, Lackawanna and West. R. R. Co.,	14.07	8.60	11.43	12.47	13.07	21.40	16.20	20.77	9.70	2.57	21.50	22.30	166.93
Lehigh Valley Coal Company,	15.77	9.15	8.97	6.37	8.37	12.20	12.42	14.83	7.05	.....	15.75	13.25	124.17
Red Ash Coal Company,	20.00	19.00	13.95	12.90	13.55	18.40	16.65	20.20	3.25	.....	6.20	20.95	165.05
Farrish Coal Company,	19.12	14.15	15.62	12.07	8.55	20.70	20.40	20.07	9.05	1.80	19.20	20.17	180.32
Miscellaneous coal companies,	16.18	11.83	12.40	13.37	13.01	13.86	13.46	11.78	7.06	2.25	12.84	13.20	139.25
Grand total,	17.46	13.21	12.69	12.45	12.81	17.04	15.85	17.90	7.88	1.26	16.49	17.90	161.96

*The Hillman Vein colliery was exhausted and abandoned on August 16, 1900, since which time no persons have been employed at that colliery.

TABLE IV.—List of fatal accidents that occurred in and about the mines of the Fourth Anthracite District for the year ending December 31, 1900.

Date of accident.	Name of Person.	Nationality by Birth.	Occupation.	Age.	Married or single.	Number of widows.	Number of orphans.	Name of Colliery.	County.	Nature and Cause of Accident in Brief.
Jan. 3	Mike Hoari,	Slav,	Company laborer,	27	M.	1	.....	Slope No. 1, Edwardsdale.	Luzerne, ..	Squeezed between cars through his own carelessness. Died January 5th.
6	John Curwood,	American, ..	Miner,	32	M.	1	2	West End,	Luzerne, ..	Killed by a fall of bone and rock. Was poking coal down after a blast when the projecting rock fell on him.
9	Thomas Kelley,	Irish,	Miner,	35	M.	1	1	Hadleigh,	Luzerne, ..	Was sinking a slope. Rope broke, an empty car ran down, crushed to death between car and face.
11	Eolic Groditski,	Pole,	Laborer,	18	S.	.....	.....	Shaft No. 2, Nanticoke,	Luzerne, ..	Was working with Wm. Collum in an empty car. Both were on the face after firing a blast and a piece of projecting rock fell on them. Groditski was killed and Collum painfully injured.
22	George E. Jones,	English,	Doortender,	17	S.	.....	.....	Shaft No. 1, Nanticoke,	Luzerne, ..	Leg severely crushed. Car jumped track and crushed him. He was taken to the hospital and died there shortly after.
Feb. 3	Stanley Creek,	Pole,	Laborer,	26	M.	1	.....	Baltimore shaft No. 3,	Luzerne, ..	Was helping Thos. Bailey to prepare room for a pair of timber at face of gangway. When Bailey had gone for timber a piece of rock fell and killed Creek instantly.
8	Joseph Laresky,	Pole,	Laborer,	30	M.	1	.....	Shaft No. 5, Plymouth,	Luzerne, ..	Instantly killed by a fall of bone and rock in a breast on the Red and Ash seam. It fell from the front of a slip.

12	Patrick Quillan,	Irish,	Miner,	52	S.	Hadleigh,	Luzerne, ..	Were working together taking pillars out, when a large fall of top rock buried them under, killing both instantly. Quillan's body was extended 15 feet, and Pollinski's at 5 A. M. Feb. 18th, after incessant work.
12	Frank Pollinski,	Slav,	Laborer,	33	M. 1	Hadleigh,	Luzerne, ..	
15	Charles Savage,	Pole,	Miner,	28	M. 1	No. 3 S. Wilkes-Barre,	Luzerne, ..	Both fatally burned by an explosion of gas. Left a door open and had naked lights where they were ordered to not use such.
15	John Larzo,	Pole,	Miner,	38	M. 1	No. 3 S. Wilkes-Barre,	Luzerne, ..		Larzo died in five hours. Savage died February 17th.
16	Albert Walters,	French,	Shaft sinker,	31	W.	Shaft No. 4, Stearns,	Luzerne, ..	Instantly killed at bottom of shaft. A piece of rock from side of shaft fell and struck him on the head.
21	Thomas Strozinski,	Pole,	Miner,	59	M. 1	Stoppe No. 6, Glen Lyon.	Luzerne, ..	Fatally hurt by a blast exploding along the way.
24	Griffith Jones,	Welsh,	Miner,	52	M. 1	Woodward No. 1,	Luzerne, ..	Died the following day.
28	William Dravitch,	Pole,	Miner,	30	M. 1	Red Ash No. 1,	Luzerne, ..	Killed by a blast in top coal, which exploded on lighting the match.
March	Patrick Foley,	American, ..	Doortender,	15	S.	Reynolds No. 16,	Luzerne, ..	Fatally injured by a fall of the intervening rock in the Ross seam. Died on way to hospital.
9	John Brown,	American, ..	Brakeman,	20	S.	No. 7 breaker, Nanti-coke.	Luzerne, ..	He ran a loaded car down against a block, in his father's breast. The rear end of car swung off track and crushed his head against a prop, injuring him so that death ensued in five hours.
14	Peter Barnofski,	Slav,	Miner,	56	S.	Franklin,	Luzerne, ..	Working on mine locomotive on surface when it jumped track and rolled down a deep embankment and he with it. Was crushed to death under it at the bottom.
20	Samuel Cooper,	English,	Shaft sinker,	25	S.	No. 4 air shaft, Stearns,	Luzerne, ..	Instantly killed by a fall of top rock. Had dislodged pair of timber and delayed replacing it.
21	John T. Davles,	Welsh,	Company miner, ..	66	M. 1	No. 9, Sugar Notch, ..	Luzerne, ..	Killed. Stepped off the bucket on wrong side at head of shaft and fell into the shaft, a depth of 100 feet.
22	Thomas T. Jones,	American, ..	Company laborer, ..	45	M. 1	Nottingham,	Luzerne, ..	Killed by a fall of top rock. He tried to go back down and failed. While drilling a hole in the coal under it it fell on him.
April	Frank Krulkofski,	Pole,	Company laborer, ..	55	W.	Breaker No. 6, Glen Lyon.	Luzerne, ..	Killed: when taking boards off the cage at foot of shaft a piece of ice fell from above and struck him on the head. Struck down and killed by cars pushed by a mine locomotive on surface. Had ample warning but failed to go out of the way.

TABLE IV—Continued.

Date of accident.	Name of Person.	Nationality by Birth.	Occupation.	Age.	Married or single.	Number of widows.	Number of orphans.	Name of Colliery.	County.	Nature and Cause of Accident in Brief.
April 9	John Brown,	Pole,	Miner,	32	S. ....	.....	.....	West End,	Luzerne, ..	Killed by a fall of coal, when trimming loose coal down after firing a blast.
12	Alfred Kisner,	American, ..	Runner,	20	S. ....	.....	.....	Woodward No. 1,	Luzerne, ..	Rode down a run on front end of cars and on stepping off was crushed between cars and rib. He was injured so that he died the next day.
28	Thomas Carey,	American, ..	Driver,	18	S. ....	.....	.....	No. 4 Plymouth,	Luzerne, ..	When hauling a loaded car out on a level airway with one mule he fell under the car. He was found under the front end of car dead.
30	John Burnott,	Slav,	Slate picker,	60	M. 1	2	.....	Breaker No. 8, Plymouth.	Luzerne, ..	When in a chute shoveling coal back the under timber broke and he was buried in the coal and was dead when extricated.
May 2	Frank Shiple,	German, ...	Laborer,	26	M. 1	3	.....	Baltimore shaft No. 4.	Luzerne, ..	Killed by a fall of top rock at face of gangway immediately on starting a night shift.
5	Mike Lactz,	Russian, ...	Company laborer, ..	25	S. ....	.....	.....	Breaker No. 6, Glen Lyon.	Luzerne, ..	When cleaning a chute in the breaker the partition of the next day and he was buried under the coal and when extricated he was dead.
14	Frank Kosnick,	Russian, ...	Footman,	28	S. ....	.....	.....	Shaft No. 1, Edwardsdale.	Luzerne, ..	Crushed between car and rib; took wrong side. Died in about twenty minutes. Happened at foot of shaft.
21	Jacob Kovalski,	Pole,	Miner,	34	M. 1	3	.....	Shaft No. 1, Nanti-coke.	Luzerne, ..	Fatally injured by a fall of top bone and rock in a breast on the Ross seam. Had just fired a blast and returned to work. Died the same day.

23	George Murray,	American, .	Shaft shaker,	23	M. 1	1	Shaft No. 4, Stearns,	Luzerne, ..	Fell from a buntion a depth of 80 feet bottom of shaft; was instantly killed.
June	4	John Stoshak,	Slav,	35	M. 1	6	Warrrior Run,	Luzerne, ..	Severely burned by an explosion of gas. Had broken the brattice, gas accumulated and he ignited it by his lamp. Died June 11th at the Mercy hospital.
	9	Joseph Sender,	Pole,	28	M. 1	1	Warrrior Run,	Luzerne, ..	Thinking the squib had missed when firing a blast he went up the breast and the blast exploded. The flying coal drove him down to the platform; died same day.
	19	Benjamin Lewis,	American, .	34	S. ....	.....	Maxwell,	Luzerne, ..	Stepped on the cage pit running and he descended, falling and striking him so that he died that evening. (Both instantly killed. Were walking out on the gangway following a car when a large fall of top coal caught both and crushed them to death.
	25	John Davies,	Welsh,	60	M. 1	3	Hillman Vein,	Luzerne, ..	Fell asleep on the track when on night shift, and a trip of cars ran over him, killing him instantly.
	25	Andrew Eck,	American, .	17	S. ....	.....	Hillman Vein,	Luzerne, ..	Went to the breast in which Thos. Dobbis worked to see him. Dobbis threw a blast of coal and when he was working under and Momalavare walked under and was fatally hurt. He died July 10th.
	25	William Tunitus,	Pole,	15	S. ....	.....	Dorrance,	Luzerne, ..	Severely burned by an explosion of gas. Four other persons were burned at the same time; explosion was caused by some of the other men's heedlessness; died July 11th.
July	9	John H. Jones,	Welsh,	38	M. 1	5	Maxwell No. 20,	Luzerne, ..	Fatally injured by runaway empty cars on the slope. Cars became detached from a descending trip and upon him his injuries prove fatal by the time he was taken to the hospital.
	9	Walter Price,	American, .	15	S. ....	.....	Shaft No. 3, Edwards-dale,	Luzerne, ..	Killed by a fall of coal. A large lamp broke from the edge of the top coal and fell on him when he was alone in the place.
	10	Dominick Savage,	Lithuanian, .	23	S. ....	.....	South Wilkes-Barre,	Luzerne, ..	Fatally injured; was cleaning place to lay a pipe along the slope when a truck load of pipe becoming detached from the rope above ran down and struck him. Died same night.
	14	Frank Price,	Pole,	24	S. ....	.....	Shaft No. 1, Edwards-dale,	Luzerne, ..	

TABLE IV—Continued.

Date of accident.	Name of Person.	Nationality by Birth.	Occupation.	Age.	Married or single.	Number of widows.	Number of orphans.	Name of Colliery.	County.	Nature and Cause of Accident in Brief.
July 20	Mike Shebloksi,	Pole,	Doortender,	15	S.	....	....	Shaft No. 5, Ply-mouth.	Luzerne, ..	Trying to block a car, he failed, and the car ran on and cut him on the knee. Lockjaw set in on the 29th and he died August 3rd.
21	Peter Gelle,	German, ...	Miner,	42	M.	1	2	Conyngnam No. 1, ...	Luzerne, ..	Fatally injured by a blast of gas which he was blasting the rock. He was igniting the match. Died the following day.
31	Edward Brennan,	Irish,	Miner,	57	M.	1	1	Parrish,	Luzerne, ..	Fatally injured by a fall of top rock at face of gangway. Had tried to bar it down and failed. Died in a few hours.
31	Daniel D. Powell,	American,	Driver,	20	S.	....	....	No. 5 S. Wilkes-Barre,	Luzerne, ..	These men with three other persons were more or less severely burned by an explosion of gas, on the gangway. Gas having been brought down from an old breast, Powell died August 2d
31	David Thomas,	American,	Runner,	27	M.	1	2	No. 5 S. Wilkes-Barre,	Luzerne, ..	and Thomas died August 14th.
Aug. 6	John Gill,	Pole,	Laborer,	22	S.	....	....	Alden,	Luzerne, ..	Instantly killed by a fall of top rock. The miner had drilled a hole to blast the coal down when it fell on the laborer.
16	Steve Popolchok,	Russian, ...	Loader,	38	M.	1	1	Breaker No. 6, Glen Lyon.	Luzerne, ..	Ruptured by lifting car to track; died next day. Happened on surface.
17	William Sheffer,	Pole,	Driver,	17	S.	....	....	Shaft No. 1, Nanti-coke.	Luzerne, ..	He went into August Bomby's breast for a car. The car not being quite loaded he assisted, and a piece of bone fell on him, killing him instantly.
23	Fred. Westfield,	German, ...	Miner,	47	M.	1	5	No. 3 S. Wilkes-Barre.	Luzerne, ..	Instantly killed by a large fall of top coal in breast on Hillman seam.

22	Anthony Konagalis,	Pole,	Laborer,	19	S.	Shaft No. 3, Edwards- dale.	Luzerne, ..	Fatally injured by a fall of middle rock in a gangway on Ross seam. The miner narrowly escaped. Happened at midnight. He died in about half an hour.
6	John Gangham,	Irish,	Company laborer, 54	M. 1	1	No. 9 Sugar Notch, ..	Luzerne, ..	Was cleaning road on resting on surface when locomotive was pushing a trip of culm cars. Cars got off track and ran off the resting, carrying Gangham with them. He fell 26 feet, was fatally hurt and died next day.
8	John Sovonack,	Slav,	Laborer,	53	S.	Shaft No. 3, Ply- mouth.	Luzerne, ..	While sitting in a crosscut near the box, a small piece of rock fell on him, causing injuries from which he died the next day.
10	Joseph Yatkowski,	Pole,	Laborer,	27	S.	Shaft No. 4, Ply- mouth.	Luzerne, ..	Instantly killed, fell from an ascending cage in the shaft, a depth of 150 feet.
10	Anthony Thomas,	Pole,	Miner,	31	M. 1	Stanton,	Luzerne, ..	Burned by an explosion of gas after firing a blast at noon he went up to face and a small quantity of gas exploded. His injuries appeared to be only slight, but he died on the 28th. Mercy hospital Sep-tember 28th.
6	Frank McGeever,	American, ..	Company laborer, 16	S. ....	.....	Stanton, surface,	Luzerne, ..	Killed by a wall falling on him on surface. He was assisting in re-moving material near the wall, when it fell.
30	Mike Gootogish,	Lithuanian, ..	Miner,	39	M. 1	Shaft No. 1, King- ston Coal Co.	Luzerne, ..	The first three were suffocated by after-damp and the last fatally burned. Died November 1st. A car got off track in a section door. Gas accumulated in the gangway. Door was closed and the gas was carried to their lamps and exploded.
30	Adam Wallace,	Lithuanian, ..	Miner,	37	C.			
30	Peter Resevits,	Lithuanian, ..	Miner,	35	C.			
30	Frank Micolosky,	Lithuanian, ..	Laborer,	28	C.			Killed falling down while stooping, when riding on front of cars.
5	James Bellas,	American, ..	Prakeman,	30	S.	Wanamie,	Luzerne, ..	Fatally hurt by a blast, exploding when he had just lighted the match. Died the same day.
16	Henry Francels,	Welsh,	Miner,	53	M. 1	Stanton,	Luzerne, ..	Fatally hurt by a fall of top bone and coal. It fell from between two slips without warning. Died on way home.
22	George Kuharick,	Slav,	Laborer,	23	M. 1	No. 5 Plymouth,	Luzerne, ..	Killed: when riding up an engine plane in first car got off track and he slid out through the rear door and under the other cars. The car had sheet iron bottom.
22	John D. Thomas,	Welsh,	Company laborer, 57	M. 1	.....	Stanton,	Luzerne, ..	

TABLE IV—Continued.

Date of accident.	Name of Person.	Nationality by Birth.	Occupation.	Age.	Married or single.	Number of widows.	Number of orphans.	Name of Colliery.	County.	Nature and Cause of Accident in Brief.
Nov. 28	Charles Yeels,	American, ..	Bell boy,	16	S.	...	.....	Conyngham,	Luzerne, ..	Fatally hurt; chain broke, allowing truck loaded with boards to run down the slope. He was struck by flying boards at one of the lifts and injured. Died the same day.
30	Edward Richards,	Welsh,	Driver,	25	S.	.....	.....	Maxwell,	Luzerne, ..	Fatally injured; was riding on front of a trip of cars. Took a stooped position and was struck and stopped to unhitch the team of mules. The coal broke and he fell and the cars ran upon him.
Dec. 1	John Murphy,	Irish,	Miner,	30	M.	1	3	Shaft No. 3, Edwardsdale.	Luzerne, ..	Instantly killed by a fall of top rock in the Orchard seam, when working at face of breast.
5	Adam Yourushon,	Slav,	Laborer,	44	M.	1	3	Maxwell,	Luzerne, ..	Burned and injured by an explosion of gas at face of breast. Died December 12th. Five others were burned at the same time.
7	William Jetko,	Pole,	Company miner,	37	M.	1	6	Shaft No. 2, Nanticoke.	Luzerne, ..	Killed by a fall of top rock. A fall of roof had occurred on the same day, and the falling of the rock had struck the top of another piece of rock fell, killing him instantly.
15	Mike Bill,	Slav,	*Company laborer,	40	M.	1	3	Breaker No. 6, Glen Lyon.	Luzerne, ..	Killed by railroad cars; when trying to pry a gondola car back other cars collided and drove the gondola car upon him, killing him instantly.

TABLE V—List of non-fatal accidents that occurred in and about the mines of the Fourth Anthracite District for the year ending December 31, 1900.

Date of accident.	Name of Person.	Nationality by Birth.	Occupation.	Age.	Married or Single.	Name of Colliery.	County.	Nature and Cause of Accident in Brief.
Jan. 5	Adam Farrish,	Slav,	Miner,	37	M.	Boston,	Luzerne, ..	Spine fractured. Pulling a piece of rock down it struck him.
6	Anthony Pyasecky,	Pole,	Laborer,	22	M.	Bliss,	Luzerne, ..	Severely burned by an explosion of gas. Rush of coal brought the gas down on his lamp.
8	James Gallagher,	Irish,	Miner,	50	M.	Warrior Run,	Luzerne, ..	One rib fractured and cut on head; premature explosion of blast.
8	Joseph Yonhoski,	Pole,	Miner,	28	S.	Stanton,	Luzerne, ..	Leg fractured. Barrling coal down, it struck him.
8	Anthony Rydzalski,	Pole,	Laborer, .....	.....	M.	No. 2 Plymouth,	Luzerne, ..	Face and hands severely burned by an explosion of gas in a crosscut.
10	Patrick Mangan,	English,	Miner,	24	S.	No. 5 Plymouth,	Luzerne, ..	Leg broken. A piece of rock sliding from the gob struck it.
11	William Cuhm,	Pole,	Miner,	48	M.	Shaft No. 2, Nanticoke,	Luzerne, ..	Severely injured by a fall of top slate.
11	David T. Evans,	American,	Miner,	39	M.	Bliss,	Luzerne, ..	Leg broken by severely bruised back by a fall of top rock.
13	Walter Humphreys,	English,	Driver,	17	S.	No. 3 Plymouth,	Luzerne, ..	Back painfully injured; crushed between cars.
13	Paul Wollack,	Slav,	Miner,	28	M.	Woodward No. 1,	Luzerne, ..	Compound fracture of leg by a fall of top rock.
15	David B. Jones,	Welsh,	Slate picker,	56	M.	Breaker No. 5, Nanticoke,	Luzerne, ..	Feet and side severely hurt; ran upon by a car at head of breaker.
16	Luke Angove,	English,	Fireman,	39	M.	No. 2 Red Ash, surface,	Luzerne, ..	Arm broken; slipped and fell in front of boilers.
18	Joe Bochna,	Slav,	Laborer,	40	M.	No. 3 Edwardstale,	Luzerne, ..	Injured about hips by a fall of rock in a heading.
20	Burnett Stevinski,	Pole,	Doortender,	17	S.	Shaft No. 2, Nanticoke,	Luzerne, ..	Head and arm severely injured by fall of top rock.
30	William Pritchard,	Welsh,	Motorman helper,	24	S.	Woodward,	Luzerne, ..	Leg badly bruised; caught when coupling cars on "the fly."
31	J. P. Phalo,	Slav,	Breaker boy,	15	S.	Gaylord breaker,	Luzerne, ..	Severe scalp wound; caught between box car and door.
Feb. 1	John Peterson,	Dane,	Shaft sinker,	37	M.	Shaft No. 5, Stearns,	Luzerne, ..	The cut off. Pump got on his foot when moving it on surface.

TABLE V—Continued.

Date of accident.	Name of Person.	Nationality by Birth.	Occupation.	Age.	Married or single.	Name of Colliery.	County.	Nature and Cause of Accident in Brief.
Feb. 6	Archibald Keast,	English,	Driver,	23	S.	Alden,	Luzerne, ..	Severely injured; fell under cars and was dragged several yards.
6	John Bohack,	Pole,	Driver,	16	S.	Lee,	Luzerne, ..	Leg fractured by falling under a car.
7	George Housenick,	American, ..	Laborer,	35	M.	West End,	Luzerne, ..	Foot severely and back slightly hurt by a fall of rock.
8	Joseph Savage,	Pole,	Laborer,	19	S.	Stanton,	Luzerne, ..	Foot severely bruised; stepped in front of cars and was run upon.
9	Peter Sapollas,	Pole,	Doortender,	14	S.	Wanamie No. 18,	Luzerne, ..	Foot cut off; a trip of cars ran over him.
10	Dennis Gurley,	American, ..	Laborer,	24	S.	No. 9 Sugar Notch,	Luzerne, ..	Hip and back painfully injured by a fall of slate.
13	Essex Williams,	Welsh,	Asst. foreman, ..	49	M.	Dodson,	Luzerne, ..	Hip dislocated; a piece of timber fell on the top of shaft.
19	Ed. Erislin,	American, ..	Driver,	18	S.	Buttonwood,	Luzerne, ..	Hip dislocated; fell under cars when un hitching mule.
19	John Edwards,	Welsh,	Driver,	17	S.	No. 2 Red Ash,	Luzerne, ..	Leg fractured by falling under cars.
20	Edward Fisher,	Irish,	Driver,	18	S.	No. 2 Edwardsdale,	Luzerne, ..	Bruised about hips; squeezed between car and door edge.
20	John Shelly,	Pole,	Miner,	43	M.	Hollenback,	Luzerne, ..	Severely hurt on back and arms by a blast.
20	William H. Williams, ..	Welsh,	Miner,	38	M.	Hollenback,	Luzerne, ..	Arm fractured; caught in stretcher when helping the driver.
21	William Ganulis,	Pole,	Miner,	39	M.	Stanton,	Luzerne, ..	Leg broken; barring coal down, which struck him.
21	David Allison,	English,	Miner,	33	M.	Shaft No. 1, Nanticoke,	Luzerne, ..	Arm and back bruised by a blast. It had been a day.
23	Martin Urban,	Lithuanian, ..	Miner,	35	M.	Warrior Run,	Luzerne, ..	Back severely bruised. Coal fell on him which he was trying down.
23	Andrew Visnowski,	Lithuanian, ..	Miner,	30	S.	Warrior Run,	Luzerne, ..	Head face and hands burned by an explosion of gas when firing a blast.
27	Lewis Johnson,	Swede,	Miner,	30	M.	Baltimore shaft No. 2, ..	Luzerne, ..	Back painfully hurt by a fall of top rock at face of airway.
March 2	John Resimko,	Greek,	Laborer,	27	M.	Buttonwood,	Luzerne, ..	Two fingers severed by a piece of rock falling on his hand.

5	Anthony Frayne,	Slav,	Miner,	48	M. No. 4 Edwardsdale,	Luzerne, ..	Leg fractured: was barring rock down and it fell on his leg.
3	John Buttrish,	Irish,	Miner,	44	M. Maxwell No. 20,	Luzerne, ..	Ankle dislocated by a fall of top coal.
5	Matthew Mahan,	Irish,	Driver,	21	S. Avondale,	Luzerne, ..	Leg painfully bruised under cars.
9	William Benson,	Irish,	Miner,	47	M. Shaft No. 2, Nanticoke,	Luzerne, ..	Severely hurt about head and body by a fall of coal.
13	Wadaack Podzabick,	Pole,	Miner,	28	M. Warrior Run,	Luzerne, ..	Leg fractured by a fall of rock; was laid to pull it down but did not.
14	Jacob Rolland,	Pole,	Driver,	23	S. Franklin,	Luzerne, ..	Both legs fractured and otherwise injured by falling under cars.
14	Samuel Jenkins,	American, ..	Footman,	23	S. Wanamle,	Luzerne, ..	Leg fractured. A board caught in rib when being hauled in on cars. The cars moved on and the board caught his leg and broke it.
17	Peter Macalanis,	Lithuanian, ..	Miner,	30	S. Nottingham,	Luzerne, ..	Both were more or less severely burned by an explosion of gas.
17	Peter Baranis,	Lithuanian, ..	Laborer,	29	S. Nottingham,	Luzerne, ..	Severely bruised on side by a fall of fire clay roof.
17	Valent Pronski,	Pole,	Laborer,	24	S. Shaft No. 1, Nanticoke,	Luzerne, ..	Burned by an explosion of gas. Neglected to use safety lamp.
23	Joseph Seamoek,	Pole,	Miner,	35	M. Stanton,	Luzerne, ..	Leg fractured by a fall of coal at face of breast.
27	John V. Jones,	Welsh,	Miner,	35	M. Hollenback,	Luzerne, ..	Leg fractured by a fall of coal at face of breast.
29	Frank Fulson,	Slav,	Laborer,	20	S. Maxwell,	Luzerne, ..	Arm broken by a fall of top rock.
29	David Haigh,	Welsh,	Timberman,	31	M. Dodson,	Luzerne, ..	Arm fractured and cuts on head and arm by a fall of rock.
30	George Jones,	Welsh,	Bratticeman,	25	S. Conyngham,	Luzerne, ..	Face and hands burned by an explosion of gas.
30	August Lesetsky,	Lithuanian, ..	Miner,	38	W. Lance No. 11,	Luzerne, ..	Rib fractured and cuts on head, by a fall of rock loosening a pair of timber and falling on him.
31	Nicholas Helfrick,	German, ..	Miner,	57	M. Hollenback,	Luzerne, ..	Leg broken and hip slightly hurt by a fall of coal.
3	George Waters,	American, ..	Laborer,	29	M. Parrish,	Luzerne, ..	Leg fractured by coal flying from a fire on lighting sulph.
4	William Fritzer,	American, ..	Miner,	35	M. Lane No. 11,	Luzerne, ..	Leg fractured and cut in arm. Blast severely cut on hand by a piece of coal striking him when barring it down.
5	James Wolfe,	American, ..	Miner,	35	M. No. 2 Plymouth,	Luzerne, ..	Nose and face cut and bruised. Prop fell on him when trying to put it up.
7	Ed. Helanthal,	American, ..	Laborer,	27	M. Chauncey,	Luzerne, ..	Severely hurt on chest by a fall of coal in a breast.
7	Frank Yershefski,	Pole,	Laborer,	29	S. Shaft No. 2, Nanticoke,	Luzerne, ..	Injured about hips; crushed between two cars at foot of plane.
10	James Miller,	American, ..	Footman,	27	M. Lee breaker,	Luzerne, ..	Two ribs fractured; coal drove drill into his side.
10	Charles Yanko,	Russian, ..	Miner,	40	M. Nottingham,	Luzerne, ..	Back severely bruised; crushed between two cars.
11	Phillip Devers,	American, ..	Driver,	17	S. Shaft No. 4, Edwardsdale,	Luzerne, ..	Face and hands of each slightly burned by an explosion of gas. They fired a blast and on returning fired a small body of gas released by the blast.
11	Alek. Veshefski,	Pole,	Miner,	37	M. Shaft No. 2, Nanticoke,	Luzerne, ..	
11	Ignats. Nickoweter,	Pole,	Laborer,	55	M. Shaft No. 2, Nanticoke,	Luzerne, ..	
11	Frank Conesshinski,	Pole,	Laborer,	43	M. Shaft No. 2, Nanticoke,	Luzerne, ..	

April

TABLE V—Continued.

Date of accident.	Name of Person.	Nationality by Birth.	Occupation.	Age.	Married or single.	Name of Colliery.	County.	Nature and Cause of Accident in Brief.
April 12	Alex. Vookoski,	Pole,	Slate picker,	14	S.	Conyngham, surface, ...	Luzerne, ..	Arm broken; crushed between ash car and boiler house.
13	Edward Loftus,	Irish,	Miner,	39	M.	Baltimore shaft No. 4, ..	Luzerne, ..	Leg fractured by a fall of rock.
16	Samuel Sims,	American, ..	Laborer,	26	S.	Alden,	Luzerne, ..	Head and side painfully bruised by a fall of clod.
16	Evan Dare,	English, ...	Driver,	18	S.	Shaft No. 2, Edwardsdale,	Luzerne, ..	Leg broken; car jumped track and ran upon him.
16	Joseph Miller,	Pole,	Miner,	34	M.	Red Ash No. 2,	Luzerne, ..	Hand severely lacerated; prop fell on it.
17	Peter Miller,	Pole,	Doortender,	16	S.	Maxwell,	Luzerne, ..	Leg fractured; lacerated between cars when riding on gangway.
18	Eugene Sutliff,	American, ..	Laborer,	30	M.	West End,	Luzerne, ..	Leg broken; a piece of top rock fell on the gob and slid on him.
19	Michael Kruska,	Pole,	Laborer,	43	M.	Shaft No. 2, Nanticoke,	Luzerne, ..	Back and chest painfully hurt by a piece of timber falling on him.
19	Anthony Peters,	Pole,	Laborer,	23	S.	Bliss,	Luzerne, ..	Three fingers severed and bruised on head and back by a fall of coal.
20	Enock Lucsash,	Pole,	Laborer,	38	M.	Shaft No. 2, Edwardsdale,	Luzerne, ..	Leg broken; car jumped track and ran upon him.
21	Samuel Searles,	English, ...	Doortender,	16	S.	Lance No. 11,	Luzerne, ..	Squeezed between car and door post. Painfully injured.
28	Theophilus Gibbon, ...	Welsh,	Miner,	42	W.	Conyngham,	Luzerne, ..	Put a charge of powder on ground and arms felt burned and fired it. Face and hands burned. A lump of coal rolled on his foot.
30	William Rancheski, ...	Pole,	Laborer,	18	S.	Shaft No. 2, Edwardsdale,	Luzerne, ..	When cleaning pocket in breaker portion of next pocket gave way and he was injured by coal rushing on him.
May 5	John Polisha,	Slav,	Boss loader,	34	M.	Breaker No. 6, Glen Lyon,	Luzerne, ..	Arm doubly fractured and ribs dislocated by falling under cars.
7	Felix Faust,	Pole,	Driver,	19	S.	Nottingham,	Luzerne, ..	Face and hands burned by an explosion of gas.
8	Anthony Snipas,	Lithuanian,	Miner,	31	M.	South Wilkes-Barre,	Luzerne, ..	Face and hands burned by an explosion of powder.
11	Alex. Keads,	Pole,	Miner,	34	M.	Warrior Run,	Luzerne, ..	

11	Peter Shipuski,	Pole,	Miner,	27	S.	Warrior Run,	Luzerne, ..	Face and hands burned by igniting gas feeders in loose coal. Cut on arm and body bruised by a blast firing when he was approaching, thinking the squib "missed." Eyes severely injured.
14	Edward R. Jones,	Welsh,	Miner,	55	S.	Shaft No. 2, Edwardsdale,	Luzerne, ..	Eye destroyed in bottom rock and cut on charge or dynamite exploded by unexploded by formed his eyes. Arm broken and blew the rock into their faces.
15	Evan T. Thomas,	Welsh,	Asst. foreman,	42	M.	Farrish,	Luzerne, ..	When drilling a hole
15	Walter Davies,	Welsh,	Miner,	40	M.	Farrish,	Luzerne, ..	in bottom rock a
15	John King,	Welsh,	Pumpman,	55	W.	Farrish,	Luzerne, ..	charge or dynamite
15	Lazarus Williams,	American, ..	Miner,	33	M.	Farrish,	Luzerne, ..	unexploded by
18	John Harph,	Pole,	Miner,	28	S.	Woodward,	Luzerne, ..	formed his eyes. Arm broken and blew the rock into their faces.
21	Frank Rabinski,	Pole,	Miner,	36	M.	Shaft No. 6, Glen Lyon,	Luzerne, ..	Eye destroyed. A piece of coal flew from pick into his eye.
22	Michael O'Hara,	American, ..	Shaft headman,	29	S.	Lorraine, surface,	Luzerne, ..	Ankle painfully hurt by a fall of rock. Leg and jaw fractured; struck down by a car.
23	Jeremiah Murphy,	Irish,	Doortender,	15	S.	Woodward,	Luzerne, ..	Leg severely bruised; fell under a car. Leg fractured; failed to block a car
24	Joseph Mooring,	Slav,	Miner,	37	S.	Shaft No. 2, Edwardsdale,	Luzerne, ..	Spine cracked by a fall of top rock at face of gangway.
25	Phillip Price,	Pole,	Miner,	29	M.	Shaft No. 1, Edwardsdale,	Luzerne, ..	Shoulder fractured; scaffold broke under him causing a fall of ten feet.
25	Thomas Clum,	Russian, ..	Co. laborer,	33	M.	Nottingham, surface,	Luzerne, ..	Back painfully hurt by a fall of slate. Went up a breast unnecessarily.
26	James Roach,	American, ..	Driver,	21	S.	No. 9 Sugar Notch,	Luzerne, ..	Shoulder fractured; caught between car and prop when riding on car front.
28	Shadrack Lewis,	Welsh,	Driver,	37	M.	Woodward,	Luzerne, ..	Shoulder fractured; caught between car and door frame.
28	Edward Kelly,	American, ..	Doortender,	15	S.	Woodward,	Luzerne, ..	Leg fractured by a lump of coal rolling against it.
28	Waddiek Kreviekl,	Pole,	Miner,	24	S.	Tunnel No. 6, Glen Lyon,	Luzerne, ..	One hand of each burned; were one big foot and gas above lagging exploded from the lamps. Rowlands was bruised by falling of the platform.
29	John Ingram,	Welsh,	Timberman,	29	M.	Woodward,	Luzerne, ..	Slight burns on face and hands caused by an explosion of gas. The gas accumulated in a cavity above the lagging at face of gangway and fired from one of their lamps.
29	Richard Rowlands,	Welsh,	Timberman,	27	M.	Woodward,	Luzerne, ..	Foot severely bruised by a lump of coal rolling on it.
29	Oulf Nelson,	Swede,	Miner,	32	M.	No. 9 Sugar Notch,	Luzerne, ..	Arm fractured; car jumped track and crushed him against rib.
29	Andrew Munson,	Swede,	Laborer,	42	M.	No. 9 Sugar Notch,	Luzerne, ..	Two legs and knee fractured by a fall of rock.
29	Richard Davies,	Welsh,	Carpenter,	22	S.	No. 9 Sugar Notch,	Luzerne, ..	Leg crushed between cars and car ran over it.
June	Blazey Kosack,	Pole,	Miner,	52	M.	Alden,	Luzerne, ..	
1	Joseph Rule,	English,	Driver,	20	S.	Wanamie,	Luzerne, ..	
1	Joseph Novak,	Pole,	Miner,	40	M.	Shaft No. 2, Nanticoke,	Luzerne, ..	
4	Robert Connell,	American, ..	Driver,	17	S.	Reynolds No. 16,	Luzerne, ..	

TABLE V—Continued.

Date of accident.	Name of Person.	Nationality by Birth.	Occupation.	Age.	Married or single.	Name of Colliery.	County.	Nature and Cause of Accident in Brief.
June 4	Hugh Dugan,	American, ..	Laborer,	26	S.	Baltimore shaft No. 4, ..	Luzerne, ..	Leg and two ribs fractured and wound on scalp by a fall of rock.
5	George Cobleigh,	American, ..	Miner,	29	M.	Buttonwood,	Luzerne, ..	Leg broken and cut on head by fall of rock.
6	Edward T. Edwards, ..	American, ..	Slope footman, ..	29	S.	No. 2 Plymouth,	Luzerne, ..	Severely cut on back of hand. A lump of coal fell from car on it.
11	Mike Matoski,	Pole,	Miner,	26	S.	Stanton,	Luzerne, ..	Face and hands slightly burned by an explosion of gas.
11	Simon Scrapeck,	Pole,	Miner,	31	M.	Stanton,	Luzerne, ..	Severely burned on face and hands by an explosion of gas.
12	John Nick,	Slav,	Driver,	18	S.	Lance No. 11,	Luzerne, ..	Leg badly bruised between ears.
12	Joseph Beyers,	Pole,	Carpenter,	32	M.	Breaker No. 6, Glen Lyon, ..	Luzerne, ..	Leg, wrist, and arm caught in revolving shaft and crushed.
13	Charles Conrass,	Pole,	Miner,	31	M.	Shaft No. 1, Edwardsdale, ..	Luzerne, ..	Leg broken; caught between car and a pile of rock.
14	Edward Sweeney,	Irish,	Miner,	55	M.	Hadleigh,	Luzerne, ..	Cut on head and shoulder injured by a fall of coal.
14	John Moran,	Russian, ..	Miner,	42	M.	Shaft No. 2, Edwardsdale, ..	Luzerne, ..	Spine fractured by a fall of top rock in Lance seam.
15	John Francis Kowalski, ..	Pole,	Miner,	42	M.	Shaft No. 2, Nanticoke, ..	Luzerne, ..	Leg fractured by a fall of top rock.
16	Albert Williams,	American, ..	Miner,	28	S.	Hollenback,	Luzerne, ..	Severely cut and bruised on face and shoulder by a blast.
21	James V. James,	Welsh,	Miner,	41	M.	Red Ash No. 2,	Luzerne, ..	Cut on head and hand and leg bruised by a fall of bone.
21	Joseph Wootten,	English,	Co. laborer,	76	W.	Red Ash No. 2,	Luzerne, ..	Two ribs fractured; struck by runaway coal.
22	Theo. Godemski,	Pole,	Driver,	18	S.	Buttonwood,	Luzerne, ..	Burned by an explosion of gas. Left a door stand open, then closing it brought gas from a breast to their lamps.
22	John Shrater,	Pole,	Doortender,	15	S.	Buttonwood,	Luzerne, ..	Arm fractured by falling down a chute.
23	Charles Gallagher,	American, ..	Slate picker,	17	S.	Jersey Annex, surface, ..	Luzerne, ..	Face and hands severely burned by an explosion of gas.
23	Clement Lulevitch,	Pole,	Miner,	40	M.	Shaft No. 4, Edwardsdale, ..	Luzerne, ..	Face and hands severely burned by an explosion of gas.
25	Michael Jesko,	Pole,	Driver,	16	S.	Shaft No. 2, Nanticoke, ..	Luzerne, ..	Jaw fractured at two places; crushed between car and mule.

25	John Davitski,	Pole,	Miner,	60	M.	No. 9 Sugar Notch,	Luzerne, ..	Two ribs fractured and shoulder injured by a fall of coal.
26	Peter Shebis,	Pole,	Laborer,	23	S.	Shaft No. 6, Glen Lyon, ..	Luzerne, ..	Painful injuries on head and shoulder by fall of coal.
26	John Kalzer,	American, ..	Miner,	40	S.	Wanamie No. 18,	Luzerne, ..	Severely cut on head and face by a fall of coal soon after blasting.
28	Charles Stafford,	English,	Miner,	30	M.	South Wilkes-Barre,	Luzerne, ..	Both hands fractured and hands severely bruised by an explosion of gas when extinguishing a fire in loose coal on the surface.
28	John Burak,	Irish,	Miner,	40	M.	South Wilkes-Barre,	Luzerne, ..	
28	John Gabriel,	Pole,	Laborer,	25	S.	Avondale,	Luzerne, ..	Face, hands and back burned by an explosion of gas.
28	Marat Nekas,	American, ..	Miner,	42	M.	Shaft No. 3, Edwardsdale, ..	Luzerne, ..	Thigh fractured; stumbled and fell while running from a blast.
29	Daniel E. Davies,	American, ..	Driver,	21	S.	Dodson,	Luzerne, ..	Leg crushed; fell under trucks loaded with rock.
2	Alex. Petruk,	Lithuanian, ..	Miner,	25	S.	Woodward,	Luzerne, ..	Spine dislocated; a collar fell on him while putting timber up.
2	George (Toth) P.,	English,	Co. laborer,	26	M.	Alden,	Luzerne, ..	Face and hands bruised and burned by explosion of a charge of dynamite.
5	Frank Stafski,	Pole,	Laborer,	24	S.	Shaft No. 6, Glen Lyon, ..	Luzerne, ..	Leg broken by a fall of slate.
7	James Kloran,	Irish,	Laborer,	29	S.	Woodward,	Luzerne, ..	Back and head bruised and cut by fall of rock.
9	John Ford,	Irish,	Miner,	47	M.	Maxwell,	Luzerne, ..	{All burned by an explosion of gas which accumulated on the upper side of gangway and fired by naked lights of the masons, who used naked lights in violation of the foreman's orders.
9	George Wanto,	Lithuanian, ..	Laborer,	35	M.	Maxwell,	Luzerne, ..	More or less severely bruised on their bodies; were on the cage ascending the shaft after quitting time, when through mistake of the masons, who with the shaft and fell down against the cage and smashed it. The men hung in the debris and were not seriously injured.
9	Hugh R. Jones,	Welsh,	Mason,	45	M.	Maxwell,	Luzerne, ..	Foot severely crushed between cars; ear left track and caused it.
9	Thomas Boylan,	Irish,	Mason helper,	61	M.	Maxwell,	Luzerne, ..	Hip fractured by a fall of top bone and slate.
11	Robert J. Powell,	American, ..	Co. laborer,	36	M.	Shaft No. 1, Nanticoke,	Luzerne, ..	Arm and foot fractured and body bruised; fell from roof of barn.
11	Anthony Geiselbach,	Pole,	Co. laborer,	29	M.	Shaft No. 1, Nanticoke,	Luzerne, ..	Arm fractured and leg bruised by coal bursting on him; this body was crushed and his back bruised; clothing caught on set-screw which drew him on to a revolving shaft.
11	John Bohan,	Irish,	Miner,	32	M.	Shaft No. 1, Nanticoke,	Luzerne, ..	Back bruised and squeezed; fell from a car and was crushed between cars.
11	Anthony Yanofski,	Pole,	Miner,	33	M.	Shaft No. 1, Nanticoke,	Luzerne, ..	Severely cut on head by a fall of top bone.
14	William H. Jones,	American, ..	Doortender,	15	S.	Parrish,	Luzerne, ..	
17	Charles Yekaski,	Pole,	Laborer,	28	M.	South Wilkes-Barre,	Luzerne, ..	
20	Thomas G. Cease,	American, ..	Carpenter,	31	M.	Woodward, surface,	Luzerne, ..	
25	John B. Davies,	Welsh,	Timberman,	40	M.	Conyngham,	Luzerne, ..	
26	Alfred Wright,	Welsh,	Jig-tender,	17	S.	Breaker No. 6, Glen Lyon, ..	Luzerne, ..	
30	Victor Colisco,	Pole,	Laborer,	38	M.	Avondale,	Luzerne, ..	
31	George Sobarseski,	Slav,	Miner,	40	M.	Lancee No. 11,	Luzerne, ..	

TABLE V—Continued.

Date of accident.	Name of Person.	Nationality by Birth.	Occupation.	Age.	Married or single.		Name of Colliery.	County.	Nature and Cause of Accident in Brief.
July	31 John M. Davies,	Welsh,	Co. miner,	37	M.		South Wilkes-Barre,	Luzerne, ..	(All more or less severely burned by an explosion of gas on gangway. Supposed that the gas accumulated in an old breast while a door was open. On closing the door the gas was carried on to their lamps on the gangway and exploded. Body and head severely bruised by a blast; was only ten feet away. Hand crushed by car when pulling block from front of wheel. Face and body burned by an explosion of gas. Head and hips injured by a fall of fire clay rock. Leg broken. By a fall of bone top injured about } In a breast on the hips. } Three ribs broken by a kick from mule in the mine. Arm fractured by a kick from mule in the mine. Severe scalp wound and one finger on each hand cut off. Severely cut on head by a fall of bone Hand severely lacerated; caught under picker tumbler Hip dislocated by a fall of rock in Ross seam.
	31 Thomas Austin,	Irish,	Co. laborer,	35	M.		South Wilkes-Barre,	Luzerne, ..	
	31 Neal Sweeney,	Irish,	Co. laborer,	69	M.		South Wilkes-Barre,	Luzerne, ..	
	31 John M. Hughes,	American, ..	Doortender,	15	S.		South Wilkes-Barre,	Luzerne, ..	
Aug.	2 Frank Zraraski,	Pole,	Miner,	35	S.		No. 9, Sugar Notch,	Luzerne, ..	
	4 William Gauzey,	Pole,	Miner,	43	M.		Bliss,	Luzerne, ..	
	7 Peter Olsen,	Swede,	Miner,	33	S.		Buttonwood,	Luzerne, ..	
	9 Martin Sheba,	Pole,	Miner,	38	M.		Shaft No. 2, Nanticoke,	Luzerne, ..	
	11 Frank Norka,	Pole,	Laborer, .....	.....	S.		Avondale,	Luzerne, ..
	11 Thomas Davies,	Welsh,	Miner,	42	M.		Avondale,	Luzerne, ..	
	16 Thomas Bebb,	Welsh,	Driver,	42	M.		No. 3 Plymouth,	Luzerne, ..	
	16 Mortimer Watson,	American, ..	Co. laborer,	32	M.		South Wilkes-Barre,	Luzerne, ..	
	17 Thomas Toole,	Irish,	Laborer,	58	M.		Stanton,	Luzerne, ..	
	17 Joseph Walko,	Pole,	Laborer,	30	M.		Stanton,	Luzerne, ..	
	17 Michael Cooney,	American, ..	Slate picker,	13	S.		Maxwell breaker,	Luzerne, ..	
	17 John Gell,	Pole,	Laborer,	36	M.		Shaft No. 1, Nanticoke,	Luzerne, ..	
	21 Frank Lebonski,	Pole,	Miner,	33	M.		Shaft No. 1, Nanticoke,	Luzerne, ..	
	22 Patrick Comisky,	Irish,	Miner,	58	M.		Baltimore shaft No. 3, ..	Luzerne, ..	
	23 Steve Meleski,	Lithuanian, ..	Laborer,	25	M.		South Wilkes-Barre,	Luzerne, ..	

No	Name	Nationality	Occupation	Age	Locality	Company	Location	Accident Description
24	Charles Viscosey	Lithuanian	Laborer	25	S. Red Ash No. 2	Luzerne	Luzerne	Leg fractured and cut on head by a fall of top rock.
25	Albert Evans	Welsh	Driver	22	S. South Wilkes-Barre	Luzerne	Luzerne	Ankle fractured.
25	Martin Malla	American	Driver	19	S. South Wilkes-Barre	Luzerne	Luzerne	Legs ligaments were injured by the belt being jerked against the bottom of the shaft at a high speed while they and others were on it.
25	David Owens	American	Doortender	15	S. South Wilkes-Barre	Luzerne	Luzerne	Leg broken and hip dislocated.
28	David W. Davies	Welsh	Miner	42	M. Shaft No. 2, Nanticoke	Luzerne	Luzerne	Leg fractured: a pair of timber loosened by a blast fell on him.
31	John Poland	Pole	Miner	42	S. No. 9 Sugar Notch	Luzerne	Luzerne	Severe cut on forearm (tendon severed). A lump of coal broke in his hands when lifting it to the car.
31	Icees L. Thomas	Welsh	Driver	17	S. Woodward	Luzerne	Luzerne	Three ribs fractured and breast bruised; fell under a car.
4	Joe Gavi	Pole	Miner	38	M. Shaft No. 3, Edwardsdale	Luzerne	Luzerne	Face lacerated.
4	Joseph Mulgalls	Pole	Miner	30	M. Shaft No. 2, Edwardsdale	Luzerne	Luzerne	Hands severely burned by explosion of powder; carelessness.
6	John Kiautoski	Pole	Laborer	37	S. Maxwell No. 20	Luzerne	Luzerne	Ankle injured by coal sliding and jamming it against a prop.
12	Simon Giegler	Pole	Miner	37	M. Stanton	Luzerne	Luzerne	(Both more or less severely burned by an explosion of gas in a breast which they entered in violation of instructions of the fire boss.
12	Andre Krazel	Pole	Laborer	33	M. Stanton	Luzerne	Luzerne	Face and hands burned by gas feeders lighting on loose coal on bottom.
13	Peter Penkoski	Pole	Miner	34	M. Warrior Run	Luzerne	Luzerne	Face and hands burned by gas feeders lighting on loose coal on bottom.
14	Joseph Lankotski	Pole	Miner	32	M. Shaft No. 2, Nanticoke	Luzerne	Luzerne	Knee cap badly bruised; lump of coal broke in his hands and fell on his back.
14	Frank Olaski	Pole	Miner	60	M. Stanton	Luzerne	Luzerne	Leg fractured by a fall of top coal.
6	Peter Bird	American	Co. laborer	16	S. Stanton, surface	Luzerne	Luzerne	Bruised on head, face and body by a wall falling on him on surface.
30	David E. Evans	Welsh	Runner	27	M. Shaft No. 1, Edwardsdale	Luzerne	Luzerne	(All painfully burned by an explosion of gas. Car got off track in a door; gas accumulated and on closing the door it was carried to their lamps and ignited.
30	John Dolan	Irish	Miner	37	M. Shaft No. 1, Edwardsdale	Luzerne	Luzerne	Painfully injured by falling from the cage.
30	Adam Medlosky	Pole	Doortender	17	S. Shaft No. 1, Edwardsdale	Luzerne	Luzerne	Painfully hurt on back and hips by a fall of rock.
2	Venis Klowcha	Pole	Laborer	30	M. Conyngham	Luzerne	Luzerne	Face and hands slightly burned by an explosion of gas.
6	John Measka	Pole	Miner	36	M. Shaft No. 3, Edwardsdale	Luzerne	Luzerne	Finger cut off caught between chain and sprocket wheel.
9	David Howells	Welsh	Miner	55	M. Nottingham	Luzerne	Luzerne	Skull fractured and severe scalp wound; caused by a fall of coal.
12	Andrew Grutkile	Slav	Co. laborer	31	S. Jersey Annex, surface	Luzerne	Luzerne	Arm broken and severely lacerated by falling under cars.
12	Stanley Shutt	Pole	Laborer	32	M. Woodward	Luzerne	Luzerne	
14	Edward Powell	English	Doortender	15	S. Bliss	Luzerne	Luzerne	

Sept.

Oct.

Nov.

TABLE V—Continued.

Date of accident.	Name of Person.	Nationality by Birth.	Occupation.	Age.	Married or single.	Name of Colliery.	County.	Nature and Cause of Accident in Brief.
Nov. 14	Hugh Conway,	Irish,	Miner,	42	M.	Shaft No. 5, Sus. C. Co.,	Luzerne, ..	Cut and bruised on back. A blast fired when he was approaching, thinking it had missed.
19	Daniel H. Morgan,	Welsh,	Brattleman,	36	M.	Shaft No. 6, Sus. C. Co.,	Luzerne, ..	Thigh fractured; fall of rock on plane.
20	George Hester,	American, ..	Co. laborer,	17	S.	No. 2 Plymouth,	Luzerne, ..	Face and hands burned by an explosion of gas.
20	George Foorgahs,	Slav,	Laborer,	41	M.	Nottingham,	Luzerne, ..	Face and hands burned by an explosion of gas, and carelessness.
20	Andrew Psalsowski, ...	Pole,	Miner,	35	S.	Slope No. 4, Nanticoke,	Luzerne, ..	Leg fractured by a blast; cut the match too short.
21	Peter Compari,	Italian,	Miner,	26	S.	Bliss,	Luzerne, ..	Both severely burned by an explosion of gas; violated the instructions of the fire boss and fired the gas.
21	Dominick Broilia,	Italian,	Laborer,	32	S.	Bliss,	Luzerne, ..	Severely squeezed about hips; caught between car and breaker post.
21	Bertie Davies,	American, ..	Miner,	37	M.	Hollenback,	Luzerne, ..	Nose broken; cut on head and ankle sprained. Pulled rock down upon himself.
22	Adam Delts,	Pole,	Slate picket, ...	12	S.	Woodward,	Luzerne, ..	Cuts on head, hand and back bruised by a fall of fire clay top.
22	Richard Thomas,	English,	Miner,	40	M.	Conyngnam,	Luzerne, ..	Ribs and collar bone fractured; car ran into him.
23	Guy Mitchell,	American, ..	Laborer,	19	S.	West End,	Luzerne, ..	Body painfully bruised by a fall of rock.
24	Joseph A. Walker,	English,	Miner,	39	M.	No. 2 Plymouth,	Luzerne, ..	Severely burned by an explosion of gas. Fired a blast where a body of fire damp had accumulated and the blast fired the gas. They worked by safety lamps.
24	William J. Martin,	Welsh,	Miner,	47	M.	Woodward,	Luzerne, ..	Leg broken; car caught his knee when pulling a block out.
24	William Yabock,	Pole,	Laborer,	31	M.	Woodward,	Luzerne, ..	Severely burned by an explosion of gas. Disobeyed orders of boss.
24	Anthony Bojovitch, ...	Lithuanian,	Laborer,	21	S.	Woodward,	Luzerne, ..	Leg and body badly bruised by falling under a car.
26	William H. Harding, ..	American, ..	Driver,	18	S.	Shaft No. 3, Edwardsdale,	Luzerne, ..	
26	Joseph Kodilis,	Pole,	Laborer,	35	M.	Stanton,	Luzerne, ..	
26	John Allen,	American, ..	Driver,	17	S.	No. 2 Plymouth,	Luzerne, ..	

28	Andrew Fudnaw,	German, .....	.....	.....	.....	S. No. 3 Plymouth,	Luzerne, ..	Severely burned by an explosion of gas.
1	John Rushton,	Irish, .....	.....	50	M. South Wilkes-Barre,	Luzerne, ..	.....	falling coal on hand by a piece of falling coal.
4	John Youkaski,	Pole, .....	.....	29	M. Stanton,	Luzerne, ..	.....	Face and hands burned by an explosion of gas through carelessness.
4	John Weir,	American, ..	.....	19	S. No. 2 Plymouth,	Luzerne, ..	.....	Arm fractured; caught between car and top of gangway.
5	Phillip Williams,	Welsh, .....	.....	48	M. Shaft No. 1, Edwardsdale,	Luzerne, ..	.....	Two ribs fractured and chest bruised by a fall of rock.
5	Louis Potkofski,	Pole, .....	.....	15	S. Shaft No. 6, Glen Lyon,	Luzerne, ..	.....	Small bone in foot fractured; mule stepped on it.
5	Andro Watko,	Slav, .....	.....	38	M. Maxwell No. 20,	Luzerne, ..	.....	(A) slightly burned on faces and hands by explosion of gas in face of Gildea's breast. The miner said that he had just tested the place with a safety lamp and found no gas, yet as soon as they went on with naked lights an explosion occurred.
5	James Gildea,	Irish, .....	.....	50	M. Maxwell No. 20,	Luzerne, ..	.....	Arm fractured by falling from a mule on gangway.
5	George Potsko,	Slav, .....	.....	22	M. Maxwell No. 20,	Luzerne, ..	.....	Arm fractured; arm caught between belt and pulley when starting the scrapers.
5	Marlin Moran,	Irish, .....	.....	36	M. Maxwell No. 20,	Luzerne, ..	.....	Face and hands burned by an explosion.
5	Paul Vetskus,	Lithuanians, ..	.....	24	S. Maxwell No. 20,	Luzerne, ..	.....	Severely injured by a fall of top rock. Wm. Jettro was killed by same.
6	Isaac Jones,	Welsh, .....	.....	16	S. Woodward,	Luzerne, ..	.....	Shoulder and two ribs fractured by a blast. Cut match too short.
6	Thomas Shaeffer,	American, ..	.....	17	S. Bliss breaker,	Luzerne, ..	.....	Foot severely bruised; caught in car door when jumping off in slope.
7	Charles Rosshofski,	Pole, .....	.....	34	M. Nottingham,	Luzerne, ..	.....	Shoulder broken, back and hips bruised; crushed against manway side by a fall of coal from the rib.
7	Michael Chesna,	Pole, .....	.....	48	M. No. 2 shaft, Nanticoke,	Luzerne, ..	.....	Leg fractured and scalp wound by a fall of rock in tunnel.
8	Joseph Baxter,	Scotch, .....	.....	56	M. Baltimore shaft No. 3,	Luzerne, ..	.....	Foot pierced by latch of car door on dump. Culum car dumped on him.
8	James Drury,	American, ..	.....	24	M. South Wilkes-Barre,	Luzerne, ..	.....	Arm broken and hand lacerated. Minnaway mule dragged him 600 feet on ground.
8	Eli Heigman,	English, .....	.....	54	M. Reynolds,	Luzerne, ..	.....	Shin-bone fractured by a lump of coal rolling against his leg.
8	William C. Koehler,	American, ..	.....	52	M. Parrish,	Luzerne, ..	.....	Both legs fractured by a fall of coal bursting from face of breast.
10	Alexander Normisyoek,	Russian, .....	.....	22	S. Breaker No. 5, Nanticoke,	Luzerne, ..	.....	Side of face and hips injured by a blast. Was going on when it fired.
10	Wm. Zimmerman,	American, ..	.....	56	M. Plymouth No. 4, surface,	Luzerne, ..	.....	Leg fractured; caught between cars when coupling them while they were in motion.
11	Andrew Pohnski,	Pole, .....	.....	36	M. Nottingham,	Luzerne, ..	.....	Leg fractured; sitting on bumper with leg hanging down when the car ran against another one.
12	John Negosh,	Slav, .....	.....	32	M. Slope No. 4, Nanticoke,	Luzerne, ..	.....
12	Mike Labada,	Pole, .....	.....	36	M. Nottingham,	Luzerne, ..	.....
12	Andrew Garrison,	American, ..	.....	16	S. Stanton,	Luzerne, ..	.....
15	John Williams,	American, ..	.....	17	S. Shaft No. 1, Nanticoke,	Luzerne, ..	.....

TABLE V—Continued.

Date of accident.	Name of Person.	Nationality by Birth.	Occupation.	Married or single.		Name of Colliery.	County.	Nature and Cause of Accident in Brief.
				Age.				
Dec. 17	George Portsavage,	Lithuanian,	Laborer,	25	M.	Hollenback,	Luzerne, ..	Leg broken; was moving his box when a piece of rock top fell on him.
26	John E. Pritchard,	American, ..	Driver,	28	S.	Nottingham,	Luzerne, ..	Kicked on face by mule when handling the spreader. Slightly cut.
26	Henry Williams,	Welsh,	Patcher,	16	S.	South Wilkes-Barre,	Luzerne, ..	Five teeth broken by a kick from mule.
31	Edward James,	American, ..	Machinist,	35	M.	Stanton air shaft,	Luzerne, ..	Scalded on lower part of body and leg by a valve bursting by the steam.

Fifth Anthracite District.

LUZERNE AND CARBON COUNTIES.

Hazleton, Pa., February 18th, 1901.

Hon. James W. Latta, Secretary of Internal Affairs:

Sir: I have the honor to submit herewith my fifth annual report as Inspector of Mines for the Fifth Anthracite District for the year ending December 31, 1900.

I take pleasure in stating that with but few exceptions, I have received courteous treatment, and the co-operation of both operators and miners in the discharge of my duties during the year, for which I desire to publicly extend my sincere thanks. There has been no lack of diligence in the execution of my duties where it has been possible. Every mine has been visited and inspected as often as the exigencies of the case and the condition of the mines required, or my limited time would permit. When I have had occasion to call attention to defects in ventilation or other matters requiring attention, I am pleased to state that my orders have been complied with, within a reasonable time, so that in no case have I been compelled to invoke the aid of the law.

There is no question but that the mines of this district will compare favorably with those of any other district in the State in all matters pertaining to general safety and sanitary condition.

The report contains the usual tables of useful statistics relative to the several operations of the district. A perusal will show that the total number of accidents during the year in and about the mines was 116, by which 40 persons lost their lives, leaving 17 widows and 44 orphans to mourn the loss of husband and father.

Of these 40 fatal accidents, 23, or 57.5 per cent., occurred in the mines, while 17, or 42.5 per cent., occurred on the surface, in the stripping or about the breakers. I have given a detailed description of these from personal investigation, giving the cause and fixing the responsibility for each accident. The quantity of coal produced per life lost was 154,269 tons, against 143,977 tons in the previous year.

The total quantity of coal produced in this district for the year 1900 was 6,170,784 tons, which was a decrease of 20,243 tons from that of 1899, which was due entirely to a suspension of operations at several of the collieries, owing to the unsettled condition of affairs in the adjoining anthracite districts, brought about by what was intended to be a general strike during the month of October.

The total shipments, including local sales, were 5,457,861 tons. To accomplish this work, 15,111 persons were employed on an average of 195 days; 980,811 pounds of dynamite and 2,698,575 pounds of soda powder were used in the mines and on the stripping operations.

The report also contains a brief description of the important improvements made at some of the collieries during the year; also a complete report of the mine foreman's examining board for the year, showing the number of applicants examined. Those who were successful were recommended to the Department and received their certificates.

In conclusion, I am pleased to state that a goodly number of the successful candidates have secured positions as mine foreman or assistant mine foreman.

Yours very truly,

W. H. DAVIES,
Inspector of Mines.

Tons of Coal Mined During the Year 1900.

A. Pardee & Co.,	365,565.10
Coxe Bro.'s & Co., Incorporated,	976,069.12
Lehigh Coal and Navigation Company,	1,079,401.01
G. B. Markle & Co.,	1,030,628.00
The Lehigh Valley Coal Company,	870,366.05
Calvin Pardee & Co.,	624,466.13
Estate of A. S. Van Wickle,	516,893.00
Upper Lehigh Coal Company,	222,685.01
C. M. Dodson & Co.,	174,520.00
J. S. Wentz & Co.,	113,700.00
M. S. Kemmerer & Co.,	96,278.01
Audenried Coal Company (washery),	60,043.16
Lehigh and Wilkes-Barre Coal Company,	20,808.08
Miscellaneous operations,	11,867.00
Total,	6,170,784.00

The total production was made up as follows:

Shipped by railroad to market,	5,343,291.19
Sold at mines to local trade,	114,570.10
Coal consumed to generate steam and heat (estimate), .	712,921.11
Total,	6,170,784.00

Number of Fatal Accidents and Tons of Coal Mined Per Life Lost.

Names of Operators.	Number of lives lost.	Tons of coal mined per life lost.
A. Pardee and Company,	2	182,782
Coxe Brothers and Company, Incorporated,	6	162,678
Lehigh Coal and Navigation Company,	4	219,850
G. B. Markle and Company,	12	85,885
Lehigh Valley Coal Company,	4	217,591
Estate of A. S. Van Wickle,	7	73,841
Calvin Pardee and Company,	4	156,166
Upper Lehigh Coal Company,	1	222,685
Total and average,	40	154,269

Number of Non-Fatal Accidents and Tons of Coal Mined per Persons Injured.

Names of Operators.	Number of persons injured.	Tons of coal mined per person injured.
A Pardee and Company,	3	121,855
Coxe Brothers and Company, Incorporated,	10	87,606
Lehigh Coal and Navigation Company,	7	359,870
G. B. Markle and Company,	19	54,243
Lehigh Valley Coal Company,	8	108,620
Estate of A. S. Van Wickle,	12	43,074
Calvin Pardee and Company,	9	69,407
Lehigh and Wilkes-Barre Coal Company,	1	20,808
Upper Lehigh Coal Company,	2	111,342
C. M. Dodson and Company,	3	58,173
M. S. Kemmerer and Company,	4	24,069
J. S. Wentz and Company,	1	113,700
Audenreid Coal Company,	1	59,520
Total and average,	76	81,195

Number of Fatal and Non-Fatal Accidents and Tons of Coal Mined per Accident.

Names of Operators.	Number of accidents, fatal and non-fatal.	Tons of coal mined per accident.
A. Pardee and Company,	5	73,113
Coxe Brothers and Company, Incorporated,	16	61,004
Lehigh Coal and Navigation Company,	7	154,200
G. B. Markle and Company,	31	33,246
Lehigh Valley Coal Company,	12	72,530
Estate of A. S. Van Wickle,	19	27,204
Calvin Pardee and Company,	13	48,051
Upper Lehigh Coal Company,	4	74,227
M. S. Kemmerer and Company,	3	24,066
C. M. Dodson and Company,	3	58,173
J. S. Wentz and Company,	1	113,700
Lehigh and Wilkes-Barre Coal Company,	1	20,808
Audenreid Coal Company,	1	59,520
Total and average,	116	53,197

Comparative Statement Showing the Number of Tons of Coal Produced, Number of Fatalities, Tons of Coal Produced per Fatal Accident, Number of Persons Employed per Life Lost, and the Number of Deaths per Thousand Employed each Year for the Past Ten Years.

Years.	Production of coal in tons.	Number of fatal accidents.	Tons of coal produced per life lost.	Number of persons employed.	Number of persons employed per life lost.	Number of deaths per thousand persons employed.
1891,	5,803,964	53	109,509	14,961	277.33	2.949
1892,	5,842,721	48	121,725	16,277	282.28	3.307
1893,	6,239,068	58	107,570	17,540	339.19	3.103
1894,	6,132,627	58	105,735	18,361	302.48	3.461
1895,	6,590,966	52	126,750	18,467	316.57	3.470
1896,	5,872,427	42	139,819	17,568	355.13	1.941
1897,	5,487,550	33	166,280	17,119	418.28	2.184
1898,	5,555,850	32	173,620	14,649	457.78	3.014
1899,	6,191,027	43	143,977	14,293	322.39	3.606
1900,	6,170,784	40	154,269	15,111	377.75	2.666

Nationalities of Persons Fatally and Non-Fatally Injured.

	American.	English.	Welsh.	German.	Irish.	Hungarian.	Poles.	Austrians.	Italians.	Total.
Fatal accidents,	6	2	2	5	6	9	7	2	7	40
Non-fatal accidents,	12	2	2	5	16	23	6	3	7	76
Total,	18	2	4	6	22	32	13	5	14	116

Table of Comparison Showing the Number of Different Causes of Fatal Accidents in the Fifth Anthracite District During the Past Ten Years.

Causes of Accidents.	1891.	1892.	1893.	1894.	1895.	1896.	1897.	1898.	1899.	1900.	Total.
Asphyxiated by gases,	6						5				11
By explosions of gas,			1	1	1				2	2	7
By falls of coal, rock and clay,	16	25	18	21	24	18	9	16	18	14	179
By premature blasts and explosions of powder,	4	2	11	15	7	2	2	1	2	4	50
By mine and railroad cars in and about the mines,	6	15	15	15	13	11	10	8	9	13	115
By machinery in and about the mines,	5	3	4	3	2	4	2	3	2	1	29
By boiler explosions,	1				1	3					5
From miscellaneous causes inside and on the surface,	6	3	9	3	4	4	5	4	10	6	54
	44	48	58	58	52	42	33	32	43	40	450

Recapitulation of Fatal Accidents as per Table IV.

Nationality.	Number killed.	Per cent.	Occupation.	Number killed.	Per cent.	Causes of Accidents.	Number killed.	Per cent.
Miners,	15	37.5	Americans,	6	15.0	By explosion of C. H. 4 gas,	2	5.0
Miners' laborers,	8	20.0	Welsh,	2	5.0	By falls of coal and rock inside,	11	27.5
Drivers and patchers,	3	7.5	German,	1	2.5	By falls of coal, rock and clay on the strippings,	3	7.5
Outside laborers,	6	15.0	Irish,	6	15.0	By premature blasts inside and outside,	3	7.5
Slate pickers,	2	5.0	Hungarians,	6	22.5	By mine doors,	1	2.5
Big runners,	1	2.5	Poles,	2	5.0	By mine cars, inside,	5	12.5
Big rollers,	1	2.5	Austrians,	2	5.0	By mine and railroad cars on the surface,	6	15.0
Locomotive engineers,	1	2.5	Italians,	7	17.5	By mine dynamite,	1	2.5
Brakeman,	1	2.5			By explosion of dynamite,	1	2.5	
Steam drill runner,	1	2.5			By machinery,	1	2.5	
Outside drivers,	1	2.5			From miscellaneous causes inside the mines,	3	7.5	
	40	100		40	100	From miscellaneous causes on the strippings,	40	100

Recapitulation of Non-Fatal Accidents as per Table V.

Occupation.	Number Injured.	Per cent.	Nationality.	Number Injured.	Per cent.	Causes of Accidents.	Number Injured.	Per cent.
General, inside,	1	01.32	Americans,	12	15.78+	By falls of coal and rock (inside)	23	30.26+
Foreman,	1	01.32	English,	2	2.63+	By falls of coal, rock and clay (on the stripping),	7	9.21+
Assistant foreman,	1	01.32	Welsh,	2	2.63+	By premature blasts,	3	3.94+
Miners,	29	38.16	Germans,	5	6.58+	By explosion of powder,	5	6.58+
Miners' laborers,	8	10.62	Irish,	16	21.05+	By mine cars in the mines,	7	9.21+
Company laborers,	4	5.26	Hungarians,	23	30.26+	By mine and railroad cars (on surface),	7	9.21+
Drivers and patchers,	9	11.84	Pol-s,	6	7.89+	By mine and dump cars (on stripping),	4	5.26+
Outside bosses,	1	1.32	Austrians,	3	3.94+	By machinery at the breakers,	6	7.89+
Outside laborers,	3	3.94	Italians,	7	9.21+	By mine doors,	1	1.32+
Slate pickers,	5	6.58				From miscellaneous causes in the mines,	1	1.32+
Engineers,	1	01.32				From miscellaneous causes on the surface,	1	1.32+
Coal Inspector,	1	01.32						
	76	100.00		76	100.00		76	100.00

Widow and Orphans' Relief Fund.

A very important subject in the mining settlements of this district is the question of how to provide for the relief of the widows and orphans of men who have been so unfortunate as to be killed in or about the collieries. Very true, some miners have been able to provide for their families in case of death, but this is only true of the few, while from information received it may be truthfully said that the majority of the miners of to-day are not so situated, but leave their families, in case of accident, in destitute circumstances.

I am pleased to state that many of the larger companies throughout the district have beneficial funds, which have been established since 1883, and continued to the present time. Still, the individual operators, for some reason or another, have given little or no attention to this matter. The plan adopted between the Upper Lehigh Coal Company and their employes is one that deserves the commendation of all persons interested in mining. This would practically do away with the unpleasant task of collections on the old plan where the tax was usually met by the few, while under the new plan the tax would be a general one and not so burdensome. Through the kindness of A. C. Leisenring, superintendent of the Upper Lehigh Coal Company, I herewith present a copy of resolutions adopted by the employes of that company, which I take great pleasure in approving and recommending to the several individual operators and employes who have not already adopted some plan or method of relief for the widows and orphans.

Resolutions.

Passed by the employes of the Upper Lehigh Coal Company October 28th, 1898, concerning the fatal injury of any employe at the Upper Lehigh collieries, viz: One half a day's wages shall be contributed by each and every employe at said collieries, the company agreeing to contribute fifty dollars.

Resolved, That in case any person, man or boy shall receive injuries which shall prove fatal within six months of the accident, the company will contribute fifty dollars, and there shall be contributed, or paid by every man or boy employed by the Upper Lehigh Coal Company, at the Upper Lehigh collieries, one half day's wages, the same to be collected through the office, and paid to the nearest relative, but not going beyond widow or child, father, mother, brother or sister.

Resolved, That in case a man or boy shall be killed, we shall, in order to fulfill the requirements of the first obligation, continue operations until the day of the funeral, devoting one half of that day to attend the funeral.

Resolved, That this agreement shall be binding on both parties, if the employe of the company is killed in or about the works, but no employe is to derive any benefit while off on pleasure, such as fishing, gunning, etc., or through malicious conduct.

Resolved, That in case any employe of the company is injured and loses a limb, arm or leg, two eyes, or is otherwise disabled so as to unfit him for work, for the period of one year, by approval of the colliery physician, same amount shall be contributed.

Resolved, Providing there are no relatives as above stated, the funeral expenses shall be paid, pro rata, out of a collection from the employes and the company.

Resolved, That the standing committee, Patrick McLaughlin, James Rhoda, Fred. Lesser, John Mattie and A. C. Leisenring shall adjust all matters pertaining to the burial of deceased persons, and see that all money collected be paid to the proper person, and all bills contracted be paid, within the limit of the amount collected.

Resolved, That after all matters have been settled, there shall be a statement posted at the office.

Resolved, That it shall be the duty of the standing committee to regulate all matters not included in the above resolutions, and call a public meeting when necessary.

Attest:

Fred. Lesser, Secretary.

PATRICK McLAUGHLIN,

Chairman.

Examination of Applicants for Mine Foreman and Assistant Mine Foreman's Certificates.

The annual examination of applicants for certificates of qualification for mine foreman and assistants was held in the Pine Street school building, at Hazleton, June 28 and 29, 1900.

The board of examiners was W. H. Davies, Inspector; A. W. Drake, superintendent; Robert Munroe and Patrick Kelley, miners.

Twenty applicants appeared before the board for examination. Of this number two failed, and the following eighteen passed satisfactory examinations and were recommended and received certificates:

Mine Foreman.

John Aubrey, Summit Hill; Morgan West, Lansford; Thomas F. Jenkins, Nesquehoning; James Kennedy, Drifton; Patrick Green, Jeddo; Manus McFadden, Eckley.

Assistant Foreman.

Neal Gallagher, Peter McMonigal, Edw. Winwood, and James Thomas, Jeddo; William Fry, Rock Glen; Hugh Gallagher, Sandy Run; Jeremiah Moy, Lattimer; James Powell, Summit Hill; Patrick Conaghan, Henry Polgrean and Adam Cluck, Hazleton; Peter Dougherty, Harwood.

Mine Improvements.

The improvements made at the several collieries of the district during the year 1900 were as follows:

Coxe Bros. & Co., Incorporated.

At Drifton Slope No. 1 two tunnels were driven at the east to prove the Wharton vein on the south side of basin, and gangways were remodeled and some narrow work driven with the intention of employing air haulage at that slope.

At Drifton Slope No. 2 another air compressor has been installed, gangways remodeled and two planes completed on west side. An air motor has been received, of the same pattern as the one described in last year's report. Drifton, Slope No. 2, worked an aggregate of about two months during 1900. The breaker was run principally on Mammoth vein, which is supplied from Drifton, Slope No. 1, and worked on Buck Mountain vein only about two days a week, except during the period of the strike, when it was running on Buck Mountain vein daily up to October 10th, the date of the Oneida riot, when all collieries under control of this company shut down absolutely until more peaceful times.

At Eckley—Buck Mountain, work was continued on the same basis as during the previous years, with the exception that strippings furnished about 50 per cent. of the output, against 30 per cent. in 1899.

Stockton Colliery continued as during 1899, except that the effect of the water accumulating in the old workings proved itself more serious, and new workings to the dip had to be abandoned on account of the intervening strata showing the effects of the weight of the water lying in the abandoned workings of the East Sugar Loaf Coal Company. An attempt to fill the old workings with black dirt along the boundary line where the principal influx of the water from the old workings occurred, and by it shut the water off proved to be a decided failure, but was very interesting. A brick dam in an air way and a crib dam on the gangway had been constructed several years ago, which held the water well, but the pillar was not considered strong enough to withstand the water pressure, and it was decided to fill the workings west of the pillar with dirt. A hole was drilled

from the surface to run the breaker wash water in; the dirt had filled the opening, which was from 45 to 90 feet wide to a height of about 90 feet perpendicular, and while this was being done, the water on the opposite side (east side of the pillar), was allowed to rise. When the black dirt had filled to the elevation of the highest cross-cut and proved to be perfectly solid, pumping was commenced. The water so far had assisted the pillar to withstand the pressure from the old workings, but after it had been pumped down to an elevation of 40 feet above the gangway level, black dirt appeared at the valve through which the water was drawn, indicating that either the dam or the pillar had given away. After the water had all been pumped out it was found that the water had burst through between top of dam and pillar, and opened a hole about twelve inches square. The black dirt filled an opening about 30 feet in length and 90 feet in height perpendicularly with the dirt, having formed solidly on top, which can only be explained by the black dirt not having formed solidly in the bottom but continued in a slushy condition, therefore not offering any resistance to the water, after the counter pressure of the water on the other side of the pillar became gradually reduced as the water was lowered. The break in the dam was repaired and they again commenced to run breaker wash water in. Black dirt filled the opening west of the dam pillar compactly, and the water percolating from the old workings ran out through a cross-heading about 90 feet above gangway level. The black dirt was allowed to run through this heading and formed a bank on the east side of the pillar, when it assumed its natural slope and filled the workings east of the pillar 300 feet to a check battery put in on the gangway. Black dirt was allowed to run until it filled the opening east of the pillar solid to the cross-cut level for about 90 feet perpendicular; after this had been done the opening in the cross-cut was closed tightly with only an opening left to drain off the water to allow the dirt to settle perfectly, and when black dirt commenced to run through this little opening, this was also closed; but dirt continued to run in until it blocked the bore hole, indicating that the openings underground were filled. The influx of the water into the Cross Creek portion of the mine at that time had practically ceased, and the water was rising fast in the East Sugar Loaf workings; this continued for about five days, when a heavier influx of water, and the dirty condition of it, showed that something had given way again, and it was found that the water had forced its way along the east rib of the pillar against the solid mass of black dirt lying against the pillar, which proved that we could not successfully dam the water back with black dirt under the local conditions without blocking the old Mammoth vein workings entirely.

At Beaver Meadow the new breaker mentioned in last year's report was completed. The drainage tunnel continued and air compressor, with two air motors, installed at Slope No. 2. Contracts were let to Cuyler Brothers to extend No. 8 stripping westward and start the stripping of the Greenfield basin in extension of the old east spoon end strippings.

Tomhicken was continued on the same principles as it was worked during 1899, viz: hauling the coal in mine cars or flat cars to Derringer for preparation.

At Derringer and Gowen, the rock plane mentioned in last year's report, developing and draining overlying veins west of Gowen colliery, has been completed. An air compressor has been installed at Derringer to furnish motive power for hoisting engine and pump underground. The air will be furnished at 90 pounds pressure. Another air compressor will be installed to furnish air for haulage on the same basis as the Beaver Meadow and Oneida plant. A hoisting engine and pump are to be used on a new slope to open lower levels in the northern basin of Gowen, Slope No. 4, which is the extension of the Derringer deep basin westward, as two proving slopes had been sunk, which developed a large area. Mechanical contrivances were necessary to develop this territory; hence, the installation of compressed air plant.

G. B. Markle & Co.

Ebervale Colliery.—Tunnel about 150 feet long, driven from east gangway "A," Primrose vein, to basin north in same vein.

Traveling way from Primrose vein to surface completed.

Jeddo No. 4.—Tunnel 350 feet long driven from Big vein to Big vein, cutting Wharton vein twice.

Two hundred and fifty horse power Babcock & Wilcox boiler installed; two 100 horse power Erie City boilers removed; two Rice coal shakers installed. Locomotive road constructed to south out-crop to convey material to fill crop holes.

Highland No. 5 Colliery.—Slope from second lift, Pink Ash to bottom of Buck Mountain basin completed. Gangways opened east and west and second outlet driven. One motor added to compressed air haulage plant; two Rice coal shakers installed; 8,000,000-gallon reservoir constructed; 250 horse power Babcock & Wilcox boiler installed.

Highland No. 2 Colliery.—Tunnel 150 feet long driven from Buck Mountain to Buck Mountain vein, through point of saddle to decrease haulage; also, 50,000 gallon circular railroad tank erected.

Highland No. 1.—Two million gallon reservoir constructed and pneumatic pumping system installed.

Jeddo No. 4 Colliery.—One 100 horse power Erie City boiler added to water works plant. Warren & Webster heater installed, also water works plant. New machine shop and blacksmith shop erected; also, new machines added to machine shop.

Lehigh Valley Coal Company, Lehigh Region.

Hazleton No. 1 Colliery.—The third lift tunnel, No. 8 district, was extended southward from the Gamma to the Buck Mountain vein, thus uniting the Buck Mountain on both sides of the basin by continuous tunnel.

The fifth lift tunnel was also completed, uniting same veins on that level.

Second outlets have been completed on the different veins cut in these tunnels and the mine is well supplied with outlets, traveling ways, etc.

A tunnel was driven from Wharton to Buck Mountain vein, in the local or overturn dip on north side of basin, seventh lift.

Completed stripping the block of Mammoth vein coal adjacent to No. 1 slope. The clay and rock from this stripping were used to grade a new location of the Lehigh Valley Railroad, Hazleton No. 1 Branch, at the western end of the property, and thus free the coal tied up under present location of the railroad crossing the outcrop of Mammoth vein.

Hazleton No. 2 Colliery.—The fire in the old Stockton culm banks continued to burn within the confined limits during the year. As a further preventive to the spread of the fire westward, the Lehigh Valley Coal Company silted with culm all the cracks and cave-ins on their property west of the burning banks.

Hazleton No. 3 Colliery.—Two tunnels were driven during the year—on the second lift from Wharton to Mammoth vein—to re-work the lift of Mammoth coal lying between this level and the south edge of the stripping.

A tunnel was driven from Primrose to Orchard and thence extended to Diamond vein, on second lift.

A tunnel was also driven on third lift from Primrose to Orchard.

Preparations are being made to strip the Mammoth vein pillars adjacent to the No. 3 slope.

Hazleton No. 5 Colliery.—A tunnel was driven from Wharton to Buck Mountain on third level.

New second outlet completed to surface on Buck Mountain vein.

Hazleton Shaft Colliery.—The Buck Mountain vein is now connected from north to south side of the basin by a tunnel 2,630 feet long on first level and 2,050 feet long on second level, tunnels cutting intermediate veins between Buck Mountain and Tracy veins.

The work of developing and opening out of gangways, airways, second outlets and traveling ways has been pushed with vigor during the year.

Adequate pillars have been left on each side of the main tunnel and shaft, and all work has been done with a view of permanency and safety, as well as economy.

The water from the shaft workings is drained through bore holes to the main pumping plant, the sump of which is the Hazleton basin.

Spring Mountain Colliery.—A number of local changes and improvements were made to the breaker in the early part of the year.

By an agreement with adjoining operators—Estate of A. S. Van Wickle—the water from Spring Mountain was pumped at the latter place until they were in position to cope with this.

Spring Brook Colliery.—Three tunnels were completed to the Lykens Valley vein in the No. 2 slope district.

A tunnel was driven from the Buck Mountain vein to the Lykens Valley No. 1 district.

Completed stripping the surface in the No. 10 basin, west of the breaker.

The inside slope, Buck Mountain vein, No. 2 district, extended through the fault and is now being sunk in the trough of the No. 6 basin.

A portion of the breaker was renewed and the structure strengthened throughout.

Calvin Pardee & Co. Improvements.

Lattimer Colliery.—A system of drainage has been applied, involving considerable work, which effectually dispenses with four large mine pumps which had been kept constantly at work, discharging the immense accumulation of water at this colliery, which, owing to the large stripping operations, was delivered directly into the mine, straining the pumps to their full capacity at each rainfall of any consequence.

The Jeddo tunnel, which empties into the Nescopeck Creek in Butler township, which was driven to drain G. B. Markle & Co.'s collieries in the Big Black Creek basin, passes obliquely through the Lattimer tract at an elevation considerably below the lowest workable coal bed, to facilitate the driving of which, a slope was sunk on the Lattimer tract on the north side of the basin, continuing from the surface to the level of the tunnel, which is known as Slope B. A tunnel was started in the west No. 2 gamma gangway and driven north 190 feet, tapping Slope B, forming a connection between Lattimer colliery and Jeddo tunnel, leaving an open waterway from the Lattimer colliery to the Nescopeck creek. In driving the Latti-

mer tunnel or waterway to Slope B, the two splits of the Buck Mountain vein were cut. A deep ditch was cut along the east rib of the tunnel, and at the point where the ditch cut the upper split of the Buck Mountain vein, a deep hole was sunk in the vein to arrest any fine dirt or debris that might be carried by the water. Still another receptacle for the same purpose has been provided at the south end of the tunnel in the Gamma vein. The ditches have been enlarged and graded for the entire length of the west gangway (which was originally driven level), the east gangway driven on a slight ascending grade affords a natural drainage for the entire length of the workings.

At a point in the east gangway, 1,500 feet from the tunnel dividing the east and west Gamma gangway, which is about 600 feet east of the old slopes Nos. 1 and 2 in the Mammoth vein, a tunnel has been driven south to the Mammoth vein, a distance of 30 feet, where a gangway was driven across the basin, draining the workings east of slopes Nos. 1 and 2; the Mammoth workings west of said slopes have a natural drainage to the main waterway in Gamma gangway (with the exception of a gangway in the Mammoth vein in the center of the basin at a lower elevation than the present working), completing a natural drainage for the entire colliery. The water passing through No. 2 gamma gangways (which forms the main waterway), enters the tunnel to Slope B, depositing any sediment that may be carried along in the receptacle provided for the purposes in the Gamma vein at the entrance to the tunnel. In the event of this receptacle filling up (which could arise from excessive rains), the surplus sediment would be arrested in the second receptacle or that provided in the upper split of the Buck Mountain vein. After passing this point, a gate has been built across the ditch with slats one-quarter inch apart, to prevent anything entering the pipe which might float down the ditch. The water enters a wooden tank 4x4x8 feet deep, set in Slope B, the top of which is on a level with the bottom of the ditch. A 12-inch column pipe has been connected to the bottom of the tank and extended down Slope B connecting to a 16-inch pipe set in the dam built by the Jeddo Tunnel Company which empties into the tunnel.

With a view to centralization, a slope was driven to the surface in the Gamma vein at a point near the center of the basin and on the south side of the main basin, coming to the surface through the rock owing to the local anticlinal. At the surface line the slope has a pitch of 31 degrees, increasing in steepness as it descends until at the bottom it attains a maximum pitch of 80 degrees, owing to the irregular contour of the rock it has been decided to adopt a gun boat for use on the slope. To avoid the inconvenience of attempting to clean the coal in the mines on a pitch ranging from 30 degrees to a vertical, the material will be loaded promiscuously

into the gun boat—hoisted to the top of the slope and dumped into a chute provided for that purpose—carried along a traveling platform where the process of separating the slate from the coal will be carried out, after which it will be reloaded and sent to the breaker, the slate going to the culm bank.

A pair of hoisting engines 18x36 inches, geared 5 to 1, will be installed as soon as conditions warrant the same. The work of grading that part of the slope driven through the rock to the surface is progressing as rapidly as the conditions and weather will permit, after which three rows of props will be placed in line throughout the entire length of the slope and the tracks laid, when it will be ready for operation, which will, in due time, handle the entire output of the colliery with the exception of the Mammoth vein strippings. A tunnel has been driven south 320 feet long from the west gangway, slope No. 2, Mammoth vein, cutting the Gamma vein directly in line with the slope and will be driven north from west No. 2 Mammoth gangway to the south dip Gamma vein, connecting the north and south sides of the basin with the new slope.

Lattimer Breaker.—Has been enlarged by extensive additions and has been entirely remodeled, new and improved machinery installed and shaking screens substituted for the former revolving screens, additional jigs were put in and the plant in general has been modernized. An electric light plant has been installed, which lights the breaker and its surroundings with incandescent and arc lights. The building is heated by steam.

A new frame building, 30x65 feet, has been erected as a machine shop and equipped throughout with the most modern appliances. Also, a frame building, 32x65 feet, has been erected as a blacksmith shop. In addition to the necessary requirements for three fires, it has been equipped with a No. 2 Hilles & Jones double punch shears. An 800-pound steam hammer is on hand ready to be set in place. A frame building, 30x65 feet, two stories high, has been built as a carpenter shop. A fan house and a 16-foot fan has been erected over the top of Slope B, to ventilate the No. 2 Gamma workings, the slope being used as an upcast.

Harwood Colliery.—In the West Buck Mountain gangway, Slope No. 2, a slope has been driven 1,150 feet to the surface across the pitch, at a vertical angle ranging from 5 degrees to 13 degrees, coming to the surface at a point convenient to the conveyor pit from which the coal is carried up into the breaker. The original proposition being to continue the slope downward in the Buck Mountain vein to a point near the eastern boundary line, terminating in the center of the basin, and to eventually concentrate the entire output of slopes Nos. 5, 4 and 2 to this slope, which means the abandonment of those plants. In prosecuting the work in West No. 2 Buck Mountain

gangway downwards, the vein was discovered to be in fault. After extensive provings in the lower levels it was considered impracticable to continue the work in the Buck Mountain vein, and it was, therefore, decided to begin in the lower No. 5 level in the Gamma vein and to continue to the basin on the same line; the Gamma portion of the slope is at present down to 900 feet and still working. In order to connect the Gamma and Buck Mountain sections of the slope it was necessary to drive a rock slope 500 feet in length, and on a pitch of from six to seven degrees. Work was continued from both ends, and at this writing it has been connected, making a continuous slope of 2,770 feet, which includes 220 feet from the top of the Gamma portion of the slope to the entrance of the rock or tunnel slope.

In No. 4 level, Slope No. 5, a tunnel has been driven through an anticlinal from one of the West Buck Mountain gangways 260 feet in length, terminating in the Buck Mountain vein, slightly below the workings of Slope No. 4, which will eventually be used in transferring the output of Slope No. 4 to the new slope.

Harwood Back Basin.—In a local basin south of Harwood basin proper, Slope No. 15 has been sunk in the Buck Mountain vein 250 feet on a pitch varying from 15 to 30 degrees to the bottom of the basin at this point and, as the basin is dipping eastward 12 degrees, an inside trial slope has been sunk in the center of the basin for a distance of 300 feet which will be continued as long as conditions warrant the same. Two thousand feet of gangway has been driven, the coal proving in a good condition.

A slope has also been sunk in the Gamma vein over Slope No. 15, and in the same line (using the same hoisting appliances for both slopes), for a distance of 90 feet on a pitch of 12 to 30 degrees to the center of the basin in this vein.

A new breaker has been erected at this colliery and has been in successful operation since the spring of 1898. The old, revolving or cylindrical screens have been replaced entirely by shaker screens, twelve in number. There are 20 jigs, all of the Lattimer pattern; 7 sets of rolls, 1 elevator 65 feet high, 1 elevator 75 feet high and 3 conveyor lines for handling bony coal. The coal is conveyed to the top of the breaker by means of a conveyor line of 400 feet centers, the head end about 100 feet above the loading end. It is composed of a double strand of Harwood bushed chain, with 12x48-inch flights and has a capacity of 4,000 tons of run-of-mine coal per day, driven at discharge end (which is heavily back geared), by means of a Dodge rope drive. There are fifteen separate rope drives scattered throughout the whole breaker—all of the Dodge American system.

The engines are a pair of 20x30 inch, running 90 revolutions

per minute, and when steam was supplied from old boiler plant pressure was 65 pounds. The following were taken from indicator tests made under the foregoing circumstances with the breaker running empty and the run-of-mine conveyor thrown in. The engines developed 150 horse power, and the speed of the run-of-mine conveyor was 17 flights, or 68 feet per minute. With eight cars of coal in the drag, the breaker preparing two cars per minute, the engines developed 236 horse power.

The breaker is heated by steam and supplied with incandescent and enclosed arc electric lights throughout.

The steam plant, which furnishes not only the steam required to operate the breaker, but also the various hoisting engines, pumps, fans, etc., scattered all over the property, consists of a frame building 50x106 feet, equipped with ten horizontal return tubular boilers, 72 inches x 18 feet, made by the Vulcan Iron Works, Wilkes-Barre, Pa., with 76 4-inch tubes, each boiler representing 150 horse power, or a total of 1,500 horse power. The boilers are set in pairs and are connected to a 16-inch steam line, and operated by forced draft, a 6x9-foot right-hand, down-discharge Sturtevant fan delivering the air to a conduit which carries it under and back of the ash pits. A large space running the entire length of the boiler room, under the floor and between the wall at the front of the boilers and another wall parallel to the same, permits the loading of ashes directly into the cars, where it is run to the entrance, or side, of the boiler room and hoisted directly to the ash dump. An annex, 29x29 feet, at the rear of the boiler room has been provided for the Sturtevant fan. A Warren, Webster & Co. 1,500-horse power feed water heater and purifier, a fan engine and two Jeanesville feed pumps are also stationed in this annex. The water for the colliery is obtained from a well on the southern part of the tract, a distance of more than 4,000 feet, and across a ridge, and is pumped from the well to a reservoir located on top of the ridge 101 feet, vertical height, above the well from which it is delivered to the boilers by gravity, by a Halsey pneumatic pump, with a cylinder 24x28 inches, with a capacity of 150 gallons per minute. The air is carried from the compressor, which is operated near the boiler room, through 2½-inch pipes to the pump, which requires no attendant, starting and stopping as the compressor is started and stopped at the boiler plant. The water is pumped and run to the boilers through a 5-inch pipe, which also supplies the village on the property.

Steam pipe lines have been erected and extended to the various hoisting engines, pumps, etc., on the property, from this boiler plant, of a total length of 16,338 feet, from 10 inches to 2 inches in diameter, and which is, with the exception of a very small portion connecting pumps, etc., carried on posts over the surface.

Remarks on Fatal Accidents.

There were 40 fatal and 76 non-fatal accidents recorded in this district during the year ending with December 31, 1900. A large percentage of these fatalities were clearly attributable to neglect, and ordinary care would have prevented their occurrence. While it is generally conceded that the conditions under which all miners work are hazardous, the law contemplates and the Inspector enforces the removal of the causes of the dangers which are preventable, but I find by experience that there are accidents which neither the law nor the Inspector can reach. Moreover, these deaths are the result of accidents caused by a moment's inadvertence on the part of the victim. Very true, the safety of a breast or chamber devolves to a great extent upon the care that the miner or workman himself exercises, and a careful observation in examining his working place and in sounding and testing the roof of his chamber before commencing work in the morning or after firing a blast. This would be an effective safeguard and tend materially to reducing the number of accidents due to falls of coal and rock.

The pernicious practice of men and boys who work in and about a colliery, of jumping on moving mine cars, has been a fruitful and prolific cause of accidents during the past year, and most of them can be traced to the carelessness of the victims themselves.

It is the opinion of the writer that entirely too much freedom is given to the miners and other employs about a colliery, who become daring, venturesome and mischievous, and unless prevented will often take fearful risks, which are entirely unnecessary. The enforcement of strict discipline, together with a careful supervision on the part of the foreman or his assistants in charge of the mine is of utmost importance, and while it does not relieve the miner, laborer or driver from responsibility, and the urgent necessity of constant watchfulness on their part, yet, the too frequent examples of carelessness, recklessness and neglect, might properly be averted by proper discipline, and this is the only method whereby these sad occurrences may be reduced to a minimum. To enforce this discipline it might be necessary for the foreman to insist on the colliery rules being carried out to the letter by enforcing the punishment of suspension for a time upon the violator of the rules, and for the second offense the offender should be immediately discharged from the colliery. A rule of this kind, properly enforced, would do more to reduce accidents from these causes than anything else, and there is no reason why it should not be enforced at all the collieries in the district.

A careful perusal of this record will show that 23, or 57½ per cent. of the fatal accidents of the district occurred inside the mines; 11,

or $27\frac{1}{2}$ per cent., were due to falls of clod or coal in breasts, while 17 men, or the remaining $32\frac{1}{2}$ per cent. of the total fatalities occurred on the surface, on the stripping and about the breakers from causes enumerated in the tables. Following will be found a brief description of the fatal accidents, their causes, and how they might have been averted.

No. 1. Chas. Cunningham, a laborer employed temporarily as brakeman on the railway between Spring Tunnel workings and No. 9 colliery, was instantly killed on January 3d by falling under a trip of loaded cars while attempting to cut the engine loose from the cars, to make a flying switch to the turnout near the breaker while the cars are run down to the siding by brakes. John McKeever, engineer, testified that the last he saw of the victim alive was when he went out to uncouple the engine from the cars.

A careful examination of the scene, together with the testimony of the engineer and fireman showed plainly that the victim had uncoupled the engine from the train of cars, and, while in the act of picking up the coupling hook, slipped and fell to the track with the result as stated. This was an unavoidable accident, which might have happened to the most expert brakeman.

No. 2. On January 3, Nicholas Rubeline, an outside laborer, employed at Milnesville colliery, was instantly killed by a railroad car near the breaker. He was employed cleaning railroad cars preparatory to loading them, and assisting the loaders about the chutes or pockets.

A careful investigation of this accident showed that the deceased was alone responsible, for he made a practice of leaving his work to call on a friend, who was in charge of a drag-line in the southwest corner of the breaker. I can only surmise that he remained away from his regular work longer than he expected, thus necessitating his running back. The board petition prevented him from seeing the car coming out from under the breaker until he was knocked down and crushed. With ordinary precaution this accident could have been avoided.

No. 3. Philip Guitman, a steam driller and powderman, employed by contractors Crawford & Dugan, was instantly killed on January 8th by the premature explosion of dynamite on a stripping at Beaver Meadow, while springing some holes preparatory to finally loading or charging them.

Clem Wisemiller, a laborer employed as helper, testified that they had sprung this hole twice when accident occurred, but one or more sticks of dynamite did not reach the bottom of the hole, so Guitman dropped a hot coal into the hole and burned the powder out. He then told Wisemiller to put twenty sticks of dynamite into another hole. Not having that much powder he went for more, and while

away the explosion occurred. He hurried back and found Guitman lying dead, showing that he was leaning over the hole forcing down the tamping stick, when explosion occurred, causing the accident by which one of the most experienced men on stripping work in the district recklessly threw away his life regardless of rule or law.

No. 4. Joseph Coxe, a miner, was fatally injured at Lattimer No. 2 east coal stripping on January 9th, and succumbed to his injuries in the ambulance while on the way to the hospital. I made a careful investigation of the accident and found that the deceased was engaged in tamping a charge of black powder into a hole in the coal. He had placed a dirt cartridge in the hole after the powder and was tamping that with a coal drill, when the charge exploded. He had been warned against using the drill and told that he had better use the tamping furnished by the foreman for the purpose, but he insisted on using the drill, thereby violating article 12, rule 30, of the anthracite mine law, besides recklessly throwing away his own life and injuring three of his fellow workmen.

No. 5. Frank Maroni, a laborer employed at Coleraine stripping No. 2, was fatally injured on January 13 and died at the Hazleton hospital. He was sent to the road to warn persons that might be passing that they were about to fire a blast on the stripping. On reaching the mine railroad track, he stood in conversation with the timberman, paying no further attention to the blast or anything else. A locomotive came along, pushing a trip of empty cars towards the slope on which the deceased was standing. The engineer saw the man on the track, but had no control of the cars, the engine being cut from them. He blew the whistle, but the victim never moved from the track until he was knocked down by the train. The investigation of this accident showed that it could have been avoided had the victim been attending to his business.

The writer is of the opinion that had the engineer proper control of his train, the accident might have been averted. According to his testimony, he could have stopped the train had his engine been coupled to it. He was alone responsible for not being in full control of his train at the time.

No. 6. On January 13th, Daniel Dougherty, a patcher employed on an air motor in the mines at Highland No. 5 colliery, was instantly killed, by having been crushed between a moving motor and an automatic door on the gangway. The colliery being idle, the regular crews on this run, were repairing the motors at the repair pit. This being the only motor available at the time, the crew was called to take empty cars from the bottom of the slope, inside, to a point in the gangway known as "Look-out." This was the first time for the crew to run over this route, therefore, they should have

been more cautious. Dougherty was sitting on the front bumpers of the motor to warn the engineer of any approaching draft of cars, while the driver boss rode on the rear end of the trip of eight cars. On nearing the automatic door on the gangway, in some manner the door failed to clear the motor, by which the deceased was thrown to the track and was found underneath the derailed motor. I made a careful examination of the place and took testimony of the witnesses, which was so conflicting and unsatisfactory that the case was referred to a coroner's jury for fuller investigation; an inquest was held, and the jury rendered the following verdict:

"That Daniel Dougherty came to his death by reason of a collision between an air motor and an automatic mine door in the Highland No. 5 mine, on January 13th, 1900, and we do further find that from the circumstances of the case and the evidence offered, the collision was caused by reason of the motor having been run at a speed incompatible with the safe operation of the door and greater than is allowed by the anthracite mine law.

No. 7. William Krapf, outside laborer employed on the Coleraine breaker, was smothered in a slate pocket on January 17th. There was no eye-witness to this accident; therefore, it can only be surmised that he, while shoveling the slate back from the chute into the pocket, fell, and was unable to help himself.

No. 8. James McAlearney, a miner employed on the Milnesville No. 7 stripping, was fatally injured on January 18th, by a piece of rock flying from a blast. He succumbed to his injuries at the Hazleton hospital. He and John Stratton were mining coal on the stripping, and received word that the men at the shovels were about to fire a round of shots. An examination of the scene, together with the testimony of the witnesses, showed that the deceased was responsible for not adhering to the rule of the colliery, and the common every-day practice of retiring to a place of safety with the rest of the workmen when shots were being fired.

No. 9. William Dilinski, a laborer employed in Ebervale colliery, was fatally injured on January 20th, and died at the Hazleton hospital three days later. The deceased went up the ladder to finish drilling a hole the miner had commenced before he should return with the powder, but while thus engaged he thought he heard some pieces falling at the face of the breast. Becoming somewhat excited, he turned to come down the ladder, when he slipped and fell a vertical height of eighteen feet, sustaining injuries resulting as stated.

No. 10. George Martlos, a laborer employed in Jeddo No. 4 colliery, was fatally injured on January 31st by a fall of coal, and died at the Hazleton hospital. The miner had fired a shot in the bottom bench at the face of the breast and found that it did

not do its work, so he took a bar to work it out, while the laborer shoveled back the loose coal. While the miner was thus engaged, the laborer knowing that he was stronger than the miner, insisted upon taking the bar, declaring that he would work out the balance of the bench. He had been barring but a short time when a piece of the top bench fell upon him, the accident finally resulting as stated. This was an unavoidable accident, due to an invisible slip in the coal, which could have deceived the most expert miner.

Nos. 11 and 12. Carman Papa and John Tribes, Italians, miner and laborer, employed in Jeddo colliery No. 4, were instantly killed on February 5th by a rush of mud and water in the gangway. The miner and two laborers were working in the section of the mine known as "Long Run Road" which had been closed by a rush of mud and water from the upper workings. Two shifts had been working about two weeks cleaning this gangway, which as far as could be examined was safe, until about 3 o'clock A. M. on February 5th, when there was a second rush of mud, rock and water which broke a battery of 15-inch round timber near the gangway, which had newly been put in place.

Angelo Duries, a laborer, who was working at the face with the two unfortunate men when the second rush came, testified that he was shovelling mud into the car when he heard a crack and rumbling noise. He immediately dropped the shovel and ran out of the gangway. It was certainly a race for life, and he made good his escape by a very close margin. Papa and Tribes were entombed for five days before their bodies were recovered. A careful examination of these workings indicated that every precaution had been taken by the officials of the colliery to secure this section of the mine. As it was being reopened, batteries were constructed across the entrance of every breast leading to the gangway, of sufficient strength to resist the pressure for all practical purposes. The first rush of mud came down from the upper lift and through the old workings, completely closing this section of the "Long Run" gangway on January 20th. An inquest was held on Papa, and the jury rendered the following verdict:

"That Carman Papa came to his death by being caught beneath a rush of mud and water in the Jeddo No. 4 mine, operated by G. B. Markle & Co., on February 5th, 1900, and we do further say that from the circumstances of the case and the evidence offered, the accident was unavoidable."

No. 13. Anthony Pash, a miner employed in West Gamma counter, No. 4 slope, Harwood, Pa., was fatally injured by a fall of coal at the face of his breast on February 9th, and died about ten minutes later. An examination of the place showed that the deceased had fired a shot, which failed to dislodge the coal, but broke it up, and

it could only be removed by barring. While barring, a piece of the top bench fell upon him, inflicting a lacerated wound which resulted in his death. When I entered the breast to investigate the accident, I could scarcely realize how a miner of his experience could have been injured in such a place. I found that he had about three tons of loose coal near the face, which prevented him from escaping. He should not have attempted to bar until he had first removed the loose coal.

No. 14. George Chenitch, a laborer employed at Gowan colliery, Nos. 1 and 3, was instantly killed on February 15th, by a fall of coal. I made a careful examination of the place. He was working with a miner in No. 2 west counter gangway, on the night shift. The miner found the bench of clod loose, and tried to pull it down with a bar, but failing, he drilled a hole in the bench and fired it. Upon returning to the face, the miner told the laborer to stand back while he would take down the overhanging loose coal, but unheeding the warning; the deceased insisted upon walking under the dangerous bench, which fell upon him with the aforesaid result. He was alone responsible.

Nos. 15 and 16. Oliver Longenberger and George Rudolph, miners, employed at Gowan slope No. 4, were on February 20th, instantly killed by an explosion of gas. These men were working company work with Edward Fisher and David Singley, putting up batteries in breasts Nos. 31 and 32, east No. 8 gangway. Fisher and Singley seated themselves along the brattice to eat their dinners, while Longenberger and Rudolph started off eastward from breasts Nos. 31 and 32. They had hardly gone five minutes, according to the testimony of Fisher and Singley, when the explosion took place, destroying the brattice along the gangway, thus cutting off all means of ventilation. All men inside of breast No. 20 were tossed about by the explosion and left in darkness to find their way out of the mine. It is remarkable that all the men (with the exception of Fisher and Singley, who were only slightly injured), made their escape over the debris and through clouds of after-damp uninjured. Fire Boss James Abraham reached the scene shortly after the explosion, and found that two men were missing. He then organized a rescuing party, which started out to search for the missing men. After they had made several unsuccessful attempts, he started the men to restoring the brattice, and at 7.30 P. M. the rescuing party made another attempt to make their way into the gangway, and pushed in until they reached breast No. 21, where they found Longenberger's body on the lower side of the gangway. Another party, headed by competent men, was formed, who explored the gangway in search of Rudolph, but failed to find him. They felt satisfied that he was no longer alive and it was found impossible to remove the

debris until ventilation was restored. On February 21st, the Mine Inspector visited the scene of the explosion, accompanied by ex-Inspector J. M. Lewis, General Mine Foreman Daniel Sachs and Mine Foreman Houser, who explored the gangway nearly to the face, but failed to find any trace of the victim. They returned out the gangway to breast No. 21, where the Inspector suggested that the debris be removed, when the body of Rudolph was found lying across the gangway. A careful examination of the place, together with the testimony of those working in the vicinity of the explosion, showed that the gas was ignited by the naked lamp used by either Longenberger or Rudolph, causing the explosion by which both of them lost their lives. It appeared from the testimony taken that while there is no doubt that the gas was fired in breast No. 21, yet this was the first time that gas had been found in breasts 21, 22, 23 and 24 of this section of working. Still those breasts had been suspended for some time and were not examined daily, which might not have been known to the victims. Foreman Houser testified that he had told the men on Tuesday morning that when they had completed the work of constructing batteries in breasts Nos. 31 and 32, they could have one or two, or a new one (breast), from the gangway, and they replied that they would finish breast No. 23, which would not go up much further than sixty feet. Why they left their place of work to go alone through those breasts cannot be determined, from the fact that their actions were in direct violation of the anthracite mine law, which specifically states that no person shall enter a breast or chamber in gaseous mines, until the same has been examined by the mine foreman or his assistant and declared safe.

No. 17. Robert Morris, a driver employed outside at Jeddo No. 4 colliery, was fatally injured on February 23, and died at the Hazleton hospital. He was engaged as driver between the breaker plane bridge and timber bank, and in attempting to jump on the car he slipped and fell under it. After a careful examination, together with the testimony of those who were on the scene, I was convinced that this was an unavoidable accident.

No. 18. Joseph Kishko, laborer, employed in a breast at Harwood No. 5 colliery, was instantly killed on February 28th by a fall of clod. He was employed in an airway breast. The clod was parted in three benches, six inches of slate, four inches of coal and four inches of slate. This clod was down in all the breast except along the west rib. The chute is run up the center of the breast, with a row of props on both sides, the regulation distance apart. The clod that fell, causing this accident, was not in the face of the breast, but back from the face fully twelve feet, along the west rib of breast. The gob or loose rock was thrown to that side. Deceased commenced to gather up loose coal near the end of the gob, when the overhanging

clod, which had been purposely left hanging as a death trap by the miner and approved by the mine foreman when measuring the breast, fell upon him. The fire boss admitted, in the presence of the foreman, that he never traveled on that side of the breast. A careful examination, together with the testimony of witnesses, proved conclusively that the miner and mine foreman were responsible for this accident. The miner for wilfully neglecting to take down the clod, and the foreman because he did not see that the miner either secured the clod with props or blasted it down, as directed by the anthracite mine law.

No. 19. Frank Ward, a miner, employed at the Hazleton shaft colliery stripping, was fatally injured by the explosion of dynamite on March 12th, and died while being taken to the hospital. He was working as a miner on the coal. He had drilled a hole, while another miner, went down to the tool house for powder. It being a very cold morning, the dynamite was somewhat frozen, and unfit for use in that condition. McGeehan, knowing this, commenced to thaw it by placing it upon the red hot stove. He had placed the powder upon the stove when Ward entered the tool house and appeared to be in no way disturbed at the thawing method in vogue, but in a short time the roasting dynamite exploded, whereby Frank Ward was killed and Edward McGeehan and ———— Marchard were seriously injured. An inquest was held, and the jury rendered the following verdict:

"That Frank Ward came to his death by an explosion of dynamite at Hazleton shaft colliery stripping No. 3, operated by the Lehigh Valley Coal Company, Hazleton, Pa., on March 12th, 1900. And we do further say that the explosion was due to the placing of frozen dynamite on a hot stove in order to thaw it, by one Edward McGeehan, contrary to all rules governing the handling of dynamite, and which fact he (McGeehan) admitted before the jury."

No. 20. Mike Krayczervineg, a laborer, employed on the No. 6 stripping, operated by the Lehigh Coal and Navigation Company, at Lansford, Pa., was instantly killed on April 3d, by a fall of frozen earth. He was engaged at the time of the accident undercutting the bank on the stripping. He had been told by the foreman and several of the workmen that he should be careful, as the bank was becoming dangerous and that he had better leave it alone, but unheeding the warning, he persisted in picking until finally crushed beneath the falling clay. An examination of the scene showed that he could have escaped, had he moved back when ordered to do so by the foreman, but he stood looking at the falling bank until he was caught and crushed. Therefore, had the victim taken the proper precautions, the accident could have been averted.

Nos. 21 and 22. Adam Yulaski and John Sulack, miner and laborer,

respectively, employed on the No. 7 stripping at Milnesville, Pa. The former was instantly killed, while the latter was fatally injured on April 25th, by a fall of rock. Sulack died at the Hazleton hospital. These men, with others, were working out coal on the saddle, underlying a ledge of rock, when, without a moment's warning, a portion of the overhanging ledge fell, with the aforesaid result. Yulaski was picked up out of the shaley coal, where he met death by suffocation, while Sulack, the laborer, was struck by a piece of the falling rock while trying to escape. I found, upon examination of the scene, together with the testimony of eye witnesses, that the usual precautions had been taken to examine and sound the overhanging rock, both by the foreman and the miners, before the men commenced to work, feeling satisfied that there was no danger, but the investigation proved that the ledge of rock fell from an old fracture, which was not at the time visible, and which, no doubt, was the real cause of the accident. Therefore, the accident might fairly be considered unavoidable. It would be better at all times, where it is impossible to offer any support to such overhanging benches in coal or rock, to blast them down, as required by the mine law, which should be the foreman's duty in every instance.

No. 23. Mike Greshko, a jig runner and repair man, employed on the Highland No. 5 breaker, was instantly killed on May 21st, by machinery. I can only surmise, in the absence of witnesses, that the deceased went back to the broken coal screen and commenced to replace a washer on pedestal bolt while the machinery was in motion, and in some way his clothing caught in the revolving shaft. He was alone responsible, for if there was anything wrong with the machinery he should have signalled the engineer to stop, as required by the anthracite mine law and the colliery rules, and this accident might have been averted.

No. 24. John Fellin, a miner, employed at slope No. 4, Gowan, was fatally injured on May 23d, and died a few hours later at his home. He was sinking a trial slope in east No. 9 gangway. He sent his laborer to the top of the slope, which was about 210 feet in length, to bring down the buggy. With the help of a driver, he placed the buggy on the track, and gave the rope some slack to push it over the apex. The rope in some way became unhitched from the staple of the buggy, causing it to go down without the rope. An investigation of this accident showed that Fellin, who was at the bottom of slope, was struck by the bumping pole (which he had placed across the track), on the right side above the hip. He also received a lacerated wound on the head. The responsibility for this accident rested with the laborer, for it was his duty to see that the hook was properly attached to the car or buggy before reaching the apex, when the accident would have been averted.

No. 25. August Mattes, jig boss, employed at Highland No. 2 colliery, was fatally injured on July 10th, and died at the Hazleton hospital. On investigating this accident, I found that the steamboat rollers were blocked, and the breaker stopped. The screen, roller and platform bosses were taking the coal out of the rollers, passing it to each other. The screen boss, Michael Nolin, handed a lump of bony coal weighing about fifty pounds out of the rolls to John McLaughlin, when he slipped, lost his balance and fell, and the coal dropped out of his hands and rolled down a flight of stairs leading from the screen floor, striking the deceased, who was going up the stairs, causing a fracture of the skull, resulting as stated. While these men were in no way responsible for the accident, it should be a warning that they can never be too cautious while doing such work. This was an unavoidable accident.

No. 26. Andrew Shiner, slate picker, employed at the Eckley breaker, was instantly killed July 23d, by having been crushed between a railroad car and the breaker timber. He was standing between the timbers, and according to the testimony of the men who witnessed the accident, the boy had no business there whatever. When the loader was coming down the track with the car the boy was looking down the track from between the timbers when the corner of the car caught him on the back of the head, crushing him against the upright timber, so that when the car passed he dropped to the ground, dead. Had this boy remained at his place of work this accident would not have occurred.

No. 27. John R. Cunning, Italian, laborer, employed at Highland colliery No. 1, was instantly killed July 23d by falling under a car coming out of the gangway. He was on his way home and he saw the driver preparing to take a car out to the bottom of the slope and jumped on the front of the moving car. Joseph Houstin testified as follows: "We went out the gangway until we came to the curve, within 100 yards of the siding near the bottom of the slope, when Cunning fell from the front of the car onto the spreader and rolled off to the side." Deceased was certainly responsible, it being against the colliery rules, as that is the driver's position on the car, and it is only a miracle when falling off the car that the victim did not pull the driver with him.

No. 28. Martin McNovich, a laborer, employed at Highland No. 5 colliery was instantly killed on August 10th, by a fall of coal in a breast. His miner had fired a shot which failed to bring down the coal. He then took down all that he could reach with a bar, and when a car reached the face he got on top of it in order to take down the balance of the overhanging coal with a bar. When Baker, who stood upon the car with his back towards the laborers, found that the coal was about to fall, he called out to warn his laborers.

In the meantime McNovich had walked around to where Baker was barring without being noticed by him. He did not heed the warning, but was reaching for his shovel when the coal fell, crushing him to the ground. His miner did not know that he had passed to that side of the car.

No. 29. David R. Davis, employed at robbing pillars at No. 4 colliery, Upper Lehigh, was instantly killed on August 22d, by a fall of top rock. He was engaged in robbing a pillar on the west rib of the slope. Deceased had been working in this particular mine for twenty-four years, therefore, he was thoroughly familiar with the work. I made an examination of the place and found that the work was conducted in a very practical manner. It appeared that on the morning of the accident, before starting to work, Davis drilled a hole in the coal on top bench and fired it. He fired the second one, but neither of these did much work other than to agitate the overhanging rock. While thus engaged, the men on the east side of the slope discovered a creeping in the rock, and immediately notified Davis who, in turn, dropped his tools and ordered his laborers to withdraw to a place of safety. They ran out and made their escape, but the miner, whom was unable to run, was crushed beneath the falling rock. He was entombed for fourteen hours, when his body was recovered. John Wargo testified that after he gave the alarm that there was scarcely three minutes until the rock fell. An examination, together with the testimony of the witnesses, showed that there was little or no warning given, which was due to a water crack in the rock, which ran across the slope and both pillars. He certainly made a great mistake in not taking the warning of his son and the two laborers, who realized what might happen when he removed the last support.

No. 30. John Wandow, a miner, employed at Cranberry No. 4 colliery, was, on August 29th, fatally injured by a fall of roof, and died at the Hazleton hospital five days later. He was engaged in robbing pillars in the Parlor vein, and while thus engaged a portion of the six-inch bench, which he had neglected to take down, fell, striking him and knocking him down backwards and rolling upon him. This accident was caused by the carelessness of the victim himself.

No. 31. Anthony Stramitas, a miner, employed at Cranberry No. 4 colliery, was fatally injured on September 7th by a fall of clod, and died at the hospital. An examination of the place, together with the testimony of his partner, proved beyond doubt that this was an unavoidable accident, inasmuch as it was due entirely to an unforeseen slip in the clod.

No. 32. Andrew Yerry, a miner, employed in a breast at Lansford No. 4 colliery, was instantly killed on November 16th by a shale

of coal and slate falling upon him in the manway. Upon examination of the place I found that the miner had not taken the proper precaution to dress off the rib after breaking through with the cross-heading, leaving the shale which fell upon him, breaking his neck. This accident, therefore, was one that could have been averted had the miner who drove the cross-heading properly trimmed the loose coal off the rib, as he should have done.

No. 33. Adam Kuehnhold, a patcher, employed in the mines at Jeddo No. 4 colliery, was, on November 17th, fatally injured and died at the hospital. He was standing beside the track while a trip of loaded cars was passing out the gangway. It was his duty to couple the trip on the siding for the driver, who naturally thought that he had, as usual, coupled up three cars, so that when the third car passed he turned backward to jump on the rear car, when he was caught, knocked down and dragged by the fourth car of the trip, which he had coupled up by mistake. He was taken to the Hazleton hospital, where it was found necessary to amputate his leg, and he died from gangrene. This was an unavoidable accident.

No. 34. Stephen Stett, a miner, employed at Hazleton No. 3 colliery, was fatally injured by a fall of roof on November 20th, and died at the Hazleton hospital. He had fired a shot in the top bench, but found that the shot did not bring it down. An examination of the place, together with the testimony of his partner, proved that this accident could have been averted, had the victim taken the precaution to blast down the bench, as required by the mine law, when he found it dangerous, instead of going under it to work out the bottom bench in such a reckless manner. He was alone responsible for the accident.

No. 35. Paul Paoloski, laborer, employed at Hazleton colliery No. 1, was instantly killed November 29th, by a fall of coal and slate. The miner had examined the place in the morning and found it safe. He then called the laborer up, and started to drill a hole and then left the laborer to finish drilling the hole, while he went to drill a hole in the other chute near the face of the gangway. About the time he got properly started he heard a fall and immediately dropped the drill, ran back to the laborer and called him, but received no answer. On going up the chute he found him dead, buried beneath a fall of slate and coal. An examination of the place showed that the heading was driven in twenty-one feet, and that the miner was in a great measure responsible, having neglected to timber either the chute or cross-heading, because they had found the coal in fault and becoming very shaly and treacherous, which would have prevented the accident.

No. 36. Nacio Colinear, Italian, brakeman, employed on the surface near the No. 3 breaker at Lattimer, Pa., was fatally injured No-

vember 28th, by being squeezed between a locomotive and a railroad gondola, and died at Hazleton hospital next day. The locomotive was on the main track, pushing the gondola off the switch with a pole or piece of T rail. They moved the car a short distance, when the rail was too long. He then undertook to reach the car by using the coupling rod attached to the engine. He placed the end of this against the drawhead of the car and told the engineer to come back. He then placed his back against the car and walked backwards with the moving car, when suddenly the coupling bar slipped, and the cars came together. The victim, instead of stepping out of the way, evidently became confused, made a misstep and was squeezed between the engine and the car bumpers. This was an accident that could have been averted by ordinary precaution.

No. 37. Michael Stelmak, a laborer employed on the culm bank at Jeddo No. 4 colliery, was fatally injured by cars on December 8th, and died before leaving the colliery. He had been working on the culm bank until he received an order from Edward Kennedy to go to the lower bank in the swamp for the purpose of assisting to dump rock into the "mine caves." He started to walk down the locomotive track, which was unnecessary, there being plenty of room to walk on either side. The engineer saw a man walking down the track and signalled him to get off. He certainly knew the locomotive would follow him down; still he remained on the track until he was knocked down by the cars with above result.

No. 38. John Haggerty, a miner, employed at Hazleton colliery No. 1, was instantly killed on December 8th by a premature blast. He was engaged in breast No. 40, East Buck Mountain, fifth lift gangway. He was notified by Assistant Foreman Conaghan in the morning before going to his place of work that there was a bench of rock in bell shape, which he should blast down, before doing any more work at the face of the breast. Deceased replied that he would do so. On reaching the breast, he and his partner started at once to remove props, drilled a hole in the hanging bench and charged it with powder, and placed the squib and was ready to fire. His partner suggested that he would light the squib, but deceased replied that he could fire it. He called fire and lighted the squib, but before he reached the heading the shot exploded and he was caught beneath the falling top. This accident was due entirely to a defective or improperly lighted squib, as the hole being in the top, it required the greatest care for fear of short lighting. This was the first shot the victim had fired since working in the breast, his partner, Joseph Nesmitt, having done all the firing before, and it is possible that there was a mistake in lighting the match too short.

No. 39. James McAndrews, a laborer, employed at the Evans colliery, was fatally injured December 18th by having been crushed

between cars and succumbed to his injuries at the Hazleton hospital. He was employed driving team in the absence of the regular driver, in No. 4 slope, and was at the time of the accident taking a car off the siding into a back gangway. He started the team, and neglecting to properly set the latches for the gangway, the car came back on the siding and he was crushed between the cars. His failure to properly set the latches for the back gangway, where he intended taking the car, was responsible for the accident.

No. 40. Richard Clemens, locomotive engineer, employed at No. 9 colliery, Lansford, Pa., was instantly killed December 31st, by falling, the locomotive and three loaded mine cars passing over his body. The fireman was in charge of the engine coming out of the gangway until near the tunnel entrance, when deceased saw a beer keg that he had used to stand upon to open a valve to water the engine before starting in with the trip, in the middle of the track. He jumped off the engine to remove the obstacle, when he fell and the engine and three cars passed over his body before the trip could be stopped. He permitted the fireman to run a trip in the forenoon and one in the afternoon each day. It was when the fireman was running the forenoon trip that the accident occurred, but it was not through any error of the engine runner, but was an accident which was unavoidable under the circumstances. Deceased had forgotten to remove the keg before going in with the trip, and he was the first to notice it on coming out. He was considered by those about the colliery to be a reliable, careful and clever engineer. He brought the coal from inside the tunnel to the breaker, twenty cars per trip.

TABLE I—Showing Names of Operators, Railroads, etc., etc., and Location of Collieries in the Fifth Anthracite District for the Year 1900.

Names of Operators and Collieries.	County.	Name of General Superintendent.	P. O. Address.	Name of Superintendent.	P. O. Address.	Railroad to Mine.
A. Pardee and Company. Craberry,	Luzerne,	Frank Pardee,	Hazleton, .....	.....	Hazleton,	Lehigh Valley Railroad.
East Crystal Ridge,	Luzerne,	Frank Pardee,	Hazleton, .....	.....	Hazleton,	Lehigh Valley Railroad.
Coxe Brothers and Co. (Inc.). Drifton Nos. 1 and 2,	Luzerne, .....	.....	.....	Luther C. Smith,	Drifton,	D. S. & S. R. R.
Eckley, including Buck,	Luz. & Carbon, .....	.....	.....	Luther C. Smith,	Drifton,	D. S. & S. R. R.
Mountain, .....	.....	.....	.....	Luther C. Smith,	Drifton,	D. S. & S. R. R.
Stockton,	Carbon, .....	.....	.....	Luther C. Smith,	Drifton,	D. S. & S. R. R.
Tombecker,	Carbon, .....	.....	.....	Luther C. Smith,	Drifton,	D. S. & S. R. R.
Derringer and Gowan,	Luzerne, .....	.....	.....	Luther C. Smith,	Drifton,	D. S. & S. R. R.
Lehigh Coal and Navigation Co. Colliery No. 1,	Carbon,	W. D. Zehner,	Lansford, .....	.....	.....	C. R. R. of N. J.
Colliery No. 4,	Carbon,	W. D. Zehner,	Lansford, .....	.....	.....	C. R. R. of N. J.
Colliery No. 5,	Carbon,	W. D. Zehner,	Lansford, .....	.....	.....	C. R. R. of N. J.
Colliery No. 6,	Carbon,	W. D. Zehner,	Lansford, .....	.....	.....	C. R. R. of N. J.
Colliery No. 9,	Carbon,	W. D. Zehner,	Lansford, .....	.....	.....	C. R. R. of N. J.
Screen Building,	Carbon, .....	.....	.....	.....	.....	C. R. R. of N. J.
G. B. Markle and Company. Jeddo, No. 1 and Ebervale,	Luzerne,	John Markle, Man-aging Partner,	Jeddo,	W. H. Smith, Gen-eral Superintendent,	Jeddo,	Lehigh Valley Railroad.
Highland No. 2,	Luzerne, .....	.....	Jeddo, .....	.....	Jeddo,	Lehigh Valley Railroad.
Lehigh Valley Coal Company. Hazleton No. 1,	Luzerne,	W. A. Lathrop,	Wilkes-Barre,	F. E. Zerby,	Hazleton,	Lehigh Valley Railroad.
Hazleton shaft,	Luzerne,	W. A. Lathrop,	Wilkes-Barre,	F. E. Zerby,	Hazleton,	Lehigh Valley Railroad.
Spring Mountain,	Luzerne,	W. A. Lathrop,	Wilkes-Barre,	F. E. Zerby,	Hazleton,	Lehigh Valley Railroad.
Spring Brook,	Carbon,	W. A. Lathrop,	Wilkes-Barre,	F. E. Zerby,	Hazleton,	Lehigh Valley Railroad.
A. S. Van Wickle Estate. Milnesville,	Luzerne,	Frank Pardee, Mgr.,	Hazleton,	John Harvey,	Milnesville,	Penn. Railroad.
Coleraine and Evans,	Carbon,	Frank Pardee, Mgr.,	Hazleton,	W. S. Ayres,	Hazleton,	P. R. R. & L. V. R. R.
Upper Lehigh Coal Company. Upper Lehigh,	Luzerne,	A. C. Lelsentring,	Upper Lehigh,	George Wilmut,	Upper Lehigh,	C. R. R. of N. J.

TABLE I—Continued.

Names of Operators and Collieries.	County.	Name of General Superintendent.	P. O. Address.	Name of Superintendent.	P. O. Address.	Railroad to Mine.
Calvin Pardee and Company. Lattimer colliery,	Luzerne,	A. W. Drake,	Lattimer,	Calvin Pardee, Jr.,	Lattimer,	D. S. & S. R. R.
Lattimer washery,	Luzerne,	A. W. Drake,	Lattimer,	Calvin Pardee, Jr.,	Lattimer,	D. S. & S. R. R.
Lattimer stripping,	Luzerne,	A. W. Drake,	Lattimer,	Calvin Pardee, Jr.,	Lattimer,	D. S. & S. R. R.
Harwood colliery,	Luzerne,	A. W. Drake,	Lattimer,	Calvin Pardee, Jr.,	Lattimer,	D. S. & S. R. R.
Harwood strippings,	Luzerne,	A. W. Drake,	Lattimer,	Calvin Pardee, Jr.,	Lattimer,	D. S. & S. R. R.
M. S. Kemmerer and Company. Sandy Run,	Luzerne,	Walter Lelsenring,	Sandy Run,	Joseph G. Sarricks, Asst. Supt.	Sandy Run,	C. R. R. of N. J.
C. M. Dodson and Company. Beaver Brook,	Luzerne,	E. L. Bullock,	Beaver Brook, .....	.....	Beaver Brook,	L. V. R. R. & C. R. R. of N. J.
J. S. Wentz and Company. Hazle Brook colliery,	Luzerne,	John S. Wentz, .....	.....	George Richert,	Hazle Brook, ..	Lehigh Valley Railroad.
Lehigh & Wilkes-Barre Coal Co. Tresckow No. 2,	Luzerne,	Wm. J. Richards, ..	Wilkes-Barre, ..	George B. Hadesly, ..	Audenreid,	C. R. R. of N. J.
Audenreid Coal Company. Stockton washery,	Luzerne,	W. R. McTurk,	Philadelphia,	S. J. Barlet,	Hazleton,	Lehigh Valley Railroad.
Tresckow washery,	Carbon,	W. R. McTurk,	Philadelphia,	W. J. Heiser,	Audenreid,	C. R. R. of N. J.
Morgans and Company. Dusky Diamond,	Luzerne,	Thos. Reese,	Audenreid, .....	.....	.....	Lehigh Valley Railroad.
Stauffer and Rowe. Rowe Colliery,	Luzerne,	James Rowe,	Beaver Meadow, ..	.....	Beaver Meadow, ..	L. V. R. R. & C. R. R. of N. J.
Wyoming & Pond Creek Coal Co. Pond Creek colliery,	Luzerne,	David MacFarland, ..	White Haven, ..	.....	White Haven, ..	Lehigh Valley Railroad.

TABLE II—Gives the total number of tons of coal mined in each colliery, number of days worked, number of employees, number of persons killed and injured, number of kegs of powder, etc., used in the Fifth Anthracite District for the year ending December 31, 1900.

Names of Operators and Collieries.	County.	Shipments of coal in tons by fall or otherwise.	Number and heat at colliery.	Sold to local trade and used by employes—tons.	Total production of coal in tons.	Number days worked.	Number persons employed.	Number fatal accidents.	Number non-fatal accidents.	Number kegs powder used.	Number pounds of dynamite used.	Number horses and mules.
A. C. Pardee and Company.												
Cranberry,	Luzerne,	272,873.13	38,308.08	3,113.03	314,295.04	207	88 ⁹	2	3	7,670	21,000	89
East Crystal Ridge,	Luzerne,	42,501.01	8,284.08	484.17	51,270.06	206	131	.....	.....	735	11,250	28
Total and average, .....	.....	315,374.14	46,592.16	3,598.00	305,565.10	206	1,011	2	3	8,405	32,250	117
Coxe Brothers and Company.												
Drifton Nos. 1 and 2,	Luzerne,	200,982.10	38,486.19	8,914.10	248,403.19	254	782	.....	4	3,603	11,013	73
Pockley and Buck Mountain,	Luz. & Carbon,	190,023.13	30,847.10	1,312.12	222,183.15	265	405	1	.....	1,838	28,773	39
Sawyer,	Carbon,	57,457.04	295.00	723,149.10	156	205	.....	.....	.....	1,057	8,276	22
Beavers Meadow,	Carbon,	93,188.06	26,168.73	3,418.15	122,776.00	175	361	1	3	2,266	13,884	28
Tombleken,	Luzerne,	310.00	.....	.....	310.00	.....	34	.....	.....	735	13,640	8
Derringer and Gowen,	Luzerne,	282,920.08	21,692.05	5,223.15	309,216.08	243	616	4	3	5,096	13,623	88
Total and average, .....	.....	812,541.19	144,393.01	10,134.12	1,079,401.15	219	2,406	6	10	14,595	76,299	257
Lehigh Coal and Navigation Company.												
Colliery No. 1,	Carbon,	322,581.65	25,957.00	2,611.00	351,149.05	251	583	.....	1	2,280	61,000	89
Colliery No. 4,	Carbon,	198,683.06	28,799.00	4,310.00	232,802.06	239	400	1	1	1,020	27,500	68
Colliery No. 5,	Carbon,	215,976.02	9,059.00	4,539.15	236,184.17	231	324	.....	.....	900	15,500	38
Colliery No. 6,	Carbon,	7,610.00	.....	.....	.....	.....	310	1	.....	310	31,050	20
Colliery No. 8,	Carbon,	212,648.17	9,909.00	6,707.10	253,365.07	237	527	2	.....	300	69,750	74
Screen Building,	Carbon, .....	.....	.....	.....	.....	855	332	.....	.....	.....	.....	.....
Total and average, .....	.....	979,899.10	81,334.00	18,168.05	1,079,401.15	263	2,476	4	3	4,810	221,800	289

TABLE II—Continued.

Names of Operators and Collieries.	County.	Shipments of coal in tons by rail or otherwise.	Number of tons used for steam and heat at colliery.	Sold to local trade and used by employes—tons.	Total production of coal in tons.	Number days worked.	Number persons employed.	Number fatal accidents.	Number non-fatal accidents.	Number kegs powder used.	Number pounds of dynamite used.	Number horses and mules.
G. B. Markle and Company.												
Jeddo No. 4 and Ebervale.	Luzerne	421,303.14	32,575.05	788.11	454,667.10	223	1,095	7	6	8,524	68,688	127
Highland No. 2.	Luzerne	335,219.15	33,698.18	34.00	368,952.13	234	717	2	3	7,818	6,833	73
Highland No. 5.	Luzerne	177,863.07	24,074.06	5,070.04	207,007.17	233	444	3	10	4,960	14,105	75
Total and average.		834,385.16	90,348.09	5,892.15	1,030,628.00	230	2,256	12	19	23,302	89,626	275
Estate of A. S. Van Wickle.												
Milnesville.	Luzerne	127,368.00	65,647.00	1,944.00	194,960.00	944	471	4	6	605	201,500	58
Coleraine.	Carbon	266,897.00	33,804.00	2,232.00	321,933.00	277	904	3	6	4,675	77,875	106
Total and average.		393,265.00	119,551.00	4,176.00	516,893.00	261	1,375	7	12	5,280	279,375	164
Lehigh Valley Coal Company.												
Hazleton No. 1.	Luzerne	242,892.05	11,606.00	43,825.11	298,424.16	219	724	2	.....	6,755	17,676	80
Hazleton shaft.	Luzerne	302,347.01	24,317.00	1,884.18	328,548.19	246	872	2	6	8,119	66,339	65
Spring Brook.	Carbon	87,521.13	21,265.00	1,732.10	110,519.03	145	327	.....	.....	2,189	4,913	33
Spring Mountain washery.	Luzerne	113,522.07	18,764.00	587.00	132,873.07	211	145	.....	.....	.....	586	15
Total.		746,383.06	75,952.00	48,030.19	870,365.05	195	2,068	4	8	17,073	89,514	193
Calvin Pardee and Company.												
Lattimer colliery.	Luzerne	305,017.02	30,244.05	4,029.15	339,291.02	264	590	2	2	13,382	122,250	49
Lattimer washery.	Luzerne	20,519.06	4,819.10	.....	25,338.16	137	181	.....	.....	.....	.....	1
Harwood shaft.	Luzerne	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	33
Harwood striping.	Luzerne	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	3
Harwood colliery.	Luzerne	244,764.01	14,022.10	1,220.04	260,006.15	244	673	2	4	6,500	30,650	62
Total.		570,309.09	49,116.05	5,249.19	624,666.13	215	1,513	4	9	19,882	152,900	148

Upper Lehigh Coal Company.	191,466.01	29,406.00	2,113.00	222,685.01	188	524	1	2	3,971	2,217	60
Upper Lehigh,											
C. M. Dodson and Company.	143,818.00	29,898.00	804.00	174,659.60	167	411	.....	3	3,450	7,875	55
Beaver Brook,											
M. S. Kemmerer and Company	78,667.01	16,400.00	1,551.00	96,275.00	216	288	.....	4	724	13,742	31
Sandy Run,											
J. S. Wentz and Company.	104,850.00	8,000.00	850.00	113,700.00	184	379	.....	1	1,925	6,300	24
Hazle Brook,											
Lehigh and Wilkes-Barre Coal Company.	6,408.08	14,400.00	.....	20,808.08	180	41	.....	1	156	1,650	3
Tresckow,											
Audenreld Coal Company.	46,869.12	4,950.00	210.00	51,890.12	165	138	.....	1	.....	1,200	7
Stockton washery,	7,323.04	1,000.00	.....	8,323.04	40	130	.....	.....	.....	.....	5
Tresckow washery,											
Total,	53,883.16	5,950.00	210.00	60,043.16	102	268	.....	1	.....	1,200	12
Wyoming and Pond Creek Coal Company.	7,091.00	1,070.00	150.00	8,291.00	57	68	.....	.....	320	1,900	3
Pond Creek,											
Morgans and Company.	323.00	360.00	2,622.00	3,315.00	221	13	.....	.....	150	.....	4
Dusky Diamond,											
Rowe and Stauffer.	5,932.00	610.00	2,010.00	8,552.00	249	31	.....	.....	.....	253	7
Rowe,											

Recapitulation.

A. Pardee and Company,	315,374.14	46,592.16	3,598.00	365,665.10	266	1,011	2	3	8,405	32,250	117
Coxe Brothers and Company, Incorporated,	812,541.19	141,393.01	19,134.12	976,069.12	219	2,466	6	10	14,595	76,209	257
Lehigh Coal and Navigation Company,	979,899.10	81,334.00	18,168.06	1,079,401.15	263	2,476	4	3	4,810	224,800	289
G. B. Markle and Company,	934,846.16	90,318.09	5,892.15	1,030,628.00	230	2,256	12	19	23,302	89,626	275
Lehigh Valley Coal Company,	746,383.06	75,952.00	48,030.19	870,365.05	195	2,068	4	8	17,073	89,534	193
Calvin Pardee and Company,	570,200.09	49,116.05	5,249.19	624,666.13	215	1,513	4	9	19,882	152,900	148
Estate of A. S. Van Winkle,	393,266.00	119,351.70	4,176.00	516,893.00	245	1,375	7	12	5,280	273,475	164
Upper Lehigh Coal Company,	191,166.01	29,406.00	2,113.00	222,685.01	188	524	1	2	3,971	2,217	60
C. M. Dodson and Company,	143,818.00	29,898.00	804.00	174,659.60	167	411	.....	3	3,450	7,875	55
M. S. Kemmerer and Company,	78,667.01	16,400.00	1,551.00	96,275.00	216	288	.....	4	724	13,742	31
J. S. Wentz and Company,	104,850.00	8,000.00	850.00	113,700.00	184	379	.....	1	1,925	6,300	24
Hazle Brook,											
Lehigh and Wilkes-Barre Coal Company,	6,408.08	14,400.00	.....	20,808.08	180	41	.....	1	156	1,650	3
Tresckow,											
Audenreld Coal Company,	46,869.12	4,950.00	210.00	51,890.12	165	138	.....	1	.....	1,200	7
Stockton washery,	7,323.04	1,000.00	.....	8,323.04	40	130	.....	.....	.....	.....	5
Tresckow washery,											
Total,	53,883.16	5,950.00	210.00	60,043.16	102	268	.....	1	.....	1,200	12
Wyoming and Pond Creek Coal Company,	7,091.00	1,070.00	150.00	8,291.00	57	68	.....	.....	320	1,900	3
Pond Creek,											
Morgans and Company,	323.00	360.00	2,622.00	3,315.00	221	13	.....	.....	150	.....	4
Dusky Diamond,											
Rowe and Stauffer,	5,932.00	610.00	2,010.00	8,552.00	249	31	.....	.....	.....	253	7
Rowe,											
A. Pardee and Company,	315,374.14	46,592.16	3,598.00	365,665.10	266	1,011	2	3	8,405	32,250	117
Coxe Brothers and Company, Incorporated,	812,541.19	141,393.01	19,134.12	976,069.12	219	2,466	6	10	14,595	76,209	257
Lehigh Coal and Navigation Company,	979,899.10	81,334.00	18,168.06	1,079,401.15	263	2,476	4	3	4,810	224,800	289
G. B. Markle and Company,	934,846.16	90,318.09	5,892.15	1,030,628.00	230	2,256	12	19	23,302	89,626	275
Lehigh Valley Coal Company,	746,383.06	75,952.00	48,030.19	870,365.05	195	2,068	4	8	17,073	89,534	193
Calvin Pardee and Company,	570,200.09	49,116.05	5,249.19	624,666.13	215	1,513	4	9	19,882	152,900	148
Estate of A. S. Van Winkle,	393,266.00	119,351.70	4,176.00	516,893.00	245	1,375	7	12	5,280	273,475	164
Upper Lehigh Coal Company,	191,166.01	29,406.00	2,113.00	222,685.01	188	524	1	2	3,971	2,217	60
C. M. Dodson and Company,	143,818.00	29,898.00	804.00	174,659.60	167	411	.....	3	3,450	7,875	55
M. S. Kemmerer and Company,	78,667.01	16,400.00	1,551.00	96,275.00	216	288	.....	4	724	13,742	31
J. S. Wentz and Company,	104,850.00	8,000.00	850.00	113,700.00	184	379	.....	1	1,925	6,300	24
Hazle Brook,											
Lehigh and Wilkes-Barre Coal Company,	6,408.08	14,400.00	.....	20,808.08	180	41	.....	1	156	1,650	3
Tresckow,											
Audenreld Coal Company,	46,869.12	4,950.00	210.00	51,890.12	165	138	.....	1	.....	1,200	7
Stockton washery,	7,323.04	1,000.00	.....	8,323.04	40	130	.....	.....	.....	.....	5
Tresckow washery,											
Total,	53,883.16	5,950.00	210.00	60,043.16	102	268	.....	1	.....	1,200	12
Wyoming and Pond Creek Coal Company,	7,091.00	1,070.00	150.00	8,291.00	57	68	.....	.....	320	1,900	3
Pond Creek,											
Morgans and Company,	323.00	360.00	2,622.00	3,315.00	221	13	.....	.....	150	.....	4
Dusky Diamond,											
Rowe and Stauffer,	5,932.00	610.00	2,010.00	8,552.00	249	31	.....	.....	.....	253	7
Rowe,											
Grand total,	5,343,291.19	712,921.11	114,570.10	6,170,784.00	195	15,111	40	76	103,943	980,811	1,642

TABLE II—Continued.

Name of Operators.	County.	Number of Boilers.				Locomotives.			Total horse power.	Number steam engines of all classes.	Total horse power.	Number pumps delivering water to surface.	Capacity in gallons per minute.	Quantity delivered to surface per minute—gallons.	Number electric dynamos.	Number air compressors.			
		Cylindrical.		Tubular.		Horse power.	Horse power.	Horse power.									Steam.	Air.	Electric.
		Horse power.	Tubular.	Horse power.	Total horse power.														
A. Pardee and Company.	Luzerne & Carbon	61	2,330	8	1,410	3,740	9	4	38	3,820	15	23,100	7,600	1	1				
Coxe Brothers and Company.	Luzerne.	111	4,883	49	3,859	8,841	19	4	64	4,666	50	33,677	30,432	5	3				
Lehigh Coal and Navigation Co.	Carbon.	43	688	55	8,314	9,002	22	5	87	3,447	12	10,627	5,313	1	4				
G. B. Markle and Company.	Luzerne.	54	1,875	31	3,640	5,515	9	5	76	3,853	6	5,526	3,321	1	5				
Estate of A. S. Van Winkle.	Luzerne & Carbon	74	1,131	49	3,776	4,907	9		70	2,855	14	12,747	5,774	1	1				
Lehigh Valley Coal Company.	Luzerne & Carbon	86	1,800	37	5,190	6,990	14		48	5,660	15	20,360	8,800	2	3				
Calvin Pardee and Company.	Luzerne.	45	900	21	2,230	3,130	12		47	4,736	17	12,350	4,170	2	3				

Recapitulation.

A. Pardee and Company.	61	2,330	8	1,410	3,740	9	4	38	3,820	15	23,100	7,600	1	1	
Coxe Bros. & Co., Incorporated.	111	4,883	49	3,859	8,841	19	4	64	4,666	50	33,677	30,432	5	3	
Lehigh Coal and Navigation Co.	43	688	55	8,314	9,002	22	5	87	3,447	12	10,627	5,313	1	4	
G. B. Markle and Company.	54	1,875	31	3,640	5,515	9	5	76	3,853	6	5,526	3,321	1	5	
Estate of A. S. Van Winkle.	86	1,800	37	5,190	6,990	14		48	5,660	15	20,360	8,800	2	3	
Lehigh Valley Coal Company.	45	900	21	2,230	3,130	12		47	4,736	17	12,350	4,170	2	3	
Calvin Pardee and Company.	43	1,000	49	3,415	4,397	6		70	2,855	14	12,747	5,774	1	1	
Upper Lehigh Coal Company.	68	2,050	5	1,415	2,965	1		17	1,435	3	15,000	7,000	1		
C. M. Dodson and Company.	49	880	41	1,180	2,160	1		19	435	3	3,080	3,000	1		
M. S. Kemmerer and Company.	22	880	2	200	1,080	2		17	400	6	3,000	2,600	1		
J. S. Wentz and Company.	19	1,500	3	175	1,675	2		3	250	3	3,000	4,846	1		
Lehigh and Wilkes-Barre Coal Co.	34	1,020	4	200	1,220	1		26	565	3	3,000	4,846	1		
Audenreid Coal Company.	12	708	3	300	978	1		3	165	1	115	75	1		
Wyoming and Pond Creek Coal Co.
Morgans and Company.
Rowe and Stauffer.
Grand total.	678	20,846	285	31,306	52,150	106	9	533	33,689	174	153,082	85,331	13	20	

TABLE III.—Showing the number of each class of employees at each colliery in the Fifth Anthracite District during the year 1900.

Names of Operators and Collieries.	County.	Occupations of Persons Employed Inside.						Occupations of Persons Employed Outside.						Grand total, inside and outside.			
		Inside foreman or mine boss.	Fire bosses.	Miners.	Miners' laborers.	Drivers and runners.	Door boys and helpers.	All other employes.	Total inside.	Outside foreman.	Blacksmiths and carpenters.	Engineers and firemen.	State pickers.		Superintendents, bookkeepers and clerks.	All other employes.	Total outside.
A. Pardee and Company.		3	5	354	165	62	23	97	711	1	27	34	62	2	174	300	1,011
Cranberry, East Crystal Ridge,	Luzerne, ... Luzerne, ...																
Coxe Brothers and Company (Inc.).		3	1	129	35	24	13	111	316	1	54	19	87	12	293	466	782
Drifton Nos. 1 and 2,	Luzerne,	1		94	13	18	6	69	201	1	8	25	88	7	81	204	405
Eckley and Buck Mountain,	Luzerne,	1		23	2	10	2	44	82	1	5	13	38	1	65	123	205
Rockton,	Carbon,	1		69	26	13	2	71	182	1	8	17	65	1	90	182	364
Reah Meadow,	Carbon,	1		11	4	2	1	1	30						3	4	34
Turbulet,	Luzerne,	2	1	180	37	35	8	97	161	1	18	18	85	1	129	252	616
Derringer and Gowan,	Luzerne,																
Total and average,		9	2	516	117	106	32	393	1,175	5	93	92	363	17	661	1,231	2,406
Lehigh Coal and Navigation Co.																	
Colliery No. 1,	Carbon,	3	7	125	49	31	16	108	339	1	10	42	86	1	104	244	583
Colliery No. 4,	Carbon,	1	3	56	40	24	8	108	240	1	4	21	84		50	160	400
Colliery No. 6,	Carbon,	1	3	44	30	11	8	92	189	1	6	14	63		51	135	324
Colliery No. 8,	Carbon,	1	2	47	43	13	2	164	272	1	5	11			21	38	310
Colliery No. 9,	Carbon,	2	2	75	119	24	5	109	336	1	10	27	80		73	191	527
Screen Building,	Carbon,									1	11	25	190		105	332	332
Total and average,		8	17	347	281	103	39	581	1,376	6	46	140	503	1	405	1,100	2,476

Recapitulation.

Names of Operators and Collieries.	County.	Occupations of Persons Employed Inside.										Occupations of Persons Employed Outside.										Grand total, inside and outside.
		Inside foreman or mine boss.	Fire bosses.	Miners.	Miners' laborers.	Drivers and runners.	Door boys and helpers.	All other employes.	Total inside.	Outside foreman.	Blacksmiths and carpenters.	Engineers and firemen.	Slate pickers.	Superintendents, bookkeepers and clerks.	All other employes.	Total outside.						
A. Pardee and Company,	Luzerne,	3	5	354	165	62	25	97	711	1	27	34	62	2	174	300	1,011					
Coxe Brothers and Company, Incorporated,	Luzerne,	3	2	516	117	106	32	393	1,375	5	93	92	383	1	661	1,231	2,406					
Lehigh Coal and Navigation Co.,	Carbon,	13	17	347	281	103	39	581	1,376	6	46	140	503	1	405	1,100	2,476					
G. B. Markle and Company,	Luzerne,	9	9	640	272	153	37	110	1,860	3	34	60	269	28	302	696	2,556					
Lehigh Valley Coal Company,	Luzerne,	15	9	259	308	164	17	273	1,295	4	49	94	195	14	417	773	2,068					
Calvin Pardee and Company,	Luzerne,	6	1	234	240	50	6	70	673	14	94	82	181	9	374	754	1,513					
Estate of A. S. Van Winkle,	Luzerne,	2	1	53	73	23	6	26	213	3	40	36	100	5	169	311	524					
Upper Lehigh Coal Company,	Luzerne,	1	1	77	80	19	13	35	226	1	8	26	56	5	88	158	414					
C. M. Dodson and Company,	Luzerne,	2	1	52	56	11	2	8	131	2	15	20	47	5	67	133	283					
M. S. Kemmerer and Company,	Luzerne,	2	1	86	34	22	7	55	207	2	8	20	74	8	60	172	370					
Lehigh and Wilkes-Barre Coal Co.,	Carbon,	1	1	18	12	2	1	1	34	2	7	11	132	4	112	268	283					
Ludensfeld Coal Company,	Luzerne,	1	1	16	20	4	1	1	40	1	1	1	10	3	8	28	68					
Wong and Bond Creek Coal Co.,	Luzerne,	1	1	3	3	1	1	1	8	1	2	2	1	1	5	13	31					
Morgan and Company,	Luzerne,	1	1	5	7	3	2	1	18	1	1	1	4	1	5	13	31					
Rowe and Stauffer,	Luzerne,	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1					
Grand total, .....	.....	70	39	3,335	2,263	744	138	1,723	8,360	47	425	634	2,147	117	3,322	6,751	15,111				

TABLE III—Continued.

Name of Operators.	County.	Number of Days Worked Each Month in Breaker.												Total.
		January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	
A. Pardee and Company,	Luzerne,	20.2	9.9	9.5	8.4	14.2	19.7	17.1	23.8	21.7	16.4	23.4	22.2	206.5
Coxe Brothers and Company (Incorporated),	Luz. & Carbon, ..	22.8	17.2	18.4	17.2	20.5	16.6	18.6	19.6	20.8	10	20.6	20.4	218.6
Lehigh Coal and Navigation Company,	Carbon,	24.9	22	18.2	18.6	19.2	20.8	22.8	23.2	20.5	28.1	21.3	22.7	262.6
G. B. Markle and Company,	Luzerne,	20.6	16	13	13	19.6	20.2	23.3	25	18.3	21	22.8	22.9	245.5
Estate of A. S. Van Wickle,	Luzerne,	23.4	18.5	21.4	20.5	24.7	21.2	23.3	25	19.9	21	22.8	22.9	245.5
Lehigh Valley Coal Company,	Luz. & Carbon, ..	15.4	11	12.8	10.5	12.9	21.8	17	21.5	15.7	12.5	21.7	21.1	185.4
Upper Lehigh Coal Company,	Luzerne,	19.3	16	17.3	16.1	20.6	17.4	17.8	21.7	22.4	5.3	23.6	17.4	214.9

TABLE IV—List of Fatal Accidents that occurred in and about the Mines of the Fifth Anthracite District for the year ending December 31, 1900.

Date of accident.	Name of person.	Nationality by Birth.	Occupation.	Age.	Married or single.	Number of widows.	Number of orphans.	Name of Colliery.	County.	Nature and Cause of Accident in Brief.
Jan. 2	Chas. Cunningham,	Irish,	Laborer,	42	S.	.....	.....	Lansford No. 9,	Carbon,	Instantly killed by falling under cars.
3	Nicholas Rubeline,	Italian,	Laborer,	18	S.	.....	.....	Milnesville,	Luzerne,	Instantly killed; run down by railroad cars.
3	Philip Gultman,	American,	Steam driller,	37	S.	.....	.....	Beaver Meadow,	Carbon,	Instantly killed by a premature blast.
4	Joseph Cox,	Italian,	Miner,	37	M.	1	.....	Lattimer,	Luzerne,	Fatally injured by the premature explosion of powder.
5	Frank Maroni,	Italian,	Laborer,	38	M.	1	5	Coleraine,	Carbon,	Fatally injured; run down by a train of mine cars.
6	Daniel Dougherty,	Irish,	Motor patcher,	29	S.	.....	.....	Highland No. 5,	Luzerne,	Instantly killed; crushed between an auto-motive floor and an air motor.
7	William Kranf,	American,	Slate picker,	24	S.	.....	.....	Coleraine,	Carbon,	Fatally injured by a slate in breaker.
8	James McAlearney,	Irish,	Miner,	45	M.	1	6	Milnesville,	Luzerne,	Fatally injured by a piece of rock thrown from a blast.
20	William Dilinski,	Pole,	Laborer,	28	M.	1	.....	Ebervale,	Luzerne,	Fatally injured by falling from a ladder.
30	George Martlos,	Pole,	Laborer,	40	M.	1	3	Jeddo No. 4,	Luzerne,	Fatally injured by a fall of top bench.
Feb. 5	John Tribes,	Italian,	Laborer,	22	S.	.....	.....	Jeddo No. 4,	Luzerne,	Instantly killed by a rush of clay and sand.
9	Carman Papa,	Italian,	Miner,	30	M.	1	4	Jeddo No. 4,	Luzerne,	Fatally injured by a fall of coal.
5	Anthony Pash,	Pole,	Miner,	40	M.	1	6	Harwood,	Luzerne,	Instantly killed by a fall of coal.
15	George Chenitch,	Hungarian,	Laborer,	37	M.	1	1	Gowan No. 1 & 3,	Luzerne,	Instantly killed by an explosion of gas.
20	Oliver Lougenberger,	American,	Miner,	26	M.	1	1	Gowan No. 4,	Luzerne,	Instantly killed by an explosion of gas.
20	George Rudolph,	American,	Miner,	26	M.	1	1	Gowan No. 4,	Luzerne,	Instantly killed by an explosion of gas.
23	Robt. Morris,	Welsh,	Driver,	21	S.	.....	.....	Jeddo No. 4,	Luzerne,	Fatally injured while attempting to jump on a moving car.
March 12	Joseph Klehko,	Pole,	Laborer,	44	M.	1	1	Harwood No. 5,	Luzerne,	Instantly killed by a fall of coal.
12	Frank Ward,	Irish,	Miner,	50	M.	1	6	Hazleton shaft strippings,	Luzerne,	Fatally injured by an explosion of dynamite.
April 3	Mike Krakozwincg,	Slav,	Laborer,	25	S.	.....	.....	Lansford No. 6 strippings,	Carbon,	Instantly killed by a fall of frozen earth.
25	Andrew Yulaski,	Hungarian,	Miner,	43	M.	1	1	Milnesville strip-ping,	Luzerne,	Killed by a fall of rock.
25	John Sulack,	Hungarian,	Laborer,	44	M.	1	.....	Milnesville strip-ping,	Luzerne,	Instantly killed by machinery in breaker.
May 21	Mike Greshko,	Hungarian,	Jig runner,	20	S.	.....	.....	Highland No. 5,	Luzerne,	Fatally injured; struck by car.
23	John Fellin,	Austrian,	Miner,	52	M.	1	6	Gowan No. 4,	Luzerne,	Fatally injured; struck by car.

TABLE IV—Continued.

Date of accident.	Name of Person.	Nationality by Birth.	Occupation.	Age.	Married or single.	Number of widows.	Number of orphans.	Name of Colliery.	County.	Nature and Cause of Accident in Brief.
July 10	August Mattes,	German, ...	Jig boss,	19	S.	.....	.....	Highland No. 2.	Luzerne, ..	Fatally injured; struck by a piece of coal in breaker.
23	Andrew Shiner,	Slav,	Slate picker, ...	14	S.	.....	.....	Eckley,	Luzerne, ..	Instantly killed; crushed between a gondola and breaker timber.
23	John R. Cunnning,	Italian,	Laborer,	25	S.	.....	.....	Highland No. 1.	Luzerne, ..	Instantly killed by falling under a car.
Aug. 10	Martin McNovich,	Pole,	Laborer,	39	S.	.....	.....	Highland No. 5.	Luzerne, ..	Instantly killed by a fall of coal.
22	David R. Davis,	Welsh,	Miner,	59	M.	1	.....	Union No. 4.	Luzerne, ..	Instantly killed by a fall of coal and rock.
29	John Wandow,	Austrian, ..	Miner,	28	S.	.....	.....	Cranberry No. 4.	Luzerne, ..	Fatally injured by a fall of clod.
Sept. 7	Anthony Stramitus,	Lithuanian, ..	Miner,	38	S.	.....	.....	Cranberry No. 4.	Luzerne, ..	Fatally injured by a fall of clod.
16	Andrew Yerry,	Hungarian, ..	Miner,	47	M.	.....	.....	Lansford No. 4.	Carbon, ..	Instantly killed by a fall of slate.
17	Adam Kuehuhold,	American, ..	Patcher,	16	S.	.....	.....	Jeddo No. 4, ...	Luzerne, ..	Fatally injured by mine car.
20	Stephen Stett,	Hungarian, ..	Miner,	42	M.	1	3	Hazleton No. 3.	Luzerne, ..	Fatally injured by a fall of coal.
28	Paul Paoloski,	Russian,	Laborer,	41	M.	.....	.....	Hazleton No. 1.	Luzerne, ..	Instantly killed by a fall of coal.
28	Nacio Colmaski,	Italian,	Brakeman,	17	S.	.....	.....	Lattimer No. 5.	Luzerne, ..	Fatally injured; crushed between cars.
8	Mike Steimack,	Hungarian, ..	Laborer,	45	M.	.....	.....	Jeddo No. 4, ...	Luzerne, ..	Instantly killed; run over by locomotive.
8	John Haggerty,	Irish,	Miner,	45	M.	1	6	Hazleton No. 1.	Luzerne, ..	Instantly killed by a premature blast.
18	James McAndrews,	Irish,	Laborer,	26	S.	.....	.....	Evans colliery, ...	Carbon, ..	Fatally injured; crushed between mine cars.
31	Richard Clemins,	American, ..	Loco. engineer.	24	S.	.....	.....	Lansford No. 9.	Carbon, ..	Instantly killed; run over by cars.

TABLE V—List of Non-Fatal Accidents that occurred in and about the mines of the Fifth Anthracite District for the year ending December 31, 1900.

Date of accident.	Name of Person.	Nationality by Birth.	Occupation.	Age.	Married or single.	Name of Colliery.	County.	Nature and Cause of Accident in Brief.
Jan. 2	Charles Coyle,	Irish,	Laborer,	50	M.	Coleraine,	Carbon, ..	Skull fractured and shoulder dislocated by falling from a platform.
4	John Koupnil,	Hungarian,	Laborer,	25	S.	Highland No. 5,	Luzerne, ..	Leg fractured while attempting to jump off car.
5	George Burke,	Hungarian,	Laborer,	58	M.	Stockton washery,	Luzerne, ..	Leg fractured by a fall of frozen earth.
6	Henry Smith,	American, ..	Patcher,	47	S.	Drifton No. 2,	Luzerne, ..	Shoulder blade fractured; squeezed between mules and cars.
15	Patrick McAndrews,	Irish,	Miner,	35	M.	Coleraine,	Carbon, ..	Leg fractured; struck by a piece of rock from the roof.
18	John Valentine,	Austrian, ..	Laborer,	19	S.	Highland No. 5,	Luzerne, ..	Leg fractured by a fall of coal.
18	Fred. Margete,	Austrian, ..	Miner,	28	S.	Highland No. 5,	Luzerne, ..	Head lacerated by a fall of coal.
18	Peter Hesbener,	German, ..	Miner,	47	M.	Sandy Run,	Luzerne, ..	Ribs fractured; caught between a falling rock and mine car.
19	Andrew Cheryivinski, ..	Pole,	Miner,	40	M.	Jeddo No. 4,	Luzerne, ..	Leg fractured; squeezed between a mule and a mine car.
20	Marple Maury,	American, ..	Hitcher,	18	S.	Upper Lehigh,	Luzerne, ..	Hips lacerated while trying to uncouple cars.
21	Daniel Atkinson,	American, ..	Miner,	45	M.	Beaver Meadow No. 4,	Carbon, ..	Leg fractured by a fall of coal.
23	John Ochames,	Hungarian, ..	Laborer,	25	S.	Milnesville,	Luzerne, ..	Leg fractured by a piece of rock.
Feb. 26	Mike Hirkala,	Hungarian, ..	Slate plover, ..	14	S.	Drifton No. 2,	Luzerne, ..	Arm fractured by machinery in breaker.
28	Howard Anthony,	American, ..	Engineer,	19	S.	Sandy Run,	Luzerne, ..	Hand cut off between a pinion and screen.
March 7	Tony Russ,	Italian,	Laborer,	25	M.	Harwood,	Luzerne, ..	Leg fractured; struck by a piece of frozen clay.
9	Mike Herouch,	Hungarian, ..	Miner,	34	M.	Evans colliery,	Carbon, ..	Legs injured; struck by pieces of coal from a blast.
12	Dominic Marchard,	Italian,	Laborer,	33	M.	Hazleton No. 3 strip-ping,	Luzerne, ..	Painfully injured by explosion of dynamite.
12	Edward McGeehan,	Irish,	Miner,	57	M.	Highland No. 3 strip-ping,	Luzerne, ..	Slightly injured while attempting to roast dynamite on a stove.
14	Pat'k H. Conaghan,	Irish,	Miner,	48	M.	Highland No. 5,	Luzerne, ..	Leg fractured by a piece of coal from a shot.
22	Frank Chambers,	Welsh,	Miner,	37	S.	Ebervale No. 1,	Luzerne, ..	Ribs fractured by a fall of clod.
22	Michael Dudash,	Hungarian, ..	Miner,	37	M.	Gowan,	Luzerne, ..	Arm and leg fractured by a section of brattice falling upon him.

TABLE V—Continued.

Date of accident.	Name of Person.	Nationality by Birth.	Occupation.	Age.	Married or single.	Name of Colliery.	County.	Nature and Cause of Accident in Brief.
March 21	James J. Brislin,	Irish,	Foreman,	35	M.	Lattimer stripping,	Luzerne, ..	Leg fractured by a piece of rock which rolled down stripping bank.
26	Joseph Povolochek, ..	Pole,	Miner,	34	M.	Cranberry,	Luzerne, ..	Seriously injured; while trying to force a charge of powder in a hole it exploded.
27	Michael Budner,	Pole,	Driver,	17	S.	Highland No. 5,	Luzerne, ..	Arm crushed by falling from a car.
29	Simon Reymeter,	Austrian, ..	Miner,	57	M.	Derringer,	Luzerne, ..	Seriously injured by a fall of coal.
5	Stanley Meronosky, ..	Pole,	Miner,	33	M.	Drifton No. 1,	Luzerne, ..	Leg fractured by falling under cars.
12	John Sink,	American, ..	Coal Inspector, ..	20	S.	Highland No. 5,	Luzerne, ..	Leg fractured; struck by a piece of coal.
12	Wm. Melkrantz,	German,	Miner,	44	M.	Hazleton shaft,	Luzerne, ..	Leg fractured; crushed between a road car and a platform.
14	Fred. Billig,	American, ..	Driver,	18	S.	Coleraine,	Carbon, ..	Head and chest injured; knocked down by mine cars.
12	John McFadden,	Irish,	Breaker fore- man,	62	M.	Spring Mt. washery, ..	Luzerne, ..	Leg fractured by a fall of rock.
18	Charles Fox,	German,	Miner,	49	M.	Highland,	Luzerne, ..	Painfully injured by fall of rock.
25	John Parish,	Hungarian, ..	Laborer,	26	M.	Minesville stripping, ..	Luzerne, ..	Slightly injured by fall of rock.
25	Mike Chevok,	Hungarian, ..	Laborer,	35	M.	Minesville stripping, ..	Luzerne, ..	Leg fractured while trying to jump on a moving mine car.
26	Patrick Watters,	American, ..	Patcher,	17	S.	Lattimer stripping,	Luzerne, ..	Leg fractured by breaker rolls.
May 19	George Pollock,	Hungarian, ..	Slate picker,	27	M.	Highland No. 5,	Luzerne, ..	Arm fractured while oiling breaker machinery, injured by a fall of dirt.
25	Chas. Gross,	American, ..	Breaker oiler,	34	S.	Hazleton shaft,	Luzerne, ..	Hands and face burned by explosion of powder.
June 23	William Roarty,	Irish,	Laborer,	27	S.	Hazle Brook,	Luzerne, ..	Painfully injured by a fall of dirt.
25	John Yanovich,	Hungarian, ..	Laborer,	22	S.	Lansford No. 4,	Carbon, ..	Leg fractured by a fall of coal.
July 9	John Clemis,	American, ..	Miner,	56	M.	Beaver Brook,	Luzerne, ..	Ribs fractured by a fall of coal.
8	Frank Joseph,	Italian,	Laborer,	53	M.	Harwood,	Luzerne, ..	Leg crushed; caught by cars.
28	Condy Donahue,	Irish,	Miner,	30	S.	Beaver Brook,	Luzerne, ..	Leg fractured by a piece of coal rolling down the manway.
31	Mike Sheba,	Hungarian, ..	Laborer,	25	M.	Coleraine,	Carbon, ..	Back injured by a fall of bony coal.
Aug. 8	Michael Danko,	Hungarian, ..	Miner,	45	M.	Sandy Run,	Luzerne, ..	Leg bruised by fall of rock.
8	John Gusta,	Hungarian, ..	Laborer,	35	S.	Sandy Run,	Luzerne, ..	Ribs fractured by fall of rock.
11	Patrick Gallagher,	Irish,	Miner,	32	S.	Highland No. 5,	Luzerne, ..	Leg fractured; struck by a piece of clod.
17	John Shatyr,	Slav,	Driver,	20	S.	Evans colliery,	Carbon, ..	Leg fractured by falling from a mine car.
22	John Samon,	Hungarian, ..	Laborer,	48	S.	Beaver Brook,	Luzerne, ..	Arm injured by falling under mine car.

25	Neal Dinso,	Italian,	Laborer,	25	S.	Lattimer stripping, ...	Luzerne, ..	Leg fractured by a piece of rock falling from a car.
28	John Batiscaak,	Pole,	Laborer,	25	S.	Harwood No. 4,	Luzerne, ..	Leg fractured by a fall of coal in a breast.
6	Michael Denshock,	Hungarian, ..	Miner,	33	M.	Harwood,	Luzerne, ..	Leg fractured while attempting to jump on mine car.
8	John Gaffigan,	Irish,	Driver,	18	S.	Ebervale,	Luzerne, ..	Leg fractured; crushed by a car on the mine.
8	John Lurkin,	Hungarian, ..	Laborer,	46	M.	Derringer,	Luzerne, ..	Leg fractured by a piece of falling slate.
15	John McGlynn,	Irish,	Driver,	17	S.	Jeddo No. 4,	Luzerne, ..	Leg fractured by a fall of slate.
21	Samuel Dunkerly,	English,	General inside foreman, ..	55	M.	Highland No. 2,	Luzerne, ..	Leg fractured while unbitching rope from the car.
24	Conrad Griesing,	American, ..	Asst. foreman, ..	36	M.	Jeddo No. 4,	Luzerne, ..	Ribs fractured and five lacerations of the scalp; struck by a fall of slate.
28	George Mekula,	Hungarian, ..	Driver,	32	M.	Lattimer stripping, ...	Luzerne, ..	Ribs fractured while attempting to jump on a car.
1	Edward Jones,	Welsh,	Miner,	49	M.	Nesquehoning No. 1, ..	Carbon, ..	Leg burned by a spark falling into his boot and igniting a stick of powder that he placed there to thaw.
24	Michael Sabol,	Hungarian, ..	Driver,	22	M.	Highland No. 2,	Luzerne, ..	Injury to chest and rib splintered; caught Leg fractured; struck by a stick of timber on the gangway.
6	Thos. Dickinson,	American, ..	Stripping foreman, ..	45	M.	Cranberry,	Luzerne, ..	Back contused while attempting to jump on a dump car.
7	Wasil Shutock,	Hungarian, ..	Laborer,	22	S.	Hazleton No. 3 strip-ping,	Luzerne, ..	Collar bone fractured; while riding on a car he struck a door frame.
12	Michael Daley,	Irish,	Miner,	40	M.	Lattimer No. 2,	Luzerne, ..	Burned by an explosion of powder.
13	Peter Zetlmsky,	Hungarian, ..	Laborer,	33	S.	Highland No. 5,	Luzerne, ..	Seriously injured while springing a hole.
17	Columb Roarty,	Irish,	Stripping foreman, ..	40	M.	Coleraine stripping, ...	Luzerne, ..	Leg fractured by falling down stripping
24	George McGarey,	American, ..	Driver,	18	S.	Milnesville,	Luzerne, ..	Skull fractured; struck by a piece of coal falling from a bucket.
29	John Motee,	Hungarian, ..	Miner,	32	M.	Milnesville stripping, ..	Carbon, ..	Back bruised and scalp lacerated by a premature blast.
30	Peter Zelesnak,	Hungarian, ..	Laborer,	24	M.	Beaver Meadow,	Luzerne, ..	Ankle bone fractured; caught in a conveyer line in breaker.
3	Samuel Russ,	Italian,	Miner,	33	M.	Cranberry,	Luzerne, ..	Leg fractured; fell into a trough near breaker.
3	Peter Furan,	Italian,	Jig runner,	16	S.	Milnesville,	Luzerne, ..	Hip dislocated by a fall of coal.
5	George Conaghan,	Irish,	Miner,	50	S.	Drifton,	Luzerne, ..	Rib fractured by a fall of slate.
5	Edward Eade,	English,	Miner,	33	M.	Nesquehoning shaft, ...	Carbon, ..	Leg fractured by a fall of frozen earth on stripping.
11	Jacob Nagle,	German,	Miner,	61	M.	Highland No. 1,	Luzerne, ..	Leg fractured by a shot.
15	Tony Paris,	Italian,	Laborer,	32	M.	Upper Lehigh stripping, ..	Luzerne, ..	Hand crushed by a car wheel passing over it.
15	Peter Wincheck,	Pole,	Miner,	38	M.	Ebervale,	Luzerne, ..	Leg fractured; while rolling a stick of timber he slipped; the stick struck his leg.
18	Peter Fogarty,	Irish,	Topman,	19	S.	Treackow No. 16,	Carbon, ..	Leg fractured by a fall of clod.
24	George Herbig,	German,	Timberman, ..	63	M.	Hazleton shaft,	Luzerne, ..	
28	Peter Carlin,	Irish,	Miner,	54	M.	Beaver Meadow,	Carbon, ..	



Sixth Anthracite District.

SCHUYLKILL COUNTY.

Shenandoah, Pa., February 23d, 1901.

Hon. James W. Latta, Secretary of Internal Affairs, Harrisburg,
Penna.:

Sir: I have the honor of herewith presenting my sixteenth annual report as Inspector of Mines for the Sixth Anthracite Coal District. It contains the usual tables furnished by your Department and gives the mining statistics relative to the mines for the year 1900; also, a description of the mine fire at Primrose colliery, and of the explosion of gas at Buck Mountain colliery.

The report shows that 65 fatal and 130 non-fatal accidents occurred; 44 of the non-fatal accidents were not very serious. There were 72 fatal and 99 non-fatal accidents during the year 1899.

The number of tons of coal produced per life lost was 108,009, against 104,561 tons in 1899.

The total production of coal for the year 1900 was 7,020,571 tons, while for the year 1899 it was 7,538,404 tons, or 517,833 tons less in 1900 than in 1899. The production in 1900 would have exceeded that of 1899 had the strike in October not occurred.

Respectfully submitted,

WILLIAM STEIN,
Mine Inspector.

TABLE A—Showing Production of Coal, Number of Persons Employed by Each Company During the Year 1900, and the Average Number of Tons Produced Per Employee.

Names of Companies.	Number of tons produced.	Number of persons employed.
Philadelphia and Reading Coal and Iron Company,	4,173,714.13	12,242
Lehigh Valley Coal Company,	646,387.07	2,002
Lehigh and Wilkes-Barre Coal Company,	417,535.05	1,390
Mill Creek Coal Company,	350,839	742
Lentz and Company,	317,959	770
Silver Brook Coal Company,	149,257	468
Coxe Brothers and Company, Incorporated,	270,547	612
Susquehanna Coal Company,	230,243	821
Thomas Coal Company,	82,632	256
Lawrence Coal Company,	102,545	350
Cambridge Coal Company,	44,161	135
Furnace Coal Company,	42,480	109
Stoddart Coal Company,	51,094	71
Brookwood Coal Company,	43,271	35
Girardville Coal Company,	66,517	66
Carson Coal Company,	26,625	127
North American Coal Company,	4,766	52
Total,	7,020,571.05	20,278

Average number of tons produced per employe, 346.2.

TABLE B—Number of Fatal Accidents and Tons of Coal Produced Per Life Lost.

Names of Companies.	Number of fatal accidents.	Number tons of coal produced per life lost.
Philadelphia and Reading Coal and Iron Company,	30	139,123.80
Lehigh Valley Coal Company,	6	107,731.16
Lehigh and Wilkes-Barre Coal Company,	4	104,385
Mill Creek Coal Company,	11	21,894.50
Lentz and Company,	2	158,979.50
Silver Brook Coal Company,	1	149,257
Coxe Brothers and Company, Incorporated,	1	270,547
Susquehanna Coal Company,	4	57,590.75
Thomas Coal Company,	1	82,632
Lawrence Coal Company,	4	25,635.75
Cambridge Coal Company,		44,161
Furnace Coal Company,		42,480
Stoddart Coal Company,		51,094
Brookwood Coal Company,		43,271
Girardville Coal Company,		66,517
Carson Coal Company,	1	26,625
North American Coal Company,		4,766
Total and average,	65	108,009

TABLE C—Number of Fatal and Non-Fatal Accidents and the Number of Tons of Coal Produced Per Accident.

Names of Companies.	Number of accidents.	Number tons of coal produced per accident.
Philadelphia and Reading Coal and Iron Company,	102	40,818
Lehigh Valley Coal Company,	19	34,020+
Lehigh and Wilkes-Barre Coal Company,	9	20,923
Mill Creek Coal Company,	25	14,033.50
Lentz and Company,	9	35,328.50
Silver Brook Coal Company,	1	149,237
Coxe Brothers and Company, Incorporated,	6	45,991
Susquehanna Coal Company,	13	17,711
Thomas Coal Company,	3	27,547.75
Lawrence Coal Company,	6	17,090.50
Cambridge Coal Company,	1	44,161
Furnace Coal Company,		42,480
Stoddart Coal Company,		51,094
Brookwood Coal Company,		43,271
Girardville Coal Company,		66,517
Carson Coal Company,	1	26,625
North American Coal Company,		4,766
Total and average,	195	36,002+

TABLE D—Classification of Accidents.

Classification.	Killed or fatally injured.	Injured.	Total.
Explosion of gas,	9	33	
Igniting loose powder,	6	6	
By blasts,	4	2	
By mules,		3	
Falling down slope,			
By machinery,	3	4	
Falls of coal and rock,	25	47	
Falling under cars,	6	20	
Run over by locomotive,	1		
Mine fire,	3		
Falling down manway,		1	
Falling down stripping bank,	2		
Falling down chute,	1		
Miscellaneous,		8	
Miscellaneous outside,	4	6	
Total,	65	130	195

TABLE E—Occupations of Persons Killed and Injured.

Occupations.	Killed or fatally injured.	Injured.	Total.
Fire bosses (inside), .....	.....	5	.....
Miners (inside),	39	60	.....
Laborers (inside),	9	27	.....
Drivers (inside),	1	9	.....
Starters (inside),	1	.....	.....
Loader boss (inside), .....	.....	1	.....
Door boy (inside), .....	.....	1	.....
Patcher (inside),	1	1	.....
Roadman (inside),	1	.....	.....
Repairman (inside), .....	.....	1	.....
Plane tender (inside), .....	.....	1	.....
Carpenter (outside),	4	2	.....
Watchman (outside),	1	.....	.....
Car loader (outside),	1	2	.....
Engineer (outside), .....	.....	2	.....
Driver (outside), .....	.....	1	.....
Laborer (outside),	2	3	.....
Fireman (outside), .....	.....	1	.....
Footman (outside), .....	.....	1	.....
Machinist (outside), .....	.....	1	.....
Car runner (outside), .....	.....	1	.....
Tijman (outside),	2	1	.....
Pulley man (outside), .....	.....	1	.....
Screen tender (outside), .....	.....	1	.....
Dift man (outside),	1	2	.....
Slate picker (outside),	1	4	.....
Scraper boy,	1	.....	.....
Total,	65	130	195

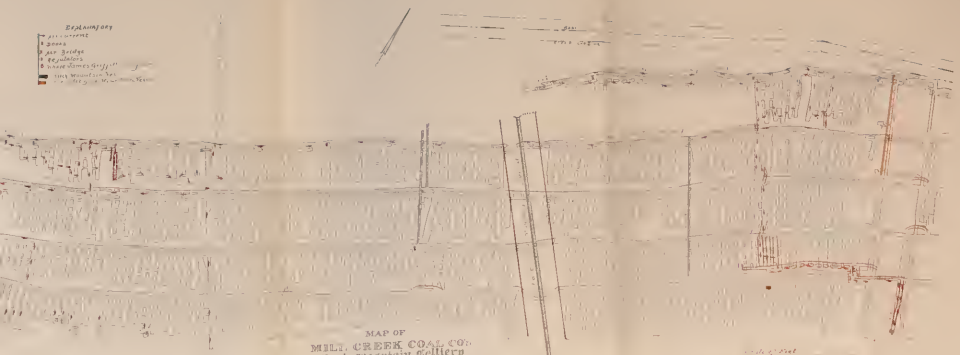
TABLE F—Nationalities of Persons Killed and Injured.

	Americans.	English.	Germans.	Welsh.	Irish.	Poles.	Hungarians.	Tyroleans.	Italians.	Lithuanians.	Russians.	Austrians.	Slavs.	Greek.	Total.
Killed,	12	3	4	2	5	21	2	2	3	5	3	.....	2	1	65
Injured,	34	4	2	3	12	52	.....	.....	.....	11	1	1	7	.....	120
Total,	46	7	6	5	17	73	5	2	3	16	4	1	9	1	195

Table Showing the Quantity of Coal Produced and Shipped During the Years 1899 and 1900.

	Year.	
	1899.	1900.
Quantity of coal produced in tons,	7,538,404	7,020,571.05
Quantity of coal shipped,	6,556,088	6,063,635.14

- Explanatory*
- Air current
 - Sides
 - Air Bridge
 - Regulators
 - Base James Griffin
 - 1000 Wooded in Area
 - 1000 ft. 1000 ft. 1000 ft. 1000 ft.



MAP OF
 MILL CREEK COAL CO.
 Buck Mountain Colliery
 showing West 42' Exp. No. 1 & 2, starting of 15th level
 at time of September 26th & 27th 1901.

Summary Sixth Anthracite District, 1900.

Total production of coal, in tons,	7,020,571.05
Used for steam and heat,	870,188.05
Sold to local trade and employes,	96,747.06
Shipped by railroad,	6,053,635.14
Number of tons produced from washeries, which is included in total production,	192,273
Average number days worked,	166+
Number of persons employed,	20,278
Number fatal accidents,	65
Number non-fatal accidents,	130
Number fatal accidents, inside,	52
Number of non-fatal accidents, inside,	107
Number of fatal accidents, outside,	13
Number of non-fatal accidents, outside,	23
Number of wives left widows,	43
Number of children left fatherless,	91
Number of kegs of powder used,	141,682
Number of pounds of dynamite used,	499,060
Number of horses and mules,	2,009
Number of cylindrical steam boilers,	550
Number of tubular steam boilers,	281
Total horse power of boilers,	57,074
Number of pumps,	140
Capacity in gallons per minute,	59,847
Number of steam engines of all classes,	515
Total horse power,	34,570
Number of electric dynamos,	2
Number of air compressors,	28

Report of Explosion of Fire Damp at Buck Mountain Colliery,
Operated by the Mill Creek Coal Company.

About eight o'clock on the morning of the 9th of November, an explosion of gas occurred in the west fourth lift Buck Mountain gangway, killing James Griffiths and fatally injuring six others. Eight were more or less burned or bruised, but have since recovered. Being unable to investigate the cause of the explosion personally, because of indisposition, I had Messrs. Brennan and Maguire investigate it, who reported that the volume of air traveling in the fourth lift gangway was sufficient for all purposes.

The intake air current was from the crop falls, coming down through the first, second and third lifts, and coming down to No. 100 breast, connecting with the third and fourth lifts, crossing the fourth lift gangway to Dog Hole, by means of an over-cast, and west to last cross-hole connecting with gangway, returning through the breasts as shown by the arrows on accompanying tracing. A door was in position between breasts 106 and 107 to force the air current up in the breasts; another between No. 85 and No. 86 breasts, and between Nos. 72 and 73 breasts, which, if kept closed, would keep the air current circulating through all the breasts from Nos. 72 to 110. A few weeks before the accident occurred, John Stevens, the assistant foreman, changed the course of the air current, making a split in No. 100 breast, part passing over the over-cast to Dog Hole and west to face of gangway, returning through breasts coming down No. 101 breast to gangway, and east under over-cast, part going east through regulator put in place at reservation pillar, forming the position of No. 98 breast, passing up No. 97 breast and through the breasts to No. 88. This change, Stevens claimed, was only temporary until a tubing was built across No. 100 breast, connecting with the stump heading on either side of breast.

The gas was ignited in No. 97 breast by Edward Gallagher, a repairman, going up for a plank to block up the road-bed. William Moses, the fire boss, swore that he made an examination of all the living breasts on the morning of the 9th November; found no gas and reported to the men that all was clear. He also made his weekly examination of the abandoned breasts on the 3d of November and found no gas, a record of which he made in a book kept at the colliery for that purpose, according to law. If we are to believe Moses, the gas must have accumulated in No. 97 and neighboring abandoned breasts, between the dates of the 3d and 9th of November, and must have accumulated there by reason of the gangway doors being kept open. This colliery is ventilated by a 16-foot exhaust fan; speed, 90 revolutions, producing 65,000 cubic feet of air per minute; water gauge, 13-10 inches. About 240 men and boys are employed inside at this colliery, and all but 40 or 50 of that number are supplied with ample natural ventilation, which gives the remainder of the men more than 300 cubic feet of air each, which is produced by the fan. I made four visits to this colliery during the year; the last was in July, and always found the volume of air circulating very satisfactorily. Gas was seldom found in any of the workings, unless when the fire boss failed to keep the brattice close enough to the working face, when he would find a little gas in making his morning examination. I have always regarded Buck Mountain colliery as one of the best kept and safest in

the anthracite coal fields, and will bear inspection by the best expert miners in the country. The law prescribes that all accessible abandoned workings shall be kept free from standing gas, but through the neglect of those attending to keeping gangway doors shut, thereby shutting off the air current from circulating through both the living and abandoned workings, causes gas to accumulate, and in the meantime, if a man enters an abandoned breast with a naked lamp and ignites a body of gas, as Edward Gallagher did, no system of inspection can prevent accidents occurring from such causes unless the workmen themselves regard the law.

The explosion was caused by John Stevens making a change in the air current, together with doors being kept open, and Edward Gallagher going up No. 97 abandoned breast, although forbidden to do so by the foreman, Benjamin Evans, unless in company with a fire boss.

That the accumulation of gas in No. 97 breast was caused by Stevens making the change in the return air current is true beyond a question of doubt, and the fact of his making the temporary change instead of permanently constructing the return across No. 100 breast, shows a lack of knowledge of how to ventilate a colliery. If he had built a return under-cast across the bottom of No. 100 breast, it would have cost less and would have kept the current of air up in the abandoned breasts, thus preventing gas from accumulating. Had this been done, there would have been seven fewer fatal accidents to report.

Mine Fire.

On the night of the 17th August, a fire was discovered in the diagonal subterranean slope, Buck Mountain seam, Primrose colliery, causing loss of the lives of William Plomkus, Enoch Plomkus and Charles Gostitus, who were smothered by smoke. These three men were working a double shift, robbing pillars in west counter gangway, east and south 5,400 feet from bottom of slope. After quitting work, they traveled out west to tunnel driven south from bottom of the slope, where they encountered the smoke from the fire, and attempted to travel through this tunnel, but succumbed to the effects of the smoke. The circle with the cross inside on tracing shows where their bodies were found.

No intelligent miner would have attempted to travel through the smoke, but would have retreated to the outlet to surface, which was only 2,500 feet from where they worked to the outcrop, as shown by the red arrow on tracing.

How this fire originated remains a mystery, as no signs of fire or smoke were discovered up to the time that work ceased in the colliery. The alarm of fire was given by the night pumping engineer. When it was discovered that the three men had not arrived home, a party of men, under the leadership of James O'Donnell, mine foreman, entered the mine at the outlet, traveled westward along the gangway to a door a few feet east of where the men were found, which showed that the men did not meet with any smoke or gas until they opened the door. It was the opinion of some that the lamp of a driver, riding up the slope on his mule, might have touched some of the dry timber, which has been the cause of a few mine fires in this district.

The slope, which is over 500 feet deep, was a complete mass of fire, and is permanently destroyed. The fire was sealed up by erecting batteries east of top of slope from gangway to face of breasts, and water raised to a height east of bottom of slope, so as to exclude the air from the fire.

Improvements at Collieries.

Packer No. 2.

A tunnel has been driven from the second west level gangway, Mammoth seam, to the Buck Mountain seam; distance, 250 feet. Also, a tunnel from the fourth west level gangway, Mammoth seam, to the Buck Mountain seam; distance, 284 feet. The Buck Mountain seam is about eight feet thick.

Packer No. 3.

The seven-foot slope has been sunk about 200 feet to the ninth level, and the Buck Mountain slope has been sunk 300 feet to the ninth level. An air shaft was sunk 42 feet from surface to Mammoth seam to ventilate the west counters, and 1,100 feet of speaking tube put in place. A split of air has been taken from the fourth level Mammoth seam, through the tunnel, and down the Buck Mountain slope, which has nearly doubled the volume of air.

Packer No. 4.

This colliery was not in operation during the year. The old breaker was taken down and a large breaker is now nearing completion, the capacity of which will be 3,000 tons daily. A new tubular boiler plant has been erected, having 2,500 horse power. A

mine locomotive track has been built from the breaker to Packer No. 3, a distance of 2,000 feet; also, a track 2,500 feet to Packer No. 2, over which the coal mined at Nos. 2 and 3 will be hauled and prepared at Packer No. 4 new breaker, when the old breakers, Nos. 2 and 3, will be permanently abandoned.

Primrose Colliery.

A slope has been sunk in the basin of the Buck Mountain seam, a distance of 800 feet. From the surface to the top of slope, a bore hole has been put down a distance of 400 feet, through which the hoisting rope and signal wire will pass.

West Shenandoah.

No coal has been shipped from this colliery since the strike. The old breaker was taken down and a large breaker is nearing completion. When finished, all the coal mined from Turkey Run and Kohinoor collieries, together with the coal mined from West Shenandoah colliery, will be prepared at the new breaker, which will have a capacity of 2,500 tons daily.

These collieries, being consolidated, will insure more safety in the final robbing of the different seams, and more coal will be secured from this class of work than if the three breakers were in operation.

Mahanoy City Colliery.

A tunnel has been driven from bottom to top split, Mammoth seam, cutting these two members in the basin north and south dip; length of tunnel, 250 feet.

North Mahanoy Colliery.

A tunnel has been driven to Skidmore seam from Seven-foot seam, and another from bottom split to Skidmore, Yatesville basin; length, 50 feet; vein, 12 feet thick, all coal.

An air tunnel has been driven from bottom to top split, Mammoth seam, at right angles to seams in Yatesville basin; distance, 60 feet.

Tunnel Ridge Colliery.

A tunnel has been driven across the basin from south to north dip, connecting the top members of the Mammoth seam on either side of basin; distance, 160 feet. Also, a tunnel from top split to Buck Mountain seam, south dip; length, about 260 feet.

From second to third lift, a traveling-way for men and mules has been constructed in bottom split of Mammoth seam, a distance of 800 feet, crossing sectionally and diagonally across the angle of dip so as to form a pitch of 25 degrees.

Boston Run Colliery.

A new tender and pump slope, double track, is being sunk and is now down 150 feet; collar, 19 feet, and 8 feet of coal.

A tunnel has been driven from bottom to top split, north dip, third level; distance, 160 feet. Also, a tunnel from bottom split to Buck Mountain seam, north dip; distance, 200 feet.

The Gunboat slope has been sunk from second to third lift; distance, 300 feet.

Airways from third to second lift in top and bottom splits and Seven-foot seam to connect main air hole to fan.

A traveling-way was made across the angle of dip from third to second lift for men and mules, a distance of 650 feet.

St. Nicholas Colliery.

A tunnel has been driven across the basin from bottom split, south dip, to Buck Mountain seam, north dip; distance, 475 feet. At this point, the top split is cut right in the basin. The middle and bottom members of the Mammoth vein, north dip, are cut by this tunnel; the Seven-foot is not workable.

Draper Colliery.

A tunnel has been driven from bottom split of Mammoth to Holmes seam, fourth level, a distance of 250 feet.

Bear Ridge Colliery.

A tunnel has been driven 254 feet south to cut the Mammoth seam, but this seam evidently has not come down low enough, and a slant tunnel will be driven to cut it in the basin.

Shenandoah City Colliery.

A tunnel 118 feet long has been driven from the Buck Mountain seam to the Seven-foot in east gangway, first lift, subterraneous slope.

Examination of Candidates for Mine Foreman's Certificates.

The annual examination for mine foreman's certificates was held in the court house, Pottsville, on the 7th, 8th, 13th and 16th of June.

The examiners were William Stein, Mine Inspector; Robert M. Quin, superintendent; Michael J. Brennan and Michael McCarthy, miners.

The following are the successful candidates who were granted certificates for mine foreman: Morgan Bevan, Gilberton; Archibald Lamb, William Cooper, Benjamin James, Shenandoah; James Alexander, Shenandoah (Brownsville); J. M. Coombs, Mahanoy City; G. D. Kreitzer, Buck Mountain; Thomas E. Davies, Audenreid.

Names of those granted a certificate for assistant mine foreman: J. C. James, Shenandoah; G. Oliver, St. Nicholas.

TABLE I—Showing names of operators, railroads, etc., and location of collieries in the Sixth Anthracite District for the year 1901.

Names of Operators and Collieries.	County.	Name of General Superintendent.	P. O. Address.	Name of Superintendent.	P. O. Address.	Railroad to Mine.
Phila. & Reading Coal & Iron Co.						
Bear Ridge,	Schuylkill, ..	R. C. Luther, ..	Pottsville, ..	John Veith, ..	Pottsville, ..	Phila. & Reading Ry.
Boston Run,	Schuylkill, ..	R. C. Luther, ..	Pottsville, ..	John Veith, ..	Pottsville, ..	Phila. & Reading Ry.
Elliptical,	Schuylkill, ..	R. C. Luther, ..	Pottsville, ..	John Veith, ..	Pottsville, ..	Phila. & Reading Ry.
Elliptical,	Schuylkill, ..	R. C. Luther, ..	Pottsville, ..	John Veith, ..	Pottsville, ..	Phila. & Reading Ry.
Gilbert Mammoth,	Schuylkill, ..	R. C. Luther, ..	Pottsville, ..	John Veith, ..	Pottsville, ..	Phila. & Reading Ry.
Gibberton,	Schuylkill, ..	R. C. Luther, ..	Pottsville, ..	John Veith, ..	Pottsville, ..	Phila. & Reading Ry.
Hammond,	Schuylkill, ..	R. C. Luther, ..	Pottsville, ..	John Veith, ..	Pottsville, ..	Phila. & Reading Ry.
Indian Ridge,	Schuylkill, ..	R. C. Luther, ..	Pottsville, ..	John Veith, ..	Pottsville, ..	Phila. & Reading Ry.
Kinckerbocker,	Schuylkill, ..	R. C. Luther, ..	Pottsville, ..	John Veith, ..	Pottsville, ..	Phila. & Reading Ry.
Kohinoor,	Schuylkill, ..	R. C. Luther, ..	Pottsville, ..	John Veith, ..	Pottsville, ..	Phila. & Reading Ry.
Maple Hill,	Schuylkill, ..	R. C. Luther, ..	Pottsville, ..	John Veith, ..	Pottsville, ..	Phila. & Reading Ry.
North Mahanoy,	Schuylkill, ..	R. C. Luther, ..	Pottsville, ..	John Veith, ..	Pottsville, ..	Phila. & Reading Ry.
Saint Nicholas,	Schuylkill, ..	R. C. Luther, ..	Pottsville, ..	John Veith, ..	Pottsville, ..	Phila. & Reading Ry.
Shenandoah,	Schuylkill, ..	R. C. Luther, ..	Pottsville, ..	John Veith, ..	Pottsville, ..	Phila. & Reading Ry.
Shenandoah City,	Schuylkill, ..	R. C. Luther, ..	Pottsville, ..	John Veith, ..	Pottsville, ..	Phila. & Reading Ry.
Turkey Run,	Schuylkill, ..	R. C. Luther, ..	Pottsville, ..	John Veith, ..	Pottsville, ..	Phila. & Reading Ry.
Tunnel Ridge,	Schuylkill, ..	R. C. Luther, ..	Pottsville, ..	John Veith, ..	Pottsville, ..	Phila. & Reading Ry.
West Shenandoah,	Schuylkill, ..	R. C. Luther, ..	Pottsville, ..	John Veith, ..	Pottsville, ..	Phila. & Reading Ry.
Lehigh Valley Coal Co.						
Packer No. 2,	Schuylkill, ..	W. A. Lathrop, ..	Wilkes-Barre, ..	Osmond Rickert, ..	Lost Creek, ..	Lehigh Valley Railway.
Packer No. 3,	Schuylkill, ..	W. A. Lathrop, ..	Wilkes-Barre, ..	Osmond Rickert, ..	Lost Creek, ..	Lehigh Valley Railway.
Packer No. 4,	Schuylkill, ..	W. A. Lathrop, ..	Wilkes-Barre, ..	Osmond Rickert, ..	Lost Creek, ..	Lehigh Valley Railway.
Packer No. 5,	Schuylkill, ..	W. A. Lathrop, ..	Wilkes-Barre, ..	Osmond Rickert, ..	Lost Creek, ..	Lehigh Valley Railway.
Primrose,	Schuylkill, ..	W. A. Lathrop, ..	Wilkes-Barre, ..	Osmond Rickert, ..	Lost Creek, ..	Lehigh Valley Railway.
The Cross Creek Coal Company.						
Oneida No. 1 slope,	Schuylkill, ..	L. C. Smith, ..	Driftton, ..	E. Kudlick, ..	Driftton, ..	Del. Sus. & Schuyl. Ry.
Oneida No. 2 slope,	Schuylkill, ..	L. C. Smith, ..	Driftton, ..	E. Kudlick, ..	Driftton, ..	Del. Sus. & Schuyl. Ry.
Oneida No. 3 slope,	Schuylkill, ..	L. C. Smith, ..	Driftton, ..	E. Kudlick, ..	Driftton, ..	Del. Sus. & Schuyl. Ry.
Lehigh & Wilkes-Barre Coal Co.						
Honey Brook No. 4,	Schuylkill, ..	W. J. Richards, ..	Wilkes-Barre, ..	Geo. B. Hadesky, ..	Audenreid, ..	Central Railway of N. J.
Honey Brook No. 5,	Schuylkill, ..	W. J. Richards, ..	Wilkes-Barre, ..	Geo. B. Hadesky, ..	Audenreid, ..	Central Railway of N. J.
MHI Creek Coal Company.						
Vulcan,	Schuylkill, ..	T. D. Jones, ..	New Boston, ..	Elmer Jones, ..	New Boston, ..	Lehigh Valley Railway.

Buck Mountain,	Schuylkill, ..	T. D. Jones,	New Boston,	Elmer Jones,	New Boston,	Lehigh Valley Railway.
Thomas Coal Company, Kehley's Run,	Schuylkill, ..	.....	.....	Thomas Baird,	Shenandoah,	Phila. & Reading Ry.
Lentz and Company, Park No. 2,	Schuylkill, ..	Wm. Lentz,	Mauch Chunk,	Edward Resse,	Park Place,	Lehigh Valley Railway.
Silver Brook Coal Company, Silver Brook,	Schuylkill, ..	T. M. Righter, ..	Mount Carmel, ..	James Long,	Silver Brook,	L. V. Ry. & P. & R. Ry.
Susquehanna Coal Company, William Penn,	Schuylkill, ..	Morris Williams, ..	Wilkes-Barre, ..	A. E. Rhoades, ...	Shaft P. O.,	Penna. Railway.
Cambridge Coal Company, Cambridge,	Schuylkill, ..	.....	.....	John C. McGinnis, ..	Frackville,	Phila. & Reading Ry.
M. A. Gerber and S. A. Seaman, Furnace,	Schuylkill, ..	.....	.....	Mahlon Gerber, ...	Tamaqua,	Phila. & Reading Ry.
Lawrence Coal Company, Lawrence,	Schuylkill, ..	Walter S. Shaefer, ..	Pottsville,	William J. Miller, ..	Frackville,	Phila. & Reading Ry.
Stoddart Coal Company, Stoddart washery,	Schuylkill, ..	.....	.....	.....	.....	Phila. & Reading Ry.
Brookwood Coal Company, Brookwood washery,	Schuylkill, ..	.....	.....	Henry Fryer,	Minersville,	Phila. & Reading Ry.
W. R. McTurk and Company, Girardville washery,	Schuylkill, ..	W. R. McTurk, ..	320 Walnut St., Phila.	John Scot,	Shenandoah,	Phila. & Reading Ry.
Carson Coal Company, Carson washery,	Schuylkill, ..	.....	.....	H. C. Rissinger, ..	Audensreid,	Central Railroad of N. J
North American Coal Company, No. 1 Schuylkill,	Schuylkill, ..	A. R. Anthony, ..	Wilkes-Barre, ..	James I. Shacky, ..	Shaft P. O.,	Phila. & Reading Ry.

TABLE II.—Gives the total number of tons of coal mined in each colliery, number of days worked, number of employes, number of persons killed and injured, number of kegs of powder, etc., used in the Sixth Anthracite District for the year ending December 31, 1900.

Names of Operators and Collieries.	County.	Sixth Anthracite District										
		Shipment of coal in tons by fall or otherwise.	Number of tons used for steam and heat at colliery.	Sold to local trade and used by employes—tons.	Total production of coal in tons.	Number days worked.	Number persons employed.	Number fatal accidents.	Number non-fatal accidents.	Number kegs powder used.	Number pounds of dynamite used.	Number horses and mules.
Phila. & Reading Coal and Iron Co.	Schuylkill,	88,772.07	18,064	1,082	107,918.07	171.75	255	.....	.....	687	4,039	39
Bear Ridge,	Schuylkill,	11,159.4	23,349	321	135,294.00	172.15	436	1	.....	1,581	28,877	35
Boston Run,	Schuylkill,	462,313.12	14,556	45	176,914.12	176.40	481	.....	5	2,587	24,290	53
Draper,	Schuylkill,	314,347.12	30,303	468	335,708.12	180.45	1,258	1	.....	11,791	3,588	110
Eliangowan,	Schuylkill,	170,400.12	16,669	2,698	219,826.05	166.55	594	.....	3	1,279	31,171	56
Girard Mammoth,	Schuylkill,	130,802.08	25,466	3,936	160,294.08	167.95	479	.....	2	2,730	13,572	61
Gilberton,	Schuylkill,	193,426.17	18,948	9,123	221,600.17	172.40	644	.....	6	4,668	4,158	57
Hammon,	Schuylkill,	208,912.07	21,684	6,607	237,203.07	167.70	806	.....	1	5,598	27,779	58
Ida B. Ridge,	Schuylkill,	111,796.15	15,158	.....	126,954.15	160.50	502	1	2	2,337	2,083.75	47
Kleckerbocker,	Schuylkill,	202,563.13	40,081	27,352	270,946.13	176.90	571	1	3	6,003	9,348.50	56
Kobinor,	Schuylkill,	414,727.05	22,392	18	437,137.05	176.85	1,249	.....	1	12,413	10,578	102
Mahanoy City,	Schuylkill,	278,417.12	42,921	.....	223,197.12	176.40	893	4	8	7,589	10,897	91
Maple Hill,	Schuylkill,	184,331.19	31,988	221	217,138.19	177.05	668	1	10	4,585	20,956	80
North Mahanoy,	Schuylkill,	268,131.17	20,613	1,024	289,785.17	177.50	809	.....	3	8,272	7,700	81
Saint Nicholas,	Schuylkill,	163,635.19	48,163	18,014	229,800.19	170.15	735	.....	1	2,208	4,471	56
Suffolk,	Schuylkill,	114,323.13	9,272	.....	124,198.13	162.40	489	.....	5	7,505	22,786	77
Shenandoah City,	Schuylkill,	500,093.13	54,016	12	541,109.13	171.50	859	.....	2	14,500	14,500	47
Turkey Run,	Schuylkill,	34,049.13	26,304	7	120,556.13	128.90	532	.....	2	2,986	4,688	47
Tunnel Ridge,	Schuylkill,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
West Shenandoah,	Schuylkill,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Total, .....	.....	3,587,082.13	513,096	73,536	4,173,714.13	168.95	12,242	39	72	90,829	240,546.25	1,196

Lehigh Valley Coal Company.										
Packer No. 2,	Schuykill,	13, 192.06	594.07	37, 313.05	37.35	86	.....	.....	523	10, 823.50
Packer No. 3,	Schuykill,	19, 608.10	1, 476.08	251, 733.10	199.6	531	2	4	2, 920	7, 521
Packer No. 4,	Schuykill,	22, 236.10	3.00	22, 244.06	8	372	.....	.....	119	1, 321.50
Packer No. 5,	Schuykill,	29, 238.00	4, 832.04	452, 048.03	200.2	663	.....	.....	4, 022	28, 383.50
Primrose,	Schuykill,	9, 476.00	2, 438.10	110, 048.05	141	348	4	5	1, 354	6, 607.50
Total, .....	.....	646, 143.08	9, 302.14	646, 337.07	145	2, 002	6	13	9, 538	54, 812
Coxe Brothers Company, Incorporated.										
Oneida No. 1 slope,	Schuykill, .....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Oneida No. 2 slope,	Schuykill, .....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Oneida No. 3 slope,	Schuykill, .....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Total, .....	.....	220, 061	2, 942	270, 547	244	612	1	5	4, 990	15, 640
Lehigh and Wilkes-Barre Coal Co.										
Aulcomb No. 4,	Schuykill,	149, 302.08	2, 345.12	175, 812	159.8	653	2	3	2, 806	23, 592
Honey Brook No. 5,	Schuykill,	195, 408.05	.....	241, 633.05	180.9	737	2	2	3, 540	47, 088
Total, .....	.....	344, 910.13	2, 345.12	417, 535.05	170.3	1, 390	4	5	7, 346	70, 680
Mill Creek Coal Company.										
Vulcan,	Schuykill,	155, 022	.....	169, 484	176.2	363	2	4	4, 690	2, 700
Buck Mountain,	Schuykill,	164, 555	16, 800	181, 355	172.4	379	9	10	4, 441	900
Total, .....	.....	319, 577	31, 262	350, 839	174	742	11	14	9, 131	3, 600
Thomas Coal Company.										
Kehley's Run,	Schuykill,	80, 557	1, 629	82, 632	208	286	1	2	1, 500	11, 700
Lentz and Company.										
Park No. 2,	Schuykill,	281, 102	35, 859	317, 959	168	770	2	7	6, 304	3, 052
Silver Brook Coal Company.										
Silverbrook,	Schuykill,	136, 867	11, 000	149, 257	192.60	468	1	.....	1, 723	11, 700
Susquehanna Coal Company.										
William Penn,	Schuykill,	188, 979	39, 545	230, 243	179.45	821	4	9	7, 326	21, 300
Cambridge Coal Company.										
Cambridge,	Schuykill,	40, 005	2, 000	44, 161	169.2	185	.....	1	1, 400	2, 500
M. A. Gerber and S. A. Seaman.										
Furnace,	Schuykill,	40, 822	11	42, 480	180.4	109	.....	.....	755	15, 500
Lawrence Coal Company.										
Lawrence,	Schuykill,	82, 392	18, 250	102, 543	225	350	4	2	840	48, 000
Stoddard Coal Company.										
Stoddard washery,	Schuykill,	48, 644	2, 450	51, 094	175.6	71	.....	.....	.....	.....

TABLE II—Continued.

Names of Operators and Collieries.	County.	Shipments of coal in tons by rail or otherwise.	Number of tons used for steam and heat at colliery.	Sold to local trade and used by employes—tons.	Total production of coal in tons.	Number days worked.	Number persons employed.	Number fatal accidents.	Number non-fatal accidents.	Number kegs powder used.	Number pounds of dynamite used.	Number horses and mules.
Brookwood Coal Company. Brookwood washery,	Schuylkill,	41,940	1,331	.....	43,271	134	35	.....	.....	.....	.....	2
W. R. McTurk and Company. Ghardville washery,	Schuylkill,	64,808	1,709	.....	66,517	192	66	.....	.....	.....	.....	.....
Carson Coal Company. Carson washery,	Schuylkill,	25,125	1,500	.....	26,625	1,327	127	1	.....	.....	.....	5
North American Coal Company. No. 1 Schuylkill washery,	Schuylkill,	4,590	176	.....	4,766	22	52	.....	.....	.....	.....	.....
Grand total, .....	.....	6,053,635.14	870,188.5	96,747.6	7,020,571.5	6,473.6	20,278	65	130	141,682	499,060	2,009

TABLE II—Continued.

Name of Operators.	County.	Number of Boilers.			Total horse power.			Locomotives.			Number steam engines of all classes.	Total horse power.	Number pumps delivering water to surface.	Capacity in gallons per minute.	Quantity delivered to surface per minute—gallons.	Number electric dynamos.	Number air compressors.
		Cylindrical.	Horse power.	Tubular.	Horse power.	Total horse power.	Steam.	Air.	Electric.								
Phila. & Reading Coal and Iron Co., ..	Schuylkill	193	5,172	164	22,442	27,614	13	2	.....	156	12,147	72	52,750	20,243	.....	.....	24
Lehigh Valley Coal Company,	Schuylkill	98	4,553	20	9,677	7,228	9	.....	.....	175	10,933	12	6,595	5,579	.....	.....	1
Lehigh Valley Coal Company, Incorporated,	Schuylkill	21	1,174	13	1,581	2,755	4	2	.....	25	1,720	19	8,175	7,568	.....	.....	1
Lehigh and Wilkes-Barre Coal Co.,	Schuylkill	79	2,310	25	2,270	4,580	7	.....	.....	23	1,545	8	.....	13,947	.....	.....	1
Mill Creek Coal Company,	Schuylkill	52	2,960	4	520	3,550	3	2	.....	37	2,910	2	2,000	1,300	.....	.....	1
Thomas Coal Company,	Schuylkill	24	650	.....	.....	650	1	.....	.....	9	620	2	1,000	1,000	.....	.....	1
Lentz and Company,	Schuylkill	16	640	8	2,000	2,640	2	.....	.....	.....	NO	3	4,800	.....	.....	.....	1
Silver Brook Coal Company,	Schuylkill	2	.....	8	1,350	1,350	.....	.....	.....	18	1,682	13	11,550	6,200	.....	.....	1
Susquehanna Coal Company,	Schuylkill	35	700	8	1,000	1,700	1	.....	.....	19	1,380	5	3,000	2,000	.....	.....	1
Cambria Coal Company,	Schuylkill	4	80	1	45	135	1	.....	.....	6	135	.....	.....	.....	.....	.....	1
M. A. Gerber and S. A. Seaman,	Schuylkill	12	300	4	230	310	.....	.....	.....	6	150	.....	.....	.....	.....	.....	1
Lawrence Coal Company,	Schuylkill	6	80	14	2,100	2,700	.....	.....	.....	12	213	3	5,000	2,000	.....	.....	1
Stoddard Coal Company,	Schuylkill	4	72	.....	.....	352	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	1
Brookwood Coal Company,	Schuylkill	.....	.....	.....	.....	400	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1
W. R. McTurk and Company,	Schuylkill	1	80	.....	.....	250	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1
Carson Coal Company,	Schuylkill	.....	.....	.....	.....	250	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1
North American Coal Company,	Schuylkill	.....	.....	.....	.....	600	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1
Grand total,	.....	550	19,079	281	37,995	57,074	42	6	.....	515	34,570	140	94,870	59,847	.....	.....	28

TABLE III—Showing the number of each class of employees at each colliery in the Sixth Anthracite District during the year 1900.

Names of Operators and Collieries.	County.	Occupations of Persons Employed Inside.										Occupations of Persons Employed Outside.							Grand total, inside and outside.
		Occupations of Persons Employed Inside.										Occupations of Persons Employed Outside.							
		Inside foreman or mine boss.	Fire bosses.	Miners.	Miners' laborers.	Drivers and runners.	Door boys and helpers.	All other employes.	Total inside.	Outside foreman.	Blacksmiths and carpenters.	Engineers and firemen.	State pickers.	Superintendents, bookkeepers and clerks.	All other employes.	Total outside.			
Phila. & Reading Coal & Iron Co.	Schuylkill	1	2	29	14	11	4	67	128	1	4	15	58	2	56	137	265		
Pottsville	Schuylkill	1	4	82	80	19	3	75	264	4	4	24	69	2	71	192	450		
Boston Run	Schuylkill	1	6	110	24	26	2	120	289	6	6	17	80	2	87	269	481		
Draper	Schuylkill	1	9	299	188	51	6	103	658	7	7	15	206	1	117	355	1,016		
Ellangowan	Schuylkill	1	1	52	19	17	3	46	250	1	8	24	100	1	103	247	258		
Girard Mammoth	Schuylkill	1	1	75	26	22	3	105	243	1	11	28	101	3	88	231	479		
Gilberton	Schuylkill	1	1	96	29	35	8	145	283	3	3	28	119	4	101	263	644		
Hammond	Schuylkill	1	4	173	118	21	11	112	449	2	9	22	194	5	125	357	806		
Indian Ridge	Schuylkill	1	8	148	53	39	8	68	312	1	7	18	103	2	105	262	506		
Knickerbocker	Schuylkill	1	3	113	39	34	12	119	397	1	7	18	103	2	110	190	502		
Kohinoor	Schuylkill	1	5	173	55	34	12	119	397	1	7	18	103	2	110	190	502		
Mahanoy City	Schuylkill	1	12	416	131	73	22	160	817	2	8	25	253	3	135	432	874		
Maple Hill	Schuylkill	1	3	211	119	35	22	204	598	2	9	24	164	3	93	256	593		
North Mahanoy	Schuylkill	1	1	105	81	22	14	204	436	2	9	24	164	3	93	256	593		
South Mahanoy	Schuylkill	1	1	225	98	24	11	189	556	2	7	17	86	3	90	243	596		
Sears Nicholas	Schuylkill	1	6	205	142	24	12	89	480	2	7	17	86	3	90	243	596		
Suffolk	Schuylkill	1	2	92	91	23	9	112	364	1	1	3	26	1	28	60	135		
Shenandoah City	Schuylkill	1	3	231	82	48	16	183	569	1	1	3	26	1	28	60	135		
Turkey Run	Schuylkill	1	5	127	61	24	11	98	327	1	1	3	26	1	28	60	135		
Tunnel Ridge	Schuylkill	1	4	127	61	24	11	98	327	1	1	3	26	1	28	60	135		
West Shenandoah	Schuylkill	1	4	127	61	24	11	98	327	1	1	3	26	1	28	60	135		
Total		33	103	2,996	1,554	550	180	2,273	7,689	33	138	498	2,209	56	1,709	4,553	12,242		

Lehigh Valley Coal Company.													
1	3	19	20	5	48	1	5	8	1	23	88
1	103	16	23	10	93	331	1	9	17	66	3	97	182
1	17	10	1	1	13	2	371	372
1	6	146	85	30	3	373	1	14	16	119	3	242	665
1	3	90	20	24	8	192	1	8	12	58	2	135	348
Total,													
5	17	375	242	77	21	266	5	62	76	243	10	603	2,092
Coxe Brothers Co., Incorporated.													
Oneida No. 1 slope,													
Oneida No. 2 slope,													
Oneida No. 3 slope,													
Total,													
3	152	38	30	11	90	1	13	31	105	1	137	288
Lehigh & Wilkes-Barre Coal Co.													
3	2	167	98	19	12	122	1	9	85	100	1	84	239
3	2	94	45	11	7	256	4	29	25	92	7	132	289
Honey Brook No. 5,													
6	4	261	143	30	19	408	5	98	60	192	8	216	519
Total,													
Mill Creek Coal Company.													
1	1	147	39	12	6	13	1	6	16	87	4	30	144
1	1	143	52	21	3	19	1	7	25	79	5	22	139
Buck Mountain,													
2	2	290	91	33	9	32	2	13	41	166	9	52	283
Total,													
Thomas Coal Company.													
3	1	70	57	10	1	12	1	3	8	76	2	42	132
Kehley's Run,													
Lentz and Company.													
2	*2	296	142	47	6	98	1	19	24	109	4	80	237
Park No. 2,													
Silver Brook Coal Company.													
3	1	51	23	14	7	16	3	12	24	173	4	137	353
Silverbrook,													
Susquehanna Coal Company.													
1	5	212	84	19	4	215	1	15	23	112	6	124	281
William Penn,													
Schuylkill,													
Cambridge Coal Company.													
1	27	20	4	30	1	2	5	27	1	17	53
Cambridge,													
M. A. Gerber and S. A. Seaman.													
1	26	6	4	9	1	3	9	27	1	22	63
Furnace,													
Lawrence Coal Company.													
1	2	64	53	13	8	37	1	6	21	86	2	56	172
Lawrence,													
Stoddart Coal Company.													
.....	1	2	10	14	1	43	71
Stoddart washery,													

TABLE III—Continued.

Names of Operators and Collieries.	County.	Occupations of Persons Employed Inside.							Occupations of Persons Employed Outside.							Grand total, inside and outside.	
		Inside foreman or mine boss.	Fire bosses.	Miners.	Miners' laborers.	Drivers and runners.	Door boys and helpers.	All other employes.	Total inside.	Outside foreman.	Blacksmiths and carpenters.	Engineers and firemen.	State pickers.	Superintendents, bookkeepers and clerks.	All other employes.		Total outside.
Brookwood Coal Company.	Schuykill,	62	137	4,761	2,456	831	296	3,486	11,959	60	338	756	3,628	114	3,383	8,279	20,278
Brookwood washery,	Schuykill,														16	35	35
W. R. McTurk and Company.	Schuykill,	1		1	3				5	1	5	5	8	2	40	61	66
Girardville washery,	Schuykill,																
Carson Coal Company.	Schuykill,														58	127	127
Carson washery,	Schuykill,																
North American Coal Company.	Schuykill,														31	52	52
No. 1 Schuykill washery,	Schuykill,																
Grand total, .....	.....	62	137	4,761	2,456	831	296	3,486	11,959	60	338	756	3,628	114	3,383	8,279	20,278

TABLE III—Continued.

Name of Operators.	County.	Number of Days Worked Each Month in Breaker.												Total.
		January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	
Philadelphia and Reading Coal and Iron Co.,	Schuylkill	18.5	11.7	14.3	10.1	11.8	16.1	13.2	19	12.7	9.6	19.1	18.8	167.9
High Valley and Coal Company,	Schuylkill	18.2	12.5	9.1	7.3	13.9	23.2	18	19.4	16	9	18.2	19	144.9
Coxe Brothers and Company Incorporated,	Schuylkill	29	21	13	16	23	21	23	25	21	9	22	21	244
Lehigh and Wilkes-Barre Coal Company,	Schuylkill	19.3	14.3	15.3	11.5	14.8	14.7	15.00	18.3	10.4	.....	18	18.5	175.3
Mill Creek Coal Company,	Schuylkill	20	10.40	11.45	8.95	11.50	19.85	16.95	21.60	13.15	2.35	18.75	19.35	174.8
Thomas Coal Company,	Schuylkill	20.5	10.1	7.7	8.3	12.5	19.1	16.5	21	15.2	2.6	20.2	22	208
Lentz and Company,	Schuylkill	16.7	10.1	14.5	16.6	17.5	17.6	18	20.3	10.7	2.2	21.3	18	168
Silver Brook Coal Company,	Schuylkill	18.50	15.50	17.50	16.70	14.85	16.60	16.95	17.50	12.15	.....	16	17.20	192.5
Susquehanna Coal Company,	Schuylkill	16.1	14.50	15	10.8	12	14.9	13.9	18.1	13.2	13.1	18.8	17.8	169.2
Cambridge Coal Company,	Schuylkill	19	13.50	17	13	12.60	17	16.60	18.3	13	2.50	19.1	18.50	189.4
M. A. Gerber and S. A. Seaman,	Schuylkill	24	18	18	17	15	18	18	25	19	2	26	23	250
Lawrence Coal Company,	Schuylkill	13.9	13.5	13.9	13.1	4.8	18.2	18.3	10.2	1.8	.....	14.1	13	141.9
Stoddart Coal Company,	Schuylkill	23	15	14	12	13	13	17	19	13	.....	19	15	192
Brookwood Coal Company,	Schuylkill	13.4	.....	20	19	13	19	17	13	18	.....	.....	15	192
W. C. Bryson Company,	Schuylkill	.....	.....	6	9.5	10.3	11.2	14.8	18	10.3	.....	.....	.....	132.7
Curson Coal Company,	Schuylkill	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
North American Coal Company,	Schuylkill	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Grand total and average,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	*180

*Average.

TABLE IV.—List of fatal accidents that occurred in and about the mines of the Sixth Anthracite District for the year ending December 31, 1900.

Date of accident.	Name of Person.	Occupation.	Age.	Married or single.	Number of widows.	Number of orphans.	Name of Colliery.	County.	Nature and Cause of Accident in Brief.
Jan. 1	George Shredaifsky, ...	Miner,	24	M.	1	1	Maple Hill,	Schuylkill, ...	Leg fractured and back injured by fall of coal. He was barring coal down when a piece fell on him.
2	Enoch Yackamoris,	Miner,	35	M.	1	1	Maple Hill,	Schuylkill, ...	Was working in heading, Buck Mountain gangway; prop gave way, coal rushed on him, suffocating him.
12	John Tomishonis,	Miner,	30	M.	1	4	Audenreid No. 4,	Schuylkill, ...	Fell down a breast chute, a distance of 80 feet.
13	William Mensell,	Miner,	45	M.	1	4	Park No. 3,	Schuylkill, ...	Fall of top rock.
17	Enoch Galinas,	Miner,	38	M.	1	4	William Penn,	Schuylkill, ...	While leading a car a stone fell from the strapping on him.
17	Matis Cartridge,	Laborer,	43	M.	1	4	Audenreid No. 4,	Schuylkill, ...	Caught by fan shaft; suction of fan drew his coat against shaft.
19	John Murphy,	Watchman,	54	M.	1	1	Lawrence,	Schuylkill, ...	Squeezed between car and gangway timber.
19	Andrew Postera,	Miner,	32	M.	1	3	Honey Brook No. 5,	Schuylkill, ...	By fall of coal.
20	George Mozikus,	Laborer,	28	M.	1	3	Park No. 3,	Schuylkill, ...	By fall of coal.
22	John Dominick,	Miner,	37	S.	3	3	Primrose,	Schuylkill, ...	Dumper running down dirt bank plane.
23	Claude Fischer,	Dirtman,	18	S.	3	3	North Mahanoy,	Schuylkill, ...	Dumper running down dirt bank plane.
23	Max Vrauch,	Dirtman,	24	S.	3	3	North Mahanoy,	Schuylkill, ...	Burnt by powder.
23	Henry Redwinger,	Asst. carpenter,	24	S.	3	3	Buck Mountain,	Schuylkill, ...	Explosion of gas.
23	Peter Redwinger,	Miner,	39	M.	1	3	Suffolk,	Schuylkill, ...	Explosion of gas.
26	George Shields,	Miner,	24	S.	1	3	Packer No. 3,	Schuylkill, ...	Explosion of gas.
26	Zuko Sogawnskie,	Leader,	24	S.	1	3	Packer No. 3,	Schuylkill, ...	Piece of broken bank rolled down on him.
28	Peter Beby,	Miner,	29	M.	1	1	Carson washery,	Schuylkill, ...	Knocked down by empty car running from breaker.
29	Michle Bressback,	Laborer,	43	S.	1	1	North Mahanoy,	Schuylkill, ...	Keg of powder ignited by spark from his lamp.
April 14	John Umberger,	Imp. carpenter,	50	M.	1	1	North Mahanoy,	Schuylkill, ...	Explosion of dynamite while thawing it with his lamp.
20	Jas. De Frehn,	Miner,	47	M.	1	3	Roston Run,	Schuylkill, ...	Explosion of dynamite while thawing it with his lamp.
4	Jacob Kleinovich,	Miner,	37	M.	1	2	Suffolk,	Schuylkill, ...	Explosion of dynamite while thawing it with his lamp.
4	Joseph Banks,	Miner,	42	M.	1	5	Buck Mountain,	Schuylkill, ...	Explosion of dynamite while thawing it with his lamp.
11	John Flynn,	Tripman,	19	S.	3	3	Knickerbocker,	Schuylkill, ...	Locomotive ran over him.
11	Mate W.asser,	Laborer,	29	S.	3	3	William Penn,	Schuylkill, ...	Fall of coal.
10	John Savage,	Miner,	37	M.	1	3	Kohinoor,	Schuylkill, ...	Fall of coal.

June	23	Ben Lipp,	Miner,	22	.....	Vulcan,	Schuylkill,	Run over by cars in main hoisting slope.
July	23	Strey Minko,	Miner,	22	.....	Maple Hill,	Schuylkill,	Fall of coal.
	25	Michel Klokas,	Miner,	37	.....	Indian Ridge,	Schuylkill,	Fall of coal.
	26	Thomas Campbell,	Scraper,	36	M. 1	West Shenandoah,	Schuylkill,	Caught in rush of coal at breast battery.
	30	Thomas McHale,	Miner,	41	M. 1	Maple Hill,	Schuylkill,	Burned by powder ignited by a spark from lamp.
Aug.	1	Bastrin Rezzutto,	Miner,	37	M. 1	Honey Brook No. 5,	Schuylkill,	Fell down stripping bank 80 feet.
	11	Joseph Yucanbey,	Slate picker,	14	S. 5	Indian Ridge,	Schuylkill,	Fell against breaker machinery.
	31	Alex. Parliskie,	Miner,	28	S. 1	West Shenandoah,	Schuylkill,	Fall of coal.
	3	Jacob Mutulis,	Miner,	41	M. 1	Vulcan colliery,	Schuylkill,	Fall of coal.
	4	William Taylor,	Scraper,	16	S. 5	Maple Hill,	Schuylkill,	Fall of coal.
	9	Ant Kokus,	Miner,	32	S. 1	Lawrence,	Schuylkill,	Fought by scraper cog wheel.
	16	Victor Burchill,	Miner,	38	M. 1	Lawrence,	Schuylkill,	Burned by powder.
	16	Humphrey Coxon,	Miner,	44	M. 1	Indian Ridge,	Schuylkill,	Fall of coal.
	17	Peter Hoodock,	Miner,	38	M. 1	Primrose,	Schuylkill,	Suffocated by smoke from mine fire.
	17	William Piotniks,	Miner,	28	S. 1	Primrose,	Schuylkill,	Suffocated by smoke from mine fire.
	17	Brook Gonius,	Miner,	28	S. 1	Primrose,	Schuylkill,	Suffocated by smoke from mine fire.
	17	Joseph Lezesky,	Miner,	23	S. 1	Primrose,	Schuylkill,	Suffocated by smoke from mine fire.
	27	Jasrah Lezesky,	Miner,	23	S. 1	Primrose,	Schuylkill,	Suffocated by smoke from mine fire.
Sept.	26	William Kousskie,	Miner,	30	M. 1	Indian Ridge,	Schuylkill,	Fall of slate.
	26	Harvey Mullin,	Driver,	16	S. 1	Indian Ridge,	Schuylkill,	Crushed between car and breaker timber.
	26	George Marliana,	Miner,	30	S. 1	Indian Ridge,	Schuylkill,	Fall of coal.
Nov.	9	Edward Gallagher,	Roadman,	60	M. 1	Buck Mountain,	Schuylkill,	Burned by explosion of gas.
	9	James Griffiths,	Miner,	41	M. 1	Buck Mountain,	Schuylkill,	Burned by explosion of gas.
	9	John McGlynn,	Patcher,	16	S. 1	Buck Mountain,	Schuylkill,	Burned by explosion of gas.
	9	Chas. Jones,	Miner,	40	M. 1	Buck Mountain,	Schuylkill,	Burned by explosion of gas.
	9	Ferdinand Lenordle,	Miner,	48	M. 1	Buck Mountain,	Schuylkill,	Burned by explosion of gas.
	9	David Lenordle,	Miner,	48	M. 1	Buck Mountain,	Schuylkill,	Burned by explosion of gas.
	12	Joseph Sedatus,	Miner,	58	M. 1	Buck Mountain,	Schuylkill,	Burned by explosion of gas.
	12	John W. Karkis,	Miner,	28	M. 1	William Penn,	Schuylkill,	Fall of coal.
	15	Steve Postick,	Miner,	38	M. 1	William Penn,	Schuylkill,	Fatally injured by premature blast.
	15	Pat Kennedy,	Dirman,	26	M. 1	Tunnel Ridge,	Schuylkill,	Car ran over him.
	22	Oscar Wentz,	Car loader,	44	S. 1	Saint Nicholas,	Schuylkill,	Fall of coal.
	27	John Nicholas,	Miner,	30	M. 1	Slope No. 1, Oneida,	Schuylkill,	Crushed between car and breaker chute.
	28	Alex. Stauk,	Miner,	30	M. 1	Tunnel Ridge,	Schuylkill,	By an explosion of a blast.
	28	Carl Mencavae,	Miner,	34	M. 1	Maple Hill,	Schuylkill,	Fall of slate.
	28	Carl Althoss,	Miner,	34	M. 1	Maple Hill,	Schuylkill,	Fall of slate.
Dec.	11	Metro Dunch,	Hitcher,	42	M. 1	Maple Hill,	Schuylkill,	Fall of slate.
	13	Joe Chekerskie,	Miner,	26	S. 1	Silver Brook,	Schuylkill,	Fall of slate.
	17	Martin McGuire,	Miner,	41	M. 1	Silver Brook,	Schuylkill,	Fall of slate.
	17	Martin McGuire,	Miner,	49	M. 1	Indian Ridge,	Schuylkill,	Fall of slate.

TABLE V.—List of non-fatal accidents that occurred in and about the mines of the Sixth Anthracite District for the year ending December 31, 1900.

Date of accident.	Name of Person Injured.		Name of Colliery.	Location—County.	Nature and Cause of Accident in Brief.	
	Age.	Married.				
Jan.	4	James Bowman,	Packer No. 4,	Schuylkill,	Fell at chute while tearing it down.	
	6	William Mitaeka,	Lawrence,	Schuylkill,	Back and leg hurt by fall of top coal.	
	8	Fred Noll,	Boston Run,	Schuylkill,	Fall of coal.	
	9	Charles Steponiowski,	Mahanoy City,	Schuylkill,	Fall of coal.	
	12	John Grigas,	St. Nicholas,	Schuylkill,	A spark from his lamp ignited a keg of powder.	
	12	Hugh Shukus,	St. Nicholas,	Schuylkill,	Spark from his lamp ignited a keg of powder.	
	13	William Morayvetch,	Hammond,	Schuylkill,	Hand and face slightly burned by gas.	
	13	William Williams,	Hammond,	Schuylkill,	Hand and face slightly burned by gas.	
	16	Richard Williams,	Indian Ridge,	Schuylkill,	Hand and face slightly burned by gas.	
	18	Mike Mussencavage,	Indian Ridge,	Schuylkill,	Hand and face slightly burned by gas.	
	22	John Hubbell,	Indian Ridge,	Schuylkill,	Hand and face slightly burned by gas.	
	23	Frank Mitchell,	Suffolk,	Schuylkill,	Hand and face slightly burned by gas.	
	23	Frank Mitchell,	Suffolk,	Schuylkill,	Hand and face slightly burned by gas.	
	26	Wm. Cheslovage,	St. Nicholas,	Schuylkill,	Both legs broken; fall of coal.	
	Feb.	1	Frank Shultz,	West Shenandoah,	Schuylkill,	Two ribs broken; fall of coal.
		1	Patrick Shaughnessy,	Elliangowan,	Schuylkill,	Thigh and body bruised; caught between railroad cars.
		2	Joseph Herman,	Park No. 2,	Schuylkill,	Hip and back injured; lump of coal rolled on him.
		3	William Malis,	Boston Run,	Schuylkill,	Arm fractured; piece of rock struck him.
8		Marlin Howell,	Elliangowan,	Schuylkill,	Head, body and legs bruised; fall of coal.	
9		Stephen Drogawick,	Primrose,	Schuylkill,	Yield, pen and leg of foot.	
10		Henry Hawley,	Oradale,	Schuylkill,	Fingers crushed by lead machinery.	
14		Henry Hawley,	Cambridge,	Schuylkill,	Loss of eye and compound fracture of skull; fall of coal.	
15		Peter Ward,	Primrose,	Schuylkill,	Leg broken; piece of rock rolled down the breast and struck him.	
16		John Donohue,	West Shenandoah,	Schuylkill,	Leg severely torn; dumper ran over him on dirt bank.	
19		Robert Harrison,	Kehley's Run,	Schuylkill,	While pushing dumper his knee cap was injured.	
19		William Buskey,	Knickerbocker,	Schuylkill,	Arm, leg and head injured; fell under cars.	
22		Samuel Comley,	Tunnel Ridge,	Schuylkill,	Forefinger injured by machinery.	
23		John Murphy,	Packer No. 3,	Schuylkill,	Arm broken; struck by switch lever.	
23		Martin Borax,	North Mahanoy,	Schuylkill,	Arm and arm hurt; struck by dumper.	
March	1	Stephen McKeon,	Gilberton,	Schuylkill,	Burned slightly about face and hands by gas.	
	1	Stephen McKeon,	North Mahanoy,	Schuylkill,	Face slightly burned; explosion of gas.	
	7	Joseph Cottle,	St. Nicholas,	Schuylkill,	Leg broken; fall of slate.	
	7	Emil Wendt,	North Mahanoy,	Schuylkill,	Squeezed on the back and body between door frame and car.	

	7	George Bolems,	25	North Mahanoy,	Schuylkill,	Hands and neck slightly burned by a powder charge.
	10	Jos. Martusewicz,	24	William Penn,	Schuylkill,	Burned on face and hands; premature blast.
	11	George Zabar,	29	William Penn,	Schuylkill,	Burned under same conditions.
	11	Jos. Sokusky,	23	Kebley's Run,	Schuylkill,	Leg broken; fall of coal.
	13	Arthur Goyda,	30	Park No. 2,	Schuylkill,	Leg broken; fall of slate.
	14	Anthony Sevitsky,	30	St. Nicholas,	Schuylkill,	Face and hands burned by gas.
	22	William Potoski,	27	William Penn,	Schuylkill,	Leg fractured; fall of rock.
	22	William Toblaskus,	47	Maple No. 5,	Schuylkill,	Lacerated wounds on face and neck; fall of rock.
	22	Charles Yablonski,	47	Maple No. 5,	Schuylkill,	Leg broken; fall of coal.
	28	George Hogonus,	38	Mahoney City,	Schuylkill,	Leg broken; fall of coal.
	5	Joseph Bishop,	40	Turkey Run,	Schuylkill,	Face and hands scalded; wagon struck steam pipe and broke it.
	5	John Price,	47	Turkey Run,	Schuylkill,	Hands scalded under same circumstances.
	16	Pat. J. Friel,	28	Vulcan,	Schuylkill,	Bruised about the shoulders and face by gas.
	18	Robert Elliott,	26	Vulcan,	Schuylkill,	Slightly burned on hands and face by gas.
	18	George Wilthew,	31	Onelda,	Schuylkill,	Burned on hands under same conditions.
	21	Thomas Kessel,	31	Onelda,	Schuylkill,	Arm broken, cut eye, finger bruised by a brace giving way.
	23	Michael Cadden,	22	Kohlnoor,	Schuylkill,	Internally injured; run over by cars.
	23	Andrew Smer,	36	Audenreid No. 4,	Schuylkill,	Leg broken and cuts on head; fell down chute.
	25	Miles Matney,	30	Patrick Mammoth,	Schuylkill,	Compound fracture of leg; rush of coal at battery.
	7	John Dunstone,	26	Ellangrove,	Schuylkill,	Leg fractured by rock outside.
	9	Richard Gaughan,	26	Ellangrove,	Schuylkill,	Leg fractured; fall of slate.
	18	Richard Gaughan,	20	Indian Ridge,	Schuylkill,	Fing severely bruised; squeezed between car and stable.
	23	Aostle Monahan,	40	Indian Ridge,	Schuylkill,	Foot severely bruised; kicked by a mule.
	13	Michael Veltskey,	23	North Mahanoy,	Schuylkill,	Leg fractured; foot of coal.
	14	Michael Yenakurties,	30	North Mahanoy,	Schuylkill,	Leg fractured; foot of coal.
	14	Jos. Kasluskie,	30	Hammond,	Schuylkill,	Leg fractured; foot of coal.
	14	Isaac Conway,	45	Turkey Run,	Schuylkill,	Leg fractured; mule threw him down and trampled him.
	20	Thomas Sawyers,	16	Indian Ridge,	Schuylkill,	Face and hands burned by powder.
	21	Geo. Barry,	20	Indian Ridge,	Schuylkill,	Fracture of skull; kicked by a mule.
	25	Michael Broilskite,	20	Draper,	Schuylkill,	Face and hands burned by gas.
	25	Micic Meglar,	33	Ellangrove,	Schuylkill,	Face and hands burned by gas.
	25	Barney Miluskie,	31	William Penn,	Schuylkill,	Face and hands burned by gas.
	26	John Pitzkes,	18	William Penn,	Schuylkill,	Leg fractured; fall of slate.
	27	Ernest Williams,	15	Tunnel Ridge,	Schuylkill,	Head and chest bruised between cars.
	28	Frank Beckween,	35	Drapes No. 3 slope,	Schuylkill,	Face and hands burned by explosion of gas.
	28	William Beresowski,	22	Park No. 3 slope,	Schuylkill,	Face and hands burned by explosion of gas.
	28	Micic Gulleravagie,	27	Park No. 3 slope,	Schuylkill,	Face and hands burned by explosion of gas.
	29	Owen Boyle,	55	Audenreid No. 4,	Schuylkill,	Head and hands cut; explosion of blast.
	30	William White,	20	Audenreid No. 4,	Schuylkill,	Leg fractured; fall of coal.
	30	Gabriel Sokole,	50	North Mahanoy,	Schuylkill,	Leg broken; fall of coal.
	3	John Pitzkes,	29	Onelda,	Schuylkill,	Leg broken; fall of coal.
	10	John Staub,	27	Boston Run,	Schuylkill,	Hands and face burned by gas.
	12	Robert Laughlin,	20	Tunnel Ridge,	Schuylkill,	Burned on hands and face by powder.
	17	Alexander Bovatch,	35	Honey Brook No. 5,	Schuylkill,	Leg fractured by fall of coal.
	17	Anthony Nobin,	35	Onelda No. 1,	Schuylkill,	Both legs broken by fall of coal.
	21	Frank Lippy,	40	Packer No. 3,	Schuylkill,	Face and hands burned by gas.
	21	Thomas Lipp,	41	Packer No. 3,	Schuylkill,	Slightly burned by explosion of gas.
	23	John Bremen,	41	Boston Run,	Schuylkill,	Hands and face burned by gas.
	23	John Bremen,	41	Honey Brook No. 5,	Schuylkill,	Shoulder fractured by fall of slate.
	31	Frank Mitchell,	17	Onelda,	Schuylkill,	Face and hands injured by explosion of gas.
	31	William Machulsky,	38	Maple Hill,	Schuylkill,	Leg fractured; caught in driving shaft.
	1	Joseph Kassa,	21	Audenreid,	Schuylkill,	Body and head lacerated while firing a shot.
	2					Arm broken by fall of slate.

April

May

June

July

Aug.

TABLE V—Continued.

Date of accident.	Name of Person Injured.	Age.	Married.	Name of Colliery.	Location—County.	Nature and Cause of Accident in Brief.
Aug.	7 Geo. Goodlavage,	45	M.	Kobinoor,	Schuylkill,	Compound fracture of collar bone; fall of slate.
	8 Edward McCormick,	15	S.	West Shenandoah,	Schuylkill,	Leg broken; loaded wagon passed over it.
	10 Anthony Boxer,	28	M.	Turkey Run,	Schuylkill,	Leg broken by fall of coal.
	11 Walter Moses,	30	M.	Buck Mountain,	Schuylkill,	Burned by explosion of gas.
	11 Joseph Stutcombs,	38	M.	Buck Mountain,	Schuylkill,	Burned by explosion of gas.
	11 George Luskey,	35	M.	Draper,	Schuylkill,	Arm and leg lacerated by rush of coal.
	13 James Cooper,	43	M.	Hammond,	Schuylkill,	Knee cap split; fell down manway.
	22 Adam Brotskie,	50	M.	Ellangowan,	Schuylkill,	Back and back injured; fall of slate.
	27 George Donavage,	32	M.	Indian Ridge,	Schuylkill,	Back and hip bruised; fall of rock.
	29 William Stinson,	32	M.	St. Nicholas,	Schuylkill,	Leg broken; fall of coal.
Sept.	3 William Simmons,	20	M.	Primrose,	Schuylkill,	Slightly injured on body; fall of rock.
	5 David Davies,	50	W.	Ellangowan,	Schuylkill,	Breast injured; dumper fell on him.
	14 James Kelley,	31	M.	Draper,	Schuylkill,	Leg fractured; piece of rock rolled on him.
	14 Michael Linowskie,	23	S.	William Penn,	Schuylkill,	Face, head and leg severely lacerated; fall of coal.
	15 Peter Svatsky,	20	S.	St. Nicholas,	Schuylkill,	Foot mashed between cars.
	15 Morgan Bevan,	35	M.	Gilberton,	Schuylkill,	Face and hands burned; explosion of gas.
	15 William Moorhead,	38	M.	Gilberton,	Schuylkill,	Face and hands burned; explosion of gas.
	18 Dan. Barrett,	16	S.	William Penn,	Schuylkill,	Arm fractured by falling.
	20 Phillip Chihus,	43	M.	Indian Ridge,	Schuylkill,	Back and head crushed; fall of coal.
	21 Michael Palonzo,	43	S.	Park No. 5,	Schuylkill,	Back seriously injured; fall of coal.
Nov.	8 Valley Hornish,	54	S.	Packer No. 5,	Schuylkill,	Face and hands slightly burned by gas.
	8 Frank Ege,	54	S.	Packer No. 5,	Schuylkill,	Leg broken; fell under car.
	9 Frank Smith,	43	M.	Buck Mountain,	Schuylkill,	Burned by explosion of gas.
	9 Joe Stroms,	40	M.	Buck Mountain,	Schuylkill,	Burned by explosion of gas.
	9 Andrew Averilla,	18	S.	Buck Mountain,	Schuylkill,	Burned by explosion of gas.
	9 Henry Obrecht,	55	M.	Buck Mountain,	Schuylkill,	Burned by explosion of gas.
	9 Dan. Shovlin,	25	M.	Buck Mountain,	Schuylkill,	Burned by explosion of gas.
	9 Paul Youtts,	27	S.	Buck Mountain,	Schuylkill,	Burned by explosion of gas.
	9 Mike Whiskus,	25	M.	Buck Mountain,	Schuylkill,	Burned by explosion of gas.
	9 Anthony Peenus,	43	M.	Buck Mountain,	Schuylkill,	Burned by an explosion of gas.
	10 John McGrath,	50	M.	Packer No. 3,	Schuylkill,	Arm broken by dumping car on dirt bank.
	10 Geo. Garris,	26	S.	Ellangowan,	Schuylkill,	Leg injured by fall of coal.
	12 John Hitchings,	35	M.	Surfolk,	Schuylkill,	Leg broken by fall of coal.
	13 Ant Shtcovage,	45	M.	Tunnel Ridge,	Schuylkill,	Head and shoulders bruised by fall of coal.

14	August Ludavage,	35	M.	St. Nicholas,	Schuylkill,	Right hand mashed; car ran over it (outside).
15	Mike Cantwell,	38	S.	William Penn,	Schuylkill,	Slipped and fell in machinery, necessitating amputation.
19	James Johnson,	39	S.	Suffolk,	Schuylkill,	Back injured; fell under cars.
20	Joe Pitkus,	44	M.	Mahanoy City,	Schuylkill,	Leg broken by fall of coal.
21	Peter Burchat,	14	S.	Mahanoy City,	Schuylkill,	Arm broken; fell into rice coal chute.
21	Frank Mickanavage,	29	M.	Shenandoah City,	Schuylkill,	Body and head burned by explosion of powder.
28	Neal McCool,	15	S.	Suffolk,	Schuylkill,	Fell under cars; body bruised.
1	Benj. Sands,	38	M.	William Penn,	Schuylkill,	Pelvis injured; squeezed between cars.
4	Howard Burchill,	27	M.	Lawrence,	Schuylkill,	Leg broken by fall of slate.
18	John Kupchinski,	27	S.	Indian Ridge,	Schuylkill,	Head, arm and back bruised by fall of coal.
Dec.						



Seventh Anthracite District.

NORTHUMBERLAND, COLUMBIA, SCHUYLKILL AND DAUPHIN
COUNTIES.

Shamokin, Pa., February 25th, 1901.

Hon. James W. Latta, Secretary Internal Affairs, Harrisburg, Pa.:

Sir: I have the honor of herewith submitting to you my annual report as Inspector of Coal Mines for the Seventh Anthracite District for the year 1900.

There were 6,070,701 tons of coal produced, as against 6,308,334 tons in 1899, being 237,633 tons less than the production of preceding year.

The shipments, including the local sales, were 5,380,796 tons, a decrease of 197,416 tons. The falling off was due to the strike, which occurred during the months of September and October, which was the cause of the decrease in the total production.

The number of fatal accidents was 49, a decrease of 3 from year 1899, leaving 29 widows and 67 orphans.

There were 91 non-fatal accidents, an increase of 1 over last year.

The number of tons of coal produced per each fatal accident amounts to 123,892 tons.

The number of tons mined per each employe was 293.9 tons.

Yours very respectfully ,

EDWARD BRENNAN,
Inspector of Mines.

Casualties.

There were four deaths from being smothered by gas, two of which were purely accidental and the other two were caused by lack of judgment and violation of the law on part of victims.

There were three killed by explosions of blasts, which were also due to carelessness, four by cars inside and three by cars outside, which were directly due to carelessness.

Non-Fatal Accidents.

In referring to the non-fatal accidents, there were 17 burned by gas; 15 of these were due to carelessness on the part of the men themselves, and the other two were due to negligence on part of the fire boss.

There were 21 injured by mine cars, which were all due to carelessness on the part of the men themselves.

I merely call attention to the above accidents to show that the majority of them could have been prevented, if proper care and judgment had been used by the victims themselves.

Improvements.

During the past year the usual improvements, such as sinking shafts and slopes, driving tunnels, erecting airways, enlargement and improvements of breakers and machinery, have gone on.

The general conditions of the collieries are good.

One new colliery has been opened by the Greenough Red Ash Coal Company. A shaft was sunk 220 feet to the Buck Mountain, or No. 4 vein, and a tunnel driven from the No. 4 vein to Skidmore, or No. 6 vein; also, a breaker was erected with a capacity of 400 tons per day.

The Buck Ridge colliery, operated by the Philadelphia and Reading Coal and Iron Company, and the Neilson colliery, operated by J. Langdon & Co., were abandoned.

The annual examination for mine foreman and assistant mine foreman certificates was held at Pottsville in June, 1900.

The following constituted the board of examiners: Edward Brennan, Mine Inspector, Shamokin; Andrew Robertson, coal operator, Pottsville; James Corbe, miner, Ashland, and Jacob Fleming, miner, Excelsior.

The following were recommended for mine foreman's certificates: August Corbe, Ashland; John T. Ashton, Frank McHugh, Wm. Startzel, Mt. Carmel; Wm. C. Bateman, Natalie; Dennis T. McAuliff, Lykens; James Gordon, Locust Gap; Chas. A. Herr, Benj. Morgan, Anth. Reidinger, Shamokin; Patrick Laughlin, Mt. Carmel.

For assistant mine foreman's certificates: George W. Stein, David Jenkins, William E. Jones, David Stein, Nicholas Brokenshire, Mt. Carmel; Peter Bodman, Henry Perong, Ashland; Peter Nalor, Treverton; Thomas Joyce, Locust Gap.

Production of Coal, in Tons, During the Year 1900.

Philadelphia and Reading Coal and Iron Company,	2,296,093.05
Lehigh Valley Coal Company,	152,676.07
The Union Coal Company,	874,383.17
Mineral Railroad and Mining Company,	615,616.15
Summit Branch and Lykens Valley Coal Companies, . .	695,656.06
Excelsior Coal Company,	136,263.15
T. M. Righter & Co.,	173,858.16
Shamokin Coal Company,	279,725.00
Enterprise Coal Company,	163,687.00
Shipman Coal Company,	73,180.10
Girard Coal Company,	71,462.01
White & White,	36,313.17
Royal Oak Coal Company,	43,520.00
T. Langdon & Co., Incorporated,	93,298.00
Midvalley Coal Company,	364,965.17
	<hr/>
Total,	6,070,701.06
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The total production was made up as follows:

Shipped by railroad to market,	5,264,553.05
Sold to local trade and used by employes,	116,243.02
Used for steam and heat at collieries,	689,904.19
	<hr/>
Total,	6,070,701.06
	<hr/> <hr/>

TABLE A—Showing Production of Coal, Number of Persons Employed by each Company During the Year 1900, and the Average Number of Tons Produced Per Employee.

Names of Companies.	Number of tons produced.	Number of persons employed.
Philadelphia and Reading Coal and Iron Company,	2,296,693.05	7,318
Lehigh Valley Coal Company,	152,676.07	622
The Union Coal Company,	874,383.17	3,593
Mineral Railroad and Mining Company,	615,616.15	2,175
Summit Branch and Lykens Valley Coal Companies,	895,656.06	2,577
Excelsior Coal Company,	136,263.15	440
T. M. Righter and Company,	173,853.16	341
Shamokin Coal Company,	279,725.00	891
Enterprise Coal Company,	163,687.00	494
Shipman Coal Company,	73,180.10	357
Girard Coal Company,	71,462.01	374
White and White,	36,313.17	204
Royal Oak Coal Company,	43,520.00	167
J. Langdon and Company, Incorporated,	93,298.00	430
Midvalley Coal Company,	364,965.17	692
Total,	6,070,701.06	20,665

Average number of tons produced per employee, 293.90.

TABLE B—Number of Fatal Accidents and Tons of Coal Produced Per Life Lost.

Names of Companies.	Number of fatal accidents.	Number of tons of coal produced per life lost.
Philadelphia and Reading Coal and Iron Company,	13	176,623
Lehigh Valley Coal Company,	2	76,338
The Union Coal Company,	7	124,912
Mineral Railroad and Mining Company,	5	123,123
Summit Branch and Lykens Valley Coal Companies,	9	77,295
Excelsior Coal Company,	3	45,421
T. M. Righter and Company,	2	86,929
Shamokin Coal Company,	1	279,725
Enterprise Coal Company,	1	163,687
Shipman Coal Company,	1	73,180
Girard Coal Company,	1	71,462
White and White,	1	36,313
Royal Oak Coal Company,	1	43,520
J. Langdon and Company, Incorporated,	1	93,298
Midvalley Coal Company,	3	121,655
Total and average,	49	123,592

TABLE C—Showing the Number of Fatal and Non-Fatal Accidents, and the Number of Tons of Coal Produced Per Accident.

Names of Companies.	Number of accidents.	Number of tons of coal produced per accident.
Philadelphia and Reading Coal and Iron Company,	41	56,002
Lehigh Valley Coal Company,	6	25,446
The Union Coal Company,	27	32,384
Mineral Railroad and Mining Company,	15	41,041
Summit Branch and Lykens Valley Coal Companies,	24	28,985
Excelsior Coal Company,	3	45,421
T. M. Righter and Company,	4	43,465
Shamokin Coal Company,	7	39,961
Enterprise Coal Company,	3	54,562
Shipman Coal Company,	2	36,590
Girard Coal Company,	1	71,462
White and White, .....	.....	36,313
Royal Oak Coal Company,	1	43,520
J. Langdon and Company, Incorporated,	2	46,649
Midvalley Coal Company,	4	91,241
Total and average,	140	43,362

TABLE D—Classification of Accidents.

Occupations.	Killed or fatally injured.	Injured.	Total.
Falls of coal, rock and roof,	20	33	53
Smothered by gas,	1	.....	1
Explosions of gas,	2	17	19
Explosions of blasts, .....	.....	4	7
Falling down manways, breasts and slopes, .....	.....	1	6
Cars, inside,	4	20	24
Cars, outside,	3	1	4
Caught in rolls, .....	.....	1	1
Falling timber, .....	.....	1	1
Miscellaneous, inside,	7	8	15
Miscellaneous, outside,	1	5	6
Total,	49	91	140

TABLE E—Occupation of Persons Killed and Injured.

	Killed or fatally injured.	Injured.	Total.
Miners,	25	48	73
Laborers,	10	15	25
Drivers,	5	11	16
Loader bosses,	1	1	2
Repairmen,	2	2	4
Topman,	1	1	2
Locomotive conductors,	1	1	2
Locomotive engineer,	1	1	2
Slate pickers,	1	2	3
Fire bosses,	2	3	5
Pumpman,	1	1	2
Assistant bosses,	1	2	3
Loader,	1	2	3
Spraggers,	1	1	2
Rockman,	1	1	2
Jigman,	1	1	2
Car loader,	1	1	2
Total,	49	91	140

TABLE F—Nationalities of Persons Killed and Injured.

	American.	English.	Welsh.	Irish.	German.	Poles.	Slavs.	Austrians.	Hungarians.	Italians.	Belgians.	Russians.	Lithuanians.	Greeks.	Prussians.	Total.
Killed,	18	1	1	2	1	18	2	2	1	1	4	3	1	1	1	49
Injured,	48	3	3	3	2	22	2	2	1	1	4	1	1	1	1	91
Total,	66	4	4	5	3	40	2	2	2	1	4	4	1	1	1	140

Coal Production for Past Five Years in Seventh District.

	Coal shipped.	Used at collieries and local sales.	Total produced.
1896,	4,975,827	618,822	5,594,649
1897,	4,377,761	731,187	5,108,948
1898,	4,331,093	743,741	5,074,834
1899,	5,436,091	852,243	6,288,334
1900,	5,264,553	806,148	6,070,701
Total,	24,405,325	3,752,141	28,157,466
Average,	4,881,065	750,428	5,631,493

Accidents for Past Five Years in Seventh District.

	Fatal.	Non-fatal.	Total accidents.
1896,	76	106	182
1897,	46	119	165
1898,	46	112	158
1899,	52	90	142
1900,	49	91	140
Total,	269	518	787
Average,	54	104	158

TABLE I—Showing names of operators, railroads, etc., and location of collieries in the Seventh Anthracite District for the year 1900.

Names of Operators and Collieries.	County.	Name of General Superintendent.	P. O. Address.	Name of Superintendent.	P. O. Address.	Railroad to Mine.
Phila. & Reading Coal & Iron Co.						
Burns Veil,	Northumberland	R. C. Luther	Pottsville	John Veith	Pottsville	Phila. and Reading.
Back Ridge,	Northumberland	R. C. Luther	Pottsville	John Veith	Pottsville	Phila. and Reading.
Henry Clay,	Northumberland	R. C. Luther	Pottsville	John Veith	Pottsville	Phila. and Reading.
Big Mountain,	Northumberland	R. C. Luther	Pottsville	John Veith	Pottsville	Phila. and Reading.
Stirling,	Northumberland	R. C. Luther	Pottsville	John Veith	Pottsville	Phila. and Reading.
North Franklin,	Northumberland	R. C. Luther	Pottsville	John Veith	Pottsville	Phila. and Reading.
Alaska,	Northumberland	R. C. Luther	Pottsville	John Veith	Pottsville	Phila. and Reading.
Locust Gap,	Northumberland	R. C. Luther	Pottsville	John Veith	Pottsville	Phila. and Reading.
Locust Spring,	Northumberland	R. C. Luther	Pottsville	John Veith	Pottsville	Phila. and Reading.
Monitor,	Northumberland	R. C. Luther	Pottsville	John Veith	Pottsville	Phila. and Reading.
Merriam,	Northumberland	R. C. Luther	Pottsville	John Veith	Pottsville	Phila. and Reading.
Kods,	Columbia	R. C. Luther	Pottsville	John Veith	Pottsville	Phila. and Reading.
Basgone Jig,	Columbia	R. C. Luther	Pottsville	John Veith	Pottsville	Phila. and Reading.
Preston No. 3,	Schuylkill	R. C. Luther	Pottsville	John Veith	Pottsville	Phila. and Reading.
Lehigh Valley Coal Company.						
Centralla,	Columbia	W. A. Lathrop	Wilkes-Barre	R. S. Mercur	Centralla	Lehigh Valley Railway.
Logan,	Columbia	W. A. Lathrop	Wilkes-Barre	R. S. Mercur	Centralla	Lehigh Valley Railway.
Big Mine Run,	Schuylkill	W. A. Lathrop	Wilkes-Barre	R. S. Mercur	Centralla	Lehigh Valley Railway.
Continental,	Columbia	W. A. Lathrop	Wilkes-Barre	R. S. Mercur	Centralla	Lehigh Valley Railway.
Morris Ridge,	Columbia	W. A. Lathrop	Wilkes-Barre	R. S. Mercur	Centralla	Lehigh Valley Railway.
Bellmore,	Columbia	W. A. Lathrop	Wilkes-Barre	R. S. Mercur	Centralla	Lehigh Valley Railway.
Reno,	Columbia	W. A. Lathrop	Wilkes-Barre	R. S. Mercur	Centralla	Lehigh Valley Railway.
Montana,	Columbia	W. A. Lathrop	Wilkes-Barre	R. S. Mercur	Centralla	Lehigh Valley Railway.
Locust Run,	Columbia	W. A. Lathrop	Wilkes-Barre	R. S. Mercur	Centralla	Lehigh Valley Railway.
The Union Coal Company.						
Hickory Swamp,	Northumberland	Morris Williams	Wilkes-Barre	Wm. R. Reinhardt	Shamokin	Penna. Railroad (N. C.)
Hickory Ridge,	Northumberland	Morris Williams	Wilkes-Barre	Wm. R. Reinhardt	Shamokin	Penna. Railroad (N. C.)
Pennsylvania,	Northumberland	Morris Williams	Wilkes-Barre	Wm. R. Reinhardt	Shamokin	Penna. Railroad (N. C.)
Richards,	Northumberland	Morris Williams	Wilkes-Barre	Wm. R. Reinhardt	Shamokin	Penna. Railroad (N. C.)
Mineral Railroad and Mining Co.						
Cameron,	Northumberland	Morris Williams	Wilkes-Barre	F. H. Kohlbraker	Shamokin	Penna. Railroad (N. C.)
Luke Fidler,	Northumberland	Morris Williams	Wilkes-Barre	F. H. Kohlbraker	Shamokin	Penna. Railroad (N. C.)

Summit Branch and Lykens Valley Coal Company.	Dauphin,	Wilkes-Barre, ..	Hood McKay, ..	Lykens,	Pennsylvania Railroad.
Williamstown.	Dauphin,	Wilkes-Barre, ..	Hood McKay, ..	Lykens,	Pennsylvania Railroad.
Short Mountain,	Northumberland, ..	.....	A. Robertson, ..	Pottsville,	Pennsylvania Railroad.
Excelsior Coal Company.	Northumberland, ..	.....	A. Robertson, ..	Pottsville,	Phila. and Reading.
Excelsior,	Northumberland, ..	.....	.....	.....	Lehigh Valley.
Corbin,	Northumberland, ..	.....	.....	.....	Phila. and Reading.
Mt. Carmel,	Northumberland, ..	Mt. Carmel, .....	.....	.....	Phila. and Reading.
T. M. Righter and Company.	Northumberland, ..	.....	.....	.....	Phila. and Reading.
Shamokin Coal Company.	Northumberland, ..	Natale, .....	.....	.....	Phila. and Reading.
Enterprise Coal Company.	Northumberland, ..	.....	W. L. Connell,	Scranton,	Phila. and Reading.
Enterprise,	Northumberland, ..	.....	.....	.....	Phila. and Reading.
Shipman Coal Company.	Northumberland, ..	.....	E. J. Cortless,	Shamokin,	Pennsylvania Railway.
Colbert,	Northumberland, ..	R. K. Gowanlock, ..	.....	.....	Pennsylvania Railway.
Girard Coal Company.	Northumberland, ..	.....	Charles Jasper,	Mt. Carmel,	Lehigh Valley & Penna.
Girard,	Northumberland, ..	.....	.....	.....	Lehigh Valley.
Columbia No. 2,	Northumberland, ..	.....	E. E. White,	Mt. Carmel,	Lehigh Valley.
White and White.	Northumberland, ..	.....	.....	.....	Phila. and Reading.
Royal Oak Coal Company.	Northumberland, ..	.....	Geo. C. Davis,	Shamokin,	Phila. and Reading.
Royal Oak,	Northumberland, ..	.....	.....	.....	Phila. and Reading.
J. Langdon & Co., Incorporated.	Columbia, .....	.....	George Steele,	Shamokin,	Pennsylvania Railway.
Neilson,	Columbia, .....	.....	.....	.....	Pennsylvania Railway.
Midvalley Coal Company.	Columbia, .....	.....	T. E. Snyder,	Wilburton,	Lehigh Valley Railway.
Midvalley No. 1,	Columbia, .....	.....	T. E. Snyder,	Wilburton,	Lehigh Valley Railway.
Midvalley No. 2,	Columbia, .....	.....	.....	.....	Lehigh Valley Railway.

Reno,	127,297.17	20,073	530,510	152,656.07	111	622	2	4	3,164	8,164.50	94
Montana,											
Columbia,											
Columbia,											
Loeast Run,											
Total,											
The Union Coal Company,											
Hickory Camp,	93,805.01	7,994	85,816	102,757.17	187.30	483	.....	2	2,986	3,393.25	54
Hickory Ridge,	110,644.18	22,271	114,111	134,057.69	188.50	736	.....	1	3,072	3,760.50	46
Pennsylvania,	27,335.13	23,885	797,112	311,202.05	214.90	1,096	3	7	9,909	34,052	101
Richards,	263,890.19	62,100	37,507	326,368.06	208.50	1,278	3	11	10,531	24,291	93
Total,	745,676.11	118,260	1,044,706	874,383.17	199.8	3,593	7	20	26,588	65,496.75	294
Mineral Railroad and Mining Company,											
Cameron,	357,576.09	37,876	1,309,505	408,347.14	215.10	1,450	1	9	10,466	26,950	138
Lake Fidler,	175,902.13	25,047	696,908	207,069.01	211.90	725	4	1	4,958	29,991	59
Total,	533,478.02	62,923	1,916,413	615,016.15	213.5	2,175	5	10	15,424	49,941	197
Summit Branch & Lykens Valley Coal Companies,											
Williamstown,	252,413.08	100,895.08	798,702	361,295.18	236.60	1,307	6	13	4,839	38,223.50	111
Short Mountain,	278,162.07	43,834.11	1,236,310	334,360.08	257.80	1,270	3	2	2,144	11,354.50	155
Total,	530,575.15	144,729.19	2,035,012	695,655.06	247.2	2,577	9	15	6,983	50,178	266
Excelsior Coal Company,											
Excelsior,	81,750.02	4,050	41,106	86,211.69	154.80	223	3	.....	1,534	2,100	29
Corbin,	48,223.06	1,830	.....	50,62.06	174.80	217	.....	.....	2,825	.....	24
Total,	129,973.08	5,880	41,106	136,833.15	164.8	440	3	.....	4,359	2,100	62
T. M. Richter and Company,											
Mc. Carmel,	159,098.01	12,880	191,016	179,858.16	193.10	341	2	2	1,834	15,091	41
Shamokin Coal Company,											
Natalle,	272,475.00	2,250	4,500	279,725	226	891	1	6	6,000	3,750	100
Enterprise Coal Company,	145,654	17,620	413	163,687	141.30	494	1	2	5,284	9,585	55
Enterprise,											
Fishman Coal Company,	67,906.10	3,784	1,490	73,180.10	140.80	337	1	1	2,440	2,400	27
Cobert,											
Girard Coal Company,	63,459.07	7,300	702.14	71,462.01	154.60	374	.....	1	2,045	6,400	24
Girard,											
White and White,											
Columbus No. 2,	35,163.17	1,150	.....	36,313.17	166.30	204	.....	.....	2,000	5,250	12
Royal Oak Coal Company,											
Royal Oak,	96,970	3,600	2,950	43,520	157.50	167	1	.....	800	2,000	9

TABLE II—Continued.

Names of Operators and Collieries.	County.	Shipments of coal in tons by rail or otherwise.	Number of tons used for steam and heat at colliery.	Sold to local trade and used by employes—tons.	Total production of coal in tons.	Number days worked.	Number persons employed.	Number fatal accidents.	Number non-fatal accidents.	Number kegs powder used.	Number pounds of dynamite used.	Number horses and mules.
J. Langdon and Company, Incorporated.	Northumberland, ..	85,000	7,000	1,298	93,298	146	430	1	1	.....	.....	.....
Neilson, .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Midvalley Coal Company.	Columbia,	37,725.43	1,975	606.05	40,306.18	43	692	.....	.....	7,008	73,950	81
Midvalley No. 1,	Columbia,	316,956.18	6,605	1,097.01	324,658.19	201.80	.....	3	1	.....	.....	.....
Midvalley No. 2, .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Total, .....	.....	354,682.11	8,580	1,703.06	364,965.17	122.4	692	3	1	7,008	73,950	81
Grand total, .....	.....	5,264,553.05	689,904.19	116,243.02	6,070,701.06	169	20,655	49	91	126,465	503,045	2,029

*Abandoned.

TABLE II—Continued.

Names of Operators.	County.	Number of Boilers.			Total horse power.			Locomotives.			Number steam engines of all classes.	Total horse power.	Number pumps delivering water to surface.	Capacity in gallons per minute.	Quantity delivered to surface per minute—gallons.	Number electric dynamos.	Number air compressors.
		Cylindrical.	Tubular.	Horse power.	Horse power.	Steam.	Air.	Electric.									
Phila. & Reading Coal & Iron Co.,	Northumberland,	126	4,368	112	14,560	18,928	9	1	94	9,168	56	31,410	9,680	1			
Lehigh Valley Coal Company,	Columbia & Schil.,	16	600	18	2,800	3,400	2		45	6,750	5	2,100	2,100				
The Union Coal Company,	Northumberland,	20	360	38	4,730	5,090	5		55	4,872	30	13,624	13,624	1			
Mineral Railroad and Mining Co., ..	Northumberland,	6	120	31	3,970	4,090	4		34	6,176	11	4,738	4,738	1			
Sunmi Branch & Lykens Valley Coal Co.,	Dauphin,	114	5,520	27	4,875	10,395	9	3	14	955	3	1,500	1,100	2			
Excelsior Coal Company,	Northumberland,	20	500	4	600	1,100	2		40	1,235	6	3,500	2,000				
T. M. Righter and Company,	Northumberland,	17	340	4	500	1,840	4		17	1,810	2	550	800				
Shamokin Coal Company,	Northumberland,	26	1,040	4	600	1,640	4	3	7	1,083	4	1,966	1,966	2			
Enterprise Coal Company,	Northumberland,	5	135	3	270	405			6	225	1	620	310				
Shipman Coal Company,	Northumberland,	5	135	2	500	500			7	223	3	1,200	142				
Girard Coal Company,	Northumberland,	4	120	2	120	120	1		5	210	1						
White and White,	Northumberland,	12		6		120	1		3								
Royal Oak Coal Company,	Northumberland,			9	1,900	1,900	3		8	1,596	3	3,000	1,500				
J. Langdon and Co., Incorporated,	Northumberland,																
Midvalley Coal Company,	Columbia,			9	1,900	1,900	3										
Grand total,		392	13,883	260	35,425	49,308	40	1	345	32,788	125	64,208	35,870	5		8	

TABLE III—Showing the number of employees at each colliery in the Seventh Anthracite District during the year 1900.

Names of Operators and Collieries.	County.	Occupations of Persons Employed Inside.							Occupations of Persons Employed Outside.							Grand total, inside and outside.	
		Inside foreman or mine boss.	Fire bosses.	Miners.	Miners' laborers.	Drivers and runners.	Door boys and helpers.	All other employes.	Total inside.	Outside foreman.	Blacksmiths and carpenters.	Engineers and firemen.	State pickers.	Superintendents, bookkeepers and clerks.	All other employes.		Total outside.
P. & R. Coal and Iron Co.	Northumberland.	2	6	271	73	29	16	82	479	2	10	22	102	2	112	250	729
Burnside.	Northumberland.	1	2	182	33	17	8	75	318	1	5	13	76	1	58	154	472
Bear Valley.	Northumberland.	1	1	13	7	1	.....	15	38	1	3	19	28	1	24	76	114
Buck Ridge.	Northumberland.	1	3	109	31	22	9	74	249	2	13	22	190	3	140	370	619
Henry Clay.	Northumberland.	2	3	210	92	25	4	84	420	1	1	14	.....	1	27	39	477
Big Mountain.	Northumberland.	1	4	165	36	21	6	89	322	1	1	9	.....	1	33	361	
Stirling.	Northumberland.	1	2	151	43	25	5	63	290	1	11	12	72	2	112	210	500
North Franklin.	Northumberland.	2	4	268	46	19	91	492	1	8	22	84	2	73	190	682	
Alaska.	Northumberland.	2	3	198	28	17	13	78	346	1	9	21	85	3	76	195	541
Reliance.	Northumberland.	2	3	198	28	17	13	78	346	1	9	21	85	3	76	195	541
Locust Gap.	Northumberland.	2	5	214	47	28	7	209	506	2	17	43	140	4	158	364	867
Locust Spring.	Northumberland.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Merritor.*	Northumberland.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Merriam.*	Northumberland.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Potts.	Columbia.	2	8	97	40	28	19	185	379	4	7	21	173	3	101	307	686
Keystone Jig.	Columbia.	2	9	70	15	25	32	161	314	1	3	8	7	1	44	64	64
Bast.	Schuylkill.	2	5	29	20	16	14	126	211	1	6	19	113	2	89	230	544
Preston No. 3.	Schuylkill.	1	5	29	20	16	14	126	211	1	6	20	69	1	57	154	365
Total and average.	.....	21	58	2,120	518	340	159	1,426	4,642	19	100	270	1,139	28	1,120	2,676	7,318

TABLE III--Continued.

Names of Operators.	County.	Number of Days Worked Each Month in Breaker.												Total.
		January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	
Phila. and Reading Coal and Iron Co.,	Nthd. Col. & Sch.	18.4	11.9	10.4	12	11.4	15.7	10.4	15.9	11.9	4	16.7	17.3	156
Lehigh Valley Coal Company,	Col. & Schuylkill.	23.6	12.3	11.1	17.5	20.6	18.6	12.1	15.5	8.3	.....	15.4	13.7	111
The Union Coal Company,	Northumberland	19.4	12.6	14.7	17.5	20.6	18.6	20.6	21.5	11.7	.....	20.3	19.5	199.8
Mineart, Uhart and Mining Company,	Northumberland	23.6	16.4	16.6	21.4	19.8	18.3	18.9	2.7	11.3	.....	21.1	21.4	232.5
Stewart Branch & Lykens Valley Coal Co.,	Dauphin	25.4	21.3	21.1	22.7	23.5	23.2	21.6	22.9	16.3	3	21.9	21.3	247.2
Excelsior Coal Company,	Northumberland	20.4	13.7	11.6	14.7	13.6	16.4	12.2	18	8.6	.....	18.6	17.9	164.3
T. M. Richter and Company,	Northumberland	20.50	14.50	13.70	14.10	11.10	21.20	13.30	22.20	12.60	2.40	20.60	20.90	232.10
Shamokin Coal Company,	Northumberland	26	17	16	17	15	25	26	26.50	11.20	3.40	17.10	14.90	141.30
Enterprise Coal Company,	Northumberland	17.50	9.90	9.60	11.50	11.10	13.30	13.30	15.50	7.20	1.50	10.00	14.90	140.80
Shippan Coal Company,	Northumberland	14.00	10.60	13.00	14.10	13.60	13.30	13.30	15.70	14.70	2.30	16.40	15.30	154.60
Girard Coal Company,	Northumberland	15.80	12.50	11.00	13.00	13.20	13.90	10.50	16.10	5.40	2.30	16.80	21.70	166.30
White and White,	Northumberland	20.20	12.50	13.00	13.00	13.00	13.00	12.60	14.70	7.40	2.50	17.70	18.20	157.50
Royal Oak Coal Company,	Northumberland	23.20	15.70	12.50	10.70	12.00	13.50	11.70	15.70	7.70	1.50	17.70	18.20	157.50
J. Langdon and Company, Incorporated,	Northumberland	29	15	17	17	18	18	19	21	2	.....	17.70	18.20	146
Midvalley Coal Company,	Columbia,	21	10.1	8.9	6.5	8.8	12.1	9.7	12.4	9.3	2.1	10.7	10.8	122.4
Total and average,	.....	19.7	13.1	12.7	13.8	13.5	16.6	14	17.8	10.6	2.9	17.1	17.2	169

TABLE IV—List of fatal accidents that occurred in and about the mines of the Seventh Anthracite District for the year ending December 31, 1900.

Date of accident.	Name of Person.	Nationality by Birth.	Occupation.	Age.	Married or single.	Number of widows.	Number of orphans.	Name of Colliery.	County.	Nature and Cause of Accident in Brief.
Jan. 8	Thomas Bashinskis,	Pole,	Miner,	53	M. 1	...	...	Bear Valley,	North d,	Killed by falling down breast.
10	John Hanley,	American,	Miner,	38	S.	...	...	Centralia,	Columbia,	Killed by a fall of top rock.
16	Arthur Hammonds,	American,	Repairman,	21	M. 1	...	...	Short Mountain,	Dauphin,	Killed by a prop falling down slope.
8	Stany Petchkoskie,	Pole,	Miner,	45	M. 1	...	...	Bear Valley,	North d,	Killed by a fall of top slate.
23	Stany Sisonoskie,	Pole,	Miner,	53	S.	...	...	Excelsior,	North d,	Killed by a piece of top coal falling on him.
March 23	William Starr,	American,	Repairman,	20	S.	...	...	Williamstown,	Dauphin,	Killed by falling down slope.
23	John Vidoric,	Pole,	Miner,	30	M. 1	...	...	Lake Fidler,	North d,	Killed by a fall of top rock.
April 8	Felix Romandoskie,	Pole,	Laborer,	24	S.	...	...	Excelsior,	North d,	Killed by a piece of top clod falling on him.
10	Joseph Doojack,	Austrian,	Miner,	37	M. 1	...	...	Enterprise,	North d,	Killed by a premature explosion.
25	Alec. Kinsel,	Pole,	Laborer,	21	S.	...	...	Pennsylvania,	North d,	and knocking him down breast.
May 14	Levi Miller,	American,	Laborer,	23	S.	...	...	Williamstown,	Dauphin,	Killed by top slate falling on him.
17	Charles Haines,	American,	Miner,	32	S.	...	...	Richards,	North d,	Killed by a piece of top coal falling on him.
June 1	Jos. Washko,	Pole,	Miner,	38	M. 1	5	...	Pennsylvania,	North d,	Killed by premature explosion.
7	Edward Morgan,	Welsh,	Miner,	35	M. 1	6	...	Royal Oak,	North d,	Killed by an explosion of gas.
11	Lewis Blott,	Russian,	Miner,	30	S.	...	...	Cameron,	North d,	Killed between mine car and bottom state.
12	Ralph Crump,	American,	Laborer,	17	S.	...	...	Williamstown,	Dauphin,	Killed by an explosion of gas.
12	William Deboe,	American,	Miner,	30	M. 1	1	...	Alaska,	North d,	Killed by a piece of top rock falling on him.
25	Mike Belchock,	Pole,	Laborer,	21	S.	...	...	Big Mt., Henry Clay,	North d,	Killed between mine car and door.
26	Robert Taylor,	American,	Miner,	28	M. 1	1	...	Neilsen,	North d,	Killed by a pillar of coal rushing on him.
July 27	John Hondek,	Pole,	Laborer,	26	M. 1	...	...	Midvalley No. 2,	Columbia,	Killed by a fall of top coal.
27	Joseph Moreusky,	Russian,	Miner,	36	M. 1	4	...	Excelsior,	North d,	Killed by a fall of top rock.
28	Mike Gullion,	Hungarian,	Slate picker,	38	S.	...	...	Pennsylvania,	North d,	Killed by mine cars.
6	Alec. Coshack,	Russian,	Driver,	28	M. 1	4	...	Hickory Ridge,	North d,	Killed by being squeezed between mine car and timber.
12	William Punch,	American,	Fire boss,	36	W.	3	...	Williamstown,	Dauphin,	Smothered while brushing gas.
12	Theodore Hoffman,	American,	Loco, con- ductor	19	S.	...	...	Short Mountain,	Dauphin,	Squeezed between mine cars on rock bank.

13	George Baliah	Austrian	Laborer	40	M.	1	5	Big Mine Run	Columbia	Killed by a rush of gob or rock.
17	John Klemmeck	Pole	Driver	21	S.	.....	.....	Luke Fidler	North'd.	Killed while attempting to jump on cage in shaft while it was in motion.
3	John Klokites	Lithuanian	Miner	36	M.	1	3	Sterling, Henry Clay	North'd.	Killed by a fall of top slate.
11	Joseph D. Kopp	American	Loader boss	27	M.	1	2	Sterling, Henry Clay	North'd.	Killed by a fall of top slate.
13	Joe Trenaskle	Pole	Miner	55	M.	1	3	Reliance	North'd.	Fell on a bar while the mule car on track. Died from internal injuries.
21	John Yatsco	Pole	Miner	28	M.	1	1	Natelle	North'd.	Killed by a fall of top coal.
21	Wearly Noll	American	Miner	41	M.	1	4	Williamstown	Dauphin	Killed by falling down manway.
22	Arthur Swadkins, Jr.	English	Driver	16	S.	.....	.....	Williamstown	Dauphin	Killed; bumped between mine cars.
27	John Daubert	American	Driver	22	M.	1	.....	Mount Carmel	North'd.	Killed by pulling bar out of mule car while being lowered down slope.
27	George Bushore	American	Driver	22	S.	.....	.....	Mount Carmel	North'd.	Killed by pulling bar out of mule car while being lowered down slope.
28	Charles Steel	American	Laborer	19	S.	.....	.....	Midvalley No. 2	Columbia	Killed by fall of top slate.
10	John Bernofskie	Pole	Miner	37	S.	.....	.....	Reliance	North'd.	Killed by a fall of top rock.
13	James Higgs	American	Miner	59	M.	1	.....	Short Mountain	Dauphin	Injured on August 30th. Died Sept. 30th.
30	Patrick Murphy	Irish	Miner	69	M.	1	.....	Big Mt., Henry Clay	North'd.	Fell on a bar and was injured internally.
Nov.	2	Patrick Kaniff	Irish	29	S.	.....	.....	Locust Spring	North'd.	Killed by falling in travelling way; his neck was broken.
10	August Woller	German	Miner	44	M.	1	6	Locust Spring	North'd.	Killed by a fall of coal.
16	Andrew Muschofskie	Polish	Laborer	30	M.	1	.....	Sterling, Henry Clay	North'd.	Killed by a fall of top rock.
17	Joseph Peko	Greek	Car loader	47	M.	1	3	Cobert	North'd.	Killed; caught between railroad cars and platform.
21	James Campbell	American	Jigman	18	S.	.....	.....	Richard's	North'd.	Killed by being caught in drag line.
28	Frank Savtge	Pole	Miner	37	M.	1	.....	Midvalley No. 2	Columbia	Killed by piece of coal flying from shot, fracturing his skull.
Dec.	5	Anthony Andresic	Miner	43	M.	1	6	Luke Fidler	North'd.	Smothered by gas.
5	Paul Prebala	Pole	Miner	22	M.	1	3	Lake Fidler	North'd.	Smothered by gas.
13	Joseph Kimsall	Pole	Miner	36	M.	1	4	Richard's	North'd.	Killed by a premature blast.
18	William Benam	American	Fire boss	49	M.	1	2	Henry Clay	North'd.	Smothered by gas.

TABLE V—List of non-fatal accidents that occurred in and about the mines of the Seventh Anthracite District for the year ending December 31, 1900.

Date of accident.	Name of Person.	Nationality by Birth.	Occupation.	Age.	Married or single.		Name of Colliery.	County.	Nature and Cause of Accident in Brief.
					Married	or single.			
Jan. 3	William Soleda	American, ..	Miner,	23	S.	M.	Williamstown,	Dauphin,	Arm broken by a piece of coal falling on it.
6	Alexander Thompson, ..	American, ..	Pumpman, ..	40	M.		Williamstown,	Dauphin,	Badly bruised about face and head; also one eye injured; pump bursting and striking him.
9	John Maurer,	American, ..	Miner,	30	M.		Locust Spring,	Northum'd, ..	Leg broken by a fall of coal.
31	John Breckor, Jr.,	American, ..	Driver,	23	S.		Locust Spring,	Northum'd, ..	Leg broken; slipped and fell under mine car.
7	Frank Wensick,	American, ..	Driver,	19	S.		Williamstown,	Dauphin,	Leg broken by falling off front of car, which ran over him.
15	Charles E. Snyder,	American, ..	Miner,	43	M.		Short Mountain,	Dauphin,	Collar bone broken by a fall of slate.
19	John Quinn,	American, ..	Asst. boss, ..	27	M.		Henry Clay,	Northum'd, ..	Leg broken; bumped between mine cars.
21	Frank Klingler,	American, ..	Laborer,	24	M.		Williamstown,	Dauphin,	Leg broken; severely struck by mine car.
26	Thomas Howells,	Welsh,	Driver,	30	S.		Natalie,	Northum'd, ..	Injured severely; squeezed between wagon and door frame.
March 7	Charles Margetsin,	Italian,	Miner,	40	M.		Enterprise,	Northum'd, ..	Leg broken by a fall of rock.
7	John Delaney,	American, ..	Loader,	23	S.		Locust Gap,	Northum'd, ..	Squeezed across hips; caught between mine cars and timber.
10	Stewart Madara,	American, ..	Pottom boss, ..	31	S.		Hickory Swamp, ..	Northum'd, ..	Arm broken; bumped between mine cars.
14	John Donnelly,	American, ..	Spragget,	19	S.		Alaska,	Northum'd, ..	Fell, and his arm was broken, while spragging mine cars.
April 13	Anthony Pratkano,	Pole,	Miner,	38	M.		Pennsylvania,	Northum'd, ..	Hips squeezed; caught between door and mine car.
14	John Hinkle,	American, ..	Miner,	50	M.		Alaska,	Northum'd, ..	While tamping a hole shot exploded, injuring him about the eyes, face and body.
17	Adam Washer,	Pole,	Laborer,	27	S.		Natalie,	Northum'd, ..	Leg broken by piece of coal, which fell down shaft.
17	Stein Sumrutz,	German,	Miner,	43	M.		Potts,	Schuylkill, ..	Back injured by a fall of slate.
18	John Sweeney,	American, ..	Driver,	17	S.		Hickory Swamp, ..	Northum'd, ..	Injured by door of mine car falling on him.
25	Frank Wilson,	Pole,	Miner,	25	M.		Richards,	Northum'd, ..	Injured on the back by a fall of slate.
8	John Grozaskie,	American, ..	Laborer,	28	M.		Natalie,	Northum'd, ..	Leg broken by a fall of slate.
9	John Grozaskie,	Pole,	Miner,	50	M.		Bear Valley,	Northum'd, ..	Leg broken by coal flying from a premature blast.
10	Harry Row,	American, ..	Slate picker, ..	15	S.		Williamstown,	Dauphin,	Foot badly mashed by being caught in rolls.
11	John Brumzic,	Pole,	Miner,	27	S.		Natalie,	Northum'd, ..	Leg broken by a fall of coal.

Month	No.	Name	Nation	Occupation	Age	Locality	Cause	Result	
June	11	Patrick Melarkey	American	Laborer	20	Centralla	Columbia	Leg broken by jumping from one platform	
	25	William Winger	Pole	Miner	45	Pennsylvania	Northum'd	Burned by gas	
	26	Ben Domolavich	Pole	Miner	30	Pennsylvania	Northum'd	Burned by gas	
	27	Mike Schuscofskie	Pole	Miner	28	Richards	Northum'd	Burned by an explosion of gas	
	7	Philin Dauley	American	Driver	18	Locust Spring	Northum'd	Leg broken by falling under cars	
	7	Andrew Propprinskie	Pole	Miner	40	Henry Clay	Northum'd	Arm and nose broken by falling down man-way	
	12	John Crozier	English	Miner	42	Williamstown	Dauphin	Burned by an explosion of gas	
July	12	Joseph Richards	Welsh	Miner	43	Williamstown	Dauphin	Burned by an explosion of gas	
	12	Leo P. Flynn	American	Driver	17	Williamstown	Dauphin	Burned by an explosion of gas	
	12	John T. Lewis	Welsh	Miner	32	Williamstown	Dauphin	Burned by an explosion of gas	
	12	Peter J. Elm	American	Laborer	25	Williamstown	Dauphin	Burned by an explosion of gas	
	12	Jacob Wagner	American	Laborer	27	Williamstown	Dauphin	Burned by an explosion of gas	
	25	Miki Samonila	Hungarian	Laborer	21	Colburn	Northum'd	Leg broken by a falling mine car	
	25	Benj Weary	American	Laborer	40	Cameron	Northum'd	Leg broken by a falling mine car	
	26	Edward Manere	American	Miner	35	Rellance	Northum'd	Foot broken by a piece of coal falling on it	
	27	Robert J. Finley	American	Laborer	36	Henry Clay	Northum'd	Skull fractured by a fall of coal	
	28	Stephen Sincavage	Pole	Laborer	22	Richards	Northum'd	Hand cut off. Bumped between railroad cars	
	10	Samuel Ebersole	American	Miner	46	Cameron	Northum'd	Shoulder and ribs injured by fall of coal	
	12	Joseph Brobowski	Pole	Driver	22	Short Mountain	Northum'd	Leg broken by fall of rock	
	18	Felix Dyke	Prussian	Miner	70	Alaska	Northum'd	Seriously injured by a fall of slate	
	19	Jerry Adams	American	Fire boss	40	Mt. Carmel	Northum'd	Leg broken by fall of coal	
	19	James Kuscavich	Pole	Miner	36	Richards	Northum'd	Leg broken and back bruised by a fall of rock	
	Aug.	19	Adam Terovitch	Pole	Miner	35	Richards	Northum'd	Back and shoulders injured by a fall of rock
		20	William Matlick	American	Miner	22	Centron	Northum'd	Body and legs injured by a fall of clod
		6	John McElrath	American	Miner	32	Richards	Northum'd	Leg broken by a fall of coal
		8	Benj McElrath	American	Miner	35	Richards	Northum'd	Arm broken by a premature explosion
10		John Kastshoek	Pole	Miner	30	Nattalie	Northum'd	Arm broken by falling from mine car	
10		Mahlon Koch	American	Miner	40	Enterprise	Northum'd	Leg broken and back injured by fall of slate	
16		William Welsh	American	Driver	55	Henry Clay	Northum'd	Leg broken by fall of coal	
16		John Melsner	American	Miner	17	Midvalley No. 2	Columbia	Leg broken. Bumped between mine cars	
21		William Bremen	American	Loader boss	27	Pennsylvania	Northum'd	Head crushed by a collar falling on him	
22		Albert Scheman	American	Topman	40	Bear Valley	Northum'd	Arm broken; caught between mine cars	
Sept.	25	William Zeigler	American	Driver	18	Locust Spring	Northum'd	Arm broken by falling under locomotive	
	25	Anthony Larkuskie	Pole	Con. on loco.	17	Pennsylvania	Northum'd	Leg broken and back bruised by fall of slate	
	28	Patrick Dally	Irish	Miner	40	Locust Spring	Northum'd	Injured internally by fall from a platform	
	4	Halpli Osman	American	Slate picker	15	Centron	Northum'd	Head and face injured by fall of coal	
	4	Michael Wally	English	Laborer	15	Centron	Northum'd	Scalped by steam; steam pipe burst	
	11	George Tuckett	English	Engineer	48	Henry Clay	Northum'd	Leg broken by pump falling on it	
	17	Harry Richards	American	Driver	16	Williamstown	Dauphin	Arm broken and injured internally by being squeezed between mine car and chute	
	28	Sydney Heath	American	Driver	17	North Franklin	Northum'd	Arm broken and injured internally by being squeezed between mine car and chute	
	Oct.	30	Mart Trefsger	American	Miner	38	Richards	Northum'd	Burned by gas
		30	Arnold Trefsger	American	Miner	42	Richards	Northum'd	Burned by gas
		30	John O'Hara	Irish	Miner	50	Pennsylvania	Northum'd	Back injured by fall of coal
		31	Mottis Freeman	German	Fire boss	46	Loke Fidler	Northum'd	Squeezed between mine car and timber
	Nov.	2	Frank Coleskie	Bohemian	Miner	26	North Franklin	Northum'd	Injured by fall of coal
3		George Gritsko	Slav	Miner	36	Richards	Northum'd	Burned by an explosion of gas	
3		Waulie Fedorskie	Pole	Miner	24	Richards	Northum'd	Burned by an explosion of gas	

TABLE V—Continued.

Date of accident.	Name of Person.	Nationality by Birth.	Occupation.	Age.	Married or single.	Name of Colliery.	County.	Nature and Cause of Accident in Brief.
Nov. 5	Andrew Molack,	Slav,	Miner,	42	M.	Natalle,	Northum'd, ..	Injured by a fall of coal.
7	John Myers,	English,	Miner,	31	M.	North Franklin,	Northum'd, ..	Back and hips injured by a fall of coal.
8	Mike Zeburuskite,	Pole,	Miner,	31	M.	Cameron,	Northum'd, ..	Burned by an explosion of gas.
9	Joseph Boyle,	American,	Laborer,	20	S.	Locust Spring,	Northum'd, ..	Foot and left hand under mine car.
10	Vincent Click,	Barnish,	Miner,	39	M.	Cameron,	Northum'd, ..	Hands and face burned by gas.
10	Charles Stasney,	Barnish,	Laborer,	33	M.	Cameron,	Northum'd, ..	Hands and face burned by gas.
10	Joseph Drubnitck,	Barnish,	Laborer,	23	S.	Cameron,	Northum'd, ..	Hands and face burned by gas.
12	Peter Androlawish,	Pole,	Miner,	49	M.	Cameron,	Northum'd, ..	Back injured by fall of coal.
13	Katon Groudusate,	Pole,	Miner,	29	M.	Richards,	Northum'd, ..	Arm broken by piece of timber falling on him.
21	Henry Dinzeif,	American,	Fire boss,	42	M.	Mt. Carmel,	Northum'd, ..	Foot mashed by being bumped between mine cars.
Dec. 1	Joe Sherivoltz,	Pole,	Miner,	24	M.	Ghard,	Northum'd, ..	Both arms broken and skull fractured by premature blast.
7	James Sulan,	Irish,	Miner,	40	M.	Bast,	Schuylkill, ..	Back and hips injured by a fall of coal.
10	Wm. H. Miller,	American,	Rockman,	42	M.	North Franklin,	Northum'd, ..	Leg broken by a fall of rock.
11	Jacob Raber,	American,	Miner,	38	M.	Locust Gap,	Northum'd, ..	Leg broken by a fall of coal.
14	Edward Brown,	American,	Spragger,	28	S.	Sterling, Henry Clay	Northum'd, ..	Hand broken; struck by a sprag.
17	Jacob Leiby,	American,	Miner,	22	M.	Alaska,	Columbia, ..	Arm broken by being caught in jig.
28	Jacob Wagner,	American,	Miner,	32	M.	Alaska,	Northum'd, ..	Leg broken by a fall of slate.
21	Henry Fetter,	American,	Miner,	23	M.	Cameron,	Northum'd, ..	Leg and arm broken by a fall of rock.

Eighth Anthracite District.

SCHUYLKILL COUNTY.

Pottsville, Pa., February 19, 1901.

Hon. James W. Latta, Secretary of Internal Affairs, Harrisburg, Pa.:

Sir: I have the honor to present herewith my annual report as Inspector of Mines of the Eighth Anthracite District for the year ending December 31st, 1900.

The total production of coal for the year was 4,274,258 tons, which is 70,039 tons less than for 1899.

The number of fatal accidents during the year was 32, which is two less than in 1899. Twenty-four of the fatal accidents occurred inside of the mines, eight of which were caused by mine cars; eight fatal accidents occurred outside of the mines, three of which were caused by railroad cars. A description of the fatal accidents, also of some of the principal improvements that have been made at the collieries during the year is given.

During the year there was a strike of the miners of the entire anthracite region, which was to have commenced on September 17th. However, the majority of the collieries in this district worked until about the first of October, when all were stopped except those of the Lehigh Coal and Navigation Company. The strike was declared off on October 25th and work was resumed on the 29th.

Very respectfully,

JOHN MAGUIRE,
Inspector of Mines.

Production of Coal, in Tons, for 1900.

Philadelphia and Reading Coal and Iron Company,	1,809,472
Lehigh Coal and Navigation Company,	902,545
Dodson Coal Company,	192,156
Truman M. Dodson Coal Co.,	108,969
St. Clair Coal Company,	194,827
Beddall Bros.,	93,173
Mitchell & Shepp,	5,856
Dunkleberger & Young,	23,233
Leisenring & Co.,	203,964
Lytle Coal Company,	270,911
Albright Coal Co.,	1,790
Silverton Coal Company,	42,506
Davis Bros.,	34,518
E. C. White & Co.,	16,925
Mt. Hope Coal Company,	54,290
Williams Coal Co.,	22,997
East Ridge Coal Company,	62,360
Pine Hill Coal Company,	65,125
Losch, Moore & Co.,	39,822
Gorman & Campion,	19,001
Slattery Bros.,	13,203
Joseph H. Denning,	7,913
Whims & Hepner,	2,366
Woodside Coal Company,	1,702
Stoddard Coal Co.,	56,742
Middleport Coal Company,	24,738
Smith, Meyers & Co.,	3,424
	<hr/>
Total,	4,274,528
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The total production was made up as follows:

Shipped by railroad to market,	3,677,589
Sold at the mines for local use,	74,638
Consumed to generate steam,	522,301
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Total,	4,274,528
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TABLE A—Showing Production of Coal, Number of Persons Employed by Each Company During the Year and Average Number of Tons Produced Per Employee.

Names of Companies.	Number of tons produced.	Number of persons employed.
Philadelphia and Reading Coal and Iron Company,	1,809,472	5,867
Lehigh Coal and Navigation Company,	902,545	1,731
Dodson Coal Company,	192,156	555
Truman M. Dodson Coal Company,	108,969	352
St. Clair Coal Company,	194,827	436
Beddall Brothers,	93,173	133
Mitchell and Shepp,	5,856	23
Dunkleberger and Young,	23,233	66
Leisenring and Company,	263,964	519
Lytle Coal Company,	270,911	761
Albright Coal Company,	1,790	.....
Silverton Coal Company,	42,566	157
Davis Brothers,	34,518	78
E. C. White and Company,	16,925	92
Mt. Hope Coal Company,	54,270	124
Williams Coal Company,	22,997	238
East Rider Coal Company,	62,369	256
Pine Hill Coal Company,	65,125	254
Losch, Moore and Company,	39,822	107
Gorman and Campion,	19,001	71
Slattery Brothers,	13,293	41
Joseph H. Denning,	7,913	27
Whims and Hepner,	2,366	17
Woodside Coal Company,	1,702	.....
Stoddard Coal Company,	56,742	40
Middleport Coal Company,	24,738	23
Smith, Meyers and Company,	3,424	23
Total,	4,274,528	12,041

Number of tons produced per employee, 355.

TABLE B—Number of Fatal Accidents and Tons of Coal Produced Per Life Lost.

Names of Companies.	Number of fatal accidents.	Number of tons of coal produced per life lost.
Philadelphia and Reading Coal and Iron Company,	13	100,526
Lehigh Coal and Navigation Company,	2	451,272
Dodson Coal Company,		192,156
Truman M. Dodson Coal Company,		108,969
St. Clair Coal Company,	1	194,827
Beddall Brothers,	1	93,173
Mitchell and Shepp,		5,856
Dunkelberger and Young,		23,233
Leisenring and Company,	1	203,964
Lytle Coal Company,	3	90,303
Albright Coal Company,		1,790
Silverton Coal Company,	1	42,506
Davis Brothers,		34,518
E. C. White and Company,		16,925
Mt. Hope Coal Company,		54,290
Williams Coal Company,	1	22,997
East Ridge Coal Company,		62,360
Pine Hill Coal Company,	2	32,562
Lesch, Moore and Company,	2	19,911
Gorman and Campion,		19,001
Slattery Brothers,		13,203
Joseph H. Denning,		7,913
Whims and Hepner,		2,856
Woodside Coal Company,		1,702
Stoddard Coal Company,		56,742
Middleport Coal Company,		24,738
Smith, Meyers and Company,		3,424
Total and average,	32	133,579

TABLE C—Number of Fatal and Non-Fatal Accidents and Number of Tons of Coal Produced Per Accident.

Names of Companies.	Number of accidents.	Number of tons of coal produced per accident.
Philadelphia and Reading Coal and Iron Company,	89	20,331
Lehigh Coal and Navigation Company,	7	128,035
Dodson Coal Company,	4	48,029
Truman M. Dodson Coal Company,	6	18,118
St. Clair Coal Company,	9	21,647
Beddall Brothers,	3	31,057
Mitchell and Shepp,		5,876
Dunkleberger and Young,		23,233
Leisenring and Company,	4	50,991
Lytle Coal Company,	7	38,701
Albright Coal Company,		1,790
Silverton Coal Company,	1	42,706
Davis Brothers,	1	31,518
E. C. White and Company,		16,925
Mt. Hope Coal Company,		51,290
Williams Coal Company,	1	23,997
East Ridge Coal Company,		62,360
Pine Hill Coal Company,	4	16,281
Losch, Moore and Company,	3	13,274
Gorman and Campion,		19,011
Slattery Brothers,		13,203
Joseph H. Denning,		7,913
Whims and Hepner,		2,360
Woodside Coal Company,		1,702
Stoddard Coal Company,		56,742
Middleport Coal Company,		24,738
Smith, Meyers and Company,		3,424
Total and average,	139	30,752

TABLE D—Classification of Accidents.

	Killed or fatally injured, inside.	Killed or fatally injured, outside.	Injured, inside.	Injured, outside.	Total killed and injured.
Falls of coal and roof,	7		34		41
Explosions of gas,			13		15
Explosions of blasts,	2		7		9
Falling down slope,	1				1
Explosion of dynamite,	1		2		3
Runaway car on slope,	1		1		2
Run over by cars on slopes,	3				3
Mine cars and dumpers,	5	1	18	9	33
Piece of rock falling down shaft,	1				1
Shot blowing through pillar,	1				1
Injured by mules,			2		2
Timber falling,		1	6	1	8
Railroad cars,		3			4
Sinking bucket on rock bank,		1		1	1
Dumping pole on rock bank,		1			1
Breaker machinery,		1		5	6
Miscellaneous,			6	2	8
Total,	24	8	89	18	139

TABLE E—Occupations of Persons Killed and Injured.

	Killed or fatally injured.	Injured.	Total.
Miners,	10	49	59
Laborers, inside,	6	11	17
Laborers, outside,	4	2	6
Fire bosses,	1	5	6
Loader bosses,	1	1	2
Loaders,	1	5	6
Drivers, inside,	4	10	14
Drivers, outside,	1	2	3
Timber men,	1	1	2
Track layer,	1	2	3
Tunnel men,	1	1	2
Switch tender, inside,	1	1	2
Fan boy,	1	1	2
Door boy,	1	1	2
Bottom men,	1	1	2
Pump engineers, inside,	1	1	2
Headmen, outside,	1	1	2
Car loaders and helpers, outside,	1	1	2
Spraggers, outside,	1	1	2
Engineers, outside,	1	1	2
Carpenters, outside,	1	1	2
Car oilers, outside,	1	1	2
Slate pickers, outside,	1	1	2
Attending scraper line, outside,	1	1	2
Total,	32	107	139

TABLE F—Nationalities of Persons Killed or Injured.

	Americans.	Irish.	Welsh.	English.	German.	Hungarians.	Poles.	Lithuanians.	Slavs.	Italian.	Austrian.	Russian.	Total.
Killed,	17	3	4	5	2	1	6	2	3	1	1	1	32
Injured,	52	10	4	5	5	1	15	3	3	1	1	1	107
Total,	69	13	4	5	7	8	21	5	3	2	1	1	139

Descriptions of Fatal Accidents.

John Voleski, an outside laborer, was fatally injured at Eagle Hill colliery, on January 8th. He was assisting at cutting timber for the mine, and got up on a pile of logs to roll one of them down, when he slipped and fell between them. One of the logs rolled on his head, injuring him so that he died January 15th.

James A. Watts, a boss loader, was fatally injured at Otto colliery on January 31st. He was assisting the bottom man to throw the chains off. He missed throwing his chain off, and the car being on a curve, was thrown off the track by the recoil of the rope. The engineer began to pull up the slack rope, which pulled the car against a prop, to which the bell wire was attached, knocking it out, which, in falling, rang the bell and the engineer began to hoist, pulling the wagon with one side chain attached up the slope. Watts ran up the slope ahead of the car, trying to get to the bell wire to give the signal to stop, but was caught by the wagon and so severely injured that he died at the Pottsville hospital same evening.

Frank Dominick and Anthony Morris, miners, were burned by an explosion of gas at Silver Creek colliery, on February 12th. Back from the face a few feet the top slate went up on a heavier pitch, then came down abruptly, which made a cavity in which some gas collected. A pipe had been run up in this hole to keep the gas out, but it had been broken, which caused the gas to collect again. The men fired a shot near the face of the breast and retreated to the lower heading. The shot fired the gas, which burned both men while in the heading. Morris died from his burns on February 13th, and Dominick died on February 17th. On investigating, I found that the gas had been in this hole, when the men started to work that morning, and that the fire boss was to blame for allowing the men to fire shots before the gas had been removed.

Joseph Steickinnis, a gangway laborer, was killed at the Lytle colliery on February 13th, by falling down the inside slope, a distance of about 850 feet on dip from 58 to 63 degrees. The colliery was idle on that day. At noon, he and his partner went up the slope from the fifth lift, on which they were working, as they had filled all the cars they had. On the fourth lift they met the fire boss, who sent them back, telling them that he would get more cars. They got inside of the car and went down the slope again. The bottom men at the fifth lift stopped the car a few feet from the landing, telling the men to stay in the car until they lowered the gate, which they had raised to hoist water from the bottom of the slope. Instead, the men climbed over the side of the car, and in doing so, Steickinnis slipped and fell to the bottom of the slope and was instantly killed. He had only been two weeks in the country and had worked four days at the colliery.

Matthew Syncavage, a miner, was injured at Lytle colliery on February 14th. He was working in a breast and was about firing a shot, which exploded before he got away from it, because he had shortened the match. He died at the Miners' hospital on February 16th.

Raymond Fenstermacher, an outside laborer, was fatally injured at Greenwood colliery on March 12th. At quitting time, on passing the breaker, he leaned against a car near one of the brace posts of the breaker. The car loader moved the car down, and one of its side posts caught Fenstermacher and dragged him between the brace and car, injuring him so that he died the next day.

John S. Foley was fatally injured at Lincoln Colliery on March 14th. He was working as a laborer in the new water shaft, which was being sunk and was down 510 feet below the surface. Some men had gone up in the bucket, as they were about changing shifts in the morning. About the time the men arrived at the top, some small pieces of rock fell down the shaft. There were several men at the bottom, who ran towards the sides, but Foley, who was near the center of the shaft, was struck on the back and injured so that he died on March 15th.

John Cleary was injured at Glendower colliery on March 28th. He was working in the new Buck Mountain vein slope as a driver and loader from the gangway and the chutes and headings. He was taking an empty car in to the east gangway and had not more than twenty yards to go, but got on the front end of the car and was caught by a chute. He died on April 23d.

Frank Carl, a miner, was instantly killed at Williams' colliery by a fall of coal on April 10th. He and his partner had fired a shot in the east corner in the bottom coal the evening before, which left some of the top coal hanging. They tried to bar it down, but failed. The next morning, Carl began to shovel coal into the chute from under the top coal, when it fell, killing him instantly.

Joseph Martin, a gangway laborer, was killed at Pine Hill colliery on May 14th. He was working in the West Buck Mountain gangway on water level. A piece of slate about five inches thick was hanging about eleven feet back from the face. A hole had been drilled over it to blast it down, but he wanted to load a car first. While doing so, a piece of the slate fell on him, and he died shortly after.

Richard Willing, a driver, was fatally injured at No. 10 colliery, Lehigh Coal and Navigation Company, on June 14th. He had started with a trip of loaded cars and got on the front end of the car. There was a chute about twenty feet outside, which he evidently forgot, which caught his head. His skull was fractured and he died during the night.

Otto F. Schneider, a miner, was instantly killed at West Brookside colliery, by an explosion of dynamite on June 23d. The fire boss, Oliver Machimer, had borrowed his blasting battery some time before the accident to fire a shot in another place. Machimer returned the battery and told Schneider that it had failed to fire

the shot. Schneider said the battery was all right, and to prove it, attached an exploder and fired it at the lower heading. He had a quantity of dynamite near, which he had evidently forgotten, which exploded when he fired the exploder and killed him instantly and severely injured the fire boss, Machimer.

Joseph Hubbard, a head-man, at the sinking shaft, Lincoln colliery, was killed June 27th. Just as a bucket of rock was being taken out to the rock dump, he jumped on the front end of the truck, which went about 200 feet, when it left the track, at a set of latches, and the bucket of rock toppled over on him, injuring him so severely that he died at 7.30 same morning.

Wm. Dunn was fatally injured at Otto colliery on June 30th. He was working with a party of men by night, timbering the Holmes vein; they went to the top of the slope for timber, which they transferred from a truck that was on the top, to the truck they were using on the slope. They started to go down the slope again, but left the top truck where they had been using it and also left the safety block open. The rope caught the truck and pulled it over the knuckle and it followed them down the slope, catching them about seventy feet from the top, injuring Dunn so severely that he died at 6 A. M.

Mich Cauley, helper to car loader, was fatally injured at Richardson colliery, on June 30th. He was employed to attend to loading gates, when box cars were being loaded. At the time of the accident, there were two empty cars standing under the breaker and one of the car loaders ran two more empties down, bumping the first cars. After the cars had bumped, the superintendent, who was near by, saw Cauley creeping between the tracks and in getting to him, found that he had been under one of the cars, when they bumped, and the wheels had run over his legs. He died at the Miners' Hospital on July 1st.

Wm. Wagner, a driver, was killed at West Brookside colliery on night of July 9th. On the day before, the inside foreman had stopped the place and ordered the men further back, on account of the roof being bad. During the evening Wagner had gone inside of where the men were working and they told him to keep out, as the place was working. At the time of the accident the men were loading a car, when they heard a piece of rock fall. They went in and found Wagner lying dead beside a large piece of rock that had fallen out between the props.

Martin Dembroski, a miner, was fatally injured at Oak Hill colliery on July 23d. He was waiting at the lower landing at about 6.45 A. M. to go down. While the empty cars were coming down from the top landing, he attempted to cross the track in front of them, and was caught by the cars and so severely injured that he died in the afternoon.

Harry Leonard, a switch tender, was fatally injured at West Brookside colliery on August 1st. He was employed at attending switches on turnout at bottom of No. 4 slope. One of the drivers was about to pull a trip of loaded cars down the turnout, and Leonard had led the lead mule up to the trip, and when the trip started he attempted to get on them and slipped and the last car ran over his leg. He was sent to the Pottsville Hospital and died shortly after reaching it.

William Szalasavicz, a miner, was killed at Pine Hill colliery on August 2d. At about sixty feet above lower heading, a heading had been driven in pillar toward No. 22 breast, the heading being in seventeen feet, work on which had been stopped about a week before the accident. At the time of the accident, the men in No. 22 fired, but by reason of the shot being so far away from the rib of the breast, they did not warn the men in No. 21 that they were about to fire. The back end of the hole blew through into the heading, which Szalasavicz was in at the time, and he was blown into the chute and fell to the bottom, about sixty feet on pitch of forty degrees, breaking his neck.

William Schock, miner, and Henry Albert Neal, laborer, were killed at Lorberry colliery on August 8th. They were working on the night shift and about 11 P. M. the top began to work and the other men got out from under it. Schock and Neal remained, when the slate fell, killing them instantly.

William Hubler, a slate picker, was instantly killed at the Lytle colliery on August 14th. He had gone away from his place in the breaker and on returning, instead of going the usual way, he went a round about way through the breaker, until he came to the scraper line and it seems stooped to pick up some of the coal that was dropping into the line, when he fell headforemost into the scrapers and was pulled through under the end wheel and up to the end of the line, before the breaker could be stopped.

Andrew Teslunac, a miner, was instantly killed at Eagle Hill colliery on September 10th. He was skipping a pillar, the vein being eight feet thick, on a pitch of twenty-five degrees, and had undermined a piece of the top bench and was shoveling the loose coal from under it, when a large piece of the top coal fell on him.

Wm. Chisnell, a driver on slate bank was fatally injured at No. 11 colliery, Lehigh Coal and Navigation Company, on the morning of September 24. He was taking a dumper out in the morning, and when about 100 feet from the end of bank he drove the mule up to give the dump headway. While unhitching the mule, he slipped and fell under the dumper, receiving injuries from which he died in the afternoon.

John Miller, a laborer, was killed at Lincoln colliery on November

5th. The slate above the vein, being full of joints and slips, fell as the coal was mined from under it, leaving very little of it overhanging the coal and it fell on Miller. His brother, the miner, went to him at once and found him dead. Upon making an investigation, I found three small pieces of slate that had fallen, the heaviest of which was not over fifteen or twenty pounds in weight and could not have fallen more than about fifteen inches before striking him.

Joseph Cook, an outside laborer, was fatally injured at Wadesville colliery, on November 6th. A heavy lever, hung on a frame, is used for raising the back end of the car so that the rock will run out. A pin is used in the frame to hold the long end of the lever up, when not in use. After dumping a car, his partner failed to get the pin in to hold the lever up and it fell, striking Cook on the head. He did not appear to be seriously injured and walked home. The accident occurred at 11.30 A. M. and he died at 5.30 P. M. His physician said a blood vessel had been ruptured in the head, which caused apoplexy.

James Schoffstall was killed at Silverton colliery on November 10th. He started to drive at the bottom of the Black Mine slope that morning at about 8.20. The track on the turn-out was filled with empty cars. As he could not pass with loaded cars, until the empties were taken away, he sat down with the bottom men for a few minutes, then started with the loaded cars. The front end of loaded car was knocked off the track, when it struck the empties and ran against the lower rib of the gangway. Schoffstall was caught between the car and the rib and killed instantly.

Joseph Muskalavitz, a miner, was instantly killed at Otto colliery on November 23d. The vein was 7 feet 4 inches thick, on pitch of 10 degrees, and the deceased and another man had started to drive a heading towards No. 12 breast, and fired a shot to form the upper corner. They thought the shot had missed and went back to it. About the time Muskalavitz got to the hole, it went off and killed him instantly. His partner, Stacknavitz, was back about forty feet and was severely injured by the flying coal, but did not know whether Muskalavitz had relighted the match that had partly burned, or whether the shot exploded before he got quite to it.

Timothy Brady, a pump engineer, was fatally injured at St Clair colliery on November 28th. He was employed near the bottom of the Buck Mountain vein slope, which is a single track slope, with from four to five feet from between the rail and side of the slope. In this space, two column pipes, one four-inch and one five-inch diameter, were laid along the bottom. There was a leak on the four-inch line about forty-five yards above the pump, the pitch being from 15 to 20 degrees. Timothy went up the slope to get a short piece of pipe to repair the leak, and brought it down and started to work at it.

The inside foreman, who was at the pump house with George Brady, told him to go and tell Timothy not to work at it while the cars were running on the slope, but to wait until the trip was hoisted, when they would stop hoisting until the pipe was put in. George had just got to where the victim was, when an empty car coming down the slope left the track and caught Timothy between it and the rib, injuring him very severely; he died while being taken to the Miners' Hospital.

Charles Eisenacher, laborer, was fatally injured at West Brookside colliery on December 3d. On the day of the accident, while pulling the last wagon for the day to the dump, he ran along between the wagon and the upper side of the gangway and raising his head it was caught between the top of the car and a gangway leg, receiving injuries from which he died on December 4th.

Fred. Gunder, an outside laborer, was killed at Eagle Hill colliery, on December 14th, by being ran over by railroad cars, below the breaker. He was working with another man, cleaning up between the breaker and the slush tanks. As there was some water dropping, he told his partner he would go and see the foreman and get an oil-cloth coat. A few minutes later he was found lying on the railroad track about ninety feet below where he would have to cross the track, having been run over by two loaded cars that were being run from the breaker. The car loader was between the cars, while running them down, and did not see him. He died a few minutes after being found.

Improvements Made at Collieries During 1900.

West Brookside Colliery.—An opening has been made from the surface to the rock, foundation walls have been built and the head frame is being erected, for the purpose of sinking a new shaft between the top of the East Brookside No. 5 Lykens Valley vein slope and the hoisting engine house. This slope has a north dip, and the shaft is being started south of the top of it in the red shale measures underlying the lowest coal bed, viz: the No. 6 Lykens Valley. The shaft will be 28x12 feet 8 inches inside of the timber and will be divided into four compartments, the two middle ones for hoisting coal. The two end compartments will each be sub-divided by an eight-inch bunton, making two compartments each of six feet square for hoisting water. This shaft will be more than 1,800 feet deep to the level of the lowest slope gangway, from which a tunnel about 1,200 feet long will be driven south through the strata underlying the coal measures to connect with the bottom of the shaft.

A pair of new hoisting engines have been installed to hoist from the East Brookside No. 4 vein Lykens Valley slope, which is of the

same depth as the No. 5 vein slope; they were built at the Philadelphia and Reading Coal and Iron Company's Pottsville shops, and are fitted up with the latest improvements, having steam reverse and both steam and hand brakes on the drum. The cylinders are 40 inches in diameter, with 60-inch stroke. Drum is 18 feet 6 inches in diameter, steel wire rope $1\frac{3}{4}$ inches in diameter. They were put into service on September 10, 1900. The No. 4 basin slope has been sunk 235 yards and is still going deeper.

Lincoln Colliery.—The new water shaft was completed on October 13th, and is 908 feet deep from the surface to the bottom. A tunnel 30 feet long, driven south, connects the shaft to sump gangway, on small seam called No. $1\frac{1}{2}$ vein, 39 feet above the bottom of the shaft. A gangway driven east on the No. $1\frac{1}{2}$ vein 100 feet, connects with the sixth lift tunnel in the No. 1 vein slope with the shaft. Another connection is also made on the No. 1 vein, fourth lift, with the shaft.

Good Spring Colliery.—The new slope called the No. 3 slope, which is about $1\frac{3}{4}$ miles east of the breaker, has been sunk to a depth of 338 feet from the surface, on an average dip of about 45 degrees, and gangways have been opened on the top bench, which is about 8 feet thick. Tunnels have been driven on each side to the middle bench, which is $5\frac{1}{2}$ feet thick, and to the bottom bench, which is $6\frac{1}{2}$ feet thick, and a tunnel is being driven from the bottom bench to the Skidmore and Buck Mountain veins. An air hole has been driven to the surface, on which a 15-foot diameter fan has been placed. A pair of first-motion engines, with 28-inch cylinders, 48-inch stroke, and with drum 10 feet 8 inches in diameter, which were built at the company's shops, were put in service in November.

Otto Colliery.—The old breaker was stopped on April 28th and torn down and a new breaker erected, a short distance north of the old site, which has been fitted with the most modern appliances for the preparation of coal. It was started on August 16th, an interval of ninety-three working days elapsing from the time the old breaker was stopped until the new one was started. In the underground slope, from the water level on the White Ash, on the first lift, a tunnel has been driven from the top to the bottom bench, 68 feet long, and from the bottom bench to the Skidmore vein, 78 feet long, the bottom bench being 9 feet thick, dip 25 degrees north, and the Skidmore 6 feet thick, dip 58 degrees north. An air hole has been driven on the Skidmore vein 212 yards to the top of an anti-clinal and a shaft 20 feet deep connects it with the surface. A tunnel is also being driven from the bottom bench, on the the water level, to the Skidmore vein. These are the first openings that have been made on the Skidmore vein at this colliery.

Wadesville Colliery.—The south tunnel has been continued, cutting the Primrose vein 8 feet thick, dip 36 degrees south, at about 950

feet from the Seven-foot vein, the Orchard vein 4 feet thick, on dip of 34 degrees south, 187 feet from the Primrose, and the Little Orchard 4 feet thick on 34 degrees south dip, 27 feet from the Big Orchard vein, making the tunnel nearly 1,300 feet long from the Seven-foot vein to the Little Orchard vein. An overhead return air tunnel is being driven from the Primrose north to the Holmes, and south from the Primrose to the Orchard. An air shaft 10 feet square is being sunk from the surface, about 825 feet south of the new water shaft, to ventilate the veins south of the Seven-foot. It was down 274 feet on December 31st.

Morea Colliery.—This colliery was idle from June 9th until September 4th, during which time the principal part of the breaker was rebuilt, over 400,000 feet of new lumber having been used. Most of the old machinery was taken out and replaced by more modern appliances, which has improved the preparation and increased the capacity of the breaker. A tunnel has been driven on the slope level, west of the shaft, 182 feet long from the north dip to the south dip of the Mammoth vein, at the north end of which a plane is being made to the surface. It is intended to strip the cover across the basin west of this tunnel, taking the rock through the tunnel and hoisting it up the plane to the surface. The Pennsylvania Railroad Company is building a new railroad across the valley from the Morea Station to a point a short distance west of the breaker so that the coal under the present railroad can be mined. A tunnel has been driven north from the north dip of the Mammoth, on the slope level east of the main tunnel 288 feet long, cutting the Skidmore, Seven-foot and Buck Mountain veins on the north dip. A tunnel has also been driven on the shaft Seven-foot level, north from the Seven-foot vein north, dip 91 feet long, cutting the Skidmore and Mammoth veins on the north dip.

Kaska William Colliery.—A tunnel has been driven south from the Seven-foot vein opposite the bottom of the inside slope, cutting the Holmes and Primrose veins on the south dip and the Primrose on the north dip at the face of the tunnel. There is an interval of 188 feet between the south dip and north dip of the Primrose vein; in this interval a diamond drill hole has been bored, cutting the Orchard vein in the basin about 70 feet above the top of the tunnel. The tunnel is 617 feet long from the Seven-foot vein, on the south dip, to the Primrose vein, on the north dip. A tunnel 400 feet long has been driven from the top bench gangway east of the top of the inside slope to the Holmes vein on the shaft level for a return airway for the slope to a new airway driven on the Holmes vein from the shaft level 736 feet long to the bottom of an air shaft 65 feet deep sunk from the surface. A 16-foot diameter fan was installed on this new air shaft and the 24-foot diameter fan was moved from the old airway and placed on the new air shaft. This fan is now being

used only to ventilate the workings south of the shaft, while the other is kept in readiness to start in case of accident. An air hole 500 feet long has also been driven on the Primrose vein from the shaft level to the level of the first lift of the Old Orchard vein slope, where connection has been made through tunnel to the main air hole on the Holmes vein. This arrangement has made a decided improvement in the ventilation. In the Northdale basin, shaft level, an air hole 570 feet long has been driven on the Skidmore vein to the level of the old Northdale slope, where it is connected by a tunnel 85 feet long to the bottom bench gangway of the old Northdale slope.

The inside slope west top and west bottom bench gangways, which were closed by water breaking in during May, 1898, have been reopened to the face, and work in them, also in the east bottom bench gangway, has been resumed. Some of the bones of the last victim of that disaster, supposed to be those of Peter Durkin, were found in cleaning up the inside slope, west top bench gangway, about 1,056 feet from the slope. The bones were found scattered along the gangway, the body having evidently been torn to pieces by the fearful rush of water and debris which carried it nearly two thousand feet from where he was supposed to have been when the accident occurred. One of the wagons driven in from the foot of the slope was found inside of where the bones were found, which was badly broken. Nothing further has been done towards reopening the inside slope, east top bench gangway.

Pine Hill Colliery.—The new breaker was started in March. The new shaft was completed in April and is 322 feet deep from the surface to the tunnel level.

Howard Colliery.—The water has been pumped out of the old Wosley slope, on the south dip of the Primrose vein for about 500 feet, which is near the bottom of the slope. It has been reopened and enlarged for 320 feet down, where a gangway has been started eastward. The vein is about ten feet thick of very good coal, dipping from 18 to 25 degrees south. This slope had been abandoned for many years and was full of water.

Lorberry Colliery.—A trial slope has been sunk on the south dip of the Primrose vein, about 700 feet east of the breaker. The slope is down 270 feet to the basin on dip varying from 38 to 20 degrees, the basin dropping eastward about 10 degrees. The trial slope which was being sunk by the Lykens Valley Coal Company, on the No. 5 Lykens Valley vein east of Keffers, in 1899, was continued to a depth of 296 feet, and gangways were driven east and west 30 and 25 feet, respectively, and stopped and allowed to fill with water. The slope has an average dip of 62 degrees, the vein in the gangways being about 5 feet thick, dipping 65 degrees north.

Lytle Colliery.—A tunnel has been driven from the Primrose vein, on the fifth lift, 450 feet to the Diamond vein and connection made in that vein to the new shaft at tide level, or 1,034 feet below the surface, and 466 feet above the bottom of the shaft. A tunnel has also been driven from the Orchard vein, at the bottom of the shaft, 326 feet to the bottom of the Four-foot vein slope. The water from the colliery is now being hoisted in tanks up the shaft, the pumps having all been taken out of the Kear and Forestville slopes. A pair of engines with 36-inch cylinders, 60-inch stroke, with drum tapering from 10 feet to 16 feet in diameter, direct acting, have been installed to hoist the water. Another pair of engines of the same size have been installed to hoist coal from two of the compartments. A pair of engines of the same size have been installed at the No. 2 slope, taking the place of a pair of engines 30x48 inches, with 8-foot drum, which has been removed to the new shaft and are being used for hoisting from the other two compartments. A large breaker is being erected to prepare coal from the new shaft.

No. 12 Colliery.—This colliery, which is operated by the Lehigh Coal and Navigation Company, has been idle since April, 1898. The old breaker has been torn down and a new and more modern one is being erected on its site. A new pair of hoisting engines, with 24-inch cylinders, 60-inch stroke, with 12-foot diameter drum, direct acting, have been installed to take the place of the old ones. The breaker engine has been rebuilt and four batteries of "Sterling" boilers added to the steam plant. A railroad has been built to the breaker, doing away with the plane by which the coal was let down from the breaker to the main tracks. It is expected that the improvements will be completed and work at the colliery resumed about the middle of February, 1901.

The Albright Coal Company stopped their Albright colliery on January 10th, 1900. It was purchased by the Silverton Coal Company in March. The breaker was repaired and the colliery started on April 30th, the name being changed to Silverton colliery.

A new washery has been erected by Smith, Meyers & Co., about two and one-half miles south of Tamaqua, in Walker township, on the line of the Little Schuylkill branch of the Philadelphia and Reading Railway, to prepare coal from some old dirt banks that were hauled to that point from the collieries that were worked in the borough of Tamaqua, many years ago. It is fitted up with the most modern improvements for the handling and preparation of coal.

Collieries Abandoned.

The Woodside Colliery, operated by the Woodside Coal Company, which built a new breaker and took the water out of the old Rohrersville colliery in 1899, was stopped in January, 1900, and is now again filled with water.

Marion Colliery.—The pumps at this colliery were stopped on January 27th, 1900, and it has since been filling with water. The colliery had been idle since February, 1899.

Young's Landing.—This small colliery was stopped early in January, 1900, and is now filled with water.

The examination of candidates for certificates as mine foreman and assistant mine foreman for the Eighth Anthracite District was held at Pottsville in June, 1900.

The examining board was composed of Thomas Doyer, superintendent; David Lecker and Frank Larkin, miners, and John Maguire, Mine Inspector.

The following were recommended to the Secretary of Internal Affairs for certificates of qualification for mine foreman: William D. Davis, Morea; Michael J. White, Good Spring; Josiah W. Davis, Lansford; David B. Davis, Lansford.

Assistant mine foreman: James Filer, Coaldale; Lawrence Finn, Minersville; Simon W. Rumberger, Muir.

TABLE I—Showing names of operators, railroads, etc., etc., and location of collieries in the Eighth Anthracite District for the year 1900.

Names of Operators and Collieries.	County.	Name of General Superintendent.	P. O. Address.	Name of Superintendent.	P. O. Address.	Railroad to Mine.
Phil. & Reading Coal & Iron Co.	Schuylkill	R. C. Lather.	Pottsville.	John Veith.	Pottsville.	Philadelphia and Reading.
West Brookside.	Schuylkill	R. C. Lather.	Pottsville.	John Veith.	Pottsville.	Philadelphia and Reading.
Lincoln.	Schuylkill	R. C. Lather.	Pottsville.	John Veith.	Pottsville.	Philadelphia and Reading.
East Spring.	Schuylkill	R. C. Lather.	Pottsville.	John Veith.	Pottsville.	Philadelphia and Reading.
Otto.	Schuylkill	R. C. Lather.	Pottsville.	John Veith.	Pottsville.	Philadelphia and Reading.
Phoenix Park No. 3.	Schuylkill	R. C. Lather.	Pottsville.	John Veith.	Pottsville.	Philadelphia and Reading.
Richardson.	Schuylkill	R. C. Lather.	Pottsville.	John Veith.	Pottsville.	Philadelphia and Reading.
Glendower.	Schuylkill	R. C. Lather.	Pottsville.	John Veith.	Pottsville.	Philadelphia and Reading.
Silver Creek.	Schuylkill	R. C. Lather.	Pottsville.	John Veith.	Pottsville.	Philadelphia and Reading.
Eagle Hill.	Schuylkill	R. C. Lather.	Pottsville.	John Veith.	Pottsville.	Philadelphia and Reading.
Wadesville.	Schuylkill	R. C. Lather.	Pottsville.	John Veith.	Pottsville.	Philadelphia and Reading.
Kalmia washery.	Schuylkill	R. C. Lather.	Pottsville.	John Veith.	Pottsville.	Philadelphia and Reading.
Lehigh Coal and Navigation Co.	Schuylkill	W. D. Zehner.	Lansford.	Baird Snyder, Jr.	Lansford.	Central Railroad of N. J.
Colliery No. 8.	Schuylkill	W. D. Zehner.	Lansford.	Baird Snyder, Jr.	Lansford.	Central Railroad of N. J.
Colliery No. 9.	Schuylkill	W. D. Zehner.	Lansford.	Baird Snyder, Jr.	Lansford.	Central Railroad of N. J.
Colliery No. 11.	Schuylkill	W. D. Zehner.	Lansford.	Baird Snyder, Jr.	Lansford.	Central Railroad of N. J.
Colliery No. 12.	Schuylkill	W. D. Zehner.	Lansford.	Baird Snyder, Jr.	Lansford.	Central Railroad of N. J.
Dodson Coal Company.	Schuylkill	E. L. Bullock.	Audenreid.	W. J. Hay.	Morea.	Lehigh Valley.
Morea.	Schuylkill	E. L. Bullock.	Audenreid.	W. J. Hay.	Morea.	Lehigh Valley.
Truman M. Dodson Coal Co.	Schuylkill	E. L. Bullock.	Audenreid.	Thos. C. Reese.	Kaska.	Philadelphia and Reading.
Kaska-William.	Schuylkill	E. L. Bullock.	Audenreid.	Thos. C. Reese.	Kaska.	Philadelphia and Reading.
St. Clair Coal Company.	Schuylkill	M. A. Gerber.	Tamaqua.	Wm. T. Smyth.	St. Clair.	Philadelphia and Reading.
St. Clair.	Schuylkill	M. A. Gerber.	Tamaqua.	Wm. T. Smyth.	St. Clair.	Philadelphia and Reading.
Beddall Brothers.	Schuylkill	M. A. Gerber.	Tamaqua.	M. A. Gerber.	Tamaqua.	Central Railroad of N. J.
Greenwood No. 13.	Schuylkill	M. A. Gerber.	Tamaqua.	M. A. Gerber.	Tamaqua.	Central Railroad of N. J.
Mitchell and Shepp.	Schuylkill	M. A. Gerber.	Tamaqua.	M. A. Gerber.	Tamaqua.	Philadelphia and Reading.
East Lehigh.	Schuylkill	M. A. Gerber.	Tamaqua.	M. A. Gerber.	Tamaqua.	Philadelphia and Reading.
Dunkleberger and Young.	Schuylkill	M. A. Gerber.	Tamaqua.	M. A. Gerber.	Tamaqua.	Philadelphia and Reading.
West Lehigh.	Schuylkill	M. A. Gerber.	Tamaqua.	M. A. Gerber.	Tamaqua.	Philadelphia and Reading.
Leisenring and Company.	Schuylkill	M. A. Gerber.	Tamaqua.	M. A. Gerber.	Tamaqua.	Philadelphia and Reading.
Oak Hill.	Schuylkill	M. A. Gerber.	Tamaqua.	M. A. Gerber.	Tamaqua.	Philadelphia and Reading.
				Wm. Schwenk.	Minersville.	Philadelphia and Reading.

Lyttle Coal Company.	Schuylkill, ..	Morris Williams, ..	Wilkes-Barre, ..	Arthur Kennedy,	Minersville,	Pennsylvania Railroad.
Lyttle,	Schuylkill, ..	James Archbald, Jr.,	Pottsville, .....	.....	.....	Philadelphia and Reading.
Albright Coal Company.	Schuylkill, ..	.....	.....	Gomer E. Jones,	Llewellyn,	Philadelphia and Reading.
Albright,	Schuylkill, ..	.....	.....	John H. Davis,...	St. Clair,	Philadelphia and Reading.
Silvertown Coal Company.	Schuylkill, ..	.....	.....	Richard White,...	Pottsville,	Philadelphia and Reading.
Silvertown,	Schuylkill, ..	.....	.....	.....	.....	Philadelphia and Reading.
Davis Brothers.	Schuylkill, ..	.....	.....	.....	.....	Philadelphia and Reading.
Ellsworth,	Schuylkill, ..	.....	.....	.....	.....	Philadelphia and Reading.
E. E. White and Company.	Schuylkill, ..	S. D. Kynor,	Pottsville, .....	.....	.....	Philadelphia and Reading.
Howard,	Schuylkill, ..	.....	.....	.....	.....	Philadelphia and Reading.
Mt. Hope Coal Company.	Schuylkill, ..	B. F. Williams,	Wilkes-Barre, .....	.....	.....	Philadelphia and Reading.
Mt. Hope,	Schuylkill, ..	.....	.....	.....	.....	Philadelphia and Reading.
Williams Coal Company.	Schuylkill, ..	B. E. Kingsley,	Minersville, .....	.....	.....	Philadelphia and Reading.
East Ridge Coal Company.	Schuylkill, ..	.....	.....	.....	.....	Philadelphia and Reading.
East Ridge,	Schuylkill, ..	Clarence B. Stenges,	Seranton,	Richard J. Wren,	Minersville,	Pennsylvania.
Pine Hill Coal Company.	Schuylkill, ..	.....	.....	Simon Moore, ...	Tremont,	Philadelphia and Reading.
Pine Hill,	Schuylkill, ..	.....	.....	Edward Gorman,	Tuscarora,	Philadelphia and Reading.
Lesch, Moore and Company.	Schuylkill, ..	.....	.....	.....	.....	Philadelphia and Reading.
Lorberry,	Schuylkill, ..	.....	.....	Daniel Slattery,...	Tuscarora,	Philadelphia and Reading.
Bell,	Schuylkill, ..	.....	.....	.....	.....	No railroad to mine.
Gorman, Campion and Co.	Schuylkill, ..	.....	.....	Jos. H. Denning,	St. Clair, .....	.....
Bell,	Schuylkill, ..	.....	.....	.....	.....	.....
Tuscarora,	Schuylkill, ..	.....	.....	.....	.....	.....
Slattery Brothers.	Schuylkill, ..	.....	.....	.....	.....	.....
Joseph H. Denning.	Schuylkill, ..	.....	.....	.....	.....	.....
Sebastopol,	Schuylkill, ..	.....	.....	.....	.....	.....
Jugular,	Schuylkill, ..	.....	.....	.....	.....	.....
Whims and Hepner.	Schuylkill, ..	.....	.....	.....	.....	.....
Woodside Coal Company.	Schuylkill, ..	.....	.....	.....	.....	.....
Woodside,	Schuylkill, ..	.....	.....	.....	.....	.....
Stoddard Coal Company.	Schuylkill, ..	.....	.....	.....	.....	.....
Wolf Creek washery,	Schuylkill, ..	.....	.....	.....	.....	.....
Middleport Coal Company.	Schuylkill, ..	.....	.....	.....	.....	.....
Middleport washery,	Schuylkill, ..	.....	.....	.....	.....	.....
Smith, Meyers and Company.	Schuylkill, ..	.....	.....	.....	.....	.....
Meyers washery,	Schuylkill, ..	.....	.....	.....	.....	.....

TABLE II—Gives the total number of tons of coal mined in each colliery, number of days worked, number of employes, number of persons killed and injured, number of kegs of powder, etc., used in the Eighth Anthracite District for the year ending December 31, 1900.

Names of Operators and Collieries.	County.	Shipments of coal in tons by rail or otherwise.	Number of tons used for steam and heat at colliery.	Sold to local trade and used by employes—tons.	Total production of coal in tons.	Number days worked.	Number persons employed.	Number fatal accidents.	Number non-fatal accidents.	Number kegs powder used.	Number pounds of dynamite used.	Number horses and mules.
Phila. and Reading Coal and Iron Co.	Schuylkill.	320,231	56,419	.....	376,650	182.2	1,144	4	12	4,814	32,235	127
West Brookside,	Schuylkill.	209,854	18,572	3,635	232,061	179.9	771	3	5	5,456	21,144	82
Lehigh Valley Coal Company,	Schuylkill.	135,960	12,549	3,618	152,127	168.2	449	.....	5	4,507	16,595	48
Good Spring,	Schuylkill.	94,025	28,187	1,205	123,418	132.4	523	3	14	1,081	15,432	46
Otto,	Schuylkill.	66,987	14,330	1,122	83,039	165.5	322	.....	2	828	13,218	37
Phoenix Park No. 3,	Schuylkill.	85,268	24,382	477	110,727	167.7	327	.....	2	1,257	28,130	37
Richardson,	Schuylkill.	81,094	34,168	243	115,495	166.5	413	.....	1	3,468	3,468	79
Glendower,	Schuylkill.	227,981	23,724	2,240	253,945	168.7	662	.....	19	2,789	17,366	54
Silver Creek,	Schuylkill.	200,457	58,373	2,978	261,808	168.7	662	.....	19	2,789	17,366	54
Eagle Hill,	Schuylkill.	20,457	58,373	2,978	107,581	132.2	428	1	3	3,043	16,838	50
Wadesville,	Schuylkill.	20,322	20,322	2,150	43,240	132.2	25	.....	.....	.....	.....	.....
Kalmia washery,	Schuylkill.	22,649	391	.....	23,240	.....	.....	.....	.....	.....	.....	.....
Total, .....	.....	1,539,946	293,117	16,409	1,809,472	169.5	5,897	18	71	27,642	170,195	599
Lehigh Valley Coal Company.	Schuylkill.	282,960	16,210	5,185	304,355	242.2	678	.....	.....	680	74,000	122
Colliery No. 8,	Schuylkill.	24,100	24,100	4,451	277,903	236.6	545	1	5	1,328	29,550	91
Colliery No. 10,	Schuylkill.	290,651	16,067	4,567	311,275	245.6	454	1	.....	720	35,600	13
Colliery No. 11,	Schuylkill.	.....	9,012	.....	9,012	.....	184	.....	.....	.....	2,000	13
Colliery No. 12,*	Schuylkill.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Total, .....	.....	822,993	65,449	14,193	902,545	241.4	1,731	2	5	2,678	140,550	279
Dodson Coal Company.	Schuylkill.	166,758	24,445	983	192,156	166.1	555	.....	4	3,624	26,525	68
Truman M. Dodson Coal Company.	Schuylkill.	81,295	27,188	516	108,969	129.6	352	.....	6	1,769	27,138	28
Kaska-William,	Schuylkill.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

*Title.

St. Clair,	St. Clair Coal Company.	Schuylkill,	158,356	34,232	2,238	194,827	194	436	1	8	5,451	5,903	35
Greenwood No. 3,	Beddall Brothers.	Schuylkill,	81,666	3,110	8,407	93,173	243.1	183	1	2	1,075	5,350	17
East Lehigh,	Mitchell and Shepp.	Schuylkill,	3,559	188	2,108	5,856	252	23	.....	.....	94	800	3
West Lehigh,	Dunkleberger and Young.	Schuylkill,	17,135	700	5,398	23,233	226	66	.....	.....	300	5,100	9
Oak Hill,	Lelsenring and Company.	Schuylkill,	182,901	19,500	1,563	203,964	201.5	519	1	3	3,612	28,200	40
Lytie,	Lytie Coal Company.	Schuylkill,	226,759	40,977	3,175	270,911	193.1	761	3	4	5,965	47,768	79
Albriht,	Albriht Coal Company.	Schuylkill,	1,656	672	62	1,750	5.8	.....	.....	.....	34	462	.....
Silverton,	Silverton Coal Company.	Schuylkill,	33,161	9,180	165	42,506	110.3	157	1	.....	689	9,875	18
Ellsworth,	Davis Brothers.	Schuylkill,	31,709	2,510	319	34,518	210.7	78	.....	1	.....	9,050	6
Howard,	E. C. White and Company.	Schuylkill,	13,093	3,650	242	16,955	119.8	92	.....	.....	300	160	13
Mt. Hope,	Mt. Hope Coal Company.	Schuylkill,	43,892	5,000	5,398	54,290	182	124	.....	.....	414	10,600	14
Williams,	Williams Coal Company.	Schuylkill,	15,850	4,000	3,147	22,997	51.5	238	1	.....	200	1,560	17
East Ridge,	East Ridge Coal Company.	Schuylkill,	56,806	5,475	77	62,360	137.8	256	.....	.....	2,211	3,350	22
Pine Hill,	Pine Hill Coal Company.	Schuylkill,	58,428	6,750	247	65,125	113.4	254	2	2	2,143	7,417	17
Lorberry,	Lesch, Moore and Company.	Schuylkill,	36,841	1,303	1,678	39,822	204.9	107	2	1	1,750	690	13
Bell,	Gorman, Campton and Company.	Schuylkill,	17,828	1,130	43	19,001	153.6	71	.....	.....	335	1,450	6
Tuscarora,	Slattery Brothers	Schuylkill,	12,786	175	242	13,203	181	41	.....	.....	370	700	5
Sebastopol,	Joseph H. Denning.	Schuylkill, .....	.....	400	7,513	7,913	269	27	.....	.....	3	100	10

TABLE II—Continued.

Names of Operators and Collieries.	County.	Shipment of coal in tons by rail or otherwise.	Number of tons used for steam and heat at colliery.	Sold to local trade and used by employes—tons.	Total production of coal in tons.	Number days worked.	Number persons employed.	Number fatal accidents.	Number non-fatal accidents.	Number kegs powder used.	Number pounds of dynamite used.	Number horses and mules.
Whims and Hepner.	Schuylkill,	2,091	216	59	2,366	54	17	.....	.....	2	50	5
Jugular,	Schuylkill,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Woodside Coal Company.	Schuylkill,	1,357	300	45	1,702	11.3	.....	.....	.....	63	86	.....
Woodside,	Schuylkill,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Stoddard Coal Company.	Schuylkill,	54,600	2,012	130	56,742	107.7	40	.....	.....	.....	.....	3
Wolf Creek washery,	Schuylkill,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Middleport Coal Company.	Schuylkill,	23,978	500	260	24,738	204	23	.....	.....	.....	.....	3
Middleport washery,	Schuylkill,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Smith, Meyers and Company.	Schuylkill,	3,253	171	.....	3,424	13	23	.....	.....	.....	.....	1
Smith washery,	Schuylkill,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

Recapitulation.

Phila. and Reading Coal and Iron Co.,	1,529,946	263,117	16,409	1,809,472	161.5	5,867	18	71	27,642	170,185	594
Lehigh Coal and Navigation Company,	822,963	65,449	14,103	902,545	241.4	1,731	2	5	2,678	140,550	279
Miscellaneous coal companies,	1,242,909	191,052	43,646	1,477,607	195.4	4,537	12	31	30,394	182,154	420
Stoddard Coal Company washery,	54,600	2,012	130	56,742	107.7	40	.....	.....	.....	.....	3
Middleport Coal Company washery,	23,978	500	260	24,738	204	23	.....	.....	.....	.....	3
Smith, Meyers and Company washery,	3,253	171	.....	3,424	13	23	.....	.....	.....	.....	1
Grand total,	3,677,589	522,301	74,638	4,274,528	195.6	12,041	32	107	60,714	502,899	1,315

TABLE II—Continued.

Name of Operators.	County.	Number of Boilers.			Total horse power.	Locomotives.			Total horse power.	Number steam engines of all classes.	Total horse power.	Number pumps delivering water to surface.	Capacity in gallons per minute.	Quantity delivered to surface per minute—gallons.	Number electric dynamos.	Number air compressors.
		Cylindrical.		Tubular.		Steam.	Air.	Electric.								
		Horse power.		Horse power.												
Phila. & Reading Coal and Iron Co.,	Schuylkill,	161	5,334	95	12,750	18,084	10	10	104	10,130	25	23,076	11,257	.....	2
Lehigh Coal and Navigation Co.,	Schuylkill,	49	784	32	4,498	3,282	6	.....	31	1,588	8	7,802	3,901	.....	.....
Dodson Coal Company,	Schuylkill,	26	320	15	1,840	2,360	4	.....	30	2,400	4	7,900	2,500	.....	.....
Truman M. Dodson Coal Company,	Schuylkill,	14	850	10	1,500	1,770	3	.....	9	1,140	6	2,000	500	.....	1
S. Clair Coal Company,	Schuylkill,	9	270	7	330	330	2	.....	7	265	5	1,400	700	.....	.....
Widdell Brothers,	Schuylkill,	.....	.....	1	56	56	.....	.....	2	.....	.....	.....	.....	.....	.....
Wheeler and Young,	Schuylkill,	3	105	.....	.....	105	.....	.....	4	105	.....	.....	.....	.....	.....
Dunkleberger and Young,	Schuylkill,	20	600	4	770	1,370	1	.....	12	2,000	6	5,000	2,000	.....	.....
Leisenring and Company,	Schuylkill,	3	.....	.....	.....	.....	.....	.....	9	2,417	10	5,000	2,500	.....	.....
Lytle Coal Company,	Schuylkill,	20	600	15	1,950	1,950	1	.....	9	.....	.....	.....	.....	.....	.....
Albright Coal Company,	Schuylkill,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Silverton Coal Company,	Schuylkill,	8	240	3	475	715	.....	.....	10	542	2	2,700	1,920	.....	.....
Davis Brothers,	Schuylkill,	.....	.....	3	200	200	.....	.....	5	136	.....	.....	.....	.....	.....
E. C. White and Company,	Schuylkill,	6	180	1	126	300	.....	.....	4	270	3	1,700	600	.....	1
Mt. Hope Coal Company,	Schuylkill,	4	80	10	655	735	2	.....	10	240	.....	.....	.....	.....	.....
Williams Coal Company,	Schuylkill,	.....	.....	4	600	600	.....	.....	5	500	1	408	300	.....	.....
East Ridge Coal Company,	Schuylkill,	.....	.....	3	300	300	.....	.....	5	500	.....	.....	.....	.....	.....
Pine Hill Coal Company,	Schuylkill,	.....	.....	2	180	180	.....	.....	10	338	.....	.....	.....	.....	.....
Loesch, Moore and Company,	Schuylkill,	.....	.....	2	180	180	.....	.....	3	150	1	1,000	600	.....	1
Lorman, Madison and Company,	Schuylkill,	.....	.....	.....	.....	.....	.....	.....	8	.....	.....	.....	.....	.....	.....
Shubert Brothers,	Schuylkill,	.....	.....	2	70	70	1	.....	3	75	.....	.....	.....	.....	.....
Joseph H. Denning,	Schuylkill,	.....	.....	.....	.....	.....	.....	.....	3	60	.....	.....	.....	.....	.....
Whims and Hepper,	Schuylkill,	.....	.....	2	90	90	.....	.....	2	70	.....	.....	.....	.....	.....
Woodside Coal Company,	Schuylkill,	.....	.....	.....	.....	.....	.....	.....	2	.....	.....	.....	.....	.....	.....
Stoddard Coal Company,	Schuylkill,	4	72	2	180	252	.....	.....	7	144	.....	.....	.....	.....	.....
Middleport Coal Company,	Schuylkill,	.....	.....	2	20	20	.....	.....	10	10	.....	.....	.....	.....	.....
Smith, Meyers and Company,	Schuylkill,	.....	.....	2	250	250	.....	.....	2	100	.....	.....	.....	.....	.....

Recapitulation.

Name of Operators.	County.	Number of Boilers.				Total horse power.	Locomotives.			Number steam engines of all classes.	Total horse power.	Number pumps delivering water to surface.	Capacity in gallons per minute.	Quantity delivered to surface per minute—gallons.	Number electric dynamos.	Number air compressors.
		Cylindrical.	Horse power.	Tubular.	Horse power.		Steam.	Air.	Electric.							
Phila. & Reading Coal and Iron Co.,	161	5,324	95	12,750	18,684	10	.....	104	10,130	25	23,076	11,257	.....	2	.....
Lehigh Coal and Navigation Company,	49	784	32	4,498	5,282	6	.....	31	1,588	8	7,902	3,901	.....	.....	.....
Miscellaneous coal companies,	92	2,310	95	10,726	12,021	14	.....	143	12,008	34	26,408	11,620	.....	.....	.....
Stoddard Coal Company washery,	4	72	2	480	252	.....	.....	7	144	.....	.....	.....	.....	.....	.....
Middleport Coal Company washery,	2	20	20	.....	.....	1	10	.....	.....	.....	.....	.....	.....
Smith, Meyers and Company washery,	3	250	250	.....	.....	2	100	.....	.....	.....	.....	.....	.....
Grand total,	306	8,490	228	28,424	35,909	30	.....	288	22,980	67	57,386	26,778	.....	1	9

TABLE III—Showing the number of each class of employes at each colliery in the Eighth Anthracite District during the year 1900.

Names of Operators and Collieries.	County.	Occupations of Persons Employed Inside.							Occupations of Persons Employed Outside.							Grand total, inside and outside.	
		Inside foreman or mine boss.	Fire bosses.	Miners.	Miners' laborers.	Drivers and runners.	Door boys and helpers.	All other employes.	Total inside.	Outside foreman.	Blacksmiths and carpenters.	Engineers and firemen.	State pickers.	Superintendents, bookkeepers and clerks.	All other employes.		Total outside.
Phila. & Reading Coal and Iron Co.	Schuylkill,	20	54	1,606	583	215	79	1,202	3,759	16	85	252	813	20	922	2,108	5,867
West Brookside,	Schuylkill,	4	4	237	108	29	9	161	552	12	12	42	59	2	102	219	771
Lincoln,	Schuylkill,	2	4	112	27	11	4	87	247	1	6	19	92	2	82	202	449
Good Spring,	Schuylkill,	2	5	161	53	21	9	99	360	1	8	23	34	2	85	173	523
Phoenix Park No. 3,	Schuylkill,	1	4	89	35	207	12	69	207	1	6	30	49	1	49	115	322
Richardson,	Schuylkill,	1	5	87	47	16	14	62	294	1	8	30	70	2	77	181	417
Glendower,	Schuylkill,	1	2	87	41	16	11	62	294	1	8	30	70	2	77	181	417
Richardson,	Schuylkill,	2	9	252	61	28	10	176	538	2	9	23	129	2	100	265	802
Silver Creek,	Schuylkill,	1	6	202	55	22	5	128	419	2	8	24	117	2	90	243	662
Eagle Hill,	Schuylkill,	1	3	112	54	15	11	78	274	1	6	22	60	2	63	154	428
Wadesville,	Schuylkill,	1	3	112	54	15	11	78	274	1	6	22	60	2	63	154	428
Kalmia washery,	Schuylkill,	1	3	112	54	15	11	78	274	1	6	22	60	2	63	154	428
Total,		20	54	1,606	583	215	79	1,202	3,759	16	85	252	813	20	922	2,108	5,867
Lehigh Coal and Navigation Co.	Schuylkill,	2	4	112	37	36	20	240	451	1	8	12	73	.....	83	177	628
Colliery No. 8,	Schuylkill,	1	4	78	58	37	16	150	344	1	8	24	90	.....	78	201	545
Colliery No. 10,	Schuylkill,	1	4	69	21	23	9	114	241	1	8	26	69	.....	79	183	424
Colliery No. 11,	Schuylkill,	1	1	.....	.....	4	2	79	87	1	8	8	.....	.....	30	47	134
Colliery No. 12,	Schuylkill,	5	13	259	116	100	47	583	1,123	4	32	70	232	.....	270	608	1,731
Total,		1	2	79	85	26	7	64	264	1	17	18	94	5	156	291	555
Dodson Coal Company.	Schuylkill,	1	2	79	85	26	7	64	264	1	17	18	94	5	156	291	555
Morea,		1	2	79	85	26	7	64	264	1	17	18	94	5	156	291	555

Recapitulation.

Names of Operators and Collieries.	County.	Occupations of Persons Employed Inside.										Occupations of Persons Employed Outside.									
		Inside foreman or mine boss.	Fire bosses.	Miners.	Miners' laborers.	Drivers and runners.	Door boys and helpers.	All other employes.	Total inside.	Outside foreman.	Blacksmiths and carpenters.	Engineers and firemen.	State pickers.	Superintendents, book-keepers and clerks.	All other employes.	Total outside.	Grand total inside and outside.				
Phila. & Reading Coal and Iron Co.,	20	54	1,606	583	215	79	1,202	3,759	16	85	252	813	20	922	2,108	5,867				
Lehigh Coal and Navigation Co.,	5	13	259	116	100	47	583	1,123	4	4	32	170	.....	270	608	1,781			
Miscellaneous coal companies,	21	29	1,288	442	206	50	481	2,517	23	93	182	650	46	846	1,840	4,357				
Stoddard Coal Company washery,	1	1	6	4	2	26	40	40				
Middleport Coal Company washery,	1	.....	1	2	1	18	23	23				
Smith, Meyers and Co. washery,	1	2	2	5	3	10	23	23				
Total,	46	96	3,153	1,141	521	176	2,266	7,339	46	213	513	1,706	72	2,092	4,642	12,041				

Recapitulation.

Name of Operators.	County.	Number of Days Worked Each Month in Breaker.												Total.	
		January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.		
Phila. & Reading Coal and Iron Company,	19.2	11.9	9.9	10.8	10.8	15	9.4	17.3	17.8	6	21	20.3	20.3	163.5
Lehigh Coal and Navigation Company,	22.76	19.63	17.5	16.83	16.7	18.86	21.56	20.66	19.36	26.23	19.6	21.03	21.03	241.46
Miscellaneous coal companies,	18.9	15	17.1	15.3	15.2	15.5	15.2	19.3	17.1	9.6	19.2	18	18	195.4
Standard Coal Company washery,	21.2	13.4	12.4	13.2	14	19	14.4	20	17	3.1	6.4	13.6	13.6	191.4
Middleton Coal Company washery,	22	17	17	13	15	17	15	14	18	21	22	6	6	204.4
Smith, Meyers and Company washery,	1	6	6	6	13
Total,	20.8	15.4	14.8	14	14.8	17.1	15.1	18.3	17.8	13.4	21	18.4	18.4	195.6*

*Average.

TABLE IV—List of fatal accidents that occurred in and about the mines of the Eighth Anthracite District for the year ending December 31, 1900.

Date of accident.	Name of Person.	Nationality by Birth.	Occupation.	Age.	Married or single.	Number of widows.	Number of orphans.	Name of Colliery.	County.	Nature and Cause of Accident in Brief.
Jan. 8	John Voleski,	Pole,	Laborer,	40	M	1	4	Eagle Hill,	Schuylkill,	Fatally injured by a log rolling on his head on timber bank. Died Jan. 15th.
31	James A. Watts,	American, ..	Boss loader, ..	32	M	1	3	Otto,	Schuylkill,	Fatally injured by a mine car running over him on slope. Died same day.
Feb. 12	Frank Dominick,	Pole,	Miner,	44	S	.....	.....	Silver Creek, ...	Schuylkill,	Burned by an explosion of gas. Died Feb. 19th.
12	Anthony Morris,	Pole,	Miner,	41	S	.....	.....	Silver Creek, ...	Schuylkill,	Burned by an explosion of gas. Died next day.
13	Joseph Stelckinnis,	Lithuanian.	Laborer,	25	S	.....	.....	Lytie,	Schuylkill,	Killed by falling down inside slope.
14	Matthew Syncaavage, ...	Pole,	Miner,	38	M	1	2	Lytie,	Schuylkill,	Fatally injured by explosion of blast.
March 12	Raym'd Fenstermacher, ..	American, ..	Laborer,	18	S	.....	.....	Greenwood,	Schuylkill,	Fatally injured by being caught between railroad car and breaker timber. Died next day.
14	John S. Foley,	Irish,	Laborer,	42	M	1	7	Lincoln,	Schuylkill,	Struck by a piece of rock that fell down sinking shaft. Died next day.
28	John Cleary,	Irish,	Driver,	46	M	1	.....	Glendower,	Schuylkill,	Injured by being caught between mine car and chute. Died April 23d.
April 10	Frank Carl,	American, ..	Miner,	29	M	1	2	Williams,	Schuylkill,	Instantly killed by a fall of coal in a breast.
May 14	Joseph Martino,	Italian,	Laborer,	32	M	1	2	Pine Hill,	Schuylkill,	Killed by a fall of slate at face of gang-way.
June 14	Richard Willing,	American, ..	Driver,	18	S	.....	.....	No. 10, L. C. & Nav. Co.	Schuylkill,	Killed by his head having been caught between top of car and chute.
23	Otto T. Schneider,	American, ..	Miner,	29	M	1	1	West Brookside,...	Schuylkill,	Killed in explosion of dynamite while testing a blast hole.
26	Joseph Hubbard,	German,	Top man, ...	37	M	1	3	Lincoln,	Schuylkill,	Killed by rock falling from truck on him.
30	William Dunn,	American, ..	Timber man, ...	34	M	1	4	Otto,	Schuylkill,	Killed by a truck that ran away down the slope.
30	Mich. Cauley,	Irish,	Helper to car loader.	14	S	.....	.....	Richardson,	Schuylkill,	Fatally injured by being run over by railroad cars. Died next day.
July 9	William Wagner,	American, ..	Driver,	16	S	.....	3	West Brookside,...	Schuylkill,	Killed by a fall of rock.
22	Martin Demoski,	Lithuanian,	Miner,	38	M	.....	.....	Oak Hill,	Schuylkill,	Killed by being run over by cars on slope.

TABLE IV—Continued.

Date of accident.	Name of Person.	Nationality by Birth.	Occupation.	Age.	Married or Single.	Number of Widows.	Number of Orphans.	Name of Colliery.	County.	Nature and Cause of Accident in Brief.
Aug. 1	Henry Leonard,	American, ..	Switch tender,	16	S.	.....	.....	West Brookside, ..	Schuylkill,	Killed by falling under mine cars while trying to get on them.
2	Wm. Szalasavicz,	Pole,	Miner,	34	S.	.....	.....	Pine Hill,	Schuylkill,	Killed by a shot blowing through pillar into heading from breast inside.
8	Wm. Schock,	American, ..	Miner,	36	M.	1	2	Lorberry,	Schuylkill,	(Killed by a fall of rock while robbing gangway stumps.
8	Henry Albert Neal,	American, ..	Laborer,	35	S.	.....	.....	Lorberry,	Schuylkill,	Killed by falling into scraper line in breaker.
14	Wm. Hubler,	American, ..	Slate picker, ..	14	S.	.....	.....	Lytie,	Schuylkill,	Killed by a fall of coal while skipping pillar.
Sept. 10	Andrew Yeslemac,	Hungarian, ..	Miner,	35	S.	.....	.....	Eagle Hill,	Schuylkill,	Killed by falling under dumper on slate bank while unhitching a mule.
24	William Chisnell,	American, ..	Driver,	21	S.	.....	.....	No. 11 col., L. C. & Nav. Co.,	Schuylkill,	Killed by a small piece of slate falling on him in a breast.
Nov. 5	John Miller,	American, ..	Laborer,	28	S.	.....	.....	Lincoln,	Schuylkill,	Killed by dumping pole on rock bank striking him on the head.
6	Joseph Cook,	American, ..	Laborer,	23	S.	.....	.....	Wadesville,	Schuylkill,	Killed by being caught between mine car that had left track and side of gangway.
10	James Schoffstall,	American, ..	Driver,	27	M.	1	3	Silverton,	Schuylkill,	Killed by shot going off before he got away from it. Had shortened the match.
23	Joseph Muskalavitz, ..	Pole,	Miner,	25	S.	.....	.....	Otto,	Schuylkill,	Killed by being caught by wagon on slope of slate bank in the track.
28	Timothy Brady,	American, ..	Pump engineer, ..	22	S.	.....	.....	St. Clair,	Schuylkill,	Head crushed between top of mine car and timber. Died next day.
Dec. 3	Chas. Eisenbacher,	American, ..	Laborer,	29	S.	.....	.....	West Brookside, ..	Schuylkill,	Killed by being run over by railroad cars near the breaker.
14	Fred Gunder,	German,	Laborer,	47	S.	.....	.....	Eagle Hill,	Schuylkill,	
						13	36			

TABLE V—List of non-fatal accidents that occurred in and about the mines of the Eighth Anthracite District for the year ending December 31, 1900.

Date of accident.	Name of Person.	Nationality by Birth.	Occupation.	Age.	Married or single.	Name of Colliery.	County.	Nature and Cause of Accident in Brief.
Jan. 11	John Bailey,	English,	Fire boss,	42	M.	Silver Creek,	Schuylkill,	Hands and face burned by an explosion of gas.
13	William Brockhoff,	German,	Miner,	46	M.	Eagle Hill,	Schuylkill,	Leg broken by wagon catching a prop that he was taking up a chute.
18	Anthony Luckinski,	Pole,	Miner,	38	S.	Eagle Hill,	Schuylkill,	Ankle broken by collar falling on it while chopping old timber out.
19	Alex. Sacovich,	Pole,	Laborer,	26	S.	Kaska-William,	Schuylkill,	Large toe cut off by a piece of slate falling on it.
23	James Richards,	American,	Miner,	46	M.	Otto,	Schuylkill,	Hand severely cut by coal falling on it.
19	Peter Brown,	Pole,	Laborer,	35	M.	Eagle Hill,	Schuylkill,	Leg broken and hand lacerated; thought shot had missed and went back to it too soon.
26	Harry Dudley,	American,	Laborer,	27	S.	St. Clair,	Schuylkill,	Leg broken; was crossing the slope track when the rope struck him.
31	Louis Behney,	American,	Miner,	46	M.	West Brookside,	Schuylkill,	Leg broken by a fall of coal while dressing after a shot.
31	John Higgins,	American,	Loader,	19	S.	Colliery No. 10, L. & C. Nav. Co.	Schuylkill,	Leg broken through his leg.
5	Henry Osman,	German,	Repairman,	56	M.	Lincoln,	Schuylkill,	Leg injured; caught between wagons while crossing track outside.
7	Edward Lawlor,	American,	Loader boss,	30	S.	West Brookside,	Schuylkill,	Leg broken by a fall of coal.
19	Chas. Barashus,	Pole,	Miner,	30	M.	Silver Creek,	Schuylkill,	Back injured by a fall of slate.
21	Peter Walsh,	Irish,	Engineer,	58	M.	St. Clair,	Schuylkill,	Tops of fingers cut off; caught in guides while tightening cross head of engine while it was in motion.
28	Joseph Mahoney,	American,	Driver,	23	S.	Richardson,	Schuylkill,	Leg broken; while harnessing a mule in stable it jumped on him.
March 9	Henry Curry,	Irish,	Miner,	30	M.	Wadesville,	Schuylkill,	Face, side and arm injured by premature blast.
9	Henry J. Kear,	American,	Carpenter,	26	M.	St. Clair,	Schuylkill,	Ribs fractured while working in breaker; he fell about 25 feet.
19	Wm. H. Long,	American,	Miner,	52	M.	Good Spring,	Schuylkill,	Seriously injured by fall of coal.
21	Jacob Dixon,	American,	Miner,	30	M.	Good Spring,	Schuylkill,	Face head and leg injured by premature blast.
22	Tony Riehneb,	Italian,	Miner,	29	M.	Otto,	Schuylkill,	Leg broken by a fall of coal.
23	Monroe L. Bonawitz,	American,	Miner,	20	S.	Lorberry,	Schuylkill,	Ribs broken; struck by a prop that was knocked out.

TABLE V—Continued.

Date of accident.	Name of Person.	Nationality by Birth.	Occupation.	Age.	Married or single.	Name of Colliery.	County.	Nature and Cause of Accident in Brief.
March 27	James Ford,	American,	Laborer,	25	S.	Eagle Hill,	Schuylkill,	Hips injured by cars.
27	John Shylock,	Hungarian,	Laborer,	28	S.	Kaska-William,	Schuylkill,	Leg broken; while unloading a prop from a mine car he slipped and it fell on his leg.
30	Ritch, Purcell,	American,	Miner,	45	M.	Phoenix Park No. 3,	Schuylkill,	Back injured by a fall of coal.
April 3	Phillip Poltek,	Austrian,	Laborer,	36	M.	St. Clair,	Schuylkill,	Leg broken; while pushing a car the locomotive pushed cars behind him, which caught him.
16	Thos. W. Griffiths,	Welsh,	Miner,	52	M.	No. 10 coll., L. C. & Nav. Co.	Schuylkill,	Hands and face burned by an explosion of gas.
16	Andrew Weaver,	German,	Roadman,	22	S.	No. 10 coll., L. C. & Nav. Co.	Schuylkill,	Hands and face burned by an explosion of gas.
17	Paul Boyer,	American,	Miner,	39	M.	Otto,	Schuylkill,	Face and head badly cut by a fall of coal.
19	Joseph Charlina,	Hungarian,	Loader,	36	M.	Ellsworth,	Schuylkill,	Leg broken by a piece of rock rolling down chute.
20	Joseph York,	Irish,	Loader,	20	S.	No. 10 coll., L. C. & Nav. Co.	Schuylkill,	Leg broken; struck by a lump of coal while starting a chute.
23	Tim Farnce,	American,	Car loader,	21	M.	Richardson,	Schuylkill,	Arm broken; fell from a car.
24	F. Raulanibis,	Lithuanian,	Miner,	26	M.	Oak Hill,	Schuylkill,	Leg broken by a piece of coal falling from rib.
24	Frank Wenrick,	American,	Miner,	23	M.	Lincoln,	Schuylkill,	Head and arm broken by an explosion of gas.
24	David Workman,	American,	Driver,	23	M.	Lincoln,	Schuylkill,	Head and arm broken by an explosion of gas.
25	Lawrence Ryan,	American,	Driver,	16	S.	Glendower,	Schuylkill,	Arm broken; was riding; fell from car.
4	Mich Ryan,	Irish,	Miner,	37	S.	Richardson,	Schuylkill,	Leg broken by a fall of coal.
May 4	Reese Davis,	Welsh,	Fire boss,	30	M.	Silver Creek,	Schuylkill,	Hands and face burned by an explosion of gas.
10	Thomas Edwards,	American,	Laborer,	21	S.	Morea,	Schuylkill,	Ankle broken by a fall of coal.
10	Peter Boran,	American,	Miner,	54	M.	Wadesville,	Schuylkill,	Back and leg severely injured by a fall of coal.
21	Peter Boran,	American,	Driver,	21	S.	Kaska-William,	Schuylkill,	Leg broken; fell under a dumper on dirt bank.
23	Alex Milonowski,	Pole,	Laborer,	55	M.	Morea,	Schuylkill,	Arm broken while trying to pull a belt of pulley in breaker while it was in motion.
7	Peter Davis,	Irish,	Miner,	23	S.	St. Clair,	Schuylkill,	Arm broken by a fall of coal.
14	John Coogan,	American,	Spragger,	17	S.	Silver Creek,	Schuylkill,	Little finger cut off and hand crushed by cars.
15	Rich. Jones,	American,	Fan boy,	28	S.	Greenway,	Schuylkill,	Leg broken by a fall of coal.
			Laborer,	23	S.	Kaska-William,	Schuylkill,	Had severely injured by a piece of coal falling from wagon.

	18	19	20	21	S.	West Brookside...	Schuykill,	Two toes broken and foot severely injured by cars.
Robert Davis,	American,	Miner,	21	M.	Glendower,	Schuykill,	Leg broken; fall of slate	
James Hughes,	American,	Miner,	53	M.	Silver Creek,	Schuykill,	Leg broken; clear fell on his leg;	
Andrew Folka,	Slav,	Laborer,	24	M.	West Brookside,	Schuykill,	Face and hands burned by an explosion of gas.	
John Egan,	American,	Miner,	19	M.	Richardson,	Schuykill,	Leg severely injured by cars.	
John McNeely,	American,	Car driver,	19	M.	Richardson,	Schuykill,	Foot severely injured by cars.	
Edward Dally,	American,	Driver,	19	M.	No. 10 coll., L. C.	Schuykill,	Face and hands burned by an explosion of gas.	
James J. Gallagher,	Irish,	Miner,	28	S.	& Nav. Co.	Schuykill,	Leg broken by car.	
Frank Sattazahn,	American,	Driver,	16	S.	West Brookside,	Schuykill,	Face and hands burned by an explosion of gas.	
Shadrack Davis,	American,	Fire boss,	48	M.	Greenwood,	Schuykill,	Severely injured by explosion of dynamite.	
Oliver Machimer,	American,	Fire boss,	37	M.	West Brookside,	Schuykill,	Severely injured by explosion of dynamite.	
Ed. Connelly,	American,	Timber man,	35	S.	Otto,	Schuykill,	Face injured and one finger broken by pre-mature blast.	
John Harness,	Slav,	Miner,	23	M.	Oak Hill,	Schuykill,	Ankle dislocated, shoulders and head injured by fall of slate.	
Anthony Gregstes,	Pole,	Laborer,	32	M.	Eagle Hill,	Schuykill,	Foot severely injured by a plank falling on it	
Thomas Meade,	American,	Carpenter,	37	M.	Morea,	Schuykill,	Injured by falling from a ladder in shaft.	
John Paehulis,	American,	Slate picker,	14	S.	Kaska-William,	Schuykill,	Arm broken by a fall of coal.	
David Weir,	English,	Pump engineer,	20	M.	Otto,	Schuykill,	Head injured by being caught between top of wagon and roof.	
Frank Vitchak,	Hungarian,	Miner,	28	S.	Eagle Hill,	Schuykill,	Leg severely injured by being caught between	
Wm. Schebler,	American,	Driver,	17	S.	West Brookside,	Schuykill,	cars.	
Alex. Rufus,	Pole,	Driver,	18	S.	Eagle Hill,	Schuykill,	Arm broken by being caught between wagon	
Hugh Mack,	American,	Driver,	23	S.	Lytle,	Schuykill,	and door frame.	
Geo. Rupp,	American,	Loco engineer,	49	M.	West Brookside,	Schuykill,	Scalded by escaping steam caused by blow-off	
Peter Harrison,	English,	Engineer,	55	M.	St. Clair,	Schuykill,	pipe breaking.	
Terrence Flood,	American,	Driver,	22	M.	Silver Creek,	Schuykill,	Arm broken; caught by car.	
Ed. Bader,	Russian,	Laborer,	43	M.	Silver Creek,	Schuykill,	Blow scalded between legs.	
Preston Fisher,	English,	Miner,	43	M.	Good Spring,	Schuykill,	Hands and face burned by an explosion of gas.	
Rich. Jones,	English,	Miner,	51	M.	Good Spring,	Schuykill,	Hands and face burned by an explosion of gas.	
John Bonewitz,	American,	Driver,	30	M.	Lincoln,	Schuykill,	Collar bone broken by being caught between	
Job Davis,	Welsh,	Miner,	29	S.	Pine Hill,	Schuykill,	wagon and mule.	
Ed. Molson,	English,	Miner,	28	M.	Pine Hill,	Schuykill,	Hands and face burned by an explosion of gas.	
Mich Dolan,	Irish,	Miner,	32	S.	Otto,	Schuykill,	Arm broken; fall of slate.	
John Davis,	American,	Slate picker,	16	S.	Good Spring,	Schuykill,	Leg cut off; fell under cars.	
John Keating,	Irish,	Attending sera- per line,	22	S.	Silver Creek,	Schuykill,	Leg broken while oiling scraper machinery.	
Frank Shazen,	American,	Tunnel man,	39	M.	Lytle,	Schuykill,	Arm broken; fell down shaft.	
Jos. Levandofski,	Hungarian,	Miner,	35	M.	Eagle Hill,	Schuykill,	Ribs fractured and body injured; caught be- tween cars.	
John Balsis,	Hungarian,	Miner,	43	M.	Wadesville,	Schuykill,	Body and leg severely injured by a fall of slate.	
Henry Kearney,	American,	Engineer,	24	S.	Lytle,	Schuykill,	Severely injured by falling into fly wheel pit while oiling engine.	
Wm. Barr,	American,	Miner,	41	M.	Otto,	Schuykill,	Foot severely cut by axe.	
James Kennedy,	American,	Miner,	26	S.	Richardson,	Schuykill,	Leg broken; collar fell on him.	
Anthony Sinkavitch,	Lithuanian,	Laborer,	35	M.	Morea,	Schuykill,	Leg cut off; caught between cars.	
George Shomper,	American,	Miner,	24	S.	West Brookside,	Schuykill,	Leg broken by a fall of coal.	

July

Aug.

Sept.

Oct.

Nov.

TABLE V—Continued.

Date of accident.	Name of Person.	Nationality by birth.	Occupation.	Age.	Married or single.		Name of Colliery.	County.	Nature and Cause of Accident in Brief.
					Married	or single.			
Nov. 12	John Cooney,	Slav,	Miner,	42	M.		Silver Creek,	Schuylkill, ..	Leg, shoulder and ribs injured by a fall of coal.
12	George Schross,	Pole,	Miner,	26	S.		St. Clair,	Schuylkill, ..	Back injured by a fall of bony coal.
13	Anthony Gratspky,	Pole,	Miner,	35	S.		Silver Creek,	Schuylkill, ..	Back injured by a fall of slate.
13	G. C. Keihl,	American, ..	Miner,	30	S.		West Brooksidge, ..	Schuylkill, ..	Leg injured by a fall of rock.
14	Wassel Betronavage, ..	Pole,	Miner,	25	M.		Lytle,	Schuylkill, ..	Leg broken by a lump of coal rolling down a chute.
14	James Jones,	American, ..	Door boy,	15	S.		Silver Creek,	Schuylkill, ..	Foot broken by a fall of rock.
14	Henry Knauber,	German,	Miner,	22	S.		Otto,	Schuylkill, ..	Hand mashed between bumper and pulley.
15	Geo. Wolfgang,	German,	Car roller,	19	S.		Otto,	Schuylkill, ..	Foot severely injured; caught between bumpers of cars.
15	Anthony Raulinatis, ...	Lithuanian, ..	Miner,	35	S.		Oak Hill,	Schuylkill, ..	Leg broken; struck by a piece of coal from a shot.
16	Ed. Connelly Jr.,	Irish,	Driver,	21	S.		Otto,	Schuylkill, ..	Face injured by being kicked by a mule.
21	Louis Diehl,	American,	Miner,	35	M.		Phoenix Park No. 3,	Schuylkill, ..	Back injured by a fall of bony coal.
22	Jos. Kromtskie,	Pole,	Miner,	29	M.		Otto,	Schuylkill, ..	Head and hand severely injured by fall of coal.
23	Stney Stacknavitz,	Pole,	Miner,	29	S.		Otto,	Schuylkill, ..	Head and body severely injured by coal from a shot.
24	Alfred Lewis,	Welsh,	Miner,	37	M.		West Brooksidge, ..	Schuylkill, ..	Leg injured by fall of slate.
3	Elmer Udegrove,	American,	Miner,	27	M.		West Brooksidge, ..	Schuylkill, ..	Severely injured by explosion of dynamite.
11	Arthur Guenek,	American,	Driver,	24	S.		Kaska-William, ..	Schuylkill, ..	Body severely injured; caught between car and a shot.
14	Owen Millmore,	Irish,	Miner,	22	M.		St. Clair,	Schuylkill, ..	Body and leg injured by cars.
14	Paul Lickvur,	Hungarian, ..	Laborer,	29	S.		Silver Creek,	Schuylkill, ..	Foot broken by a plank falling down a chute on it.
14	Joseph Aubrey,	Hungarian, ..	Miner,	36	M.		Otto,	Schuylkill, ..	Side and leg injured by a fall of slate in a breast.
19	James J. Brennan,	American,	Loader,	24	M.		Otto,	Schuylkill, ..	Body injured by being caught between wagon and timber.
21	Charles Hein,	American,	Timber man, ..	35	M.		Eagle Hill,	Schuylkill, ..	Arm broken; while riding up slope his arm was caught.
22	James Comerford,	American,	Fire boss,	46	S.		Glendower,	Schuylkill, ..	Head and body severely injured by premature blast.
31	Matt. Norkas,	Pole,	Miner,	37	M.		Silver Creek,	Schuylkill, ..	Leg broken by a fall of rock.

BITUMINOUS MINE DISTRICTS.



First Bituminous District.

ALLEGHENY, FAYETTE, GREENE, WASHINGTON AND WESTMORE-
MORELAND COUNTIES.

Monongahela, Pa., February 28, 1901.

Hon. James W. Latta, Secretary of Internal Affairs:

Sir: In compliance with an act of the General Assembly of Pennsylvania, entitled "An act relating to bituminous coal mines and providing for the lives, health, safety and welfare of persons employed therein," approved May 15, 1893, I hereby present my annual report as Inspector of Mines for the First Bituminous coal district for the year ending December 31, 1900.

The total number of accidents reported as having occurred in the district was 182, of which 38 were fatal.

The number wives left widows was 20, and of orphans 40.

Decrease in the number of fatal accidents as compared with that of 1899, six. Increase of non-fatal accidents over that of the previous year, thirty. Quite a number of these, as will be seen by Table 5, were not of a serious character.

Total production of coal during 1899, tons,	9,295,646
Total production of coal during 1900, tons,	8,654,376
Decrease for 1900 from that of 1899, tons,	641,270

The cause of the decreased coal production was, in a great measure, due to the low stage of water which prevailed in the Monongahela river during the months of July, August, September, October, November and December, which prevented some of the mines located along that stream from being worked to their full capacity.

In order to have uniformity in the make-up of the permanent Danger Signals and at the same time to prevent any person passing the same through ignorance of their nature, I issued the following circular to the mine foremen, the directions of which, I am pleased to state, are being complied with:

Commonwealth of Pennsylvania. First Bituminous Inspection
District. Henry Louttit, Inspector.

Monongahela, Pa., September 10, 1900.

To the Mine Foremen of the First Bituminous District:

Dear Sirs: Being desirous of having uniformity in the make-up of the permanent Danger Signals and at the same time to remove, as far as possible, any excuse on the plea of ignorance for passing the same; to reach this end, I would recommend, that a board not less than 12 inches wide, extending the full width of the entry, except a space sufficient to allow it to swing—this board to be 3 feet above the bottom; said board to be painted a deep red, with the words "STOP! DANGER!" in white letters; the letters to be the full width of board. The reverse side being painted white, and the word "SAFE" to be in black letters.

I would also suggest that a post be placed on either side of entry, one of them on which to place hinges—the other so adjusted that the Danger Board can be locked in place.

Yours truly,

HENRY LOUTTIT,
Inspector of Mines.

Another matter which gives me much concern, is the filling up of the entrances to the exhausted and abandoned workings of some of the mines in this district, with slate and other refuse in such a manner as to preclude the possibility of an examination of them being made, and it is evident, beyond a reasonable doubt, that to make conditions such as to prevent inspections being made is a dangerous practice as well as a violation of the bituminous mining act as it requires that worked out and abandoned places adjacent to traveling ways, etc., be examined before each shift, and the other places frequently. Such places would, if sealed up as stated, be a reservoir for fire-damp to accumulate in, which by its presence would be a standing menace to the safety of the mine.

To prevent, if possible, danger from this source, I sent a copy of the following letter to each operator in the district.

Monongahela, Pa., July 31, 1900.

Dear Sirs: I wish to call your attention to a matter of great importance in the operation of your mine. I have reference to the

filling up of the entrance to the worked out and abandoned workings of the mine, with slate and other debris. In disposing of the slate, etc., in this manner, I am of the opinion that it is adding a menace to the safety of the mine, for the reason, that it is practically impossible to examine beyond such places for dangerous gases that may accumulate. Now with due regard for your welfare and the health and safety of persons employed in your mine, I would offer as a suggestion, that if the slate and other refuse of the mine is to be kept in the mine, that sufficient room be left in each place for the purpose of examination and to furnish an opening for removal, as far as practicable, of any gas that may accumulate on the falls and other places.

Hoping that you will give the subject matter of this letter your earnest attention and also notify those in immediate charge of the mine of the danger and the suggestions made in relation thereto, I am

Respectfully yours,
HENRY LOUTTIT,
Inspector of Mines.

The above letter was the cause of much controversy in this district, as it was claimed by some that the filling up of the places that were worked out and abandoned decreased the danger instead of increasing it, but as I could not see my way clear to accept this statement, I insisted on my suggestions being complied with.

Among the improvements made in the district during the year, was the installation of one individual electric plant at the Crowthers mine and three Central electric plants, by the Monongahela River Consolidated Coal and Coke Company; the Central ones being located at Lock No. 4, Gastonville and Dravosburg respectively.

The Lock No. 4 plant consists of four tubular boilers, 72 inches in diameter, 18 feet long, of 150 horse power each, three Russell automatic engines of 250 horse power each and three Westinghouse 150 K. W. generators, direct connected. Black Diamond, Ivill and Catsburg mines are operated from this plant.

The Gastonville plant consists of nine 2 flue boilers of 80 horse power each, three 20x20 automatic Skinner engines of 250 horse power each and three Morgan-Gardner 150 K. W. slow speed generators. The generators and engines are connected by belt. Cincinnati and Coal Bluff mines are operated from this plant.

The Dravosburg plant consists of three tubular boilers, 72 inches in diameter, 18 feet long, of 150 horse power each, two 4-valve automatic Russell engines of 250 horse power each, and two 150 K. W. slow speed Morgan-Gardner generators. Amity mine is operated from this plant.

All three of these Central power plants are fitted with Smith-Vaile boiler feed pumps and feed water heaters with double the capacity of the boilers. In addition, each battery of boilers is connected with an injector to be used in case of emergency.

The Crowthers plant consists of three 2-flue boilers of 80 horse power each, one automatic McCuwen engine of 250 horse power and one 150 K. W. generator of the Thompson-Houston type.

During the year five persons lost their lives by explosions of fire-damp in Ellsworth No. 1 mine. For a more extended account see description of the mine in another part of this report.

As a result of this explosion, which occurred on June 10th, I made an information against Alexander Patrick, mine foreman, and Frank Booth, carpenter, as follows

Alexander Patrick, mine foreman of Ellsworth No. 1 mine, a bituminous coal mine located in the First bituminous coal district, did neglect to keep a careful watch over the ventilating apparatus or to secure the proper ventilation of Ellsworth Mine No. 1, on June 10, 1900; he also allowed persons to work in an unsafe place other than for the purpose of making it safe. For neglecting to remove dangers after they had been reported to him by the fire boss.

Frank Booth, carpenter, for interfering with the ventilating apparatus. For doing an act whereby the lives and health of persons employed in the mine were endangered.

The above persons plead guilty and the court imposed a fine of \$5.00 and cost of prosecution; the court being of the opinion that there was a mitigating circumstance connected with the case.

On investigating a fatal accident at the Tremont mine, where William Watkins was employed as mine foreman, I found no posts in the place where the accident occurred, or post sheet up so that they could have been ordered. I entered suit against the mine foreman for not seeing that the proper supplies were furnished; on the case coming to trial, the verdict of the jury was "Not guilty, county for the costs." The defense claimed that he had ordered the place to be vacated as he could not get supplies. This was questioned, hence the suit.

Taking into consideration all the circumstances connected with the mines of this district, they are in a much better condition than they were at the time of my last report.

A brief description of all the mines in the district will be found in the body of the report, as well as that of the fatal accidents. The usual tables also accompany the report.

All of which is respectfully submitted.

HENRY LOUTTIT,
Inspector of Mines.

Mining Statistics.

Number of mines in the district,	90
Number of mines in operation during 1900,	82
Number of tons of coal produced,	8,654,281
Number of tons shipped,	8,542,165
Number of tons used for steam at mines,	87,962
Number of tons sold to employes and others,	24,154
Number of persons employed inside the mines,	9,802
Number of persons employed outside the mines,	1,140
Number of fatal accidents,	38
Number of tons of coal produced per fatal accident, ..	227,746
Number of persons employed per fatal accident,	287
Number of non-fatal accidents,	144
Number of tons of coal produced per non-fatal acci- dent,	60,099
Number of persons employed per non-fatal accident,	75
Number of wives made widows by accidents,	20
Number of orphans by accidents,	40
Number of kegs of powder used,	34,302
Number of pounds of dynamite used,	6,375
Number of days worked,	14,030½
Number of cylindrical boilers,	65
Number of tubular boilers,	114
Number of steam locomotives,	1
Number of air locomotives,	2
Number of electric locomotives,	16
Number of new mines opened,	10

TABLE A—Showing the Production of Coal, Number of Persons Employed by each Company During the year 1900, and the Average Number of Tons Produced Per Employee.

Name of Company.	Number of tons produced.	Number of persons employed.
Monongahela River C. C. & C. Co.,	4,290,473	6,290
Pittsburg Coal Company,	2,296,818	2,482
J. W. Ellsworth & Company,	35,297	182
Vesta Coal Company,	788,678	662
P. J. Forsythe & Company,	168,677	174
Ella Coal Company,	195,459	200
Shoenberger Coal Company,	160,818	183
Bunola Mining Company,	147,278	143
Charleroi Coal Works,	210,130	189
Clyde Coal Company,	6,726	41
People's Coal Company,	437	32
Hazel-Kirk Coal Company,	740	19
P. M. Pfeil Coal Company,	825	29
Henderson Coal Company,	95	23
A. R. Budd,	273	26
Star Coal Company,	1,050	28
Morris & Bailey Coal Company,	2,274	15
B. Braznell & Son,	37,870	50
Stockdale Coal Company,	310,458	214
Total,	8,654,376	10,942

Number of tons produced per employee, 790.9.

TABLE B—Number of Fatal Accidents and Tons of Coal Produced Per Life Lost.

Name of Company.	Number of fatal accidents.	Number of tons produced per life lost.
Monongahela River C. C. & C. Company,	20	214,523
Pittsburg Coal Company,	5	459,363
J. W. Ellsworth & Company,	6	5,882
Vesta Coal Company,	2	394,339
P. J. Forsythe & Company,	1	168,677
Ella Coal Company,	1	195,459
Shoenberger Coal Company,	1	160,818
Bunola Mining Company,	1	147,278
Charleroi Coal Works,	1	210,130
Clyde Coal Company,	1	6,726
People's Coal Company,	1	437
Hazel-Kirk Coal Company,	1	740
P. M. Pfeil Coal Company,	1	825
Henderson Coal Company,	1	95
A. R. Budd,	1	273
Star Coal Company,	1	1,050
Morris & Bailey Coal Company,	1	2,274
B. Braznell & Son,	1	37,870
Stockdale Coal Company,	1	310,458
Total and average,	38	227,746

TABLE C—Showing the Number of Fatal and Non-Fatal Accidents and the Number of Tons of Coal Produced Per Accident.

Name of Company.	Number of accidents.	Number of tons of coal produced per accident.
Monongahela River C., C. & C. Company,	99	43,338
Pittsburg Coal Company,	42	54,686
J. W. Ellsworth & Company,	10	3,329
Vesta Coal Company,	7	112,668
P. J. Forsythe & Company,	1	168,677
Ella Coal Company,	7	27,922
Shoenberger Coal Company,	5	32,163
Bunola Mining Company,	3	49,692
Charleroi Coal Works,	4	52,532
Clyde Coal Company,		6,726
People's Coal Company,		437
Hazel-Kirke Coal Company,		740
P. M. Pfeil Coal Company,		825
Henderson Coal Company,		95
A. R. Budd,		273
Scar Coal Company,		1,050
Morris & Bailey Coal Company,		2,274
B. Braznell & Son,	2	18,935
Stockdale Coal Company,	2	155,229
Total and average,	182	47,551

TABLE D—Classification of Accidents.

Classification of Accidents.	Killed or fatally injured.	Injured.	Total.
Falls of slate,	17	62	79
By cars,	1	28	29
By being caught between car and rib,	1	5	6
Fall of coal,	3	8	11
By Dilly trip,	1	4	5
Fall of coal and slate,	2	7	9
Struck by falling post,	1	7	8
By mining machine,		8	8
By blast through rib,	1	1	2
By Dilly line,	1	1	2
By an explosion of fire damp,	2	5	7
Fall of roof coal,		3	3
By Motor car,		2	2
Fall of rock,		3	3
By locomotive,	1		1
By falling down shaft,	1		1
Suffocated by after-damp,	1		1
By an explosion of oil,	1		1
By fall of roof,	3		3
By descending cage,	1		1
Fall of roof and side,	1		1
By concussion, caused by explosion of fire-damp,	1		1
By being caught between car and post,	1		1
Miscellaneous,		6	6
Total,	38	144	182

TABLE E—Occupations of Persons Killed and Injured.

Occupations.	Killed or fatally injured.	Injured.	Total.
Mine foreman,		1	1
Miners,	29	88	117
Drivers,	3	19	22
Dilly rider,		1	1
Day hand,		1	1
Loaders,	2	17	19
Helpers,		2	2
Oiler,		1	1
Machine runners,		9	9
Motor brakemen,	1	2	3
Roadman,		1	1
Carpenter,	1	1	2
Snapper,		1	1
Laborer,	1		1
Machine boss,	1		1
Total,	38	144	182

TABLE F—Nationality of Persons Killed or Injured.

Nationality.	Killed.	Injured.	Total.
American,	9	51	60
Scotch,	1	2	3
English,	4	15	19
Italian,	4	9	13
Slavs,	10	16	26
French,	1	1	2
German,	2	7	9
Irish,		5	5
Belgians,		1	1
Welsh,		2	2
Hungarian,	4	13	17
Austrian,		5	5
Poles,	2	7	9
Swedes,		2	2
Tryoleans,	1		1
Lithuanians,		2	2
Fins,		2	2
Bavarian,		1	1
Russian,		3	3
Total,	38	144	182

Production of Coal in Tons during the Year 1900.

Monongahela River Consolidated Coal and Coke Co.,	4,290,473
Pittsburgh Coal Company,	2,296,818
J. W. Ellsworth and Company,	35,297
Vesta Coal Company,	788,678
P. J. Forsythe and Company,	168,677
Ella Coal Company,	195,459
Shoenberger Coal Company,	160,818
Bunola Mining Company,	147,278
Charleroi Coal Works,	210,130
Clyde Coal Company,	6,726
People's Coal Company,	437
Hazel-Kirke Coal Company,	740
P. M. Pfeil Coal Company,	825
Henderson Coal Company,	95
A. R. Budd,	273
Star Coal Company,	1,050
Morris and Bailey Coal Company,	2,274
B. Braznell and Son,	37,870
Stockdale Coal Company,	310,458
Total,	8,654,376

The total production was made up as follows:

Shipped by railroad and river to market,	8,542,165
Sold at the mines for local use,	24,154
Consumed to generate steam,	87,962
Held at mines (in stock),	95
Total,	8,654,376

Mines on the Belle Vernon Division of the Pittsburg and Lake Erie Railroad.

Belle Vernon.—A new drift opening located near Somers No. 3 mine. This property was originally owned by the Belle Vernon Coal Company, which intended to make it a first class plant, but after doing some work, in this direction, they sold it. Nothing in the nature of development has been made by the present owners.

Henderson.—This is a new opening located near the East Charleroi Station. The workings are not sufficiently advanced for a general description.

Marine.—This is another new opening. This mine is located near Fayette City and opened as a drift. The mining will be done by electric mining machines, the machinery is now being installed for that purpose. The method of working the mine will be on the double entry system. A furnace will be used to produce ventilation for the present, the intention being to erect a ventilating fan at no distant day.

Shepler.—This mine was operated only a short time during the early part of the year. It appears to be abandoned, if not permanently, at least for awhile as the machinery has been removed to other mines of the same company. While I am not officially informed, I take it that the coal remaining in this mine will be taken out through Somers No. 4. The former mine has always been a great source of trouble on account of water, and the facilities for removing it being inadequate was a source of annoyance to all concerned. On my last examination of the mine the ventilation was unsatisfactory as was also the drainage.

Arnold No. 1.—Mine not in operation on my last visit. The workings were in a general way, in fair condition; however, I am of the opinion that had the mine been in active operation the ventilation would have been inadequate in parts of the workings. The ventilating fan was running at the usual speed, but as it was producing air for part of Arnold No. 3 mine, there was not sufficient power in the air to ventilate both mines in such a manner as to comply with the law. I suggested that the connection between the two mines, so far as it related to a common ventilator being used, be discontinued.

Arnold No. 3.—On my last examination of this mine the ventilation and drainage required improvement in parts of the mine. In entry known as No. 3, East, the velocity of the air was so low as to hardly deflect the flame of an open light; in examining the cause for this I found that an effort was being made to force the whole current of air for this entry through a regulator entirely too small for the condition of the workings and to make matters worse, a room was opened in advance of the last break-through, which was driven quite a distance and as no means of ventilation were employed, I ordered the place to be vacated forthwith and to remain so until properly ventilated. I noticed an absence of cut-throughs in a great many of the rooms, these I suggested should be stopped until the act was complied with in regard to this requirement.

Arnold No. 2.—The ventilation was, in a general way, satisfactory, but the drainage, in parts, was not up to the standard required by law. Owing to the presence of fire damp on one of the falls I ordered the entry vacated until it was removed. This mine is also connected with Arnold No. 3 mine, and while I am not, in a general way, in

favor of one ventilator doing the work for two mines, I am of opinion that, with proper adjustments, the ventilating fan at this mine can make a marked improvement in the ventilation of the former and at the same time not materially lessen the quantity of air required for the latter if the conditions remain the same.

Equitable.—On the date of my last examination of this mine I found the air current continuous, one hundred and fourteen persons being at work in it. I called the attention of the management to the condition of the mine in regard to the air current, and requested them, without delay, to put the same in a legal condition.

North Webster.—General condition of mine, fair.

Bunola.—On my last visit to this mine the ventilation, in a general way, was fair. The drainage was in parts of the mine unsatisfactory.

Somers No. 4.—General condition satisfactory.

Somers No. 3.—On an examination of this mine I found the ventilation and drainage in parts of the same not in conformity with the act relating to bituminous coal mines.

Manown.—General condition of mine, fair. They have abandoned the greater part of the left side of mine; this shortened the air route and as a consequence the air current shows a much larger volume in other parts of the workings. Owing to the proximity of buildings made of combustible material, and the possibility of them catching fire, I requested, in the interests of safety, the former operators of the mine to make an additional opening to be used in cases of emergency, which they refused on the plea that they had the legal means of exit; no question was raised relative to this, but being of the opinion that they were a standing menace to the safety of the persons employed in the mine I asked for this additional opening. On the new company taking charge of the mine I renewed my request, which was granted.

Somers No. 2.—On my last examination of this mine the general condition was fair.

Cleveland.—Mine in fair condition on date of last visit.

Mine on the Peters Creek Branch of the Monongahela Division
of the Pennsylvania Railroad.

Peters Creek.—A new drift opening located about two miles from Peters Creek Station. The ventilation of this mine has not been satisfactory at all times, the cause being that nature was relied on to produce it. On my last visit I called the attention of the company operating that it was necessary to comply with the law in regard to the use of some artificial means to produce the ventilation required for mines.

Mines on the Monongahela Division of the Pennsylvania Railroad.

Fidelity.—This mine has not been operated for some time previous to the close of the year, and it seems that there will be no work here for some time to come. On the date of my last inspection of the mine it was in fair condition as far as related to ventilation, but drainage required improvement.

Courtney.—Cubic feet of air at inlet, eighteen thousand. Persons employed, fifty-one. General condition of mine, fair. A short time previous to my last visit there was trouble with one of the entries, which subsequently caved in, causing not only a loss of coal, but also cut off the second means of egress from part of the mine, the ventilation was also somewhat interfered with.

Banner.—For some time past, some of the passage ways leading to the second means of egress have been in a very unsatisfactory condition, the other part near the active workings being practically non-existent. I have repeatedly asked those in immediate charge of the mine to remedy the matter complained of, but my request was unheeded. On a visit to the mine on the 20th of August I found no material improvement in the part where the greatest danger existed on account of the absence of the legal passage ways. It was evident that extreme methods would have to be resorted to to have the law complied with, as all others had failed. With this in view I gave the superintendent of the mine, James Parnham, a peremptory notice to put the mine in a legal condition forthwith. I visited the mine again on the 30th of August to inform myself if the notice of the 20th had been complied with; the result of this examination was that suit was entered against the superintendent and mine foreman, Joseph W. Hunt, he having received the same notice as the superintendent, for violation of section one, article two, of the act of May 15, 1893, relating to bituminous coal mines. At the preliminary hearing strenuous efforts were made to stop proceedings before going to court, but I positively refused to consider any proposition of the kind. While not vindictively or personally opposed to these persons I saw that the ends of justice and the vindication of the law could not be met by any such disposition of the case, owing to the circumstances under which the suit was entered. When the case was called for trial they plead guilty, the court then sentenced each to pay a fine of one hundred dollars and costs of prosecution. Since the case has been disposed of, a great amount of work has been done to get the passage ways in the condition required by law.

Cliff.—Idle the entire year.

Buffalo.—Not in operation during the year 1900.

Allen.—General condition of mine, fair. Cubic feet of air at inlet, twelve thousand five hundred. Persons employed, forty-two.

Acme.—On my last examination of this mine I found the ventilation in parts of the workings somewhat inadequate. General condition of drainage, fair.

Shoenberger.—The ventilation of this mine was not, in some parts, up to the legal requirements when last examined. A new ventilating fan 16 feet in diameter has been installed and I am informed that it is giving general satisfaction.

Blyth.—While, when last inspected, the ventilation and drainage were very unsatisfactory in parts of the mine, I have been informed that the air current is now in conformity with the law; the drainage is also improved.

Charleroi.—Ventilation and drainage require improvement in parts of the mine. Since my visit I am informed that the causes of complaint have been removed.

Star.—A new drift opening located about one-half mile south of Courtney. The coal at this point lays only a few feet above the railroad tracks and as a consequence it was necessary to use either a vertical lift to get tippie height or an incline; the latter method will be used. The intention is to employ the endless rope system of haulage. An electric plant has been installed at the mine, and it will be opened on the double entry system; other matters are not sufficiently developed for a specific description.

Mines Located on the Pittsburg and Wheeling Division of the Baltimore and Ohio Railroad.

Gastonville Nos. 1 and 2, and Hackett not in operation during the year, but quite an amount of work was done on the latter to put it in condition for future operations.

Nottingham.—Mines not in operation when last examined. The means of egress are in a much more satisfactory condition than on a former visit.

Eclipse.—Ventilation fair. Drainage requires improvements in parts of the mine.

Anderson.—In operation $14\frac{1}{2}$ days during the year. Did not visit the mine while it was working.

Germania.—Ventilation and drainage required improvement when last visited.

Snowden.—Now abandoned and the rolling stock and machinery taken to other mines.

Mines Located on the Monongahela and Washington Division of the Pennsylvania Railroad.

Ellsworth No. 1.—This is a new shaft opening located about twelve miles south of Monongahela City. The shaft is 269 feet in depth.

Since commencing to produce coal it has been very unfortunate, two explosions of fire damp having occurred which resulted in the loss of five lives. About 7 o'clock in the morning of June 10th the night shift ceased work, and in order to make some improvement in the shaft, it was necessary to stop the ventilating fan but so as to not leave the mine without some means for producing a current of air for the workings, the exhaust steam from a pump was turned into the hoisting shaft. The mine foreman, Alexander Patrick, and the boss driver, Thomas Forsyth, entered the mine on the morning of the above date for the purpose of moving the track from the cut-through marked X on the plan which accompanies this report to the cut-through marked A, so as to allow the building of a stopping in the former cut-through, the object of this work was to improve the ventilation in the connecting entries. About 9 A. M. the carpenters working in the shaft noticed that the pump was "running wild" owing to the lack of water. In response to a request, Frank Booth, a carpenter, who was on top shut off the steam from the pump. A short time after this, the mine foreman visited the pump and found it stopped, but being of the opinion that it was only temporarily, and that it would be started again in a short time, he gave it no further attention, but returned to where he and Forsyth had been working. Some time between 11 and 12 o'clock Ardo Miller, a day hand, descended the shaft, oiled and started the pump. At 12.30 P. M., as near as can be ascertained, the explosion occurred. At the time of the explosion Walter C. Haise and W. N. Rogers were in a bucket suspended at the top of the shaft preparatory to descending it to their work and the force of the explosion so agitated the bucket that both men were thrown out; the former landed clear of the shaft and was saved, but unfortunately the latter went down the shaft, resulting in instant death. As quickly as possible after the explosion a rescue party consisting of John Simpson, superintendent; Edward Halpin, mine foreman of Ellsworth No. 2 mine; Joseph Jones and Frank McKee, miners, descended the shaft, and on reaching the point marked "B" they found Forsyth dead and Patrick unconscious, having made their way to this point from the cut-through named above, here they were overcome by after-damp and could get no further. The mine foreman says that they saw no flame, light or other evidence of an explosion while at work, except that of concussion, neither did the persons who were in the shaft. From the testimony of all the witnesses it seemed that the manner in which the gas ignited is shrouded in mystery. The statement of the shot firer was to the effect, that all shots fired by him was prior to 1.30 A. M. and that he examined each place after firing the shots. A second examination of the mine was made by the night mine foreman near the hour of 6 A. M., neither of which discovered

any fire existing. In my examination of the mine, after the explosion, I could find nothing of a conclusive nature that would show that the gas ignited from burning coal as the proof was not present. It has been suggested that a cap belonging to the battery had been left on a ledge of coal somewhere and a piece of the roof fell and struck it, causing a flame. It is remarkable that no person was burned in the explosion. Patrick's injuries were confined to having been struck by flying debris and breathing the after-damp.

The second explosion occurred about 11.20 A. M. of the 20th of November, which resulted in the loss of three lives, viz: Joseph Novack, John Capitch and Silas Lear, two others, John Stich and Emilio Cici, received serious injuries. These persons were working in the following places: John Stich and John Capitch in F East cross-cut at the point marked "E." Joseph Novack in cut-through at a point marked "G," and Emilio Cici at the face of the Northwest cross-cut which is driven direct from the bottom of the shaft. Silas Lear being the machine boss, his work necessitated his visiting every part of the mine where machines were at work. Some time previous to the explosion Capitch and Stich had their place cut by the compressed air mining machine, and after drilling a hole they asked the shot firer to fire their shot, but on examination he found too much gas present in the entry; he then turned the air on, from the compressed air line, for the purpose of diluting the gas, at the same time telling them that it was not safe to fire the shot and for them not to touch anything until he returned. While away he fired shots in other parts of the mine and on going back to the former place he found that some one had shut off the air while he was absent. All blasting at this mine is entirely by the use of a battery, and when the shot firer examined the above place the second time he had the battery with him but finding that it was yet unsafe to fire the shot gave the battery into the care of two men with the injunction not to let any one have it until he came back from moving a machine that was located some distance from where they were at the time and while moving the machine the explosion occurred. It was in evidence that after the shot firer left the entry the second time, Joseph Novack, one of the dead, told the entrymen that they need not wait on the shot firer as he understood how to work the battery and he would fire the shot for them. Novack fired a shot but not the one that the shot firer refused to fire. It seemed that they misunderstood the cause relative to the shot as they, after the shot firer left, drilled another hole, which was the one that Novack fired; this hole was on the "solid," or it seemed so at least, and it blew out the tamping and the explosion immediately followed. At this time the mine foreman, James McGuire, was near the bottom




of the shaft, and immediately started for the scene of the explosion and brought four of the injured men out, namely, Joseph Novack, John Capitch, John Stich and Emilio Cici. He found them all on the air course at the point marked "D." Silas Lear was going through a door at point marked "C" when the explosion occurred, the force of the explosion being such as to throw him against the coal pillar in such manner as to cause death some eight hours afterwards. On December 15th a shot was fired at a place marked "H" on plan by which some feeders of gas were ignited which in turn set fire to some brattice cloth and before it could be extinguished it had gained such headway as to necessitate the immediate vacation of the mine in order to save the lives of the persons employed therein. The fire traveled with great rapidity toward the shaft and in a short time everything of a combustible nature in the latter was on fire. To prevent, as far as possible, the fire from reaching No. 2 shaft, the ventilating fan of the latter was kept running. The mines have since been flooded with water for the purpose of drowning the fire out, and in connection therewith to relieve the compressed air, drill holes were put down at the head of "F" East cross-cut and Zero entries. On my visit to the mine on the 26th of December, a great quantity of gas was escaping through the drill hole on Zero, the hole having just been drilled through that morning. There was nothing escaping from the other hole, a self-registering thermometer was used in both holes, in the former it showed 55 degrees and the latter 60. A strong odor of burning coal was coming from the hole on Zero, also gas in such quantities that it could be ignited by a safety lamp some distance from the hole. Inquests were held on the above victims and a verdict of accidental death rendered in each case. The finding of the jury relative to the death of August Torch who was struck by a descending cage was of the same nature; for a more extended account of this accident see another part of this report. From the time the coal was reached at this mine, fire-damp has been generated in greater or lesser quantities. On my examination of the workings on April 19th and August 31st I found them in fair condition as regards ventilation, the inlet air measurements showing 19,000 and 30,200 cubic feet respectively, the number of persons in the mine at any one time did not exceed twenty.

Ellsworth No. 2.—This is also a new shaft opening and located a short distance from Elsworth No. 1. A passageway joins the two mines; it was through this connecting entry that persons employed in the latter mine at the time of fire, passed on their way to the shaft bottom of No. 2, from which they were hoisted to the surface. On my last examination I found the ventilation in fair condition. Drainage in parts of the mine required improvement.

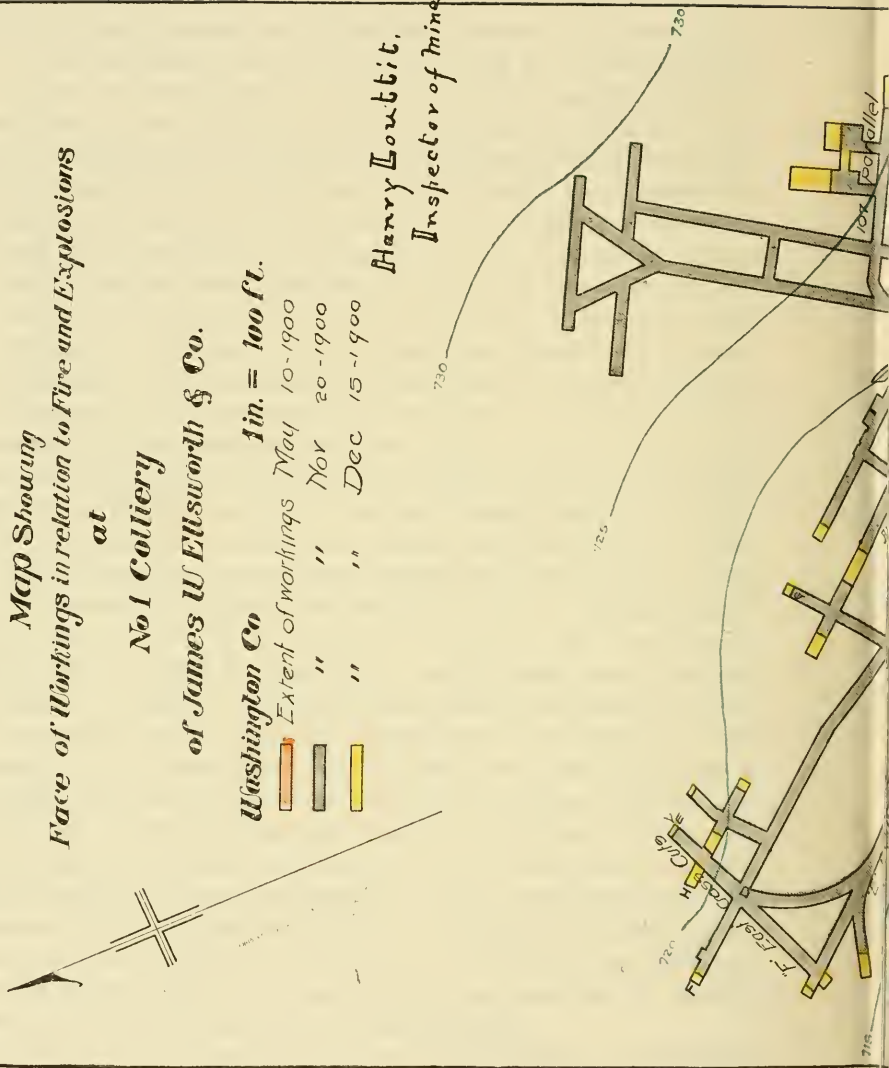
*Map Showing
Face of Workings in relation to Fire and Explosions
at*

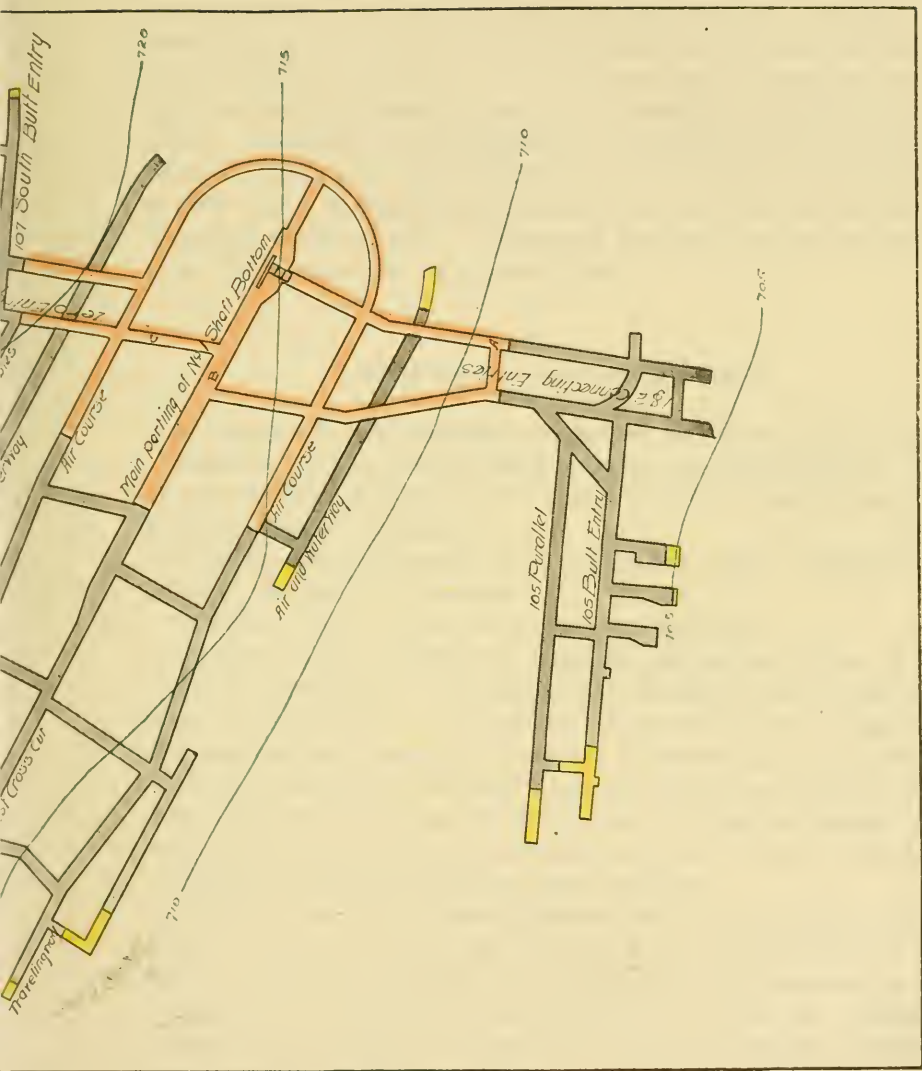
*No 1 Colliery
of James W Ellsworth & Co.*

Washington Co *1 in. = 100 ft.*

-  *Extent of workings May 10-1900*
-  *" " " Nov 20-1900*
-  *" " " Dec 15-1900*

*Henry Loubtit,
Inspector of Mines.*





Hazel Kirk.—A new shaft opening located about three miles from Monongahela City. When I examined the mine on the 17th of December I found nine persons at work inside; a night shift was also employed which was of sufficient number to be subject to the provisions of the act of May 15, 1893, relative to bituminous coal mines. No ventilation was visible owing to there being no "return." The lowering and hoisting was done by engine, line, bucket and swinging derrick. Another shaft, to be used as a second opening, etc., was in the same condition in regard to the ventilation and hoisting apparatus. I notified the management to comply with the law without delay. I have since been informed that the shafts have been connected and a marked improvement has been made in the sanitary condition of the shafts. A stairway has been erected in the latter shaft for the purpose of an escape way.

Mines on the Monongahela River.

Beumont.—In fair condition as regards ventilation and drainage.

Sanford.—A new drift opening located near Fredricktown. When visited the mine was not opened sufficiently for a specific description of the method of working.

Climax.—General condition of ventilation, fair. Drainage unsatisfactory in parts of the mine.

Camden.—Not in operation when examined last.

Mongah.—Is in satisfactory condition as far as relates to ventilation and drainage. The passageway leading to the second means of egress required some attention. A night shift was employed at this mine at the time of my visit but it seemed that the provisions of the law relating to the examination by a fire boss was not strictly complied with. I called the attention of those in charge to the above complaints and I was informed that they would be attended to.

Apollo.—I found this mine in fair condition.

Budd.—A new drift opening located near North Webster Station P. & L. E. R. R. The mine will be worked on the double entry system. The main entry is being driven of sufficient width to allow the use of two tracks, the object being to put in an endless line whenever the distance of haulage makes it necessary. Mining is being done by electric machines. A ventilating fan twenty feet in diameter is used for producing the air current for the mine which should be ample for some time to come provided it is properly distributed.

Umpire.—Not in operation when last visited.

Old Eagle.—General condition of mine, fair.

Eclipse.—While the general condition of the mine was fair, there

was some places that the ventilation could have been increased to an advantage. The passageways to the second means of egress were not such as to meet the requirements of the law in all particulars; these and other matters pertaining to the health and welfare of the persons employed in the mine received my attention.

Little Redstone.—Mine in fair condition when last examined.

Little Alps.—On the date of my last inspection was in a very satisfactory condition as regards ventilation, drainage and the passageway to the second means of egress. I gave positive orders for the mine to be put in such condition as to comply with the law. I have since been informed that an improvement has been made.

Rock Run.—Mines not in operation on my last examination. Ventilation and drainage fair.

Rostraver.—Ventilation and drainage require improvement in parts of the mine. The passageway to the second means of egress was in a very unsatisfactory condition owing to accumulated water. The evidence is not wanting to show that the above named part is always neglected until the active portion of the workings is attended to. I notified the mine foreman and superintendent that the means of egress must be kept in a legal condition at all times, and at the same time the other matters should receive immediate attention.

Bakewell.—A new drift opening located on the east side of the river opposite Monongahela City. While the mining is at present done by pick, electric mining machines will be used as soon as the plant can be installed. The ventilation was not in conformity with the law, the air current that was moving was by natural means. The company intends to erect a ventilating fan in the near future, but for the present will use a "fire grate" to ventilate the mine.

New Eagle and Abe Hays.—Idle during the entire year.

Stony Hill.—On one of my visits to this mine during the year I found part of the mine being worked without being in communication with two openings as required by law. I called the attention to those in immediate charge of the mine to the matter, the result being that the part complained of was vacated.

Crescent.—In fair condition on the date of my last visit.

Snow Hill.—General condition of mine as regards ventilation and drainage, fair.

Clipper.—On my last visit I found ventilation very unsatisfactory. On some of the entries I could not get the instrument to register. Owing to the custom of making, to a great extent, the stoppings from the refuse of the mine, it is a somewhat difficult matter to carry the air to the face of the workings, unless there is a very large volume produced by the ventilator. I requested that some other material be used in building the stoppings hereafter, and that the law be complied with in reference to openings.

Champion.—Ventilation require improvement in parts of the mine. The production of the Caledonia mine passes over the former's mine tipple and the workings form part of the former also.

Amity.—In fair condition as to ventilation and drainage.

Fayette City.—On my last visit it was in fair condition. Previous to this examination I was notified by the mine foreman, Thomas Smith, that fire damp had accumulated on a fall and was giving trouble, as it could not be removed by the means employed. On examining the place I found fire damp present in such "quantities as to be detected by an ordinary safety lamp," it was also on another fall on the same entry. This entry was being worked with open lights, and persons were permitted to pass the places where the gas was on falls with open ones. Being of the opinion that this was a violation of the act of May 15, 1893, relating to bituminous coal mines I ordered the entry to be vacated until the gas was removed. A short time afterwards I entered proceedings against the mine foreman for violation of the act above mentioned as far as it related to the presence of fire damp on the falls and the use of open lights near where it had accumulated. The hearing was held before J. A. O'Neil, justice of the peace of Fayette City, who dismissed the case and placed the costs on the county. On being questioned in regard to this finding, he said that it was "for the lack of evidence that the gas was in dangerous quantities." I take it that the justice erred, as the law defines the measure of danger.

Crothers, Fox and Riverville.—Mines not in operation when visited.

Anchor.—In fair condition on my last examination.

Black Diamond.—In working one of the rooms on an entry known as No. 48, it holed into a part of abandoned excavations of the Ivill mine from which fire damp made its appearance. A short time afterwards the fire bosses, Thomas Matthews and Jonathan Cothrey, visited the place and while there the escaping gas ignited from an open light carried by one of them, but fortunately the flame did not pass the aperture made between the two mines. The condition of the abandoned part into which the connection was made being, to a great extent, unknown, orders were given to vacate the mine immediately, which was followed by the officials of the Ivill mine being notified of the matter and they also withdrew their workmen. Upon the mines being vacated the mine foreman, Joseph Nevens, concluded to examine, if at all possible, the place of holing and on reaching the vicinity of the same he found that the flame had been extinguished by some means not fully determined, but supposed to be through the absence of sufficient air to sustain combustion. On my examination, the gas was still present, not only in the abandoned part of the Ivill mine as far as could be examined, but extending quite a distance from face of room toward the entry from which the room was

turned. Owing to the presence of the gas and its location, I suggested that neither mine be worked until some provision were made for the safety of the mines, and not seeing my way clear for a final disposition of the case I notified Inspectors Adams, Connor and Ross to examine the mine with me and after due deliberation we concluded to recommend the following, viz: That the source of danger be removed forthwith, and while it is being removed, no person or persons shall be permitted in either mine except those employed in the removal of the danger. It was further suggested that a bore hole be put down from the surface to connect with the excavated part of the Ivill mine and in proximity to the place where the mines were connected. This bore hole was afterwards drilled, and as soon as it penetrated the opening, gas entered the bore hole and passed into the outer air. Subsequently I measured the gas leaving the mine through this bore hole and found it to be 255 cubic feet per minute. To isolate the active workings from the bore hole, brick walls have been built, with iron doors in their centres, for the purpose of allowing an examination to be made whenever necessary.

Chamouni.—Not in operation on my last visit.

Albany.—This mine was in fair condition.

Iron City.—Has not been operated since the year 1883. In 1884 high water carried the tipple away, and the incline through the ravages of time, was soon beyond repair. The property has lately passed into the hands of another company which intends to build new abutments, tipple, incline and such other improvements as to make it a first class plant.

Coal Centre.—Condition of drainage fair. Ventilation requires improvement in parts of the mine.

Ella.—In fair condition as regards drainage. The air current is not satisfactory in all respects.

Washington.—Mines not in operation on my last visit. On examination of the workings I found them in fair condition.

Vigilant.—Ventilation and drainage in parts of the mine, unsatisfactory.

Knob.—Mine in fair condition.

Catsburg.—On my last examination I found the ventilation very unsatisfactory; this was owing, to some extent, through the improper distribution of the air current. In one portion of the workings the volume of air which was passing, allowed 777 cubic feet for each person employed; in another, only 86.

Vesta No. 3.—While the general condition of this mine is fair, the ventilation could be increased to advantage in parts of the same.

Christinia.—Idle when last visited.

Gallatin.—Among the improvements made at this mine during

the year is the erection of a ventilating fan twenty feet in diameter, which, with proper attention, should furnish sufficient air for the workings for some time to come.

Walton, Upper and Lower.—In fair condition on the date of my last inspection.

Tremont.—Ventilation in a general way, fair. Drainage does not come up to requirements of the law in all particulars.

Milesville.—The passageways to the second means of egress are not in good condition, neither is the ventilation in some parts of the mine. I am informed, since my examination, that a marked improvement has been made in the matters complained of.

Cincinnati.—In operation 170 days during the year; as a whole the mine is in fair condition.

Coal Bluff.—At each examination of this mine during the year I was obliged to call the attention of the persons in charge to the ventilation and the matter of the air splits. A new ventilating fan, nine feet in diameter, of the Capell type, has been installed, but the interior of the mine is such that the air produced by it does not reach all of the working faces in a satisfactory manner; however an improvement is being made so as to relieve, to a certain extent, the difficulties now encountered in coursing the air current.

Hilldale.—Not in operation when last visited.

Vesta No's 1 and 2.—While the general condition of the mines is fair, there are some parts where ventilation and drainage could be very much improved. Owing to persistent rumors having been circulated that a large body of gas had accumulated in the old and abandoned parts of the mines, I, while I was convinced that the rumors had no foundation, notified Inspectors Blick and Connor and also requested a committee of miners, to examine, as far as possible, with me the part of the excavations named. After making a pretty thorough examination, we failed to find any gas, except a small trace on one of the room falls located a long distance from any active workings, but in our examination of a few falls on an entry in active operation we found gas in such quantities as to ask that the entry be vacated until it was removed. In questioning those in charge of the mine in regard to the condition of the falls, it was stated that they did not know it was there, as no examination had been made since morning, and at that time it was clear of fire damp.

Ivill.—Mine not in operation when last inspected. Relative to the connection that was made between this mine and the Black Diamond the reader is referred to the description of the latter.

Allequippa.—While the drainage, in a general way, was satisfactory when last inspected, the ventilation was not up to the standard.

Alice.—On my last visit to this mine I found ventilation and drainage in parts of the mine unsatisfactory.

Stonesburg.—It seems from present indications that this mine has been practically abandoned.

Fatal Accidents.

John Paul, miner, was instantly killed in Catsburg mine January 11th, by a fall of slate. At the time of the accident the deceased was loading a car of coal. The slate showed, after it fell, numerous slips, and it seemed that if a careful examination had been made previous to its falling, the dangerous character of the same could have been detected.

Peter Weiseman, miner, was instantly killed in Snow Hill mine January 30th, by being struck by a post which was dislodged by falling slate. The deceased and Thomas Wright were together, and previous to the accident they had been taking out posts from under the slate; one of the posts was in such a position as to be somewhat difficult to remove, and the latter requested the deceased who at the time was trying to get it out, to allow him to do the work, as he was much younger and more likely to avoid the slate or post catching him, but he refused.

Alexander Williams, miner, was fatally injured in Charleroi mine February 21st, by a fall of slate. The deceased had fired a shot in the tight which failed to throw the coal; he then started to take it down with a pick and while doing this work, coal and slate fell, a piece of the latter caught him in such a manner as to cause death seven days afterwards.

Micheal Popovish, miner, was injured by a fall of slate in Gallatin mine March 10th. Died March 15th.

Micheal Ververke, a miner, was instantly killed in Alice mine March 21st, by a fall of slate. It is not known what the deceased was doing at the time of the accident, as his partner John Bohacik was moving a piece of slate a short distance away, but it is supposed that he was sounding slate. His partner informed me that he spoke to the deceased about the slate but he, the deceased, said "it was all right, and after he loaded the car which was in the place he would put a post under it."

James Moore, miner, was fatally injured in Blyth mine March 22d, by a fall of slate. At the time of the accident the deceased was loading a car. On subsequent examination of the place I found that the slate had fallen out between the posts and room rib, and showed numerous slips with the angle of fracture against safety; one was running parallel with the rib and another at right angles making a very dangerous piece to work under, but this was not known by deceased or his father who worked with him.

Bartolo Orler, miner, was instantly killed by a fall of coal in Little Alps mine March 28th. The deceased and his partner Louis Cerise, was bearing in on a butt, the former on the end next to the road head and the latter near the rib. Previous to the accident they had fired a shot in the middle of room, this shot had "jumped" for quite a distance back of the butt making it somewhat dangerous; this they realized, for they took some of it down, but not sufficient, for when they loosened it up some, in the bearing in, it fell.

Robert B. Jones, driver, was killed instantly by coal cars in Manown mine April 20th. The deceased was on his way out toward the double parting with a trip of five cars, and when he arrived near a door, which is located at entry No. 6, he stepped on the bumpers of the first car of the trip, but slipped off, and before he could recover himself the cars caught him with the above result.

John D. Lonzeno, miner, was fatally injured at Walton's mine April 20th, by being run over by the locomotive that hauls the full cars from near the mine entrance to the river tipple, and returns with the empty ones. Immediately preceding the accident the deceased was sitting on the front foot board of the engine smoking a pipe, and while the tobacco in the pipe was yet afire he put it in his pocket, a few minutes after this he discovered smoke issuing from his pocket, he then became excited and jumped from the locomotive, but in doing so he slipped and fell in front of it, and one of the driving wheels ran over him in such a manner as to cause death the same evening.

John Emery, loader, was instantly killed in Somers No. 4 mine by a fall of double slate April 30th. The deceased and John Sickles worked together and at the time of the accident they were working at the face of the room and under the slate that afterwards fell. I made an examination of the place subsequently and found that a slip, the angle of fracture being against safety, was running at right angles to the face, another showed itself running parallel to it. The place was somewhat difficult to work owing to the double slate and the numerous slips that appeared in it.

Frederick Klein, miner, was instantly killed in Vesta No. 1 mine May 25th, by being caught between a car and coal pillar. The deceased was moving a car through a chute. The track had a slight grade toward the main entry to which he was moving the car, the position of the body when found, would indicate that he was trying to put a sprag in one of the wheels of the car.

William N. Rogers and Thomas Forsyth, carpenter and driver respectively, lost their lives in Ellsworth No. 1 mine, June 10th. For a more extended account see description of the mine in another part of this report.

John Batton, brakeman on electric motor, was fatally injured June 11 at Arnold No. 3, by an explosion of oil while filling his lamp from a can containing explosive oil.

Mechech Haywood, miner, was almost instantly killed in Mongah mine June 28th, by a fall of roof from some cause unknown, but it is supposed that he was after roof coal. The deceased was drawing a rib at the above mine.

William Ferguson, miner, was instantly killed in Alice mine July 3d, by a fall of slate. The deceased and his brother were working together and previous to the accident had fired a middle shot and loaded some sixty bushels out of it. The brother informed me that he could not get a post under the slate owing to its being flush with the face of the room. They sounded the slate a few minutes before it fell and considered it safe.

Dennis Burns, loader, was fatally injured in Tremont mine July 23d, by a fall of slate while throwing coal from under it. A brother worked with the deceased and he informed me that they sounded the slate about fifteen minutes before it fell and considered it safe.

Andrew Sweetny, miner, was instantly killed in Chamouni mine July 23d, by a fall of slate. The deceased and John Majuriah worked together in entry 19. They had some 14 feet of slate up, previous to the accident, and concluded to take it down and for this purpose they drilled a hole in it, but before putting the powder in the hole the deceased commenced to throw some coal back from under the slate and while thus engaged it fell, resulting as above stated.

August Torch, laborer, was instantly killed at the Ellsworth No. 1 shaft August 16th, by being struck by a descending cage. Torch was employed on the shaft hoist, and at the time of the accident was assisting to put a board on that was to form part of the floor of hoist; this board extended over the outside timbers of the hoist and the deceased was at work trying to get it back far enough to be flush with another board that was in the platform, and instead of using some other means to move it he took a sledge, at the same time having part of his body over the shaft in such a manner as to be in the way of the descending cage. One of the carpenters saw the danger that Torch was in and called for him to get out of the way, but it was too late.

Joseph Tood, miner, was injured July 31st in Climax mine, by a fall of slate. Died August 21st.

Leonard Guest, miner, was injured in Coal Bluff mine August 27th, by a fall of coal. Died September 2d.

Gorge Lacauta, miner, was injured October 8th in Knob mine by a fall of slate. Died January 13, 1901.

Albert Lauderback, driver, was fatally injured in Shoenberger

mine October 11th by being caught between a car and post. The deceased was on his way out of the mine with a trip of loaded cars, and when near the entrance the front car left the track, the deceased being on the front of the first car, tried to unhitch the mule, and before he could get out of the way the car caught him, as stated above.

Benjamin Simeoe, miner, was instantly killed in Gallatin mine November 5, by a fall of roof and side. The deceased and John Ouchie was on their way out of the mine, and on reaching a point near an entry known as "Old No. 17," a fall occurred which measured 74 feet long, 16 feet wide and about 5 feet in depth. The mine officials say that the place was examined in the morning of the accident and no unusual danger discovered. An inquest was held and verdict of accidental death rendered.

Michael G. Santo, miner, was fatally injured in Coal Bluff mine, November 7th, by a fall of slate.

James Paskerella, miner, was instantly killed in Manown mine, November 9th, by a fall of roof. Subsequent investigation showed that there had been two posts set under the roof, but they had been broken by the roof falling. It seemed that the roof must have given signs of its dangerous character previous to giving away had a proper examination been made by Paskerella and his partner Frank Revetta before it fell.

John Hurra, miner, was instantly killed in Vigilant mine November 15th, by a fall of slate. At the time of the accident the deceased was "blocking" his "bearing in." The slate fell out in the form of a "pot." On examination of the place I am of opinion that this accident was unavoidable.

Silas Lear, Joseph Novak and John Capritch lost their lives in an explosion of fire damp in Ellsworth Mine No. 1. For a more extended account see description of the mine in another part of this report.

Leopold Bastian, miner, was instantly killed in Vesta No. 1 mine November 21st, by a fall of roof. The deceased was running a mining machine at the time of the accident. The roof was sounded a few minutes before it fell and was considered safe.

Frank Markella, miner, was instantly killed in Rostraver mine November 23d, by a fall of slate. The deceased was loading a car at the time of the accident. There was a great deal of trouble in the room where the accident occurred by "pots" and rolls, and as a consequence it was necessary to use caution in working it. It was in evidence that the slate had not been examined or sounded for some time before it fell.

Joseph Rutoskey, loader, was fatally injured in Bunola mine December 3d, by a fall of slate. He was loading a car at the time of

the accident. I was informed by the partner of the deceased that they sounded the slate a few minutes before it fell and considered it safe.

Micheal Eignito, miner, was fatally injured in Acme mine December 4th, by a fall of coal. The deceased was bearing in at the time of the accident. The place was very badly squeezed and the partner of the deceased suggested that they put a sprag under the coal, but the latter said he thought it was safe.

John Rogan, miner, was instantly killed by a fall of coal and slate in Allen mine December 14th. The deceased and his partner were bearing in at the time of the accident, the former on the end of the butt and the latter next to the rib. A middle tight shot had shattered the butt and made it dangerous to work on but, this was not known by the deceased and his partner.

John Hoodak, miner, was fatally injured in Vigilant mine December 18th, by a fall of coal and slate. The deceased, at the time of the accident was drilling a hole for a blast; a clay vein passed nearby which was in part undermined, which fell off and caught the deceased, resulting as stated.

Thomas Sabo, Hungarian, loader, was instantly killed by a fall of slate in Catsburg mine December 22d. At the time of the accident he was knocking coal from under some slate. Subsequent examination of the place showed that the deceased had shown very little practical judgment in the working of their room.

TABLE I—Showing names of operators, railroads, etc., and location of collieries in the First Bituminous District for the Year 1900.

Names of Operators and Collieries.	County.	Name of General Superintendent.	P. O. Address.	Name of Superintendent.	P. O. Address.	Railroad to Mine.
Monongahela River Consolidated Coal and Coke Co.	Allegheny.	O. A. Blackburn.	Pittsburg.	William Wilson.	Camden.	Pbg., Vir. & Charleston.
Aldridge.	Washington.	O. A. Blackburn.	Pittsburg.	J. T. Jones.	Fayette City.	Pittsburg & Lake Erie.
Abney's.	Fayette.	O. A. Blackburn.	Pittsburg.	John S. Gibson.	Roscoe.	Pbg., Vir. & Charleston.
Anello.	Fayette.	O. A. Blackburn.	Pittsburg.	John Fortier.	Brownsville.	Pbg., Vir. & Charleston.
Alice.	Fayette.	O. A. Blackburn.	Pittsburg.	Wm. Gilie.	Brownsville.	Pbg., Vir. & Charleston.
Anchor.	Fayette.	O. A. Blackburn.	Pittsburg.	James Hornickie.	Monongahela.	Pbg., Vir. & Charleston.
Albany.	Fayette.	O. A. Blackburn.	Pittsburg.	Richard Kincey.	Brownsville.	Pbg., Vir. & Charleston.
Amity.	Washington.	O. A. Blackburn.	Pittsburg.	Wm. Minford.	Elco.	Pbg., Vir. & Charleston.
Black Diamond.	Washington.	O. A. Blackburn.	Pittsburg.	G. T. Cook.	Coal Bluff.	Pbg., Vir. & Charleston.
Beaumont.	Washington.	O. A. Blackburn.	Pittsburg.	John McMenemy.	Courtney.	Pbg., Vir. & Charleston.
Caledonia.	Washington.	O. A. Blackburn.	Pittsburg.	Lute Hornickie.	Monongahela.	Pbg., Vir. & Charleston.
Camden.	Washington.	O. A. Blackburn.	Pittsburg.	Wm. Minford.	Elco.	Pbg., Vir. & Charleston.
Coal Bluff.	Washington.	O. A. Blackburn.	Pittsburg.	Robt. Jack.	Allenport.	Pbg., Vir. & Charleston.
Cincinnati.	Washington.	O. A. Blackburn.	Pittsburg.	T. J. Cromble.	California.	Pbg., Vir. & Charleston.
Chatsburg.	Washington.	O. A. Blackburn.	Pittsburg.	John A. Powell.	California.	Pbg., Vir. & Charleston.
Chipperton.	Fayette.	O. A. Blackburn.	Pittsburg.	Wm. Gilie.	Brownsville.	Pbg., Vir. & Charleston.
Chesnut.	Washington.	O. A. Blackburn.	Pittsburg.	John A. Crowthers.	Fredericktown.	Pbg., Vir. & Charleston.
Climax.	Fayette.	O. A. Blackburn.	Pittsburg.	Lee M. Crowthers.	Elco.	Pittsburg & Lake Erie.
Crowthers.	Allegheny.	O. A. Blackburn.	Pittsburg.	Thos. Winford.	Elco.	Pittsburg & Lake Erie.
Christinia.	Washington.	O. A. Blackburn.	Pittsburg.	I. T. Jones.	Fayette City.	Pittsburg & Lake Erie.
Eclipse (river).	Fayette.	O. A. Blackburn.	Pittsburg.	Lee M. Crowthers.	Fredericktown.	Pittsburg & Lake Erie.
Fayette City.	Allegheny.	O. A. Blackburn.	Pittsburg.	D. W. Phillips.	Monongahela.	Pittsburg & Lake Erie.
Fox.	Washington.	O. A. Blackburn.	Pittsburg.	Lute Hornickie.	Monongahela.	Pbg., Vir. & Charleston.
Gallah.	Washington.	O. A. Blackburn.	Pittsburg.	Richard Kincey.	Brownsville.	Pbg., Vir. & Charleston.
Hildale.	Washington.	O. A. Blackburn.	Pittsburg.	J. T. Jones.	Fayette City.	Pbg., Vir. & Charleston.
Kimb.	Washington.	O. A. Blackburn.	Pittsburg.	James Black.	Roscoe.	Pittsburg & Lake Erie.
Little Redstone.	Fayette.	O. A. Blackburn.	Pittsburg.	Lute Hornickie.	Monongahela.	Pittsburg & Lake Erie.
Little Alps.	Allegheny.	O. A. Blackburn.	Pittsburg.	W. J. Wilson.	Sunny Side.	Pittsburg & Lake Erie.
Mongah.	Allegheny.	O. A. Blackburn.	Pittsburg.	Lute Hornickie.	Monongahela.	Pittsburg & Lake Erie.
New Eagle.	Washington.	O. A. Blackburn.	Pittsburg.	Thos. Winford.	Camden.	Pittsburg & Lake Erie.
Old Eagle.	Allegheny.	O. A. Blackburn.	Pittsburg.	Lute Hornickie.	Monongahela.	Pittsburg & Lake Erie.
Rock Run.	Allegheny.	O. A. Blackburn.	Pittsburg.	Lee M. Crowthers.	Fredericktown.	Pittsburg & Lake Erie.
Rostraver.	Westmoreland.	O. A. Blackburn.	Pittsburg.	James Black.	Roscoe.	Pbg., Vir. & Charleston.
Riversville.	Washington.	O. A. Blackburn.	Pittsburg.	Chas. Bradford.	Coal Centre.	Pbg., Vir. & Charleston.
Snow Hill.	Fayette.	O. A. Blackburn.	Pittsburg.			
Stony Hill.	Fayette.	O. A. Blackburn.	Pittsburg.			

TABLE I—Continued.

Names of Operators and Collieries.	County.	Name of General Superintendent.	P. O. Address.	Name of Superintendent.	P. O. Address.	Railroad to Mine.
Monongahela River Consolidated C. & Co.—Continued						
Tremont	Fayette	O. A. Blackburn	Pittsburg	Wm. Billingsley	Fayette City	Pittsburg & Lake Erie
Umpire	Fayette	O. A. Blackburn	Pittsburg	Wm. Gilie	Brownsville	Pbg., Vir. & Charleston
Vigilant	Washington	O. A. Blackburn	Pittsburg	John A. Powell	California	Pbg., Vir. & Charleston
Washington	Fayette	O. A. Blackburn	Pittsburg	James Black	Roscoe	Pbg., Vir. & Charleston
Walton	Allegheny	O. A. Blackburn	Pittsburg	D. W. Phillips	Floresce	Pbg., Vir. & Charleston
Walton, Upper	Allegheny	O. A. Blackburn	Pittsburg	D. W. Phillips	Floresce	Pbg., Vir. & Charleston
Walton, Lower	Allegheny	O. A. Blackburn	Pittsburg	D. W. Phillips	Floresce	Pbg., Vir. & Charleston
Pittsburg Coal Company.						
Anderson	Washington	Geo. W. Schluenderberg	Pittsburg	W. E. McCoy	Finleyville	Baltimore & Ohio
Arnold No. 1	Fayette	Geo. W. Schluenderberg	Pittsburg	J. W. Blower	Fayette City	Pittsburg & Lake Erie
Arnold No. 2	Fayette	Geo. W. Schluenderberg	Pittsburg	J. W. Blower	Fayette City	Pittsburg & Lake Erie
Arnold No. 3	Fayette	Geo. W. Schluenderberg	Pittsburg	J. W. Blower	Fayette City	Pittsburg & Lake Erie
Banner	Washington	Geo. W. Schluenderberg	Pittsburg	James Parnham	Shire Oaks	Pbg., Vir. & Charleston
Blythe	Washington	Geo. W. Schluenderberg	Pittsburg	James Parnham	Shire Oaks	Pbg., Vir. & Charleston
Buffalo*	Washington	Geo. W. Schluenderberg	Pittsburg	James Parnham	Shire Oaks	Pbg., Vir. & Charleston
Cleveland (Somers No. 1)	Fayette	Geo. W. Schluenderberg	Pittsburg	J. W. Blower	Fayette City	Pittsburg & Lake Erie
Courtney	Washington	Geo. W. Schluenderberg	Pittsburg	James Parnham	Shire Oaks	Pbg., Vir. & Charleston
Cliff.*	Washington	Geo. W. Schluenderberg	Pittsburg	James Parnham	Shire Oaks	Pbg., Vir. & Charleston
Equitable	Westmoreland	Geo. W. Schluenderberg	Pittsburg	J. W. Blower	Fayette City	Pittsburg & Lake Erie
Eclipse (railroad)	Washington	Geo. W. Schluenderberg	Pittsburg	J. W. Blower	Fayette City	Pittsburg & Lake Erie
Fidelity	Washington	Geo. W. Schluenderberg	Pittsburg	W. B. McCoy	Finleyville	Baltimore & Ohio
Germania	Washington	Geo. W. Schluenderberg	Pittsburg	James Parnham	Shire Oaks	Pbg., Vir. & Charleston
Germany	Washington	Geo. W. Schluenderberg	Pittsburg	James Parnham	Shire Oaks	Pbg., Vir. & Charleston
Gasville No. 1*	Washington	Geo. W. Schluenderberg	Pittsburg	W. E. McCoy	Finleyville	Baltimore & Ohio
Gasville No. 2*	Washington	Geo. W. Schluenderberg	Pittsburg	W. E. McCoy	Finleyville	Baltimore & Ohio
Hackett	Washington	Geo. W. Schluenderberg	Pittsburg	W. E. McCoy	Finleyville	Baltimore & Ohio
Manown	Allegheny	Geo. W. Schluenderberg	Pittsburg	W. E. McCoy	Finleyville	Baltimore & Ohio
North Webster	Westmoreland	Geo. W. Schluenderberg	Pittsburg	J. W. Blower	Fayette City	Pittsburg & Lake Erie
Nottingham	Washington	Geo. W. Schluenderberg	Pittsburg	J. W. Blower	Finleyville	Pittsburg & Lake Erie
Somers No. 2	Westmoreland	Geo. W. Schluenderberg	Pittsburg	W. E. McCoy	Finleyville	Baltimore & Ohio
Somers No. 3	Westmoreland	Geo. W. Schluenderberg	Pittsburg	J. W. Blower	Fayette City	Pittsburg & Lake Erie
Somers No. 4	Westmoreland	Geo. W. Schluenderberg	Pittsburg	J. W. Blower	Fayette City	Pittsburg & Lake Erie
Snowden	Allegheny	Geo. W. Schluenderberg	Pittsburg	J. W. Blower	Finleyville	Baltimore & Ohio
Sheplar*	Westmoreland	Geo. W. Schluenderberg	Pittsburg	J. W. Blower	Fayette City	Pittsburg & Lake Erie
J. W. Ellsworth & Co.						
Ellsworth No. 1	Washington	John Simpson	Bentleyville	John Simpson	Bentleyville	Mahela & Washington
Ellsworth No. 2	Washington	John Simpson	Bentleyville	John Simpson	Bentleyville	Mahela & Washington

Knob, Redestone,	101,868	3,959	285	256.50	133	1	1,560	13
Little Alps,	364	1,654	304	212.25	153	1	60	4
Little Alps,	29,032	1,324	134	207.50	50	1	3	13
Mongah,	156,290	2,550	188	158.767	210	1	750	12
Milleville,	110,880	1,215	261	111,856	262.50	3		10
New Eagle,	28,873	559	8	29,517	39			12
Old Eagle,	15,066	330	330	15,415	177.25	1		6
Rocky Mountain,	68,933	20	26	68,979	258	1		5
Riversville,	23,117	23,294	117	121.50	65			9
Snow Hill,	83,868	562	92	84,522	143.50	1	200	8
Stony Hill,	56,433	121	98	56,554	197.10	1		7
Tremont,	220,275	5,388	15	225,678	249.80	1		6
Umpire,	9,917	133	60	10,050	131	1	2,000	12
Vigilant,	151,969	171	1,808	153,019	223	2	210	10
Washington,	24,760	431	3	25,194	41.70	3		20
Allegheny,	84,234	218	796	85,248	139.50	1	250	476
Allegheny,	4,236,991	41,150	13,292	4,290,473	176	29	11,802	
Total and average,								
Pittsburgh Coal Company,								
Anderson,	3,465	86	19	3,570	75		10	4
Arnold No. 1,	278,940	2,867	221	282,028	299.75		2,350	22
Arnold No. 2,	101,228	1,714	10	102,952	217.25	7	857	100
Arnold No. 3,	128,715	1,894	3	128,715	189.62	1	1,100	7
Banner,	113,758	1,894	3	115,755	222.25	2	1,650	9
Blythe,	183,777	499	196	194,472	352.12	1		10
Buffalo,	242,172	2,586	12	244,740	218.37	6	910	18
Cleveland (Somers No. 1),	84,217	823	386	85,456	217.50	5	630	5
Courtney,	93,700	945	783	95,437	301.37	1	600	8
Cliff,	133,977	2,240	28	136,254	203.37	2	1,000	22
Equitable,	60,390	66	350	60,816	166.62	1	408	5
Etchepa (railroad),	110,804	283	106	111,193	240.62	1	75	13
Genelia,								
Gastonyville No. 1,								
Gastonyville No. 2,								
Hackett,	161,158	3,755	214	165,147	264.37	1	550	9
Manown,	90,873	1,423	270	91,566	181.12	1	860	10
North Webster,	72,353	469	60	70,882	195.75	1	100	20
Nottingham,	285,173	1,854	848	287,815	338.62	3	2,617	14
Somers No. 2,	74,524	10	10	74,584	197.87	1	300	4
Somers No. 3,								
Somers No. 4,								
Snowden,	42,117	260	79	42,456	138.62	2		17
Sheplar,								
Westmoreland,								
Total and average,	2,271,360	21,843	3,615	2,296,818	199	5	13,517	197
J. W. Ellsworth and Company,	29,889	4,140	1,258	35,297	200	6	40	10
Ellsworth No. 1,								
Ellsworth No. 2,								

TABLE II—Continued.

Names of Operators and Collieries.	County.	Shipments of coal in tons by rail or otherwise.	Number of tons used for steam and heat at colliery.	Sold to local trade and used by employes—tons.	Total production of coal in tons.	Number days worked.	Number persons employed.	Number fatal accidents.	Number non-fatal accidents.	Number kegs powder used.	Number pounds of dynamite used.	Number horses and mules.
Vesta Coal Company.												
Vesta No. 1,	Washington,	774,107	12,037	2,534	788,678	242	662	2	5	3,000	.....	30
Vesta No. 2,	Washington,											
Vesta No. 3,	Washington,											
P. J. Forsythe and Company.												
Coal Centre,	Washington,	168,427	75	175	168,677	277.25	174	.....	1	.....	.....	10
Ella,	Allegheny,	192,792	2,368	299	195,459	268	200	.....	7	3,600	.....	17
Shoenberger Coal Company.												
Bunola,	Washington,	160,428	240	150	160,818	293	193	1	4	800	800	16
Bunola Mining Company.												
Bunola,	Allegheny,	144,688	2,100	540	147,278	280.50	143	1	2	.....	.....	11
Charleroi Coal Works.												
Charleroi,	Washington,	207,222	2,908	.....	210,130	279	189	1	3	.....	.....	16
Clyde Coal Company.												
Sanford,	Washington,	6,720	.....	6	6,726	156	41	.....	.....	.....	.....	.....
People's Coal Company.												
Bakewell,	Allegheny,	487	.....	.....	437	20	32	.....	.....	.....	.....	2
Hazel Kirk Coal Company.												
Hazel Kirk,	Washington,	618	112	10	740	35	19	.....	.....	1	200	.....

P. M. Pfeil Coal Company. Marine,	640	185	\$25	74	19	29	3
Henderson Coal Company. Henderson,			95		23		1
A. R. Budd. Budd,	234	39	273	39	26		2
Star Coal Company. Star,	650	50	1,050	44	28	10	2
Morris & Walley Coal Company. Peters Creek,	2,274		2,274	124	15		1
B. Braznell & Son. Allen,	36,570	100	37,870	231	50	1	3
Stockdale Coal Company. Acme,	309,058	800	310,458	274	214	1	17
Grand total and average, ..	8,542,165	87,962	\$ 654,281	182	10,912	38	933
						144	6,375
						34,302	6,375

*Idle all year.

TABLE II—Continued.

Names of Operators.	County.	Number of Boilers.			Total horse power.	Locomotives.			Number steam engines of all classes.	Total horse power.	Number pumps delivering water to surface.	Capacity in gallons per minute.	Quantity delivered to surface per minute—gallons.	Number electric dynamos.	Number air compressors.	
		Cylindrical.	Horse power.	Tubular.		Horse power.	Steam.	Air.								Electric.
Monongahela R. C. & C. Co.,	.....	45	2,087	56	4,852	6,909	1	2	8	53	4,693	32	6,715	3,084	4
Pittsburg Coal Company,	Washington,	15	740	28	2,690	3,710	.....	.....	b	32	3,446	14	4,039	2,875	16
J. W. Ellsworth and Company,	Washington, .....	.....	.....	10	1,250	1,250	.....	.....	.....	5	660	2	.....	400	12
Vesta Coal Company,	Washington, .....	.....	.....	6	1,800	1,800	.....	.....	.....	2	.....	.....	.....	.....	.....
P. J. Forsythe and Company,	Washington,	2	70	.....	270	70	.....	.....	.....	2	.....	.....	.....	.....	.....
Ella Coal Company,	Allegheny, .....	.....	.....	4	259	259	.....	.....	.....	.....	70	.....	.....	.....	.....
Shoenberger Coal Company,	Washington, .....	.....	.....	1	100	150	.....	.....	.....	.....	80	.....	60	20	2
Bunola Mining Company,	Allegheny,	3	150	.....	150	150	.....	.....	.....	.....	120	.....	.....	.....	.....
Charles Coal works,	Washington, .....	.....	.....	4	320	320	.....	.....	.....	.....	300	.....	.....	.....	.....
City Coal Company,	Allegheny, .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
People's Coal Company,	Allegheny, .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Hazel Kirk Coal Company,	Washington, .....	.....	.....	2	300	300	.....	.....	.....	.....	.....	.....	.....	.....	.....
P. M. Pfeil Coal Company,	Fayette, .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Henderson Coal Company,	Westmoreland, .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
A. R. Budd,	Westmoreland, .....	.....	.....	1	125	125	.....	.....	.....	.....	.....	.....	.....	.....	.....
Star Coal Company,	Washington, .....	.....	.....	1	100	100	.....	.....	.....	.....	.....	.....	.....	.....	.....
Morris and Bailey Coal Co.,	Allegheny, .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
B. Braznell and Son,	Washington, .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Stockdale Coal Company,	Washington, .....	.....	.....	1	80	80	.....	.....	.....	.....	.....	.....	.....	.....	.....
Grand total and average,	65	2,972	114	11,876	15,173	1	2	16	111	1,682	58	12,454	7,239	32	10

TABLE III—Continued.

Names of Operators and Collieries.	County.	Occupation of Persons Employed Inside.							Occupations of Persons Employed Outside.							Grand total, inside and outside.	
		Inside foreman or mine boss.	Fire bosses.	Miners.	Miners' laborers.	Drivers and runners.	Door boys and helpers.	All other employes.	Total inside.	Outside foreman.	Blacksmiths and carpenters.	Engineers and firemen.	State pickers.	Superintendents, bookkeepers and clerks.	All other employes.		Total outside.
M'gahela R. C. C. & C. Co.—Con.																	
Gallatin,	Allegheny,	1	2	100	4	11	3	.....	121	1	2	4	.....	1	14	22
Hilldale,	Washington,	1	.....	45	1	2	.....	.....	140	.....	.....	.....	.....	.....	3	6
Ivill,	Washington,	1	2	120	2	11	2	.....	117	.....	.....	.....	.....	.....	7	14
Knob,	Washington,	1	2	90	2	11	2	.....	117	.....	.....	.....	.....	.....	7	14
Little Redstone,	Fayette,	1	2	106	1	14	1	4	129	1	2	7	.....	1	13	16
Little Alps,	Fayette,	1	.....	45	.....	3	.....	.....	49	.....	.....	.....	.....	.....	24	53
Mongal,	Allegheny,	1	2	185	4	10	1	21	224	1	4	3	.....	1	18	27
Milesville,	Allegheny,	1	2	98	10	12	3	4	130	1	2	3	.....	1	7	13
New Eagle, *	Washington,	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Old Eagle,	Allegheny,	1	2	100	6	10	4	2	125	1	4	2	.....	1	12	20
Rock Run,	Allegheny,	1	.....	100	3	9	2	.....	115	1	1	.....	.....	.....	12	15
Restaven,	Allegheny,	1	.....	55	8	5	1	.....	70	.....	.....	.....	.....	.....	6	11
Riverton,	Westmoreland,	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Riverville,	Washington,	1	.....	160	5	10	1	2	158	.....	.....	.....	.....	.....	5	7
Snow Hill,	Fayette,	1	1	180	2	10	.....	.....	165	.....	.....	.....	.....	.....	6	11
Stony Hill,	Fayette,	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Tremont,	Fayette,	1	.....	130	7	13	2	.....	157	1	3	1	.....	1	3	7
Umple,	Fayette,	1	1	44	.....	6	3	.....	54	1	1	1	.....	.....	14	24
Vigilant,	Washington,	1	1	100	.....	12	.....	16	130	1	2	.....	.....	.....	6	10
Washington,	Fayette,	1	1	125	.....	9	1	.....	139	1	2	.....	.....	.....	6	12
Walton, Upper,	Allegheny,	2	.....	296	3	16	5	3	325	1	3	4	.....	.....	15	15
Walton, Lower,	Allegheny, .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Total,		42	43	4,745	123	417	73	222	5,665	28	86	82	59	370	625	6,290

Pittsburg Coal Company.										
Anderson,	Washington,	57	4	4	1	1	68	1	1	1
Arnold No. 1,	Fayette,	286	18	11	17	236	4	3	4	11
Arnold No. 2,	Fayette,	98	7	3	3	113	2	1	6	12
Arnold No. 3,	Fayette,	110	8	2	1	126	3	4	13	22
Banner,	Washington,	150	6	10	1	169	1	2	11	16
Blythe,	Washington,	110	3	1	1	126	4	5	14	26
Clayton,	Washington,	150	3	6	1	163	1	4	5	12
Cleveland (Somers No. 1),	Fayette,	70	3	6	4	82	1	1	5	12
Courtney,	Washington,	83	8	2	3	83	3	4	8	16
Cliff,	Washington,	150	15	3	8	178	1	5	13	22
Eclipse (railroad),	Washington,	55	1	5	3	62	1	2	4	6
Fidelity,	Washington,	90	9	3	103	2	2	1	9	12
Germania,	Washington,	98	2	8	3	116	2	3	9	15
Gastonsville No. 1,*	Washington,	137	7	12	2	165	3	3	8	15
Gastonsville No. 2,*	Washington,	210	17	12	5	251	2	1	6	10
Hackett,*	Washington,	47	2	4	2	60	3	4	16	25
Manown,	Allegheny,	80	9	2	4	96	1	2	3	5
North Webster,	Westmoreland,	18	2	4	2	28	1	2	5	11
Nottingham,	Westmoreland,	137	7	12	2	165	3	3	8	15
Northampton,	Westmoreland,	210	17	12	5	251	2	1	6	10
Somers No. 1,	Westmoreland,	47	2	4	2	60	3	4	16	25
Somers No. 2,	Allegheny,	80	9	2	4	96	1	2	3	5
Somers No. 3,	Westmoreland,	18	2	4	2	28	1	2	5	11
Snowden,	Westmoreland,	137	7	12	2	165	3	3	8	15
Shepplar,	Westmoreland,	210	17	12	5	251	2	1	6	10
Total,	Washington,	1,865	57	159	45	2,228	6	37	41	22
J. W. Ellsworth and Company.										
Ellsworth No. 1,	Washington,	35	2	1	7	47	3	4	3	8
Ellsworth No. 2,	Washington,	35	2	1	8	48	3	4	3	9
Total,	Washington,	70	4	2	15	95	6	8	6	17
Vesta Coal Company.										
Vesta No. 1,	Washington,	285	64	26	5	390	1	5	9	3
Vesta No. 2,	Washington,	195	5	14	4	222	2	1	10	14
Vesta No. 3,	Washington,	480	69	40	9	613	1	7	10	4
Total,	Washington,	1,400	133	3	2	1,600	1	1	2	8
P. J. Forsythe and Company.										
Coal Centre,	Westmoreland,	327	8	15	3	174	1	3	4	2
Elba,	Washington,	160	3	10	1	176	1	2	2	1
Ella Coal Company.										
Ella,	Allegheny,	107	3	11	2	127	1	3	3	7
Shoenberger Coal Company.										
Shoenberger,	Washington,	107	3	11	2	127	1	3	3	7
Bunola Mining Company.										
Bunola,	Allegheny,	107	3	11	2	127	1	3	3	7
Total,										
22 145 254 2,482										
3 8 18 65										
3 9 19 67										
6 17 37 132										
3 17 35 425										
1 10 14 237										
4 27 49 682										
2 8 14 174										
2 16 26 210										
1 10 17 193										
2 7 18 143										

B. Braznell and Son,	1	40	.....	3	1	45	.....	1	.....	1	.....	1	.....	1	.....	50
Allen, .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	5
Stockdale Coal Company.	1	180	.....	10	1	186	.....	2	1	2	.....	2	.....	13	18	214
Acme, .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Grand total,	78	8,160	283	707	146	9,802	43	162	165	113	656	1,140	10,342			

*Idle all year.

TABLE III—Continued.

Names of Operators.	County.	Number of Days Worked in Each Month.												Total.	
		January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.		
Mononahela River Consolidated C. & C. Co.,	Washington,	22.5	22	26	22	28	21	19	15.5	11	16	16	16.5	20	240
Pittsburg Coal Company,	Washington,	19	11	21	20	24.5	21	19	17	15.5	19	19	16.5	13	224
V. W. Milsworth and Company,	Washington, .....	.....	24	24	22	23	22.5	20	22.5	21.5	23.5	21	23	12	230.50
V. W. Milsworth and Company,	Washington,	19	16	21	19.5	22	13	20	23	21.5	23	23	23	22	242
P. J. Fosythe and Company,	Washington,	20	22.25	23.75	23.50	23.50	21.50	23.25	19.25	21	17.75	19.75	19.75	22	247.25
Ellis Coal Company,	Westmoreland,	24	23	25	14	25	23	25	13	24	26	24	25	27	268
Shoenberger Coal Company,	Washington,	24	24	25	14	25	24	25	13	24	26	24	25	27	283
Bunola Mining Company,	Washington,	26	23.50	26	15	24	23	25	16	23	26	24	24	20	280.50
Charlert Coal Works,	Allegheny,	26	24	26	25	25	25	26	21	25	27	26	25	25	156
Clyde Coal Company,	Washington, .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
People's Coal Company,	Allegheny, .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Hazel Kirk Coal Company,	Washington,	18.5	18.5	18.5	18.5	.....	.....	.....	.....	.....	.....	.....	.....	.....	74
P. M. Pfeil Coal Company,	Payette, .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Henderson Coal Company,	Westmoreland, .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
A. E. Budd,	Washington, .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Star Coal Company,	Washington, .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Morris and Bailey Coal Company,	Allegheny, .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
P. Braznell and Son,	Washington,	17	15	19.50	17.50	23.50	24	20.75	17.50	16.25	21.75	21.50	16.75	19	231
Stockdale Coal Company,	Washington,	24	22.75	27	23.50	25	23	24.50	16.25	15.75	25.25	23.75	21.25	24	274

TABLE IV.—List of fatal accidents that occurred in and about the mines of the First Bituminous District for the year ending December 31, 1900.

Date of accident.	Name of Person.	Nationality by Birth.	Occupation.	Age.	Married or single.	Number of widows.	Number of orphans.	Name of Colliery.	County.	Nature and Cause of Accident in Brief.
Jan. 11	John Paul.	Slav.	Miner.	26	S.	1	.....	Catsburg.	Washington.	Instantly killed by a fall of slate.
30	Peter Weisman.	German.	Miner.	52	M.	.....	.....	Snow Hill.	Fayette.	Instantly killed by being struck by iron post.
1	Alexander Williams.	American.	Miner.	40	S.	.....	.....	Charleroi.	Washington.	Fatally injured by a fall of slate.
10	Michael Vervelke.	Slav.	Miner.	21	S.	.....	.....	Gallatin.	Allegheny.	Fatally injured by a fall of slate.
22	James Wolfe.	Slav.	Miner.	28	M.	1	2	Alice.	Payette.	Instantly killed by a fall of slate.
23	Robert Wolfe.	American.	Miner.	16	S.	.....	.....	Blythe.	Washington.	Fatally injured by a fall of slate.
28	Robert B. Jones.	Tyrollese.	Miner.	54	M.	1	2	Little Alps.	Fayette.	Instantly killed by a fall of coal.
20	John D. Lorenzo.	American.	Driver.	31	M.	1	.....	Gallatin.	Allegheny.	Instantly killed by coal cars.
20	John D. Lorenzo.	Italian.	Miner.	36	M.	1	2	Walton.	Allegheny.	Fatally injured by being run over by locomotive.
23	Thomas Fitch.	English.	Miner.	35	M.	1	2	Fidelity.	Washington.	Fatally injured by a fall of coal.
30	John Emery.	American.	Miner.	25	M.	1	2	Somers, No. 4.	Westmoreland.	Instantly killed by a fall of slate.
25	Frederick Klein.	German.	Miner.	41	M.	1	4	Vesta No. 1.	Washington.	Instantly killed by being caught between cars and coal pillar.
10	W. N. Roldgers.	American.	Carpenter.	45	M.	1	2	Ellsworth No. 1.	Washington.	Instantly killed by falling down shaft.
10	Thomas Forsythe.	American.	Driver.	31	S.	.....	.....	Ellsworth No. 1.	Washington.	Suffocated by after-damp.
11	John Batton.	English.	Motor brake-man.	19	S.	.....	.....	Arnold No. 3.	Fayette.	Fatally injured by an explosion of oil while filling his lamp.
28	Mesheck Haywood.	English.	Miner.	55	W.	.....	.....	Mongah.	Allegheny.	Killed by a fall of roof coal.
3	William Ferguson.	Scotch.	Miner.	42	S.	.....	.....	Alice.	Payette.	Instantly killed by a fall of slate.
23	Dennis Burns.	Slav.	Miner.	22	S.	.....	.....	Tremont.	Payette.	Instantly killed by a fall of slate.
23	Andrew Sweetney.	American.	Miner.	28	M.	1	.....	Chamouni.	Payette.	Instantly killed by a fall of slate.
31	Joseph Toad.	Hungarian.	Miner.	41	M.	1	4	Chimax.	Payette.	Fatally injured by a fall of slate.
16	August Torch.	Italian.	Laborer.	26	S.	.....	.....	Ellsworth No. 1.	Washington.	Instantly killed by being struck by a shaft cage.
27	Leonard Guest.	English.	Miner.	21	S.	.....	.....	Coal Bluff.	Washington.	Fatally injured by a fall of slate.
8	George Lacanto.	Slav.	Miner.	20	S.	.....	.....	Knob.	Washington.	Fatally injured by a fall of slate.
11	Albert Lauterback.	American.	Driver.	28	S.	.....	.....	Shoenberger.	Washington.	Fatally injured by being caught between car and post.
5	Benjamin Simco.	Pole.	Miner.	32	S.	.....	.....	Gallatin.	Allegheny.	Instantly killed by a fall of roof and side.
7	Michael G. Santo.	Hungarian.	Miner.	34	M.	1	1	Coal Bluff.	Washington.	Fatally injured by a fall of slate.

TABLE IV—Continued.

Date of accident.	Name of Person.	Nationality by Birth.	Occupation.	Age.	Married or Single.	Number of widows.	Number of orphans.	Name of Colliery.	County.	Nature and Cause of Accident in Brief.
Nov. 9	James Paskerall,	Italian,	Miner,	41	M.	1	3	Manown,	Allegheny,	Instantly killed by a fall of roof.
15	John Hurra,	Slav,	Miner,	52	M.	1	3	Vigilant,	Washington,	Instantly killed by a fall of slate.
20	Silas Lear,	American, ..	Machine boss, ..	41	M.	1	4	Ellsworth No. 1,	Washington,	Fatally injured by being thrown against a coal pillar by an explosion of fire-damp.
20	Joseph Novak,	Slav,	Miner,	30	S.	.....	.....	Ellsworth No. 1,	Washington,	Fatally injured by an explosion of fire-damp.
20	John Capritch,	Slav,	Miner,	30	S.	.....	.....	Ellsworth No. 1,	Washington,	Fatally injured by an explosion of fire-damp.
21	Leopold Bastian,	French,	Miner,	24	M.	1	1	Vesta No. 1,	Washington,	Instantly killed by a fall of roof.
23	Frank Markella,	Italian,	Miner,	44	S.	.....	.....	Rostraver,	Westmoreland, ..	Instantly killed by a fall of slate.
3	Joseph Antoskey,	Slov.,	Loader,	25	M.	.....	.....	Bunola,	Allegheny,	Instantly killed by a fall of slate.
4	Michael Jagnits,	Slov.,	Miner,	22	M.	.....	.....	Allegheny,	Washington,	Fatally injured by a fall of coal.
14	John Hogan,	Hungarian, ..	Miner,	37	M.	1	3	Allen,	Washington,	Instantly killed by a fall of coal and slate.
18	John Hoodak,	Slav,	Miner,	35	M.	1	3	Vigilant,	Washington,	Fatally injured by a fall of coal and slate.
22	Thomas Sabo,	Hungarian, ..	Loader,	28	S.	.....	.....	Catsburg,	Washington,	Instantly killed by a fall of slate.

TABLE V.—List of non-fatal accidents that occurred in and about the mines of the First Bituminous District for the year ending December 31, 1900.

Date of accident.	Name of Person.	Nationality by Birth.	Occupation.	Married or single.		Name of Colliery.	County.	Nature and Cause of Accident in Brief.
				Married	or single.			
				Age.				
Jan. 3	Joshua Wilson,	English,	Miner,	46	M.	Allequippa,	Allegheny,	Foot injured and two ribs fractured by car wheel catching him.
5	John Hinds,	American, ..	Driver,	29	M.	Shoenberger,	Washington,	Foot and leg bruised by being struck by internally injured; caught between car and rib.
8	John Meeson,	American, ..	Driver,	23	S.	Apollo,	Fayette,	Foot injured by a fall of clay from a "clay vein."
10	Daniel Blockford,	Welsh,	Miner,	41	M.	Snowden,	Allegheny,	Ribs fractured by a fall of slate. Leg bruised by being caught between cars.
10	John Sheka,	Hungarian, ..	Miner,	40	M.	Vigilant,	Washington,	Foot cut off; run over by car.
11	John Kleber,	German,	Driver,	26	S.	Vigilant,	Washington,	Collar bone broken; struck by falling coal. Leg broken by a fall of slate.
13	John Bivens,	American, ..	Driver,	24	S.	Apollo,	Fayette,	Rib broken and back injured by a fall of slate.
16	James O'Neill,	Irish,	Miner,	46	M.	Clipper,	Washington,	Arm caught by being run over by cars. An eye afterwards amputated.
17	George Remmels,	American, ..	Miner,	27	S.	Eclipse (river),	Washington,	Hand cut by fall of slate.
17	John Biscon,	Irish,	Miner,	53	S.	Champion,	Washington,	Foot crushed; car ran over it.
22	Louis Webster,	American, ..	Dilly rider, ..	30	M.	Black Diamond,	Washington,	Head and back injured by a fall of slate. Leg broken; struck by "dilly" trip.
22	William Lashan,	German,	Miner,	52	M.	Vigilant,	Washington,	Bruised internally; fall of coal from a "shot."
24	John Forsythe,	American, ..	Day hand,	22	S.	Allequippa,	Allegheny,	Collar bone fractured by a fall of slate. Three ribs broken by a fall of coal and slate.
24	John Venego,	Slav,	Miner,	33	W.	Somers No. 2,	Westmoreland, ..	Three ribs broken by a fall of slate. Leg fractured by being struck by falling post.
26	George Johnson,	Lithuanian, ..	Miner,	18	S.	Vesta No. 1,	Washington,	Leg broken; struck by "dilly" trip.
Feb. 2	Adam Cooper,	American, ..	Miner,	54	M.	Cleveland,	Fayette,	Bruised internally; fall of coal from a "shot."
2	Frederick Detzanky,	Hungarian, ..	Loader,	27	S.	Cleveland,	Fayette,	Collar bone fractured by a fall of slate. Three ribs broken by a fall of coal and slate.
8	Michael Garey,	Irish,	Miner,	47	M.	Snowden,	Allegheny,	Three ribs broken by a fall of slate. Leg fractured by being struck by falling post.
15	Joseph Boocks,	Belgian,	Miner,	46	M.	Chamouni,	Fayette,	Leg broken; car jumped the track and struck him.
16	Ross Oliver,	American, ..	Miner,	38	M.	Milesville,	Allegheny,	Foot crushed by a fall of slate.
22	James Ferguson,	American, ..	Loader,	17	S.	Courtney,	Washington,	
22	Charles Beniskele,	Pole,	Miner,	32	M.	Coal Centre,	Washington,	

TABLE V—Continued.

Date of accident.	Name of Person.	Nationality by Birth.	Occupation.	Age.	Married or single.	Name of Colliery.	County.	Nature and Cause of Accident in Brief.
Feb. 23	Michael Jackson,	Lithuanian,	Helper,	22	S.	Gallatin,	Allegheny,	Foot crushed by being caught in mining machine.
23	William Daws,	English,	Miner,	34	M.	Allequippa,	Allegheny,	Two ribs broken; struck by a post.
26	Arvid Dahlström,	Swede,	Loader,	27	S.	Albany,	Fayette,	Hand bruised by coal falling while loading a car.
26	John Nowork,	Austrian,	Miner,	43	M.	Shoenberger,	Washington,	Clavicle and pelvis bones broken by a fall of slate.
March 6	Robert Little,	English,	Driver,	26	S.	Shoenberger,	Washington,	Left leg broken in two places; struck by car.
7	Adam Undrash,	Slav,	Miner,	33	M.	Chamoni,	Fayette,	Face injured by shot through rib.
7	George Kershner,	German,	Loader,	35	M.	Chile,	Westmoreland, ..	Head injured by fall of slate.
8	Matie P. Esch,	English,	Miner,	33	M.	Allequippa,	Fayette,	Ankle broken; struck by "dilly" line.
9	Joseph Lackie,	American,	Miller,	38	M.	Washington,	Fayette,	Thigh broken by a fall of slate.
9	Joseph Lackie,	American,	Oiler,	14	S.	Coal Bluff,	Washington,	Leg broken and hip bruised; struck by cars.
11	William Sloan,	English,	Driver,	36	M.	Vicliant,	Washington,	Thumb and finger crushed by car wheel.
12	Peter Mrovich,	Slav,	Miner,	32	M.	Eclipse (railroad),	Washington,	Leg fractured and back injured by fall of slate.
12	Antonio Bonno,	Italian,	Miner,	25	S.	Coal Bluff,	Washington,	Leg broken by fall of slate.
20	Frederick Ellister,	German,	Miner,	47	S.	Banola,	Allegheny,	Internally injured by a fall of slate.
21	John Sipes,	Slav,	Miner,	30	S.	Eclipse (railroad),	Washington,	Leg broken by a fall of slate.
22	Earl Scott,	American,	Miner,	17	S.	Mongah,	Allegheny,	Back and foot injured by a fall of slate.
23	Thomas Barnes,	American,	Miner,	50	M.	Beaumont,	Washington,	Foot crushed and two ribs broken by a fall of slate.
23	Joseph Lebanusko,	Pole,	Loader,	40	M.	Eclipse (river),	Washington,	Thigh broken by a fall of slate.
24	Michael Kasho,	Slav,	Miner,	24	S.	Gallatin,	Allegheny,	Leg cut and arm bruised by fall of slate.
24	Andrew Murray, Sr.,	English,	Machine runner,	52	M.	Albany,	Fayette,	Heel torn off by mining machine.
23	Paul Leister,	Slav,	Loader,	26	M.	Fayette City,	Fayette,	Thigh broken; struck by a falling post.
April 11	Isaiah Hayward,	American,	Miner,	55	M.	Catsburg,	Washington,	Knee fractured by a fall of coal.
14	Joseph Varra,	Italian,	Miner,	42	M.	Catsburg,	Washington,	Thigh broken by a fall of slate.
17	Charles Alderson,	American,	Miner,	15	S.	Coal Bluff,	Washington,	Skull fractured; struck by a post.
17	Edgar Stewart,	American,	Motor brakeman,	19	S.	Arnold No. 1,	Fayette,	Arm broken; caught between cars.
18	Robert Johnston,	F'n.,	Miner,	45	M.	Washington,	Fayette,	Ankle and two ribs broken by a fall of slate.

19	Hugh McDonald,	American,	Readman,	45	M.	Arnold No. 1,	Payette,	Leg bruised; struck by loaded car.
20	Richard May,	Italian,	Driver,	34	S.	Apollo,	Payette,	Injured internally; caught between cars.
27	Charles Lambert,	American,	Driver,	30	S.	Arnold No. 3,	Payette,	Ankle sprained; struck by cars.
27	Frank Hatfield,	American,	Machine run- ner,	30	M.	Ella,	Westmoreland,	Leg injured by a fall of slate.
30	John Sektles,	American,	Loader,	22	M.	Somers No. 2,	Westmoreland,	Leg broken by a fall of slate.
30	John Sudre,	Hungarian,	Miner,	42	M.	Apollo,	Payette,	Foot cut off by a fall of slate.
9	John Socanko,	Slav,	Loader,	35	S.	Ella,	Westmoreland,	Collar bone broken by a fall of coal.
12	William Bradenberry,	Bavarian,	Loader,	23	S.	Cleveland,	Westmoreland,	Back injured by a fall of slate.
15	Dock Watts,	American,	Miner,	24	S.	Banner,	Washington,	Foot injured by a fall of slate.
16	Joseph Orvis,	Hungarian,	Miner,	20	S.	Crowthers,	Payette,	Leg broken by a fall of slate.
18	John Cratty,	American,	Driver,	45	M.	Charleroi,	Washington,	Leg injured; caught between car and rib.
22	Stephen Daketch,	Hungarian,	Miner,	34	S.	Coal Bluff,	Washington,	Leg broken by a fall of slate.
22	Edward Mee,	American,	Driver,	20	S.	Arnold No. 2,	Payette,	Leg broken; struck by a car.
25	Charles Schuler,	Austrian,	Miner,	37	S.	Crescent,	Washington,	Left side bruised by a fall of slate.
26	William Garlick,	English,	Miner,	48	M.	Fidelity,	Washington,	Leg broken by a fall of slate.
26	John Fritz,	Slav,	Loader,	30	M.	Ella,	Westmoreland,	Face burned; explosion of fire-damp.
26	Corrazo Pellegrino,	Italian,	Miner,	25	S.	Black Diamond,	Washington,	Leg broken; struck by falling post.
28	Peter Hein,	German,	Miner,	52	M.	Crescent,	Washington,	Compound fracture of leg; fall of coal.
29	John Sykes,	English,	Miner,	45	M.	Allegheny,	Washington,	Head and face bruised by a fall of slate.
1	Benjamin Lenkle,	Hungarian,	Loader,	48	M.	Somers No. 2,	Westmoreland,	Back injured by a fall of slate.
2	Joseph Moskuth,	Austrian,	Miner,	28	S.	Fayette City,	Payette,	Arm and four ribs broken by fall of slate.
5	Louis Edmunds,	English,	Helper,	29	S.	Courtney,	Washington,	Foot lacerated; caught in mining machine.
6	William Durson,	American,	Machine run- ner,	45	M.	Courtney,	Washington,	Leg broken by a fall of coal and slate.
10	Alexander Patrick,	American,	Mine foreman,	50	M.	Ellsworth No. 1,	Washington,	Seriously injured by an explosion of fire- damp.
10	Wallace C. Halse,	American,	Carpenter,	37	M.	Ellsworth No. 1,	Washington,	Seriously injured by an explosion of fire- damp.
11	William Bells,	Hungarian,	Miner,	31	S.	Arnold No. 2,	Payette,	Back and leg injured by a fall of slate.
12	John Galmor,	American,	Miner,	28	M.	Anchor,	Payette,	Leg broken by a car striking him.
15	William Lanning,	American,	Miner,	35	M.	Chamouni,	Payette,	Leg broken by a fall of coal.
15	Robert McCollum,	Scotch,	Miner,	50	M.	Chamouni,	Payette,	Foot bruised by a fall of slate.
15	George Gillem,	American,	Miner,	23	M.	Arnold No. 1,	Washington,	Leg broken by a fall of slate.
18	John Gortia,	Pole,	Loader,	23	S.	Catsburg,	Washington,	Thigh dislocated; caught between cars.
20	John Slicker,	Slav,	Miner,	36	M.	Washington,	Payette,	Arm and shoulder injured; struck by cars.
23	Samuel Insler,	American,	Driver,	45	M.	Equitable,	Westmoreland,	Arm broken; caught between cars and post.
23	Ingh Entey,	American,	Machine run- ner,	33	S.	Gallatin,	Allegheny,	Cut on leg; fall of slate.
3	John Horchels,	Austrian,	Miner,	25	S.	Mongah,	Allegheny,	Leg broken by a fall of slate.
9	John Anderson,	Swede,	Miner,	65	S.	Ivill,	Washington,	Leg broken; struck by a falling post.
10	James Evans,	English,	Miner,	72	M.	Ivill,	Washington,	Finger cut off by falling slate.
11	August Varga,	Italian,	Driver,	34	M.	Ivill,	Washington,	Arm cut and bruised; struck by ears.
11	Jacob Rlavosky,	Slav,	Miner,	32	M.	Chamouni,	Payette,	Leg broken by fall of slate.
10	Edward Latta,	American,	Driver,	33	M.	Eclipse (river),	Washington,	Ankle broken; caught in mining machine.
14	James A. Morris,	American,	Miner,	33	M.	Ivill,	Washington,	Injured on head and hip by a fall of slate.
16	Washington Draw,	Slav,	Machine run- ner,	35	S.	Ella,	Westmoreland,	Leg injured; run over by mining machine.
16	Thomas Matthabbae,	Pole,	Loader,	50	S.	Catsburg,	Washington,	Leg and arm bruised by a fall of coal and slate.
17	Frank Rusher,	English,	Miner,	20	M.	Arnold No. 3,	Payette,	Seriously injured by a fall of slate.
30	Frank Gourtaka,	Pole,	Miner,	40	M.	Milesville,	Allegheny,	Leg fractured by a fall of slate.

May

June

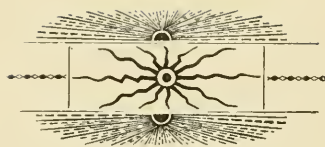
July

TABLE V—Continued.

Date of accident.	Name of Person.	Nationality by Birth.	Occupation.	Age.	Married or single.	Name of Colliery.	County.	Nature and Cause of Accident in Brief.
July	Christian Kings,	American,	Miner,	19	S.	Arnold No. 3,	Fayette,	Head injured; struck by a shovel.
	E. Lucas,	Russian,	Miner,	35	S.	Vesta No. 3,	Washington,	Leg injured by a fall of slate.
	Jacob Bohoski,	Pole,	Miner,	44	M.	Ivill,	Washington,	Head and back injured by a fall of rock.
	Paul Isooski,	Hungarian,	Miner,	26	M.	Anchor,	Fayette,	Leg broken by a fall of slate.
	John Haydon,	Hungarian,	Loader,	26	M.	Cleveland,	Fayette,	Arm and side injured by a fall of slate.
	Charles Layton,	American,	Miner,	18	S.	City,	Fayette,	Arm broken by cars.
	Edmund Kelly,	American,	Miner,	30	S.	Vesta No. 3,	Washington,	Arm broken; rail fell on him.
Aug.	Adam Chapman,	American,	Miner,	49	M.	Charlton,	Washington,	Arm broken; struck by a falling post.
	Stephen Bedner,	Slay,	Miner,	35	S.	Ella,	Westmoreland,	Leg broken by a fall of slate.
	John Torrance,	Hungarian,	Miner,	27	S.	Arnold No. 1,	Fayette,	Leg broken by a fall of slate.
	Jeremiah Mohmpu,	Russian,	Loader,	28	S.	Pelipse (river),	Washington,	Leg broken by a fall of coal and slate.
	William Smith,	American,	Driver,	29	M.	Little Redstone,	Fayette,	Four toes broken by a fall of rock.
	Robert Gates,	English,	Miner,	65	M.	Blythe,	Washington,	Arm broken by a fall of slate.
	Mathew Kerns,	Irish,	Miner,	38	S.	Ivill,	Washington,	Head, shoulder and back injured by a fall of rock.
	William Robinson,	English,	Miner,	46	M.	Alice,	Fayette,	Leg broken by a fall of coal.
	Andrew Tomash,	Hungarian,	Miner,	39	M.	Banner,	Washington,	Face and breast injured by shot.
	Stephen Borelic,	German,	Loader,	26	S.	Edipse (river),	Washington,	Thigh and leg broken by fall of slate.
	John Ray,	American,	Driver,	23	S.	Alice,	Fayette,	Injured about the hips; squeezed between car and mule.
Sept.	Iziah Muced,	Italian,	Miner,	45	M.	Blythe,	Washington,	Leg fractured by a fall of slate.
	John Huston,	English,	Driver,	22	M.	Nottingham,	Washington,	Body bruised; struck by cars.
	James Harrison,	American,	Loader,	43	M.	Courtney,	Washington,	Crushed and bruised by a fall of slate.
Oct.	Charles Lauderback,	American,	Driver,	26	M.	Shoenberger,	Washington,	Slightly crushed on legs by cars running over him.
	Charles Delmer,	French,	Miner,	23	S.	Vesta No. 3,	Washington,	Leg broken by being struck by cars.
	Vester Brooks,	American,	Miner,	15	M.	Gallatin,	Allegheny,	Leg broken; caught between car and door.
	John Butso,	Hungarian,	Miner,	28	M.	Acme,	Washington,	Leg broken by a fall of slate.
	George Roadman,	Welsh,	Miner,	22	S.	Arnold No. 1,	Fayette,	Leg broken by a fall of slate.
	Charles Wilscot,	American,	Miner,	30	M.	Arnold No. 1,	Fayette,	Leg broken by a fall of slate.
	James Carr,	American,	Miner,	32	M.	Fayette City,	Fayette,	Leg broken by a fall of slate.
	George W. Lytle,	American,	Miner,	34	M.	Bunola,	Allegheny,	Leg and two ribs broken by a fall of slate.
Nov.	Andrew Smith,	English,	Driver,	19	S.	Alice,	Fayette,	Squeezed by cars; caught between car and rib.

3	Frederick Turner,	American, ..	Miner,	18	S.	Fayette City,	Fayette,	Leg broken, head and face cut by a fall of slate.
5	John Oveshle,	Pole,	Miner,	32	M.	Gallatin,	Allegheny,	Leg fractured (amputated) by a fall of slate.
5	Mathew McMunn,	Irish,	Miner,	55	S.	Cincinnati,	Washington,	Leg broken by a fall of slate.
6	Michael Bell,	Russian,	Miner,	63	S.	Vesta No. 3,	Washington,	Squeezed on body; caught between car and coal pillar.
8	Harry Usher,	American, ..	Motor brake-man,	22	M.	Arnold No. 1,	Fayette,	Foot bruised; run over by motor car.
15	John Cowash,	Slav,	Miner,	36	M.	Anchor,	Fayette,	Back broken by a fall of slate.
19	Henry Bysler,	American, ..	Miner,	45	M.	Mongah,	Allegheny,	Injured internally; caught between car and coal pillar.
20	John Stiek,	Slav,	Miner,	30	S.	Ellsworth No. 1, ..	Washington,	Seriously burned by an explosion of fire-damp.
20	Antonlo Ciel,	Italian,	Miner,	26	M.	Ellsworth No. 1, ..	Washington,	Seriously burned by an explosion of fire-damp.
21	Martin Lotton,	German,	Miner,	36	M.	Crescent,	Washington,	Leg broken, face cut and scalp wound;
22	David Ferguson,	Scotch,	Driver,	23	M.	Cincinnati,	Washington,	Leg broken; car jumped the track, striking him.
24	Stephen Gumber,	Slav,	Machine runner,	23	M.	Cleveland,	Fayette,	Leg injured; caught by mining machine.
5	Samuel Tresdye,	Italian,	Miner,	25	S.	Tremont,	Fayette,	Leg broken; ran against a car.
6	Irwin Molasse,	American, ..	Machine runner,	34	M.	Elia,	Westmoreland, ..	Leg broken by a fall of slate.
11	Joseph Donato,	Italian,	Miner,	29	M.	Charleroi,	Washington,	Thigh fractured by a fall of slate.
14	John Brady,	Slav,	Miner,	52	M.	Allen,	Washington,	Leg broken by a fall of slate.
24	James Sumner,	American, ..	Miner,	42	S.	Cincinnati,	Washington,	Flesh wound on calf of leg; caught between cars.
26	John Dudeck,	Hungarian, ..	Snapper,	16	S.	Catsburg,	Washington,	Leg broken and ankle injured; struck by electric cable.
27	George Pritchard,	American, ..	Machine runner,	26	M.	Courtney,	Washington,	Foot crushed; caught in mining machine.
31	Reese Kirkpatrick,	American, ..	Machine runner,	30	S.	Milesville,	Allegheny,	Foot cut off; caught in mining machine.
31	William D. Hinskey, ..	Austrian, ..	Miner,	33	S.	Cleveland,	Fayette,	Four fingers on left hand crushed; run over by cars.

Dec.



Second Bituminous District.

(ALLEGHENY, INDIANA AND WESTMORELAND COUNTIES.)

Greensburg, Pa., March 8, 1901.

Hon. James W. Latta, Secretary of Internal Affairs:

Sir: I have the honor to herewith submit my report as Inspector of Mines for the Second Bituminous District, for the year ending December 31, 1900, in compliance with section II of article 10 of the bituminous mining act, approved the 15th day of May, 1893.

The coal and coke business in this district is still on the increase. In 1899 the total production was 12,077,460 tons of coal and 4,075,822 tons of coke, while in 1900 the production was 13,468,199 tons of coal and 4,280,354 tons of coke, an increase of 1,570,739 tons of coal and 204,532 tons of coke over the output of 1899.

There has also been an increase in the number of persons employed. In 1899 the number was 14,758. In 1900 it was 17,552, an increase of 2,794.

I regret, however, to report fifty-six fatal accidents, an increase of twenty over the number in 1899, whereby thirty wives were made widows and fifty-three children fatherless.

The number of non-fatal accidents was fifty-six, showing an increase of fourteen, there having been a total of forty-two in 1899.

During the year one mine, Strickler, was worked out and abandoned. Twenty-two new mines were opened and two old ones reopened, making a total of twenty-four additional mines.

I am pleased to report that, with but few exceptions, the condition of the mines has improved in comparison with last year. This is true especially in regard to ventilation. Several fans and furnaces have been put in operation, all of which are now giving very satisfactory results.

The report contains the usual tables and statistics, with a brief description of the mines, together with the most important improvements made at them; also a description of the fatal accidents.

A copy of the decree of the court of quarter sessions of Westmoreland county, in re appeal of A. N. Humphrey, general superintendent

ent of the Westmoreland Coal Company, from my decision with reference to the amount of air necessary for the proper ventilation of the Export mine, as per section I, article 4 of the act of May 15, 1893, is also made a part of this report.

All of which is respectfully submitted.

C. B. ROSS,
Mine Inspector.

Summary of Statistics, 1900.

Number of mines in the district,	100
Number of mines in operation during 1900,	93
Number of tons of coal produced,	13,648,199
Number of tons shipped,	6,912,243
Number of tons used for steam at mines,	247,477
Number of tons sold to employes and others,	161,137
Number of coke ovens,	9,462
Number of tons of coke produced,	4,280,354
Number of persons employed inside the mines,	12,808
Number of persons employed outside,	4,744
Number of fatal accidents,	56
Number of tons of coal produced per fatal accident,	243,717.8
Number of non-fatal accidents,	56
Number of tons of coal produced per non-fatal accident,	243,717.8
Number of persons employed per fatal accident,	313.4
Number of persons employed per non-fatal accident,	313.4
Number of wives made widows by accidents,	30
Number of children orphaned by accidents,	53
Number of kegs of powder used,	4,070
Number of pounds of dynamite used,	10,725
Number of cylindrical boilers in use,	117
Number of tubular boilers,	197
Number of steam locomotives,	36
Number of compressed air locomotives,	5
Number of electric locomotives,	6
Number of new mines opened,	22
Number of old mines re-opened,	2
Number of old mines abandoned,	1

Production of Coal in Tons During the Year 1900.

H. C. Frick Coke Company,	2,245,000
S. W. Connellsville Coke Company,	1,381,793
New York and Cleveland Gas Coal Company,	1,447,849
Westmoreland Coal Company,	1,270,766
Penn Gas Coal Company,	687,391
The Heckla Coke Company,	507,018
Hostetter Connellsville Coke Company,	455,000
Loyal-Hanna Coal and Coke Company,	419,784
Bessemer Coke Company,	325,109
Greensburg Coal Company,	273,537
Jamison Coal and Coke Company,	195,500
Atlantic Crushed Coke Company,	92,187
American Coke Company,	459,010
Standard Connellsville Coke Company,	240,644
Ocean Coal Company,	202,748
The Ligonier Coal Company,	46,060
Burrell Coal Company,	112,367
Maher Coal and Coke Company,	42,077
McCreary Coke Company, Ltd.,	85,830
Sewickley Gas Coal Company,	200,108
Arona Gas Coal Company,	242,710
Madison Gas Coal Company,	88,100
Carbon Coal Company,	269,921
Alexandria Coal Company,	232,764
American Steel Hoop Company,	150,632
Derry Coal and Coke Company,	279,626
Hempfield Coal Company,	192,490
Latrobe Coal Company,	243,110
Claridge Gas Coal Company,	171,714
Manor Gas Coal Company,	215,116
Millwood Coal and Coke Company,	114,917
J. A. Strickler Coke Company, Ltd.,	52,000
Spring Hill Gas Coal Company,	117,651
M. Saxman, Jr., and Company,	82,114
Blairsville Coke Company, Ltd.,	59,645
Robert Smith,	70,409
Braeburn Steel Company,	14,381
Indiana Coal Company,	11,137
Bolivar Coal and Coke Company,	13,418
Penn Manor Shaft Company,	61,796
Weinman Bros.,	8,670
G. Vogele,	7,089
W. J. Rainey,	79,500

Donohoe Coal and Coke Company,	100,212
Painter and Fogg,	9,216
Reece-Hammond Fire Brick Company,	23,000
Salem Coal Company,	8,180
Graff Coal Company,	1,550
Superior Coal and Coke Company,	10,037
W. B. Skelly,	5,759
Ben Franklin Coal Company,	1,100
Hamilton Coal Mining Company,	15,808
Ray Coal Company,	4,649
	<hr/>
Total,	13,648,199
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The total production was made up as follows:

	Tons.
Shipped by railroad to market,	6,912,243
Sold at the mines for local use,	161,137
Consumed to generate steam,	247,477
Used in manufacturing bricks,	23,000
Manufactured into coke,	6,304,432
	<hr/>
Total,	13,648,199
	<hr/> <hr/>

TABLE A—Showing the Production of Coal, Number of Persons Employed by each Company, Number of Tons Produced per Person Employed During the Year 1900, and the Average Number of Tons Produced Per Employee.

Name of Companies.	Number of tons produced.	Number of persons employed.	Number of tons produced per employe.
H. C. Frick Coke Company,	2,245,000	2,946	762.0
S. W. Connellsville Coke Company,	1,381,793	1,442	958.3
New York and Cleveland Gas Coal Company,	1,447,849	1,648	878.1
Westmoreland Coal Company,	1,270,766	1,274	997.5
Penn Gas Coal Company,	687,391	1,037	662.9
The Hecla Coke Company,	507,018	683	742.4
Hosletter Connellsville Coke Company,	455,000	626	726.8
Loyal-Hanna Coal and Coke Company,	419,784	501	837.9
Bessemer Coke Company,	325,109	510	637.5
Greensburg Coal Company,	273,537	254	1,076.9
Jamison Coal and Coke Company,	195,500	392	498.7
Atlantic Crushed Coke Company,	92,187	178	517.9
American Coke Company,	459,010	744	616.9
Standard Connellsville Coke Company,	240,644	489	492.1
Ocean Coal Company,	202,748	271	748.1
The Ligonier Coal Company,	46,060	37	1,244.3
Burrell Coal Company,	112,367	96	1,170.5
Maher Coal and Coke Company,	42,077	52	803.1
McCreary Coke Company, Limited,	85,830	340	252.4
Sewickley Gas Coal Company,	200,108	246	813.5
Arona Gas Coal Company,	242,710	302	803.7
Madison Gas Coal Company,	88,100	169	521.3
Carbon Coal Company,	269,921	272	992.7
Alexandria Coal Company,	232,764	318	731.9
American Steel Hoop Company,	150,632	203	742.0
Derry Coal and Coke Company,	279,626	300	932.0
Hempfield Coal Company,	192,490	179	1,075.4
Latrobe Coal Company,	243,110	301	807.6
Claridge Gas Coal Company,	171,714	248	692.4
Manor Gas Coal Company,	215,116	247	871.3
Millwood Coal and Coke Company,	114,917	147	781.7
J. A. Strickler Coke Company, Limited,	52,000	53	981.1
Spring Hill Gas Coal Company,	117,651	176	668.4
M. Saxman, Jr., and Company,	82,114	91	902.4
Blairsville Coke Company, Limited,	59,645	38	1,569.4
Robert Smith,	70,409	72	977.9
Braeburn Steel Company,	14,381	20	719.0
Indiana Coal Company,	11,137	30	371.2
Bolivar Coal and Coke Company,	13,418	30	447.3
Penn Manor Shaft Company,	61,796	146	423.3
Weinman Brothers,	8,670	15	578.0
G. Vogele,	7,089	14	506.3
W. J. Rainey,	79,500	211	376.7
Donohoe Coal and Coke Company,	100,212	260	385.4
Palmer and Fogg,	9,216	49	188.0
Reece, Hammond Fire Brick Company,	23,000	21	1,095.2
Salem Coal Company,	8,180	77	106.2
Graff Coal Company,	1,550	21	77.1
Stuperlor Coal and Coke Company,	10,027	56	179.2
W. B. Skelley,	5,759	19	303.1
Ben Franklin Coal Company,	1,100	15	73.3
Hamilton Coal Mining Company,	15,808	27	585.4
Ray Coal Company,	4,649	26	178.4
Total and average,	13,468,199	17,552	767.3

TABLE B—Showing the Number of Fatal Accidents and Tons of Coal Produced Per Life Lost, the Number of Accidents, and the Number of Tons of Coal Produced Per Accident, Fatal and Non-Fatal.

Name of Companies.	Number of fatal accidents.	Number of tons of coal produced per life lost.	Number of accidents.	Number of tons of coal produced per accident.
H. C. Frick Coke Company,	4	561,250.0	13	172,623.3
S. W. Connellsville Coke Company,	5	276,358.6	11	125,617.5
New York and Cleveland Gas Coal Company,	4	361,962.2	5	289,569.8
Westmoreland Coal Company,	7	181,538.0	8	158,844.7
Penn Gas Coal Company,	4	171,847.7	10	68,739.1
The Hecla Coke Company,	1	567,018.0	1	567,018.0
Hostetter Connellsville Coke Company,	4	113,750.0	6	75,833.3
Loyal-Hanna Coal and Coke Company,	1	419,784.0	4	164,946.0
Bessemer Coke Company,	3	108,364.6	3	108,364.6
Greensburg Coal Company,	1	273,537.0	3	91,179.0
Jamison Coal and Coke Company,	1	195,500.0	1	195,500.0
Atlantic Crushed Coke Company, .....	.....	.....	1	92,387.0
American Coke Company,	2	229,505.0	3	153,903.3
Standard Connellsville Coke Company,	1	240,644.0	2	120,322.0
Ocean Coal Company, .....	.....	.....	3	61,582.6
The Ligonier Coal Company,	1	46,060.0	2	23,030.0
Burrell Coal Company, .....	.....	.....	1	112,367.0
Maher Coal and Coke Company, .....	.....	.....	.....	.....
McCreary Coke Company, Limited,	1	85,830.0	1	85,830.0
Sewickley Gas Coal Company,	2	110,054.0	2	100,054.0
Arona Gas Coal Company,	1	242,710.0	2	121,355.0
Madison Gas Coal Company, .....	.....	.....	.....	.....
Carbon Coal Company, .....	.....	.....	2	134,969.5
Alexandria Coal Company,	2	116,382.0	2	116,382.0
American Steel Hoop Company, .....	.....	.....	.....	.....
Derry Coal and Coke Company, .....	.....	.....	2	133,873.0
Hempfield Coal Company,	1	192,490.0	2	96,245.0
Latrobe Coal Company, .....	.....	.....	.....	.....
Claridge Gas Coal Company,	3	57,228.0	5	34,342.8
Manor Gas Coal Company,	2	107,558.0	2	107,558.0
Millwood Coal and Coke Company,	1	114,917.0	3	38,305.6
J. A. Strickler Coke Company, Limited, .....	.....	.....	1	52,000.0
Spring Hill Gas Coal Company,	1	117,651.0	2	58,825.5
M. Saxman, Jr., and Company,	1	82,114.0	1	82,114.0
Blairsville Coke Company, Limited, .....	.....	.....	.....	.....
Robert Smith, .....	.....	.....	.....	.....
Braeburn Steel Company, .....	.....	.....	.....	.....
Indiana Coal Company, .....	.....	.....	.....	.....
Bolivar Coal and Coke Company, .....	.....	.....	1	61,796.0
Penn Manor Shaft Company, .....	.....	.....	.....	.....
Weinman Brothers, .....	.....	.....	.....	.....
G. Vecele, .....	.....	.....	.....	.....
W. J. Rainey,	1	79,500.0	1	79,500.0
Donohoe Coal and Coke Company,	1	100,212.0	5	20,042.4
Painter and Fogg, .....	.....	.....	.....	.....
Reece, Hammond Fire Brick Company, .....	.....	.....	.....	.....
Salem Coal Company, .....	.....	.....	1	8,180.0
Graff Coal Company, .....	.....	.....	.....	.....
Superior Coal and Coke Company, .....	.....	.....	.....	.....
W. B. Skelley, .....	.....	.....	.....	.....
Ben Franklin Coal Company, .....	.....	.....	.....	.....
Hamilton Coal Mining Company, .....	.....	.....	.....	.....
Ray Coal Company, .....	.....	.....	.....	.....
Total and average,	56	243,717.8	112	120,251.7

TABLE C—Classification of Accidents.

	Killed or fatally injured.	Injured.	Total.
By falls of coal,	8	8	16
By falls of slate,	18	14	32
By falls of roof,	10	6	16
By cars,	11	19	30
By explosion of gas,	1	1	2
By falling down shaft,	2	2	4
By machinery, general,	1	2	3
By electric shock,	1	4	5
By miscellaneous causes, inside,	2	12	14
By miscellaneous causes, outside,	1	1	2
Total,	56	56	112

TABLE D—Occupations of Persons Killed and Injured.

	Killed or fatally injured.	Injured.	Total.
Miners,	39	31	70
Drivers,	4	13	17
Oilers and runners,	1	2	3
Machine runner,	1	1	2
Machine scraper,	1	1	2
Machine loaders,	2	2	4
Door boys,	2	2	4
Rope rider,	1	1	2
Engineer,	1	1	2
Fireman,	1	1	2
Machinist,	1	1	2
Company men, inside,	1	6	7
Company men, outside,	4	1	5
Total,	56	56	112

TABLE E—Nationalities of Persons Killed or Injured.

	Welsh.	English.	Scotch.	Irish.	Poles.	Slavs.	Austrians.	Americans.	Hungarians.	Italians.	Swedes.	Germans.	Russians.	Bohemians.	Total.
Killed,	1	3	1	2	7	9	3	16	1	7	1	2	1	3	56
Injured,	6	6	1	2	2	6	3	21	6	6	3	5	1	1	56
Total,	1	9	1	4	9	15	6	37	1	13	4	7	1	4	112

Description of Mines and Mine Improvement.

Mines on and Near the River Division of the Pennsylvania Railroad.

Lucesco.—Has been idle for a number of years. During the past year it was purchased by the Lucesco Company, which near the close of the year began the erection of a new tiple and incline. A few men were put to work inside the mine to repair roads, improve drainage, etc., with the intention of resuming operations at an early date.

Metcalf.—Is a new drift opening into the Upper Freeport seam, located at Metcalf Station on the line of the River Division of the Pennsylvania Railroad. It was in favorable condition when visited.

Braeburn.—Condition of mine and ventilation was found good on each visit during the year.

Crag Dell.—Is a drift opening in the Upper Freeport seam, located at Crag Dell station on the line of the River Division of the Pennsylvania Railroad. While this mine has been in operation for several years it has not employed a sufficient number of persons inside to come under the law, but during the past year it passed into the hands of the Hamilton Coal Mining Company and I am informed that the present owner contemplates considerable improvement in and about the mine.

Owing to the increased demand for coal, the company increased the number of persons employed inside until it now comes under the law. It was in a favorable condition on each visit.

Plum Creek.—On each visit this mine was in a favorable condition, both as to ventilation and drainage.

Sandy Creek.—The general condition of this mine has been fairly good during the year.

Oak Hill No. 5.—Is located four miles north of Turtle Creek, on the line of the P., B. & L. E. R. R. It was in good condition on each visit.

Mines on and Near the Pittsburg Division of the Pennsylvania Railroad.

Weinman.—Is a small mine employing, at last inspection, fifteen persons. The product supplies local trade. It was in fair condition.

Ocean.—Was in fair condition when last inspected and employs ten persons inside. The product goes to supply local trade.

Hampton.—Idle the entire year.

Duquesne.—Its condition has been very favorable during the year.

Spring Hill.—The general condition and ventilation have been considerably improved during the year.

Oak Hill No. 4.—This mine was in good condition, both as to ventilation and drainage.

Larimer No. 4.—The ventilation of this mine has been greatly improved during the year. On my two last visits all parts of the mine were supplied with plenty of pure air.

Penn Gas Coal Run.—This mine has been in fair condition both as to drainage and ventilation.

Penn Gas No. 1.—Has been found reasonably good on each visit during the year.

Westmoreland Shaft.—Was in good condition on each visit during the year, both as to ventilation and drainage.

Pleasant Valley.—The condition has been favorable during the year. A new ventilating furnace has been erected with the area of grate of 90 square feet, which has improved the ventilation.

Penn Gas No. 5.—Is a slope opening, which after having been abandoned for years has been reopened and is now in operation.

The improvements consist of a new tibble and the installation of new machinery, both inside and outside. All machinery is driven by electricity. The power is furnished by the Irwin Electric Light and Power Company, whose plant is located near Manor Station on the line of the Pennsylvania Railroad, about one and one-half miles distant from the mine.

The new machinery consists of three electric motors, a ventilating fan 13½ feet diameter, with single inlet, of the Cappell type, and a mine pump. Two of the motors are used for driving the haulage rope, which delivers coal from the mine to the tibble, and the other for driving the fan. The mine pump is also operated by electricity. Mining machines have also been introduced for undercutting the coal, two of the Morgan Gardner and three of the Jeffries Chain Cutter type, all driven by electricity. The above machinery is all in operation at the present time and appears to be giving entire satisfaction. The mine at present is practically in its infancy and the time is not far distant when it is expected to be among the largest producers in the Irwin district.

Radebaugh.—Is a new slope opening into the Pittsburg seam and is located near Radebaugh station on the line of the Pennsylvania Railroad. It was in a favorable condition when visited.

The main opening is at the west side entrance of the old tunnel of the Pennsylvania Railroad. The tunnel has been abandoned, and is supplanted by a new one which straightens the road for a considerable distance at this point. The tibble erected extends from bank to bank of the approaching cut to the tunnel. The mine workings have been connected with the tunnel by means of an entry

which was driven and connected with a man or shelter hole in the tunnel. This makes the second opening to this mine, and what was once a busy thoroughfare for all trains leaving Pittsburg over the main line of the Pennsylvania Railroad for probably the last fifty years, is now a traveling way for employes.

Hempfield.—The condition has been very favorable during the year. On the forenoon of July 2d water from a portion of old abandoned workings broke through into the active workings of this mine and serious injuries to the employes and probable loss of life was averted only by the coolness and calmness of those who were present at the occurrence.

John Morgan and John Fightner, two miners, were at work as usual in room 30 off No. 3 "Butt," Jamison entry. Morgan was undercutting the coal in the "tight" or low side of the room when suddenly his pick went through to an opening beyond, and water began to come through. He informed Fightner that in his opinion he had cut through to a body of water. Just then there was a sudden rush of water. Morgan sprang to the upper side of the room, where Fightner was standing. The water struck a loaded wagon standing in the room, causing the water to rebound, making a terrific spray over the entire face of the room, which extinguished their lights. They then stood firmly upright, bracing their heads and hands against the roof and clinging to posts, until the main body of water had passed off, which occupied about two and one-half hours, after which they were rescued by their fellow workmen. No time was lost in reaching them and also rescuing several miners who worked near by, by means of a rope which men made secure at different points by boldly fording the rushing waters in numbers sufficient to overcome its force, and fastening the rope at different points. Several of the miners passed out through the water to a place of safety by clinging to the rope which prevented them from being swept away by the current.

Morgan and Fightner undoubtedly owe their lives to their coolness.

The water lodged in the dip workings, where no one was at work at the time, and raised up in the pumping shaft a distance of about forty-five feet. It required almost four weeks to remove it by pumps. The rise workings continued to be operated, as the water did not affect them.

I was not aware of this accumulation of water in the abandoned workings. The entrance or entrances to these workings were blocked by falls of roof and pools of water until they could not be traveled. I had made careful inquiry on former visits to this mine with reference to dangerous accumulations of water, and was informed that

there were none. It was known by those in charge that there was water in these workings, but it was not supposed to be in a dangerous quantity.

Monastery.—The condition of this mine was satisfactory on each visit during the year.

Latrobe.—Was found in fairly good condition on each visit during the year. On my last visit a new ventilating fan of the Guibal type, twenty feet in diameter, and to be driven by an engine 16x24 inches coupled direct to the fan, was being erected. I have since been informed by the management that the fan has been put in operation and is giving great satisfaction.

M. Saxman.—Its condition has been favorable during the year. The ventilation has been improved by the erection of a new ventilating fan of the Brazil type, twelve feet in diameter.

Loyal-Hanna Nos. 1 and 2.—The condition of these mines was found fairly good on each visit.

Pandora.—The condition of this mine was reasonably good on each visit.

Superior No. 1.—This is a new sixty foot shaft opening to the Pittsburg seam, located east of Latrobe and to the left of the Pennsylvania Railroad, and is operated by the Superior Coal and Coke Company.

November 23d last I found twenty-eight persons employed inside, eighteen of whom were on the day turn and ten on the night turn.

A number of coke ovens were in course of construction and part of the product of the mine will be manufactured into coke. All equipment necessary for the successful operation of the plant was well under way, except mechanical means to produce the ventilation, which had not received the attention it should have. The management assured me that the matter of ventilation would receive prompt attention.

Derry Shaft.—Its general condition has been fair, but the ventilating current was rather weak in parts of the workings. The attention of those in charge was called to this and they promised to have the ventilating current increased at places where it was weak.

Atlantic No. 1.—Operations are confined to the extraction of pillars and stumps. Its condition was fairly good, considering the difficulties that are encountered in finishing a mine.

Atlantic No. 2.—Its condition was very fair on each visit; ventilation has been improved by the erection of a new fan of the Capell type. Diameter six feet. Double inlet.

Saint Clair.—Was in fair condition, both as to ventilation and drainage.

Ligonier No. 2.—This is a new drift opening in the Pittsburg seam

of coal and is located about one mile north of Derry Station on the line of the Pennsylvania Railroad, and when visited was only being opened.

Millwood.—The general condition has been fairly good during the year. I am pleased to say that the ventilation has been improved by the erection of a powerful ventilating fan of the Capell type; diameter of fan is $13\frac{1}{2}$ feet, with double inlet and is so constructed that the air current can be reversed.

Indiana.—Is a new opening in the Lower Freeport seam of coal and is located at Bolivar Station on the line of the Pennsylvania Railroad. The product is used principally at a large brick works located nearby and is operated by the Reece-Hammond Fire Brick Company.

Lockport.—Was in fair condition when last visited.

Mines on and Near the Turtle Creek Branch of the Pennsylvania Railroad.

Export.—On a visit to this mine on January 8th I found the ventilation very unsatisfactory, so that I deemed it best to call other Inspectors for consultation, as I had already taken this matter up with Mr. A. N. Humphreys, the general superintendent, who in reply to a letter complaining of the ventilation, near the close of the year 1899, informed me that the matter would receive prompt attention.

On my visit on January 8th I found that nothing had been done to improve the ventilation. Whereupon I notified Messrs. Louttit and Blick, Inspectors of the First and Seventh districts respectively, to come at once and make an examination of the mine with me, to determine what action should be taken. We made an examination on January 11th and wrote the following notice, which was mailed to the general superintendent:

Greensburg, Pa., January 11, 1901.

Mr. A. N. Humphreys, General Superintendent Westmoreland Coal Company, Irwin, Penna.:

Dear Sir: We have this day examined your Export mine and find that the ventilation is far below sanitary and legal requirements. Immediate action is absolutely necessary with a view to permanent improvement. We are of the opinion that the condition of the mine demands that at least one hundred and fifty thousand cubic feet of air per minute should be constantly circulated through the mine, in order to insure the health and safety of the persons

employed therein, and we consider it our duty to make a decision in accordance with the opinion as stated above, which decision is rendered under articles 4 and 14 of the act of Assembly approved May 15, 1893. In order to comply with the law, ventilation much more powerful than that now in use should be provided. We also deem it advisable to remind you that the number of persons employed in the mine should be reduced until the matter complained of is remedied. Please take action on this decision at once and oblige,

Yours respectfully,

C. B. ROSS,
Inspector Second District.

HENRY LOUTTIT,
Inspector First District.

JAMES BLICK,
Inspector Seventh District.

Mr. Humphrey appealed from this decision to the court of quarter sessions, and the court after hearing the evidence and arguments of counsel, entered the following decree, viz: "And now, April 28th," the court after hearing the evidence of the witnesses, offered on behalf of the Mine Inspectors and the Westmoreland Coal Company, and after due consideration of the same, do now order and decree that the Mine Inspectors had just cause for rendering a decision against the Westmoreland Coal Company, because of the insufficient distribution of air through its mines at Export. But the court does not sustain the decision of the Mine Inspectors as made, and from which said decision the said Westmoreland Coal Company has appealed, in which they require at least 150,000 cubic feet of air to be circulated throughout the said entire mine per minute, and in which they decide that the said Westmoreland Coal Company must provide more powerful machinery for the purpose of causing proper ventilation, and the court now decides and decrees that the said Westmoreland Coal Company shall without unnecessary delay, adopt and use proper methods and appliances for the purpose of drawing out of said mine at the fan 150,000 cubic feet of air per minute, so that 60 per cent. of said volume of air may be circulated through the mine at its different workings, allowing 60,000 cubic feet of air per minute for waste, and the purpose of this decree, with respect to said maximum volume of air, is only to obtain said minimum volume for circulation through the mines and in the event of a reduction of waste of said 60,000 cubic feet of air, then a corresponding reduction in the maximum volume may be permitted; saving and keeping, however, the said volume of 90,000 cubic feet per minute for circulation at all the workings throughout the mine.

And it is further ordered that the said Mine Inspectors, appellee, shall pay the stenographer's costs, in accordance with their agreement to do so, the testimony being taken at their request, and the said Westmoreland Coal Company, appellant, shall pay the balance of the costs.

Attest: Chester D. Sensenich, Clerk.

By the Court.

Elizabeth.—This is a new drift, opening into the Pittsburg seam, and was in favorable condition when inspected.

Mines on and Near the Youghiogheny Railroad, which runs from Irwin on the Pennsylvania Railroad to Sewickley, on the Baltimore and Ohio Railroad.

Penn Gas No. 2.—Its condition has been favorable on each visit during the year. An air shaft has been sunk near face of workings and a powerful ventilating fan of the Capell type is in course of erection, which when completed will no doubt furnish an abundance of pure air for the mine.

Penn Gas No. 3.—This is a new slope opening which is being sunk to the Pittsburg seam.

Penn Gas No. 4.—Was in fairly good condition during the year. The ventilation is produced by a fan and furnace.

Ayers Hollow.—Is a new opening in connection with Penn Gas No 4 mine and is located about midway between Scott Haven and Suter stations on the line of the Baltimore and Ohio Railroad. A new tibble has been erected and machinery of the latest improved type is being placed in position to haul coal from the mine workings to the surface.

Mines on and Near the Manor Branch of the Pennsylvania Railroad.

Claridge.—The condition of this mine has been reasonably good on each visit.

Denmark.—The ventilation of the entire mine has been considerably improved during the year. On my last visit good volumes of air were measured near face of workings.

Penn Manor.—Was in favorable condition on each visit.

Mines on and Near the Alexandria Branch of the Pennsylvania Railroad.

Alexandria.—Was found in fairly good condition.

Jamison Nos. 1 and 2.—Were in favorable condition during the year, except the ventilation at No. 2, which was neglected. A new ventilating fan has been erected at No. 2, which is now in operation and I have been informed the ventilation has been improved.

Jamison No. 3.—Is a new shaft, opening to the Pittsburg seam. The coke ovens and other improvements are now in course of construction, and will be of the most improved type.

Donohoe.—Is a new drift opening in the Pittsburg seam. The outside improvements consists of 119 coke ovens, a coal crusher and washer. A large ventilating fan of the Capell type is being erected to furnish ventilation necessary for the operation of the mine.

Salem.—Is a new drift opening in the Pittsburg seam and when visited was in a favorable condition. A new tippie of the latest improved type was in course of construction, as were also a number of coke ovens.

Mines on and Near the Unity Branch of the Pennsylvania Railroad.

Dorothy.—Is a new shaft opening to the Pittsburg seam. The inside workings were in good condition, both in regard to ventilation and drainage. The outside improvements consist of a number of coke ovens, together with the necessary railroad sidings and the latest improved machinery for the operation of the entire plant.

Puritan.—Has been in good condition on each visit, both in regard to ventilation and drainage.

Hostetter and Whitney.—Were in good condition each visit, both as to ventilation and drainage.

S. H. Smith.—Is a small mine located on the Ligonier Valley Railroad near Latrobe, and it has been in fairly good condition during the year.

Mines on and Near the Indiana Branch of the Western Pennsylvania Division of the Pennsylvania Railroad.

Isabella.—This mine was in fairly good condition throughout the year. A sudden cave-in occurred on December 1st, about 1.30 P. M. An area of about forty acres, principally old workings, was affected. Small stumps of coal had been left in this part of the mine to support the surface and prevent a cave-in which proved to be insufficient, but no accident to human life or serious injury to property resulted therefrom. Explosive gas was discovered in this mine during the year.

Burrell Nos. 1 and 2.—Were in good condition. Ventilation and drainage good.

Graff.—Its condition was fairly good, except ventilation, which had not received the attention it should with reference to the distribution of air throughout the workings.

Maher No. 2 —The condition of this mine was found favorable on

each visit during the year. It is being rapidly exhausted. The work at present is confined to the extraction of the main entry pillars.

Maher No. 3.—Is a new drift opening in the Pittsburg seam, located near Blairsville on the Westmoreland county side of the Kiskiminetas river. The tibble is erected just across the river on the Indiana county side. The mine and tibble are connected by an incline, a fine steel structure, which spans the river at this point. The condition of the mine was good.

Smith.—Has been in good condition, both as to ventilation and drainage.

Blacklick.—Is a new drift opening in the Pittsburg seam, located near Blacklick station, and was in good condition.

Graceton No. 1.—This mine had been abandoned for several years, but during the present year it was reopened and is now in operation. Mining machines of the Puncher type have been installed which are driven by compressed air. The general condition of the mine was fairly good. The outside improvements consist of a new tibble, boiler house, coal crusher, washer and a ventilating fan.

Graceton No. 2.—Was found in a favorable condition on each visit.

Mitchell.—Was in good condition, both as to ventilation and drainage.

Ray.—Is a new drift opening in the Pittsburg seam, located east of Blairsville on the line of the Bolivar branch of the Pennsylvania Railroad, and was in favorable condition when visited.

An incline several hundred feet in length and of the latest improved construction has been built and is now in use for lowering coal from the mine to the tibble below.

Mines on and Near the Southwest Branch of the Pennsylvania Railroad.

Greensburg No. 1.—In good condition.

Central.—The condition of this mine was good.

Ruff.—This is a new slope opening in the Pittsburg seam, located near Tarr's station, and was in good condition.

Empire.—The condition of this mine has been fairly good.

Acme.—Was in good condition, both as regards ventilation and drainage.

No. 1 "A," No. 1 "B" and Nos. 2, 3 and 4.—These mines were in good condition throughout.

Mines Situated Near the Terminus of the Scottdale Branch of the Southwest Pennsylvania Railroad and the Mt. Pleasant Branch of the Baltimore and Ohio Railroad.

Standard Shaft and Slope.—Were in good condition on each visit. During the year one 300 horse power Sterling Water Tube Boiler, which was equipped with two American stokers, was installed at the shaft mine. Four tubular boilers were also equipped with American stokers.

Mines on and Near the Sewickley Branch of the Southwest Pennsylvania Railroad.

Mammoth Shaft and Slope.—Were in good condition, both as to ventilation and drainage. During the year there was installed a tail rope haulage for the slope division of the mine, located near the shaft landing. Size of engine 16x32, first motion; diameter of drum five feet. The engines were manufactured by Kenny & Co., of Scottdale, Pa.

The maximum grade of the road is three per cent. adverse; size of trip hauled, twenty-five loaded wagons of forty bushels capacity each. Length of haulage road 4,000 feet.

Mutual Nos. 2 and 3.—The condition of these mines was satisfactory.

United.—Was found in good condition on each visit.

Strickler.—Is now abandoned, all the coal having been taken out.

Hecla No. 1.—On the evening of July 26th water broke into this mine by way of the Strickler mine. The abandoned pillar workings of the two mines are connected. A creek flows over the workings of the Strickler mine and the surface overlying the coal in places near the outcrop is very shallow. Falls had occurred in places, forming openings to the surface near the creek. On the evening above mentioned, a very heavy rain came, which raised the water in the creek until its banks overflowed (which was never known to have occurred before), the water reaching the surface openings to the mine flowed in at a rapid rate. A large fall, caused by drawing the pillars between the two mines, held the water in check for about twelve hours, after which it passed over and through the fall into the workings of the Hecla No. 1 mine below. The body of water was certainly large, as it raised in the shaft a distance of about forty feet, completely flooding the entire workings to the dip and also a part of the rise workings. Pumps were at once placed in the shaft and put in operation. This was kept up until October 22d, when the bottom was reached. Work was at once commenced in clearing the road and airways in the rise workings, and operations were re-

sumed in that part of the mine on October 24th, two days after the bottom was reached, after which the water was removed from the dip workings. This certainly was an enormous quantity of water to remove in that period of time, but having plenty of power accounts for its speedy removal, and shows what determination and well directed energy can accomplish. The general condition of the mine was good on each visit.

Hecla No. 2.—Was in good condition, both as to ventilation and drainage.

Humphreys.—On the evening of December 18th I was requested by the officials of this mine to make an examination of it, as the air current in a part of the mine near the abandoned pillar workings was so impure that persons could not work in that part of the mine.

Early on the morning of the 19th I made an examination and soon discovered the cause of the impure air. There was evidence of fire in the abandoned pillar workings, from which poisonous gases were being given off, which when mixed with the air current, which was rather weak in that part of the mine, rendered it unfit to breathe. I suggested that every precaution possible should be taken to insure the safety of the workmen and the mine, and that a ventilating fan be placed in position to furnish sufficient air for the proper ventilation of what is known as the hill workings, as the fan which was in operation was near the lower workings and the air produced by it could not reach the hill workings on account of the falls of roof between. The hill workings being above or to the rise of the fire, allowed the poisonous gases given off to ascend to the higher workings. In order to prevent this, I suggested that walls of masonry be built in each opening between the workings, and thus separate them, and that the new fan be used exclusively for ventilating the hill workings. At this writing the fan and walls of masonry are in course of erection.

The fire originated in the lower abandoned pillar workings near solid coal, and was a clear case of spontaneous combustion.

The general condition of the mine was favorable on each visit during the year.

Marguerite No. 1.—Was in good condition generally.

Marguerite No. 2.—This is a new slope opening in the Pittsburg seam, and is located near No. 1 mine. The product is made into coke. Quite a number of coke ovens have been erected. The outside improvements are all of the latest type. The workings of the mine were in a favorable condition on each visit.

Hester.—Is a new opening in the Pittsburg seam, near Boyer Run intersection, and was in favorable condition when visited.

Calumet.—Was in good condition on each visit. Endless rope haulage was installed during the year. The engines were manu-

factured by the Robinson Machine Company, of Monongahela City, Pa. Size of engine 12x14. Length of road, 8,500 feet. Maximum grade, two per cent. adverse. The head frame was also remodeled and self dumping cages were installed. One new battery, 300 horse power, Sterling Water Tube Boilers, was also added to the plant.

Mines on and Near Hempfield Branch of the Southwest Pennsylvania Railroad.

Greensburg No. 2.—Was in good condition on each visit.

Carbon.—Was in good condition, both as regards ventilation and drainage.

Arona.—Was in good condition on each visit during the year.

Madison.—Is a new drift opening into the Pittsburg seam, near Madison station, and was in favorable condition when inspected.

Pittsburg No. 1.—Is a new opening in the Pittsburg seam, near Adamsburg, and is just being opened.

Ocean No. 1.—Was in good condition both as to ventilation and drainage.

Ocean No. 2.—Is a new drift opening about one mile north of No. 1 mine and is just being opened.

Sewickley.—During the early part of the year the ventilation was not up to the requirements, but it has been considerably improved. The ventilation fan was moved closer to the workings, thereby reducing the distance for the air to travel. I have been informed by the officials that a much larger fan will soon be erected.

No explosive gas had ever been detected until May 5th, when a large accumulation, over one-half acre in extent, was discovered on pillar falls between 14 and 15 entries in the lower workings. This accumulation was removed, but it is still being generated at different points. The mine is now worked with locked safety lamps.

Description of Fatal Accidents which Occurred During the Year.

George Scott was instantly killed January 11th in Claridge mine by a fall of slate. George Thomas, a driver, on making inquiry of William Marionwalt, who worked in an adjoining room, as to whether or not he had seen Scott, was informed by him that he had heard Scott working. The two men then proceeded to the place and removed the fall and found Scott's body thereunder.

George Brecko was instantly killed January 16th by a fall of slate in the Pleasant Valley mine. He was at his regular work in room 32 off 9 entry. He failed to arrive at his boarding house at the usual time and a search was made and he was found under the

fall. The slate in this part of the mine is full of slips and dampness which causes it to be very dangerous. Brecko was aware of this, he having worked in the mine about three and one-half years.

John Jeffries was so seriously injured January 25th in Westmoreland shaft mine by a wagon passing over his left thigh that death resulted the following day. Jeffries was coming down an entry with a trip of five loaded wagons; on nearing 19 room he spragged the trip as usual, after which he ran ahead to get between the first and second wagon, where he always rode. In making the attempt to get on the wagon he fell and a wagon passed over his thigh, causing death.

Isaac Emburg was so seriously injured January 31st in Penn Gas No. 2 mine by a fall of coal and slate that death resulted in about twenty minutes. He was at work at the face of room and was in a stooping position, engaged in loading a car, when the fall occurred.

James Kuhns was instantly killed February 2d by a fall of roof coal and slate. The accident occurred at face of No. 6 room pillar off 3 entry (Dip.) Kuhns was in a stooping position at the time, undercutting coal. The distances across the face of pillar was 18 feet and the distance from face of pillar to last row of post was from four to five feet. The roof coal which fell was one foot thick and the slate about four inches thick.

Henry G. Theobald was so seriously injured February 7th at Greensburg No. 2 mine, by a descending trip of mine cars running over him, that death resulted in about five hours. He was engaged in opening and closing the door for the trips to pass through in the slope, also to signal the man in charge of the trip when to lower it. In this instance, as in many others, the trip was standing above the door awaiting the signal from the boy that the loaded trip was ready on the landing in the Boyd entry below the door. When the trip was made up Theobald opened the door and gave the usual signal to the man in charge to lower the trip. As the trip rounded the curve near the landing, about sixty-five yards below the door it left the track. The boy was not to be seen, but on making search he was found beneath the trip.

William Weister was killed on February 9th by a fall of slate. The accident occurred at face of room 51. Weister was found by the driver, who went into the room to get his wagon. After hooking the mule to the wagon and making ready to start the driver noticed that the rear end of the wagon was not fully loaded. On looking around the room he saw Weister's dinner pail; this caused the driver to think that something was wrong. On going back of the wagon to the face of the room he found Weister's body with the head crushed by the slate which had fallen.

George Grove was so badly injured March 5th in Jamison mine No. 1 by a fall of coal, that death resulted in about one and one-half hours.

John Gartland was so seriously injured March 8th by being caught between a wagon and coal pillar that death resulted some twenty-six hours after. He was coming into the shaft bottom with a trip of two wagons, riding on the front end as usual. Albert Reece, cager, signalled him to come on as the road was clear, but for some unknown reason he stepped off the trip in a narrow place and was caught.

Joseph Wall was so seriously injured March 15th by a fall of slate that he died the following day. The accident occurred at the time Wall was pulling coal down from the face of the roof. A piece in falling struck a slate post, knocking it out and allowing the slate to fall on him.

Martin Mikulik was instantly killed March 27th by falling down the Loyalbanna No. 1 shaft. He was assisting in loading timber and sending it down the shaft. A wagon loaded with posts was taken near the shaft and stopped until the cage was placed on the landers, so that the wagon could be placed on the cage. The cage was brought up the shaft and came to a standstill eight or ten feet above the landers. Pratto placed the landers in position and stepped back to signal the engineer to lower the cage. Mikulik at the same time started the wagon toward the shaft, walking in front of it. Pratto called to him to stop until the cage was placed on the landers. He paid no attention to the call. Pratto called several times but Mikulik did not obey. He continued walking in front of the wagon and drawing it after him, presumably to get the wagon as near as possible to the shaft when the cage was finally lowered, in order to make time, and in so doing lost his balance and fell down the shaft.

Henry Wagner was so seriously injured on April 9th by being caught between a wagon and coal pillar that death resulted while he was being taken home. He was leading a new horse and while coming down the entry on the narrow side he accidentally slipped and fell and was caught.

John Durkin was so seriously injured May 2d, in Alexandria mine, by a fall of slate that death resulted some eight days after. Durkin was engaged in setting a post under the slate when it fell and crushed him.

Andrew Shadneck was instantly killed on the morning of May 5th, about four o'clock, in Dorothy mine, by being caught between an empty mine car and coal pillar.

Shadneck was at work on the night turn in No. 2 entry left. He went back through a chute to No. 1 entry left, and securing an empty

wagon started to return through the chute with it. He placed himself on the front end of the wagon near the brake and while going around the curve at end of chute he was caught between the car and pillar. I was informed that he has been frequently warned not to attempt to run wagons into his place.

John Brady was so seriously injured on May 9th by his foot being crushed between two mine cars that death resulted thirteen days after. A loaded wagon was standing in the entry near the mouth of Brady's room. Just as he stepped out into the entry to put his picks on the wagon, loaded wagons in charge of a driver ran against the one on which he was about to place his picks, and Brady was caught between the wagons. The driver did not have time to stop the wagons after Brady stepped out of his room.

Nick Moore engaged in coupling and oiling mine cars was so seriously injured by a grip car passing over his leg that death resulted two day after. While coupling cars he accidentally slipped and fell and the car passed over his leg.

William Cole was so badly injured by a fall of slate on May 12th that death resulted sixteen days after. He was at work with Samuel Hudspath, who was at work on the light side. Cole was back on the "Butts" and had been trimming the pillar. It is supposed that he had just finished loading a wagon which only required a small quantity of coal, when the slate fell. The entry was eight feet wide and the distance from face of coal to edge of slate was five feet, making an area of forty square feet, which is entirely too much space without a post under to make it secure.

Robert Goodman was so seriously injured on May 16th by being run over by a mine car that death resulted in two hours. He was coming down the entry with a trip of two cars and was riding on front of the trip when he fell off and the front wagon passed over him and the rear one stopped on him. A few minutes after he was found by a miner who was working near by.

Antonio Martinelli was instantly killed on May 24th in the Oak Hill No. 4 mine. While he was lowering a car partly loaded with posts below the parting, preparatory to pushing it into his room, he fell and the car ran on him.

Stephen Hladek was so seriously injured on May 28th by a fall of coal that he died five days after. The accident occurred in room 17 off 20 entry, where he was undercutting coal near a clay vein, when it fell. He had failed to sprag the coal.

Simon Deemer was instantly killed June 2d by a loaded wagon running on him. The accident occurred in the main entry. Just how he came to get under the wagon is not known as no one was present. When found his body was underneath the front wagon.

John Carmack was instantly killed June 4th by falling down a

shaft. He went to oil the ventilating fan (which is an exhaust) as usual and in order to reach the fan journal he had to pass through two doors; between the doors there is a small room. Just how he came to fall is not known, but it is supposed that as he passed through the door on his way to or from the journal it suddenly shut, striking him and knocking him down on the gangway, which caused him to fall off below the handrail, as the door was found closed after the accident was discovered. This being the case he had failed to secure it to the wall by the fastenings provided for that purpose.

Henry Ridley was instantly killed June 5th by a fall of coal. The accident occurred at face of entry pillar. He was undercutting the coal when it fell.

Mike Peruski was so seriously injured on June 5th by being thrown from a railroad car which was standing on the yard siding, the car passing over him, that death resulted in one hour. He was on a moving car applying the brake, when it ran against another car, causing him to fall to the track, the car passing over his arm and leg.

John Whorhola was fatally injured on June 6th by a fall of roof. John Dobrotski was at work with Whorhola. The driver, William Struble, took two wagons into the place; one was left at a cut-through, some distance from the face of the pillar and the two men pushed the other wagon around the curve to face of pillar. The driver started out of the place and on reaching the entry he heard the fall and thinking it had caught both Dobrotski and Whorhola, he called for help, which was near by. Whorhola's injuries resulted in death, while Dobrotski escaped with a broken jaw, scalp wound and some bruises about the body.

Thomas Valiek was fatally injured June 21st by a fall of slate. He was on his way to work in the afternoon, being employed on the night turn. While passing down No. 8 side track a piece of slate fell, crushing him.

John McIntyre, employed on the main haulage road in No. 1 "B" mine for the purpose of repairing and oiling the sheaves and rollers, was instantly killed June 21st by being struck by a trip of loaded cars.

Barto Marco was instantly killed July 10 by electric shock. He was coming down 18 entry parallel and in passing between the coal pillar and a wagon which was standing on the roadway, a machine jack which he carried on his shoulders came in contact with the overhead wire. There was more room on the opposite of the wagon for him to pass and no wires to come in contact with.

George F. Wallace was instantly killed July 10th by a fall of roof. He was at work with S. C. Henry, machine runner, in room 20 off 1 "Butt," 4 face right. Henry stated at the investigation that Wal-

lace was examining the roof and was under the part that was safe at the time, when the roof that he was examining suddenly fell and it is supposed that he attempted to get farther away and in so doing his head was caught beneath the edge of the fall.

Joseph Yedlieska was so seriously injured July 10th by a fall of slate that death resulted nine hours after. The accident occurred in room 37 and it is supposed that he was pulling coal from the face at the time, as a pick was found near him.

Luigi Peretto was instantly killed July 17th by a fall of "horse-back" slate. The accident occurred while Peretto was lying down undercutting coal.

William Weible was fatally injured July 17th at his door in Larimer mine by being caught between a trip of mine cars and a coal pillar; death resulted in an hour.

The boy was engaged in trapping a door located between 62 and 63 rooms on 7 entry west. A driver was coming down the entry with a trip of four wagons as usual, and failing to see the boy's light on coming near the door, called to him to open it. The grade at this point appeared to be such that he could not stop the trip before he reached the door, and it crashed through, pushing the mule in front of it; this caused the trip to leave the track. The boy was found between the second wagon and the coal pillar, about two feet above the door frame.

John Saranko, a miner in United mine, was instantly killed July 20th by a fall of slate. He was turning a new entry off of 18 entry when the accident occurred.

William Schrader and Peter Kallop were instantly killed July 21st by a fall of slate while at work on room pillar 8 off 3 "Butt," No. 2 right face. I was informed that they were in a great hurry to finish their day's work by eleven o'clock A. M. A close examination of the place indicated that such was the case, as no post had been set to secure the slate. A small stump of coal had been left to support the slate and the supposition is that they had commenced to take this out preparatory to letting the slate fall. A few posts set under the slate would undoubtedly have prevented the accident. A post ready for use was found near by.

Mike Colombo was instantly killed July 27th by a fall of "horse-back" slate. The accident occurred near face of room No. 6 pillar off 29 entry, and at the time Colombo was engaged in shoveling coal into a wagon. The place was well posted, but the fall, owing to a smooth slip in the roof, swung the post from under it.

Michael Sipti, Jr., was fatally injured July 28th by a fall of slate, and death resulted in seven hours. The unfortunate boy was at work in room 19 off 11 entry west in company with his father at the time. The father was engaged in loading a wagon and the boy was picking coal down from the face.

Francis Barko was so seriously injured August 3d by a fall of slate that death resulted two days afterwards. The accident occurred at face of room where he was engaged at his regular work.

Samuel Cook was so seriously injured on August 6th by a fall of slate that death resulted four days after. Cook was in a stooping position and engaged in undercutting coal when the slate fell. His brother was at work with him at the time and stated that they had tried to take the slate down a short time before the accident occurred, but could not.

Angelo Vallanna was instantly killed August 13th by a fall of roof. The accident occurred at face of room pillar 11, off 7 Butt entry lower level, while he was engaged in mining out a small stump of coal which had been left to assist in supporting the roof, until he was ready to draw the timber which he was preparing to do at the time of the accident.

Andy Okula while at work in No. 1 "A" Southwest mine, was instantly killed on August 13th by a fall of roof at face of pillar workings.

Thomas Stevenson, an oiler at St. Clair mine, was fatally injured on August 21st by his skull having been crushed between two mine wagons; death resulted six hours after.

This accident occurred outside of the mine and near the foot of tipple, where he was engaged in oiling mine cars, also in assisting to couple and uncouple the trips. A trip of several wagons had been pulled to the foot of the tipple, and as only six or seven are hoisted upon the tipple at one time, it was necessary that this number be cut off. Stevenson was standing on the inside of curve when the trip was stopped for the purpose of cutting off the regular number for the tipple trip. While reaching in between two of the wagons to remove the coupling, by some means the wagons in front, which were standing on a grade, moved back and his head was caught between them.

William Campfield was fatally injured September 10th by a fall of slate, and death resulted in three hours. The accident occurred at face of room in which he was working.

William Burns was instantly killed September 29th by a fall of slate at face of entry pillar, where he was at work.

George W. Altman was fatally injured on October 4th by a fall of coal at face of room, and death resulted while he was being taken home.

John Shedlock was instantly killed October 10th by a fall of roof. He was drawing timber in pillar workings when the accident occurred.

Nicholas Dabato was finally injured October 29th by being caught

between a mine car and a coal pillar. He was removed to the Westmoreland hospital at Greensburg, where death resulted five days after.

As the distance from the entrance to the inside workings of this mine is considerable, the miners are taken in each morning on a trip of empty mine cars, which runs at a low rate of speed and is stopped at the different stations by the man in charge to allow the men to get off. It was on one of these trips that the accident occurred. As the trip was approaching No. 10 East and West entries, where Dabato was to get off, William Aukerman, who was in charge of the trip, noticed that Dabato was making preparations to get off before the trip stopped. He called to him to remain on until it was stopped, but he apparently being in a hurry, paid no attention to the warning but stepped off in a cut-through and was caught. Thirty-two wagons are used on this trip, so that all may have plenty of room.

Frederick Slagle was so seriously injured October 30th by being struck on the head by a post while drawing timber in pillar workings that death resulted four days after.

Eli Rubetch was instantly killed November 3d by a fall of slate, while pulling down coal from face of room after he had fired a blast.

Stephen McGosh was so seriously injured December 1st by being struck by a small piece of slate which fell from the roof that death resulted eight days after. This accident was not considered serious, as he was able to walk some distance from the face of his room, where it occurred. He also got into a wagon without assistance and was taken out of the mine.

Salvania Carere was instantly killed December 4th by a fall of coal at face of room 41 off No. 3 entry.

Guy Weltner, an engineer, in charge of a compressed air locomotive in United Mine, was instantly killed December 7th by a loaded runaway mine car colliding with the locomotive on the main haulage road. The wagon started from a point near room No. 10 on 22 Butt off 6 face entry, and ran a distance of about 5,000 feet, passing around different curves on its journey, to where it collided with the engine. The engine was coming up the main haulage road with a trip of empty cars.

Joseph Palula was so seriously injured December 8th by a fall of roof in the pillar workings that death resulted in four days. He placed himself on the end of a mine car, which he was loading, and began to pull down some loose roof, which was directly overhead. Suddenly the roof gave way, crushing him against the end of the car. Had he remained at face of pillar where he was shoveling coal he would have been perfectly safe.

Stephen Kranack was instantly killed December 19th by a fall of "horseback" roof. This accident occurred in pillar workings, and

in a place where least expected, as the roof appeared to be firm and solid. A smooth slip in the roof, which could not be seen or detected until after the fall, was the cause of the accident.

John Mozer was instantly killed December 21st by a fall of coal at face of his room. A clay vein was undoubtedly the cause of the accident. He was mining when the coal broke over the solid, about one foot back of his mining to this clay vein, and fell upon him.

Joseph Cashma was instantly killed December 22d by a fall of roof in pillar workings. The fall was a large one, as it required several men about eighteen hours to recover the body.

TABLE I—Showing names of operators, railroads, etc., and location of collieries in the Second Bituminous District for the year 1900.

Names of Operators and Collieries.	County.	Name of General Superintendent.	P. O. Address.	Name of Superintendent.	P. O. Address.	Railroad to Mine.
H. C. Frick Coke Company, Standard shaft,	Westmoreland, ..	O. W. Kennedy, ..	Scottsdale, ..	James S. Mack, ..	Mt. Pleasant, ...	S. W. P. R. R. & B. O. R. R.
Standard shaft,	Westmoreland, ..	O. W. Kennedy, ..	Scottsdale, ..	James S. Mack, ..	Mt. Pleasant, ...	S. W. P. R. R. & B. O. R. R.
Mammoth shaft,	Westmoreland, ..	O. W. Kennedy, ..	Scottsdale, ..	C. M. Shank,	Mammoth,	S. W. P. R. R.
Mammoth slope,	Westmoreland, ..	O. W. Kennedy, ..	Scottsdale, ..	C. M. Shank,	Mammoth,	S. W. P. R. R.
Mutual No. 2,	Westmoreland, ..	O. W. Kennedy, ..	Scottsdale, ..	R. E. Laughey, ..	United,	S. W. P. R. R.
Mutual No. 3,	Westmoreland, ..	O. W. Kennedy, ..	Scottsdale, ..	R. E. Laughey, ..	United,	S. W. P. R. R.
Monastery,	Westmoreland, ..	O. W. Kennedy, ..	Scottsdale, ..	A. F. Downing, ..	Latrobe,	Pennsylvania Railroad.
United,	Westmoreland, ..	O. W. Kennedy, ..	Scottsdale, ..	R. E. Laughey, ..	Latrobe,	Pennsylvania Railroad.
Central,	Westmoreland, ..	O. W. Kennedy, ..	Scottsdale, ..	R. O. Thomas, ..	Calumet,	S. W. P. R. R.
Ruff,	Westmoreland, ..	O. W. Kennedy, ..	Scottsdale, ..	W. J. Callaghan, ..	Ferce,	S. W. P. R. R.
W. J. Callaghan, ..	Westmoreland, ..	O. W. Kennedy, ..	Scottsdale, ..	W. J. Callaghan, ..	Ferce,	S. W. P. R. R.
S. W. Connellsville Coke Co. No. 1,	Westmoreland, ..	James A. Cowan, ..	Mt. Pleasant, ..	Wm. S. Ramsay, ..	Mt. Pleasant, ...	S. W. P.
No. 1 "B",	Westmoreland, ..	James A. Cowan, ..	Mt. Pleasant, ..	Wm. S. Ramsay, ..	Mt. Pleasant, ...	S. W. P.
No. 2,	Westmoreland, ..	James A. Cowan, ..	Mt. Pleasant, ..	John I. Finch, ..	Mt. Pleasant, ...	S. W. P.
No. 3,	Westmoreland, ..	James A. Cowan, ..	Mt. Pleasant, ..	John M. Whitlaw, ..	Mt. Pleasant, ...	S. W. P.
No. 4,	Westmoreland, ..	James A. Cowan, ..	Mt. Pleasant, ..	John M. Whitlaw, ..	Mt. Pleasant, ...	S. W. P.
N. Y. & Cleveland Gas Coal Co. Plum Creek,	Allegheny,	T. B. De Armit, ..	Turtle Creek, ..	Hugh Dunning, ..	Negley,	Pennsylvania Railroad.
Sandy Creek,	Allegheny,	T. B. De Armit, ..	Turtle Creek, ..	William Fisher, ..	White Ash,	Pennsylvania Railroad.
Pleasant Valley,	Allegheny,	T. B. De Armit, ..	Turtle Creek, ..	J. H. Powell,	Haser,	Pennsylvania Railroad.
Oak Hill No. 4,	Allegheny,	T. B. De Armit, ..	Turtle Creek, ..	F. D. Gibbs,	Turtle Creek, ...	Pennsylvania Railroad.
Oak Hill No. 5,	Allegheny,	T. B. De Armit, ..	Turtle Creek, ..	R. Bert Hood,	White Ash,	Pennsylvania Railroad.
Duquesne,	Allegheny,	T. B. De Armit, ..	Turtle Creek, ..	W. L. Dixon,	Edgewood Park, ..	Pennsylvania Railroad.
Westmoreland Coal Company, Laximer,	Westmoreland, ..	A. N. Humphreys, ..	Irwin, .....	.....	.....	Pennsylvania Railroad.
Export,	Westmoreland, ..	A. N. Humphreys, ..	Irwin, .....	.....	.....	Pennsylvania Railroad.
Penn Gas Coal Company, Coal Run,	Westmoreland, ..	T. Frank Wolf, ..	Irwin, .....	.....	.....	Pennsylvania Railroad.
No. 1,	Westmoreland, ..	T. Frank Wolf, ..	Irwin, .....	.....	.....	Pennsylvania Railroad.
No. 2,	Westmoreland, ..	T. Frank Wolf, ..	Irwin, .....	.....	.....	Pennsylvania Railroad.
No. 3,	Westmoreland, ..	T. Frank Wolf, ..	Irwin, .....	.....	.....	Pennsylvania Railroad.
No. 4,	Westmoreland, ..	T. Frank Wolf, ..	Irwin, .....	.....	.....	Pennsylvania Railroad.
No. 5,	Westmoreland, ..	T. Frank Wolf, ..	Irwin, .....	.....	.....	Pennsylvania Railroad.
No. 6,	Westmoreland, ..	T. Frank Wolf, ..	Irwin, .....	.....	.....	Pennsylvania Railroad.
No. 7,	Westmoreland, ..	T. Frank Wolf, ..	Irwin, .....	.....	.....	Pennsylvania Railroad.
No. 8,	Westmoreland, ..	T. Frank Wolf, ..	Irwin, .....	.....	.....	Pennsylvania Railroad.
No. 9,	Westmoreland, ..	T. Frank Wolf, ..	Irwin, .....	.....	.....	Pennsylvania Railroad.
No. 10,	Westmoreland, ..	T. Frank Wolf, ..	Irwin, .....	.....	.....	Pennsylvania Railroad.

TABLE I—Continued.

Names of Operators and Collieries.	County.	Name of General Superintendent	P. O. Address.	Name of Superintendent.	P. O. Address.	Railroad to Mine.
Maher Coal and Coke Co. Maher No. 2, Maher No. 3,	Indiana.			Thomas Maher, Thomas Maher,	Blairsville, Blairsville,	Pennsylvania Railroad, Pennsylvania Railroad.
McCreary Coke Company, Ltd. Graceton No. 1, Graceton No. 2,	Indiana.			R. H. McCreary, R. H. McCreary,	Graceton, Graceton,	Pennsylvania Railroad, Pennsylvania Railroad.
Sawickley Gas Coal Company. Sewickley,	Westmoreland.	H. F. Boyard,	Greensburg,	H. F. Boyard,	Darragh,	Pennsylvania Railroad.
Arona Gas Coal Company. Arona,	Westmoreland.	H. F. Boyard,	Greensburg,	H. F. Boyard,	Darragh,	Pennsylvania Railroad.
Madison Gas Coal Company. Madison,	Westmoreland.	H. F. Boyard,	Greensburg,	H. F. Boyard,	Darragh,	Pennsylvania Railroad.
Carbon Coal Company. Carbon,	Westmoreland.	A. D. Harman,	Greensburg,	J. D. Wentling,	Greensburg,	S. W. F. R. R.
Alexandria Coal Company. Alexandria,	Westmoreland.			D. D. Munro,	Goff,	Pennsylvania Railroad.
American Steel Hoop Co. Isabella,	Westmoreland.	Hugh Kennedy,	Etna,	J. M. Gallagher,	Blairsville,	Pennsylvania Railroad.
Derry Coal and Coke Co. Derry shaft,	Westmoreland.	E. F. Saxman,	Latrobe,			Pennsylvania Railroad.
Hempfield Coal Company. Hempfield,	Westmoreland.	A. D. Harman,	Greensburg,	A. O. Jones,	Greensburg,	Pennsylvania Railroad.
Latrobe Coal Company. Latrobe,	Westmoreland.	John Lloyd,	Philadelphia,	D. W. Jones,	Latrobe,	Pennsylvania Railroad.
Claridge Gas Coal Company. Claridge,	Westmoreland.	J. Howard Patton,	Greensburg,			Pennsylvania Railroad.
Manor Gas Coal Company. Denmark,	Westmoreland.	A. P. Cameron,	Claridge,	A. P. Cameron,	Claridge,	Pennsylvania Railroad.
Millwood Coal and Coke Co. Millwood,	Westmoreland.	E. B. Kimmell,	Millwood,	E. B. Kimmell,	Millwood,	Pennsylvania Railroad.

J. A. Strickler Coke Co., Ltd. Strickler,	Westmoreland, ..	O. W. Kennedy, ..	Scottdale, ..	J. A. Strickler,	Wilkinsburg,	S. W. P. R. R.
Spring Hill Gas Coal Co. Spring Hill,	Allegheny, .....	.....	.....	P. S. Boyd,	Turtle Creek, ...	Pennsylvania Railroad.
M. Saxman, Jr., & Co. M. Saxman,	Westmoreland, ..	F. Kiernan,	Latrobe, .....	.....	.....	Pennsylvania Railroad.
Blairsville Coke Company, Ltd. Graff,	Indiana, .....	.....	.....	William F. Graff,	Blairsville,	Pennsylvania Railroad.
Smith,	Indiana, .....	.....	.....	Roy Gerard,	Blairsville,	Pennsylvania Railroad.
Braeburn Steel Company. Braeburn,	Westmoreland, ..	.....	.....	William Beane, ...	Braeburn,	Pennsylvania Railroad.
Indiana Coal Company. Mitchell,	Indiana, .....	.....	.....	Harry McCreary, ..	Graceton,	Pennsylvania Railroad.
Bolivar Coal and Coke Co. Lockport,	Westmoreland, ..	.....	.....	John McHail,	Bolivar,	Pennsylvania Railroad.
Penn Manor Shaft Company. Penn Manor shaft,	Westmoreland, ..	J. H. Friend,	Pittsburg,	Samuel Ferguson, ..	Harrison City, ..	Pennsylvania Railroad.
Weinman Brothers Weinman,	Allegheny,	Jacob Weinman, ..	Wilkinsburg, ..	J. Weinman,	Wilkinsburg,	Pennsylvania Railroad.
Hampton,	Allegheny,	Jacob Weinman, ..	Wilkinsburg, ..	J. Weinman,	Wilkinsburg,	Pennsylvania Railroad.
Ocean,	Allegheny,	G. Vogele,	Wilkinsburg, ..	G. Vogele,	Wilkinsburg,	Pennsylvania Railroad.
Ams,	Westmoreland, ..	T. J. Mitchell, ...	Connellsville, ..	Wm. G. Duncan, ..	Alverton,	S. W. P. R. R.
Donohoe Coal and Coke Co. Donohoe,	Westmoreland, ..	John P. Donohoe, ..	Greensburg, ..	John P. Donohoe, ..	Greensburg,	Pennsylvania Railroad.
Lucesco Coal Company. Lucesco,	Westmoreland, ..	.....	.....	.....	.....	.....
Painter and Fogg. Hester,	Westmoreland, ..	C. H. Fogg,	Greensburg, ..	W. M. Hart,	Armbaust,	S. W. P. R. R.
Reese, Hammond Fire Brick Co. Indiana,	Indiana,	Robert Blinle,	Bolivar,	David Condie,	Bolivar,	Pennsylvania Railroad.
Salem Coal Company. Salem,	Westmoreland, ..	A. D. Harman, ...	Greensburg, ..	Alex. Coulter,	New Alexandria, ..	Pennsylvania Railroad.
Blacklick Coal Company. Blacklick,	Indiana, .....	.....	.....	F. M. Graff,	Blairsville,	Pennsylvania Railroad.

TABLE I—Continued.

Names of Operators and Colleries.	County.	Name of General Superintendent.	P. O. Address.	Name of Superintendent.	P. O. Address.	Railroad to Mine.
Superior Coal and Coke Co. Superior No. 1,	Westmoreland, ..	M. W. Saxman, ..	Latrobe, .....	.....	.....	Pennsylvania Railroad.
Elizabeth,	Westmoreland, ..	.....	.....	W. B. Skelley,	Irwin,	Pennsylvania Railroad.
Ben Franklin Coal Company. Metcalf,	Westmoreland, ..	.....	.....	T. B. Findley,	Freeport,	Pennsylvania Railroad.
Pittsburg & Baltimore Coal Co. No. 1,	Westmoreland, ..	.....	.....	.....	.....	.....
Hamilton Coal Mining Co. Crag-Dell,	Westmoreland, ..	John C. Kyte,	Tarentum, .....	.....	.....	Pennsylvania Railroad.
Ray Coal Company. Ray,	Indiana, .....	.....	.....	Thomas Maher,	Blairsville,	Pennsylvania Railroad.

TABLE II—Gives the total number of tons of coal mined and tons of coke produced in each colliery, number of days worked, number of employees, number of persons killed and injured, number of kegs of powder, etc., used in the Second Bituminous District for the year ending December 31, 1900.

Names of Operators and Collieries.	County.	Shipments of coal in tons by rail or otherwise.	Number of tons used for steam and heat at colliery.	Sold to local trade and used by employes—tons.	Total production of coal in tons.	Total production of coke in tons.	Number of coke ovens.	Number days worked.	Number persons employed.	Number fatal accidents.	Number non-fatal accidents.	Number kegs powder used.	Number pounds of dynamite used.	Number horses and mules.
H. C. Frick Coke Company.														
Standard shaft,	Westmoreland.	.....	10,945	6,540	700,000	500,000	901	285	895	.....	2	.....	350	80
Standard shaft,	Westmoreland.	.....	327	.....	12,000	.....	.....	133	160	.....	.....	.....	.....	.....
Mammoth shaft,	Westmoreland.	.....	11,944	2,334	410,000	264,000	510	291	533	1	2	.....	100	77
Mammoth slope,	Westmoreland.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Mutual No. 1,	Westmoreland.	.....	469	472	132,000	55,000	197	258	177	.....	.....	.....	.....	.....
Mutual No. 2,	Westmoreland.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Mutual No. 3,	Westmoreland.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Monastery,	Westmoreland.	.....	6,213	602	157,000	49,000	208	950	143	1	1	.....	50	13
United,	Westmoreland.	.....	4,240	579	238,000	194,000	350	281	241	2	2	.....	30	31
Calumet,	Westmoreland.	.....	2,036	825	182,000	120,000	260	263	220	.....	.....	.....	275	34
Central,	Westmoreland.	.....	7,900	1,076	291,000	188,000	301	295	377	.....	.....	.....	600	32
Ruff,	Westmoreland.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Total and average, .....	.....	.....	44,724	12,398	2,245,000	1,373,000	2,727	260	2,946	4	9	327	1,675	292
S. W. Connellsville Coke Co.														
No. 1 "A",	Westmoreland.	.....	20,577	11,846	683,136	435,978	625	311	732	2	3	.....	50	62
No. 1 "B",	Westmoreland.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
No. 2,	Westmoreland.	.....	3,340	3,340	251,983	183,918	252	311	290	.....	.....	.....	.....	.....
No. 3,	Westmoreland.	.....	4,768	3,875	196,360	146,360	298	311	245	.....	.....	.....	.....	.....
No. 4,	Westmoreland.	.....	518	2,092	137,665	103,887	131	311	175	.....	.....	.....	.....	.....
Total and average, .....	.....	.....	29,139	52,023	1,351,793	870,683	1,263	311	1,442	5	6	.....	200	126

TABLE II—Continued.

Names of Operators and Collieries,	County.	Shipments of coal in tons by rail or otherwise.	Number and heat at colliery.	Sold to local trade and used by employes—tons.	Total production of coal in tons.	Total production of coke in tons.	Number of coke ovens.	Number days worked.	Number persons employed.	Number fatal accidents.	Number non-fatal accidents.	Number kegs powder used.	Number pounds of dynamite used.	Number horses and mules.
N. Y. & Cleveland Gas Coal Co.														
Perry Creek	Allegheny	266,877	2,622	551	269,450	.....	.....	973.50	960	.....	1	1	25	11
Sandy Creek	Allegheny	209,092	1,477	631	213,160	.....	.....	290.25	503	.....	.....	.....	.....	31
Pleasant valley	Allegheny	166,906	1,662	450	167,958	.....	.....	263.50	392	.....	2	12	.....	12
Oak Hill No. 4	Allegheny	387,424	3,150	1,209	391,774	.....	.....	295	448	.....	.....	.....	.....	22
Oak Hill No. 5	Allegheny	255,507	600	5,000	261,107	.....	.....	295.75	240	.....	1	6	475	12
Duquesne	Allegheny	134,050	950	400	145,400	.....	.....	394.25	215	.....	.....	.....	.....	13
Total and average,		1,430,756	8,801	8,292	1,447,849	.....	.....	271	1,648	4	1	31	500	107
Westmoreland Coal Company.														
Westmoreland shaft	Westmoreland	321,738	10,523	1,674	333,935	.....	.....	284	329	.....	1	.....	.....	24
Larimer	Westmoreland	411,621	3,949	5,007	423,581	.....	.....	506	451	.....	3	.....	.....	29
Export	Westmoreland	508,625	3,362	1,257	513,244	.....	.....	590.50	484	.....	3	.....	.....	55
Total and average,		1,244,984	17,834	7,938	1,270,766	.....	.....	293	1,274	7	1	.....	.....	78
Penn Gas Coal Company.														
Coal Run	Westmoreland	83,052	142	502	83,606	.....	.....	279.50	98	.....	.....	.....	.....	8
No. 1	Westmoreland	177,775	4,624	1,568	183,397	.....	.....	268	213	.....	.....	.....	.....	20
No. 2	Westmoreland	239,833	5,984	3,490	249,327	.....	.....	301.50	375	.....	3	.....	.....	37
No. 3	Westmoreland	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
No. 4	Westmoreland	159,796	1,461	1,039	162,286	.....	.....	271.50	252	.....	1	.....	.....	50
Ayers Hollow	Westmoreland	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
No. 5	Westmoreland	8,705	.....	.....	8,705	.....	.....	37	99	.....	.....	.....	.....	6
Total and average,		669,181	11,621	6,389	687,391	.....	.....	227	1,037	4	6	.....	.....	91

TABLE II—Continued.

Names of Operators and Collieries.	County.	Shipments of coal in tons by rail or otherwise.	Number and heat at colliery.	Sold to local trade and used by employes—tons.	Total production of coal in tons.	Total production of coke in tons.	Number of coke ovens.	Number days worked.	Number persons employed.	Number fatal accidents.	Number non-fatal accidents.	Number kegs powder used.	Number pounds of dynamite used.	Number horses and mules.
Maher Coal and Coke Company.	Indiana.	28,174			28,174			301	24					3
Maher No. 2.	Indiana.	13,963			13,963			145	28					2
Maher No. 3.	Indiana.	42,077			42,077			233	52					4
Total and average.														
McCreary Coke Co., Limited.	Indiana.	628	960	227	15,815	10,500	48	240	90			30	75	4
Graceton No. 1.	Indiana.	200	2,890	925	70,615	49,500	150	289	250	1		80	25	21
Graceton No. 2.	Indiana.													
Total and average.		828	3,850	1,152	85,830	60,000	198	264	340	1		100	100	25

Recapitulation.*

H. C. Frick Coke Company.	Westmoreland.	29,139	52,023	1,331,793	870,083	1,223	311	2,848	4	9	327	1,675	292
S. W. Conneltsville Coke Co.,	Westmoreland.	44,724	12,358	2,245,000	1,373,000	2,727	260	1,442	5	6	437	200	125
N. Y. & Cleveland Gas Coal Co.,	Allegheny.	8,801	8,232	1,447,819			274	1,548	4	1	31	500	107
Westmoreland Coal Company,	Westmoreland.	17,834	7,938	1,270,766			283	1,279	7	1			78
Penn. Gas Coal Company.	Westmoreland.	16,621	6,589	687,391			247	1,037	4	6			91
The Hecla Coke Company.	Westmoreland.	9,646	2,690	457,003	360,310	772	268	623	1				130
Hosletter Conneltsville Coke Co.,	Westmoreland.	3,300	2,690	457,003	360,310	772	268	623	1				89
Beaman Coal Company.	Westmoreland.	8,292	2,038	419,784	59,343	224	501	501	3		29	100	62
Beaman Coke Company.	Westmoreland.	3,294	445	325,109	207,250	464	274	65	500	3	439	800	85
Greensburg Coal Company.	Westmoreland.	264,212	2,750	273,537	9,370	10	243	254	1	2	3	10	23
Jamison Coal and Coke Co.,	Westmoreland.	62,400	6,600	185,500	90,000	500	241	392	1		170	5,300	30
Atlantic Crushed Coke Co.,	Westmoreland.	35,072	500	92,187	34,650	79	268	115			1	2	14

*Production, etc., of single collieries will be found in the Recapitulation.

American Coke Company,	Westmoreland,	111,395	6,972	4,571	459,010	975,215	650	254,50	740	2	1	.....	57
Standard Concessville Coke Co.,	Westmoreland,	.....	3,184	2,044	240,644	153,100	400	300	489	1	1	.....	30
Standard Coal Company,	Westmoreland,	191,338	9,107	2,812	202,748	.....	400	290	50	3	3	450	25
Thacker Coal Company,	Westmoreland,	46,024	16	2,812	46,000	.....	.....	231	37	1	1	.....	3
Buell Coal Company,	Indiana,	112,367	.....	.....	112,367	.....	.....	.....	293	.....	1	.....	6
Maher Coal and Coke Company,	Indiana,	42,677	.....	.....	42,677	.....	.....	223	52	.....	1	.....	4
Westmoreley Coal Co., Limited,	Westmoreland,	828	3,850	1,152	85,830	60,000	198	264	340	1	.....	100	25
Sewickley Gas Coal Company,	Westmoreland,	196,958	2,739	440	206,108	.....	.....	271	246	2	1	.....	16
Arona Gas Coal Company,	Westmoreland,	241,335	735	520	212,710	.....	.....	261	202	1	.....	.....	20
Madison Gas Coal Company,	Westmoreland,	88,000	.....	.....	88,100	.....	.....	.....	169	.....	2	.....	12
Carlson Coal Company,	Westmoreland,	259,047	3,209	11,665	273,921	21,786	54	275	318	.....	2	40	27
Alexandria Coal Company,	Westmoreland,	206,586	7,327	891	222,764	11,964	254	245	303	.....	2	.....	14
American Steel Hoop Company,	Westmoreland,	85,330	4,880	1,540	130,632	87,439	452	591	306	.....	2	1,10	11
Herrifield Coal Company,	Westmoreland,	4,187	.....	3,662	102,658	129,689	221	270	179	.....	1	400	20
Latrobe Coal Company,	Westmoreland,	170,475	4,010	6,782	213,110	73,153	136	307	301	.....	1	.....	25
Marble Coal Company,	Westmoreland,	128,732	4,010	6,782	171,714	.....	.....	280	248	3	2	.....	18
Marble Gas Coal Company,	Westmoreland,	210,915	3,690	503	215,116	.....	.....	297	247	2	.....	400	100
Millwood Coal and Coke Co.,	Westmoreland,	111,179	3,560	838	114,917	.....	.....	292	147	1	2	.....	18
J. A. Strickler Coke Co., Ltd.,	Westmoreland,	51,108	737	155	52,000	.....	.....	242	52	.....	1	.....	6
Spring Hill Gas Coal Company,	Allegheny,	116,086	1,445	120	117,654	.....	.....	365	176	1	1	.....	11
M. Saxman, Jr., and Company,	Westmoreland,	43,017	1,695	250	82,111	27,211	60	258	93	1	.....	.....	9
Blairsville Coke Company, Ltd.,	Indiana,	59,153	.....	492	59,645	.....	24	287	38	.....	.....	.....	5
Robert Smith,	Indiana,	70,000	.....	469	70,469	.....	.....	275	72	.....	.....	.....	5
Braeburn Steel Company,	Westmoreland,	14,281	.....	.....	14,351	.....	.....	310	20	.....	.....	.....	2
Indiana Coal Company,	Indiana,	3,100	40	500	11,137	8,293	24	274	20	.....	.....	216	40
Bellvar Coal and Coke Company,	Westmoreland,	66,686	305	75	67,750	7,000	53	246	146	.....	1	.....	2
Penn Manor Shaft Company,	Westmoreland,	.....	.....	.....	.....	11,200	43	295	15	.....	.....	.....	2
W. J. Rainey,	Allegheny,	.....	15	8,670	8,750	.....	.....	.....	.....	.....	.....	.....	2
W. J. Rainey,	Allegheny,	.....	.....	.....	.....	.....	.....	290	14	.....	.....	.....	2
Donohoe Coal and Coke Company,	Westmoreland,	1,019	.....	856	70,500	53,000	500	265	211	1	.....	.....	8
Painter and Fugg,	Westmoreland,	1,290	.....	340	100,212	14,308	119	250	260	1	4	.....	5
Reece, Hammond, Fire Brick Co.,	Westmoreland,	57,472	56	.....	9,216	7,600	50	137	49	.....	.....	.....	4
Salem Coal Company,	Indiana,	8,000	189	.....	23,000	.....	.....	311	21	.....	.....	.....	3
Graft Coal Company,	Indiana,	1,550	.....	.....	1,550	.....	.....	67	77	.....	1	.....	7
Superior Coal and Coke Co.,	Westmoreland,	10,022	100	15	10,047	.....	72	99	56	.....	.....	150	3
Pen Franklin Coal Company,	Westmoreland,	5,477	282	.....	5,475	.....	.....	101	19	.....	.....	50	2
Hamilton Coal Mining Company,	Westmoreland,	15,098	710	.....	15,808	.....	.....	250	57	.....	.....	200	1
Ray Coal Company,	Indiana,	4,649	.....	.....	4,649	.....	.....	92	28	.....	.....	.....	1
Total and average,	6,912,243	217,477	161,137	13,618,199	4,280,354	9,462	248	17,552	56	56	4,070	10,755	1,480

Recapitulation.

Names of Operators.	County.	Number of Boilers.			Total horse power.			Locomotives.			Number steam engines of all classes.	Total horse power.	Number pumps delivering water to surface.	Capacity in gallons per minute.	Quantity delivered to surface per minute—gallons.	Number electric dynamos.	Number air compressors.
		Cylindrical.	Tubular.	Horse power.	Horse power.	Steam.	Air.	Electric.									
									Horse power.	Horse power.							
Zi. C. Frick Coke Company,	Westmoreland,	41	1,462	41	3,285	4,747	9	2	.....	46	4,325	25	12,570	5,515	.....	.....	.....
S. W. Connellsville Coke Co.,	Westmoreland,	8	65	13	315	1,115	6	.....	.....	15	1,250	9	8,510	3,670	.....	.....	.....
N. Y. & Cleveland Gas Coal Co.,	Allegheny,	1	20	3	90	110	6	.....	.....	7	417	.....	.....	.....	.....	.....	.....
Westmoreland Coal Company,	Westmoreland,	18	610	6	830	1,460	3	.....	.....	20	1,405	4	2,700	310	.....	.....	.....
Penn Gas Coal Company,	Westmoreland,	13	399	2	609	864	.....	.....	.....	12	1,600	8	4,008	610	.....	.....	.....
The Hecla Coke Company,	Westmoreland,	8	130	2	609	864	.....	.....	.....	3	1,600	.....	.....	2,700	.....	.....	.....
Horseshoe Coal Company,	Westmoreland, .....	.....	.....	6	165	585	.....	.....	.....	.....	.....	.....	.....	1,200	.....	.....	.....
Loyal-Hanna Coal and Coke Co.,	Westmoreland, .....	.....	.....	14	1,170	1,170	.....	.....	.....	10	5,200	6	8,200	1,400	.....	.....	.....
Bessemer Coke Company,	Westmoreland,	3	80	6	415	485	.....	.....	.....	7	454	.....	.....	.....	.....	.....	.....
Greensburg Coal Company,	Westmoreland,	4	160	4	320	320	.....	.....	.....	4	750	.....	.....	.....	.....	.....	.....
Jamison Coal and Coke Co.,	Westmoreland,	8	920	8	920	920	.....	.....	.....	8	950	5	310	510	.....	.....	.....
Atlantic Crushed Coke Co.,	Westmoreland,	4	.....	.....	.....	240	.....	.....	.....	6	575	.....	.....	210	.....	.....	.....
American Coke Company,	Westmoreland,	8	130	8	130	520	.....	.....	.....	5	450	.....	.....	450	.....	.....	.....
Standard Connellsville Coke Co.,	Westmoreland,	7	80	7	80	570	.....	.....	.....	1	35	.....	.....	700	.....	.....	.....
Ocean Coal Company,	Westmoreland,	4	800	4	800	800	.....	.....	.....	9	1,183	.....	.....	1,200	.....	.....	.....
The Ligonier Coal Company,	Westmoreland, .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Barrell Coal Company,	Indiana, .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Maher Coal and Coke Company,	Indiana, .....	.....	.....	.....	.....	900	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Switzerland Coke Co., limited,	Indiana, .....	.....	.....	.....	.....	300	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Savoyville Coal Company,	Westmoreland, .....	.....	.....	.....	.....	100	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Arona Gas Coal Company,	Westmoreland, .....	.....	.....	.....	.....	100	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Madison Gas Coal Company,	Westmoreland, .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Carlson Coal Company,	Westmoreland,	2	50	2	225	275	.....	.....	.....	5	2,6	.....	.....	2,470	.....	.....	.....
Alexandria Coal Company,	Westmoreland,	4	425	4	425	425	.....	.....	.....	5	2,6	.....	.....	575	.....	.....	.....
American Steel Hoop Company,	Westmoreland,	1	60	8	500	560	.....	.....	.....	4	500	.....	.....	1,500	.....	.....	.....
Derry Coal and Coke Company,	Westmoreland,	3	120	3	100	310	.....	.....	.....	4	400	.....	.....	1,000	.....	.....	.....
Hempfield Coal Company,	Westmoreland,	3	120	4	385	515	.....	.....	.....	5	420	.....	.....	1,570	.....	.....	.....
Latrobe Coal Company,	Westmoreland,	2	50	5	400	460	.....	.....	.....	10	430	.....	.....	310	.....	.....	.....
Claridge Gas Coal Company,	Westmoreland, .....	.....	.....	.....	.....	200	.....	.....	.....	2	95	.....	.....	310	.....	.....	.....
Minor Gas Coal Company,	Westmoreland, .....	.....	.....	.....	.....	215	.....	.....	.....	2	.....	.....	.....	.....	.....	.....	.....
Millwood Coal and Coke Co.,	Westmoreland,	6	180	.....	.....	180	.....	.....	.....	4	480	.....	.....	350	.....	.....	.....

TABLE III.—Showing the number of each class of employes at each colliery in the Second Bituminous District, during the year 1900.

Names of Operators and Collieries.	County.	Occupation of Persons Employed Inside.										Occupations of Persons Employed Inside.							Grand total, inside and outside.
		Occupation of Persons Employed Inside.										Occupations of Persons Employed Inside.							
		Inside foreman or mine boss.	Fire bosses.	Miners.	Miners' laborers.	Drivers and runners.	Door boys and helpers.	All other employes.	Total inside.	Outside foreman.	Blacksmiths and carpenters.	Engineers and firemen.	State pickers.	Employed in the manufacture of coke.	Superintendents, bookkeepers and clerks.	All other employes.	Total outside.		
H. C. Frick Coke Company.																			
Standard shaft,	Westmoreland, ..	2	4	400	.....	26	12	61	508	4	14	13	1	331	4	20	387	895
Standard slope,	Westmoreland, ..	1	1	92	.....	8	1	13	116	2	3	3	.....	35	.....	4	44	160
Mammoth shaft,	Westmoreland, ..	1	2	256	.....	22	4	34	321	1	9	10	.....	175	3	14	212	533
Mammoth slope,	Westmoreland, ..	1	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Mutual No. 2,	Westmoreland, ..	1	1	82	.....	10	2	7	103	1	3	3	.....	.....	.....	.....	.....	177
Mutual No. 3,	Westmoreland, ..	1	1	18	.....	15	3	12	119	2	2	2	.....	56	2	9	74	143
Monastery,	Westmoreland, ..	1	2	100	.....	15	5	21	181	1	5	6	.....	8	1	1	54	313
United,	Westmoreland, ..	1	2	100	.....	16	5	11	130	1	4	7	.....	43	2	5	45	330
Galumet,	Westmoreland, ..	1	2	204	.....	22	5	13	245	1	3	8	.....	73	2	5	80	220
Central,	Westmoreland, ..	1	2	204	.....	22	5	13	245	1	3	8	.....	108	2	10	132	377
Ruff,	Westmoreland, ..	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Total and average, .....	.....	12	16	1,360	.....	135	30	175	1,726	11	42	57	2	920	17	71	1,120	2,846
S. W. Connellsville Coke Co.																			
No. 1 "A,"	Westmoreland, ..	1	2	302	.....	31	5	42	405	4	5	14	.....	263	9	32	327	732
No. 1 "B,"	Westmoreland, ..	1	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
No. 2,	Westmoreland, ..	1	1	132	.....	13	1	12	160	1	3	3	.....	112	2	9	130	280
No. 3,	Westmoreland, ..	1	1	98	.....	11	1	23	135	1	2	6	.....	86	2	12	110	245
No. 4,	Westmoreland, ..	1	1	76	.....	7	1	6	92	1	1	3	.....	71	1	6	83	115
Total and average, .....	.....	5	6	608	.....	62	8	103	792	7	11	25	1	532	14	59	650	1,442

Standard Connessville Coke Co.	1	250	20	8	10	599	1	7	6	168	4	13	199	489
Marguerite No. 1,	1	250	20	8	10	599	1	7	6	168	4	12	199	489
Marguerite No. 2,	2	250	20	8	10	599	2	7	6	168	4	12	199	489
Total and average,														
Ocean Coal Company.														
Ocean No. 1,	1	154	23	8	51	241	1	5	9	3	2	10	50	271
Ocean No. 2,	1	154	23	8	51	241	1	5	9	3	2	10	50	271
Total,														
The Ligonier Coal Company.														
S. H. Smith,	1	26	3	1	4	35	1	1	1	1	1	1	2	37
Ligonier No. 2,	1	26	3	1	4	35	1	1	1	1	1	1	2	37
Total,														
Burrell Coal Company.														
Burrell No. 1,	1	88	3	3	1	73	1	3	2	2	2	2	4	47
Burrell No. 2,	1	40	3	3	1	45	1	3	2	2	2	2	4	19
Total and average,	2	78	6	6	2	88	2	6	4	4	4	4	8	96
Maher Coal and Coke Co.														
Maher No. 2,	1	18	2	2	1	22	1	2	2	2	2	2	2	24
Maher No. 3,	1	21	2	2	1	25	1	2	2	2	2	2	2	28
Total and average,	2	39	4	4	2	47	2	4	4	4	4	4	4	52
McCreary Coke Company, Ltd.														
Graceton No. 1,	1	50	3	3	5	62	1	2	2	16	2	6	28	90
Graceton No. 2,	1	100	12	3	15	131	4	15	6	72	6	16	119	270
Total and average,	2	150	15	6	20	193	4	17	8	88	6	24	147	440
Sewickley Gas Coal Company.														
Sewickley,	1	2	15	5	17	225	1	4	3	2	2	12	21	245
Arona Gas Coal Company.														
Arona,	1	250	17	5	9	282	1	3	3	2	2	12	20	302
Madison Gas Coal Company.														
Madison,	1	140	9	3	4	157	1	2	2	2	2	7	12	169
Carbon Coal Company.														
Carbon,	2	108	18	8	8	526	1	3	4	1	26	3	8	272
Alexandria Coal Company.														
Alexandria,	3	205	17	2	7	234	3	5	7	50	3	16	84	318
American Steel Hoop Company.														
Isabella,	1	96	12	3	11	121	1	8	8	50	3	9	79	293

TABLE III.—Continued.

Names of Operators and Collieries.	County.	Occupation of Persons Employed Inside.							Occupations of Persons Employed Inside.							Grand total, inside and outside.		
		Inside foreman or mine boss.	Fire bosses.	Miners.	Miners' laborers.	Drivers and runners.	Door boys and helpers.	All other employes.	Total inside.	Outside foreman.	Blacksmiths and carpenters.	Engineers and firemen.	State pickers.	Employed in the manufacture of coke.	Superintendents, bookkeepers and clerks.		All other employes.	Total outside.
Derry Coal and Coke Company. Derry shaft,	Westmoreland, ..	1	2	210	.....	14	5	10	242	1	3	3	.....	43	4	4	58	300
Hempfield Coal Company. Hempfield,	Westmoreland, ..	2	.....	127	.....	14	3	8	154	.....	4	5	.....	.....	2	14	25	179
Latrobe Coal Company. Latrobe,	Westmoreland, ..	1	1	174	.....	22	3	12	213	1	6	6	.....	57	3	15	88	301
Claridge Gas Coal Company. Claridge,	Westmoreland, ..	1	.....	189	.....	18	5	8	221	.....	6	3	.....	.....	1	17	27	248
Manor Gas Coal Company. Denmark,	Westmoreland, ..	1	2	190	.....	19	6	3	226	1	4	3	2	.....	3	8	21	247
Millwood Coal and Coke Co. Millwood,	Westmoreland, ..	1	1	95	.....	17	4	5	123	.....	4	3	1	.....	1	15	24	147
J. A. Strickler Coke Co., Ltd. Strickler,	Westmoreland, ..	1	.....	40	.....	3	1	2	47	1	1	1	.....	.....	1	2	6	53
Spring Hill Gas Coal Company. Spring Hill,	Allegheny,	2	.....	140	.....	6	4	3	155	1	3	4	.....	.....	3	10	21	176
M. Saxman, Jr., and Co. M. Saxman,	Westmoreland, ..	1	.....	55	.....	8	1	4	69	1	1	2	.....	16	2	2	24	93

TABLE III.—Continued.

Names of Operators and Collieries.	County.	Occupation of Persons Employed Inside.							Occupations of Persons Employed Outside.							Grand total, inside and outside.	
		Inside foreman or mine boss.	Trig bosses.	Miners.	Miners' laborers.	Drivers and runners.	Door boys and helpers.	All other employes.	Total inside.	Outside foreman.	Blacksmiths and carpenters.	Engineers and firemen.	State pickers.	Employed in the manufacture of coke.	Superintendents, bookkeepers and clerks.		All other employes.	Total outside.
Ben Franklin Coal Company.	Westmoreland.	1		11	1									1	1	2	15
Metcalf.	Westmoreland.																
Pittsburg and Baltimore Coal Co. No. 18.	Westmoreland.	1		21	2			1	25								
Hamilton Coal Mining Co. Crag-Dell.	Westmoreland.	1		20	1			1	23	1					1	2	27
Ray Coal Company.	Indiana.	1													2	1	3

Recapitulation.

Westmoreland.	12	16	1,360	135	30	175	1,728	11	42	55	2	950	17	71	1,120	2,488
S. W. Connellsville Coke Co.	5	6	608	62	8	103	782	1	96	11	4	382	14	59	650	1,442
N. Y. & Cleveland Gas Coal Co.	7		1,183	89	47	54	1,380	5	19	14	4	4	14	12	168	1,548
Westmoreland Coal Company.	6	7	968	89	47	45	1,162	3	14	12	6	6	6	15	146	1,637
Penn. Gas Coal Company.	5	10	701	81	12	82	891	5	15	13	7	7	16	85	1,037	1,837
Therrell Coke Company.	2	3	297	48	20	31	401	4	11	13		212	7	23	282	683
Hosier Connellsville Re Co.	2	4	275	29	3	22	335	2	10	9		243	2	53	281	624
Loyal-Hanna Coal and Coke Co.	3	3	374	43	9	36	447	3	8	9	12	10	5	7	54	501

Bessemer Coke Company,	213	50	57	268	3	6	9	183	7	22	232	510
Greensburg Coal Company,	184	2	2	226	2	4	6	.....	2	14	28	254
Jamison Coal and Coke Company,	203	10	5	14	1	2	8	2	112	3	15	147
Atlantic Crushed Coke Co.,	63	8	1	81	1	4	4	.....	23	3	37	118
American Coal Company,	4	19	8	45	4	14	8	.....	192	5	21	233
Standard Connellsville Coke Co.,	257	10	8	10	2	7	6	.....	168	4	12	489
Ocean Coal Company,	154	23	8	240	2	1	5	3	.....	2	10	30
The Ligonier Coal Company,	26	3	1	4	1	5	9	.....	.....	1	1	2
Burrell Coal Company,	78	6	4	35	.....	.....	.....	.....	.....	1	1	5
Maher Coal and Coke Company,	38	4	.....	.....	.....	.....	.....	.....	.....	4	1	6
Secretary Coke Company, Ltd.,	180	1	.....	13	.....	.....	.....	.....	.....	6	24	340
Svechtke's Coal Company,	150	12	5	17	225	4	17	88	.....	147	246	480
Westmoreland,	150	12	5	17	225	4	17	88	.....	147	246	480
Westmoreland,	140	14	3	4	177	1	.....	.....	.....	3	12	202
Madison Gas Coal Company,	198	18	.....	.....	.....	.....	.....	.....	.....	2	1	12
Carbont Coal Company,	205	17	2	8	256	1	3	1	26	3	8	46
Alexandria Coal Company,	1	12	3	11	124	1	8	.....	50	3	16	84
American Steel Hoop Company,	96	14	5	10	242	1	3	.....	43	4	58	300
Derry Coal and Coke Company,	210	14	3	8	154	1	4	.....	.....	2	14	25
Hempfield Coal Company,	174	22	3	12	213	1	6	6	57	3	15	88
Latrobe Coal Company,	189	18	5	8	221	.....	.....	.....	.....	1	17	37
Manor Gas Coal Company,	1	1	1	5	133	.....	.....	.....	.....	3	8	31
Claridge Gas Coal Company,	40	17	4	5	47	1	4	3	2	.....	147	248
Millwood Coal and Coke Co.,	140	6	4	3	155	1	3	1	.....	1	15	54
J. A. Stricker Coal Co., Ltd.,	55	8	1	2	47	1	3	1	.....	3	10	24
Spring Hill Gas Coal Company,	50	7	.....	.....	.....	.....	.....	.....	.....	1	1	173
M. Saxman, Jr., and Company,	60	4	1	2	97	1	1	16	.....	9	24	93
Robert Seftich and Company, Ltd.,	16	7	.....	.....	.....	.....	.....	.....	.....	1	1	58
Indiana,	16	7	.....	.....	.....	.....	.....	.....	.....	1	1	58
Erleburn Steel Company,	19	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	20
Indiana Coal Company,	19	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	20
Indiana,	13	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	30
Bollivar Coal and Coke Co.,	160	6	2	6	116	1	2	11	6	15	30	146
Penn Manor Shaft Company,	1	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	146
Weinman Brothers,	13	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	15
G. Vogeley,	1	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	15
W. J. Rainey,	128	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	15
Donohoe Coal and Coke Co.,	140	9	4	7	143	1	1	3	56	4	68	211
Painter and Fogg,	21	3	1	4	158	1	6	1	14	2	15	102
Reece, Hammond Fire Brick Co.,	13	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	3
Salmun Coal Company,	52	4	.....	.....	.....	.....	.....	.....	.....	.....	.....	39
Indiana,	32	3	1	11	98	1	3	.....	.....	.....	.....	41
Stuyflost and Coke Co.,	32	4	.....	.....	.....	.....	.....	.....	.....	.....	.....	41
Indiana,	32	4	.....	.....	.....	.....	.....	.....	.....	.....	.....	41
W. B. Shelby,	13	3	.....	.....	.....	.....	.....	.....	.....	.....	.....	9
Westmoreland,	13	3	.....	.....	.....	.....	.....	.....	.....	.....	.....	9
Ben Franklin Coal Company,	21	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	3
Hamilton Coal Mining Company,	21	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	3
Indiana,	20	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	3
Ray Coal Company,	21	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	3
Total,	68	1,021	278	902	76	265	277	43	3,102	162	819	4,774
	103	1,021	278	902	76	265	277	43	3,102	162	819	4,774

Recapitulation.

Names of Operators.	County.	Number of Days Worked in Each Month.												Total.
		January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	
H. C. Frick Coke Company,	Westmoreland, ..	26.50	24	16.88	24.25	22.38	17.37	15.88	17.62	20.37	19	21.37	260.62	
S. W. Connellsville Coke Company,	Westmoreland, ..	27	24	27	27	26	26	27	25	27	26	25	311	
N. Y. & Cleveland Gas Coal Company,	Westmoreland, ..	22.75	21.71	23.87	23.29	24.00	23.91	22.80	21.60	24.87	21.50	21.80	271.20	
Westmoreland Coal Company,	Westmoreland, ..	25	22.63	25.33	25.25	25.25	23.33	24.67	25.34	25.23	25.08	22.67	292.50	
Penn Gas Coal Company,	Westmoreland, ..	19.85	18.60	20.30	16.80	17.00	16.80	18.80	16.70	21.05	19.50	23.75	221.50	
The Hecla Coke Company,	Westmoreland, ..	27	26	26	23.50	23	23	22	22	22	25	25	238	
Hostetter Connellsville Coke Company,	Westmoreland, ..	27	24	27	25	24	23	15	22	23	19	14	257	
Loyal-Hanna Coal and Coke Company,	Westmoreland, ..	23	23	26	23	23	26	24	23	19	20	12	274	
Gessner Coke Company,	Westmoreland, ..	23	23	26	23	23	26	24	23	19	20	12	274	
Dreznaberg Coal Company,	Westmoreland, ..	17.58	15.25	18.83	24.83	25.50	24.75	19.91	14.66	16.83	22.68	24	243.33	
Frederick Coal Company,	Westmoreland, ..	26	23	26	24	26	26	25	26	27	26	26	240	
Atlantic Crushed Coke Company,	Westmoreland, ..	27	24	25	24	24	24	14	17	17	25	25	24	
Standard Connellsville Coke Company,	Westmoreland, ..	12.50	12.00	26.50	25.25	25	21	17.50	22	22	25	24.50	253.50	
Ocean Coal Company,	Westmoreland, ..	27	24	27	25	26	26	24	27	25	26	25	309	
The Lignite Coal Company,	Westmoreland, ..	26	23	27	23	24	24	25	24	23	24	23	290.50	
Burrell Coal Company,	Indiana,	25	23	27	25	25	25	22	25	24	23	24	291	
Maher Coal and SCoke Company,	Indiana,	25	24	26	25	25	26	22	26	24	25	22	283	
McCreary Coke Company, Limited,	Indiana,	26	24	27	24	26	24	24	27	25	24	22	293	
Sewickley Gas Coal Company,	Westmoreland, ..	26	23	24	11	24	24	24	24	26	23	22	274	
Arona Gas Coal Company,	Westmoreland, ..	24	21	24	21	24	25	26	29	24	25	25	263	
Madison Gas Coal Company,	Westmoreland, ..	25	23	27	25	25	25	22	25	24	23	22	283	
Westmoreland Coal Company,	Westmoreland, ..	27	24	27	23	23	23	21	25	20.25	23.25	24.50	273.25	
Alexandria Coal Company,	Westmoreland, ..	27	24	26	25	27	26	22	23	24	27	25	24	
American Steel Hoop Company,	Westmoreland, ..	27	24	26	25	27	26	22	23	24	27	25	24	
Derry Coal and Coke Company,	Westmoreland, ..	27	24	27	26	26	25	25	25	27	25	25	287	

Hempfield Coal Company,	27	24	27	25	21	20	18	17	17	24	25	270
Latrobe Coal Company,	27	24	27	25	26	25	25	25	25	25	25	307
Claridge Gas Coal Company,	25	23	27	16	22	17	25	24	27	24	25	280
Manor Gas Coal Company,	26	24	27	23	26	25	22	22	25	25	24	287
Millwood Coal and Coke Company,	27	23	26	25	24	22	24	26	23	23	24	292
J. A. Strickler Coke Company, Limited,	27	22	27	25	27	26	24	27	24	30	31	242
Spring Hill Gas Coal Company,	30	28	31	30	31	31	31	30	31	30	31	365
M. Saxman, Jr., and Company,	25	24	29	25	23	22	23	22	26	21	25	357
Blairsville Coke Company,	25	24	29	25	23	22	23	22	26	21	25	357
Indiana,	25	20	24	22	24	20	21	23	24	23	23	375
Breburn Steel Company,	28	24	27	25	26	26	25	27	25	25	25	310
Indiana,	27	22	26	25	25	21	23	24	6	24	25	310
Bollivar Coal and Coke Company,	26	24	27	25	26	26	23	23	4	16	22	24
Penn Manor Shaft Company,	26	22	26	20	16	16	20	17	21	23	18	246
Weinman Brothers,	27	24	27	25	21	23	24	24	22	26	24	25
G. Voegel,	26	23	27	25	27	20	18	24	26	27	26	25
W. J. Rahay,	27	24	27	25	23	16	17	15	22	26	27	255
Donohoe Coal and Coke Company,	21	23	25	24	24	24	23	13	12	25	24	350
Painter and Pogg,	27	24	27	25	23	16	17	15	22	26	27	255
Reece, Hammond Fire Brick Company,	27	24	27	25	24	24	23	13	12	25	24	350
Salemn Coal Company,	27	24	27	25	27	25	27	25	21	23	24	337
Straff Coal Company,	27	24	27	25	27	25	27	25	21	23	24	311
Indiana,	27	24	27	25	27	25	27	25	21	23	24	311
Westmoreland,	27	24	27	25	27	25	27	25	21	23	24	311
Indiana,	27	24	27	25	27	25	27	25	21	23	24	311
Westmoreland,	27	24	27	25	27	25	27	25	21	23	24	311
Indiana,	27	24	27	25	27	25	27	25	21	23	24	311
Westmoreland,	27	24	27	25	27	25	27	25	21	23	24	311
Indiana,	27	24	27	25	27	25	27	25	21	23	24	311
Westmoreland,	27	24	27	25	27	25	27	25	21	23	24	311
Indiana,	27	24	27	25	27	25	27	25	21	23	24	311
Westmoreland,	27	24	27	25	27	25	27	25	21	23	24	311
Indiana,	27	24	27	25	27	25	27	25	21	23	24	311
Westmoreland,	27	24	27	25	27	25	27	25	21	23	24	311
Indiana,	27	24	27	25	27	25	27	25	21	23	24	311
Westmoreland,	27	24	27	25	27	25	27	25	21	23	24	311
Indiana,	27	24	27	25	27	25	27	25	21	23	24	311
Westmoreland,	27	24	27	25	27	25	27	25	21	23	24	311
Indiana,	27	24	27	25	27	25	27	25	21	23	24	311
Westmoreland,	27	24	27	25	27	25	27	25	21	23	24	311
Indiana,	27	24	27	25	27	25	27	25	21	23	24	311
Westmoreland,	27	24	27	25	27	25	27	25	21	23	24	311
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Westmoreland,	27	24	27	25	27	25	27	25	21	23	24	311
Indiana,	27	24	27	25	27	25	27	25	21	23	24	311
Westmoreland,	27	24	27	25	27	25	27	25	21	23	24	311
Indiana,	27	24	27	25	27	25	27	25	21</			

TABLE IV.—List of fatal accidents that occurred in and about the mines of the Second Bituminous District, for the year ending December 31, 1900.

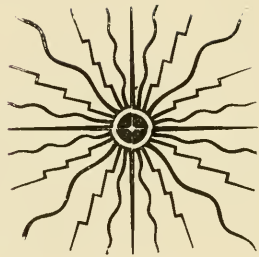
Date of accident.	Name of Person.	Nationality by Birth.	Occupation.	Age.	Married or single.	Number of widows.	Number of orphans.	Name of Colliery.	County.	Nature and Cause of Accident in Brief.
Jan. 11	George Scott,	American, ..	Miner,	19	S.	.....	.....	Claridge,	Westmoreland, ..	Killed by a fall of slate at face of room.
16	George Brecko,	Austrian, ..	Miner,	43	S.	.....	.....	Pleasant Valley, ..	Westmoreland, ..	Killed by a fall of slate at face of room.
25	John Jeffries,	American, ..	Driver,	23	S.	.....	.....	Westmoreland shaft, ..	Westmoreland, ..	Run over by cars.
31	Isaac Emburg,	Swede,	Miner,	37	M.	1	4	No. 2 Penn Gas, ..	Westmoreland, ..	Fatally injured by a fall of coal and slate.
Feb. 2	James Kuhns,	American, ..	Miner,	18	S.	.....	.....	S. H. Smith,	Westmoreland, ..	Instantly killed by a fall of coal and slate.
7	Henry G. Theobald,	American, ..	Door boy,	14	S.	.....	.....	Greensburg No. 2, ..	Westmoreland, ..	Fatally injured; run over by cars.
9	William Welster,	American, ..	Miner,	20	S.	.....	.....	Spring Hill,	Allegheny,	Killed by a fall of slate at face of room.
March 5	George Grove,	American, ..	Miner,	32	M.	1	2	Jamison No. 1, ..	Westmoreland, ..	Fatally injured by a fall of coal.
8	John Gartland,	American, ..	Driver,	23	S.	.....	.....	Acme,	Westmoreland, ..	Fatally injured by being caught between wagon and coal pillar.
15	Joseph Wall,	Austrian, ..	Miner,	32	M.	1	2	Export,	Westmoreland, ..	Fatally injured by a fall of slate.
27	Martin Mikulik,	Slav,	Outside borer, ..	la-37	S.	.....	.....	Loyalhanna No. 1, ..	Westmoreland, ..	Killed by falling down shaft.
April 9	Henry Wagner,	American, ..	Miner,	31	S.	.....	.....	Whitney,	Westmoreland, ..	Crushed between cars.
May 2	John Durkin,	Irish,	Miner,	41	M.	1	3	Alexandria,	Westmoreland, ..	Fatally injured by a fall of slate.
5	Andrew Shadneck,	Slav,	Miner,	32	M.	1	1	Dorothy,	Westmoreland, ..	Instantly killed by being caught between car and coal pillar.
9	John Brady,	Irish,	Miner,	60	M.	1	.....	Sewickley,	Westmoreland, ..	Foot crushed between cars; died May 22d.
10	Niek Moore,	Italian,	Outside borer, ..	la-52	M.	1	.....	Sewickley,	Westmoreland, ..	Run over by cars; died May 12th.
12	William Cole,	American, ..	Miner,	22	S.	.....	.....	Pleasant Valley, ..	Westmoreland, ..	Fatally injured by a fall of slate.
16	Robert Goodman,	Welsh,	Driver,	40	M.	1	2	Hecla No. 2,	Westmoreland, ..	Killed; run over by cars.
24	Antonio Martinelli,	Italian,	Miner,	44	M.	1	.....	Oak Hill No. 5, ..	Allegheny,	Run over by cars.
28	Steven Hladek,	Slav,	Miner,	25	S.	.....	.....	No. 4 Penn Gas, ..	Westmoreland, ..	Fatally injured by a fall of coal.
June 2	Simon Deemer,	American, ..	Driver,	22	M.	1	2	Empire,	Westmoreland, ..	Killed by a trip of loaded wagons.
4	John Carmack,	Bohemian, ..	Outside man, ..	fire-24	S.	.....	.....	No. 2 Penn Gas, ..	Westmoreland, ..	Killed by falling down shaft.

5	Henry Ridley,	English,	Miner,	44	M.	1	Hemfield,	Westmoreland,	Killed by a fall of coal.
5	Mike Petruski,	Slav,	Outside laborer,	25	M.	1	Denohoe,	Westmoreland,	Run over by cars; died in an hour.
6	John Whorola,	Slav,	Miner,	36	M.	1	Mammoth shaft,	Westmoreland,	Fatally injured by a fall of roof.
21	Thomas Valick,	Pole,	Miner,	40	S.	4	Saint Clair,	Westmoreland,	Fatally injured by fall of slate.
21	John McIntyre,	Scotch,	Inshle laborer,	73	M.	1	No. 1 B shaft,	Westmoreland,	Instantly killed by being struck by loaded wagons.
19	Barto Marco,	Italian,	Machine runner,	26	S.	.....	Export,	Westmoreland,	Killed by electric shock
10	George F. Wallace,	American,	Machine scraper,	27	M.	1	Graceton No. 2,	Indiana,	Instantly killed by a fall of roof.
10	Joseph Yedlteska,	Bohemian,	Machine loader,	44	M.	1	No. 2 Penn Gas,	Westmoreland,	Fatally injured by a fall of slate.
17	Luigi Peretto,	Italian,	Miner,	31	M.	1	Millwood,	Westmoreland,	Instantly killed by a fall of slate.
17	William Weible,	American,	Door boy,	13	S.	.....	Larimer,	Westmoreland,	Fatally injured by being caught between cars and coal pillar.
20	John Saranko,	Slav,	Miner,	21	S.	.....	United,	Westmoreland,	Instantly killed by a fall of slate.
21	William Schrader,	German,	Miner,	23	M.	1	Whitney,	Westmoreland,	These men were instantly killed by the same fall of slate.
21	Peter Kallop,	Bohemian,	Miner,	21	S.	.....	Whitney,	Westmoreland,	Instantly killed by a fall of slate.
27	Mike Cohambo,	Pole,	Miner,	21	S.	.....	No. 3 S. West,	Westmoreland,	Fatally injured by a fall of slate.
28	Michael Spidl, Jr.,	Pole,	Miner boy,	14	S.	.....	Larimer,	Westmoreland,	Fatally injured by a fall of slate.
Aug.	Francis Barbo,	Austrian,	Miner,	33	S.	.....	Claridge,	Westmoreland,	Instantly killed by a fall of roof.
6	Samuel Cook,	American,	Miner,	30	M.	1	Marriage,	Westmoreland,	Instantly killed by a fall of roof.
12	Augusto Vidiana,	Italian,	Miner,	24	M.	.....	No. 1 A,	Westmoreland,	Instantly killed by a fall of roof.
13	John Okala,	Slav,	Miner,	24	M.	.....	No. 1 A,	Westmoreland,	Instantly killed by a fall of roof.
21	Thomas Stevenson,	English,	Outside offer,	16	S.	.....	Saint Clair,	Westmoreland,	Fatally injured; crushed by cars.
29	Wm. Campfield,	American,	Miner,	24	S.	.....	Arona,	Westmoreland,	Fatally injured by a fall of slate.
29	Wm. Barns,	English,	Miner,	30	M.	1	Monastery,	Westmoreland,	Instantly killed by a fall of slate.
Oct.	Geo. W. Altman,	American,	Miner,	51	M.	1	Denmark,	Westmoreland,	Instantly killed by a fall of coal.
4	John Shedlock,	Slav,	Miner,	48	M.	1	N. 1 "A,"	Westmoreland,	Instantly killed by a fall of roof.
29	Nichola Dabato,	Italian,	Machine loader,	28	M.	1	Larimer,	Westmoreland,	Fatally injured by being caught between wagon and coal pillar.
30	Fredertick Slagle,	German,	Miner,	57	M.	1	Oak Hill No. 4,	Allegheny,	Struck on head by a post.
3	Eli Rubetch,	Pole,	Machine loader,	21	S.	.....	Export,	Westmoreland,	Instantly killed by a fall of slate.
1	Stephen McGosh,	Hungarian,	Miner,	55	M.	.....	Marguerite No. 1,	Westmoreland,	Struck by a small piece of slate; died December 8th.
4	Salvato Carriere,	Italian,	Miner,	35	M.	.....	Alexandria,	Westmoreland,	Instantly killed by a fall of coal.
7	Gay Wetmar,	American,	Engineer,	31	S.	.....	Hosetier,	Westmoreland,	Instantly killed by cars.
8	Joseph Palula,	Pole,	Miner,	25	S.	.....	Hosetier,	Westmoreland,	Fatally injured by a fall of roof.
21	Stephen Krausak,	Pole,	Miner,	34	M.	1	Denmark,	Westmoreland,	Instantly killed by a fall of roof.
19	John Muzer,	Pole,	Miner,	19	S.	.....	Denmark,	Westmoreland,	Instantly killed by a fall of coal.
22	Joseph Cashna,	Slav,	Miner,	33	M.	1	No. 3 S. West,	Westmoreland,	Instantly killed by a fall of roof.

TABLE V.—List of non-fatal accidents that occurred in and about the mines of the Second Bituminous District, for the year ending December 31, 1900.

Date of accident.	Name of Person.	Nationality by Birth.	Occupation.	Age.	Marr'd or single.	Name of Colliery.	Locality.	Nature and Cause of Accident in Brief.
Jan. 1	C. Bowden,	English,	Machinist, ..	55	M.	United,	Westmoreland, ..	Leg injured by falling cage, necessitating amputation.
5	Joseph Eckler,	American, ..	Driver,	32	M.	Arona,	Westmoreland, ..	Right ankle fractured; caught between cars.
16	Thomas Wiley,	Pole,	Miner,	32	S.	Atlantic No. 1,	Westmoreland, ..	Back bruised by fall of coal.
23	Michael Carrither,	Irish,	Boss roadman, ..	41	M.	Standard shaft No. 2,	Westmoreland, ..	Leg fractured by cars, necessitating amputation.
25	Robert Edmunds,	American, ..	Driver,	24	S.	Westmoreland shaft,	Westmoreland, ..	Head and body bruised; caught between wagon and coal pillar.
Feb. 2	David Nossello,	Italian,	Miner,	43	M.	Plum Creek,	Allegheny,	Leg broken and breast injured by fall of coal.
8	John Wiek,	American, ..	Oiler,	16	S.	"A" shaft,	Westmoreland, ..	Collar bone broken; caught between cars.
9	Wm. Risdon,	English,	Roadman,	64	S.	Clardge,	Westmoreland, ..	Fall of coal.
13	Vincent Snedden,	American, ..	Rope rider,	20	M.	"B" shaft,	Westmoreland, ..	Right leg broken; thrown from cars.
19	Edward Ditman,	Bohemian, ..	Driver,	25	S.	Loyalhanna No. 1,	Westmoreland, ..	Arm broken; tripped and fell.
21	Joseph Shaffer,	German,	Miner,	36	S.	No. 1 Penn Gas,	Westmoreland, ..	Leg broken while drawing timber.
23	John Yanson,	American, ..	Miner,	48	S.	S. H. Smith,	Westmoreland, ..	Face badly crushed; struck by car.
28	John Linn,	Italian,	Miner,	26	S.	Pandora,	Westmoreland, ..	Leg broken by fall of coal.
22	John Linn,	Swede,	Mine laborer, ..	41	M.	No. 2 Penn Gas,	Westmoreland, ..	Small bone in leg, one rib and nose broken by a fall of slate.
26	James Miles,	English,	Miner,	62	M.	Ocean shaft No. 1,	Westmoreland, ..	Badly bruised on arm and leg by a fall of slate.
26	James Johnson,	American, ..	Miner,	27	S.	United,	Westmoreland, ..	Squeezed between car and coal pillar.
30	Willis Nicholson,	American, ..	Driver,	35	M.	Calumet,	Westmoreland, ..	Both legs broken above the knees; fall of roof.
5	Alexander Davenport,	American, ..	Mine foreman, ..	60	M.	Strickler,	Westmoreland, ..	Flesh wound on leg, by a fall of coal.
5	Andrew Carlson,	Swede,	Miner,	36	M.	Greensburg No. 2,	Westmoreland, ..	Leg broken by a fall of roof.
17	Paul Urick,	Slav,	Miner,	32	M.	Hosletter,	Westmoreland, ..	Rib fractured by a fall of roof.
17	John Pendrook,	Slav,	Miner,	30	M.	Hosletter,	Westmoreland, ..	Leg fractured by a fall of slate.
20	Dominico Pronzaglio,	Italian,	Miner,	32	M.	No. 4 Penn Gas,	Westmoreland, ..	Leg broken by a fall of coal.
25	John Kinsinger,	American, ..	Miner,	34	M.	Derry shaft,	Westmoreland, ..	Collar bone broken; thrown from cars.
25	Henry Shrum,	American, ..	Driver,	48	M.	Millwood,	Westmoreland, ..	Leg broken and back injured; caught against the roof while riding on cars.
28	Paul Pavliskl,	Russian,	Miner,	31	S.	No. 2 South West,	Westmoreland, ..	

May	2	John Shetler,	American,	Miner,	32	M. Burrell No. 2,	Indiana,	Leg broken by a fall of slate.
	16	Joseph Lee,	Italian,	Miner,	28	S. Millwood,	Westmoreland,	Slightly burned by an explosion of gas.
	17	Wm. N. Sonnegg,	Swede,	Driver,	29	M. Carbon,	Westmoreland,	Leg broken by displacement of rail.
	22	Ernest Parsons,	English,	Driver,	23	S. Monastery,	Westmoreland,	Squeezed between car and coal pillar.
	31	Benjamin Hewlet,	English,	Miner,	36	M. Hemphill,	Westmoreland,	Leg broken by cars.
June	6	John Dobrodski,	Slav,	Miner,	42	M. Mammoth shaft,	Westmoreland,	Severely injured by a fall of roof.
	22	Fred. Hass,	German,	Miner,	42	No. "A," S. West,	Westmoreland,	Skull fractured; struck by a post.
	22	Frank Borcas,	Slav,	Miner,	40	M. Calumet,	Westmoreland,	Leg broken near ankle and ankle dislocated by a fall of slate.
	23	Oliver Wallace,	American,	Driver,	27	S. Donohoe,	Westmoreland,	Arm badly bruised; caught between cars.
	27	Thomas Watkins,	English,	Miner,	26	M. No. 2 Penn West,	Westmoreland,	Leg broken by a fall of slate.
	28	Charles Adams,	American,	Miner,	46	No. 3 South West,	Westmoreland,	Back bruised by a fall of slate.
	28	Samuel Sully,	Irish,	Roadman,	43	M. Donohoe,	Westmoreland,	Arm broken by a fall of slate.
July	2	Godfried Miller,	German,	Driver,	33	M. Ocean No. 1,	Westmoreland,	By a fall of slate.
	7	John Johnson,	American,	Driver,	23	M. Mammoth shaft,	Westmoreland,	Back broken by a fall of roof.
	31	Joseph Koary,	Austrian,	Miner,	34	S. Claridge,	Westmoreland,	Hand cut and legs bruised by falling under cars.
Aug.	17	Antonio Demilo,	Italian,	Miner,	27	M. No. 1 "A" shaft,	Westmoreland,	Leg crushed by a fall of coal, necessitating amputation.
Sept.	19	Wm. Hillwig,	German,	Roadman,	41	M. Greensburg No. 2,	Westmoreland,	Arm broken at wrist while descending the shaft on the cage.
Oct.	2	John Barrett,	American,	Miner,	36	M. No. 1 Penn Gas,	Westmoreland,	Small bone in left leg broken; struck by a timber.
	13	Conrad Smith,	German,	Miner,	41	S. No. 4 Penn Gas,	Westmoreland,	Back and breast bruised by a fall of slate.
	29	John Intinour,	Austrian,	Machine scraper,	26	S. Ocean No. 1,	Westmoreland,	Hip dislocated; fall of slate.
Nov.	1	Phillip Plant,	Italian,	Driver,	23	S. Pandora,	Westmoreland,	Leg broken by a fall of slate.
	2	John Preistos,	Austrian,	Miner,	53	M. Standard shaft,	Westmoreland,	Flesh wound on thigh; caught between wagon and coal pillar.
	12	Andrew Hoyas,	Slav,	Miner,	28	S. Marguerite No. 2,	Westmoreland,	Collar bone and rib broken; caught between car and door frame.
Dec.	14	Jacob Spalm,	American,	Miner,	42	M. Salem,	Westmoreland,	Arm broken; caught between car and coal pillar.
	19	Michael Berat,	Pole,	Miner,	38	M. Penn Manor,	Westmoreland,	Right leg fractured by a fall of slate.
	1	Harry Blystone,	American,	Driver,	24	M. Puritan,	Westmoreland,	Leg broken by a fall of slate.
	5	Wm. Moore,	American,	Frakeman,	31	M. Derry,	Westmoreland,	Hip dislocated; caught between car and pillar.
	11	Wm. A. Brown,	American,	Miner,	32	M. Spring Hill,	Allegheny,	Leg broken and cut on chin; fell from car.
	13	Charles Klechler,	Slav,	Miner,	40	M. Donohoe,	Westmoreland,	Skull fractured; struck by coal from a blast of coal.
	14	Charles Leffler,	American,	Driver,	18	S. Carbon,	Westmoreland,	Shoulder fractured and hip bruised by a fall of coal.
	17	Jacob I. Bank,	American,	Tippleman,	24	S. Donohoe,	Westmoreland,	Arm crushed, necessitating amputation; run over by cars.
							Westmoreland,	Leg crushed below knee; fell between cars.



Third Bituminous District.

ARMSTRONG, BUTLER, CLARION, INDIANA, JEFFERSON, LAWRENCE, MERCER, WESTMORELAND AND BEAVER COUNTIES.

Mercer, Pa., February, 1901.

Hon. James W. Latta, Secretary of Internal Affairs:

Sir: In compliance with the provisions of the act of Assembly, approved May 5, 1893, I herewith submit my annual report of the inspection of mines of the Third Bituminous District for the year ending December 31, 1900.

Six persons lost their lives in the mines of this district this year; in 1899 there were eight fatalities, but the non-fatal accidents have increased in number thirty-two. I am of the opinion that the increase in the number of non-fatal accidents is largely due to a more accurate record of them having been kept and returned to this office by the mine foremen than in the past. Three of the fatal accidents were the results of thoughtlessness and carelessness of the victims, and the other three were due to mistaken judgment.

This has been the most prosperous year in the history of this district. There was an increase of 693,785 tons of coal produced over that of last year and an increase in the number of employes of 1,469. Twenty new mines were opened during the year, while only five have been abandoned. Other mines are still in progress of being opened.

The mines as a whole are in reasonably good condition. The information relative to their condition as well as the statistical data in connection therewith will be found in another part of this report.

All of which is respectfully submitted.

THOMAS K. ADAMS,
Inspector.

The following is a summary of the mining statistics and a classification of the accidents in the district. The figures denoting production, shipments, etc., are short tons:

Number of mines in the district,	80
Number of mines in operation during 1900,	83
Number of tons of coal produced,	4,923,877
Number of tons shipped,	4,660,293
Number of tons used in the manufacture of coke, ..	160,652
Number of tons used for steam at the mines,	51,967
Number of tons sold to employes and others,	50,965
Number of tons produced by pick mining, approxi- mately,	2,773,471
Number of tons produced by compressed air machines, approximately,	2,102,406
Number of tons produced by electrical machines, ap- proximately,	48,000
Number of coke ovens,	403
Number of tons of coke produced,	95,501
Number of persons employed inside of mines,	6,791
Number of persons employed outside of mines,	859
Number of mules in use inside of the mines,	604
Number of fatal accidents,	6
Number of tons of coal produced per each fatal acci- dent,	820,646+
Number of non-fatal accidents,	53
Number of tons of coal produced per each non-fatal accident,	92,903.3
Number of persons employed per each fatal accident,	1,275
Number of persons employed per each non-fatal acci- dent,	144.5
Number of wives left widows by accidents,	3
Number of orphans,	10
Number of kegs of powder used,	17,226
Number of pounds of dynamite used,	9,681
Number of cylindrical boilers in use,	29
Number of tubular boilers in use,	84
Number of steam locomotives,	5
Number of electric motors,	4
Number of new mines opened,	20
Number of old mines abandoned,	5
Average number of days worked at all of the mines, ..	220.84

TABLE A.—Showing the total tonnage, number of lives lost, tons of coal produced per life lost and persons injured, total number of employees and the number of employees per life lost and the average number of tons of coal produced per employee.

Name of Companies.	Total number of tons of coal produced.	Number of lives lost.	Number of tons of coal produced per life lost.	Number of persons seriously injured.	Number of tons of coal produced per person seriously injured.	Total number of persons employed.	Number of persons employed per life lost.	Number of employees per person injured.	Average number of tons of coal produced per employe.
Joseph G. Beale	26,711			2	63,557.5	53			
Avonmore Coal and Coke Company	127,115					122		61	
Avondale Mining and Manufacturing Company	26,472			1	26,472	56			
Joseph G. Beale and Company	23,256					48		48	
Butts Cannel Coal Company	62,335			2	31,172.5	69			
Beaver Coal and Coke Company	85,840					121		60.5	
Peale, Peacock and Kerr	24,630					70			
Brinker Coal and Iron Company	59,686			1	59,686	90		90	
Lewis Coal Company	95,011			3	31,670.3	135		45	
Keystone Coal Mining Company	4,721	1	4,721			32	32		
Bowman Coal Mining Company	31,684					72		72	
Cherry Run Coal Mining Company	23,012			1	31,684	43		43	
Guthrie Run Coal Company	11,670			1	23,012	25		25	
Carver Coal Company	39,588					53			
Covansville Mining Company	148,163			1	6,263	48		48	
J. W. Ganoe	44,242					245			
Darlington Brick and Mining Company	5,000					160			
Grove Coal Company	71,469					14			
F. D. Sherwin	23,159					162			
M. A. and Joseph Lehner	45,944					65			
Wampum Run Coal Company	51,717			1	51,717	134		134	
Farmount Coal and Coke Company	389,418	1	389,418			563	563		
Glipin Coal Company	71,068			1	71,068	112		112	
R. Smith	34,690			1	34,690	36		36	
Hood Coal Company	21,675					31			
Hill Coal Company	48,726					69			
Hickory Coal Company	34,668			2	27,334	88		44	
Jefferson, Clearfield Coal and Iron Company	1,690,371	1	1,690,370	19	88,961.6	84		84	
Pittsburg and Buffalo Company	4,700					39			
Kerr Coal Company	52,090	1	4,850			1,922	1,922	101.1	
American Sheet Steel Company	24,075			1	24,075	104		39	
						23		23	

TABLE A—Continued.

Name of Companies.	Total number of tons of coal produced.	Number of lives lost.	Number of tons of coal produced per life lost.	Number of persons seriously injured.	Number of tons of coal produced per person seriously injured.	Total number of persons employed.	Number of persons employed per life lost.	Number of employees per person injured.	Average number of tons of coal produced per employe.
Turner Coal and Coke Company.	58,241			2	50,750	98			
C. P. McCafferty.	41,100					80		40	
Mosgrove Coal Works.	50,980					125			
Monterey Coal Company.	36,308					62			
F. A. Mizener.	48,652			1	48,652	14		114	
O'Neill Coal Company.	14,413					27			
Verde Coal Company.	15,533					41			
Phila. Ridge Mining Coke Company.	13,573					98			
Fenn Coal Company.	13,832					47			
Fisher Brothers.	75,384			3	55,461.8	116		38.66	
Carrier Brothers.	18,402			2	9,201.8	46		23	
Leechburg Coal and Coke Company.	86,012					104			
Riverview Coal Mining Company, Limited.	84,485			3	2,161.3	118		33.3	
George Tener.	49,813					108			
Royal Coal Company.	22,469	1	23,409			49			
W. H. Warner.	66,988					86			
Sterling Coal Company.	17,518					49			
State Line Coal Company.	4,350					47			
W. G. Stage and Coal Company.	83,498					186			
C. G. Stage.	32,647					69			
Campbell-Lowther Coal Company.	1,260					33			
Standell Coal Mining Company.	11,502					23			
Thompson Run Coal Company.	55,229					100			
Underwood Coal Company.	5,257					11			
James S. Moore.	2,210					31			
West Penn Mining Company.	33,310					74			
Cowanshanock Coal and Coke Company.	148,108			1	74,044	296		148	
Bagdad Coal and Coke Company.	6,825			1	3,412.5	32		16	
Total and average.	4,923,877	6	\$2,646.1	57	\$2,903.3	7,650	1,275	144.4	643.4

TABLE B—Classification of Accidents.

	Killed.	Injured.	Total.
Falls of coal and roof,	5	28	33
Mine cars,		11	11
Explosive gas,		1	1
Premature explosion of powder,		6	6
Miscellaneous, inside,	1	4	5
Miscellaneous, outside,		3	3
Total,	6	53	59

TABLE C—Occupations of Persons Killed and Injured.

	Killed.	Injured.	Total.
Miners,	5	30	35
Drivers,		5	5
Loaders,		4	4
Repair men and timber man,	1	4	5
Weighmaster and check weighmaster,		2	2
Rope riders and trappers (two of each),		4	4
Mining machine men,		3	3
Fireman,		1	1
Total,	6	53	59

TABLE D—Nationalities of Persons Killed and Injured.

	Killed.	Injured.	Total.
Americans,	4	27	31
English,	1	5	6
Irish,		2	2
German,		3	3
Swedes,		3	3
Italians,		2	2
Slavs,	1	2	3
Poles,		1	1
Total,	6	53	59

TABLE E—Giving the name of mine, method of haulage, ventilation, whether drift, slope or shaft, pick or machine mine in the Third Bituminous District.

Name of Mine.	Haulage.	Fan or Furnace.	Drift, Slope or Shaft.	Pick or Machine.	Type of Machine.	Power Used with Machines.
Aladdin,	Mule,	Furnace,	Drift,	Pick, .....	.....	.....
Avonmore,	Mule and rope,	Fan,	Drift,	Pick, .....	.....	.....
Avondale,	Mule,	Furnace,	Drift,	Pick, .....	.....	.....
Beale,	Mule,	Furnace,	Drift,	Pick, .....	.....	.....
Batts Cannel,	Mule,	Fan,	Shaft,	Pick and machine,	Sullivan,	Compressed air.
Beaver No. 1,	Mule and rope,	Fan,	Drift,	Pick and machines,	Ingersol,	Compressed air.
Beaver No. 2,	Mule,	Fan,	Drift,	Pick and machines,	Ingersol,	Compressed air.
Washington No. 3,	Mule and rope,	Fan,	Drift,	Pick and machines,	Ingersol,	Compressed air.
Blackstone,	Mule,	Furnace,	Drift,	Pick,	Sullivan,	Compressed air.
Blackstone,	Mule,	Furnace,	Drift,	Pick, .....	.....	.....
Brady's Bend,	Mule and rope,	Furnace,	Drift,	Pick and machine,	Jeffrey,	Electricity.
Bowman,	Mule,	Furnace,	Drift,	Pick, .....	.....	.....
Cherry Run,	Mule and rope,	Furnace,	Drift,	Pick, .....	.....	.....
Catfish Run,	Mule,	Furnace,	Drift,	Pick, .....	.....	.....
Clayton,	Mule,	Furnace,	Drift,	Pick, .....	.....	.....
Carver,	Mule,	Fan,	Shaft,	Pick, .....	.....	.....
Carrier,	Mule,	Fan,	Drift,	Pick, .....	.....	.....
Cowansville,	Mule,	Furnace,	Drift,	Pick, .....	.....	.....
Diamond No. 1,	Mule,	Fan,	Shaft,	Pick, .....	.....	.....
Diamond No. 2,	Mule,	Furnace,	Drift,	Pick, .....	.....	.....
Darlington,	Mule,	Furnace,	Drift,	Pick, .....	.....	.....
Enterprise—M,	Mule,	Fan,	Shaft,	Pick, .....	.....	.....
Enterprise—B,	Mule,	Natural,	Drift,	Pick, .....	.....	.....
Leagle,	Mule and rope,	Furnace,	Drift,	Pick and machines,	Sullivan,	Compressed air.
Excelsior No. 3,	Mule,	Furnace,	Drift,	Pick, .....	.....	.....
Fairmount No. 1,	Mule and rope,	Fan,	Drift,	Pick and machines,	Harrison,	Compressed air.
Fairmount No. 2,	Mule and rope,	Fan,	Drift,	Pick, .....	.....	.....
Fairmount No. 4,	Mule and electric motor,	Fan,	Drift,	Pick and machines,	Harrison,	Compressed air.
Gilpin,	Mule,	Furnace,	Drift,	Pick, .....	.....	.....
Glen,	Mule,	Furnace,	Drift,	Pick, .....	.....	.....
Hoydale,	Mule,	Furnace,	Drift,	Pick, .....	.....	.....
Hill,	Mule,	Furnace,	Drift,	Pick, .....	.....	.....
Hill,	Mule and rope,	Fan,	Drift,	Pick, .....	.....	.....
Hickory,	Mule and rope,	Fan,	Shaft,	Pick, .....	.....	.....
Hamilton,	Mule and rope,	Fan,	Drift,	Pick and machine,	Harrison,	Compressed air.
Johnetta,	Mule and electric motor,	Furnace,	Drift,	Pick and machines,	Jeffrey,	Electricity.
Kerr No. 1,	Mule,	Furnace,	Drift,	Pick, .....	.....	.....
Kerr No. 8,	Mule,	Furnace,	Drift,	Pick, .....	.....	.....
Kirkpatrick,	Mule,	Furnace,	Drift,	Pick, .....	.....	.....
Keystone, C,	Mule,	Furnace,	Drift,	Pick, .....	.....	.....
Keystone No. 1 B,	Mule,	Fan,	Drift,	Pick, .....	.....	.....

Keystone No. 2, B.	Mule.	Furnace.	Drift.	Pick.	Pick and machines.	Sullivan.	Compressed air.
Monarch.	Mule.	Fan.	Drift.	Pick.	Pick and machines.	Sullivan.	Compressed air.
Mosgrove.	Mule.	Furnace.	Drift.	Pick.	Pick and machines.	Harrison.	Compressed air.
Monterey.	Mule.	Furnace.	Drift.	Pick.	Pick and machines.	Sullivan.	Compressed air.
Maplewood.	Mule and rope.	Fan.	Drift.	Pick.	Pick and machine.	Sullivan.	Compressed air.
Mizener.	Mule.	Furnace.	Slope.	Pick.	Pick and machine.	Sullivan.	Compressed air.
Grant.	Mule.	Fan.	Drift.	Pick.	Pick and machine.	Sullivan.	Compressed air.
Oak Ridge No. 3.	Mule and rope.	Fan.	Drift.	Pick.	Pick and machine.	Sullivan.	Compressed air.
Oak Ridge No. 5.	Mule and rope.	Fan.	Drift.	Pick.	Pick and machine.	Sullivan.	Compressed air.
Penn Run.	Mule.	Furnace.	Drift.	Pick.	Pick.		
Pardoe.	Mule and locomotive.	Fan.	Drift.	Pick.	Pick.		
Riverview, W.	Mule.	Furnace.	Drift.	Pick.	Pick.		
Riverview, A.	Mule and rope.	Fan.	Drift.	Pick.	Pick.		
Rock Point.	Mule.	Furnace.	Drift.	Pick.	Pick.		
Royle.	Mule.	Furnace.	Drift.	Pick.	Pick.		
Sherwin.	Mule.	Fan.	Slope.	Pick.	Pick and machines.	Harrison.	Compressed air.
Soldier No. 1.	Mule and rope.	Fan.	Drift.	Pick.	Pick and machines.	Harrison.	Compressed air.
Soldier No. 2.	Mule and rope.	Fan.	Drift.	Pick.	Pick.		
Steing, B.	Mule and rope.	Fan.	Drift.	Pick.	Pick.		
Steing, C.	Mule.	Furnace.	Drift.	Pick.	Pick.		
Silco.	Mule.	Natural.	Drift.	Pick.	Pick.		
State Line.	Mule and rope.	Fan.	Drift.	Pick.	Pick.		
Stonsboro No. 2.	Mule.	Furnace.	Slope.	Pick.	Pick.		
Stonsboro No. 3.	Mule and rope.	Fan.	Slope.	Pick.	Pick and machines.	Harrison.	Compressed air.
Sherwood.	Mule and rope.	Fan.	Drift.	Pick.	Pick and machines.	Harrison.	Compressed air.
Stage.	Mule.	Furnace.	Drift.	Pick.	Pick.		
Standard, C.	Mule.	Furnace.	Drift.	Pick.	Pick.		
Standard, B.	Mule.	Furnace.	Drift.	Pick.	Pick.		
Rathmel.	Mule and rope.	Fan.	Drift.	Pick.	Pick and machines.	Harrison.	Compressed air.
Thompson Run.	Mule.	Natural.	Drift.	Pick.	Pick.		
Underwood.	Mule.	Furnace.	Drift.	Pick.	Pick.		
West Penn.	Mule.	Furnace.	Drift.	Pick.	Pick.		
Yatesboro No. 1.	Mule and electric motors.	Fan.	Drift.	Pick.	Pick and machines.	Harrison.	Compressed air.
Yatesboro No. 2.	Mule and electric motors.	Fan.	Drift.	Pick.	Pick and machines.	Harrison.	Compressed air.
Virginia.	Mule and rope.	Fan.	Drift.	Pick.	Pick and machines.	Harrison.	Compressed air.

Description of New Mines Opened During the Year 1900.

Mines Situated in Armstrong County.

Brady's Bend.—This is a drift mine opened on the Lower Kittanning coal seam; the coal is about 3 feet 4 inches thick. This opening is situated on the west side of the Allegheny river, while the tipples and railroad are located on the east side. The product is conveyed from the mine to the tippie in buckets holding 5 cwt. of coal each, by a gravity rope system. The coal seam is being worked on the gob, double entry system. The coal is being mined by three Jeffrey mining machines (chain cutter type). The electricity for these machines is conveyed by bare wires but the machines are operated only at night. The tail rope system of haulage has been introduced here. A six foot furnace has been built for the purpose of producing ventilation for the mine. I measured 10,600 cubic feet of air per minute circulating throughout the different parts of the mine; it was fairly well drained.

Johnetta.—Is a drift mine opened on the Upper Freeport coal seam, which is about 2 feet 8 inches in thickness. In connection with the mining the slate roof in the rooms is being blown down sent out and made into bricks; the fire clay flood in the entries is also being excavated and sent out to the brick works and manufactured into fire brick. Large brick works have been built by this coal company to be run in connection with the coal operations. The whole plant is to be operated on an extensive scale. Ten coke ovens have been built here. An electric motor has been put into the mine for hauling coal. The three entry system of working the coal and for ventilating the mine has been adopted. They have constructed a small ventilating furnace to produce the ventilation as a temporary means, but the company contemplates erecting a large fan for the purpose in the near future. I measured 8,000 cubic feet of air in circulation in the mine. I found the mine in very good condition.

Oak Ridge No. 3.—This is a drift mine, opened on the Upper Freeport coal seam, which is about 3 feet 8 inches in height. The coal is mined by eight Sullivan mining machines. The power used is compressed air. The mine is being worked on the double entry plan. The ventilation is produced by a six foot diameter Clark fan. The coal is hauled outside of the mine by an endless rope. I measured 14,800 cubic feet of air in circulation, which was being well distributed to the face of the workings. The mine was well drained.

Cowansville.—This is a drift mine operated on the double entry plan; the mine is opened on the Upper Freeport coal seam, which is

about 4 feet 6 inches thick. The ventilation is produced by an 8 foot furnace. I measured about 10,000 cubic feet of air in circulation. The drainage was good except at one point on one of the entries.

Valley.—This is the old Mahoning mine reopened near the close of the year, but I have not visited it yet.

Yatesboro Nos. 1 and 2.—These mines were examined by Inspector Phillips, of the Fourth district, and the following is his report of them:

Yatesboro No. 1.—This is a slope opening into the Upper Freeport coal seam and opened on the three entry system. The centre opening will be used for a haulage way, while the entry on the left of the slope will be the inlet and the one on the right will be used as a manway. The coal will be mined in sections, and each section will be ventilated separately. On my last visit a 13½ ft. x 8 ft. double inlet Capell fan was being installed, which will be used to ventilate Nos. 1 and 2 mines when they are connected. Electric motors are to be used on the main entries to convey coal to the slope. I measured 21,600 cubic feet of air passing around the mine in one current, but it was defective at the face of some of the entries; the other conditions of the mine were very good.

Yatesboro No. 2.—This is a drift mine opened on the same coal seam as No. 1 mine. The mine is opened on the double entry system and is ventilated by a six foot Clark fan, which was producing a volume of 28,800 cubic feet of air per minute, which was conveyed around the workings in one continuous current. The condition of this mine was fairly good as to ventilation and drainage. The coal will be conveyed to the tippie by electric motors; it is being handled in the mine by the same power. The puncher type of mining machines are used for mining the coal, both in this and No. 1 mine. A branch of the Buffalo, Rochester and Pittsburg Railroad, five miles long, has been built to the mines from the town of Echo, Armstrong county.

New Mines Situated in Butler County.

Kerr No. 8.—This is a drift opening which is connected with the tippie by an inclined plane 660 feet long. The Upper Freeport coal seam is being mined, which is about 3 feet 4 inches thick. An air shaft has been sunk, and a temporary furnace constructed for the purpose of producing ventilation. I measured about 13,500 cubic feet of air in circulation. The mine was well drained.

Standard.—This is a drift mine opened on the Brookville coal seam, which is about 3 feet thick. It is a small operation and was found in very fair condition generally. The ventilation is produced by a small furnace.

Nellie.—This is a slope opening on the Brookville seam, which is 3 feet 6 inches thick. The company has erected a 10 foot Crawford and McCrimmon fan to produce ventilation. I measured 27,000 cubic feet of air being distributed throughout the workings.

Grant.—This is a drift mine opened on one of the Kittanning coal seams, about 2 feet 10 inches thick. The coal is being mined by the use of the Sullivan type of mining machines. The means employed for ventilation were very inadequate at the time of my last visit, but I am informed that a fan has been erected for ventilating purposes. The drainage was reasonably good.

New Mines Situated in Clarion County.

Brinker.—This is a drift mine. The coal is the Lower Kittanning seam, which is 2 feet 10 inches thick. The coal is being mined by the Sullivan type of mining machines. The mine is opened on the double entry plan, and pillar and room. The rooms are driven about 50 feet wide. The mine is ventilated by a temporary furnace, which was producing 11,500 cubic feet of air. The coal is hauled from the mouth of the drift to the top of the plane (the distance about one mile) by a locomotive. The tipple, which is located on the B. & A. V. R. R., is connected with the check house by an inclined plane 600 feet long.

Sligo.—This is a drift mine opened on the Lower Kittanning coal seam, which is about 3 feet 4 inches thick. At the date of my last visit the ventilating arrangements were not yet completed, although an air shaft had been sunk, at which the company intends building a furnace. The mine was in very fair condition generally.

Standard.—The mine is a drift opening. The company had just begun to ship coal at the date of my visit. The ventilating arrangements were not yet completed when I was last there. The general condition of the mine was reasonably good.

Sterling.—This drift mine is opened on the Lower Kittanning seam, which is about 3 feet 10 inches thick. The mine is connected with the tipple by an inclined plane of considerable length. The ventilation is produced by a furnace. I measured 72,000 cubic feet of air per minute in circulation. The mine was in reasonably good condition.

Underwood.—This is a drift mine, opened on one of the Kittanning seams, which is about 3 feet 6 inches thick. This mine is not often under the provisions of the law, as it is seldom there are a sufficient number of persons employed at it. I found, however, a lawful number of persons employed during one of my visits to it. I did not find the ventilation sufficient nor the arrangements adequate to supply a lawful quantity of air in it.

Bowman.—Is a drift mine opened on the Pittsburg coal seam, which is about six feet thick. The mine will be worked on the double entry plan, and it is ventilated by a temporary furnace, which was producing about 3,500 cubic feet of air. The ventilation and drainage were good. The tippie, which is situated on the West Penn Railroad, is connected with the check house by an inclined plane 635 feet long.

Darlington.—Is a drift mine. It is a rather small operation, which is operated merely to furnish coal and clay for the brick works there. At present there is not a sufficient number of persons employed to bring it under the mining law. When I last examined the mine it was in reasonably good condition.

Hoytdale.—This is a drift mine, which is the old Baker mine reopened for the purpose of taking out the pillars. At the time of my visit it was in good condition both in regard to ventilation and drainage.

Description of Old Mines.

Mines Located Along the Buffalo and Allegheny Valley Railroad in Armstrong and Clarion Counties.

The eight old mines Aladdin, Glen, Mosgrove, formerly known as Pine Creek, Riverview, Monarch, Catfish Run, Eagle, Monterey, formerly known as Mineral Ridge, in this part of my district, have all been operated reasonably well during the year. A scarcity of railroad cars caused some broken time, but on the whole the operators and miners have experienced a very prosperous year. The sanitary conditions existing in the Aladdin, Riverview, Eagle and Monterey mines were very good. There was a good supply of air circulating in each of them and the drainage was all that could be desired. At the Monarch mine, although a new 8 foot fan was erected this year, there is not as large a volume of air at the face of the workings, where mining machines are being used, as there should be. The fan has not the power to produce sufficient air. The Glen and Catfish Run mines are small operations. They were not in as good condition as they might have been, as the natural advantages are all favorable for securing excellent sanitary conditions. The Mosgrove mine was not in good condition at the time of my last visit, although there are extensive improvements going on with a view of having it brought up to the requirements of the law both in regard to ventilation and drainage. The mode of working the mine has been changed from single to double entry. A new air shaft has been sunk with the intention of building a substantial furnace at it at once, which, when completed, will improve the ventilation of the mines.

Mines Located on the Low Grade Division and Sligo Branch of the Buffalo and Allegheny Valley Railroad.

The ten mines in this division of my district have all done a good business during the year.

I found the Oak Ridge No. 5, Carrier, Avondale and Diamond mines in good condition both in regard to ventilation and drainage. At Keystone No. 2, and Cherry Run mines, although there was a lawful volume of air being produced at each, the current was not strong enough at the face of the workings. The drainage in these mines was fair. The ventilation and drainage in No. 2 Fairmount mine were good, but I found the inner workings of Fairmount Nos. 1 and 4 mines inadequately ventilated, and although the old fans had been replaced by fans of larger dimensions during the year, yet little if any improvement in quantity or quality of air had been accomplished. However, other improvements are going on so that the lawful quantity of air can be had at the face of the workings as well as at the inlets and outlets of the mine.

Mines Situated in the Reynoldsville Region, Jefferson County.

The mines in this region have been operated very steadily during the year.

At the Sherwood, Maplewood, Virginia, Rathmel and Bloomington mines I found a lawful quantity of air circulating in the workings; also the drainage was reasonably good. While I found a lawful quantity of air in circulation in the Hamilton mine it was being conducted in a single current, which was against the requirements of the law; however, immediately after my last visit lawful splits were made. The mine otherwise was in very fair condition. For Soldier Nos. 1 and 2 mines I measured 102,000 cubic feet of air per minute, with the fan running at 65 revolutions, and water gauge one and six-tenth inches. Although this was a lawful volume of air being produced at the inlet, it was not large enough to send a lawful quantity to the face of the inner workings. The company had sunk an outlet shaft near the face of No. 2 mine workings. At the bottom of this shaft one six foot diameter fan has been erected to assist the big fan in producing sufficient air for the mine. Owing to the coal in these two mines being mined by coal cutting machinery and so much powder being used, larger volumes of air will be required to ventilate them properly.

Mines Situated in Beaver and Lawrence Counties.

The mines Beaver, Excelsior No. 3, Rock Point, Thompson Run, Clayton, State Line, Sterling and Butts Cannel, were all operated

reasonably well during the year. At each of them I found a lawful quantity of air in circulation, which was being well distributed to the face of the workings. The drainage in each of them, except at one or two points in the State Line and Beaver No. 2, was reasonably good. In this part of my district the Comessing mine has been abandoned and the Mehard mine has not been in operation under the law during the year. The Penn and Beaver No. 1 mines have not been in operation for any length of time during the last six months.

Mines Located Along the West Penn Railroad in Westmoreland and Armstrong Counties.

The ten mines Kerr No. 1, Blackstone, West Penn, Riverview, Gilpin, Haddon, Kirkpatrick, Pine Run, Beale and Avonmore, were all visited by me frequently during the year. In each of them a lawful quantity of air was being produced and well distributed to the face of the workings, except in the Blackstone mine, where the current was somewhat weak at the face of some of the entries. The drainage in this mine was defective at a few points. The sanitary condition of all of them (with the exception noted) was excellent. At the Avonmore mine a new 16 foot diameter fan has been installed during the year.

Mines Located Along the Pittsburg, Bessemer and Lake Erie Railroad and in Other Parts of Butler and Mercer Counties.

There are in this part of my district (not including the new mines which were opened during the year) seventeen mines. Upon examination I found a lawful volume of air being produced in the Stage, Sherwin, Enterprise, of Butler county, Royle, Carver, Hill, Hickory, Pardoe, Keystone No. 2 and Stoneboro No. 2, and the drainage (except at a few points in some of them) was reasonably good.

While I measured a lawful quantity of air being produced at the inlet of Keystone No. 1 mine the air current was not strong enough at the face of some of the workings. The drainage of this mine was only in fair condition.

In the Mizener mine there was not a lawful volume of air at the face of the workings. An opening to daylight had been made at the face of the workings, but at the date of my last visit this new opening had practically closed, which very materially reduced the volume of air. They were busy making a new opening, which no doubt will remedy the defect. The drainage was only fairly good. There was not a sufficient volume of air near the face of the workings in the Diamond Nos. 1 and 2 mines. Another fan had been

erected to assist the old one but the company had not put it in operation at the date of my last visit. The drainage in both places was only fairly good.

At the Enterprise mine I did not find a lawful volume of air. This mine has a 6 foot Clark fan, but for some reason it was not producing enough air. I noted that the airways were not as clean as they should have been. The drainage was only fairly good.

I found a lawful quantity of air being produced in Stoneboro No. 3 mine, but not enough to reach the inner workings. The drainage was only fairly good.

TABLE I—Showing names of operators, railroads, etc., and location of collieries in the Third Bituminous District for the year 1900.

Names of Operators and Collieries.	County.	Name of General Superintendent.	P. O. Address.	Name of Superintendent.	P. O. Address.	Railroad to Mine.
<i>Jos. G. Beale.</i> Aladdin,	Armstrong,	E. H. Beale,	Leechburg,	E. H. Beale,	Leechburg,	West Penn.
Avonmore Coal & Coke Co. Avonmore,	Armstrong,	.....	.....	L. W. Hicks,	Leechburg,	West Penn.
Avondale Min. & Mfg. Co. Avondale,	Clarion,	H. C. Burket,	Greensburg,	James Mitchell,	Lawsonham,	Low Grade Division of Buffalo & A. V.
<i>Jos. G. Beale & Co.</i> Beale,	Armstrong,	Jos. G. Beale,	Leechburg,	Geo. Kneppsheld,	Leechburg,	West Penn.
Hutts Cannel Coal Co. Beaver,	Beaver,	.....	.....	George Gould,	E. Palestine, O.,	Pittsburg, Marion & Chl. Ry.
Beaver Coal & Coke Co. Beaver No. 1,	Lawrence,	.....	.....	H. K. Hartsuff, Jr., H. K. Hartsuff, Jr.,	Wampum,	Erie and Pittsburg, Erie and Pittsburg.
Beaver No. 2,	Lawrence,	.....	.....	.....	.....	.....
Peale, Peacock & Kerr, Inc. Bloomington No. 9,	Jefferson,	Alex. Dunsmore,	Glen Richey,	George Saedden,	Rathmel,	Falls Creek and Reynoldsville B. of B. R. & P.
Brinker Coal & Iron Co. Brinker,	Clarion,	.....	.....	Frank M. Brinker,	Dutch Hill,	Buffalo and Allegheny Valley.
Lewis Coal Co. Blackstone,	Westmoreland,	Alfred Hicks,	Leechburg,	N. S. Hicks,	Leechburg,	West Penn.
Keystone Coal Mining Co. Brady's Bend,	Armstrong,	George E. Henry, George E. Henry,	East Brady, East Brady,	John Henry,	East Brady,	Buffalo and Allegheny Valley, Low Grade Div. of B. & A. V.
Keystone, Bowman Coal Mining Co. Bowman,	Clarion,	.....	.....	John Henry,	East Brady, .....	.....
.....	Indiana,	.....	.....	S. J. Robinson,	Saltsburg,	West Penn.
Cherry Run Coal Mining Co. Cherry Run,	Clarion,	E. N. Miller,	Huey,	E. N. Miller,	Huey,	Silgo Branch of L. & A. V.
Catfish Run Coal Co. Catfish Run,	Clarion,	.....	.....	C. J. Tighe,	Catfish,	Buffalo and Allegheny Valley.

TABLE I—Continued.

Names of Operators and Collieries.	County.	Name of General Superintendent.	P. O. Address.	Name of Superintendent.	P. O. Address.	Railroad to Mine.
W. F. Clayton.	Beaver.	W. F. Clayton.	Beaver Falls.	W. F. Clayton.	Beaver Falls.	Used at Beaver Falls manufactories.
Carver Coal Co.	Mercer.	E. Filer.	Sharon.	F. P. Filer.	Mercer.	Branch of L. S. & M. S.
Carrier Brothers.	Jefferson.	.....	.....	C. E. Carrier.	Summersville.	Low Grade Div. of B. & A. V.
Cowansville Mining Co.	Armstrong.	John C. Hirst.	Cowansville.	Anthony Smith.	Cowansville.	Buffalo, Rochester & Pittsburg.
Filer, Sutliff & Co.	Mercer.	E. Filer.	Sharon.	F. P. Filer.	Mercer.	Pittsb'g, Bessemer & Lake Erie.
Diamond No. 1.	Mercer.	E. Filer.	Sharon.	F. P. Filer.	Mercer.	Pittsb'g, Bessemer & Lake Erie.
Diamond No. 2.	Clarion.	J. W. Ganoe.	Phillipston.	J. W. Ganoe.	Phillipston.	Low Grade Div. of B. & A. V.
Diamond.	Beaver.	.....	.....	J. H. Warwood.	Darlington.	Pitts., Marion & Chicago Ry.
Darlington Brick & Min. Co.	Mercer.	I. V. Morris.	Girard, Ohio.	D. D. Morris.	Grove City.	Pittsb'g, Bessemer & Lake Erie.
Davinton.	Butler.	P. D. Sherwin.	Karns City.	P. D. Sherwin.	Karns City.	Pittsb'g & West Narrow Gauge.
Enterprise.	Butler.	P. D. Sherwin.	Karns City.	.....	.....	Pittsb'g, Bessemer & Lake Erie.
Enterprise, N. A. & Joseph Lehner.	Clarion.	Joseph Lehner.	Red Bank.	.....	.....	Buffalo & Allegheny Valley.
Enterprise, Eagle.	Lawrence.	Matthew Gunton.	Wampum.	C. M. Harvey.	Wampum.	Erie and Pittsburg.
Enterprise, Excelsior No. 3.	Armstrong.	C. D. R. Stowets.	Buffalo, N. Y.	S. Taylor Sheaffer.	New Bethlehem.	Low Grade Div. of B. & A. V.
Enterprise, Fairmount Coal & Coke Co.	Armstrong.	C. D. R. Stowets.	Buffalo, N. Y.	S. Taylor Sheaffer.	New Bethlehem.	Low Grade Div. of B. & A. V.
Enterprise, Fairmount No. 1 and 3.	Armstrong.	C. D. R. Stowets.	Buffalo, N. Y.	S. Taylor Sheaffer.	New Bethlehem.	Low Grade Div. of B. & A. V.
Enterprise, Fairmount No. 2.	Armstrong.	C. D. R. Stowets.	Buffalo, N. Y.	S. Taylor Sheaffer.	New Bethlehem.	Low Grade Div. of B. & A. V.
Enterprise, Fairmount No. 4.	Armstrong.	C. D. R. Stowets.	Buffalo, N. Y.	S. Taylor Sheaffer.	New Bethlehem.	Low Grade Div. of B. & A. V.
Enterprise, Gilpin Coal Co.	Armstrong.	.....	.....	L. W. Hicks.	Leechburg.	West Penn.

J. R. Smith.	Armstrong,	J. M. Foltz,	Manorville,	Buffalo & Allegheny Valley.
Glen,	Beaver,	Frank S. Hoyt, ..	New Castle,	Erie & Pittsburg.
Hoydale Coal Co.	Armstrong,	Alfred Hicks,	Leechburg,	West Penn.
Haddon Coal Co.	Mercer,	Joseph Dav's, ..	Youngstown, O.,	W. N. Y. & P. of Penna.
Haddon,	Jefferson,	L. W. Robinson, ..	Reynoldsville, ..	W. N. Y. & P. of Penna.
Hill Coal Co., Limited.	Jefferson,	L. W. Robinson, ..	Reynoldsville, ..	R. Falls Creek Br. of B. R. & P.
Hickory Coal Co.	Jefferson,	L. W. Robinson, ..	Reynoldsville, ..	R. Falls Creek Br. of B. R. & P.
Hickory, Clearfield Coal & Iron Co.	Jefferson,	L. W. Robinson, ..	Reynoldsville, ..	R. Falls Creek Br. of B. R. & P.
Hamilton,	Jefferson,	L. W. Robinson, ..	Reynoldsville, ..	R. Falls Creek Br. of B. R. & P.
Maplewood,	Jefferson,	L. W. Robinson, ..	Reynoldsville, ..	R. Falls Creek Br. of B. R. & P.
Soldier No. 1,	Jefferson,	L. W. Robinson, ..	Reynoldsville, ..	R. Falls Creek Br. of B. R. & P.
Soldier No. 2,	Jefferson,	L. W. Robinson, ..	Reynoldsville, ..	R. Falls Creek Br. of B. R. & P.
Sherwood,	Jefferson,	L. W. Robinson, ..	Reynoldsville, ..	R. Falls Creek Br. of B. R. & P.
Rathmel,	Jefferson,	L. W. Robinson, ..	Reynoldsville, ..	R. Falls Creek Br. of B. R. & P.
Virginia,	Jefferson,	L. W. Robinson, ..	Reynoldsville, ..	R. Falls Creek Br. of B. R. & P.
Pittsburg and Buffalo Co.	Armstrong,	Harry P. Jones, ..	Johnetta,	Buffalo & Allegheny Valley.
Johnetta,	Armstrong,	Harry P. Jones, ..	Johnetta,	Buffalo & Allegheny Valley.
Kerr Coal Co.	Armstrong,	G. B. Findley,	Freeport,	Supply local trade.
Kerr No. 1,	Butler,	G. B. Findley,	Freeport,	West Penn.
Kerr No. 3,	Armstrong,	E. W. Parquy,	223 4th av., Phg.	Used at rolling mills.
American Sheet Steel Co.	Butler,	J. L. Turner,	Ferris,	Hilliard Br. of P. B. & L. E.
Kirkpatrick,	Butler,	J. L. Turner,	Ferris,	Hilliard Br. of P. B. & L. E.
Turner C. C. & Mining Co.	Clarion,	C. P. McCafferty, ..	East Brady,	Buffalo & Allegheny Valley.
Keystone No. 1,	Armstrong,	Alfred Hicks,	Leechburg,	Buffalo & Allegheny Valley.
Keystone No. 2,	Clarion,	Alfred Hicks,	Leechburg,	Buffalo & Allegheny Valley.
Monarch,	Clarion,	Alfred Hicks,	Leechburg,	Buffalo & Allegheny Valley.
Monroe,	Butler,	Butler,	Butler,	Hilliard Br. of P. B. & L. E.
Mosgrove Coal Works.	Butler,	Butler,	Butler,	Pittsburg, Bessemer & Lake Erie.
Mosgrove,	Butler,	Butler,	Butler,	Hilliard Br. of P. B. & L. E.
Monterey Coal Co.	Butler,	Butler,	Butler,	Hilliard Br. of P. B. & L. E.
Monterey,	Butler,	Butler,	Butler,	Hilliard Br. of P. B. & L. E.
F. A. Mizener	Butler,	Butler,	Butler,	Hilliard Br. of P. B. & L. E.
Mizener,	Butler,	Butler,	Butler,	Hilliard Br. of P. B. & L. E.
Grant,	Butler,	Butler,	Butler,	Hilliard Br. of P. B. & L. E.
Nellie Coal Co.	Butler,	Butler,	Butler,	Hilliard Br. of P. B. & L. E.
Nellie,	Butler,	Butler,	Butler,	Hilliard Br. of P. B. & L. E.

TABLE I—Continued.

Names of Operators and Collieries.	County.	Name of General Superintendent.	P. O. Address.	Name of Superintendent.	P. O. Address.	Railroad to Mine.
Oak Ridge Mining Co.	Armstrong.	Henry Williams.	Oak Ridge Sta.			Low Grade Div. of E. & A. V.
Oak Ridge No. 3.	Armstrong.	Henry Williams.	Oak Ridge Sta.			Low Grade Div. of E. & A. V.
Oak Ridge No. 5.	Westmoreland.			L. W. Hicks.	Leechburg.	West Penn.
Pine Run Coal & Coke Co.	Lawrence.	Edwin N. Ohl.	New Castle.			W. N. Y. & P. of Penna.
Penn. Coal Co.	Mercer.	H. J. Flier.	Sharon.	E. L. Flier.	Pardoe.	Pittsb'g, Bessemer & Lake Erie.
Flier Brothers.	Westmoreland.	Alfred Hicks.	Leechburg.	N. S. Hicks.	Leechburg.	West Penn.
Leechburg Coal & Coke Co.	Armstrong.	W. J. Dunham.	\$86 Ellicott Sq., Buffalo, N. Y.	John Doyle.	Cosmus.	Buffalo & Allegheny Valley.
Riverview C. Min. Co., Ltd.	Lawrence.			Wm. Brown.	Wampum.	Pittsburg & Western.
Riverview.	Butler.			R. E. Royle.	Hilliard.	Hilliard Br. of P., B. & L. E.
George E. Tener.	Beaver.	John Hilleman.	Cannelton.			Pittsb'g, Marlon & Chicago Ry.
Rock Point.	Clarion.	Peter Henry.	East Brady.	Peter Henry.	East Brady.	Sligo Br. of Low Grade Div. of E. & A. V.
Royle Coal Co.	Clarion.	H. F. Miller.	Huey P. O.	H. F. Miller.	Huey P. O.	Sligo Br. of Low Grade Div. of E. & A. V.
W. H. Warner.	Beaver.	W. J. Mullins.	Wooster, Ohio.	Hugh Laughlin.	E. Palestine, O.	Pittsb'g, Ft. Wayne & Chicago.
Sterling.	Mercer.	Robt. F. Cann.	Stoneboro.	B. F. Esgar.	Stoneboro.	Lake Shore & Mich. Southern.
Sterling Coal Co.	Mercer.	Robt. F. Cann.	Stoneboro.	B. F. Esgar.	Stoneboro.	Lake Shore & Mich. Southern.
Sterling.						
Sligo.						
Sligo Coal Co.						
State Line Coal Co.						
State Line.						
Mercer Iron & Coal Co.						
Stoneboro No. 2.						
Stoneboro No. 3.						

G. G. Stage.	Butler,	G. G. Stage,	Greenville,	James Welsh,	Coaltown,	Pittsb'g, Bessemer & Lake Erie.
Campbell, Lowther Coal Co.	Clarion, .....	.....	.....	John D. Lowther.	Rimersburg,	Sligo Br. of L. G. Div. of B. & A. V.
Standard,	Butler, .....	.....	.....	Harry Hamilton, ..	Argentine,	Hilliard Br. of P., B. & L. E.
Standard Coal Mining Co.	.....	.....	.....	F. H. Douthitt, ..	Kimberly,	Pittsburg & Lake Erie.
Thompson Run Coal Co.	Beaver,	F. H. Douthitt, ..	Kimberly,	H. A. Underwood.	Pollock,	Buffalo & Allegheny Valley.
Thompson Run, .....	.....	.....	.....	Richard L. Lewis,	Mahoning,	Buffalo & Allegheny Valley.
Underwood Coal Co.	Clarion,	H. A. Underwood, ..	Pollock,	L. W. Hicks,	Leachburg,	West Penn.
Underwood, .....	.....	.....	.....	James Craig,	Yatesboro,	Buffalo, Rochester & Pittsburg.
James S. Moore.	Armstrong,	J. S. Moore,	Mooney Bldg., Buffalo, N. Y.	James Craig,	Yatesboro,	Buffalo, Rochester & Pittsburg.
Valley, .....	.....	.....	.....	James Craig, .....	.....	.....
West Penn Mining Co.	Westmoreland, ..	.....	.....	.....	.....	.....
West Penn, .....	.....	.....	.....	.....	.....	.....
Cowanhanock C. & C. Co.	Armstrong,	James Craig,	Yatesboro, .....	.....	.....	.....
Yatesboro No. 1,	Armstrong,	James Craig,	Yatesboro, .....	.....	.....	.....
Yatesboro No. 2, .....	.....	.....	.....	.....	.....	.....

TABLE II—Continued.

Names of Operators and Collieries.	County.	Shipments of coal in tons by rail or otherwise.	Number of tons used for steam and heat at colliery.	Sold to local trade and used by employes—tons.	Total production of coal in tons.	Total production of coke in tons.	Number of coke ovens.	Number days worked.	Number persons employed.	Number fatal accidents.	Number non-fatal accidents.	Number kegs powder used.	Number pounds of dynamite used.	Number horses and mules.
Leechburg Coal and Coke Co. Riverview,	Westmoreland, ..	85,832	200	.....	86,012	.....	.....	299	104	.....	.....	.....	.....	10
Riverview Coal Mining Co., Ltd. Riverview,	Armstrong,	82,970	1,500	15	84,485	.....	.....	219	118	.....	3	300	30	12
George E. Tener. Rock Point,	Lawrence,	49,800	55	38	49,883	.....	.....	293	106	.....	.....	25	20	11
Royle Coal Co. Royle,	Butler,	22,256	.....	1,153	23,409	.....	.....	188	49	1	.....	200	.....	4
W. H. Warner. Sterling,	Beaver,	66,530	420	38	66,988	.....	.....	268	86	.....	.....	400	10	4
Sterling Coal Co. Sterling,	Clarion,	17,518	.....	.....	17,518	.....	.....	151	49	.....	.....	75	20	8
Silgo Coal Co. Silgo,	Clarion,	4,500	.....	.....	4,500	.....	.....	62	47	.....	.....	25	.....	2
State Line Coal Co. State Line,	Beaver,	83,408	.....	.....	83,408	.....	.....	279	126	.....	.....	.....	.....	11
Mercer Iron and Coal Co. Stoneboro No. 2,	Mercer,	15,135	279	.....	15,414	.....	.....	213.25	40	.....	.....	55	127	4
Stoneboro No. 3,	Mercer,	81,675	2,449	.....	84,124	.....	.....	233.50	140	.....	.....	500	379	8
Total, .....	.....	96,810	2,728	.....	99,538	.....	.....	222.37	180	.....	.....	555	506	12

TABLE II—Continued.

Names of Operators.	County.	Number of Boilers.			Total horse power.	Locomotives.			Total horse power.	Number steam engines of all classes.	Total horse power.	Number pumps delivering water to surface.	Capacity in gallons per minute.	Quantity delivered to surface per minute—gallons.	Number electric dynamos.	Number air compressors.	
		Cylindrical.		Tubular.		Horse power.	Steam.	Air.									Electric.
		Horse power.	Horse power.														
Jos. G. Beale	Armstrong	1	20	1	80	100			2	80	1	30	5				
Avonmore Coal and Coke Co.	Armstrong																
Beaumont Mining and Mfg. Co.	Clarion	1	80		80												
Jos. C. Beal	Armstrong																
Buitts Canal Coal Co.	Beaver			2	120	120				64	1	250	187				
Beaver Coal and Coke Co.	Lawrence	1	50	2	160	210				74							
Peale, Peacock & Kerr, Inc.	Jefferson			2	300	300				170	1	100	75				
Brinker Coal and Iron Co.	Clarion	2	240	2	240	240				110	3	66	66				
Lewis Coal Co.	Westmoreland																
Keystone Coal Mining Co.	Arm'g & Clarion	2	100			100											
Bowman Coal Mining Co.	Indiana			1	15	15											
Cherry Run Coal Mining Co.	Indiana			1	15	15											
Carfish Run Coal Co.	Clarion																
W. F. Clayton	Clarion																
Carver Coal Co.	Beaver			2	300	500											
Carrier Products	Mercer	4	200	2	50	50				40	1	40	20				
Cherry Run Mining Co.	Jefferson			2	50	50											
Canaanville Mining Co.	Armstrong			2	180	630											
J. W. Ganoe	Clarion	10	500	2													
Filler, Suttiff & Co.	Armstrong																
Darlington Brick and Mining Co.	Clarion																
Grove Coal Co.	Beaver			3	130	130											
P. D. Sherwin	Mercer			1	25	25											
M. A. and Joseph Lehner	Butler			1	25	25											
Wampum Run Coal Co.	Clarion	3	175			175											
Fairmount Coal and Coke Co.	Lawrence			5	550	550											
Gilpin Coal Co.	Armstrong			2													
J. R. Smith	Armstrong																
Hoydale Coal Co.	Beaver																
Hendon Coal Co.	Armstrong																
Hickory Coal Co., Limited	Mercer	2	85	2	85	85				75	1	1,000	500				
Hickory Coal Co.	Mercer	1	130	1	130	130				130	2	580	125				

TABLE III—Continued.

Names of Operators and Collieries.	County.	Occupations of Persons Employed Inside.								Occupations of Persons Employed Outside.								Grand total, inside and outside.
		Inside foreman or mine boss.	Fire bosses.	Miners.	Miners' laborers.	Drivers and runners.	Door boys and helpers.	All other employes.	Total inside.	Outside foreman.	Blacksmiths and carpenters.	Engineers and firemen.	Slate pickers.	Employed in the manufacture of coke.	Superintendents, bookkeepers and clerks.	All other employes.	Total outside.	
Fairmount Coal and Coke Co.	Armstrong.	1	1	212	18	3	3	10	244	1	5	6	3	4	20	39	283	
Fairmount Nos. 1 and 3.	Armstrong.	1	1	57	8	3	3	3	70	1	2	6	3	8	10	26	80	
Fairmount No. 2.	Armstrong.	1	1	135	21	6	11	11	174	1	2	6	3	14	26	200	200	
Fairmount No. 4.	Armstrong.	2	2	404	47	11	24	24	488	2	7	12	8	4	42	75	563	
Total.																		
Gilpin Coal Co.	Armstrong.	1	1	95	4	3	2	2	105	1	1	1	1	2	3	7	112	
Glen.	Armstrong.	1	1	22	3	3	4	4	30	1	1	1	1	1	4	6	36	
Hoytdale Coal Co.	Beaver.	1	1	25	2	2	2	2	29	1	1	1	1	1	1	2	31	
Haddon Coal Co.	Armstrong.	1	1	60	3	3	1	1	65	1	1	1	1	2	1	4	69	
Hill Coal Co., Limited.	Mercer.	1	1	65	5	5	1	1	77	2	3	3	2	1	3	11	88	
Hickory Coal Co.	Mercer.	1	1	62	4	1	5	5	73	1	2	2	2	3	1	11	84	

Jefferson, Clearfield C. & I. Co.	1	176	20	7	10	214	2	1	6	223
Hamilton,	1	157	9	3	3	173	1	4	6	184
Maplewood,	1	459	32	14	27	513	5	9	25	670
Soldier No. 1,	1	373	35	11	17	437	2	1	4	439
Soldier No. 2,	1	57	4	2	3	67	1	1	4	72
Sherwood,	1	134	9	2	4	150	1	2	5	158
Iathmel,	1	146	11	4	4	166	1	1	8	176
Virginia,	1	148	120	43	68	1,720	12	18	4	202
Total,	7	1,482	299	100	138	3,100	31	44	51	3,122
Pittsburg and Buffalo Co.	1	18	2	1	1	29	1	1	1	39
Johnetta,	1	18	2	1	1	29	1	1	1	39
Kerr Coal Co.	1	18	1	1	1	21	1	1	1	21
Kerr No. 1,	1	73	4	3	3	81	1	1	1	83
Kerr No. 2,	1	73	4	3	3	81	1	1	1	83
Total,	2	91	4	4	4	102	1	1	1	104
American Sheet Steel Co.	1	20	2	1	1	23	1	1	1	23
Kirkpatrick,	1	20	2	1	1	23	1	1	1	23
Turner Coal, Coke & Mining Co.	1	53	1	6	1	62	1	1	2	69
Keystone No. 1,	1	23	1	2	1	27	1	1	1	29
Keystone No. 2,	1	23	1	2	1	27	1	1	1	29
Total,	2	76	2	8	1	89	2	1	2	98
C. P. McCafferty.	1	54	6	6	4	71	2	2	1	80
Monarch,	1	54	6	6	4	71	2	2	1	80
Mosgrove Coal Works.	1	100	6	2	2	111	1	2	7	125
Mosgrove,	1	100	6	2	2	111	1	2	7	125
Monterey Coal Co.	1	50	2	5	1	58	1	1	2	62
Monterey,	1	50	2	5	1	58	1	1	2	62
F. A. Mizener.	1	55	6	2	2	64	1	1	1	67
Mizener,	1	55	6	2	2	64	1	1	1	67
Grant,	1	38	3	1	1	43	1	1	1	47
Grant,	1	38	3	1	1	43	1	1	1	47
Total,	2	93	9	3	3	107	2	1	2	114
Nellie Coal Co.	1	20	1	1	1	23	1	1	1	28
Nellie,	1	20	1	1	1	23	1	1	1	28
Oak Ridge Mining Co.	1	91	4	5	1	104	1	4	3	104
Oak Ridge No. 1,	1	91	4	5	1	104	1	4	3	104
Oak Ridge No. 2,	1	150	6	11	6	178	1	6	16	208
Oak Ridge No. 3,	1	150	6	11	6	178	1	6	16	208
Oak Ridge No. 4,	1	150	6	11	6	178	1	6	16	208
Oak Ridge No. 5,	1	150	6	11	6	178	1	6	16	208
Total,	2	241	10	16	7	282	1	4	3	312

Sligo,	Sligo Coal Co.	1	36	1	2	.....	40	.....	1	2	1	.....	1	2	1	.....	1	2	1	.....	1	2	1	.....	7	47
State Line,	State Line Coal Co.	1	97	4	5	1	2	110	.....	2	3	.....	1	10	16	126	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Mercer Iron and Coal Co.	.....	1	25	.....	4	.....	5	35	.....	.....	1	1	.....	1	1	5	40	.....	.....	.....	.....	.....	.....	.....	.....	.....
Stoneboro No. 2, .....	.....	1	106	.....	7	2	11	127	.....	.....	2	3	4	.....	1	3	13	140	.....	.....	.....	.....	.....	.....	.....	.....
Stoneboro No. 3, .....	.....	2	131	.....	11	2	16	162	.....	.....	3	4	5	.....	2	4	18	180	.....	.....	.....	.....	.....	.....	.....	.....
Total,	G. G. Stage.	1	55	1	2	.....	4	63	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Campbell, Lowther Coal Co.	.....	1	24	2	2	.....	2	31	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Standard Coal Mining Co.	.....	1	16	.....	2	.....	1	20	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Thompson Run Coal Co.	.....	1	77	.....	8	2	3	91	.....	.....	2	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Underwood,	Underwood Coal Co.	.....	8	.....	1	.....	.....	9	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Valley,	James S. Moore.	1	25	.....	2	.....	.....	28	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
West Penn Mining Co.	.....	1	60	.....	4	.....	2	67	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Cowanshannock Coal & Coke Co.	.....	1	200	.....	16	3	20	240	.....	.....	1	4	4	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Yatesboro No. 1, .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Yatesboro No. 2, .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Bagdad,	Bagdad Coal and Coke Co.	1	25	.....	2	.....	1	29	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Hallville,	Grove Coal Co.	1	39	.....	4	.....	5	49	.....	.....	1	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Total, .....	.....	78	5,817	65	476	102	253	6,791	20	102	104	71	110	98	354	859	7,650	.....	.....	.....	.....	.....	.....	.....	.....	.....

*Mines abandoned during the year.
 †Number of employes approximated.

TABLE III—Continued.

Names of Operators.	County.	Number of Days Worked in Each Month.												Total.
		January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	
J. S. G. Beale,	Armstrong,	26	23	27	24	15	.....	.....	5	11	26	23	25	205
Avonmore Coal and Coke Company,	Armstrong,	27	24	27	25	21	23	25	24	24	24	22	24	21
Ayvalde Lining and Manufacturing Co.,	Armstrong,	24, 30	24	22	20	19	20	19	18	16	23	17	25	247, 50
High Hill Coal Company,	Armstrong,	22	24	27	25	19, 30	23	19	20	20	26	26	24	24
Butte Canal Coal Company,	Beaver,	26	22	24	6	2	4	6	15	23	26	21	25	203
Beaver Coal and Coke Company,	Lawrence,	22	24	25	21	20	25	13	14	19	24	23	23	253
Peale, Peacock and Kerr, Incorporated,	Jefferson,	18	16	11	15, 30	22, 75	13, 30	14	15	14	8, 75	3, 30	10	162
Brinkley Coal and Iron Company,	Clarion,	15	10	12	16	14	8	15	15	18	19	15	20	177
Lewis Coal Company,	Westmoreland,	26	23	26	25	25	26	24	26	25	26	25	24	301
Rowman Coal Mining Company,	Indiana, .....	.....	.....	.....	.....	.....	.....	.....	18, 30	.....	.....	.....	.....	270
Cherry Run Coal Mining Company,	Indiana,	32	23	25	21	19	30	16	13	17	24	24	24	275
Rowman Coal Mining Company,	Clarion,	24	22	22	21	23	21	20	22	21	22	21	22	270
Catfish Run Coal Company,	Beaver,	27	24	24	21	21	17	21	21	21	27	26	25	273
W. F. Clayton,	Beaver,	22	23	25	24	23	24	18, 30	20	22	24	20	21	273
Carver Coal Company,	Mercer, .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	275
Cawansville Mining Company,	Armstrong,	21, 75	21, 62	17, 5	7, 5	24, 25	27, 25	20, 37	8, 25	20, 50	10	20	21	51
Edwardsville Mining Company,	Armstrong,	21	18	8	20	20	19	18	19	19	22	16	20	221
J. W. Gance,	Clarion, .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	187
Darlington Brick and Mining Company,	Beaver,	24, 50	1	.....	1	24	24	11	10, 50	22	24	22	21	187
Grove Coal Company,	Mercer,	3	17	24	6, 50	22	22, 25	19, 50	20	17, 50	24	22	23, 5	197
P. D. Sherwin,	Butler,	26	22	23	22	21	22	23	21	20	26	25	24	273
M. A. and Joseph Lehner,	Clarion,	27	24	27	24	26	26	14	20	23	24	26	25	286
Wampum Run Coal Company,	Lawrence,	24	23	24	24	24	24	23	25	24	25	25	25	273
Carrier Brothers,	Jefferson,	26	22	23	23, 33	25	24, 67	23	17, 33	21, 33	27	25	27, 33	273
Fairmount Coal and Coke Company,	Armstrong,	25	23	27	24	24	24	20	23	25	26	24	24	283
Gilpin Coal Company,	Armstrong,	24	23	26	25	26	26	24	25	25	26	26	24	283
J. R. Smith,	Armstrong,	24	23	26	25	26	26	24	25	25	26	26	24	300

Boydale Coal Company,	15	20	18	16	14	15	13	23	18	12	20	18	202
Haddon Coal Company,	23	24	26	25	26	25	22	26	26	20	25	25	310
Hill Coal Company, Limited,	24	14	26	25	24	23	20, 50	10, 50	13	20	20	18	50
Hickory Coal Company,	16	16	16	16	16	15	19	16	16	20	20	20	230
Hudson, Cleaveland Coal and Iron Company,	22, 14	21, 56	22, 56	23, 42	22, 70	21	20	21, 70	21, 70	21, 28	20, 14	18	238, 70
Jefferson,	22, 14	21, 56	22, 56	23, 42	22, 70	21	20	21, 70	21, 70	21, 28	20, 14	18	238, 70
Kerr Coal Company,	97	93	95	94	95	94	90	94	92	91	90	90	199, 50
Lawrence,	97	93	95	94	95	94	90	94	92	91	90	90	199, 50
American Sheet Steel Company,	23, 50	21, 26	21, 26	20, 62	15, 25	26	24	24	23	26, 50	23, 50	24	270, 50
Turner Coal, Coke and Mining Company,	22	21	21	21	22	21	16	15, 87	14, 37	16, 75	17	18	222, 37
Mosgrove Coal Works,	24	21	18	22	22	21	16	15	12	16, 75	17	18	230
Monterey Coal Company,	24	21	18	22	22	21	16	15	12	16, 75	17	18	230
F. A. Mizener,	24	21	18	22	22	21	16	15	12	16, 75	17	18	230
Nellie Coal Company,	23	21	23	22	21, 50	21, 25	5	5	5	27	26	24	234
Oak Ridge Mining Company,	22, 25	21	23	22	14, 50	21, 70	19	22, 50	21, 50	25, 50	22, 50	24	185, 50
Pine Run Coal and Coke Company,	25	23	27	25	16, 75	20, 50	13, 75	15, 70	13	19, 50	23, 50	20	217, 50
Penn Coal Company,	25	23	27	25	16, 75	20, 50	13, 75	15, 70	13	19, 50	23, 50	20	217, 50
Piler Brothers,	23	23	25	24	24	24	24	24	22	24	22	22	227, 25
Riverview Coal and Coke Company,	23	23	25	24	24	24	24	24	22	24	22	22	227, 25
Riverview Coal and Coke Company,	23	23	25	24	24	24	24	24	22	24	22	22	227, 25
George E. Tener,	23	23	25	24	24	24	24	24	22	24	22	22	227, 25
Royle Coal Company,	23	23	25	24	24	24	24	24	22	24	22	22	227, 25
W. H. Warner,	23	23	25	24	24	24	24	24	22	24	22	22	227, 25
Sterling Coal Co.,	23	23	25	24	24	24	24	24	22	24	22	22	227, 25
State Line Coal Company,	24	22	27	23	20	22	21	23	24	24	15	25	151
Mercer Iron and Coal Company,	25, 67	23, 75	21, 25	23, 75	22, 50	16, 25	13, 62	14, 62	12, 12	17, 87	15, 37	24	279
G. G. Stage,	22	18	21	21	21	20	17	18	16	23	16	21	213
Campbell, Lowther Coal Company,	25	21	21, 50	22	11	19	16	15, 50	18	22, 50	17	13	200
Standard Coal Mining Company,	26	17	11	22	14	10	14	13	19	27	23	21	223
Thompson Run Coal Company,	21	20	20	20	18	18	15	12	10	13	10	10	150
Underwood Coal Company,	26	23	26	25	23	24	18	21	23	21	20	20	278
Minor S. Ames,	26	23	26	25	23	24	18	21	23	21	20	20	278
Cowanbush Coal and Coke Company,	22	22	26	25	27	26	25	27	25	27	25	25	307
Burdal Coal and Coke Company,*	23, 50	21, 50	21	1	23	2							95
Greave Coal Company,*	23, 50	21, 50	21	1	23	2							95
Total,													240

*Number of employes approximated.
*Mines at and ned during the year.

TABLE IV.—List of fatal accidents that occurred in and about the mines of the Third Bituminous District for the year ending December 31, 1900.

Date of accident.	Name of Person.	Nationality by Birth.	Occupation.	Age.	Married or single.	Number of widows.	Number of orphans.	Name of Colliery.	County.	Nature and Cause of Accident in Brief.
April 6	John Carr,	American, ..	Miner,	45	M.	1	4	Fairmount No. 4,	Armstrong, ..	Killed by a fall of coal, which had been rendered loose by being partially undercut and shot previous to accident, fell upon him while he was thoughtlessly working in front of it.
11	John Shurlick,	Slav,	Miner,	35	M.	1	2	Rathmel,	Jefferson,	Killed by a fall of rock. He failed to properly timber roof strata under which he was working while he was making a traveling-way near the crop of the seam.
June 5	James Summers,	English,	Miner,	44	M.	.....	4	Royle,	Butler,	Killed by a fall of coal. He was thoughtlessly mining in front of loose coal, when it fell upon him. He failed to sprag the coal.
July 25	Leonard Newman,	American, ..	Repairman, ..	27	M.	1	.....	Johnetta,	Armstrong, ..	Killed by rock from a dynamite shot. He attempted to fire two shots in the mine floor simultaneously. One expl. ded. while the other hung fire. He was injured by the matter when the second shot fired.
Oct. 26	Samuel Rehm,	American, ..	Miner,	17	S.	.....	.....	Bowman,	Indiana,	Killed by a fall of "gray slate." Accident was caused by the post under the slate, having been accidentally knocked out. The post was not set properly.
Dec. 5	Jeremiah S. Snyder,	American, ..	Miner,	17	S.	.....	.....	Glen,	Armstrong, ...	Fatally injured by a fall of slate. He was turning a room off entry and fired a shot in mined coal, returned to investigate its effects and while he was doing so the rock fell upon him.

TABLE V.—List of non-fatal accidents that occurred in and about the mines of the Third Bituminous District for the year ending December 31, 1900.

Date of accident.	Name of Person.	Nationality by Birth.	Occupation.	Age.	Married or single.	Name of Colliery.	County.	Nature and Cause of Accident in Brief.
Jan. 1	Chas. Chligo,	Italian,	Miner,	26	S.	Bagdad,	Westmoreland, ..	Face and hand slightly burned; caused by carelessly lighting a small pocket of explosive gas.
11	Miles Pierce,	American, ..	Miner,	19	S.	Soldier No. 2,	Jefferson,	Headed by coal falling upon him while he was loading a car in his room.
22	Thomas Kockdible,	Italian,	Loader,	51	M.	Soldier No. 1,	Jefferson,	Leg broken by a fall of top coal while he was loading a car.
29	Findley Blystone,	American, ..	Miner,	53	M.	Avonmore,	Armstrong,	Rib broken by a fall of slate.
5	Peter Santos,	Italian,	Miner,	38	M.	Bagdad,	Westmoreland, ..	Leg injured by a fall of coal while he was bearing-in.
Feb. 12	Charles Gearhelm,	American, ..	Trapper,	15	S.	Gilpin,	Armstrong,	Small bone broken above the ankle and foot otherwise lacerated while attempting to jump on a moving car.
13	Robert Edwards,	American, ..	Miner,	35	M.	Beaver No. 1,	Lawrence,	Burned by a premature blast of powder which exploded while he was boring (cut the tamping of a mis-fired shoot).
21	Steve Petko,	Slav,	Miner, .....	.....	S.	Beale,	Armstrong,	Face and hand burned by a premature blast of powder.
26	Thomas Donahan,	Irish,	Driver,	29	.....	Soldier No. 1,	Jefferson,	Arm broken by a mine car while he was attempting to jump off his trip to sprag cars.
March 14	Thomas Penhall,	English,	Loader,	23	S.	Soldier No. 2,	Jefferson,	Ankle badly sprained by a lump of coal rolling on it.
28	Neury Wal Robinstien,	German,	Miner,	50	S.	Brady's Bend,	Armstrong,	Slightly injured by a piece of coal falling upon him.
April 3	Harry Walton,	American, ..	Miner,	34	M.	Avonmore,	Armstrong,	Slightly injured by a piece of slate falling upon him.
4	Benjamin Sharie,	English,	Driver,	40	M.	Riverview,	Armstrong,	Leg broken by accidentally falling in front of a car.
11	Henry Small,	American, ..	Miner,	42	M.	Kirkpatrick,	Armstrong,	Toe injured by a fall of coal while he was shearing it.

TABLE V.—Continued.

Date of accident.	Name of Person.	Nationality by Birth.	Occupation.	Age.	Married or single.		Name of Colliery.	County.	Nature and Cause of Accident in Brief.
April 14	W. H. Christwell,	German,	Weighmaster,	50		M.	Riverview,	Armstrong,	Leg broken and otherwise badly injured by the inclined plane rope breaking and allowing the "Barney," and loaded car to run down upon him at the foot of the plane.
14	Charles Fleck,	German,	Check weigh- master,	41		M.	Riverview,	Armstrong,	Arm broken and head injured from the same cause.
16	George Myers,	German,	Repairman,	44		M.	Hill,	Mercer,	Slightly crushed by mine cars.
18	William Wagner,	American, ..	Driver,	43		M.	Monarch,	Clarion,	Three ribs broken and head injured by mine cars.
23	James Foley,	American, ..	Driver,	23		S.	Hamilton,	Jefferson,	Wrist injured by being caught between iron bar and foot.
May 6	George Mowery,	American, ..	Fireman,	23		M.	Maplewood,	Jefferson,	Injured by iron bar while working at air compressor outside of mine.
June 1	Samuel Bestwick,	American, ..	Miner,	19		S.	Hickory,	Mercer,	Arm broken by a fall of slate while he was shearing top coal.
4	Andrew McLaughlin, ..	Irish,	Miner, .....	.....		M.	Pardoe,	Mercer,	Back and shoulders crushed by a fall of coal while he was mining it.
5	Walter Jones,	American, ..	Miner, .....	.....		S.	Soldier No. 2,	Jefferson,	Back injured by a fall of coal while he was mining it.
14	John Wells,	American, ..	Miner,	42		M.	Sherwood,	Jefferson,	Leg broken by the careless handling of a mining machine.
19	Joseph Mallnskey,	American, ..	Repairman,	42		M.	Sherwood,	Jefferson,	Leg injured and some ribs broken by a fall of roof rock.
22	William Smith,	American, ..	Miner,	23		M.	Catfish Run,	Clarion,	Leg broken by a fall of "bone" coal while he was squaring the rib.
July 3	Michael McCullough, ...	American, ..	Repairman,	38		M.	Soldier No. 2,	Jefferson,	Leg broken by the entry of a rib, while he was securing entry of coal.
10	David Johnson,	Swede,	Loader,	50		M.	Soldier No. 1,	Jefferson,	Back, face and one arm were injured by a fall of coal while mining in his room.
10	David Arnold,	American, ..	Miner,	37		M.	Carrier,	Jefferson,	Bruised and burned by the premature explosion of powder.
10	Grant Hilliard,	American, ..	Miner,	32		M.	Carrier,	Jefferson,	Injured in like manner and from the same cause as above.

10	Dominico Laperate,	Italian,	Miner,	33	M. Blackstone,	Westmoreland, ..	Tamping needle run into his hand while he was using it in the mine.
13	Thomas Willis,	American, ..	Scraper,	18	S. Beaver No. 1,	Lawrence,	Leg broken by a fall of roof slate.
Aug. 1	William Peterson,	Swede,	Miner,	58	M. Parloe,	Mercer,	These persons, father and son, were
1	Gust Peterson,	Swede,	Miner,	16	S. Parloe,	Mercer,	burned about the face and body from the
8	William Stewart,	American, ..	Miner,	45	M. Mizener No. 2,	Butler,	spillage of the pipe, and the car while
18	Mart Buzard,	American, ..	Loader,	60	M. Monarch,	Clarion,	while they were rammed into it.
26	Andrew Drinkwater, ..	American, ..	Driver,	27	M. Cherry Run,	Clarion,	Injured by a fall of coal while mining it.
27	John Custiney,	Italian,	Mner,	27	S. Virginia,	Jefferson,	Two ribs and shoulder broken by being
6	James Kilgelsmith, ...	American, ..	Miner,	48	M. Glen,	Armstrong,	caught between mine cars and rib.
11	Cleon Kruger,	American, ..	Miner,	13	S. Soldier No. 2,	Jefferson,	Arm broken by a fall of coal while he
16	William Tucker,	English,	Trip runner, ...	29	M. Maplewood,	Jefferson,	was mining it.
31	Chas. Tunks,	American, ..	Miner,	35	M. Excelsior No. 3, ...	Lawrence,	Foot broken by a fall of coal while he
31	John Seales,	Italian,	Miner,	13	S. Soldier No. 2,	Jefferson,	was working in his room.
21	Peter Andrej-ski,	Pole,	Miner,	28	M. Cowansville,	Armstrong,	Slightly injured by mine cars.
27	Al Soldy,	American, ..	Machine cutter, ..	35	S. Brady's Bend,	Armstrong,	Slate crushed between a car, which had
28	Thomas Evans,	American, ..	Miner,	23	S. Brady's Bend,	Armstrong,	jumped the track, and the rib.
30	Dominick Goraton,	Italian,	Miner,	30	M. Soldier No. 2,	Jefferson,	Tripped upon it by a piece of roof slate
15	Martin L. Howard,	American, ..	Machine cutter, ..	33	M. Yatesboro No. 2, ...	Armstrong,	falling upon it.
18	Charles Alatho,	Italian,	Miner,	40	M. Yatesboro No. 2, ...	Armstrong,	Back and hips slightly injured by a fall of
18	William Matthews,	English,	Rope rider,	30	M. Soldier No. 1,	Jefferson,	coal.
18	Edward Jones,	American, ..	Timber man, ...	50	M. Soldier No. 1,	Jefferson,	Leg broken by a fall of roof slate while
18	William Keller,	German,	Track man, ...	44	M. Hill,	Merret,	he was working in his room.
29	Theodore Pomeroy,	English,	Trapper,	15	S. Soldier No. 2,	Jefferson,	Arm injured by a nail being run into it
							while falling from a bench in the black-
							smith shop.
							Foot injured by a fall of coal while work-
							ing in his room.
							Leg broken and hip dislocated by a fall of
							'bone' coal while he was loading a car
							in his room.
							Injured by a fall of rock.
							Head cut by a fall of slate while loading
							his car.
							Leg broken and arm cut by a fall of roof
							rock while riding out on trip of loaded
							cars.
							Two ribs broken from the same fall of
							roof as above.
							Four ribs broken and injured internally by
							a trip of cars running on him.
							Leg broken by mine cars.



Fourth Bituminous District.

TIOGA, POTTER, BRADFORD, LYCOMING, CLINTON, CAMERON, McKEAN AND ELK COUNTIES, AND ALL THE MINES IN CLEARFIELD COUNTY ADJACENT TO THE LOW GRADE DIVISION OF THE ALLEGHENY VALLEY RAILROAD; ALSO THE MINES ADJACENT TO THE CLEARFIELD AND SUSQUEHANNA BRANCH OF THE PENNSYLVANIA RAILROAD; ALSO THE MINES ADJACENT TO THE BUFFALO, ROCHESTER AND PITTSBURGH RAILROAD IN JEFFERSON AND CLEARFIELD COUNTIES.

Du Bois, Pa., February 18, 1901.

Hon. James W. Latta, Secretary of Internal Affairs, Harrisburg, Pa.:

Sir: I have the honor of presenting herewith my annual report as Inspector of Mines for the Fourth Bituminous District, for the year ending December 31, 1900, in compliance with section 2, article 10, of the act of Assembly, approved May 15, 1893.

The mines of the district have had an unusual year of activity, free from strife between the employers and employes, as the result of a scale of wages fixed upon in the early part of the year.

There have also been several new mines opened during the year, in different parts of the district, and, in consequence, there has been quite a marked increase in the production of coal over that of any single year in the district. The total production of coal, as reported to this office, amounts to 8,199,027 tons, an increase of 952,086 tons, over that of the year 1899.

The production of coke in the district for the year amounted to 480,674 tons, showing a decrease of 14,590 tons, compared with that of the preceding year.

There has been a greater number of persons employed in and about the mines during the year than ever before; there were 10,317 employed, or 677 more than for the preceding year.

The number of fatal accidents for the year is the same as in the year 1899, but the number of non-fatal accidents has increased by about 50 per cent. over the preceding year.

Comparing the tonnage of coal with that of the preceding year, also the number of persons employed during the same periods, the death rate has decreased during the year 1900.

Of those who were killed or seriously injured, I find that 47 per cent. were citizens of the United States, 44 per cent. were aliens, while 9 per cent. were under the age of twenty-one years.

Sixty-five per cent. of the accidents occurred from falls of coal and roof slate, twenty-two per cent. by mine cars and thirteen per cent. from miscellaneous causes.

As a result of accidents, ten wives were made widows and sixteen children left fatherless.

The condition of the mines, with some exceptions, is very fair, yet I have had occasion, on some visits to complain as to the insufficient ventilating power provided, as well as its location, also as to the time of starting and stopping the fans to provide a lawful amount of air, and its distribution in the mine, but I am glad to say that in most instances some improvement was found during the latter part of the year, by erecting fans where furnaces were formerly used, and in cleaning up airways and giving more attention to the details of ventilation.

There are a few mines in the district that generate explosive gas, $C H_4$, which is evolved more abundantly as the workings penetrate deeper into the earth, demanding larger volumes of air to dilute and carry off for the safety of those employed therein. The law provides for the careful inspection of such mines by competent persons, and as the demand is increasing yearly for such men, it was found necessary to hold a special examination during the month of June, when twelve persons received fire boss certificates.

The usual statistical tables are included in the report, some of which I was unable to provide in the report for the year 1899, having been unfamiliar with the district at that time.

I have also included a description of the accidents, also a brief description of the mines in the district, together with a list of improvements made by the Shawmut Mining Company.

Respectfully yours,

ELIAS PHILLIPS,
Inspector.

Summary of Statistics, 1900.

The figures denoting production, shipments, etc., are short tons.

Number of mines in the district,	75
Number of mines in operation during 1900,	74
Number of tons of coal produced,	8,199,027
Number of tons shipped,	7,138,760
Number of tons used in the manufacture of coke,	815,478
Number of tons used for steam at the mines,	192,975

Number of tons sold to employes and others,	51,814
Number of tons produced by pick mining, approxi- mately,	2,948,546
Number of tons produced by machines (electric), ap- proximately,	774,999
Number of tons produced by machine (compressed air), approximately,	4,475,482
Number of tons of coke produced,	480,674
Number of coke ovens,	1,529
Number of persons employed inside of mines,	8,936
Number of persons employed outside of mines,	1,447
Number of mules and horses in use,	998
Number of fatal accidents,	21
Number of non-fatal accidents,	50
Number of tons of coal produced per life lost,	390,430
Number of tons produced per non-fatal accident,	163,980.5
Number of persons employed per each fatal accident, Number of persons employed per each non-fatal acci- dent,	494.4 207.66
Number of wives made widows by accidents,	10
Number of children orphaned by accidents,	16
Number of kegs of powder reported used,	38,646
Number of pounds of dynamite reported used,	48,448
Number of cylindrical boilers in use,	14
Number of tubular boilers,	135
Number of steam locomotives,	22
Number of air locomotives,	3
Number of electric locomotives,	18
Number of air compressors,	30
Number of electric dynamos,	12
Number of new mines opened,	11
Number of old mines abandoned,	4

TABLE—Showing the Production of Coal and Coke by the Several Companies During the Year 1900.

Names of Companies.	Production of coal in tons.	Production of coke in tons.
Rochester and Pittsburg Coal and Iron Company,	3,452,620	447,952
Northwestern Mining and Exchange Company,	970,238	
Jefferson and Clearfield Coal and Iron Company,	907,061	
Shawmut Coal Mining Company,	467,723	850
Blossburg Coal Company,	416,357	
Morris Run Coal Mining Company,	353,024	
Berwind White Coal Mining Company,	215,822	
Kurtz and Rinn,	253,400	
Jefferson Coal Company,	250,200	
McGee and Ellsworth,	153,320	
Kettle Creek Coal Mining Company,	338,881	
Clearfield Coal Company,	129,135	31,872
Red Run Coal Company,	98,064	
Kersey Coal and Coke Company,	29,535	
Joseph H. Reilley and Company,	76,908	
Buffalo Coal Company,	27,618	
Kaul and Hall,	21,274	
George Rees and Company,	15,150	
Mosquito Creek Coal Company,	17,045	
A. G. Spears,	5,173	
Isaac Stage,	8,234	
Long Valley Coal Company,	32,065	
Total,	8,199,027	480,674

Recapitulation.

Jefferson county production,	4,803,862	441,728
Clearfield county production,	1,060,002	38,086
Elk county production,	965,876	850
Tioga county production,	922,719	
Lycoming county production,	98,064	
Clinton county production,	288,881	
McKean county production,	27,618	
Bradford county production,	32,065	
Total,	8,199,027	480,674

TABLE A—Showing the Total Production of Coal by Each Company, Number of Persons Employed by Each Company, the Average Number of Days Worked, and the Average Tonnage per Employee Inside for the Years 1899 and 1900.

Names of Companies.	Total production of coal in tons, 1899.	Total production of coal in tons, 1900.	Number of persons employed, inside, 1899.	Number of persons employed, inside, 1900.	Number of days worked, 1899.	Number of days worked, 1900.	Average tonnage per employe, inside, 1899.	Average tonnage per employe, inside, 1900.
Rochester and Pittsburg Coal and Iron Company,	2,951,261	3,452,620	2,462	2,692	253	247.7	1,199.4	1,382.5
Jefferson and Clearfield Coal and Iron Company,	898,795	907,061	654	726	241	236	1,374.3	1,244.4
Northwestern Mining & Exchange Company,	891,970	970,298	1,029	1,189	255	216.5	88.5	816
Shawmut Coal Mining Co., ..	518,796	467,723	602	590	274	205.2	861.8	792.7
Blossburg Coal Co.,	255,994	416,357	910	893	106	231.8	181.3	466.2
Morris Run Coal Mining Co.,	267,083	353,024	551	700	230.5	283.4	484.7	504.3
Berwin White Coal Mining Co.,	208,748	215,892	224	270	269.5	205.5	932	739.6
McGee and Ellsworth,	111,224	153,320	185	221	216	282	601.2	693.7
Jefferson Coal Co.,	217,929	250,200	279	245	240	263.5	888.6	1,021.2
Kettle Creek Coal Mining Co.,	221,690	288,881	210	234	275	310.5	1,052.8	1,234.5
Kurtz and Rinn,	257,210	253,401	250	269	262.5	233.5	1,028.8	1,112.4
Clearfield Coal Co.,	124,554	124,135	163	196	298	290	764.1	688.8
Kersey Coal and Coke Co., ..	39,535	39,535	181	181	74	74	218.4	218.4
Red Run Coal Co.,	101,924	98,064	160	157	267	247.5	637	616
Joseph H. Rellly and Co., ..	66,564	76,908	121	145	241	22	50.1	530.4
Buffalo Coal Co.,	25,475	27,618	7	41	238	251.8	541	673.6
Long Valley Coal Co.,	31,835	32,665	49	46	197	225.3	69.7	697
Mt. Carmel Coal Co.,	1,500	1,500	11	11	145.5	145.5	145.5	145.5
Kaul and Hall,	27,208	21,274	53	64	278	206.5	513.4	334.3
Geore Rees & Co.,	13,609	15,150	36	38	200	248	37.7	39.7
St. Mary's Coal Co.,	21,221	17,065	73	33	308	299.7	299.7	299.7
Mosquito Creek Coal Co., ..	5,173	5,173	34	34	141	141	141	474.8
A. G. Spears,	8,234	8,234	22	22	281	281	281	371.6
Isaac Stage,	8,234	8,234	22	22	281	281	281	371.6
Total and average,	7,216,941	8,199,027	8,079	8,936	243.7	235.8	897	*917.5

*Average production per employe, inside.

TABLE C—Classification of Accidents.

	Non-fatal.	Fatal.	Total.
By falls of coal,	4	14	18
By falls of slate,	8	20	28
By cars, inside,	3	13	16
By cars, outside,	1	1	2
By explosion of gas,	2	1	3
By falling down shaft,	1	1	2
By explosion of blasts,	1	1	2
By careless use of powder, ..	1	1	2
By mules,	1	1	2
Total,	21	50	71

TABLE D—Occupations of Persons Killed or Injured.

Occupations.	Killed or fatally injured.	Injured.	Total.
Miners,	18	38	56
Drivers, .....	.....	5	5
Grip car runners,	1	1	2
Spraggers, .....	.....	1	1
Machine runners, .....	.....	2	2
Scrapers, .....	.....	2	2
Fireman, .....	.....	.....	1
Laborers,	1	1	2
Total,	21	50	71

TABLE E—Nationalities of Persons Killed or Injured.

	Germans.	Americans.	Scotch.	English.	Swedes.	Irish.	Welsh.	Poles.	Slavs.	Italians.	Austrians.	Russian.	Total.
Killed, .....	.....	2	3	.....	.....	2	.....	.....	2	2	1	.....	21
Injured,	1	14	4	2	2	.....	4	7	2	4	6	.....	50
Total,	1	16	7	2	2	6	4	7	6	12	7	1	71

TABLE F—Continued.

Name of Mine.	Name of Operator.	System of Haulage.	Fan or Furnace.	Drift, Slope or Shaft.	Pick or Machine Mine.	Type of Machine.
Antrim No. 1,	McGee and Ellsworth,	Mule,	Fan,	Drift,	Pick,	
Antrim No. 3,	McGee and Ellsworth,	Rope and mule,	Fan,	Slope,	Pick,	
Red Run No. 7,	Red Run Coal Co.,	Electric,	Fan,	Drift,	Pick,	
Red Run No. 2,	Red Run Coal Co.,	Electric,	Fan,	Drift,	Pick,	
Williamsport,	Clearfield Coal Co.,	Motor, rope & mule,	Fan,	Drift,	Pick,	
Williamsport No. 6,	Clearfield Coal Co.,	Mule,	Furnace,	Drift,	Pick,	
Coal Glen 1 and 2,	Jefferson Coal Co.,	Locomotive and mules,	Fan,	Drift,	Pick,	
Coal Glen 3 and 4,	Jefferson Coal Co.,	Mule,	Fan,	Drift,	Pick,	
Beech Tree No. 2,	Jefferson Coal Co.,	Mule,	Fan,	Drift,	Pick,	
Byrne No. 1,	Kersey Coal and Coke Co.,	Mule,	Fan,	Drift,	Pick,	
Byrne No. 2,	Kersey Coal and Coke Co.,	Mule,	Furnace,	Drift,	Pick,	
Byrne No. 3,	Kersey Coal and Coke Co.,	Mule,	Furnace,	Drift,	Pick,	
Brock No. 1,	Joseph H. Rellly & Co.,	Mule,	Furnace,	Drift,	Pick,	
Brock No. 7,	Joseph H. Rellly & Co.,	Electric,	Furnace,	Drift,	Pick,	
Instantar,	Buffalo Coal Co.,	Mule,	Furnace,	Drift,	Pick,	
Lyman,	Buffalo Coal Co.,	Mule,	Furnace,	Drift,	Pick,	
Long Valley No. 3,	Long Valley Coal Co.,	Mule,	Furnace,	Drift,	Pick,	
Brittanic,	George Rees & Co.,	Mule,	Fan,	Drift,	Pick,	
Mt. Carmel,	Kelly & Emrick,	Mule,	Furnace,	Drift,	Pick,	
Mosquito Creek,	Heckendorn & Meeker,	Mule,	Furnace,	Drift,	Pick,	
Meyers Run,	A. G. Spears,	Mule,	Furnace,	Drift,	Pick,	
Hazel Dell,	Kaul & Hall,	Mule,	Fan,	Drift,	Pick,	
Arden No. 5,	Kurk & Rinn,	Mule,	Fan,	Drift,	Pick,	
Arden No. 4,	Isaac Stage,	Mule,	Fan,	Drift,	Pick,	
Clarendon No. 10,	Isaac Stage,	Mule,	Fan,	Drift,	Pick,	
Beech Tree No. 3,	Jefferson Coal Co.,	Rope and mules,	Fan,	Drift,	Pick,	

TABLE B.—Showing the total tonnage, number of lives lost, tons of coal produced per life lost and person injured, total number of employees and number of employes per life lost and per person injured, and the average number of tons of coal produced per employe.

Names of Companies.	Total number of tons of coal produced.	Number of lives lost.	Number of tons of coal produced per life lost.	Number of persons seriously injured.	Number of tons of coal produced per person seriously injured.	Total number of persons employed.	Number of persons employed per life lost.	Number of employes injured.	Average number of tons of coal produced per employe.
Rochester and Pittsburg Coal and Iron Company.	3,452,620	11	313,571.5	11	313,874.5	3,380	308	308	1,018.5
Jefferson and Clearfield Coal and Iron Company.	907,061	2	453,510	6	181,412	786	393	157	1,154
Northwestern Mining and Exchange Company.	970,998	2	485,499	6	157,718	1,344	672	224	722
Shawmut Coal Mining Company.	467,723	2	233,861	2	157,688	616	338	225	692
Blossburg Coal Company.	416,357	11	37,850	11	37,850	761	964	876	432
Morris Run Coal Mining Company.	373,024	1	353,024	1	353,024	761	760	760	461.5
Mervind White Coal Mining Company.	215,820	1	215,820	1	215,820	302	302	152	514.9
Reese and Ellsworth.	153,220	2	76,600	2	76,600	300	300	150	514.9
Jefferson Coal Company.	250,200	3	83,400	3	83,400	273	273	91	916.5
Kettle Creek Coal Mining Company.	288,881	1	253,400	1	253,400	254	254	110	1,173.8
Kurtz and Blinn Mining Company.	123,400	1	123,400	1	123,400	221	221	110	1,116.6
Clearfield Coal Company.	129,135	4	32,284	4	32,284	229	229	55	587
Kersey Coal and Coke Company.	39,535	2	19,767.5	2	19,767.5	203	203	101.5	194.2
Red Run Coal Company.	78,404	2	49,022	1	98,061	200	100	200	490.6
Joseph H. Reilly and Company.	27,618	1	27,618	1	27,618	167	167	167	490.5
Buffalo Coal Company.	32,065	1	32,065	1	32,065	51	51	51	541.5
Long Valley Coal Company.	21,274	1	21,274	1	21,274	68	68	68	485.8
Kaul and Hall.	15,150	1	15,150	1	15,150	36	36	36	312.8
George Reese and Company.	17,005	1	17,005	1	17,005	36	36	36	369.5
Mosquito Creek Coal Company.	5,172	1	5,172	1	5,172	36	36	36	43.7
A. G. Spears.	8,224	1	8,224	1	8,224	25	25	25	329.3
Isaac Stage.	8,224	1	8,224	1	8,224	25	25	25	329.3
Total and average.	8,199,027	21	390,430	50	163,980.5	10,383	494.4	207.66	*780

*Average production per person employed.

Description of Mines.

Mines of the Rochester and Pittsburg Coal and Iron Company.

This company operates nine mines in the district, namely: Adrian No. 1, Eleanora Nos. 1, 2 and 3, Elk Run shaft, Florence, Helvetia and Walston Nos. 3 and 4, located in Clearfield and Jefferson counties.

Adrian No. 1.—This is a very large mine, employing a large number of persons inside. The greater quantity of coal is mined by machinery of the Puncher type. A twenty-five foot diameter Guibal fan ventilates the mine, which was producing a volume of 103,200 cubic feet of air per minute on my last visit, which was being conducted to face of the different headings in four separate splits, and a very fair volume of air was found at face of each split, considering their length. Some local defects were found in the drainage.

This mine generates some explosive gas, and it was found necessary to use lock safety lamps in parts thereof during part of the year.

On November 3d the tippie to this mine was destroyed by fire, supposed to have originated in the conveyor engine room. Fortunately the structure was isolated from the other buildings, and no other damage was done. A new tippie was soon built, however, and work was resumed in December, with some improvement in the dumping arrangement, whereby the coal can be handled more economically.

Eleanora No. 1.—The coal in this mine is about exhausted, except some pillars, and their removal has been contracted for. The condition as to ventilation and drainage was only fair. Only a few persons are employed therein.

Eleanora No. 2.—This is also a very large mine, employing a great many persons, and machinery is used for mining, requiring a large volume of air to keep it in a healthful condition.

A twenty-five foot diameter Guibal fan is used to ventilate the mine, and a volume of 112,000 cubic feet was measured on the inlet conveyed in three splits to the working faces. A very good volume has always been found at face of the different headings, except on 9th right heading, where the volume was ample, but was very much vitiated by powder smoke, carried from other parts of the mine, with the air.

Eleanora No. 3.—The product of this mine is handled over the No. 2 mine tippie, and is also mined by machinery of the Puncher type.

A volume of 58,000 cubic feet of air was being produced and was very well conducted to the several headings.

Some parts of the mine needed closer attention regarding drainage.

Elk Run Shaft.—This shaft is 165 feet deep from the surface of the ground, and was sunk during 1899, and the workings developed to some extent during that year, but there were not many persons employed inside.

The opening is made principally for the purpose of drainage, and is now utilized for that purpose to some extent, the water of the Walston No. 3 mine being pumped therefrom.

Two headings are also being driven towards the Adrian No. 1 mine, but work has been delayed by a sand rock fault which seems to be of considerable thickness, the idea being to drain the Adrian mine water into this shaft, which will ultimately be done.

Explosive gas is generated in some parts of the mine, but an ample volume of air is being produced, 78,000 cubic feet having been measured on the inlet, which is conveyed in currents of 15,000, 30,000 and 36,000 cubic feet respectively per minute to face of headings.

Florence Mine.—This, comparatively speaking, is a new mine. It was opened during 1899, and promises to be a very extensive operation. Machinery is used exclusively in mining, and the mine is being developed very rapidly. Hauling is now done by mule power in the side headings to the slope, but I understand electric motors are to be used on the side headings, in the near future.

I measured 54,600 cubic feet of air per minute entering at the inlet, which was being conducted in four splits into the mine, but was defective at face of some headings owing to imperfect distribution. The mine was very well drained throughout.

Helvetia Mine.—On my last visit I found a very good current of air passing around the mine. Fifty-two thousand cubic feet of air per minute was measured on the inlet and was being conducted in three splits.

Some defects were found in the drainage, owing to an increased quantity of water from pillar workings broken to the surface.

Walston No. 3.—The dip workings of this mine are connected to the Elk Run shaft mine for the purpose of drainage and as a means of egress from the latter mine.

Part of the mine has been overrun by a "creep," but it has become settled now.

A volume of 75,000 cubic feet of air per minute was found entering the mine and was reasonably well conducted to face of workings, and the drainage was fairly good.

Walston No. 4.—This is not a very extensive mine, and is now on the decline; 33,600 cubic feet of air per minute was being produced

by a small fan, and, if the foreman would only give the details of ventilation more attention, the condition of the mine would be very satisfactory.

Walston No. 1.—Was not in operation during the year.

Mines of the Jefferson and Clearfield Coal and Iron Company.

Rochester Mine.—Is an old mine and covers a very large territory, and, owing to the number of abandoned workings, it is rather difficult to ventilate, and owing to the irregular grade of the seam, good drainage is not easily maintained, but, notwithstanding these difficulties, the mine has been found in a reasonably good condition.

Seventy-two thousand cubic feet of air per minute was being produced, which was fairly well conducted to face of workings.

Sandy Lick Mine.—This mine also has the same difficulties as the Rochester mine (being in the same field), regarding ventilation and drainage, but a new shaft was sunk during the year near the face of workings, and a fan installed at the bottom, which produces an ample volume of air at the point where it is most needed.

I measured a volume of 50,400 cubic feet of air on the inlet, which was being fairly well conducted around the workings. The drainage was in fair condition.

London Mine.—The condition of this mine during the early part of the year, as regards ventilation, was not very good, but a large Capell fan was erected, which has put the mine in a good healthful condition. This fan was producing a volume of 100,000 cubic feet of air per minute, which was being conducted in three splits around the mine. It was also reasonably well drained.

Pancoast Mine.—This is a small operation and does not employ very many persons inside. It was found in a reasonably good condition, with a volume of 20,800 cubic feet of air per minute, circulating around the workings, and was fairly well drained.

Mines of the Northwestern Mining and Exchange Company.

The mines of this company have been in operation steadily during the entire year.

Dagus No. 1 Mine.—This is a very large mine, employing a large number of persons inside. The product is conveyed from the body of the mine to foot of slope by the tail rope system of haulage, which works very successfully.

The ventilation is produced by a large Capell fan, but the results obtained are not very gratifying, owing to the contracted condition of the return airway.

I measured on the return, 46,200 cubic feet of air per minute, the fan making 180 revolutions per minute. A new airway is, however, being driven, which will, when completed, improve conditions very much.

Eureka Slope.—The ventilation at face of the workings was not vigorous enough, owing to the resistance the furnace has to overcome, but a new airway is now being driven which will shorten the course of the air current and thereby reduce the friction. Other conditions were good.

Dagus No. 3.—I have found this mine in good condition on each of my visits. I measured a volume of 29,400 cubic feet of air in circulation, which was reasonably well conducted to face of the workings, and the mine was very well drained. A new opening is being made into the coal on dip side of present workings, where the tail rope system of haulage will be used in place of mule power.

Clarion No. 27.—This mine was in good condition generally. A volume of 48,000 cubic feet of air was circulating around the workings, produced by two furnaces.

Clarion No. 29.—The condition of this mine was satisfactory. A volume of 46,250 cubic feet of air being in circulation; the mine was well drained.

West Clarion.—The mining is being done by electricity, and the Jeffrey chain cutter type of machine is in use. A system of mining is adopted whereby the pillars can also be very successfully removed by the machine, which works admirably.

I measured a volume of 31,500 cubic feet on the return, which was being conveyed in quantities sufficient to meet requirements. The mine was well drained.

West Clarion No. 3.—This mine was found in good condition generally. A volume of 43,200 cubic feet of air was measured on my last visit, produced by a Champion fan operated by electricity, and conveyed to face of workings in four separate currents. The mine was well drained.

Rattlesnake Run Mine.—This mine was opened during the year by Messrs. Bond & Beadle, who operated it for a very short time, and it was then closed for a few months. Finally it was leased by the North Western Mining and Exchange Company, and has since been operated by said company. The condition on my last visit was fair.

Mines of the Shawmut Mining Company.

The mines of this company are located in Elk county, and have been operated very steadily during the greater part of the year. They are as follows: Mead Run, Nos. 2 and 4, Shawmut, Nos. 1, 2, 3, 4, 5, 6, 7, 8, 9 and 10.

Mead Run No. 2.—The coal in this mine is nearly all removed, and but few persons were employed in mining the remaining pillars. The condition was fair as to ventilation and drainage.

Mead Run No. 4.—This is quite an extensive mine, employing a good many persons inside. It is ventilated by a furnace, which produced 34,900 cubic feet of air per minute. The condition of the mine is only fair as to ventilation, but the drainage had been improved on my last visit.

Shawmut Nos. 1, 2, 3 and 4 mines were found in fair condition. These openings are all confined to pillar drawing, and owing to the broken condition of the workings it is quite difficult to keep them in good condition; no machines are used in mining and not much blasting is done during the day, consequently the volume of air produced was sufficient to keep the workings in a healthful condition.

Shawmut No. 5.—This mine is located at Elbon. On my first visit I found the ventilation very defective. An 18 foot Brazill fan was only producing 24,500 cubic feet of air per minute, running at a speed of 80 revolutions per minute. A change in the construction of the fan casing, however, improved matters very much, and I was notified by the superintendent that the fan running at 65 revolutions per minute, produced 45,000 cubic feet of air after the change was made.

On my last visit I found the sanitary conditions very much improved and the mine well drained.

Sixty per cent. of the coal in this mine is mined by electricity and is being handled by the same power.

Shawmut No. 6.—This is a new slope opening made during the year and promises to be quite a large operation.

An 18 foot Brazil fan has been erected over an 8 by 8 foot shaft, from which an airway of ample area is being driven parallel to the main haulage way. Each heading will have a separate current of air, which will be carried by overcasts direct to the upcast. The greater part of the coal is mined by electricity, and it is proposed to use electric motors to handle the product.

On my last visit I found the mine in good condition, generally, and everything is being done by the management to make it a profitable operation.

Shawmut No. 8.—This mine has not been in a satisfactory condition as to ventilation, owing to the contracted condition of the airways offering great resistance to the current; which the furnace was unable to overcome. A fan has been ordered, however, which I hope will improve matters. The other conditions are good.

The cutting and hauling of coal is done by electricity.

Shawmut No. 9.—The sanitary condition of this mine on my last visit was only fair, the ventilation at face of workings being very sluggish and not up to the requirements. I called the attention of the mine foreman to this, and he promised to remedy the defect at once by having the brattices and doors overhauled.

Shawmut No. 10.—This is a new opening made during the year, and was in good condition generally.

Mines of the Blossburg Coal Company.

The mines of this company have been operated reasonably well during the year and are located in Tioga county.

Arnot No. 1.—This opening was abandoned thirty years ago, when a more profitable field was mined, but it was reopened during the year, and the headings driven forward into the field with a view of proving the seam in this locality, but owing to a large quantity of refuse it contains, it is rather an expensive vein to mine at the present day. The conditions were not very satisfactory as to ventilation. The furnace in its present location is not adequate to meet the requirements, and a new location should be chosen for the furnace shaft, whereby a longer heated column would be procured, or better still, a fan might be used. Other conditions of the mine were good.

Arnot No. 2 Mine.—This mine had also been abandoned for several years and again reopened during 1899. The coal to the west side of this opening is low and was not mined so long as a higher coal could be obtained, but it is now being developed, and will be mined, as high coal in this section of the district is becoming scarce.

The condition of the mine was only fair. The ventilation at face of some headings being quite defective.

Arnot Nos. 3 and 5.—These two openings are ventilated by the same fan, which was producing a very fair volume of air, which was being conducted to face of workings in two separate currents. In the No. 3 mine, black damp (C. O₂), was given off freely from the old workings, which vitiated the air to some extent and requires a vigorous current to remove, and to keep the mine in a good healthful condition. The product of these openings is hauled from the side tracks in the mine to the tippie by a steam locomotive.

Arnot No. 7.—This is a new opening made during the year; on my visit I found sixteen persons employed, and it was in very good condition.

Maple Hill Mine.—I found only six persons employed in this mine, consequently it did not come under the provisions of the law. It was in very fair condition, with a volume of 7,600 cubic feet of air passing around the workings.

Bear Run.—This mine is located at Landrus and was in very fair condition.

It was ventilated by a fan, which was producing a volume of 46,200 cubic feet per minute, which was conveyed around the mine in three separate splits.

It was very well drained.

Mines of the Berwind-White Coal Mining Company.

Berwind Shaft.—This is quite an extensive mine. The coal is being conveyed from the north and south sides of the mine to shaft bottom by a rope haulage, which was extended on the south side 1,600 feet during the year. The north side of mine was still partially under water, which had accumulated during the time the surface buildings were consumed by fire, on the evening of August 15th, which was supposed to have originated in the boiler coal bins. Some twenty persons were at the time employed in the mine, and by the heroic efforts of the fire bosses and others, who descended the fan shaft and warned those in the mine of the danger, they were brought to the surface in safety, the fan building having been saved from the conflagration only by very hard work on the part of those on the surface, owing to its close proximity to the other buildings.

The company at once set to work cleaning up and repairing the steam connections, in order that the mine pumps might be started, which was done in a very short time.

New buildings of brick and stone were at once erected, which are comparatively fire-proof and the general arrangement for handling coal improved. Operations were again commenced during the latter part of September. On my last visit I found it very well ventilated. A volume of 126,400 cubic feet of air per minute was measured at the bottom of down-cast shaft, conveyed in four separate currents to face of the workings.

This mine generates explosive gas, but the company is leaving nothing undone to insure safety to those employed therein.

Cataract Mines.—The work in these mines is mostly confined to pillar drawing. Their condition as to ventilation is fair, but the drainage needed attention.

Mines of the Kettle Creek Coal Mining Company.

Kettle Creek Nos. 1, 2 and 3.—The mines of this company were in good condition generally. In the No. 1 mine a volume of 21,000 cubic feet of air was measured on the inlet which was reasonably well conducted to face of workings; it was also well drained.

A volume of 33,600 cubic feet was measured on the return from No. 2 and 3 mines, which was fairly well distributed. The drainage was good.

Mines of the Clearfield Coal Company.

Williamsport Mine.—Part of this mine has been overrun by a "creep" caused by improper mining of coal, in not leaving sufficient pillars to protect the air and haulage ways. This condition of affairs has caused the company and present management considerable trouble and expense in keeping the mine in its present condition. In consequence, it has not been in a very satisfactory condition as to ventilation. A volume of 50,400 cubic feet of air per minute was measured on the return near the fan, but only about one-half of this volume was measured on the inlet, showing conclusively that the air was finding a short route to the fan from old workings where pillars are removed along the return airway. The attention of those in charge was called to this, and I hope to find, on my next visit, some improvement made by bratticing off the old workings, and a more sweeping current at face of workings. The mine was fairly well drained.

Williamsport No. 6 Mine.—This is a new opening made during the year, and was found in good condition as to ventilation and drainage.

Mines of the Kersey Coal and Coke Company.

Byrne Nos. 1, 2 and 3.—These are new openings made during the year, in the "B" or Lower Kittanning vein, located near Weedville, Elk county. A railroad, known as the Kersey Branch Railroad, has been built from St. Mary's, a distance of nine miles, over which the product will be conveyed to market. The company is building fifty coke ovens, and have built about one hundred dwelling houses for the employes; other improvements are still going on. It is proposed to mine and haul coal by electricity.

The No. 1 and 2 mines, on my last visit, were in an unsatisfactory condition. The means of producing ventilation were insufficient and did not meet the requirements. The No. 3 opening was in a good condition, except 1st right heading, where the ventilation was defective. The mines were all well drained.

Mines of the Morris Run Coal Mining Company.

Jones Mine No. 1.—This is a very extensive mine, employing a large number of persons. The product is conveyed to the surface by an endless rope system of haulage, which is about two miles in length and works very smoothly.

The ventilation is produced by a Guibal fan, 20 foot diameter, and on my last visit I measured on the return 64,800 cubic feet of air per minute, which was being conveyed in two splits. The ventilation at face of workings was fair, and the drainage could not be complained of.

A slope was being driven to the Seymour vein, which is above the present workings, with the view of mining the same.

New Mine.—This is a drift opening, and is not, as the name would indicate, a new opening, but is on the contrary a very old mine. I measured a volume of 12,000 cubic feet of air traveling through the mine in one current, but owing to the location of the furnace, the ventilation at face of the workings was rather sluggish. The mine was fairly well drained.

Mines of McGee & Ellsworth.

Antrim No. 1.—On my first visit I found the ventilation in this mine being contaminated by black damp ($C O_2$) to such an extent that the workmen had difficulty in keeping their lamps lighted, but upon my second visit I found some improvement in this respect. A volume of 36,200 cubic feet of air per minute was found passing around the mine, fairly well conducted around the workings. The drainage was fairly good.

Antrim No. 5.—The Blossburg and Seymour veins are both being mined in this opening, and both veins are ventilated by the same current of air. A volume of 40,000 cubic feet of air per minute was measured on the inlet, which was well conducted, but was being vitiated by black damp ($C O_2$), from old workings, and in consequence, the sanitary condition was not good. There could also be some improvement made in the drainage.

Mines of the Jefferson Coal Company.

Coal Glen Nos. 1 and 2.—These openings are made into the "D" vein, or Lower Freeport, and are about exhausted, the mining being confined to pillar drawing.

Considering the broken condition of the workings, the ventilation was very fair.

Coal Glen Nos. 3 and 4.—These openings are in the Upper Kittanning seam and are connected and ventilated by the same air current. The condition as to ventilation and drainage was good.

Beech Tree No. 2 Mine.—This mine has been leased during the year, from the Rochester and Pittsburg Coal and Iron Company, and operations were begun during the latter part of the year.

I did not inspect this mine during the year as operations were begun only in the month of December, therefore, I am unable to comment on its condition at this time.

Mines of the Red Run Coal Company.

Red Run No. 2.—The ventilation at face of some headings was defective and not up to requirements, but other conditions were very good. The No. 7 opening was found in very fair condition generally. Electricity is used in these openings for haulage.

Mines of the Buffalo Coal Company.

The mines of this company are located at Clermont, McKean county, and are leased and operated by J. F. Keating.

The Instanter mine was reasonably well ventilated, but was very poorly drained.

Lyman mine was found in a fair condition as to ventilation and drainage.

Mines of Joseph H. Reilley and Company.

Brock Mine.—This mine was found in a reasonably safe and healthful condition. A volume of 25,200 cubic feet of air per minute was measured on the inlet, which was being conveyed in four separate currents. The drainage was very good.

Brock No. 7.—This is a new opening made during the year, and when inspected was found in a fair condition. This opening is being driven towards the old Brock mine, and eventually all the coal of both mines will be conveyed from this opening, dispensing with a very long haul by motors from the Brock mine.

St. Mary's mine did not come under the provisions of the law and has been abandoned.

Hazel Dell was found in fair condition as to ventilation and drainage.

Meyers Run Mine.—This is a new opening made during the year, and operated by A. G. Spears. It was in good condition generally.

Mosquito Mine.—The ventilation and drainage had been neglected for some time previous to my last visit, as no mine foreman was employed. I have been advised that a suitable man has since been procured, and I hope that the conditions will be improved.

Brittanie Mine.—A new air shaft has been sunk at this mine during the year, which was not completed on my last visit. The condition as to ventilation and drainage was fair.

Mt. Carmel.—There were only six persons employed in this mine on my last visit, but it was, however, in good condition.

Clearfield No. 10.—This mine is operated by Isaac Stage, and employs only enough miners to supply the local trade in and about the town of Clearfield. I, however, found a sufficient number of persons employed to bring it under the provisions of the law, and requested the owner to comply with its requirements.

Long Valley No. 3.—This mine is located at Long Valley, Bradford county, and is the only mine in operation in the county. I found the mine very well ventilated and drained and other conditions satisfactory.

Walston No. 5.—This mine has been in very fair condition, except on my last visit, when I had occasion to complain regarding the ventilation; the mine was very well drained.

Adrian No. 4.—This mine is located at Delancey, and the product is taken over the Adrian No. 1 tippie. It is owned and operated by Samuel A. Rinn, of Punxsutawney, Pa.

On my last visit the condition as to ventilation was not very good, and I requested some improvements in this direction; it was fairly well drained.

Improvements Made During the Year by the Shawmut Mining Company.

Twelve bee-hive coke ovens were built.

Twenty-six five-room houses were erected, plastered and painted, with porches back and front.

At Horton City a new slope was driven a distance of 380 feet from the surface at an angle of 9 degrees and 28 minutes. At present cars are being hoisted, 15 cars at a trip, by a pair of duplex engines 10x24. The coal and cars will average 30,000 pounds. These engines are inclosed in a building 28x56.

Two tubular boilers of 100 horse power each have also been installed, which are enclosed in a building 40x50.

The coal is cut by electricity, six Jeffrey mining machines are used of the 16A type.

The power is furnished by a general electric generator driven by a McEwen engine.

An 18 foot fan inclosed in a building 16x32 has also been installed. This fan is on top of a shaft 8x8 in the clear, sunk to a depth of 60 feet to the bottom of the coal.

A traveling way 6x7 has been completed, which gives two currents of fresh air to ventilate the mine.

The tippie is 500 feet long, 50 feet high and 30 feet wide.

The water from the mine is pumped to the surface by a 10x10x12 low service piston pattern Snow pump, relieved by a Gould electric rotary pump 4.

DESCRIPTION OF FATAL ACCIDENTS WHICH OCCURRED DURING THE YEAR 1900.

F. Felix, a miner, was instantly killed by a fall of roof slate and coal in his working place in the London mine, on February 19th. He in company with two of his countrymen, was drawing back a room pillar. They had left a small stump of coal in the gob to assist the props in holding the roof until they could work the pillar back to a clay vein. After working the coal all off the clay vein, they concluded to mine out the stump (which was to be left in), and while doing so the roof fell, covering two of them; after several hours work one was rescued alive, who recovered, but Felix was less fortunate for he was mining out the stump of coal. The driver stated that he had told them not to work any more in the place, as it was dangerous, but they only laughed at his remarks.

Raffile Pachana was so seriously injured in Adrian No. 1 mine by a large lump of coal that rolled over him, while working in front of it, that he died very shortly after being taken home. This accident occurred on March 14th; upon investigation, I found that accidents occur quite frequently from coal that has been shot down, but is not pulled over.

On March 23d Andrew Yensko was instantly killed by a fall of coal in the Adrian No. 4 mine.

The deceased was a beginner in the mining of coal and was ignorant of the dangers attending it. He, however, was accompanied by a more practical miner. They were undermining coal, which was uncommonly dangerous from the fact that it was on the outcrop, and clay slips were frequently cut, and no means were used to prevent the coal from falling while they were working under it.

On May 8th James Leary was fatally injured by a blast of dynamite in the Elk Run shaft workings. Leary and James Burns were employed in blasting bottom rock in the Adrian heading, and were working on the night turn, and they decided that before going home they would fire two shots in the bottom. They charged the two holes, one along each pillar, and ignited both shots at the same time, and retreated to a place of safety, and, after waiting a short time, one shot exploded, but the other blast hung fire, and Leary becoming impatient, decided to return to see if the fuse had gone out, and upon his doing so the blast exploded while he was stooping over it.

They were both practical miners, but showed very poor judgment in attempting to fire both shots at the same time, and also in going back so soon to investigate.

Steve Zolar was fatally injured by a fall of slate in his working place on May 11th, at Shawmut No. 1. He refused to heed the warning of others who were employed near him when he was told to set props for his safety, and paid the penalty with his life.

On June 7th Joseph Polvina was fatally burned by a powder explosion at the entrance of No. 7 drift, Red Run mines. The boy, who was but sixteen years of age, was carrying powder into the mine in a common lard bucket, and, in some unknown manner, he ignited the powder, which set his clothes on fire and burned him so severely that he died on the following day.

I believe that the parents should be held responsible for such accidents, in allowing powder to be carried by such young boys and in such a careless manner.

On June 9th Warren M. Gains fell down the Rochester mine ventilating and drainage shaft. He was employed as fireman, and assisted in unloading coal for the boilers, which is mined and hoisted at this shaft. A car of coal had been taken off the cage and an empty car put on and the engineer signaled to lower the cage. After doing so Gains neglected to close the door on shaft entrance, and when he returned with the empty car, seeing the door open, he supposed the cage was there and pushed the car into the shaft, which pulled him down with it.

An explosion of fire damp occurred on the morning of June 23d in the Adrian No. 1 mine, in which three miners were very seriously burned, two of whom died the same day, while the third survived after suffering about two months in the hospital.

The room where the explosion occurred had fallen in during the night before, and explosive gas had accumulated on top of the fall. The fire boss who examined the workings, notified the day fire boss regarding the dangerous condition of the room, and the day fire boss warned Fred Mucha not to enter his place on that day, but to work with Andrew Valyo and son in an adjacent room, and after going to Valyo's room they concluded to go in search of a can of powder and ventured over the danger boards, when they ignited the gas.

Upon investigation and after hearing the testimony of several witnesses I concluded that the gas had been ignited by either Mucha or Valyo, or possibly both, while in search of the powder, after being warned not to enter the place.

I would have instituted proceedings against Andrew Valyo, the only survivor, but concluded that he had suffered sufficiently for his foolhardy act.

Francisco Oddona was instantly killed by a fall of roof slate in the Clarion No. 27 drift on July 30th. The victim and Barto Johanna, another of his countrymen, were drawing out a room pillar together, and upon investigation, I learned that Oddona was not a practical miner, but was, however, accompanied by a man of several years experience. The place was well timbered, but a stone fell from the broken side of the pillar crushing the victim's skull while he was engaged in shoveling coal under it. This was an unavoidable accident.

While Terry Donley was undermining his place in the Walston No. 3 slope on August 6th, a piece of top coal, which he had neglected to take down before getting under it, fell upon his side breaking two of his ribs, which penetrated his left lung, causing internal hemorrhage, from which he died in four hours after being taken to the hospital.

The deceased was 55 years old and had mined coal nearly all his life. The coal that fell had been loosened by a previous blast.

On September 22d Thomas Ruddock, a miner, and James Potts, who was employed as gripman, were both instantly killed by a collision of mine cars in Eleanora No. 2 slope mine. The product of this mine is brought to the surface from the several inside headings by the endless rope system of haulage, using two grip cars. Two men are employed on each trip of cars, a gripman and trip runner or helper to the gripman. On the evening of the 21st of September, the day previous to the date of the accident, as a loaded trip had just started out from 9th right heading, some one on the surface noticed a strand broken in the wire rope, and the trip was at once stopped to repair the damaged rope, and the trip was left standing on the main slope, between 7th and 8th left, over night, as it was late when the rope was repaired.

John Moorhead and John Lewis, who were in charge of the trip, decided that evening on their way home, that the next morning they would not report at the slope entrance, as was customary, but would go in the manway (which was a short cut into the mine), to start their trip out early. This they did without notifying the officials or the other two trip runners, James Potts and Richard Barnes, who were at the slope mouth waiting for Moorhead and Lewis, and, as it was becoming late, they concluded that Moorhead and Lewis had overslept themselves, and they took an empty car and ran it down the slope by hand. When they arrived at 5th left, they stopped to repair the signal wire, which was broken, and while standing there Thomas Ruddock, Moses Mathuen and John Gadus got into the car to ride with them. They started down the slope, and while they were going down, the loaded trip in charge of Moorhead and Lewis started out, and they collided, throwing Ruddock and Potts out with such violence that they were both instantly killed, and severely injuring Moses Mathuen.

An inquest was held before my arrival, although I arrived there at 2 P. M., and the jury placed all blame on the deceased persons, who, I believe, were equally responsible with the rest. They certainly did wrong in running the car down the slope, and Moorhead and Lewis blundered in going into the mine without reporting at the slope entrance.

Strict adherence to the mine rules and good discipline will accomplish much in preventing such accidents.

On September 29th Samuel Guy was fatally injured by a fall of roof slate in Jones No. 1 mine. He was an experienced miner, I having known him personally to be a careful man. His room was well timbered, but an unforeseen slip caused a large stone to fall upon him, breaking his back. He was taken to the hospital at Blossburg, where he suffered until October 18th, when he died.

This was one of the avoidable accidents that will occur to the most experienced miners.

On October 11th Mike Egan was instantly killed by mine cars at the foot of Ralston plane. The victim was employed on the tippie, and in attempting to run away to a place of safety, from a trip of loaded cars that were running wildly down the plane, the rope having broken, he was caught by them and knocked off the tippie. The trip of cars were run against the dummy car, as usual, when the rope broke at the socket. I examined the rope and found it in good condition, but I have reason to believe that it had become weakened at this point, although it had been carefully watched and always cut when thought necessary.

Frank Mann was instantly killed by a fall of coal and slate in Shawmut No. 1 mine on October 25th. He, in company with Domonia Roach, one of his countrymen, was drawing heading pillars, and while undermining the coal on side of heading the coal fell, bringing with it some slate, that fell from a clay strip. Roach was injured by the same fall.

I concluded this to be an unavoidable accident from the fact that the slip could not be seen by the workmen.

On October 30th Rosari Collossi and Paylo Micali were instantly killed by a fall of roof slate in the Walston No. 3 slope.

Upon investigation I found that the fall had come from two slips running up in a "V" shape, and the props were ten feet from face of room, and the room was thirty feet wide, nine feet wider than is customary to drive them, and but very few posts used. The room should have been kept at its proper width and timber kept closer to face, which, in my opinion would have prevented the accident.

The Puncher type of machine is used in this mine to undercut the coal, and for this reason props are kept back at least six feet in order to leave room for machine, but this room was mined by pick and this was unnecessary.

On December 10th Morrello Modesto was fatally injured in Dagus No. 3 mine by a fall of coal. He had the entire width of room about undermined and had fired a tight shot, which brought down about twelve feet in length of the coal, leaving the other part standing, but he got under it to finish undermining, and set no sprags to prevent it from falling.

This was an accident in which the victim himself is responsible.

On December 13th James Rush was instantly killed by a fall of

roof in the Eleanora No. 1 mine. He was drawing back a pillar and had undermined a fall of coal and was on the upper side of pillar, cutting out a coal sprag, when a large piece of sand rock fell upon him.

Upon investigation and upon examining the place, I found that he had not propped the place sufficiently for his own protection. This is another accident added to the list of those from gross carelessness upon the part of the victim himself.

George Thompson was instantly killed on the evening of December 20th in the Eleanora No. 2 mine, by being run over by a loaded trip of cars on haulage road in the 9th right heading. He, in violation of the mine rules, and in disobedience to the orders of the mine officials, jumped on the cars, and, in doing so, his head struck a cross timber, knocking him under the cars with the above result.

TABLE I—Showing names of operators, railroads, etc., and location of collieries in the Fourth Bituminous District for the year 1900.

Names of Operators and Collieries.	County.	Name of General Superintendent.	P. O. Address.	Name of Superintendent.	P. O. Address.	Railroad to Mine.
Rochester and Pittsburg Coal and Iron Co.						
Adrian No. 1.	Jefferson.	A. H. Bowman.	Punxsutawney.	A. W. Calloway.	Delancy.	Buffalo, Rochester & Pittsburg.
Florence.	Jefferson.	A. H. Bowman.	Punxsutawney.	John H. Bell.	Punxsutawney.	Buffalo, Rochester & Pittsburg.
Elk Run shaft.	Jefferson.	A. H. Bowman.	Punxsutawney.	W. D. Dunsmore.	Punxsutawney.	Buffalo, Rochester & Pittsburg.
Elenora, 1, 2 and 3.	Jefferson.	A. H. Bowman.	Punxsutawney.	David Fleming.	Elenora.	Buffalo, Rochester & Pittsburg.
Watson, 3 and 4.	Jefferson.	A. H. Bowman.	Punxsutawney.	Thomas K. Johns.	Walston.	Buffalo, Rochester & Pittsburg.
Helvetia slope.	Clearfield.	A. H. Bowman.	Punxsutawney.	I. S. Lother.	Helvetia.	Buffalo, Rochester & Pittsburg.
Jefferson and Clearfield Coal and Iron Co.						
Rochester.	Clearfield.	L. W. Robinson.	Reynoldsville.	John Reed.	Reynoldsville.	Buffalo, Rochester & Pittsburg.
Sandy Lick.	Clearfield.	L. W. Robinson.	Reynoldsville.	John Reed.	Reynoldsville.	Buffalo, Rochester & Pittsburg.
London.	Jefferson.	L. W. Robinson.	Reynoldsville.	John Reed.	Reynoldsville.	Buffalo, Rochester & Pittsburg.
Pancoast.	Jefferson.	L. W. Robinson.	Reynoldsville.	John Reed.	Reynoldsville.	Buffalo, Rochester & Pittsburg.
Northwestern Mining & Ex. Co.						
Eureka slope.	Elk.	Joseph Bailey.	Brockwayville.	Joseph Bailey.	Brockwayville.	Erle Railroad.
Dagus 1 and 3.	Elk.	Joseph Bailey.	Brockwayville.	Joseph Bailey.	Brockwayville.	Erle Railroad.
Clarion, 27 and 29.	Elk.	Joseph Bailey.	Brockwayville.	Joseph Bailey.	Brockwayville.	Erle Railroad.
West Clarion, 1 and 3.	Jefferson.	Joseph Bailey.	Brockwayville.	Joseph Bailey.	Brockwayville.	Erle Railroad.
Rattlesnake Run mine.	Jefferson.	Joseph Bailey.	Brockwayville.	Joseph Bailey.	Brockwayville.	K. & C. Div. P. & E.
Shawmut Coal Mining Co.						
Shawmut, 1, 2, 3, 4, 5, 6, 8, 9 and 10.	Elk.	Geo. S. Ramsey.	St. Mary's.	Henry Redding.	Cartwright.	Pittsburg, Shawmut & Northern.
Mead Run, 2 and 4.	Elk.	Geo. S. Ramsey.	St. Mary's.	Henry Redding.	Cartwright.	Pittsburg, Shawmut & Northern.
Blossburg Coal Co.						
Arnot Nos. 1, 2, 3, 5 and 7.	Tioga.	F. B. Lincoln.	Arnot.	F. B. Lincoln.	Arnot.	Erle Railroad.
Bear Run.	Tioga.	F. B. Lincoln.	Arnot.	F. B. Lincoln.	Arnot.	Erle Railroad.
Maple Hill.	Tioga.	F. B. Lincoln.	Arnot.	F. B. Lincoln.	Arnot.	Erle Railroad.
Morris Run Coal Mining Co.						
Jones No. 1.	Tioga.	W. S. Nearing.	Morris Run.	W. S. Nearing.	Morris Run.	N. Y. C. & H. R. R. R.
New Mine, 2.	Tioga.	W. S. Nearing.	Morris Run.	W. S. Nearing.	Morris Run.	N. Y. C. & H. R. R. R.
Berwind White Coal Mining Co.						
Berwind shaft.	Clearfield.	Thos. Fisher.	Philadelphia.	Chas. Sharpless.	Du Bois.	A. V. R. R.
Cataract, 2 and 3.	Clearfield.	Thos. Fisher.	Philadelphia.	Chas. Sharpless.	Bellefonte.	S. & C. R. R.

McGee and Ellsworth, Antrim No. 1,	Tioga,	William Howell, William Howell, ..	Corning, N. Y., Corning, N. Y., ..	James Pollock, .. James Pollock, ..	Antrim,	N. Y. C. & H. R. R. R. R. N. Y. C. & H. R. R. R.
Jefferson Coal Co. Coal Glen No. 1,	Jefferson, Jefferson, ..	Austin Blakeslee, Austin Blakeslee, ..	Coal Glen, Coal Glen, ..	Austin Blakeslee, Austin Blakeslee, ..	Coal Glen,	Buffalo, Rochester & Pittsburg Buffalo, Rochester & Pittsburg
Kettle Creek Coal Mining Co. Kettle Creek, 1, 2 and 3,	Clinton,	Geo. L. Miller, ..	Bitumen,	James Ward,	Bitumen,	S. & B. R. R.
Clearfield Coal Co. Williamsport, 2,	Clearfield, Clearfield, ..	Jas. G. Dunmore, Jas. G. Dunmore, ..	Tyler,	Jas. G. Dunsmore, Jas. G. Dunsmore, ..	Tyler,	A. V. R. R. A. V. R. R.
Kersey Coal and Coke Co. Dyrine, 1, 2 and 3,	Elk,	George S. Ramsey, George S. Ramsey, ..	St. Mary's,	T. G. Mathers,	Weedville,	Kersey Branch Railroad.
Red Run Coal Co. Red Run, 2 and 7,	Lycoming,	D. B. Allison,	Roaring Branch, Roaring Branch, ..	D. B. Allison,	Roaring Branch, Roaring Branch, ..	Northern Central Railroad.
Joseph H. Reilly & Co. Brook mines,	Jefferson,	John E. Reilly,	Brookwayville, ..	John E. Reilly,	Brookwayville, ..	R. & C. R. R.
Buffalo Coal Co. Instantan,	McKean, McKean, ..	C. D. R. Stowits, C. D. R. Stowits, ..	Buffalo, N. Y., Buffalo, N. Y., ..	J. H. Tate,	Clermont,	W. N. Y. & P. R. R. W. N. Y. & P. R. R.
Lyman,	McKean,	J. F. Keating,	Clermont,	J. F. Keating,	Clermont,	W. N. Y. & P. R. R. W. N. Y. & P. R. R.
Hazel Dell,	Elk,	Andrew Kaul,	St. Mary's,	Andrew Kaul,	St. Mary's,	Pittsburg, Shawmut & Northern.
George Rees & Co. Britannic,	Clearfield, ..	George Rees,	Karthauss,	George Rees,	Karthauss,	S. & C. R. R.
Mosquito Creek Coal Co. Mosquito Creek,	Clearfield, ..	J. A. Heckendorn, J. A. Heckendorn, ..	Karthauss,	J. A. Heckendorn, J. A. Heckendorn, ..	Karthauss,	S. & C. R. R.
Kurtz & Rinn. Walston No. 5,	Jefferson, Jefferson, ..	Samuel Rinn, Samuel Rinn, ..	Punxsutawney, ..	Thos. McMillen, Alex. Stewart, ..	Walston,	Buffalo, Rochester & Pittsburg. Buffalo, Rochester & Pittsburg.
Adrian No. 4,	Jefferson, ..	Samuel Rinn, ..	Punxsutawney, ..	Alex. Stewart, ..	Anita,	Buffalo, Rochester & Pittsburg. Buffalo, Rochester & Pittsburg.
Meyers Run,	Clearfield, ..	A. G. Spears,	Karthauss,	A. G. Spears,	Karthauss,	S. & C. R. R.
Isaac Stage. Clearfield No. 10,	Clearfield, ..	Isaac Stage,	Clearheid,	Isaac Stage,	Clearfield,	No railroad.
Long Valley Coal Co. Long Valley No. 3,	Bradford, ..	O. A. Baldwin,	Towanda,	R. E. Dunston,	Towanda,	Barelay Railroad.

TABLE II.—Gives the total number of tons of coal mined and tons of coke produced in each colliery; number of days worked, number of employees, number of persons killed and injured, number of kegs of powder, etc., used in the Fourth Bituminous District for the year ending December 31, 1900.

Names of Operators and Collieries.	County.	Shipments of coal in tons by rail or otherwise.	Number of tons used for steam and heat at colliery.	Sold to local trade and used by employees—tons.	Total production of coal in tons.	Total production of coke in tons.	Number of coke ovens.	Number days worked.	Number persons employed.	Number fatal accidents.	Number non-fatal accidents.	Number kegs powder used.	Number pounds of dynamite used.	Number horses and mules.
Rochester & Pittsburg C. & I. Co.														
Adrian No. 1 mine,	Jefferson,	759,447	29,000	4,000	1,020,853	143,021	476	258	822	3	5	4,000	7,000	120
Florence mine,	Jefferson,	259,346	5,400	200	265,036	274.7		274.7	465	3		575	1,210	41
Elenora Nos. 2 and 3 mines,	Jefferson,	738,060	33,341	2,935	950,776	81,507	201	114	682	3	3	4,000	7,000	102
Elenora No. 1 mine,	Jefferson,	12,137			12,137			25	1					2
Elk Run shaft,	Jefferson,	45,124	32,156		107,324			26	173	1	1			15
Walston Nos. 3 and 4,	Jefferson,	43,253	12,500	2,310	85,466	217,210	700	284.5	150	3	1	4,000	7,000	84
Helvetia,	Clearfield,	229,286	31,600	1,135	291,318	6,211	40	234	273			1,588	5,500	33
Total,		2,546,053	114,437	10,680	3,452,620	447,952	1,417	247.7	3,390	11	11	15,063	27,700	402
Jefferson & Clearfield C. & I. Co.														
Rochester mine,	Clearfield,	418,005			418,005			230	392	1				47
London mine,	Jefferson,	443,834			443,834			236	352	1	5			33
Pancoast,	Jefferson,	45,222			45,222			242	42					4
Total,		907,061			907,061			236	786	2	5			89
Northwestern Mining & Ex. Co.														
Daguer mines,	Elk,	499,045	5,640	2,650	487,344			290	641	1	1	3,255	3,250	47
Carroll mines,	Elk,	279,976	1,012	880	280,977			273	361	1		1,300	100	40
Walston mines,	Jefferson,	233,837	1,173	562	234,667			248	263	1	4	1,500	1,061	23
Rattlesnake Run mines,	Jefferson,	11,398	6	79	11,482			58	79			130		4
Total,		958,948	7,812	3,508	970,298			216.5	1,344	2	6	6,555	4,511	114

TABLE II—Continued.

Names of Operators and Collieries.	County.	Shipments of coal in tons by rail or otherwise.	Number of tons used for steam and heat at colliery.	Sold to local trade and used by employes—tons.	Total production of coal in tons.	Total production of coke in tons.	Number of coke ovens.	Number days worked.	Number persons employed.	Number fatal accidents.	Number non-fatal accidents.	Number kegs powder used.	Number pounds of dynamite used.	Number horses and mules.
Buffalo Coal Co.		22,022	419	143	26,584	.....	.....	279.5	39	.....	.....	.....	2,500	3
Instantaner mine,	McKean.	5,022	32	.....	5,034	.....	.....	244	12	.....	.....	.....	500	1
Lyman mine,	McKean.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Total,		27,054	421	143	27,618	.....	.....	251.8	51	.....	.....	.....	3,000.	4
Hazel Dell mine,	Elk.	13,201	70	8,023	21,274	.....	.....	206.5	68	.....	.....	.....	.....	4
George Rees & Co.		.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Brittannic mine,	Clearfield.	15,000	.....	150	15,150	.....	.....	248	41	.....	.....	.....	.....	3
Mosquito Creek Coal Co.		.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Mosquito mine,	Clearfield.	17,985	.....	.....	17,985	.....	.....	254	36	.....	.....	305	.....	2
A. G. Spears.		.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Meyer Run mine,	Clearfield.	5,143	.....	30	5,173	.....	.....	141	36	.....	.....	100	.....	3
Isaac Stage.		.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Clearfield No. 10,	Clearfield.	.....	.....	8,234	8,234	.....	.....	281	25	.....	.....	60	.....	1
Long Valley Coal Co.		.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Long Valley No. 3,	Bradford.	29,938	1,854	273	32,065	.....	.....	225.3	66	.....	.....	649	.....	10
Grand total,		7,138,760	192,975	51,814	8,139,627	480,674	1,520	233.8	10,383	21	50	38,646	48,314	968

TABLE II—Continued.

Names of Operators.	County.	Number of Boilers.			Total horse power.	Locomotives.			Number steam engines of all classes.	Total horse power.	Number pumps delivering water to surface.	Capacity in gallons per minute.	Quantity delivered to surface per minute—gallons.	Number electric dynamos.	Number air compressors.
		Cylindrical.		Tubular.		Steam.	Air.	Electric.							
		Horse power.	Horse power.												
Rochester & Pittsburg C. & I. Co.,	Jefferson & Clefd.,	4	289	69	7,270	7,550	7	23	2,535	16	8,577	5,300	.....	19
Jefferson & Clearfield C. & I. Co.,	Clefd. & Jefferson,	.....	.....	18	1,970	1,970	.....	5	725	.....	16,800	6,310	.....	6
Northwestern Mining & EX. Co.,	Elk & Jefferson,	4	50	8	800	800	3	12	790	.....	.....	.....	2	.....
Shawburg Coal Mining Co.,	Elk,	.....	.....	8	825	825	1	8	1,178	.....	.....	2,586	.....	1
Blossburg Coal Co.,	Tioga,	.....	.....	6	630	630	3	4	630	.....	.....	.....	.....	3
Morris Run Coal Mining Co.,	Tioga,	1	80	3	240	320	.....	8	239	.....	.....	.....	.....	.....
Herwind White Coal Mining Co.,	Clearfield,	.....	.....	9	1,200	1,200	.....	4	315	.....	.....	3,400	.....	1
McGee & Ellsworth,	Clearfield,	4	400	2	250	250	3	4	315	.....	.....	.....	.....	1
Jefferson Coal Co.,	Jefferson,	.....	.....	2	250	250	.....	2	120	.....	.....	400	.....	2
Kettle Creek Coal Mining Co.,	Clinton,	1	30	1	30	30	.....	1	30	.....	.....	.....	.....	.....
Clearfield Coal Co.,	Jefferson,	.....	.....	2	45	45	1	2	546	.....	.....	.....	.....	.....
Kurtz & Rinn,	Clearfield,	1	15	4	140	455	.....	1	110	.....	.....	.....	.....	.....
Red Run Coal Co.,	Lycoming,	.....	.....	2	120	120	1	2	.....	.....	.....	.....	.....	.....
Kersey Coal and Coke Co.,	Elk,	.....	.....	4	120	120	.....	1	.....	.....	.....	.....	.....	.....
Joseph H. Rolly & Co.,	Jefferson,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Knoll & Hall Co.,	McKean,	.....	.....	2	120	120	.....	2	76	.....	.....	.....	.....	.....
George Rees & Co.,	Elk,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Mosquito Creek Coal Co.,	Clearfield,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
A. G. Searns,	Clearfield,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Isaac Stage,	Clearfield,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Long Valley Coal Co.,	Clearfield,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Bradford,	Bradford,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Grand total,	.....	14	725	185	14,100	14,925	22	78	7,417	42	38,040	7,591	12	30

TABLE III.—Showing the number of employees at each colliery in the Fourth Bituminous District during the year 1900.

Names of Operators and Collieries,	County.	Occupations of Persons Employed Inside.										Occupations of Persons Employed Outside.									
		Occupations of Persons Employed Inside.										Occupations of Persons Employed Outside.									
		Fire bosses.	Miners.	Miners' laborers.	Drivers and runners.	Door boys and helpers.	All other employes.	Total inside.	Outside foreman.	Blacksmiths and carpenters.	Engineers and firemen.	State pickers.	Employed in the manufacture of coke.	Superintendents, bookkeepers and clerks.	All other employes.	Total outside.	Grand total, inside and outside.				
Rochester & Pittsburg C. & I. Co.		1	2	475	65	10	35	588	2	9	10	1	175	2	35	234	822				
Adrian No. 1.	Jefferson	1	397	22	22	1	19	440	3	5	10	1	1	2	15	25	465				
Florence.	Jefferson	1	20	65	2	2	1	24	7	20	10	1	30	3	1	1	25				
Elenora No. 1.	Jefferson	2	530	15	65	10	13	620	1	7	20	1	1	3	1	1	62				
Elenora Nos. 2 and 3.	Jefferson	1	314	5	13	5	14	150	1	20	1	1	30	1	13	23	173				
Elk Run shaft.	Jefferson	1	314	5	13	5	14	150	1	20	1	1	30	1	13	23	173				
Walston No. 3.	Jefferson	1	165	12	9	9	9	150	1	4	18	1	274	2	10	310	760				
Walston No. 4.	Jefferson	1	165	12	9	9	9	150	1	4	18	1	274	2	10	310	760				
Helvetia.	Clearfield	1	203	94	24	8	11	248	4	7	7	1	1	2	12	25	200				
Total and average.		9	5	2,259	229	46	114	2,692	4	31	72	4	479	12	96	698	3,390				
Jefferson & Clearfield C. & I. Co.		1	300	30	30	9	20	26	2	10	10	1	1	3	17	32	392				
Rochester mines.	Clearfield	1	275	28	7	15	32	326	3	9	9	1	1	14	26	252	678				
London mines.	Jefferson	1	37	2	2	1	1	40	1	1	1	1	1	1	2	4	42				
Pancoast mines.	Jefferson	3	612	60	16	35	726	5	19	19	1	1	1	3	33	60	786				
Total and average.		4	509	98	2	23	568	2	17	6	2	1	1	5	43	75	641				
Northwestern Mining & Ex. Co.	Elk	3	265	23	23	8	24	346	1	5	2	1	1	5	28	35	361				
Dunbar mines.	Elk	2	190	21	4	4	24	237	1	4	1	1	1	4	15	26	263				
Clearton mines.	Jefferson	1	63	4	4	2	70	70	1	1	1	1	1	1	7	9	79				
West Clarion mines.	Jefferson	10	1,028	76	2	73	1,189	4	30	9	4	1	1	15	93	155	1,344				
Rattlesnake mines.	Jefferson	10	1,028	76	2	73	1,189	4	30	9	4	1	1	15	93	155	1,344				
Total and average.		10	1,028	76	2	73	1,189	4	30	9	4	1	1	15	93	155	1,344				

Isaac Stage.	1	18	2	1	.....	22	1	1	.....	1	.....	3	25
Clearfield No. 10,	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Long Valley Coal Co.	1	39	.....	3	1	46	2	3	5	3	7	20	66
Long Valley No. 3,	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Grand total,	57	7,608	46	622	104	5,856	18	179	109	69	436	1,417	10,383

TABLE III—Continued.

Names of Operators.	County.	Number of Days Worked in Each Month.												Total.
		January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	
Rochester and Pittsburg Coal and Iron Co., ..	Jefferson & Clfd.	24.4	23.3	25.1	25.3	25.6	22.2	22.4	22.7	18.8	19.4	17.5	18.4	247.7
Jefferson and Clearfield Coal and Iron Co., ..	Clfd. & Jefferson.	22.7	21.3	22	25	25	16.7	18.7	15.7	16.7	22.7	14.7	15	236.7
Northwestern Mining and Exchange Co., ..	Elk & Jefferson.	25.3	22.8	24.5	22.9	24.5	19	21	23.4	21.4	25.2	19	18.8	236.5
Shawmut Coal Mining Co., ..	Elk.	24.1	21.7	20.8	20.2	20.6	18.8	13.7	17.2	17.5	23.7	17.6	17.2	205.2
Blossburg Coal Co., ..	Tioga.	25	23.7	21	23.2	21.2	17.2	17.2	18.2	19.3	21	15	22.5	231.8
Morris Run Coal Mining Co., ..	Tioga.	26	24.5	24.75	21.40	23.10	25.80	22.25	20.60	21.60	24.50	23	23	283.40
Berwind White Coal Mining Co., ..	Clearfield.	25.50	22	13	24	24.5	15.5	14.5	7	8	12.5	17	17.5	205.50
McCree & Hillsworth, ..	Tioga.	23.5	23.60	25.25	24.25	25.25	25	21.40	22	14.50	27	24.75	23.75	282
Jefferson Coal Co., ..	Jefferson.	23.7	23.5	24.9	23.5	24	24	24	25.5	19	24	19	19	283.5
Kettle Creek Coal Mining Co., ..	Jefferson.	22	23.5	23.5	23.1	21.4	22	19.6	13.3	21.3	20	20	26.9	310.5
Jefferson Coal Co., ..	Jefferson.	22	22.5	23.5	23	23	22	23	23	23	21.5	21	21	283.5
Kurtz & Rinn, ..	Jefferson.	25	24	27	21	26	25	23	18.5	23	23	22	22	283.5
Clearfield Coal Co., ..	Clearfield.	23.25	20	23	23	25.5	25	19.5	23	18.75	24.5	23	22	277.5
Red Run Coal Co., ..	Lycoming.	23	25	27	23	25.5	25	19.5	23	18.75	24.5	23	22	277.5
Kersey Coal and Coke Co., ..	Elk.	25	24	18	24	24	23	11	16	21	25	24	25	74
Joseph H. Reilly & Co., ..	Jefferson.	25.5	23.5	23.5	24	19	18.9	17.90	22	18.50	24	20	22	292
Buffalo Coal Co., ..	McKean.	25.50	24	27	23.75	11.50	21.50	4.75	8.75	11	22.50	18	21	251.80
Kaul & Hall, ..	Elk.	24	20	24	21	20	15	10	18	24	22	25	25	248
George Rees & Co., ..	Clearfield.	25	20	27	24	26	17	14	21	19	22	22	17	254
Mosquito Creek Coal Co., ..	Clearfield.	27	24	24	24	22	22	18	20	16	23	20	22	241
A. G. Spears, ..	Clearfield.	27	24	27	24	23	23	21	26	18	22	23	23	281
Isaac Valley Coal Co., ..	Clearfield.	25.75	22.50	27	23.75	21.50	21.50	7	8	16	24	18.75	21.50	225.3
Long Valley Coal Co., ..	Bradford.	25.75	22.50	27	23.75	21.50	21.50	7	8	16	24	18.75	21.50	225.3
Long Valley Coal Co., ..	Bradford.	25.75	22.50	27	23.75	21.50	21.50	7	8	16	24	18.75	21.50	225.3

TABLE IV.—List of fatal accidents that occurred in and about the mines of the Fourth Bituminous District for the year ending December 31, 1900.

Date of accident.	Name of Person.	Nationality by Birth.	Occupation.	Age.	Married or single.	Number of widows.	Number of orphans.	Name of Colliery.	County.	Nature and Cause of Accident in Brief.
March 13	Raffle Pachana,	Austrian, ..	Miner,	42	M.	1	2	London,	Jefferson, ..	Instantly killed by fall of roof slate while drawing back a pillar.
Feb. 19	F. Felix,	Italian,	Miner,	40	M.	1	4	Adrian No. 1,	Jefferson, ..	Instantly killed by fall of coal.
May 8	Andrew Yensko,	Slav,	Miner,	19	S.	1	1	Adrian No. 4,	Jefferson, ..	Instantly killed by fall of coal.
	James Leary,	Irish,	Miner,	35	S.	1	1	Elk Run shaft,	Jefferson, ..	Fatally injured by explosion of dynamite.
11	Steve Zolar,	Italian,	Miner,	19	S.	1	1	Shawmut No. 4,	Elk,	Fatally injured by fall of roof slate while drawing back a pillar.
June 7	Joseph Polvino,	Italian,	Miner,	16	S.	1	1	Red Run No. 7,	Lycoming, ..	Fatally burned by powder explosion.
9	Warren M. Gains,	American, ..	Fireman, ..	19	S.	1	1	Rochester,	Clearfield, ..	Instantly killed by falling down pumping shaft.
23	Matto Valyo,	Slav,	Miner,	14	S.	1	1	Adrian No. 1,	Jefferson, ..	Fatally burned by explosion of fire damp.
23	Fred. Mucha,	Slav,	Miner,	22	M.	1	1	Adrian No. 1,	Jefferson, ..	Fatally burned by explosion of fire damp.
July 30	Francisco Oldona,	Italian,	Miner,	55	M.	1	2	Clarion No. 4,	Elk,	Instantly killed by fall of slate.
Aug. 6	Terry Donley,	Irish,	Miner,	59	M.	1	1	Walston No. 3,	Jefferson, ..	Fatally injured by fall of coal.
	Thomas Ruddock,	Scotch,	Miner,	41	M.	1	3	Elenora No. 2,	Jefferson, ..	Instantly killed by mine cars.
22	James Potts,	American, ..	Gripman, ..	47	M.	1	1	Elenora No. 2,	Jefferson, ..	Instantly killed by mine cars.
22	Samuel Guy,	Scotch,	Miner,	54	M.	1	1	Point No. 1,	Tyoga,	Fatally injured by fall of slate.
29	Mike Egan,	Irish,	Laborer,	23	S.	1	1	Red Run,	Lycoming, ..	Instantly killed by mine cars at foot of plane.
95	Frank Mann,	Italian,	Miner,	50	S.	1	1	Shawmut No. 1,	Elk,	Instantly killed by fall of slate and coal.
30	Rosari Colossi,	Italian,	Miner,	28	M.	1	2	Walston No. 3,	Jefferson, ..	Instantly killed by fall of slate.
10	Pavlo Mical,	Italian,	Miner,	35	M.	1	1	Walston No. 3,	Jefferson, ..	Instantly killed by fall of slate.
Dec. 10	Morrello Modesto,	Italian,	Miner,	31	S.	1	1	Dagus No. 3,	Elk,	Fatally injured by fall of coal in his working place.
13	James Rush,	Russian,	Miner,	38	M.	1	1	Elenora No. 1,	Jefferson, ..	Instantly killed by fall of roof.
20	Geo. Thompson,	Scotch,	Miner,	23	S.	1	1	Elenora No. 2,	Jefferson, ..	Instantly killed by mine cars.

TABLE V—List of non-fatal accidents that occurred in and about the mines of the Fourth Bituminous District for the year ending December 31, 1900.

Date of accident.	Name of Person.	Nationality by Birth.	Occupation.	Age.	Married or single.	Name of Colliery.	County.	Nature and Cause of Accident in Brief.
Jan. 19	Samuel McElane,	Scotch,	Miner,	28	S	Jones No. 1,	Tioga,	Back seriously injured by fall of slate.
27	Curtis Kelsey,	American,	Miner,	15	S	Arnot No. 2,	Tioga,	Leg slightly injured by fall of slate.
Feb. 1	Frank Banks,	Italian,	Driver,	23	S	Walston No. 5,	Jefferson,	Right arm and two ribs broken by being caught between cars and pillar.
6	John H. Kerry,	American,	Driver,	25	M.	Coal Glen,	Jefferson,	Leg broken by mine car jumping the track.
8	Luke McCabe,	American,	Miner,	17	S.	Arnot No. 2,	Tioga,	Leg broken and ankle injured by fall of slate on entry.
9	Martin McConnell,	American,	Miner,	46	M.	Bear Run,	Tioga,	Shoulder dislocated and breast bruised by fall of coal.
12	Mike Namie,	Slav,	Miner,	21	S.	Shawmut No. 1,	Elk,	Leg broken by being caught between cars.
15	John Wagget,	American,	Machine runner,	30	S.	London,	Jefferson,	Back injured by fall of slate and coal.
16	B. Guesseppi,	Austrian,	Miner,	27	M.	London,	Jefferson,	Leg injured by fall of slate.
17	Sucilla Eurico,	Austrian,	Miner,	60	M.	Antrim No. 6,	Tioga,	Body cut and bruised by fall of slate.
March 21	Daniel Griffiths,	Wash,	Miner,	44	M.	Eureka slope,	Elk,	Back and legs severely bruised by mine cars.
24	Robt. Jackson,	Irish,	Miner,	40	M.	Adrian No. 1,	Jefferson,	Collar bone broken by fall of coal.
26	Z. Premo,	Austrian,	Miner,	47	M.	West Clarion,	Jefferson,	Head and face badly cut by fall of coal.
26	Thomas Armennie,	Austrian,	Miner,	48	M.	West Clarion,	Jefferson,	Shoulder and arm severely bruised by fall of coal.
28	Dennis McMullen,	American,	Miner,	35	S.	Adrian No. 1,	Jefferson,	Back and hips crushed by mine cars.
April 2	Chas. Peterson,	Swede,	Spragger,	17	S.	Bear Run,	Tioga,	Collar bone broken by being caught between car and roof.
9	John Brennan,	Irish,	Miner,	30	S.	Arnot No. 2,	Tioga,	Leg broken by fall of slate.
9	William Wiseman,	American,	Miner,	29	M.	Coal Glen,	Jefferson,	Leg broken by fall of slate.
20	Alfred Bloncow,	American,	Miner,	27	M.	Bear Run,	Tioga,	Leg broken by fall of slate.
23	Mike Sopak,	Pole,	Laborer,	55	S.	Adrian No. 1,	Jefferson,	Collar bone broken by being crushed against pillar by mule.
25	Robt. Rednovich,	Pole,	Scraper,	25	M.	London,	Jefferson,	Severely bruised by fall of coal and slate.
25	P. Chenski,	Pole,	Machine runner,	29	S.	London,	Jefferson,	Arm broken by fall of roof coal and slate.
26	Robt. Young,	Scotch,	Miner,	35	M.	Antrim No. 5,	Tioga,	Ankle bruised by fall of top coal.

14	Winceel Icher,	Welsh,	Miner,	40	M.	Elk Run shaft,	Jefferson,	Leg broken by fall of coal.
29	Edward S. Williams,	American,	Driver,	24	M.	Williamsport,	Clearfield,	Leg broken by mine cars.
3	Thomas Walker,	German,	Miner,	26	S.	Walston No. 4,	Jefferson,	Back injured by fall of slate.
23	Andrew Valyo,	Slav,	Miner,	42	M.	Adrian No. 1,	Jefferson,	Hands and face severely burned by explosion of fire damp.
27	Walter Shearnut,	Austrian,	Miner,	21	M.	Bear Run,	Toga,	Shoulder lobe broken and two ribs fractured; also cut on head by fall of coal.
July	A. Bodack,	Pole,	Scraper,	32	M.	Helvetia,	Clearfield,	Skull fractured by fall of coal.
14	William Kohler,	American,	Miner,	32	M.	Bear Run,	Toga,	Knee dislocated by fall of roof slate.
19	Fred Austin,	American,	Miner,	38	M.	Red Run,	Pocoming,	Collar bone broken by fall of slate.
25	David Crawford,	Scott,	Miner,	15	S.	Coal Glen,	Toga,	Shoulder and back injured by fall of coal.
31	Hildy Anderson,	American,	Miner,	42	S.	Williamsport,	Clearfield,	Leg broken by fall of coal.
Aug.	Adam Gaska,	Pole,	Miner,	42	S.	Williamsport,	Clearfield,	Leg broken by fall of slate.
16	Ralph Flora,	Italian,	Miner,	25	S.	Adrian No. 4,	Jefferson,	Jaw broken by teeth, by being caught between car and pillar.
Sept.	Joseph Clemick,	Slav,	Miner,	28	S.	West Clarion,	Jefferson,	Leg broken by mine car; was caught between car and pillar.
18	Emil Willistand,	Swede,	Miner,	25	S.	Mead Run No. 4,	Elk,	Four ribs broken by fall of slate.
21	Casper Gayda,	Pole,	Miner,	37	M.	Williamsport,	Clearfield,	Back seriously injured by fall of bone coal.
Oct.	Moses Methuen,	English,	Miner,	40	M.	Elenora No. 2,	Jefferson,	Severely injured by collision of mine cars.
5	John Hamlet,	English,	Driver,	36	S.	Adrian No. 1,	Jefferson,	Body severely bruised by mine cars.
9	John Lewis,	Welsh,	German,	22	M.	Memora No. 2,	Jefferson,	Bone in ankle broken by car striking him.
9	John Becca,	Slav,	Miner,	16	M.	West Clarion,	Jefferson,	Leg broken by fall of slate.
24	Samuel Dolby,	American,	Miner,	56	M.	Paradise shaft,	Clearfield,	Foot crushed and head cut by fall of slate.
25	Domonia Roach,	Italian,	Miner,	35	M.	Shawmut No. 1,	Elk,	Arm injured by fall of coal and slate.
Nov.	Robt. Thompson,	Scott,	Driver,	17	S.	Clarion No. 20,	Elk,	Arm broken by fall of leg between mine cars.
16	John Tokar,	Austrian,	Miner,	27	M.	Elenora No. 2,	Jefferson,	Ankle bone fractured and cut on left leg by fall of slate.
19	J.ohn Manfrado,	Italian,	Miner,	56	M.	Williamsport,	Clearfield,	Leg broken by fall of slate.
Dec.	D. W. Hopkins,	Welsh,	Miner,	30	M.	Bear Run,	Toga,	Back and foot severely bruised by fall of slate.
19	Chas. Packard,	American,	Miner,	22	M.	Bear Run,	Toga,	Leg bruised by fall of coal.



Fifth Bituminous District.

(FAYETTE, SOMERSET AND BEDFORD COUNTIES.)

Uniontown, Pa. March 1, 1900.

Hon. James W. Latta, Secretary of Internal Affairs, Harrisburg, Pa.:

Sir: I have the honor to submit my annual report as Inspector of Mines for the Fifth Bituminous District for the year ending December 31, 1900, in compliance with section 2, article X of the act of Assembly approved May 15, 1893.

There has been an increase of 1,087,759 tons of coal produced this year as compared with last; also an increase of 46,269 tons of coke produced. There were ten fatal and fourteen non-fatal accidents during the year fewer than occurred during the preceding year, or forty-five as against fifty fatal, and fifty-six as against seventy non-fatal.

Twenty new mines have been opened during the year and none abandoned, which makes a total in the district of 103. All of these have been producing coal except three shaft mines, which reached the coal seam during the last month of the year.

The condition of the mines upon the whole is very satisfactory; where I had occasion to complain of unsatisfactory conditions, prompt measures were adopted to remedy and rectify them.

The number of visits required by law has not been made to each mine, on account of the large increase in the number of new mines, which makes it a physical impossibility to visit each mine once in every three months. On an average one mine per day is the utmost that can be inspected, even if there were no accidents to investigate, or office work to perform. Hence as there are only seventy-eight working days in a period of three months, and there are 103 mines in the district, it is obvious that the Inspector cannot comply with the requirements of law in this respect and if he is expected or required to give four visits per year to each mine in the district, the number of mines must necessarily be reduced.

The usual statistical tables accompany this report. All of which is respectfully submitted.

CHAS. CONNOR,
Inspector of Fifth Bituminous District.

TABLE A—Classification of Accidents.

	Fatal.	Non-fatal.
By falls of coal,	2	8
By falls of slate or rock,	14	19
By mine cars,	11	17
By powder explosions,	2	2
By mining machinery,	3	3
By falling down shafts,	5	2
By mules or horses,	2	2
By falls of roof while drawing posts,	4	3
By being struck by a bucket,	4	2
By miscellaneous causes,	2	2
Total,	40	56

TABLE B—Occupations of Persons Killed or Injured.

	Killed.	Injured.	Total.
Mine foreman,	2	2	2
Shaft foremen,	3	2	5
Shaft sinkers,	5	1	6
Track layers,	1	1	2
Road men,	1	1	2
Mining machine runner,	1	1	2
Mine laborers,	2	1	3
Door boys,	1	1	2
Pumper,	1	1	2
Cager,	1	1	2
Trip riders,	1	1	2
Drivers,	5	12	17
Miners,	22	56	58
Total,	40	56	96

TABLE C—Nationality of Persons Killed or Injured.

	Killed.	Injured.	Total.
American,	15	16	31
Scotch,	1	1	2
Hungarian,	3	2	5
Slav,	12	18	30
Irish,	1	4	5
German,	2	2	4
Swede,	2	2	4
English,	2	6	8
Italian,	2	2	4
Pole,	1	3	4
Bohemian,	2	2	4
Austrian,	2	2	4
Unknown,	2	2	4
Total,	40	46	96

TABLE D—Showing the Production of Coal in Tons During the Year 1900.

Fayette County.

	Tons.
H. C. Frick Coke Company,	3,552,000
Pittsburg Coal Company,	351,093
W. J. Rainey,	620,129
Cambria Iron and Steel Company,	431,010
Continental Coke Company,	33,870
Eureka Fuel Company,	117,396
American Coke Company,	12,000
Washington Coal and Coke Company,	1,105,922
Oliver and Snider Steel Company,	715,698
Dunbar Furnace Company,	189,253
Individual collieries,	1,351,777
	<hr/>
Total in Fayette county,	8,480,148
	<hr/> <hr/>

Somerset County.

Merchants' Coal Company,	205,159
W. T. Rainey,	22,734
The Althouse Mining Company,	46,768
Cumberland and Elk Lick Coal Company,	251,003
Pine Hill Coal Company,	50,676
Jno. O. Stoner,	101,408
Individual collieries,	797,677
	<hr/>
Total in Somerset county,	1,475,425
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Recapitulation.

Fayette county production,	8,480,148
Somerset county production,	1,475,425
Bedford county production,	4,700
	<hr/>
Total production,	9,960,273
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Table E—Summary of Statistics, 1900.

Number of mines in the district,	103
Number of mines in operation during 1900,	83
Number of tons of coal produced,	9,960,273

Number of tons of coal shipped,	2,835,875
Number of tons of coal used for steam at mines,	173,583
Number of tons of coal sold to employes and others,	72,110
Number of tons of coal used in the production of coke,	6,878,705
Number of coke ovens,	11,292
Number of tons of coke produced,	4,477,692
Number of persons employed inside the mines,	13,867
Number of persons employed outside the mine,	4,570
Number of fatal accidents,	40
Number of tons of coal produced per fatal accident, ..	249,006
Number of non-fatal accidents,	56
Number of tons of coal produced per non-fatal acci- dent,	177,862
Number of persons employed per fatal accident, ...	346,675
Number of persons employed per non-fatal accident, ..	247 $\frac{5}{8}$
Number of wives made widows by accidents,	29
Number of children orphaned,	63
Number of kegs of powder used,	344,991
Number of pounds of dynamite used,	62,924
Number of cylindrical boilers in use,	83
Number of tubular boilers in use,	195
Number of steam locomotives in use,	28
Number of air locomotives in use,	3
Number of electric locomotives in use,	3
Number of new mines opened,	20
Number of old mines abandoned,	00

TABLE F—Showing Production of Coal, Number of Persons Employed by Each Company and Average Number of Tons Produced Per Employee, Number of Fatal-Accidents and Tons of Coal Produced Per Life Lost, Number of Fatal and Non-Fatal Accidents and Number of Tons of Coal Produced Per Accident in the Fifth Bituminous District 1900.

Name of Operator.	Number of persons employed.	Number of tons of coal produced.	Number of fatal accidents.	Number of tons produced per life lost.	Number of fatal and non-fatal accidents.	Number of tons produced per accident.
H. C. Frick Coke Co.,	3,973	3,552,000	10	355,200	37	96,000
Pittsburg Coal Co.,	554	351,093	3	117,031	8	43,886.62
W. J. Rainey,	1,140	620,129	4	155,032.25	7	88,589.84
Cambria Iron and Steel Co.,	650	431,010			3	143,670
Continental Coke Co.,	348	33,877				
Eureka Fuel Co.,	505	117,396	1	117,346	1	
American Coke Co.,	293	12,000	10	1,200	5	1,000
Washington Coal and Coke Co.,	1,044	1,105,922	5	221,184.40	12	
Oliver and Snider Steel Co.,	741	715,658				
Dunbar Furnace Co.,	147	189,253	1	189,253	3	63,084.33
Merchants' Coal Co.,	265	250,159				
W. J. Rainey,	40	22,734				
The Althouse Coal Mining Co.,	102	46,768				
Cumberland and Elk Lick Coal Co.,	418	251,063			1	251,003
Pine Hill Coal Co.,	143	50,676				
John O. Stoner,	36	23,605			1	23,605
Casselman Coal Co.,	72	77,503				
Chapman Coal Mining Co.,	83	74,876				
Cumberland & Summit Coal & Coke Co.,	274	173,500	1	173,500	1	
W. A. Merrill,	58	27,498				
Enterprise Coal Co.,	18	8,000				
Connellsville and Ursina Coal & Coke Co.	3	2,635				
Fairview Coal Co.,	36	24,439				
Grace Coal Co.,	52	16,161				
Grassy Run Coal Co.,	59	45,120				
The Continental Coal Co.,	149	80,674	1	80,674	3	26,891.33
Hocking and Duncombe,	102	81,350	1	80,674		
Lewis Supply Coal Co.,	34	13,834				
Bando Coke and Coal Co.,	17	1,600				
W. K. Niver & Co.,	179	150,560	1	150,560	1	
Statler Coal Co.,	10	2,000				
Shamrock Coal Co.,	20	768				
Ellen Brothers,	84	47,550				
B. Thomas & Son,	31	26,786				
H. J. Wilmoth,	43	25,525				
Wilson Creek Coal Co.,	23	1,700				
*Savage Fire Brick Co.,	22	310				
Acme Coke Co.,	62	28,052				
Ada Coal and Coke Co.,	17	150				
Joseph Wharton,	84	66,920				
Perry Coal Co.,	85	131,009			2	65,500
Colonial Coke Co.,	90	38,109				
Connellsville Coke Co.,	100	25,683				
The Atlas Coke Co.,	100	82,006			2	41,003
E. A. Humphries & Co.,	57	42,368				
James Cochran Sons & Co.,	87	79,270				
Riverview Coal and Coke Co.,	34	6,000				
Cheat Haven Coal and Coke Co.,	45	7,000				
Butts Run Coal and Coke Co.,	18	3,610				
Bessemer Coke Co.,	109	15,496				
Hess Coal and Coke Co.,	61	15,467				
Junjata Coke Co.,	242	181,913			1	181,913
Keister & Co.,	59	4,400			1	
Lafayette Coal and Coke Co.,	9	750				
Isaac Taylor & Co.,	77	66,281				
Brown & Cochran,	277	288,000			2	144,000
Percy Mining Co.,	47	26,010	2	13,005	3	8,670
Stewart Iron Co., Limited,	166	168,562			1	168,562
Eward Snider,	11	11,079				
Lake Erie Gas, Coal and Coke Co.,	92	75,231	1	75,231	2	37,615.50
J. D. Boyd,	21	14,000				
H. R. Sackette Coal and Coke Co.,	20	2,220				
Fayette Coke Co.,	66	12,600				
J. R. Laughrey & Son,	47	20,200				
Total,	13,867	9,960,273	40	249,006.8	96	103,752.84

Description of Mines.

Fayette County.

H. C. Frick Coke Company's Mines.—These mines are all in good condition and everything is being done to keep them within the requirements of law as to healthfulness and safety.

The following improvements have been made during the year:

Leisenring No. 1.—Installed one compound air locomotive, size of cylinder $6\frac{1}{2}$ inches by $10\frac{1}{2}$ inches by 12. Stroke designed to work at the pressure of 200 pounds to the square inch. Storage pressure in tank 650 pounds to the square inch, weight of locomotive 35,000 pounds, Baldwin Locomotive Works, builders.

Leisenring No. 2.—Installed 500 horse power Altman Taylor water tube boiler, and will soon have completed a Capell fan constructed of steel casing, and a brick foundation 20 feet in diameter by 8 feet in width. Foundations and air duct are now completed and ready to receive the steel casing of upper half of fan, which will likely be on the ground within the next ten days.

Leisenring No. 3.—Installed one 300 horse power Sterling water tube boiler, and at Leith one 300 horse power Sterling water tube boiler, and foundations and air duct are ready for steel casing of Capell fan, size 16 feet in diameter by 8 feet in width.

Pittsburg Coal Companies' Mines.—These mines are all in good condition and within the requirements of law. A new Capell fan is being built at Smock mine, and a Brazil fan has been installed during the year at Eleanor mine.

W. J. Rainey's Mines.—These mines, four in number, are all in good condition, being supplied with ample ventilation.

The Revere mine has been under construction during the year and is being equipped with all the modern machinery and methods for handling coal economically.

Cambria Steel Company's Mines.—Two of this company's mines (Wheeler and Morrell) are nearly exhausted, all the workings being confined to drawing pillars. This year will see them about worked out.

The mines are all in good condition as to healthfulness and safety. The mine fire at Mahoning-Atlas is entirely shut off from the other parts of the mine by masonry stoppings, and it is being very carefully looked after.

Continental Coke Company's Mines.—These mines have been under construction during the year. Two of them are now producing coal and manufacturing coke.

The other shaft has not yet reached the coal seam, having about

100 feet to sink. Everything about these mines is being constructed on modern methods and in all respects up to, and even exceeding the requirements of law as to healthfulness and safety.

Eureka Fuel Company's Mines.—These mines, four in number, are all in good condition and exceed the law's requirements as to healthfulness and safety. The following description furnished me by Mr. J. P. Brennen, general manager, shows the condition of the mines in detail:

"In 1899 the Illinois Steel Company bought the coal field that is now being operated under the name of the Eureka Fuel Company. This field lies in Nicholson, German and Menallen townships, Fayette county, Pennsylvania, on the eastern slope of the Fayette basin of the Pittsburg coal vein, and extends to within 1,000 feet of the Connellsville field at the Revere tract, now owned and operated by W. J. Rainey. It comprises about 6,500 acres, extending about nine miles in a north and south direction.

The dip of the vein through this field is approximately N. 65 degrees east, varying from 3.5 to 6 feet per 100. Along the eastern limits of the field the coal has comparatively light cover, the vein being eroded in the valley of streams, giving in many places ideal conditions for the development of drift mines; while on the west the vein lies at a depth requiring shafts to reach the coal.

"The preliminary surveys for the development were begun July 1, 1899. The first work being surveys for the contour maps at the points selected for the three plants. Upon these maps the location of the pit mouths, coke ovens, power plants, railroad tracks and other accessories was determined.

Ground was broken for the pit mouth of No. 1 mine at Leckrone in August, 1899. The contract for the coke ovens was let in September, 1899, and the first coke was drawn June 2, 1900. The work was carried on continuously throughout the winter upon oven construction, mine development, tenement houses, foundation work, etc.

"Work at the Footdale plant was commenced in January, 1900, and at the Buffington plant February 1, 1900.

"The nearest railroad delivery, until the Smithfield and Masontown branch of the Baltimore and Ohio Railroad Company reached Leckrone (April 7, 1900), was for Leckrone, Smithfield, seven miles distant, and for Footdale and Buffington, Uniontown, five and six miles respectively, from which points all construction materials and machinery, including six 11 ton boilers, were hauled by team.

"At Leckrone, at the forks of Brown Run, and two miles northeast of Masontown, there are two drift mines. The No. 1 mine has 525 acres of coal tributary to it, all of which is self-draining and grades on the haulage roads are in favor of the load, the grade on the main

haulage driven on the butt being 3.5 per cent. The mine is equipped for the use of electricity. Electric chain machines are used for driving headings, and to a certain extent in room work.

The main headings are lighted by incandescent lamps, and electric locomotives will be used.

"The main haulage roads are laid with 55 pound steel and the butt headings with 25 pound, the rooms being driven on the face. A stone masonry retaining walls form the pit mouth, and brick arches are carried in on all headings to the point where good roof is secured in the coal. Ventilation is provided for by a Capell fan 13½ feet diameter by 7 feet wide, with a guaranteed capacity of 300,000 cubic feet of air per minute.

"From the pit mouth the mine cars run by gravity 550 feet to the foot of the incline and are hauled up incline to the tippie by a sprocket chain, driven by an electric motor; dogs on the chain engaging in brackets on the bottoms of the cars. The length of the incline is 250 feet, with a grade of 25 per cent., and the dogs are spaced so that eleven wagons can be placed on the chain at once.

The cars are emptied into the bin by two Phillips dumps, the empty wagons being delivered automatically to the top of the incline again where they are conveyed to the bottom of the incline by a similar sprocket chain running in the reverse direction. From the foot of the incline the cars run by gravity to the pit mouth, the track being on an embankment separated from the track for loaded cars by a masonry wall.

"The bin has a capacity of 1,000 tons. It is 60 feet high from top of foundation to dumping floor, and 17½ feet from foundations to rail of 'larry' track under bin. It is a steel structure throughout and was designed both as to structural and mechanical details by Heyl & Patterson, of Pittsburg, who were also the contractors and erectors of all the machinery for hoisting and dumping of coal, the Schultz Bridge and Iron Company, of Pittsburg, were the contractors for the structural work.

"Provisions are also made for the loading of screened coal into cars, and independent sidings are laid for the economical handling of same. This electrically driven chain hoist is a thoroughly modern and successful mechanical device for raising coal to the tippie and is somewhat of a departure from the usual location of a tippie for drift mines, as it makes it possible to select the lowest available point on the out-crop for pit mouths and thus work the greatest possible acreage to the rise.

"One man and two boys are required to operate this hoist, one boy to place the cars on the chain at the bottom, one man to dump the cars on the tippie, and a boy to couple up the empty trips.

"A steel trestle 200 feet long carries the track for the larries from the bin to the ovens. Each larry is provided with an electric motor, the trolley wire on the ovens being carried on gas pipe poles attached at the bottom to an extension of the cast iron ties under the rails. The ovens are built on a one per cent. grade in favor of the loaded larry and loaded coke cars; they are of the double block type $12\frac{1}{2}$ feet in diameter.

"The coke yards are 33 feet wide. A noticeable feature is the high yard walls, 10 feet above the loading track. These high walls in conjunction with the special pressed steel coke racks, which are used exclusively for shipping coke from the plants of the Enreka Fuel Company, make the loading unusually easy for the coke drawer, the runs to the top of the cars being level instead of up-grade as is common with the low wharf walls. There are 250 ovens supplied from the No. 1 mine.

"The Leckrone No. 2 mine has 300 acres of coal and supplies 150 ovens. In general features the No. 2 plant is similar to the No. 1. The pit mouth is at a lower elevation, being but five feet above the general level of the valley, thus requiring a longer incline to reach tippie elevation.

"The distance from the pit mouth to the foot of incline is 350 feet and the length of the incline 330 feet.

"The Capell fan for the No. 2 mine is 8 feet diameter by $3\frac{1}{2}$ wide, driven by a horse power, slow speed electric motor, with a guaranteed capacity of 90,000 cubic feet of air per minute.

"As has already been stated, electricity is the type of power used at this plant. The generative plant is in duplicate and consists of two General Electric Co. 165 KW, 275 volt compound wound direct current generators, direct connected to two Buckeye 240 horse power $18\frac{3}{4}$ inch by 18 inch engines. But one of the generators is required for the operation of the plant at the present time; but the two engines can be run in conjunction and the power house is of sufficient size to allow the erection of two more engines and generators should the future extension of the workings require it.

"Steam is supplied by six 150 horse power 6 feet by 20 feet tubular boilers, four boilers being usually in operation and two in reserve.

"The general machine shop for the several plants is located at Leckrone. It is a building 48 feet by 100 feet, divided into carpenter shop, machine shop, and blacksmith shop. The shops are equipped with rip and cross cut saw, band saw, boring and mortising machine, lathe, drill press, bolt cutter, pipe machine, emery wheel, grindstone, blower for forge, etc. An electric motor supplies the power.

"One of the first adjuncts to the development to be installed was a brick yard with a capacity of 20,000 bricks per day, and a steam dry house, so that bricks were manufactured continuously throughout the

winter. All the bricks required for the oven fronts, mine arches, foundations, and buildings for Leckrone and Buffington plants were furnished by this brick yard. Another brick yard was operated at Footdale, and worked during the summer, but it was without a drying house.

"Among the buildings for which brick were furnished were the boiler house 48 feet by 70 feet, power house 48 feet by 50 feet, machine shop 48 feet by 100 feet, office building 40 feet by 44 feet, two fan houses and the three store buildings of the Mount Pleasant Supply Company, each 40 feet by 100 feet.

"The roof trusses for these buildings are of steel and in general wherever possible steel construction is used.

"Steam is carried from the boiler house 650 feet for the No. 1 fan engine brick machinery and dry house, also a line 1,200 feet long for heating the store and office, and for an engine for the ice plant at the store.

"The Footdale plant is similar in all essential features to the Leckrone plant. The 400 ovens are divided into two lines of 160 double block ovens and 80 bank ovens. There are two drift mines and a slope being driven to connect with the shaft at the Buffington plant.

"There is one hoist and a 1,000 ton bin at Footdale, all the coal from the three mines being brought to one point at the foot of the incline. In addition to the electric plant, an air compressor and hoisting engine are installed for the development of the slope.

"It is not the intention to take the supply for the ovens from the slope, but to provide by means of the slope an additional outlet from the shaft workings and a traveling way for taking the stock to and from the mine, thus avoiding the use of stables at shaft bottom.

"The shafts at Buffington are 390 feet deep and are located within 500 feet of the property line, so that all the coal tributary to the shaft can be worked by haulage roads with grades in favor of the load. There are 400 ovens, all double block. The power plant consists of six 150 horse power tubular boilers, a compound two-stage air compressor, capacity 1,500 cubic feet of air per minute compressed to 80 pounds pressure, furnished by Nordburg Manufacturing Co., of Milwaukee, Wis., one pair of 24 inch by 48 inch first motion hoisting engines furnished by the Vulcan Iron Works, Wilkes-Barre, Pa., two self dumping cages furnished by Kenny & Co., Scottsdale, Pa., a 1,000 ton bin erected by the Schultz Bridge and Iron Co., of Pittsburgh, Pa.

"There is also a 100 KW generator and engine for developing power for the laries, electric lighting for the bottom of the shaft and tenement houses, and a Capell fan 16 feet by 10 feet, with a guaranteed capacity of 500,000 cubic feet of air per minute.

"The main shaft is 24 feet by 10 feet 6 inches, inside timber and the

air shaft 150 feet from it is 17 feet by 10 feet. The shafts were sunk by Capt. J. H. Cundy, of the Iron Range ore region of Michigan, and to his credit it may be said that there was not a single accident during the sinking of these shafts.

"At Leckrone 94 double blocks of residences and 21 single tenement houses have been erected also seven residences of a better class; at Footdale 90 double blocks, 20 single, and three of the better class, and the same number at Buffington.

"In addition to the three plants already constructed, a fourth plant is projected in the valley of Cat's Run, one mile east of Mason-town.

"Water is supplied to all of the plants by the Huron Water Company, which is owned jointly by the Federal Steel Company and the American Steel and Wire Company. The pumping station is situated on the Monongahela river, at the mouth of Brown's Run, and is equipped with four 150 horse power boilers and two 3,000,000 gallon Wilson-Snyder Manufacturing Co's pumps (and foundations ready for a third pump), which force the water through a rising main 18 inches in diameter to a steel tank 60 feet diameter by 35 feet high, 500 feet above the river, a distance of 3,700 feet. thence three miles by an 18 inch main to the reservoir one-half mile west of McClellandtown.

"The supply for the three plants of the American Coke Company is taken off between the tank and the reservoir.

"From the reservoir a 10 inch line runs $2\frac{1}{4}$ miles to the Footdale works, from which an 8 inch branch $1\frac{1}{2}$ miles long runs to the Buffington works.

"This pumping plant has sufficient capacity to furnish water for all the works that will ever be built in what is known as the 'Mason-town district.' The reservoir is located at a sufficient elevation to give 100 feet head at the court house in Uniontown, ten miles distant. Each of the plants is provided with a sufficient number of tanks to provide a day's run for the ovens and boilers, while mains laid in the street give the high pressure for the house water supply and fire hydrants.

"The Masontown and New Salem Railroad, 12 miles in length, owned by the Federal Steel Company, connects the three plants of the Eureka Fuel Company. This road was constructed and is operated by the Pennsylvania Railroad Company, under lease, connecting with their Coal Lick Run branch of the South West Pennsylvania at Ache Junction, $7\frac{1}{2}$ miles from Uniontown. Leckrone is the terminus of the Smithfield and Masontown branch of the Baltimore and Ohio Railroad.

"Selwyn M. Taylor, mining engineer, of Pittsburg, Pa., designed and prepared the plans for the work upon oven construction, power

plants and mine development of the Eureka Fuel Company, the railroad location of the Masontown and New Salem Railroad Company, and the pumping plant and pipe lines of the Huron Water Company, having from three to five corps of engineers constantly in the field.

“W. M. Judd, now chief resident engineer for the Eureka Fuel Company, was engaged with Mr. Taylor throughout the construction of the work. J. P. Brennen, general manager for the Eureka Fuel Company and Huron Water Company, and president of the Masontown and New Salem Railroad, superintended the entire construction of all the plants, he having commenced the work June 1, 1899, after having made report on the property.”

American Coke Company's Mines.—This company has three shaft mines, however, only two of them have produced coal during the year, the third having reached the coal only at the close of the year.

All the plants are being equipped with the most modern machinery, and the mine workings are laid out on the latest and most approved methods of working, with a view to the extraction of all the coal and its economical production, as well as the safety of the persons employed in the mine. Ample ventilation is being provided by means of Capell fans.

Washington Coal and Coke Company's Mines.—These mines maintain their high standard of excellence. Everything possible is being done to insure safety to the persons employed. A larger fan is now being erected at No. 1 shaft to insure a greater volume of air, though the fan now in use gives several times the volume required by law, yet the company wishes to have a surplus of power so that in case of emergency air can be supplied to meet any possible contingency.

Oliver & Snyder Steel Company's Mines.—These mines (two in number) are in excellent condition as to healthfulness and safety.

Everything is being done by the officials in charge to not only comply with the requirements of law, but to anticipate and exceed them.

During the year an electric plant has been installed for the purpose of furnishing light at the shaft bottom, pump house, stables, shops, stores and offices.

Dunbar Furnace Company's Mines.—The Ferguson mine is in good condition generally as to healthfulness and safety.

The Furnace mine is being opened out, the developments being confined to the driving of headings.

Acme.—In good condition generally.

Ada.—A new mine just being opened out, improvements not yet completed.

Bourne.—This mine is in good condition and is well looked after.

Bessie.—Up to its usual high standard as to healthfulness and safety.

Colonial.—Is now in better condition than it ever has been, having been developed and improved extensively.

Connellsville No. 1.—Has not been in operation very steadily, but is in good working condition.

Crossland.—Everything about this mine indicates that it is being well looked after. Its condition is all that can be desired.

Chester.—Is in good condition and up to the requirements of law.

Clarissa.—Condition, as heretofore, is good in all respects.

Donald.—Is a new mine which is being opened out but all the improvements have not been completed. The plans contemplate an up to date plant, which will no doubt conform to all the requirements of law.

Eagle.—Was formerly known as the Cheat Haven mine, but having been purchased by a new company its name has been changed as above. This mine is in fairly good condition.

Florence.—Is a small mine opened out during the year and had not employed a sufficient number of persons to bring it under the law until a few days before the year expired. It is in good condition generally and fully up to all the requirements of law.

Griffin.—Is also a new mine which has been opened during the year. It is in good condition in all respects and is being laid out with a view to meet all the demands of law as to healthfulness and safety.

Hero.—Is also a new mine which has been opened during the year. It fully complies with the requirements of law and is being well looked after.

Juniata.—This mine maintains its usual high state of excellence in every respect.

Lincoln.—Is in excellent condition in every respect. The many improvements during the year consist of a 20 foot Guibal fan, coal crusher, hoisting engines, boilers, air compressors, coke ovens, etc., and everything is of the most substantial character.

Mt. Hope.—Is in very good condition and well looked after.

Nellie.—The condition of this mine is very much improved over that of last year, as the squeeze which prevailed over a portion of the mine has been overcome in a great measure and there is better drainage and ventilation than existed during last year. A new gravity plane has been installed which facilitates the hauling of coal.

Percy.—Is in good condition in every respect and fully up to the requirements of law.

Stewart.—The condition of this mine is good despite natural difficulties in the nature of bad roof and other adverse conditions.

Snider.—This mine was in a satisfactory condition at each visit.

Snider.—This mine was always found in a satisfactory condition at each visit.

Sumner.—This mine is now in a good condition as to healthfulness and safety. During the year Thomas Jones and James Radcliffe, mine boss and fire boss respectively of this mine at the time of the explosion which occurred on December 23, 1899, were tried before the court of common pleas at Uniontown, charged with violation of mining law whereby nineteen persons were killed. After hearing the evidence the jury returned a verdict of not guilty in both cases.

Smithfield.—Is in good condition and up to all the requirements of law.

Sackett.—Is a small mine opened during the year and did not at any time employ enough persons to bring it under the requirements of law, nevertheless it was fully up to all the laws' requirements except that it did not have a certificated mine foreman.

Shamrock.—Is a new mine which was opened during the year and is now in good condition.

The improvements are of a substantial character and consist of haulage engines, fans, tipple, coke ovens, railroad sidings, etc.

Victoria.—Is a new mine which has been opened out during the year. The improvements are a new steel tipple, haulage engines, fan, blacksmith shop, railroad sidings, etc. The condition of the mine as to healthfulness and safety are excellent.

Somerset County.

Merchants' Coal Company.—These mines are three in number and are in good condition and well looked after. No. 3 mine has been troubled with faults which have very much hindered the developments, yet the production has very materially increased.

A new fan has been installed during the year and is giving very good results.

W. J. Rainey's Mines.—These mines are two in number and are known as Standard Nos. 1 and 2. They are both in lawful condition as far as healthfulness and safety are concerned.

W. D. Althouse Coal Mining Company's Mines.—The two mines, Allegheny and Ponfeigh, are both in good condition in every respect, complying with all the requirements of law.

Cumberland and Elk Lick Company's Mines.—The two mines of this company are known as Shaws No. 1 and 2. Both are in excellent condition in every respect. No. 2 is a new mine which was opened during the year and has been developed very rapidly. It is largely worked by mining machines of the Jeffrey chain cutting type.

No. 1 Mine.—An electric haulage system has been installed, which is giving very good results.

Pine Hill Coal Company's Mines.—Lottie Nos. 1 and 2 mines are in good condition in every respect. No. 2 has not long been opened, and has not shipped very much coal. The improvements are not all completed.

Berlin.—Is in very good condition in every respect.

Casselman.—The condition of this mine is very good. The ventilation is ample and well distributed. A new tippie house has been built during the year.

Chapman.—The condition at each visit was satisfactory. Some chain cutting mining machines were installed during the year with satisfactory results.

Cumberland.—The output of this mine has been increased very materially during the year and its ventilation has been improved considerably. A new shaft was sunk for ventilating purposes, which has given gratifying results.

Enterprise.—Is a new mine opened during the year by the Enterprise Coal Company. The improvements are not yet all completed, but everything is being done to comply with the requirements of law.

Enterprise.—Operated by W. A. Merrill, is considerably improved in all respects and is now in very good condition and up to the requirements of law.

Edna.—Does not employ a sufficient number of persons to bring it under the requirements of law, and was not visited during the year.

Fairview.—Was exhausted on the "big seam" and work commenced on the "four foot seam." Considerable developments have been made in this new opening, which is in fairly good condition and within lawful requirements.

Grace.—Was formerly known as Garman, but having changed owners its name has also been changed, and it is now in better condition than at any previous time. The present owners desire to have it up to all lawful requirements.

Grassy Run.—I found this mine in good condition at each visit, being fully up to all the demands of law.

Glen McLaren.—The condition of this mine was very good at each visit except that the air current was very heavily charged with powder smoke, due to excessive use of gun powder in blasting; yet there was more than double the lawful quantity of air in circulation around the working places.

Hamilton.—Was operated more extensively during the year than at any previous time, and is in fairly good condition as to healthful-

ness and safety. The air current is unduly charged with powder smoke on account of excessive blasting of the coal at all hours during the day.

Lone Tree.—Is a new mine and produced coal only during the last half of December. The improvements are not yet complete, but the intention is to open out a very large mine and have it well equipped according to modern methods.

Milford.—This mine was found at each visit to be in good condition and fully up to all requirements of law.

Miniature.—This is a new mine which was opened during the year. It has been only partially developed and the improvements are not yet all completed. However it is in very fair condition generally.

Pen Mar.—The ventilation at this mine has been very much improved during the year by the erection of a new fan, which was very much needed. The other conditions are good.

Statler.—The coal in this mine is not proving satisfactory, being very thin. The developments are not extensive and at no time during the year was a sufficient number of persons employed to bring it under the provisions of the law, yet at each visit I found the ventilation very good, as were the other conditions.

Shamrock.—Is a new mine which has been opened out during the year, but did not produce very much coal, only having shipped during the month of December. This is intended to be a large mine and the developments and improvements are being pushed very rapidly.

Tub Mill Run.—At each visit to this mine it was in good condition in every respect.

Thomas.—This mine was also found in good condition at each visit.

Middle Creek No. 1.—This is a new opening which produced coal only during the latter part of the year. The improvements are not yet completed. Found the mine in good condition at the time of visit.

Wilmoth.—This is also a new mine opened during the year and was found in good condition at each visit.

Gooseberry.—This mine did not employ more than nine persons during the year and did not come under the provisions of the law, yet at each visit it was in good condition.

TABLE 1—Showing names of operators, railroads, etc., and location of collieries in the Fifth Bituminous District for the year 1900.

Names of Operators and Collieries.	County.	Name of General Superintendent.	P. O. Address.	Name of Superintendent.	P. O. Address.	Railroad to Mine.
H. C. Erick Coke Co.						
Kyle,	Fayette,	O. W. Kennedy,	Scottdale,	G. E. Irvin,	Fairchance,	S. W. Branch of P. R. R.
Leith,	Fayette,	O. W. Kennedy,	Scottdale,	Harry Whyel,	Uniontown,	S. W. B. of P. R. R. & B. & O.
Lelsenring No. 1,	Fayette,	O. W. Kennedy,	Scottdale,	Austin King,	Lelsenring,	O. & B. Short Line & S. W. B. of P. R. R.
Lelsenring No. 2,	Fayette,	O. W. Kennedy,	Scottdale,	C. J. Warnock,	West Lelsenring,	P. V. & C. B. of P. R. R.
Lelsenring No. 3,	Fayette,	O. W. Kennedy,	Scottdale,	Edward O. Toole,	Lelsenring,	P. V. & C. B. of P. R. R. & O.
Oliphant,	Fayette,	O. W. Kennedy,	Scottdale,	C. C. Gadd,	Oliphant Fee,	S. W. B. of P. R. R.
Redstone,	Fayette,	O. W. Kennedy,	Scottdale,	Leo Bullions,	Brownfield,	S. W. B. of P. R. R. & B. & O.
Trotter,	Fayette,	O. W. Kennedy,	Scottdale,	P. J. Termays,	New Haven,	S. W. B. of P. R. R.
Wynn,	Fayette,	O. W. Kennedy,	Scottdale,	C. C. Gadd,	Oliphant Fee,	S. W. B. of P. R. R.
Youngstown,	Fayette,	O. W. Kennedy,	Scottdale,	P. P. Glenn,	Lemont Fee,	S. W. B. of P. R. R. & B. & O.
Lemont No. 1,	Fayette,	O. W. Kennedy,	Scottdale,	C. J. Coll,	Lemont Fee,	S. W. B. of P. R. R. & B. & O.
Lemont No. 2,	Fayette,	O. W. Kennedy,	Scottdale,	C. J. Coll,	Lemont Fee,	S. W. B. of P. R. R. & B. & O.
Lemont No. 3,	Fayette,	O. W. Kennedy,	Scottdale,	C. J. Coll,	Lemont Fee,	S. W. E. of P. R. R.
Pittsburg Coal Co.						
Smock,	Fayette,	Geo. W. Schluenderberg,	232 5th av., Pbg.,	James Louttit,	Smock,	P. V. & C. B. of P. R. R.
Hurst,	Fayette,	Geo. W. Schluenderberg,	232 5th av., Pbg.,	James Louttit,	Smock,	P. V. & C. B. of P. R. R.
Eluapor,	Fayette,	Geo. W. Schluenderberg,	232 5th av., Pbg.,	James Louttit,	Smock,	P. V. & C. B. of P. R. R.
Grindstone,	Fayette,	Geo. W. Schluenderberg,	232 5th av., Pbg.,	James Louttit,	Smock,	P. V. & C. B. of P. R. R.
Hanna,	Fayette,	Geo. W. Schluenderberg,	232 5th av., Pbg.,	James Louttit,	Smock,	P. V. & C. B. of P. R. R.
W. J. Rainey.						
Paul,	Fayette,	T. J. Mitchell,	Connellsville, .....	.....	.....	Dickinson Run, Branch of P. McK. & Y.
Elm Grove,	Fayette,	T. J. Mitchell,	Connellsville, .....	.....	.....	O. & B. Short Line.
Mc. Braddock,	Fayette,	T. J. Mitchell,	Connellsville, .....	.....	.....	B. & O. & S. W. B. of P. R. R.
Revere,	Fayette,	T. J. Mitchell,	Connellsville, .....	.....	.....	Central Branch of S. W. B. of P. R. R.
Cambria Steel Co.						
Morrell,	Fayette,	M. G. Moore,	Johnstown,	Murtin Meagher,	Connellsville,	B. & O. & S. W. B. of P. R. R.

TABLE I—Continued.

Names of Operators and Collieries.	County.	Name of General Superintendent.	P. O. Address.	Name of Superintendent.	P. O. Address.	Railroad to Mine.
Mahoning—Atlas,	Fayette,	M. G. Moore,	Johnstown,	Murtin Meagher,	Connellsville,	S. W. E. of P. R. R. & O. & S. W. E. of P. R. R.
Wheeler,	Fayette,	M. G. Moore,	Johnstown,	Murtin Meagher,	Connellsville,	S. W. E. of P. R. R. & O. & S. W. E. of P. R. R.
Continental Coke Co. Continental No. 1,	Fayette,	Jared B. Reis,	Uniontown,	Wm. Goodfellow,	Uniontown,	Coal Lick Branch of S. W. E. of P. R. R.
Continental No. 2,	Fayette,	Jared B. Reis,	Uniontown,	C. C. Gadd,	Uniontown,	Coal Lick Branch of S. W. E. of P. R. R.
Continental No. 3,	Fayette,	Jared B. Reis,	Uniontown,	C. C. Gadd,	Uniontown,	Coal Lick Branch of S. W. E. of P. R. R.
Eureka Fuel Co. Footdale,	Fayette,	J. P. Brennen,	Leckrone,	H. G. Neff,	Leckrone,	Smithfield Branch of B. & O. & P. R. R.
Leckrone No. 1,	Fayette,	J. P. Brennen,	Leckrone,	H. G. Neff,	Leckrone,	B. & O. M. & N. S. & S. W. E. of P. R. R.
Leckrone No. 2,	Fayette,	J. P. Brennen,	Leckrone,	M. F. Sickard,	New Salem,	B. & O. M. & N. S. & S. W. E. of P. R. R.
Buffington,	Fayette,	J. P. Brennen,	Leckrone,	M. F. Sickard,	New Salem,	B. & O. M. & N. S. & S. W. E. of P. R. R.
American Coke Co. Edenborn,	Fayette,	L. W. Fogg,	Edenborn,	L. S. Walter,	Edenborn,	Coal Lick Branch of S. W. E. of P. R. R.
Lambert,	Fayette,	L. W. Fogg,	Edenborn,	C. S. Bankard,	McClellandtown,	Coal Lick Branch of S. W. E. of P. R. R.
Yates,	Fayette,	L. W. Fogg,	Edenborn,	S. B. Graham,	Edenborn,	Coal Lick Branch of S. W. E. of P. R. R.
Washington Coal & Coke Co. Washington No. 1,	Fayette,	J. S. Newmyer,	Dawson,	J. S. Newmyer,	Dawson,	P. V. & C. Branch of P. R. R. & B. & O.
Washington No. 2,	Fayette,	J. S. Newmyer,	Dawson,	J. S. Newmyer,	Dawson,	P. V. & C. Branch of P. R. R. & B. & O.
Oliver & Snyder Steel Co. Oliver No. 1,	Fayette,	Fred. C. Keighley,	Uniontown,	David B. Smith,	Uniontown,	P. V. & C. Branch of P. R. R. & B. & O.
Oliver No. 2,	Fayette,	Fred. C. Keighley,	Uniontown,	David B. Smith,	Uniontown,	P. V. & C. Branch of P. R. R. & B. & O.
Acme,	Fayette,	I. W. Semans,	Uniontown,	Isaac G. Roby,	Uniontown,	Smithfield Branch of B. & O.
Ada Coal and Coke Co. Ada,	Fayette,	I. W. Semans,	Uniontown,	A. Crossland,	Cheat Haven,	Baltimore and Ohio.

Joseph Wharton. Bourne,	Fayette,	J. W. Taylor,	Uniontown,	George A. Whetzel,	Smithfield,	Baltimore and Ohio.
Perry Coal Co. Bessie,	Fayette,	D. P. V. Larimer,	Perryopolis, .....	.....	.....	P., McK. & Y.
Colonial Coke Co. Colonial,	Fayette,	W. H. Warner,	Cleveland, Ohio,	Joseph Baker,	Smock,	P., McK. & Y.
Connellsville Coke Co. Connellsville No. 1,	Fayette,	Edwin N. Ohl,	New Castle,	H. M. Wilson,	Gans,	Baltimore and Ohio.
The Atlas Coke Co. Crossland,	Fayette, .....	.....	.....	James Henderson,	Uniontown,	Baltimore and Ohio.
E. A. Humphries & Co. Chester,	Fayette,	E. A. Humphries,	Scottsdale,	R. J. Humphries,	Vances Mill,	P. V. & C. B. of P. R. R.
James Cochran Sons & Co. Clarissa,	Fayette, .....	.....	.....	Nelson A. Rist,	Vanderblit,	P., McK. & Y.
Riverview Coal and Coke Co. Donald,	Fayette, .....	.....	.....	.....	.....	Coal Lick E. of P. R. R.
Dunbar Furnace Co. Ferguson,	Fayette, .....	.....	Dunbar,	John W. Greaves,	Dunbar,	S. W. B. of P. R. R. & B. & O.
Furnace,	Fayette,	S. G. Valentine,	Dunbar,	John W. Greaves,	Dunbar,	S. W. B. of P. R. R. & B. & O.
Butes Run C. & C. Co., Ltd. Florence,	Fayette,	J. R. Humphries,	Vance Mill, .....	.....	.....	P. V. & C. B. of P. R. R.
Bessemer Coke Co. Griffin,	Fayette, .....	.....	.....	.....	.....	Coal Lick Branch of S. W. B. of P. R. R.
Hero Coal and Coke Co. Hero,	Fayette, .....	.....	.....	.....	.....	P. V. & C. B. of P. R. R.
Juniatia Coke Co. Juniatia,	Fayette,	M. M. Cochran,	Uniontown,	Adam Nicholson,	Juniataville,	O. & B. Short Line,
A. L. Kelster & Co. Lincoln,	Fayette, .....	.....	.....	M. M. McCombs,	Wattsburg,	P. V. & C. B. of P. R. R.
Lafayette Coke Co. Lafayette,	Fayette, .....	.....	.....	George Whyels,	Uniontown,	P. V. & C. B. of P. R. R.
Isaac Taylor & Co. Mt. Hope,	Fayette, .....	.....	.....	Isaac Taylor,	Uniontown,	P. V. & C. B. of P. R. R.
Brown & Cochran. Nelle,	Fayette,	J. R. Laughrey,	Dawson, .....	.....	Vanderblit,	P., McK. & Y.
Percy Mining Co. Percy,	Fayette, .....	.....	.....	Louis de Laulley,	Percy,	Baltimore and Ohio.

TABLE I—Continued.

Names of Operators and Collieries.	County.	Name of General Superintendent.	P. O. Address.	Name of Superintendent.	P. O. Address.	Railroad to Mine.
Stewart Iron Co., Limited Stewart,	Fayette, ...	Sammuel McClure,	Sharon,	Nathaniel McClure,	Uniontown,	Baltimore and Ohio.
Edward Snider,	Fayette, ...	.....	.....	Edward Snider,	Uniontown, .....	.....
Lake Erie Gas C. & C. Co. Sumner,	Fayette, ...	.....	.....	W. P. Bonney,	Braznell,	P. V. & C. B. of P. R. R.
J. D. Boyd,	Fayette, ...	R. E. Boyd,	Smithfield,	J. D. Boyd,	Uniontown,	Baltimore and Ohio.
H. R. Sackett C. & C. Co. Sackett,	Fayette, ...	.....	.....	H. R. Sackett,	Smithfield,	Baltimore and Ohio.
Fayette Coke Co. Shamrock,	Fayette, ...	C. E. Lenhart,	New Salem,	Reuben Street,	New Salem,	Coal Lick B. of P. R. R.
J. R. Laughrey & Son, Victoria,	Fayette, ...	J. R. Laughrey,	Dawson,	J. S. Laughrey,	Perryapolis,	P., McK. & Y.
Merchants' Coal Co. Merchants' No. 1,	Somerset, ...	R. S. Garrette,	Elk Lick, .....	.....	.....	Baltimore and Ohio.
Merchants' No. 2,	Somerset, ...	R. S. Garrette,	Elk Lick, .....	.....	.....	Baltimore and Ohio.
Merchants' No. 3,	Somerset, ...	R. S. Garrette,	Elk Lick, .....	.....	.....	Baltimore and Ohio.
W. J. Rainey,	Somerset, ...	J. H. Klock,	Berlin,	J. H. Klock,	Berlin,	Baltimore and Ohio.
Standard No. 1,	Somerset, ...	J. H. Klock,	Berlin,	J. H. Klock,	Berlin,	Baltimore and Ohio.
Standard No. 2,	Somerset, ...	J. H. Klock,	Berlin,	J. H. Klock,	Berlin,	Baltimore and Ohio.
The Althouse Coal Mining Co. Ponfieg,	Somerset, ...	W. D. Althouse,	Philadelphia,	F. R. Lyon,	Garrett,	Baltimore and Ohio.
Allegheny,	Somerset, ...	.....	.....	.....	.....	Baltimore and Ohio.
Cumberland & Elk Lick C. Co. Shaws No. 1,	Somerset, ...	.....	.....	John F. Hosack,	Meyersdale,	Baltimore and Ohio.
Shaws No. 2,	Somerset, ...	.....	.....	John F. Hosack,	Meyersdale,	Baltimore and Ohio.
Fairview Coal Co. Fairview,	Somerset, ...	Thomas Rees,	Meyersdale,	Thos. Rees,	Meyersdale,	Baltimore and Ohio.

John O. Stoner.	Somerset.	John O. Stover.	Berlin.	H. R. Stover.	Berlin.	Baltimore and Ohio.
Berlin.	Somerset.	Wm. G. Hocking.	Meyersdale.	Wm. G. Hocking.	Meyersdale.	Baltimore and Ohio.
Casselman Coal Co.	Somerset.	W. J. Chapman.	Baltimore, Md.	R. A. Winters.	Coal Run.	Baltimore and Ohio.
Chapman Coal Mining Co.	Somerset.			Fred. Rowe.	Meyersdale.	Baltimore and Ohio.
Cumberland and Summit Coal and Coke Co.	Somerset.			W. A. Merrill.	Garrett.	Baltimore and Ohio.
W. A. Merrill.	Somerset.			Chas. Thomas.	Meyersdale.	Baltimore and Ohio.
Enterprise Coal Co.	Somerset.	E. H. Reid.	Scottsdale.	E. H. Reid.	Scottsdale.	Baltimore and Ohio.
Enterprise.	Somerset.	E. F. Fisher.	Pittsburg.	Joseph Harper.	Berlin.	Baltimore and Ohio.
Connellsville Ursina Coal and Coke Co.	Somerset.	John Meagher.	Meyersdale.	John Meagher.	Meyersdale.	Baltimore and Ohio.
Edna.	Somerset.			W. W. Shawhan.	Meyersdale.	Baltimore and Ohio.
Grace Coal Co., Limited.	Somerset.			John T. Hocking.	Meyersdale.	Baltimore and Ohio.
Grace.	Somerset.			D. A. Block.	Somerset.	Baltimore and Ohio.
Grassy Run Coal Co.	Somerset.			A. K. Bolick.	Pine Hill.	Baltimore and Ohio.
Grassy Run.	Somerset.			Telford Lewis.	Somerset.	Baltimore and Ohio.
The Continental Coal Co.	Somerset.					Baltimore and Ohio.
Glen McLaran.	Somerset.					Baltimore and Ohio.
Hamilton.	Somerset.					Baltimore and Ohio.
Duncombe & Hocking.	Somerset.					Baltimore and Ohio.
Pine Hill Coal Co.	Somerset.					Baltimore and Ohio.
Lottie No. 1.	Somerset.					Baltimore and Ohio.
Lottie No. 2.	Somerset.					Baltimore and Ohio.
Lewis, Suppee Coal Co.	Somerset.					Baltimore and Ohio.
Milford.	Somerset.					Baltimore and Ohio.
Pando Coal and Coke Co.	Somerset.					Baltimore and Ohio.
Miniature.	Somerset.					Baltimore and Ohio.
W. K. Niver & Co.	Somerset.					Baltimore and Ohio.
Pen-Mar.	Somerset.					Baltimore and Ohio.
Statler Coal Co.	Somerset.					Baltimore and Ohio.
Shamrock Coal Co.	Somerset.					Baltimore and Ohio.
Shamrock.	Somerset.					Baltimore and Ohio.

TABLE I—Continued.

Names of Operators and Collieries.	County.	Name of General Superintendent.	P. O. Address.	Name of Superintendent.	P. O. Address.	Railroad to Mine.
Ben. Thomas & Son. Thomas,	Somerset, ..	Benj. Thomas,	Meysersdale,	Benjamin Thomas,	Meysersdale,	Baltimore and Ohio.
H. J. Wilmoth. Wilmoth,	Somerset, ..	H. J. Wilmoth,	Meysersdale,	H. J. Wilmoth, ...	Meysersdale,	Baltimore and Ohio.
Wilson Creek Coal Co. Lone Tree mine,	Somerset, ..	.....	.....	F. F. Lyon,	Rockwood,	Baltimore and Ohio.
Middle Creek Coal Co. Middle Creek No. 1,	Somerset, ..	.....	.....	Wm. Rowe,	Casselman,	Baltimore and Ohio.
Ehlen Brothers. Tub Mill run,	Somerset, ..	.....	.....	.....	.....	.....
Savage Fire Brick Co. Gooseberry,	Somerset, ..	J. J. Hoblitzell,	Meysersdale,	U. R. Smith,	Hoblitzell, .....	.....
Cheat Haven Coal & Coke Co. Eagle,	Fayette, .....	.....	.....	Geo. W. Gibson, ..	Cheat Haven, ...	Baltimore and Ohio.

TABLE II—Gives the total number of tons of coal mined and tons of coke produced in each colliery, number of days worked, number of employees, number of persons killed and injured, number of kegs of powder, etc., used in the Fifth Bituminous District for the year ending December 31, 1900.

Names of Operators and Collieries.	County.	Shipments of coal in tons by rail or otherwise.	Number and heat at colliery, steam and heat at colliery, used for	Sold to local trade and used by employes—tons.	Total production of coal in tons.	Total production of coke in tons.	Number of coke ovens.	Number days worked.	Number persons employed.	Number fatal accidents.	Number non-fatal accidents.	Number kegs powder used.	Number pounds of dynamite used.	Number horses and mules.
H. C. Frick Coke Co.														
Kyle	Fayette	.....	1,735	1,497	247,000	159,000	306	238	294	.....	2	.....	.....	50
Leath	Fayette	.....	9,811	9,775	277,000	177,000	308	283	322	.....	3	.....	.....	33
Leisenring No. 1	Fayette	.....	6,472	1,018	425,000	278,000	500	282	461	1	5	.....	3,550	66
Leisenring No. 2	Fayette	.....	8,270	2,990	424,000	275,000	600	284	486	2	3	.....	750	68
Leisenring No. 3	Fayette	.....	14,469	3,191	444,000	284,000	504	290	436	2	1	1	4,500	73
Oliphant	Fayette	.....	5,080	537	189,000	122,000	252	285	249	.....	.....	.....	.....	24
Redstone	Fayette	.....	7,969	2,060	365,000	226,000	445	284	417	.....	.....	.....	.....	10
Trotter	Fayette	.....	6,876	2,732	415,000	270,000	464	283	452	2	4	.....	850	10
Wynn	Fayette	.....	3,064	.....	47,000	330	30	190	.....	.....	.....	.....	.....	40
Youngstown	Fayette	.....	6,281	589	381,000	135,000	290	190	.....	.....	.....	.....	.....	40
Lemont No. 1	Fayette	.....	3,065	1,510	394,000	125,000	227	227	586	1	2	.....	50	26
Lemont No. 2	Fayette	.....	.....	1,310	321,000	120,000	227	227	586	1	2	.....	50	26
Lemont No. 3	Fayette	.....	3,075	300	334,000	216,000	350	291	318	2	3	.....	.....	41
Total	.....	.....	80,997	18,329	3,552,000	2,290,000	4,227	274	3,973	10	27	7	9,700	539
Pittsburg Coal Co.														
Smock	Fayette	.....	318	174	96,311	.....	.....	200	115	.....	2	1,600	100	10
Hill	Fayette	.....	.....	.....	.....	.....	.....	.....	11	.....	.....	800	.....	2
Hurst	Fayette	.....	434	6	15,334	.....	.....	139	113	1	1	600	206	6
Eleanor	Fayette	.....	208	93	69,313	266	5	170	100	.....	.....	800	50	8
Grindstone	Fayette	.....	2,328	487	138,909	5,735	31	240	162	2	1	600	4,600	13
Hanna	Fayette	.....	34	34	31,166	.....	.....	205	53	.....	.....	120	36	8
Total	.....	.....	3,322	794	351,093	6,101	36	190	354	3	5	4,520	4,886	49

TABLE II—Continued.

Names of Operators and Collieries.	County.	Shipments of coal in tons by rail or otherwise.	Number of tons used for steam and heat at colliery.	Sold to local trade and used by employes—tons.	Total production of coal in tons.	Total production of coke in tons.	Number of coke ovens.	Number days worked.	Number persons employed.	Number fatal accidents.	Number non-fatal accidents.	Number kegs powder used.	Number pounds of dynamite used.	Number horses and mules.
W. J. Rainey.														
Paul,	Fayette, .....	.....	4,856	1,618	278,444	185,628	489	281	374	3	1	.....	1,200	85
Elm Grove,	Fayette, .....	.....	7,821	1,032	115,722	174,006	218	280	206	.....	1	600	600	50
Mt. Braddock,	Fayette, .....	.....	7,948	11,988	150,763	146,970	490	286	229	1	.....	.....	150	50
Revere,	Fayette, .....	.....	869	590	30,000	.....	.....	280	251	.....	1	.....	150	50
Total, .....	.....	.....	16,602	14,468	620,129	407,294	1,197	282	1,140	4	3	600	2,750	140
Cambria Iron and Steel Co.														
Morrill,	Fayette, .....	.....	2,533	894	63,304	48,177	400	311	72	.....	.....	50	360	11
Mahoning-Atlas,	Fayette, .....	.....	8,985	1,521	285,330	214,069	402	289	476	3	.....	74	600	59
Wheeler,	Fayette, .....	.....	1,072	934	82,376	62,222	103	311	102	.....	.....	35	300	12
Total, .....	.....	.....	12,590	3,349	431,010	324,468	905	304	650	.....	3	159	1,200	82
Continental Coke Co.														
Continental No. 1,	Fayette, .....	.....	571	140	10,319	7,168	300	76	181	.....	.....	.....	3,000	15
Continental No. 2,	Fayette, .....	.....	550	148	23,658	17,217	300	75	167	.....	.....	.....	1,000	15
Total, .....	.....	.....	1,121	288	33,977	24,385	600	151	348	.....	.....	.....	4,000	30
Eureka Fuel Co.														
Buffington,	Fayette, .....	.....	.....	.....	.....	.....	.....	75.50	348	.....	.....	.....	.....	.....
Footdale,	Fayette, .....	.....	490	230	10,740	6,290	160	96	250	1	.....	.....	12,384	21
Leckrone No. 1,	Fayette, .....	.....	2,819	980	83,309	53,000	259	212	120	.....	.....	.....	5,000	10
Leckrone No. 2,	Fayette, .....	.....	875	972	23,347	14,531	150	61	135	.....	.....	.....	1,944	15
Total, .....	.....	.....	3,369	2,192	117,366	73,731	560	103	505	1	.....	.....	19,328	46

TABLE II—Continued.

Names of Operators and Collieries.	County.	Shipments of coal in tons by rail or otherwise.	Number and heat used for steam and heat at colliery.	Sold to local trade and used by employes—tons.	Total production of coal in tons.	Total production of coke in tons.	Number of coke ovens.	Number days worked.	Number persons employed.	Number fatal accidents.	Number non-fatal accidents.	Number kegs powder used.	Number pounds of dynamite used.	Number horses and mules.
Riverview Coal and Coke Co. Donald,	Fayette,	6,000	.....	.....	6,000	.....	.....	42	34	.....	.....	56	150	2
Cheat Haven Coal and Coke Co. Eagle,	Fayette,	7,000	.....	.....	7,000	.....	.....	153	45	.....	.....	70	100	3
Butes Run Coal and Coke Co. Florence,	Fayette, .....	.....	25	.....	3,610	2,500	20	63	13	.....	.....	.....	.....	2
Bessemer Coke Co. Griffin,	Fayette,	25	.....	364	15,496	11,320	100	180	109	.....	.....	30	4,000	10
Hero Coal and Coke Co. Hero,	Fayette,	11,840	10	150	15,467	2,600	30	137	61	.....	.....	.....	.....	6
Juniata Coke Co. Juniata,	Fayette, .....	.....	2,682	884	181,913	125,683	250	300	242	.....	1	2,000	240	26
Keister & Co. Lincoln,	Fayette,	1,100	100	.....	4,400	2,400	80	200	59	.....	.....	100	500	6
Lafayette Coal and Coke Co. Lafayette,	Fayette, .....	.....	.....	.....	750	.....	.....	25	9	.....	.....	5	.....	1
Isaac Taylor & Co. Mt. Hope,	Fayette, .....	.....	300	180	66,281	43,868	80	294	77	.....	.....	294	40	7
Brown & Cochran. Nettle,	Fayette, .....	.....	2,000	1,000	288,000	192,000	329	307	277	.....	2	.....	.....	30

TABLE II—Continued.

Names of Operators and Collieries.	County.	Shipments of coal in tons by rail or otherwise.	Number of tons used for steam and heat at colliery.	Sold to local trade and used by employes—tons.	Total production of coal in tons.	Total production of coke in tons.	Number of coke ovens.	Number days worked.	Number persons employed.	Number fatal accidents.	Number non-fatal accidents.	Number kegs powder used.	Number pounds of dynamite used.	Number horses and mules.
Berlin, Jno. O. Stoner.	Somerset,	23,605	.....	.....	23,605	.....	.....	228	36	.....	.....	130	5	4
Casselman Coal Co.	Somerset,	76,503	1,000	390	77,803	.....	.....	355	72	1	1	600	.....	9
Chapman Coal Mining Co.	Somerset,	74,876	.....	.....	74,876	.....	.....	234	83	.....	.....	350	.....	8
Cumberland and Summit Coal and Coke Co.	Somerset,	172,100	.....	1,400	173,500	100	10	266	274	1	.....	2,560	2,000	28
W. A. Merrill.	Somerset,	27,473	.....	25	27,498	.....	.....	226	58	.....	.....	320	.....	5
Enterprise Coal Co.	Somerset,	800	.....	.....	800	.....	.....	40	18	.....	.....	.....	.....	.....
Edna, Connellsville and Ursina Coal and Coke Co.	Somerset,	1,635	.....	1,000	2,635	.....	.....	182	3	.....	.....	.....	.....	.....
Fairview Coal Co.	Somerset,	24,280	25	125	24,430	.....	.....	218	36	.....	.....	288	50	2
Grace Coal Co.	Somerset,	16,061	100	.....	16,161	.....	.....	100	52	.....	.....	.....	.....	6

Grassy Run Coal Co. Grassy Run,	45,120	.....	45,120	.....	217	59	.....	350	.....	6
The Continental Coke Co. Glen McLaren,	80,000	374	80,674	.....	187	149	1	1,400	.....	8
Hocking & Duncombe. Hamilton,	81,350	.....	81,350	.....	198	102	.....	1,185	.....	8
Lewis Supplee Coal Co. Milford,	13,719	62	13,834	.....	202	34	.....	170	.....	2
Bando Coal and Coke Co. Miniature,	1,600	.....	1,600	.....	80	17	.....	.....	.....	1
W. K. N'iver & Co. Pen-Mar,	148,200	2,160	150,560	.....	218	179	1	2,500	50	13	
Statler,	2,000	.....	2,000	.....	127	10	.....	.....	2,100	.....	
Shamrock Coal Co. Shamrock,	764	.....	768	.....	46	20	.....	20	100	1
Ellen Brothers. Tub Mill run,	46,450	.....	47,550	.....	243	84	.....	740	.....	8
B. Thomas & Son. Thomas,	26,786	.....	26,786	.....	278	31	.....	.....	.....	2
H. J. Wilmoth. Wilmoth,	25,500	.....	25,525	.....	201	43	.....	205	.....	4
Middle Creek Coal Co. Mine No. 1,	1,700	.....	1,700	.....	65	25	.....	.....	.....	2
Wilson Creek Coal Co. Lone Tree,	300	.....	310	.....	12	22	.....	.....	.....	2
Savage Fire Brick Co. Gooseberry,	4,000	.....	4,700	.....	235	11	.....	.....	.....	.....
Grand total,	2,831,875	178,583	9,900,273	4,477,692	11,292	254	13,867	45	56	34,490	62,924	1,519

Recapitulation.

Names of Operators and Collieries.	County.	Shipments of coal in tons by rail or otherwise.	Number of tons used for steam and heat at colliery.	Sold to local trade and used by employes—tons.	Total production of coal in tons.	Total production of coke in tons.	Number of coke ovens.	Number days worked.	Number persons employed.	Number fatal accidents.	Number non-fatal accidents.	Number kegs powder used.	Number pounds of dynamite used.	Number horses and mules.
H. C. Frick Coke Co.,	Fayette, .....	.....	80,997	18,329	3,552,000	2,290,000	4,227	3,290	3,973	10	27	7	9,700	539
Pittsburg Coal Co.,	Fayette,	316,977	3,322	784	351,033	6,101	36	4,954	554	3	5	4,520	9,700	49
W. J. Rainey	Fayette, .....	.....	12,602	14,468	620,124	407,204	1,197	1,127	1,140	4	3	6,000	2,750	140
Cambria Iron and Steel Co.,	Fayette, .....	.....	12,590	3,349	431,010	324,463	905	1,211	650	4	3	159	1,200	82
Continental Coke Co.,	Fayette,	1,690	1,424	338	33,870	24,883	600	151	348	.....	.....	.....	4,000	30
Eureka Fuel Co.,	Fayette,	1,095	2,309	2,192	117,336	73,731	560	309	505	1	.....	.....	19,323	46
American Coke Co.,	Fayette,	9,000	3,000	.....	12,000	.....	500	60	293	10	2	.....	.....	84
Washington Coal and Coke Co.,	Fayette,	704,765	12,137	4,945	1,105,922	256,050	500	615	1,044	5	.....	7,250	5,800	80
Oliver and Snider Steel Co.,	Fayette,	98	10,874	4,727	715,638	486,665	708	619	744	5	.....	.....	.....	59
Dunbar Furnace Co.,	Fayette,	90,096	5,836	6,216	139,253	59,036	220	611	147	1	2	133	700	32
Individual collieries,	Fayette,	263,365	15,559	19,837	1,351,777	537,635	1,797	5,722	2,083	3	10	5,820	10,330	196
Total in Fayette county, ..	.....	1,417,086	165,790	75,115	8,430,148	4,455,893	11,205	14,396	11,481	42	52	18,506	58,744	1,337
Merchants' Coal Co.,	Somerset,	385,649	1,200	310	205,159	.....	.....	615	265	.....	.....	2,150	.....	15
W. J. Rainey	Somerset,	22,734	.....	.....	22,734	.....	.....	430	40	.....	.....	.....	235	5
The Althouse Coal Mining Co.,	Somerset,	41,716	1,722	330	46,768	.....	.....	423	102	.....	.....	411	1,750	9
Cumberland & Elk Lick Coal Co.,	Somerset,	216,442	9,010	1,113	251,003	21,689	75	423	418	.....	1	2,181	.....	22
Pine Hill Coal Co.,	Somerset,	50,426	250	.....	50,676	.....	.....	339	143	.....	.....	.....	.....	12
Individual collieries,	Somerset,	890,822	3,721	4,542	890,085	.....	.....	10	1,407	3	3	10,918	2,205	119
Total in Somerset county, ..	.....	1,410,789	7,793	6,295	1,475,425	21,709	85	4,233	2,375	3	4	16,993	4,180	182
Total in Bedford county, ..	.....	4,090	.....	700	4,700	.....	.....	235	11	.....	.....	.....	.....	.....
Grand total, .....	.....	2,831,875	173,583	82,110	9,908,273	4,477,692	11,292	254	13,867	45	56	34,499	62,934	1,519

Recapitulation.

Names of Operators and Collieries.	County.	Number of Boilers.				Locomotives.			Number steam engines of all classes.	Total horse power.	Number pumps delivering water to surface.	Capacity in gallons per minute.	Quantity delivered to surface per minute—gallons.	Number electric dynamos.	Number air compressors.
		Cylindrical.	Tubular.	Horse power.	Total horse power.	Steam.	Air.	Electric.							
H. C. Frick Coke Co.,	Fayette,	46	54	5,251	7,157	15	3	48	7,130	29	13,319	6,472	4	13	
Pittsburg Coal Co.,	Fayette,	2	5	1,470	630	.....	.....	11	1,135	4	1,601	1,601	1	1
W. J. Rainey,	Fayette,	.....	23	1,835	1,835	2	.....	12	1,580	11	930	920	2	5
Cambria Iron and Steel Co.,	Fayette,	5	16	700	875	1	.....	11	772	2	1,326	886	1	.....
Continental Coke Co.,	Fayette,	.....	12	900	960	1	.....	4	1,530	2	750	300	1	2
Eureka Fuel Co.,	Fayette,	.....	16	2,400	2,400	2	.....	9	1,615	4	1,167	370	1	2
American Coke Co.,	Fayette,	14	1,450	10,960	1,450	.....	.....	8	.....	7	2,310	2,100	1	6
Washington Coal and Coke Co.,	Fayette,	.....	.....	10,960	960	.....	.....	14	960	2	590	350	1	3
Oliver & Snider Steel Co.,	Fayette,	.....	.....	14	840	3	.....	1	960	1	700	500	1	.....
Dunbar Furnace Co.,	Fayette,	.....	6	360	840	3	.....	7	960	3	550	440	1	2
Individual collieries,	Fayette,	10	465	2,040	2,415	3	.....	18	1,628	20	3,323	2,065	1	4
Total in Fayette county,		77	4,156	184	15,816	19,522	28	3	143	17,370	85	26,571	15,604	18	28
Merchants' Coal Co.,	Somerset,	2	200	200	2	435
W. J. Rainey,	Somerset,
The Althouse Coal Mining Co.,	Somerset,	3	225	225	225	3	110	1	300	183
Cumberland & Elk Lick Coal Co.,	Somerset,	2	220	220	2	180	2	175	175	1
Pine Hill Coal Co.,	Somerset,	1	45	45	1	200	75
Individual collieries,	Somerset,	4	280	5	335	615	7	360	3	759	534
Total in Somerset county,		6	480	11	855	1,935	3	14	1,085	7	1,434	967	3	3
Grand total,		83	4,636	195	16,671	20,857	28	3	157	18,435	92	28,065	16,671	21	31

TABLE III—Showing the number of employees at each colliery in the Fifth Bituminous District during the year 1900.

Names of Operators and Collieries.	County.	Occupations of Persons Employed Inside.										Occupations of Persons Employed Outside.									
		Occupations of Persons Employed Inside.										Occupations of Persons Employed Outside.									
		Fire bosses.	Miners.	Miners' laborers.	Drivers and runners.	Door boys and helpers.	All other employes.	Total inside.	Outside foreman.	Blacksmiths and carpenters.	Engineers and firemen.	Slate pickers.	Employed in the manufacture of coke.	Superintendents, book-keepers and clerks.	All other employes.	Total outside.	Grand total, inside and outside.				
H. C. Fricke Coke Co.	Fayette,	1	1	5	15	6	4	147	1	3	4	.....	.....	.....	3	136	147	284
	Fayette,	1	3	12	24	5	4	380	2	7	10	.....	.....	.....	3	387	399	787
	Fayette,	1	3	22	55	3	13	215	2	6	8	.....	.....	.....	3	322	331	653
	Leisenring No. 1,	2	1	20	28	6	16	284	1	3	6	.....	.....	.....	3	301	309	610
	Leisenring No. 2,	1	1	18	28	6	16	284	1	3	6	.....	.....	.....	3	301	309	610
	Leisenring No. 3,	1	1	13	14	11	11	249	1	3	4	.....	.....	.....	3	264	272	536
	Oshtemo,	1	1	138	14	11	11	249	1	3	4	.....	.....	.....	3	264	272	536
	Reagan,	1	1	16	23	1	3	213	3	6	12	.....	.....	.....	3	180	204	417
	Trotter,	1	3	155	12	19	5	237	1	6	1	.....	.....	.....	3	197	215	452
	Wynn,	1	1	49	2	5	5	63	1	3	3	.....	.....	.....	2	40	49	112
	Youngstown,	1	2	91	14	2	5	150	1	5	6	.....	.....	.....	2	90	104	234
	Lemont No. 1,	1	2	80	12	1	2	106	1	4	7	.....	.....	.....	1	73	86	192
	Lemont No. 2,	1	2	130	10	19	3	167	1	5	5	.....	.....	.....	2	138	151	318
Lemont No. 3,	1	2	130	10	19	3	167	1	5	5	.....	.....	.....	2	138	151	318	
Total,	14	29	1,731	144	223	36	77	2,251	18	61	81	2	.....	31	1,526	1,719	3,973			
Pittsburg Coal Co.	Fayette,	1	1	.....	7	2	1	100	.....	3	2	.....	.....	2	8	15	115	
	Hurst,	1	1	.....	4	.....	3	10	.....	.....	.....	.....	.....	1	11	11	22	
	Hurst,	1	1	.....	4	.....	3	99	.....	.....	.....	.....	.....	2	8	14	113	
	Elkton,	1	1	.....	10	.....	1	84	.....	1	2	.....	.....	.....	3	6	100	
	Grindstone,	1	2	.....	10	3	15	139	.....	2	4	.....	.....	.....	16	23	162	
	Hanna,	1	1	.....	7	.....	7	47	.....	1	1	.....	.....	.....	1	4	53	
Total,	6	4	417	1	36	5	29	489	.....	9	10	.....	.....	7	39	65	554	

W. J. Ralney.														
Paul,	1	2	180	8	18	.....	2	211	1	6	6	140	163	374
Elm Grove,	2	2	50	2	10	2	3	110	1	3	3	85	96	206
Mt. Braddock,	1	.....	15	1	13	.....	1	182	1	6	11	125	147	329
Total,	5	5	435	19	50	2	8	524	4	17	23	550	615	1,140
Cambria Steel Co.														
Morrell,	1	1	30	4	3	.....	4	43	1	1	2	24	29	72
Mahoning-Atlas,	2	2	210	11	30	3	18	276	2	4	8	182	200	476
Wheeler,	1	1	43	2	4	1	5	57	1	1	3	38	45	102
Total,	4	4	283	17	37	4	27	376	4	6	13	244	274	650
Continental Coke Co.														
Continental No. 1,	1	1	40	4	4	.....	.....	.....	.....	.....	.....	.....	.....	.....
Continental No. 2,	1	1	80	4	10	2	13	111	1	2	4	104	113	181
Continental No. 3,	2	2	120	4	14	2	35	179	2	6	8	45	56	167
Total,	2	2	120	4	14	2	35	179	2	6	8	149	169	348
Eureka Fuel Co.														
Ruffington,	1	.....	50	10	8	1	9	79	3	7	6	38	56	135
Pontdale,	1	.....	55	13	7	2	30	108	6	14	6	110	142	250
Leckrone No. 1,	1	.....	54	8	5	.....	10	78	2	2	.....	36	42	120
Leckrone No. 2,	3	.....	159	31	20	3	49	265	11	23	12	184	240	505
Total,	2	1	15	20	2	.....	.....	40	3	2	7	100	117	157
American Coke Co.	1	1	20	10	4	.....	.....	36	.....	.....	.....	100	106	136
Edenborn, .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Gates, .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Lambert, .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Total,	3	2	35	30	6	.....	.....	76	.....	.....	.....	5	200	217
Washington Coal and Coke Co.	3	2	375	5	30	.....	45	314	4	5	9	156	182	643
Washington No. 1,	1	2	205	5	18	.....	23	314	4	6	8	67	87	401
Washington No. 2, .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Total,	4	5	610	10	48	.....	68	775	12	11	17	223	269	1,044
Oliver Snyder Steel Co.														
Oliver No. 1,	2	3	157	.....	18	.....	41	221	1	8	5	98	114	335
Oliver No. 2,	1	2	205	.....	29	3	35	275	1	6	3	129	134	409
Total,	3	5	362	.....	47	3	76	496	2	11	8	220	248	744
Danbar Furnace Co.														
Ferguson,	1	1	82	4	9	.....	8	105	1	4	5	12	23	168
Furnace,	1	.....	5	6	3	.....	3	18	.....	.....	.....	.....	1	19
Total,	2	1	87	10	12	.....	11	123	1	4	5	12	21	147

TABLE III—Continued.

Names of Operators and Colleries,	County.	Occupations of Persons Employed Inside.								Occupations of Persons Employed Outside.								Grand total, inside and outside.
		Inside foreman or mine boss.	Fire bosses.	Miners.	Miners' laborers.	Drivers and runners.	Door boys and helpers.	All other employes.	Total inside.	Outside foreman.	Blacksmiths and carpenters.	Engineers and firemen.	State pickers.	Employed in the manufacture of coke.	Superintendents, book-keepers and clerks.	All other employes.	Total outside.	
Acme,	Fayette,	1	1	33	1	2	1	1	38	1	1	1	.....	.....	2	20	24	62
Ada Coal and Coke Co.	Fayette,	1	.....	6	1	1	.....	.....	9	1	1	.....	.....	1	5	8	17	.....
Joseph Wharton.	Fayette,	1	.....	42	2	5	.....	.....	50	.....	2	.....	.....	2	30	34	84	.....
Ferry Coal Co.	Fayette,	1	.....	65	3	7	.....	.....	76	.....	1	3	.....	1	4	9	85	.....
Colonial Coke Co.	Fayette,	1	.....	49	1	5	.....	.....	56	.....	1	1	.....	1	31	34	90	.....
Connellsville Coke Co.	Fayette,	1	.....	50	2	3	1	3	60	1	2	2	1	.....	2	32	40	100
The Atlas Coke Co.	Fayette,	1	.....	45	2	4	.....	1	53	1	1	1	.....	2	42	47	100	
E. A. Humphries & Co.	Fayette,	1	.....	32	2	4	.....	2	41	1	1	1	.....	1	12	16	57	.....
James Cochran Sons & Co.	Fayette,	1	.....	44	2	6	.....	.....	53	1	1	.....	.....	2	30	34	87	.....

TABLE III—Continued.

Names of Operators and Collieries.	County.	Occupations of Persons Employed Inside.										Occupations of Persons Employed Outside.										Grand total, inside and outside.								
		Inside foreman or mine boss.	Fire bosses.	Miners.	Miners' laborers.	Drivers and runners.	Door boys and helpers.	All other employes.	Total inside.	Outside foreman.	Blacksmiths and carpenters.	Engineers and firemen.	State pickers.	Employed in the manufacture of coke.	Superintendents, book-keepers and clerks.	All other employes.	Total outside.													
J. R. Laughrey & Son.	Fayette	1	25	2	4	4	6	41	113	6	41	1,330	18	35	2	2	1	1	2	2	32	1	1	1	2	39	627	753	2,083	
Total for individual mines in Fayette county		23	6	1,100	41	113	6	41	1,330	18	35	2	2	39	627	753	2,083													
Merchants' Coal Co.	Somerset	1	80	6	6	7	1	85	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Merchants' No. 1	Somerset	1	106	1	1	17	1	126	1	3	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Merchants' No. 2	Somerset	1	14	1	1	8	1	24	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Merchants' No. 3	Somerset	1	194	14	2	32	245	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
Total		3	194	14	2	32	245	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
W. T. Rainey.	Somerset	1	6	2	2	1	6	1	28	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Standard No. 1	Somerset	1	24	2	2	1	28	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Standard No. 2	Somerset	1	30	2	2	1	34	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Total		1	30	2	2	1	34	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
The Althouse Coal Mining Co.	Somerset	1	39	4	4	1	45	2	43	2	3	1	2	2	3	1	2	2	3	1	2	3	1	2	2	3	1	4	11	54
Pouffren	Somerset	1	37	3	3	2	43	2	43	2	3	1	2	2	3	1	2	2	3	1	2	3	1	2	2	3	1	4	11	54
Allegheny	Somerset	1	37	3	3	2	43	2	43	2	3	1	2	2	3	1	2	2	3	1	2	3	1	2	2	3	1	4	11	54
Total		2	76	7	7	1	88	2	88	2	5	1	2	2	5	1	2	2	5	1	2	5	1	2	2	5	4	14	102	

Cumberland, and Elk Lick Coal Shaws No. 1,	2	250	12	16	2	282	1	3	2	3	36	45
Shaws No. 2,	1	76	2	5	1	85	1	2	2	3	3	6
Total,	3	326	14	21	3	367	2	5	2	3	39	51
Pine Hill Coal Co. Lottie Nos. 1 and 2,	2	120	2	7	2	131	2	2	2	4	3	12
Berlin,	1	30	2	2	2	32	1	1	1	2	3	36
Casselman Coal Co. Casselman,	1	55	6	6	2	64	1	2	1	1	4	8
Chapman Coal Mining Co. Chapman,	1	66	2	8	2	81	1	1	1	1	2	83
Cumberland and Summit Coal and Coke Co. Cumberland,	1	230	6	18	3	263	1	4	2	2	4	11
W. H. Merrill. Enterprise,	1	45	1	5	1	52	1	1	1	1	3	6
Enterprise Coal Co. Enterprise,	1	16	1	1	1	18	1	1	1	1	1	18
Connellsville and Ursina Coal and Coke Co. Edna,	3	3	3	3	3	3	3	3	3	3	3	3
Fairview Coal Co. Fairview,	1	25	2	2	2	30	1	1	1	2	3	6
Grace Coal Co. Grace,	1	34	4	1	3	43	1	2	2	1	3	9
Grassy Run Coal Co. Grassy Run,	1	45	1	6	1	54	1	1	1	1	2	5
The Continental Coal Co. Glen McLaren,	2	125	7	1	2	137	1	2	2	1	6	12
Duncombe & Hocking. Hamilton,	2	77	8	3	3	93	1	1	2	1	4	9
Lewis Suppee Coal Co. Millford,	1	25	2	1	1	30	1	1	1	1	1	4
Rando Coke and Coal Co. Miniature,	1	6	1	1	7	15	1	1	1	1	1	2

Isaac Taylor & Co.,	Payette,	24	27	25	27	26	21	22	23	21	22	294		
Brown & Cochran,	Payette,	24	27	25	26	26	25	25	25	25	25	307		
Sney Mining Co.,	Payette,	24	27	25	26	26	25	25	25	25	25	310		
Sney Mining Co., Limited,	Payette,	24	27	25	27	26	26	26	25	20	24	295		
Edward Silder,	Payette,	24	26	24	21	24	20	23	19	23	22	276		
Lake Erie Gas, Coal and Coke Co.,	Payette,	6	21	25	24	24	25	27	24	26	21	20	261	
J. D. Boyd,	Payette,	26	26	26	26	26	22	23	24	26	25	301		
H. R. Sackett Coal and Coke Co.,	Payette,	10	24	24	24	24	22	12	10	22	23	88		
Fayette Coke Co.,	Payette,	26	24	3	6	26	24	15	25	26	25	255		
J. R. Laughrey & Son,	Somerset,	26	24	3	6	26	24	22	23	23	23	167		
Merchants' Coal Co.,	Somerset,	26	24	3	6	26	24	22	23	23	25	215		
W. T. Rainey,	Somerset,	26	24	3	6	26	24	19	18.5	23.5	20.5	211.5		
The Althouse Coal Mining Co.,	Somerset,	31	16.5	21	33.5	14.5	33	32	32	32	32	215		
Cumberland and Elk Lick Coal and Coke Co.,	Somerset,	33	30	23.75	23.87	24.87	19	19	19	11	12	249		
Pine Hill Coal Co.,	Somerset,	26	26	20	25	24	11	17	20	25	22	238		
John O. Stoner,	Somerset,	31	28	30	31	30	31	31	30	31	30	365		
Chasman Coal Co.,	Somerset,	25	22	4	25	25	25	21	23	22	20	234		
Chasman Coal Mining Co.,	Somerset,	26	24	5	10	25	26	25	27	22	27	266		
Cumberland and Summit Coal and Coke Co.,	Somerset,	18	16	19	20	18	24	18	22	20	23	14	225	
W. H. Merrill,	Somerset,	26	24	25	14	20	14	8	6	7	16	16	182	
Enterprise Coal Co.,	Somerset,	23	21	8	5	26	21	22	20	21	15	11	218	
Connellsville and Ursina Coal and Coke Co.,	Somerset,	23	21	8	5	26	21	22	20	21	15	11	218	
Fairview Coal Co.,	Somerset,	23	21	8	5	26	21	22	20	21	15	11	218	
Grace Coal Co.,	Somerset,	23	18	4	3	15	23	20	18	15	26	23	17	160
Grassy Run Coal Co.,	Somerset,	23	18	4	3	15	23	24	24	21	20	21	14	217
The Continental Coal Co.,	Somerset,	16	16	8	20	21	22	19	16	17	16	16	183	
Duncombe & Hocking,	Somerset,	18	15	4	6	24	15	23	19	21	18	16	183	
Lewis Suppee Coal Co.,	Somerset,	18	15	4	6	24	15	23	19	21	18	16	183	
W. N. Stabler,	Somerset,	21	17	21	24	17	23	20	22	26	18	2	202	
Raino Coke and Coal Co.,	Somerset,	21	17	22	18	24	22	23	20	17	14	12	86	
Stabler Coal Co.,	Somerset,	15	20	10	12	18	12	15	15	14	12	8	218	
Shamrock Coal Co.,	Somerset,	25	23	6	9	26	25	25	23	21	25	16	127	
Ehlen Brothers,	Somerset,	25	23	6	9	26	25	25	23	21	25	16	127	
Ben, Thomas & Son,	Somerset,	24	23	24	23	26	23	23	22	24	22	20	243	
IL J. Wilmoth,	Somerset,	12	5	4	26	25	25	26	20	23	18	17	201	
Middle Creek Coal Co.,	Somerset,	22	17	18	19	21	20	17	14	12	8	2	65	
Wilson Creek Coal Co.,	Somerset,	22	17	18	19	21	20	17	14	12	8	2	65	
Savage Fire Brick Co.,	Bedford,	22	17	18	19	21	20	17	14	12	8	2	12	
Average,													278	

TABLE IV—List of fatal accidents that occurred in and about the mines of the Fifth Bituminous District for the year ending December 31, 1900.

Date of accident.	Name of Person.	Nationality by Birth.	Occupation.	Age.	Married or single.	Number of widows.	Number of orphans.	Name of Colliery.	County.	Nature and Cause of Accident ■ Brief.
Jan. 13	Patrick Hughes,	American, ..	Driver,	20	S.	....	....	Lemont No. 1, ..	Fayette,	Fell and was run over by mine cars. Instantly killed.
Feb. 14	Martin Caravek,	Slav,	Miner,	45	M.	1	1	Washington No.	Fayette,	Run over by mine car and instantly killed.
24	Mike Coliffet,	Slav,	Miner,	40	M.	1	3	Mc. Braddock, ..	Fayette,	Killed almost instantly by being run over by mine cars on slope.
23	Uriah Roebuck,	English,	Trip roller, ..	20	S.	....	....	Glen McLaren, ..	Somerset, ..	Killed instantly by a car jumping track and throwing him into an iron sheave wheel.
March 12	Bert Caton,	American, ..	Miner,	19	S.	....	....	Pen-Mar,	Somerset, ..	Killed by fall of coal.
19	Angelo Delfonso,	Italian,	Miner,	43	M.	1	1	Trotter,	Fayette,	Instantly killed by fall of slate in his working place.
28	Walker Anderson,	American, ..	Shaft sinker, ..	43	M.	1	....	Gates,	Fayette,	Instantly killed by falling out of a bucket which was being hoisted up shaft.
30	John Pastor, Jr.,	Hungarian, ..	Miner,	28	M.	1	....	Leisenring No. 3,	Fayette,	Instantly killed by fall of slate.
20	Steve Leashnock,	Austrian,	Miner,	50	M.	1	2	Washington No.	Fayette,	Killed by fall of roof while drawing out posts.
May 11	Egnotto Ghalla,	Pole,	Miner,	33	M.	1	3	Paul,	Fayette,	While drawing out posts roof fell on him killing him instantly.
22	Walter Wheeler,	American, ..	Miner,	32	M.	1	....	Paul,	Fayette,	Neck broken by fall of roof while drawing out posts.
22	John W. Guthrie,	American, ..	Miner, .....	....	M.	1	1	Cumberland,	Somerset, ..	While trying to get on cars he fell; cars ran over him, killing him.
31	Mike Holiday,	Slav,	Driver,	45	M.	1	4	Youngstown,	Fayette,	Killed instantly on slope by cars passing over him.
June 15	Earl Petty,	American, ..	Shaft sinker, ..	33	S.	....	....	Gates,	Fayette,	These three men were killed by a bucket which was lowered too rapidly down the shaft and struck them, killing them instantly.
15	Frank Procter,	American, ..	Shaft sinker, ..	35	M.	1	2	Gates,	Fayette,	
15	Leroy Dickson,	American, ..	Foreman,	34	M.	1	3	Gates,	Fayette,	
28	John Mullen,	American, ..	Driver,	35	M.	1	3	Leisenring No. 3,	Fayette,	Killed; crushed between roof and top of shaft of slate on heading.
July 2	William Hawk,	American, ..	Miner,	40	M.	1	4	Percy,	Fayette,	Killed by fall of slate on heading.
2	David Hawk,	American, ..	Miner,	38	M.	1	3	Percy,	Fayette,	Killed by a second fall of slate while trying to save his brother.

5	William Kurtz,	American, ..	American, ..	Door boy,	14	S.	.....	Trotter,	Fayette,	Killed by being struck by cars while asleep at his trap door.
24	Peter Rafferty,	Slav,	Slav,	Miner,	60	S.	.....	Hurst,	Fayette,	Killed by fall of coal in his working place.
29	Joe Urick,	Austrian, ..	Austrian, ..	Laborer,	30	M.	.....	Edenborn,	Fayette,	Killed by rock falling down shaft on him.
3	C. Cosack,	Slav,	Slav,	Laborer,	30	M.	.....	Lambert,	Fayette,	Killed by rock falling down shaft while he was at work at shaft.
11	John Zuldie,	Hungarian, ..	Hungarian, ..	Miner,	20	S.	.....	Sumner,	Fayette,	Neck broken by fall of slate in his working place.
15	John Guman,	Slav,	Slav,	Miner,	50	M.	1	Lemont No. 1, ..	Fayette,	Instantly killed by fall from roof.
17	David Almsiey,	English,	English,	Roadman,	53	M.	1	Ferguson,	Fayette,	Killed by a fall of slate on hauling road.
21	John Horoska,	Slav,	Slav,	Miner,	28	M.	1	Paul,	Fayette,	Killed while drawing a post to make a fall in ribs.
28	Dominick Masian,	Italian,	Italian,	Miner,	53	M.	1	Grindstone,	Fayette,	Killed by a fall of slate in his working place.
28	Stephen Bell,	American, ..	American, ..	Shaft foreman,	25	S.	.....	Edenborn,	Fayette,	These two men fell out of bucket in going down the shaft. Bell clung to timber and then fell into bucket again, striking his head on ball, fracturing his skull. McKee fell to the bottom.
23	Michael McKee,	Irish,	Irish,	Shker,	54	M.	1	Edenborn,	Fayette,	Instantly killed by bucket falling down shaft.
4	George Kaczy,	Slav,	Slav,	Driver,	28	M.	1	Lemont No. 2, ..	Fayette,	Instantly killed by bucket falling down shaft.
9	John Covatch,	Slav,	Slav,	Shker,	33	M.	1	Lambert,	Fayette,	Crushed to death between moving cars.
8	John Chatlos,	Hungarian, ..	Hungarian, ..	Miner,	42	M.	1	Washington No. 2, ..	Fayette,	These men were brothers and were working in the same place, when a fall of slate occurred; killing them instantly.
18	Chas. Bergstrom,	Swede,	Swede,	Miner,	38	M.	1	Washington No. 2, ..	Fayette, ..	Killed; run over by mine car.
18	Oscar Bergstrom,	Swede,	Swede,	Miner,	26	M.	1	Washington No. 2, ..	Fayette, ..	Killed by fall of slate in his working place.
27	Joe Samuel,	Slav,	Slav,	Driver,	30	M.	1	Lelsenring No. 1, ..	Fayette,	Back broken by fall of slate in his working place. He died some weeks afterwards in hospital.
10	Mike Donad,	Slav,	Slav,	Miner,	42	M.	1	Grindstone,	Fayette,	Was struck by cage and knocked into the shaft and the shaft having been nearly full of water.
27	George Presic,	Slav,	Slav,	Miner,	37	M.	1	Lemont No. 2, ..	Fayette,	While repairing leak in pine line he slipped from the timbers and fell down shaft and was drowned, the shaft having about 200 feet of water in it.
28	George Livingstone,	American, ..	American, ..	Miner,	34	M.	1	Gates,	Fayette,	
Dec. 12	William Ferguson,	American, ..	American, ..	Pumper,	26	S.	.....	Buffington,	Fayette,	

TABLE V.—List of non-fatal accidents that occurred in and about the mines of the Fifth Bituminous District for the year ending December 31, 1900.

Date of accident.	Name of Person.	Nationality by Birth.	Occupation.	Age.	Married or single.	Name of Colliery.	County.	Nature and Cause of Accident in Brief.
Jan. 12	Andy Yamsko,	German,	Miner,	21	S.	Leith,	Fayette,	Leg broken; struck by a piece of coal.
16	Mike Cornic,	Austrian,	Miner,	42	M.	Elm Grove,	Fayette,	Leg broken by fall of roof and coal.
27	Chas. Westenberg,	German,	Miner,	50	M.	Leisenring No. 1,	Fayette,	Bruised about body by car leaving track.
29	H. C. Calhoun,	American,	Miner,	31	S.	Leisenring No. 1,	Fayette,	Injured by fall of roof.
5	Andy Minilk,	Slav,	Miner,	48	M.	Bessie,	Fayette,	Head cut by fall of slate.
8	Frank Boukoski,	Pole,	Miner,	29	S.	Smock,	Fayette,	Injured about head by fall of coal and slate.
17	Frank Kearns,	American,	Door boy,	13	S.	Youngstown,	Fayette,	Arm broken by falling under cars.
19	R. P. Delaney,	Irish,	Mine foreman,	54	M.	Glen McLaren,	Somerset,	Scalded about head and body by bursting of steam pipe.
21	Anthony Folta,	Pole,	Miner,	30	S.	Redstone,	Fayette,	Both legs broken; caught under a fall of slate.
2	Adam Sphere,	American,	Miner,	29	M.	Youngstown,	Fayette,	Frustrated by fall of coal.
9	Luke Guillen,	English,	Driver,	21	S.	Leisenring No. 3,	Fayette,	Leg fractured by being struck by cars.
19	Steve Duritzka,	Slav,	Miner,	19	S.	Mahoning-Atlas,	Fayette,	Leg broken by fall of coal and slate.
26	Chas Decenito,	Slav,	Miner,	19	S.	Paul,	Fayette,	Struck by cars on slope while traveling thereon without a light.
31	Martin Pishka,	Slav,	Miner,	42	M.	Trotter,	Fayette,	Ribs broken and hips bruised by fall of slate and coal.
April 6	Stephen Cheruka,	Austrian,	Miner,	46	M.	Redstone,	Fayette,	Leg broken below knee by fall of slate.
11	Tony Williams,	Italian,	Driver,	21	S.	Redstone,	Fayette,	Hip dislocated and arm broken; caught between car and rib.
16	George Butler,	American,	Miner,	15	S.	Lemont No. 2,	Fayette,	Big toe broken by a post falling on it.
16	John Carroll,	Irish,	Miner,	50	M.	Leisenring No. 1,	Fayette,	Ribs broken and scalp wounded by fall of slate.
19	Mike Croffank,	Slav,	Miner,	40	M.	Leith,	Fayette,	Head and body cut and injured internally by fall of coal and slate.
30	John Rozah,	Pole,	Miner,	20	M.	Leisenring No. 2,	Fayette,	Back injured by fall of slate.
1	Joe Shuita,	Slav,	Miner,	32	M.	Leisenring No. 1,	Fayette,	Thigh broken while drawing out posts.
2	Chas. Victor,	American,	Driver,	33	M.	Kyle,	Fayette,	Leg broken by being caught between trap door and mine wagon.
9	Andy Gesco,	Slav,	Miner,	37	S.	Revere,	Fayette,	Collar bone broken by being caught between cars.

June	15	Calvin Collins,	American,	Miner,	38	M. Stewart,	Fayette,	Back injured by fall of slate and coal.
	18	James Cross,	American,	Miner,	64	Stub Mill Run,	Somerset,	Two ribs broken and several scalp wounds by fall of bone coal.
	4	Ewing Zearly,	American,	Driver,	35	Kyle,	Fayette,	Hand crushed by being caught between wagon and coal.
	6	Andy Stermick,	Slav,	Driver,	37	Leith,	Fayette,	Foot injured by car running over it.
	8	Mike Fugney,	Slav,	Miner,	28	Leisenring No. 2,	Fayette,	Ankle sprained and forehead cut by fall of slate.
July	13	Luke Britt,	English,	Laborer,	30	Hurst,	Fayette,	Foot injured by coal cutting machine.
	23	George Staruck,	Slav,	Miner,	36	Mahoning-Atlas,	Fayette,	Back broken by fall of slate.
	23	Edward McMaster,	Scottish,	Track layer,	54	Lemont No. 2,	Fayette,	Ankle broken by fall of coal.
	2	Peter Hawk,	American,	Miner,	51	Percy,	Fayette,	Head and back and body by fall of slate on hauling road.
	12	Joseph Camaus,	Italian,	Miner,	33	Gates,	Fayette,	Leg broken by coal cutting machine.
	19	James Chester,	American,	Driver,	22	Eleanora,	Fayette,	Arm broken by being caught between wagon and rib.
	24	John Garbana,	Slav,	Miner,	14	Leisenring No. 2,	Fayette,	Ankle dislocated by a horse stepping on his foot.
	24	Paul Scopa,	Slav,	Miner,	50	Bessie,	Fayette,	Leg broken by fall of slate in his working place.
Aug.	26	Peter Conna,	Hungarian,	Miner,	25	Ferguson,	Fayette,	Head injured by a fall of slate.
	1	Robert McMahon,	Irish,	Driver,	29	Trotter,	Fayette,	Injured about head and back by a fall of slate.
	10	Thomas Hutchison,	American,	Driver,	30	Juniata,	Fayette,	Leg broken by being struck by a wagon in mine.
	25	John Miller,	English,	Miner,	35	Crossland,	Fayette,	Three men were burned about the face and arms by the ignition of the unsummed products of combustion of gunpowder after firing a blast.
	25	Henry Means,	English,	Miner,	34	Crossland,	Fayette,	Arm and leg broken by a fall of slate in his working place.
Sept.	29	Elmer Sofranko,	Slav,	Miner,	22	Redstone,	Fayette,	Bruised about body by a fall of top coal.
	10	Peter Mallen,	Irish,	Miner,	45	Trotter,	Fayette,	Head injured by being struck by a piece of coal falling down shaft.
	14	Henry Naylor,	English,	Cager,	21	Sumner,	Fayette,	Leg bruised and injured by a fall of slate.
	17	John Sincok,	English,	Mine foreman,	33	Ferguson,	Fayette,	Bruised about hips by wagon striking him.
	21	Thomas Cassidy,	American,	Driver,	21	Leisenring No. 1,	Fayette,	Leg broken by being struck by a mine wagon.
	28	John Krowots,	Slav,	Miner,	45	Mahoning-Atlas,	Fayette,	Toes cut off by coal cutting machine.
Oct.	4	James Gibbons,	American,	Machine run-ner,	33	Gates,	Fayette,	Bruised about body by fall of slate and coal.
	5	William Maust,	American,	Miner,	39	Redstone,	Fayette,	Foot broken by car passing over it.
Nov.	29	John Dodson,	American,	Driver,	30	Smock,	Fayette,	Leg broken by fall of coal.
	7	Mike Haryko,	Slav,	Miner,	30	Glen McLaren,	Somerset,	Collar bone broken by being crushed against wagon by mule.
	8	Albert Hahn,	American,	Driver,	28	Trotter,	Fayette,	One finger cut off while lifting loaded wagon.
	12	Mike Chrise,	Slav,	Miner,	24	Nellie,	Fayette,	Bruised about body by fall of coal.
Dec.	27	Mike Vidovic,	Slav,	Miner,	30	Lemont No. 2,	Fayette,	Foot bruised by trip passing over it.
	11	Andy Hosdozoa,	Slav,	Driver,	24	Nellie,	Fayette,	Foot and back injured by cars.
	11	Nelson Lenhart,	American,	Trip rider,	19	Casselman,	Somerset,	



Sixth Bituminous District.

(CAMBRIA, SOMERSET, INDIANA AND CLEARFIELD COUNTIES.)

Johnstown, Pa., February 23, 1901.

Hon. James W. Latta, Secretary of Internal Affairs, Harrisburg, Pa.:

Sir: I have the honor of presenting herewith my sixteenth annual report as Inspector of Mines for the Sixth Bituminous district. It contains the usual tables and statistical matter relating to mines and mine accidents, with a brief report on the condition of each working, as regards drainage and ventilation.

The report of 1899 showed that there were in the district 104 mines, which produced 8,594,067 tons of coal. This year there are 136 mines, producing 10,694,627 tons—an increase of 2,100,560 tons from 32 additional operations, quite a number of which have just been opened up and consequently have not shipped much coal. The number of employes has increased from 11,611 to 14,879.

Quite a number of costly improvements have been put in at the various mines, involving changes from mule haulage to a mechanical system, and from pick mining to machines. Nor has ventilation been neglected in the district. Furnaces have been taken out and fans put in, while small fans have been replaced by larger ones. This is a class of improvements which have often been overlooked, but experience has demonstrated the folly of endeavoring to get more coal out by increasing the capacity of mines until the ventilating appliances have become inadequate to furnish the means by which men are enabled to work. Fifteen new fans in the district in a year is a very good record, and one in keeping with the boom in the coal business which made an increase in the capacity of the mines necessary.

Respectfully submitted,

J. T. EVANS,
Inspector Sixth District.

Accidents in the District.

The number of fatal accidents during the year was 30, a decrease in the ratio per ton of coal mined, although 2 more than last year. In spite of this decrease, however, it is to me a very unsatisfactory state of affairs, for the reason that from observation, and examination which I made of every fatal accident that occurred in the district, I am compelled to report that fully 50 per cent. were caused by a lack of care or experience on the part of the unfortunate victims themselves. Four of those fatally injured by falls of coal showed such carelessness that their deaths might almost be termed suicides, while 6 of the fatalities resulting from falls of roof would have never occurred if only ordinary care had been observed. In the remainder of the cases where death was caused by a fall of roof, the danger was of such a nature that it could not be detected, the accidents resulting from what are termed by miners "horse backs," "bells," or "clay pots," various expressions used to describe simply a faulty piece of roof that usually drops without any warning, and often in places that are well timbered.

An unusual number of men were killed during the year by machinery, which is to be expected, since fully four-fifths of the coal in the district is mined or hauled by machinery, and until the men become better acquainted with the dangers thereof and more safeguards are thrown around them, an increase in this class of accidents may be looked for. Other dangers, however, are eliminated by the use of machinery, and on the whole I believe the result will be a reduction in the number of mining accidents.

General Condition of Mines in the District.

Operations on the Somerset and Cambria Branch of the Baltimore and Ohio Railroad.

There are eleven mines on this branch, all but three of which are ventilated by fans. None of them are very extensive workings as yet, except the Krebs mine, which is becoming quite large—so much so that it has grown beyond the capacity of the present fan, and arrangements are now being made to put in a new and larger one. That there are fans in such a large number of the mines, although the operations are not yet of great size, is a very encouraging sign, as it indicates that the owners have an eye to economy, and a desire to provide good ventilation for the future, when the collieries become more extensive.

Mines at Johnstown.

There are eight mines located in and about this city. Three of these are owned by the Cambria Steel Company, all well ventilated by fans and conducted on the most modern plans of mining, as well as haulage and drainage with a view to the general safety of the employes. One of the other mines is owned by the A. J. Haws Brick Company, a second by M. L. Williams & Company, and another by the Basic Brick Company. The other two are operated, respectively, by the Cambria Coal Company and Coulter & Huff. The latter, though ventilated by a furnace, is in excellent sanitary condition, having the best of ventilation and drainage. The former, however, I am compelled to say, is not up to the standard by any means, and to put it in good condition will require a great deal of improvement.

South Fork and Ehrenfeld Mines.

At these points nine mines are located. Four are those of the Webster Coal and Coke Company, at Ehrenfeld, all of which are well looked after as regards ventilation, drainage, etc. The two largest have each a fan for ventilation, one a 12-foot Capel and the other an 18-foot Guibal. In the latter working, in addition to the fan already in use, the proprietors are now sinking a shaft at the extreme face of the mine, which will be 400 feet deep, and over this they purpose putting another large fan, capable of producing 200,000 cubic feet of air per minute. The area of this shaft for air alone is to be 100 square feet. The other two mines operated by the Webster Company, which are now ventilated by furnaces, will each soon be equipped with a fan. In the Argyle mine, at South Fork, there has already been made the change from a furnace to a Capel fan which produces from 60,000 to 70,000 cubic feet of air per minute, running at a very moderate speed, which leaves good power in reserve for any emergency and for the natural increase of the mine—a matter that is, or has in the past been, much overlooked in selecting and installing ventilating apparatus. This, in fact, is the great hindrance to proper ventilation throughout the district at present. Old mines have become very extensive by many years of operation, and others have been rapidly developed in the past year or two, the results in either case being the same—namely an insufficiency of power to produce the required air, which was possibly ample at the time it was installed, but in which no provision was made for the future. The South Fork and Stineman Mines Nos. 1 and 2 are among the oldest operations at this point, and in addition the capacity of each has been increased to such an extent that the fans now producing

the ventilation have become inadequate. At Stineman No. 2 a second fan has been put in, to be driven by an electric motor, but the trouble is that there is not sufficient power in their electric line to keep up the speed, therefore the new fan is not accomplishing the work intended. An additional fan is needed at Stineman No. 1, and a larger one at South Fork Mine. All of these collieries have good arrangements for distributing the air, if larger volumes were forced to the face of the mines.

The Dunlo Branch.

Four mines are located at Lloydell—the Alton, Lloydell, Coaldale No. 9 and Columbia No. 8. The latter is a recent shaft opening, and began to ship coal only in November. It will be ventilated by a fan. The Alton has fan ventilation and is kept in excellent condition, as is also the Lloydell and Coaldale No. 9, though the two latter at present are ventilated by furnaces. At Dunlo there are three mines—the Yellow Run shaft, Henrietta shaft and Logan slope. All are ventilated by fans, but the fan at the Henrietta mine is inadequate for the work it has to perform. However, a new opening is being made at the face of the slope in this mine, which will permit much better arrangements for ventilating the workings. The general sanitary condition of the Yellow Run shaft is good, and that of Logan slope is fairly good also.

Windber Mines.

There are eight mines at this point, owned and operated by the Berwind-White Coal Mining Company. A description of each of these mines is not deemed necessary, as they are all worked on the same plan of mining, drainage and hauling, and ventilated by large and powerful fans of the Capel type, none of which has a capacity for producing less than 100,000 cubic feet of air per minute. Each mine is opened up with a double track, making the passage about 16 feet wide and 6 feet in height. This opening is maintained all through the mine as the main heading, from which cross headings are driven right and left. Parallel with the main heading, on each side an airway is driven, with an area of from 75 to 80 feet, through which the air is either taken in or returned from that side of the mine, the current being carried over each cross heading by an air bridge—a system which does away with all doors. Since each mine is given a large area of coal to work out, the cross headings are cut off at about 2,000 feet in length, and a second main heading driven parallel with the first. The method of drainage of these mines is most excellent. All water is carried by a system of pipes off the

hauling roads into the back airways, one of which is provided for each heading. By this arrangement scarcely a drop of water is to be seen on any road in the mine over which traveling is done. The production of the eight mines was nearly 2,500,000 in 1900.

Portage Branch Mines.

Eleven mines, large and small, are operated on this branch.

Puritan Nos. 1, 2 and 3 are owned by the Puritan Coal Company. The ventilation at Nos. 1 and 3 has been improved by putting in a 16-foot fan at No. 1 to replace a 12-foot one, which was taken out and put in at No. 3, where it is of ample capacity. No. 2 is a drift mine, working a small slip of coal above No. 3. There is talk now, however, of taking out through the latter the coal at present mined in No. 2. The Excelsior is a small mine, but is well ventilated by a 12-foot Guibal fan. The Anchor is ventilated by furnace and is kept in very fair condition. The Portage slope has a fan, but it is inadequate for the work, and a larger one must be put in to keep the mine in anything like healthful condition. In the Caldwell the drainage is good, but the ventilation is deficient for lack of a fan. At Ivy Ridge the drainage and ventilation, when examined last, were in satisfactory condition. Of the Mareria mines there are Nos. 1, 2 and 3. The two latter, which are new workings, I can report in very fair condition as regards ventilation and drainage, but No. 1 will require special attention to bring it into a satisfactory state of sanitation, as it is an old mine and has been operated by several different parties, which does not often prove very beneficial to the sanitary condition of a mine.

Operations at Sonman.

These consist of Sonman shaft No. 2 and Sonman drift. The former is a well-operated mine as regards ventilation, drainage and general safety. Not a door is required in the mine, and an abundance of air is driven through each split and conducted around the face of all working places. Sonman Drift has not been worked for several months.

Bens Creek Mines.

At Sonman shaft No. 1 located here, the sanitary condition is quite satisfactory. There is not a great deal of new work in this colliery at present, as nearly all the headings are up to the boundary lines. There is also an old mine here, known simply as "Sonman No. 1," where most of the work now being done is on stumps and pillars,

but it will require a great deal of time to remove all the coal, as an unusual quantity has been left to be robbed out. The Plane mine now in operation is a new one on the E seam of coal, the old Plane mine, which was on the B seam, being worked out. The condition of the mine is fair. Of Columbia mines Nos. 4 and 7, the former is an old working and the latter a new one. At No. 4 during the present year, electric haulage has been installed, as well as a fan propelled by an electric motor to replace the furnace formerly used for ventilation. These improvements should greatly help the sanitary condition of the mine. No. 7 is a slope opening, in which the ventilation is produced by a 10-foot Stine fan. On my last examination I found an abundance of air going into the mine, but the airways were too far behind the face of the workings to prove of much benefit to that part of the mine. The Dysert mine is a colliery nearly worked out, about all the coal that is now being mined coming from pillars and stumps and a few rooms. A new mine opened up during the year is the Moshannon. It is being driven down as a slope on the pitch of the seam, which at this point is about 5 per cent. A fan will be used for ventilation.

Mines in the Neighborhood of Lilly.

Lilly slope and Standard mine are both ventilated by a fan at the former, which always produces a sufficient supply of air for the two. The drainage is also very good. Other operations here are Sonman Nos. 2 and 3, Bear Rock and Kokomo. Sonman No. 2 is an old colliery which was in very bad condition when taken by the present management, but through energetic work under intelligent direction it has been brought into very fair sanitary condition. No. 3 is a new mine, just being opened up, and is ventilated by a furnace. Bear Rock and Kokomo are small operations, both ventilated by furnaces. The latter is in very good condition as to drainage and ventilation; the former not so good.

The Gallitzin Operations.

At Gallitzin slope the drainage has always been good, but in the early part of the past year the ventilation became weak through the inadequacy of the machinery to meet the requirements of a much larger production. This deficiency has been remedied, however, by a new fan put in at the extreme face of the mine and run by an electric motor. At Gallitzin shaft the drainage is good and the ventilation fair, but the latter could be improved by a larger fan, this being another case where a mine has been a great while in operation, while the resultant longer airways and more or less leakages, render insufficient the machinery that once was ample.

On the Cresson and Coalport Branch.

On my last examination of Webster No. 7 in this group, I found the ventilation and drainage much improved, a new company having taken the mine and made some much-needed changes. Deau Nos. 8, 9 and 10, and Richland are operated by the same company, and all have been in good condition in all essential points. Van Ormer, Flinton, Beaver Dam, Oakland No. 2, and Blain Run No. 2 are a group of new operations, except the Van Ormer, which has been worked for several years, but on a small scale. All of these are in a fair sanitary state as they are not yet extensive.

Patton Collieries.

Pardee Nos. 3, 4, 5 and 6 are operated by the Pardee Colliery Company, and kept in first-class condition in every particular. Flanagan Run Nos. 4 and 6, Ashcroft No. 3, and Columbia are all owned and operated by the Patton Coal Company. The mines, two latter were very deficient in ventilation during the early part of the year, and a new and larger fan was ordered for Columbia, and also a fan to replace the furnace in the Ashcroft. The principal cause of the deficiency, however, in both mines was the small airways and lack of provision for splitting the air currents. On my last visit to the Flanagan workings I found a decided improvement in the ventilation, which had been brought about by a change in the method of splitting the air. Although the work had not then been completed, I was fully satisfied of its beneficial effect. The quantity of air thrown into the mine had previously been sufficient if distributed properly, but this could not be done until the foregoing changes had been made. The Moshannon Mine is another operation at this point, but it did not work very regularly during the year.

Operations at Hastings.

There are seven collieries at this point, all of which are in very fair condition. Blubaker No. 8, the most extensive, is in need of a larger fan, however, which may already be at work, as one was ordered some months ago, the operation having long outgrown the capacity of the old one.

Barnesboro Mines.

There are in all sixteen mines in operation near this town. Eight are on Walnut Run, and all these are ventilated by furnace but

one, the Cymbria, which is the largest producer on the Run and is well ventilated by a fan, and it is well drained. The others are kept in very fair condition, as none of them employ a very large number of men and great power is not required to produce ventilation; the drainage is well looked after. The other eight mines in this group are on the headwaters of the Susquehanna river, near the town. Four of them are quite large operations, yet only two use fans, the West Branch and the Empire, both of which are well ventilated and drained. The other two of the four larger ones are Lancashire Nos. 6 and 7 where furnaces are used which are scarcely adequate. These collieries are well drained and have good arrangements for distributing air, if sufficient power were used to produce a volume, and this defect will doubtless soon be remedied, as arrangements are now under way to place a fan at each.

Mines at Spangler and Southward on the Susquehanna Extension of Pennsylvania Railroad.

There are seven mines at Spangler, five of which ship over the Pennsylvania Railroad and two over the Beech Creek Railroad. All are ventilated by furnace, except the Gussie, operated by the Spangler Coke and Coal Company, which company put in a fan at the opening up of the mine, which will be sure to prove a good investment for them. All of these operations were in good sanitary condition when examined last. There are also three other mines on this branch of the Beech Creek Railroad, making five in all. Four of these have been opened up during the present year, and the Patton, though in operation for several years, is now being worked from a new opening, which is more favorable for the transportation of coal from the mine to the tipple. The ventilation when examined last, was somewhat defective, as the mine had just been connected with the old working and the arrangements for producing and distributing the air had not been established, which I learn, however, has since been done. The others of this group of mines are small ones, and furnaces suffice to keep them supplied with air. On the Susquehanna Extension of the P. R. R., there are ten other operations between the town of Spangler and Carrolltown, seven of them being new mines, all ventilated at present by furnaces. Elmora Nos. 1 and 2 and Blubaker No. 13, or Sterling, are old mines, each of which was in fair condition as to ventilation and drainage when last inspected.

On the Blacklick Extension.

Near Nant-y-Glo are located three mines, known as Nant-y-Glo, Columbia No. 6, and Shoemaker. The former two are ventilated by

fans and are kept in good sanitary condition. The latter is a new mine, just being opened up when examined, and the arrangements for ventilation, which is to be by furnace, had not then been completed. There has also just been opened up at this point a fourth mine, called Ivory Hill, operated by the Ivory Hill Coal Company. Big Run Mine is at Twin Rocks, and on each examination the ventilation and drainage has been found quite satisfactory. Vintondale mines, Nos. 1, 2 and 3, are operated on the most modern plans as to every detail. All mining is done by machinery, and No. 3 has recently installed a system of long wall working. The managers have several sections now in operation, ranging from 200 to 300 feet in width of face. The system is in successful operation by the use of a machine constructed especially for this sort of work.

Statistical Table.

Number of mines in the district,	137
Increase in number of mines since last report,	33
Number of tons of coal produced for the year,	10,694,627
Number of tons used for steam at mines,	136,579
Number of tons sold to employes,	35,812
Number of coke ovens,	787
Number of tons of coke produced,	256,481
Number of persons employed inside the mines,	13,350
Number of persons employed outside the mines,	1,523
Total number of persons employed,	14,879
Tons of coal produced per fatal accident,	356,487
Tons of coal produced per non-fatal accident,	281,437
Number of persons employed per fatal accident,	496
Number of persons employed per non-fatal accident,	391
Number of kegs of powder used,	72,569
Number of pounds of dynamite used,	56,319
Number of cylindrical boilers in use,	62
Number of tubular boilers in use,	123
Total horse power cylindrical and tubular boilers,	20,650
Number of electric dynamos,	42
Number of electric motors in use in the mine,	65
Number of air locomotives in use in the mines,	3
Number of new mines opened during the year,	36
Number of old mines abandoned,	3
Tons of coal mined along P. R. R.,	9,097,030
Tons of coal mined along Beech Creek R. R.,	1,232,462
Tons of coal mined along B. & O. R. R.,	365,135

Classification of Accidents and Occupation of Persons Killed or Injured.

	Fatal.	Non-fatal.	Total.		Fatal.	Non-fatal.	Total.
Falls of rock,	7	12	19	Miners,	18	19	37
Falls of rock,	13	8	21	Laborers,	6	5	11
By mine cars,	2	11	13	Drivers,	1	5	6
By machinery,	1	3	4	Machine men,	1	3	4
By electricity,	4	4	8	Track men,	1	1	2
By electric motors,	2	2	4	Motor men,	2	2	4
Injured in shaft,	1	1	2	Trapper,	1	1	2
Railroad cars,	1	1	2	Foreman,	1	1	2
By mining machine,	1	2	3	Carpenter,	1	1	2
By mule,	1	1	2	Electrician,	1	1	2
				Rockman,	1	1	2
				Coke worker,	1	1	2
Total,	30	38	68	Total,	30	38	68

Number Injured Each Month. Fatal and Non-fatal.	Nationalities of Persons Injured.						
	Fatal.	Non-fatal.	Total.				
January,	3	1	4	American,	7	13	20
February,	2	3	5	English,	2	2	4
March,	1	9	10	Scotch,	1	1	2
April,	3	5	8	German,	3	3	6
May,	3	3	6	Irish,	2	2	4
June,	3	3	6	Swede,	1	1	2
July,	3	1	4	Slav,	10	9	19
August,	3	2	5	Hungarian,	4	3	7
September,	3	3	6	Pole,	1	1	2
October,	2	4	6	Italian,	1	2	3
November,	2	4	6	Austrian,	3	1	4
December,	1	4	5	Fin,	1	1	2
Total,	30	38	68	Total,	30	38	68

Names of Operators and Collieries.	Number of persons employed.	Number of tons of coal produced.	Number of fatal accidents.	Number of tons produced per life lost.	Number of non-fatal accidents.	Number of tons produced per non-fatal accident.
Berwind White Coal Mining Co.,	3,304	2,756,070	10	275,607	6	489,011
Barnes & Tucker,	524	366,443	1	366,443	1	366,443
Patton Coal Co.,	600	424,765	1	424,765	1	424,765
Puritan Coal Mining Co.,	427	228,419	1	228,419	1	228,419
Cresson and Clearfield Coal and Coke Co.,	314	164,838	1	164,838	1	164,838
Coulter & Huff,	316	229,464	1	229,464	1	229,464
Webster Coal and Coke Co.,	736	468,836	1	468,836	4	117,209
Mitchel Coal and Coke Co.,	896	618,222	1	618,222	3	206,074
Duncan & Spangler,	424	282,465	1	282,465	1	282,465
Cambria Steel Co.,	836	785,825	4	196,456	7	112,232
Allport Coal Co.,	179	160,757	1	160,757	1	160,757
Pardee Collieries Co.,	375	338,813	1	338,813	1	338,813
W. H. Piper & Co.,	315	214,251	1	214,251	3	71,417
Vinton Colliery Co.,	213	180,203	1	180,203	1	180,203
Sterling Coal Co.,	119	23,000	1	23,000	1	23,000
Madeira Hill C. M. Co.,	128	70,674	1	70,674	1	70,674
George Pearce & Sons,	75	36,034	1	36,034	1	36,034
Souman Shaft Coal Co.,	116	71,440	1	71,440	1	71,440
Madera Hill Co.,	84	22,477	1	22,477	1	22,477
Empire Coal Mining Co.,	256	186,772	1	186,772	1	186,772
C. A. Buch,	107	59,879	1	59,879	1	59,879
Adams Coal Co.,	39	17,510	1	17,510	1	17,510
Knight & Co.,	47	28,023	1	28,023	1	28,023
Blacklick Mining Co.,	137	93,591	2	46,795	1	93,591
D. Laughman and J. Leahy, ..	50	46,000	1	46,000	1	46,000
Bethel Coal Co.,	35	17,021	1	17,021	1	17,021
M. Bracken Coal Co.,	66	33,740	1	33,740	1	33,740
Max Frick,	17	1,675	1	1,675	1	1,675
R. Peal,	33	551	1	551	1	551
Blain Run Coal Co.,	13	260	1	260	1	260
Cymbria Coal Co.,	154	116,243	1	116,243	1	116,243
Cresson Coal and Coke Co.,	54	45,682	1	45,682	1	45,682
Johnstown Coal Co.,	28	2,646	1	2,646	1	2,646
Colonial Coal Co.,	50	29,683	1	29,683	1	29,683
D. Laughman,	137	92,550	1	92,550	1	92,550
Elmora Coal Mining Co.,	97	62,100	1	62,100	1	62,100
S. V. Davis & Co.,	17	9,037	1	9,037	1	9,037
Taylor & McCoy C. & C. Co.,	265	159,000	1	159,000	2	79,500
Spangler Coal and Coke Co.,	29	6,729	1	6,729	1	6,729
Henrietta Coal Mining Co.,	238	229,469	1	229,469	1	229,469
A. J. Haws & Son, Limited, ..	52	34,838	1	34,838	1	34,838
Baltzell Coal Co.,	75	62,945	1	62,945	1	62,945
Lorian Steel Co.,	34	23,368	1	23,368	1	23,368
Madill & Parker Bro.,	16	1,009	1	1,009	1	1,009
Listie Mining and Manfg. Co.,	177	210,779	1	210,779	1	210,779
Lloydell Coal Co.,	87	50,476	1	50,476	1	50,476
Logan Coal Co.,	105	52,711	1	52,711	1	52,711
Lilly Coal Co.,	105	60,759	1	60,759	2	60,759
Nant Y. Glo Coal Co.,	91	51,798	1	51,798	1	51,798
E. P. McCormick,	71	18,128	1	18,128	1	18,128
Reading Iron Co.,	48	17,509	1	17,509	1	17,509
E. R. Jackman & Co.,	10	20,265	1	20,265	1	20,265
Oakridge Coal and Coke Co.,	195	52,099	1	52,099	1	52,099
Morrisdale Coal Co.,	90	46,581	1	46,581	1	46,581
Precilla Coal Co.,	69	76,714	1	76,714	1	76,714
J. W. Mentzer,	58	27,840	1	27,840	1	27,840
Penn Bituminous Coal Co., ..	118	83,384	1	83,384	1	83,384
Loyalhanna C. & C. Co.,	909	205,876	2	102,938	1	102,938
Stratman Brothers,	267	248,359	1	248,359	1	248,359
Stratman Coal and Coke Co.,	161	118,533	1	118,533	1	118,533
South Fork Coal Mining Co.,	137	100,625	1	100,625	1	100,625
Standard Coal Co., Limited, ..	61	42,369	1	42,369	1	42,369
Deringer Bros.,	51	33,000	1	33,000	1	33,000
Stewart Coal Co.,	40	669	1	669	1	669
A. F. John,	50	30,068	1	30,068	1	30,068
Forest Rose Coal Co.,	26	4,564	1	4,564	1	4,564
Basic Brick Co.,	24	18,011	1	18,011	1	18,011
W. B. Clearfield Bit. C. Corp'n,	271	196,627	1	196,627	1	196,627
Walnut Coal Co.,	69	35,830	1	35,830	1	35,830
Wells Creek Coal Co.,	62	40,282	1	40,282	1	40,282
Rich Hill Coal Co.,	16	1,092	1	1,092	1	1,092
Cambria Coal Min. Co.,	42	25,584	1	25,584	1	25,584
M. L. Williams & Co.,	13	5,103	1	5,103	1	5,103
D. J. Llewellyn,	23	11,009	1	11,009	1	11,009
Davis Spencer & Co.,	30	8,300	1	8,300	1	8,300
Jackson & Walker,	25	3,371	1	3,371	1	3,371
Cealdale Coal Co.,	64	18,079	1	18,079	1	18,079
J. A. Shoemaker & Co.,	17	9,600	1	9,600	1	9,600
Moshanon Coal and Coke Co.,	36	5,606	1	5,606	1	5,606
Grand total,	11,879	10,694,627	30	356,487	38	281,437

TABLE I—Showing names of operators, railroads, etc., and location of collieries in the Sixth Bituminous District for the year 1900.

Names of Operators and Collieries.	County.	Name of General Superintendent.	P. O. Address.	Name of Superintendent.	P. O. Address.	Railroad to Mine.
Berwind White C. M. Co.						
Eureka No. 26	Somerset	Thomas Fisher	305 Betz Bdg, Phila.	J. L. Cunningham	Windber	Penn'a Railroad.
Eureka No. 27	Somerset	Thomas Fisher	305 Betz Bdg, Phila.	J. L. Cunningham	Windber	Penn'a Railroad.
Eureka No. 28	Somerset	Thomas Fisher	305 Betz Bdg, Phila.	J. L. Cunningham	Windber	Penn'a Railroad.
Eureka No. 29	Somerset	Thomas Fisher	305 Betz Bdg, Phila.	J. L. Cunningham	Windber	Penn'a Railroad.
Eureka No. 30	Somerset	Thomas Fisher	305 Betz Bdg, Phila.	J. L. Cunningham	Windber	Penn'a Railroad.
Eureka No. 31	Somerset	Thomas Fisher	305 Betz Bdg, Phila.	J. L. Cunningham	Windber	Penn'a Railroad.
Eureka No. 32	Somerset	Thomas Fisher	305 Betz Bdg, Phila.	J. L. Cunningham	Windber	Penn'a Railroad.
Eureka No. 33	Somerset	Thomas Fisher	305 Betz Bdg, Phila.	J. L. Cunningham	Windber	Penn'a Railroad.
Eureka No. 34	Somerset	Thomas Fisher	305 Betz Bdg, Phila.	J. L. Cunningham	Windber	Penn'a Railroad.
Eureka No. 35	Somerset	Thomas Fisher	305 Betz Bdg, Phila.	J. L. Cunningham	Windber	Penn'a Railroad.
Eureka No. 36	Somerset	Thomas Fisher	305 Betz Bdg, Phila.	J. L. Cunningham	Windber	Penn'a Railroad.
Eureka No. 37	Somerset	Thomas Fisher	305 Betz Bdg, Phila.	J. L. Cunningham	Windber	Penn'a Railroad.
Yellow Run shaft	Cambria	Thomas Fisher	305 Betz Bdg, Phila.	A. S. R. Richards	Osceola Mills	Penn'a Railroad.
Barnes & Tucker						
Lancashire No. 6	Cambria	J. T. Slinger	Barnsboro	John Reed	Barnsboro	Penn'a Railroad.
Lancashire No. 7	Cambria	J. T. Slinger	Barnsboro	John Reed	Barnsboro	Penn'a Railroad.
Lancashire No. 8	Cambria	J. T. Slinger	Barnsboro	John Reed	Barnsboro	Penn'a Railroad.
Lancashire No. 9	Cambria	J. T. Slinger	Barnsboro	John Reed	Barnsboro	Penn'a Railroad.
Lancashire No. 3	Cambria	J. T. Slinger	Barnsboro	John Reed	Barnsboro	Penn'a Railroad.
Lancashire No. 4	Cambria	J. T. Slinger	Barnsboro	John Reed	Barnsboro	Penn'a Railroad.
Patton Coal Co.						
Columbia No. 1	Cambria	John Ashcroft	Patton	John Ashcroft	Patton	B. C. R. R.
Ashcroft No. 3	Cambria	John Ashcroft	Patton	Alex. Montooth	Patton	B. C. R. R.
Flanagan Run No. 4	Cambria	John Ashcroft	Patton	Alex. Montooth	Patton	B. C. R. R.
Flanagan Run No. 6	Cambria	John Ashcroft	Patton	Alex. Montooth	Patton	B. C. R. R.
Puritan Coal Min. Co.						
Puritan No. 1	Cambria	George E. Scott	Philadelphia	P. F. Campbell	Puritan	Penn'a Railroad.
Puritan No. 2	Cambria	George E. Scott	Philadelphia	P. F. Campbell	Puritan	Penn'a Railroad.
Puritan No. 4	Cambria	George E. Scott	Philadelphia	H. McAlarney	Hastings	Penn'a Railroad.
Creson & Clfd. C. & C. Co.						
Dean No. 8	Cambria	P. H. Walls	402 Land Title Bdg, Phila.	P. F. McFarland	Frugality	Penn'a Railroad.
Dean No. 9	Cambria	P. H. Walls	402 Land Title Bdg, Phila.	P. F. McFarland	Frugality	Penn'a Railroad.
Dean No. 10	Cambria	P. H. Walls	402 Land Title Bdg, Phila.	P. F. McFarland	Frugality	Penn'a Railroad.
Richland	Cambria	P. H. Walls	402 Land Title Bdg, Phila.	P. F. McFarland	Frugality	Penn'a Railroad.
Coulter & Huff						
Argyle	Cambria	J. P. Wilson	South Fork	J. P. Wilson	South Fork	Penn'a Railroad.
Comemough	Cambria	J. P. Wilson	South Fork	J. P. Wilson	South Fork	Penn'a Railroad.
Kokomo	Cambria	J. P. Wilson	South Fork	J. P. Wilson	South Fork	Penna. Railroad.

Webster Coal and Coke Co. Webster No. 3 Webster No. 6 Webster No. 7 Webster No. 8	Cambria Cambria Cambria Cambria Cambria	G. W. Tappan G. W. Tappan G. W. Tappan G. W. Tappan	Ehrenfeld Ehrenfeld Ehrenfeld Ehrenfeld	Wm. Leckie Wm. Leckie Lawrence Gardner Wm. Leckie	Ehrenfeld Ehrenfeld Ehrenfeld Ehrenfeld	Penn'a Railroad Penn'a Railroad Penn'a Railroad Penn'a Railroad
Mitchell Coal and Coke Co. Gallitzin slope Columbia No. 4 Columbia No. 6 Columbia No. 7 Hastings No. 1 Hastings No. 2	Cambria Cambria Cambria Cambria Cambria Cambria	Wm. M. Smith Wm. M. Smith Wm. M. Smith Wm. M. Smith Wm. M. Smith	Gallitzin Gallitzin Gallitzin Gallitzin Gallitzin	J. L. Nickolson J. L. Nickolson J. L. Nickolson W. C. Shiffer W. C. Shiffer	Gallitzin Gallitzin Gallitzin Gallitzin Hastings	Penn'a Railroad Penn'a Railroad Penn'a Railroad Penn'a Railroad Penn'a Railroad
Duncan & Spangler Blubaker No. 8 Blubaker No. 10 Blubaker No. 11 Blubaker No. 13 Delta	Cambria Cambria Cambria Cambria Cambria	C. F. Frazer C. F. Frazer C. F. Frazer C. F. Frazer	Hastings Hastings Hastings	Wm. Ednie Wm. Ednie Wm. Wood T. C. Harding Thos. H. Booth	Hastings Hastings Barnsboro Hastings Barnsboro	Penn'a Railroad Penn'a Railroad Penn'a Railroad Penn'a Railroad Penn'a Railroad
Cambria Steel Co. Rolling Mill Franklin No. 1 Franklin No. 2 Conemaugh slope	Cambria Cambria Cambria Cambria	M. G. Moore M. G. Moore M. G. Moore	Johnstown Johnstown Johnstown	W. H. Morris W. H. Morris W. H. Morris	Johnstown Johnstown Johnstown	Don't ship coal at mines.
Allport Coal Co. Allport No. 1 Allport No. 2	Cambria Cambria	James H. Allport James H. Allport	Hastings Hastings			Penn'a Railroad Penn'a Railroad
Pardee Colleries Co. Pardee No. 3 Pardee No. 4 Pardee No. 6 Pardee No. 5	Cambria Cambria Cambria Cambria	W. C. Lingle W. C. Lingle W. C. Lingle W. C. Lingle	Patton Patton Patton Patton	W. C. Lingle W. C. Lingle W. C. Lingle W. C. Lingle	Patton Patton Patton Patton	B. C. R. R. B. C. R. R. B. C. R. R. B. C. R. R.
W. H. Piper & Co. Sonman No. 1 Sonman No. 2 Sonman No. 4	Cambria Cambria Cambria	A. H. Slayman A. H. Slayman A. H. Slayman	Altoona Altoona Altoona	Geo. H. Forsyth Geo. H. Forsyth	Lilly Lilly	Penn'a Railroad Penn'a Railroad Penn'a Railroad
Vinton Colliery Co. Vinton No. 1 Vinton No. 2 Vinton No. 3	Cambria Cambria Cambria	Clarence R. Claghorn Clarence R. Claghorn Clarence R. Claghorn	Vintondale Vintondale Vintondale	Henry B. Douglas Henry B. Douglas Henry B. Douglas	Vintondale Vintondale Vintondale	Penn'a Railroad Penn'a Railroad Penn'a Railroad
Sterling Coal Co. Sterling No. 1 Sterling No. 2 Sterling No. 3 Sterling No. 4 Sterling No. 5	Cambria Cambria Cambria Cambria Cambria	John B. Reed John B. Reed John B. Reed John B. Reed John B. Reed	Elmora Elmora Elmora Elmora			Penn'a Railroad Penn'a Railroad Penn'a Railroad Penn'a Railroad Penn'a Railroad

TABLE I—Continued.

Names of Operators and Collieries.	County.	Name of General Superintendent.	P. O. Address.	Name of Superintendent.	P. O. Address.	Railroad to Mine.
Madera Hill C. M. Co. Spangler,	Cambria, ..	Fred. G. Betts,	Clearfield,	T. A. Estep,	Barnsboro,	Penn'a Railroad.
Manton,	Cambria, ..	Fred. G. Betts,	Clearfield,	T. A. Estep,	Barnsboro,	Penn'a Railroad.
George Pearce & Sons. Caldwell,	Cambria, ..	Robert Pearce,	Puritan, .....	.....	.....	Penn'a Railroad.
Excelsior,	Cambria, ..	Robert Pearce,	Puritan, .....	.....	.....	Penn'a Railroad.
Sonman Shaft Coal Co. Sonman shaft No. 2,	Cambria, ..	J. P. Woodmansee,	Portage,	J. P. Woodmansee,	Portage,	Penn'a Railroad.
Sonman drift,	Cambria, ..	J. P. Woodmansee,	Portage,	J. P. Woodmansee,	Portage,	Penn'a Railroad.
Maderia Hill & Co. Madera Hill No. 1,	Cambria, ..	P. F. Campbell,	Puritan, .....	.....	.....	Penn'a Railroad.
Madera Hill No. 2,	Cambria, ..	P. F. Campbell,	Puritan, .....	.....	.....	Penn'a Railroad.
Madera Hill No. 3,	Cambria, ..	P. F. Campbell,	Puritan, .....	.....	.....	Penn'a Railroad.
Empire Coal Mining Co. Empire,	Cambria, ..	R. A. Shillingford,	Clearfield,	Wm. Crichton,	Barnsboro,	B. C. R. R.
Eclipse,	Cambria, ..	R. A. Shillingford,	Clearfield,	Wm. R. Leadbetter,	Spangler,	B. C. R. R.
C. A. Buch,	Cambria, ..	C. A. Buch,	Altoona,	D. J. Mulhollen, ..	Lloydell,	B. C. R. R.
Adams Coal Co.,	Somerset, ..	A. C. Adams,	Baltimore,	P. M. Conner,	Listie,	Baltimore & Ohio.
Knight & Co.,	Cambria, ..	H. C. Williams,	Barnsboro, .....	.....	.....	Penn'a Railroad.
Blacklick Mining Co. Big Pond,	Cambria, ..	Charles McFadden, Jr.,	Expedit,	A. J. McHugh,	Expedit,	Penn'a Railroad.
D. Laughman & J. Leahy. Bear Rock,	Cambria, ..	.....	.....	John Leahy,	Lilly,	Penn'a Railroad.
Bethel Coal Co. Bethel,	Somerset, ..	A. J. White,	Hollsople, .....	.....	.....	Baltimore & Ohio.
M. Bracken Coal Co. Black Diamond No. 1,	Cambria, ..	J. H. Bracken,	Johnstown, .....	.....	.....	Penn'a Railroad.

Max Frick. Beaver Dam Nos. 3 and 4, ...	Cambria, ...	Max Frick,	Blandsburgh,	Thomas Newton, ..	Flinton,	Penn'a Railroad.
Blain Run Coal Co. Blain Run No. 2,	Clearfield, ..	.....	.....	W. H. Helman, ...	Coalport,	Penn'a Railroad.
R. Peal. Brawley,	Cambria, ...	Alex. B. Dunsmore,	Glen Richey,	A. M. Dunsmore, ..	Carrolltown, ...	B. C. R. R.
Cymbria Coal and Coke Co. Cymbria Nos. 1 and 2,	Cambria, ...	David E. Williams,	Girard Building, Phila., ...	E. R. Musser, .....	.....	Penn'a Railroad.
Cresson Coal and Coke Co. Cresson shaft,	Cambria, ...	John R. Powell,	Cresson, .....	.....	.....	Penn'a Railroad.
Johnstown Coal Co. Cramer,	Indiana, ...	H. C. Burkett,	Greensburg,	H. C. Burkett, ...	Greensburg, ...	Penn'a Railroad.
Colonial Coal Co. Colonial,	Somerset, ..	E. W. Holt,	Hooversville,	Wm. Alexander, ..	Hooversville, ...	Baltimore & Ohio.
Dysert,	Cambria, ...	D. Laughman,	Altoona,	Thomas Leahy, ...	Myra,	Penn'a Railroad.
Elmora Coal Mining Co. Elmora Nos. 1 and 2,	Cambria, ...	John B. Reed,	Elmora, .....	.....	.....	Penn'a Railroad.
S. V. Davis & Co. Flinton,	Cambria, ...	.....	.....	S. V. Davis,	Beccaria,	Penn'a Railroad.
Taylor & McCoy C. & C. Co. Gallitzen shaft,	Cambria, ...	T. E. Dipner,	Gallitzin, .....	.....	.....	Penn'a Railroad.
Spangler Coke & Coal M. Co. Gussie,	Cambria, ...	John A. McClain,	Spangler,	John A. McClain, ...	Spangler,	Penn'a Railroad.
Henrietta Coal Mining Co. Henrietta shaft,	Cambria, ...	.....	.....	James Campble, ...	Dunlo,	Penn'a Railroad.
A. J. Haws & Sons, Ltd. Haws shaft,	Cambria, ...	James P. Thomas,	Johnstown,	Wm. Oppy,	Johnstown,	Penn'a Railroad.
Baltzell Coal Co. Ivy Ridge,	Cambria, ...	Chas. D. Baltzell,	Altoona,	James Higham, ...	Portage,	Penna. Railroad.
Lorain Steel Co. Ingleside,	Cambria, ...	P. Lovelle,	Johnstown,	Wm. Moss,	Johnstown,	Baltimore & Ohio.
Madill & Barker Brother Ivory Hill,	Cambria, ...	C. H. Barker,	Ebensburgh,	John Madill,	Glen Glade,	Penn'a Railroad.
Listie Mining & Mfg. Co. Krebs,	Somerset, ..	George J. Krebs,	Somerset,	Geo. J. Krebs,	Somerset,	Baltimore & Ohio.

TABLE I—Continued.

Names of Operators and Collieries.	County.	Name of General Superintendent.	P. O. Address.	Name of Superintendent.	F. O. Address.	Railroad to Mine.
Lloydell Coal Co.	Cambria, ...	H. K. Stouffer,	Philadelphia,	David T. Edwards,	Lloydell,	Penn'a Railroad.
Logan Coal Co.	Cambria, ...	W. C. Snyder,	Altoona,	Wm. H. Booth, ...	Dunlo,	Penn'a Railroad.
Lilly slope,	Cambria, ...	Wm. Hahman,	Altoona,	N. Evans,	Lilly,	Penn'a Railroad.
Nanty Y Glo Coal Co.	Cambria, ...	Dr. J. W. Dunwidle, ..	Phillipsburg,			Penn'a Railroad.
Nant Y Glo Nos. 1 and 2, ..	Cambria, ...	E. P. McCormick,	Patton,	E. P. McCormick,	Patton,	B. C. R. R.
Moshannon,	Cambria, ...	W. H. Duse,	Mosteller,	W. H. Duse,	Mosteller,	Baltimore & Ohio,
Reading Iron Co.	Somerset, ..					
Mosteller,						
Mancher,	Cambria, ...	E. R. Jackman,	Carrolltown,	R. C. Morris,	Carrolltown, ...	B. C. R. R.
Oak Ridge Coal and Coke Co.	Cambria, ...	James Campble,	Hastings,	James Campble, ..	Hastings,	Penn'a Railroad.
Oak Ridge,						
Penn Bituminous Coal Co.	Cambria, ...			Evan Davis,	Portage,	Penn'a Railroad.
Portage slope,						
Morrisdale Coal Co.	Cambria, ...	J. E. Headding,	Morrisdale Mines,	Ed. Cowan,	Carrolltown, ...	B. C. R. R.
Patton,						
Priscilla Coal Co.	Cambria, ...	D. W. Luke,	South Fork,	J. H. Luke,	South Fork, ...	Penn'a Railroad.
Priscilla,						
J. W. Mentzer.	Cambria, ...	J. W. Mentzer,	Holidaysburg,	John A. Leap,	Lilly,	Penn'a Railroad.
Plain,						
Loyalhanna C. & C. Co.	Cambria, ...			Joseph Patterson,	Myra,	Penn'a Railroad.
Sonman shaft No. 1,						
Stineman Brothers.	Cambria, ...	W. I. Stineman,	South Fork,	Samuel Brewer, ...	South Fork, ...	Penn'a Railroad.
Stineman No. 1,						
Stineman Coal and Coke Co.	Cambria, ...	John B. Reed,	South Fork,	Thos. D. Williams,	South Fork, ...	Penn'a Railroad.
Stineman No. 2,						

South Fork Coal Mining Co. South Fork,	John Langdon,	Huntingdon,	R. H. Ott,	South Fork, ...	Penn'a Railroad.
Standard Coal Co., Ltd. Standard,	R. J. Hughes,	Altoona,	Niek Evans,	Lilly,	Penn'a Railroad.
Deringer Brothers. Susquehanna,	W. Deringer,	Shangler, .....	.....	.....	Penn'a Railroad.
Stewart Coal Mining Co. Stewart,	J. C. Galbreath,	Hooversville, .....	.....	.....	Baltimore & Ohio.
A. F. John. Somerset,	A. F. John,	Johnstown, .....	.....	.....	Baltimore & Ohio.
Forest Rose Coal Co. Stony Creek,	Forest Rose,	Johnstown,	R. Gilmore,	Hooversville, ..	Baltimore & Ohio.
West Branch Clearfield Bi- tuminous Coal Co. West Branch,	R. A. Shillingford,	Clearfield,	C. W. Stewart, ...	Shangler,	B. C. R. R.
Walnut Coal Co. Walnut Run,	W. C. Snyder,	Altoona,	Peter Stewart, ...	Shangler,	Penn'a Railroad.
Wells Creek Coal Co. Wells Creek,	F. C. Keighly,	Untontown,	J. H. Lane,	Listle,	Baltimore & Ohio.
Rich Hill Coal Co. Rich Hill No. 1,	J. L. Stott,	Hastings,	John Harvey,	Hastings,	Penn'a Railroad.
Cambria Coal Mining Co. Anchor, .....	.....	.....	Andy Barna,	Puritan,	Penn'a Railroad.
M. L. Williams & Co. Coopersdale,	M. L. Williams,	Johnstown,	C. McDylitt,	Johnstown,	Penn'a Railroad.
Basic Brick Co. St. Clair's,	F. H. Seely,	Johnstown,	John Thomas, ...	Johnstown,	Penn'a Railroad.
D. J. Llewellyn. Llewellyn,	D. J. Llewellyn,	Johnstown,	Ander'n Llewellyn,	Johnstown,	Penn'a Railroad.
Favis, Spencer & Co. Vanormer,	E. F. Spencer,	Vanormer, .....	.....	.....	Penn'a Railroad.
Jackson & Walker. Black Diamond No. 2,	A. C. Jackson,	Carrolltown, .....	.....	.....	Penn'a Railroad.
Moshannon Coal & Coke Co. Moshannon No. 2, .....	.....	.....	Thomas Leahy, ...	Myra,	Penn'a Railroad.

TABLE I—Continued.

Names of Operators and Collieries.	County.	Name of General Superintendent.	P. O. Address.	Name of Superintendent.	P. O. Address.	Railroad to Mine.
Coaldale Mining Co. Coaldale No. 9,	Cambria, ...	Robert L. Scott,	Lloydell,	D. R. Phillips,	Lloydell,	Penn'a Railroad.
J. A. Shoemaker. Forest colliery,	Cambria, ...	J. A. Shoemaker,	Ebensburg,	J. A. Shoemaker, ..	Ebensburg,	Penn'a Railroad.

TABLE II.—Gives the total number of tons of coal mined and tons of coke produced in each colliery, number of days worked, number of employees, number of persons killed and injured, number of kegs of powder, etc., used in the Sixth Bituminous District for the year ending December 31, 1900.

Names of Operators and Collieries.	County.	Shipments of coal in tons by rail or otherwise.	Number of tons used for steam and heat at colliery.	Sold to local trade and used by employes—tons.	Total production of coal in tons.	Total production of coke in tons.	Number of coke ovens.	Average number of days worked.	Number persons employed.	Number fatal accidents.	Number non-fatal accidents.	Number kegs powder used.	Number pounds of dynamite used.	Number horses and mules.
Berwind, White Coal Mining Co.														
Eureka No. 30.	Somerset.	541,973	9,663	.....	551,636	.....	.....	303	467	2	2	3,280	5,250	.....
Eureka No. 31.	Somerset.	472,162	4,449	90	476,701	.....	.....	298	521	2	.....	2,810	4,750	.....
Eureka No. 32.	Somerset.	289,098	7,469	.....	296,207	.....	.....	298	410	1	.....	1,760	2,750	.....
Eureka No. 33.	Somerset.	226,532	4,753	9	231,284	.....	.....	299	276	1	.....	1,400	2,750	.....
Eureka No. 34.	Somerset.	332,812	2,583	7	335,432	.....	.....	302	444	1	1	2,080	3,500	.....
Eureka No. 35.	Somerset.	431,422	6,658	77	441,167	.....	.....	300	441	1	1	2,640	4,000	.....
Eureka No. 36.	Somerset.	80,433	1,261	.....	81,686	.....	.....	303	237	1	1	500	1,000	.....
Eureka No. 37.	Cambria.	80,473	2,265	.....	82,739	.....	.....	306	237	1	1	500	1,000	.....
Yellow Run shaft.	Cambria.	242,889	6,249	.....	249,168	.....	.....	281	291	2	1	1,081	1,000	35
Total.		2,710,757	45,130	183	2,756,070	.....	.....	299	3,304	10	6	16,081	25,000	35
Jarnes & Tucker.														
Lancashire No. 6.	Cambria.	93,454	.....	500	93,954	.....	.....	247	79	.....	.....	450	100	20
Lancashire No. 7.	Cambria.	132,915	.....	850	133,735	.....	.....	272	161	.....	.....	700	400	12
Lancashire No. 8.	Cambria.	57,523	.....	100	58,623	.....	.....	235	89	1	.....	570	200	7
Lancashire No. 4.	Cambria.	41,319	.....	600	41,919	.....	.....	213	59	.....	.....	400	100	8
Lancashire No. 5.	Cambria.	3,500	.....	1,000	4,500	.....	.....	228	3	.....	.....	20	.....	1
Lancashire No. 8.	Cambria.	35,652	.....	.....	35,652	.....	.....	98	130	.....	.....	300	400	7
Total.		361,293	.....	3,050	366,443	.....	.....	216	524	1	1	2,440	1,200	55

TABLE II—Continued.

Names of Operators and Collieries.	County.	Shipments of coal in tons by rail or otherwise.	Number and heat at colliery.	Sold to local trade and used by employes—tons.	Total production of coal in tons.	Total production of coke in tons.	Number of coke ovens.	Average number of days worked.	Number persons employed.	Number fatal accidents.	Number non-fatal accidents.	Number kegs powder used.	Number pounds of dynamite used.	Number horses and mules.
Patton Coal Co.														
Columbia,	Cambria,	104,429	500	48	104,977	.....	.....	228	200	.....	1	400	200	12
Ashcroft, No. 3,	Cambria,	44,737	.....	.....	44,737	.....	.....	184	100	.....	.....	150	.....	6
Planagan Run No. 4,	Cambria,	219,530	2,500	148	222,178	.....	.....	245	250	.....	.....	500	200	14
Planagan Run No. 6,	Cambria,	52,873	.....	.....	52,873	.....	.....	230	50	.....	.....	100	.....	3
Total, .....	.....	421,569	3,000	196	424,765	.....	.....	222	600	.....	1	1,150	400	35
Puritan Coal Mining Co.														
Puritan No. 1,	Cambria,	136,248	4,080	.....	140,328	.....	.....	233	220	1	.....	600	.....	17
Puritan No. 2,	Cambria,	25,323	.....	.....	25,323	.....	.....	236	43	.....	.....	150	.....	7
Puritan No. 3,	Cambria,	49,958	516	600	51,074	.....	.....	243	117	.....	.....	300	.....	7
Puritan No. 4,	Cambria,	11,634	.....	.....	11,634	.....	.....	153	47	.....	.....	103	250	3
Total, .....	.....	223,223	4,596	600	228,419	.....	.....	224	427	1	.....	1,153	250	34
Cresson & Clearfield C. & C. Co.														
Dean No. 8,	Cambria,	107,791	2,440	28	110,059	9,871	88	252	173	1	.....	906	100	12
Dean No. 9,	Cambria,	32,919	236	952	48,978	.....	.....	266	95	.....	.....	507	25	10
Dean No. 10,	Cambria, .....	.....	.....	.....	.....	.....	.....	.....	46	.....	.....	58	.....	3
Riehdand,	Cambria,	5,745	.....	.....	5,801	.....	.....	63	46	.....	.....	.....	.....	.....
Total, .....	.....	146,455	2,776	980	164,838	9,871	88	194	314	1	.....	1,471	125	25
Coulter & Huff.														
Argyle,	Cambria,	162,450	1,248	644	164,322	.....	.....	312	220	.....	1	1,565	1,800	20
Conemaugh,	Cambria,	53,374	312	331	53,817	.....	.....	182	82	.....	.....	572	.....	9
Kokomo,	Cambria,	11,225	.....	.....	11,225	.....	.....	192	34	.....	.....	72	.....	.....
Total, .....	.....	226,929	1,560	975	229,464	.....	.....	272	316	.....	1	2,151	1,800	26

Webster Coal and Coke Co.												
Webster No. 3.	Cambria.	389,941	6,909	852	388,702	256	559	1	2	9,215	3,450	26
Webster No. 6.	Cambria.	78,008	1,552	684	80,134	207	177	1	1	3,950	540	22
Webster No. 8.	Cambria.	459,039	8,291	1,536	468,836	20	232	1	4	13,165	3,490	3
Webster No. 7.	Cambria.	148,672	3,650	6,186	369,348	221	256	1	1	1,828	300	40
Total.	Cambria.	69,537	690	26,553	60	222	110	373	1	325	300	40
Mitchel Coal and Coke Co.												
Gallitzin slope.	Cambria.	15,853	690	34,060	203	31	160	6	6	190	350	8
Columbia No. 4.	Cambria.	33,641	419	829	34,060	203	31	6	6	190	350	8
Columbia No. 7.	Cambria.	48,838	2,000	829	129,633	152	222	2	2	1,450	1,290	22
Columbia No. 6.	Cambria.	48,838	2,000	829	129,633	152	222	2	2	1,450	1,290	22
Hastings No. 1.	Cambria.	48,838	2,000	829	129,633	152	222	2	2	1,450	1,290	22
Hastings No. 2.	Cambria.	48,838	2,000	829	129,633	152	222	2	2	1,450	1,290	22
Total.	Cambria.	308,639	6,669	7,015	618,222	373	245	896	1	3,863	1,850	83
Duncan & Spangler.												
Bluhaker No. 8.	Cambria.	147,530	3,385	560	151,875	247	247	1	1	849	360	32
Bluhaker No. 10.	Cambria.	10,798	428	83	10,798	213	31	14	1	136	136	1
Bluhaker No. 11.	Cambria.	26,328	428	83	26,847	188	31	31	1	194	194	5
Bluhaker No. 13.	Cambria.	18,789	40	427	18,829	137	43	43	1	101	163	6
Ielta.	Cambria.	72,477	1,212	427	74,116	181	89	89	1	408	408	22
Total.	Cambria.	276,330	5,065	1,070	282,465	193	424	424	1	1,688	523	66
Cambria Steel Co.												
Rolling Mill.	Cambria.	519,883	12,459	522,442	522,442	279	544	2	5	2,852	450	60
Franklin No. 1.	Cambria.	113,278	1,881	113,278	113,278	296	143	1	1	561	7,075	14
Franklin No. 2.	Cambria.	138,254	1,881	140,105	140,105	283	149	1	1	1,169	953	11
Conemaugh slope.	Cambria.	774,545	14,310	785,825	785,825	285	836	4	6	4,582	8,450	85
Total.	Cambria.	119,582	200	100	119,882	240	125	4	4	1,290	600	16
Allport Coal Co.												
Allport No. 1.	Cambria.	40,775	200	100	40,875	223	54	1	1	400	600	6
Allport No. 2.	Cambria.	160,357	200	200	160,757	231	179	1	1	1,690	600	22
Total.	Cambria.	182,218	1,008	802	184,028	227	192	2	2	560	600	35
Parlee Collieries Co.												
Parlee No. 3.	Cambria.	94,780	1,680	89	96,549	221	122	1	1	300	330	9
Parlee No. 4.	Cambria.	58,236	1,680	89	58,236	225	61	1	1	200	200	8
Parlee No. 6.	Cambria.	335,224	2,688	891	338,813	224	375	1	1	1,000	1,000	52
Total.	Cambria.	335,224	2,688	891	338,813	224	375	1	1	1,000	1,000	52

TABLE II—Continued.

Names of Operators and Collieries.	County.	Shipments of coal in tons by rail or otherwise.	Number of tons used for steam and heat at colliery.	Sold to local trade and used by employes—tons.	Total production of coal in tons.	Total production of coke in tons.	Number of coke ovens.	Average number of days worked.	Number persons employed.	Number fatal accidents.	Number non-fatal accidents.	Number kegs powder used.	Number pounds of dynamite used.	Number horses and mules.
W. H. Piper & Co.														
Sonman No. 2,	Cambria,	147,244	.....	1,800	149,044	.....	.....	235	222	.....	3	325	300	22
Sonman No. 4,	Cambria,	8,114	.....	.....	8,114	.....	.....	128	25	.....	.....	6	50	2
Sonman No. 1,	Cambria,	55,753	1,100	210	57,063	.....	.....	252	68	.....	.....	52	50	5
Total, .....	.....	211,141	1,100	2,010	214,251	.....	.....	205	315	.....	3	383	400	33
Vinton Colliery Co.														
Vinton No. 1,	Cambria,	118,377	1,001	756	129,134	.....	.....	256	151	.....	.....	821	246	1
Vinton No. 2,	Cambria,	59,615	436	18	60,069	2,400	8	266	62	1	.....	190	621	5
Vinton No. 3,	Cambria,	177,992	1,437	774	180,203	2,400	8	261	213	1	.....	1,011	867	6
Total, .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Sterling Coal Co.														
Sterling No. 1,	Cambria,	10,000	.....	.....	10,000	.....	.....	80	50	.....	.....	50	.....	3
Sterling No. 2,	Cambria, .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Sterling No. 3,	Cambria, .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Sterling No. 4,	Cambria,	13,000	.....	.....	13,000	.....	.....	94	69	.....	.....	100	.....	3
Sterling No. 5,	Cambria, .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Total, .....	.....	23,000	.....	.....	23,000	.....	.....	87	119	.....	.....	150	.....	6
Madeira Hill Coal Mining Co.														
Spanster,	Cambria,	51,290	10	400	51,610	.....	.....	210	79	.....	.....	180	.....	5
Manlon,	Cambria,	18,904	150	10	19,064	.....	.....	117	49	.....	.....	80	.....	6
Total, .....	.....	70,194	160	410	70,674	.....	.....	163	128	.....	.....	260	.....	11

George Pearce & Sons.	27,712	11*	27,712	158	58	390	3
Caldwell,	8,222		8,222	180	17	50	2
Excelsior,				169	75	350	5
Total,	35,924		36,034	242	98	850	3
Sonman Shaft Coal Co.	61,885	2,925	65,166	108	18	42	1
Sonman shaft No. 2,	6,274		6,274	175	116	850	4
Sonman drift,				209	63		8
Total,	68,159	2,925	71,440	146	16	18	2
Madeira Hill Co.	16,000		16,177	122	5	10	1
Madeira Hill No. 1,	5,000		5,000	129	84	60	11
Madeira Hill No. 2,	1,000		1,000	243	238	1,215	15
Madeira Hill No. 3,				97	18	45	3
Total,	22,000		22,177	170	256	1,260	18
Empire Coal Mining Co.	181,772	1,500	183,772				
Empire,	3,000		3,000				
Eclipse,							
Total,	184,772	1,500	186,772				

Recapitulation.

Berwind White Coal Mining Co.,	2,716,757	45,130	2,756,070	183	3,304	16,081	35
Barnes & Tucker,	364,332		366,443	3,650	216	2,440	55
Patton Coal Co.,	421,569	3,000	424,765	196	524	1,200	35
Puritan Coal Mining Co.,	223,223	4,586	228,419	600	222	1,150	40
Cresson & Clearfield C. & C. Co.,	146,455	2,776	164,838	980	427	1,153	34
Coniter & Huff,	225,929	1,560	229,464	975	314	1,471	25
Witvel Coal Co.,	439,638	8,261	468,836	1,536	272	2,151	26
Dittel Coal and Coke Co.,	276,320	6,069	318,222	7,015	354	3,165	87
Cambridge Coal Co.,	771,515	14,310	785,825	1,010	824	1,688	83
Allport Coal Co.,	160,357	200	160,757	200	176	4,382	65
Pardee Collieries Co.,	335,234	2,688	338,813	891	224	1,000	22
W. H. Piper & Co.,	211,141	1,100	214,251	2,010	375	1,883	53
Vinton Colliery Co.,	177,992	1,437	180,203	774	315	1,011	32
Sterling Coal Co.,	23,000		23,000	410	174	150	6
Maderia Hill Coal Mining Co.,	70,104	160	70,674	168	128	260	11
George Pearce & Sons,	35,924	2,925	36,034	169	75	350	5
Sonman Shaft Coal Co.,	68,159		68,159	185	116	280	4
Madeira Hill Mining Co.,	22,000		22,177	177	84	60	11
Empire Coal Mining Co.,	181,772	1,500	186,772	500	256	1,260	18
C. A. Koch,	59,529		59,529	300	107	100	12
Knights Coal Co.,	27,386	120	27,506	294	39	160	6
Knights & Co.,	27,368		27,368	54	41	168	4

*Production, &c., of single collieries will be found in the Recapitulation.

Recapitulation.

Names of Operators and Collieries.	County.	Shipments of coal in tons by rail or otherwise.	Number of tons used for steam and heat at colliery.	Sold to local trade and used by employees—tons.	Total production of coal in tons.	Total production of coke in tons.	Number of coke ovens.	Average number of days worked.	Number persons employed.	Number fatal accidents.	Number non-fatal accidents.	Number kegs powder used.	Number pounds of dynamite used.	Number horses and mules.
Blacklick Mining Co.,	91,991	1,225	375	83,591	.....	.....	238	137	2	1	400	50	14
D. Laughman and J. Leahy,	45,000	.....	1,000	46,000	.....	.....	280	50	.....	.....	100	100	7
D. the Ohio Co.,	17,421	.....	.....	17,421	.....	.....	236	35	.....	.....	190	300	3
Mc Braeken Coal Co.,	33,716	112	.....	33,740	.....	.....	241	66	.....	.....	153	100	5
Max Frielk,	1,940	.....	425	1,940	.....	.....	15	17	.....	.....	.....	100	1
Elkain Run Coal Co.,	9,290	.....	.....	9,290	.....	.....	15	17	.....	.....	.....	.....	1
R. Peal,	5,537	.....	.....	5,537	.....	.....	3	33	.....	.....	.....	.....	1
Cymbrina Coal Co.,	115,809	142	.....	116,243	.....	.....	233	154	.....	.....	589	390	4
Cresson Coal and Coke Co.,	42,868	2,007	.....	45,682	.....	.....	248	54	.....	.....	213	100	12
Johnstown Coal Co.,	2,546	.....	100	2,646	.....	.....	75	28	.....	.....	.....	.....	2
Colonial Coal Co.,	29,627	50	.....	29,683	.....	.....	177	50	.....	.....	110	.....	5
D. Laughman,	91,485	706	365	92,550	.....	.....	236	137	.....	.....	200	100	16
Elmora Coal Co.,	62,000	.....	100	62,100	.....	.....	216	97	.....	.....	500	.....	8
S. V. Davis & Co.,	9,037	.....	.....	9,037	.....	.....	240	17	.....	.....	.....	.....	3
Taylor & McCoy Coal & Coke Co.,	74,690	1,920	4,700	135,000	50,939	238	227	265	.....	.....	780	.....	24
Spangler Coke and Coal Co.,	25	.....	.....	25	.....	.....	38	29	.....	.....	100	25	2
Steinmetz Coal Mining Co.,	223,338	5,215	1,016	229,469	6,722	.....	302	228	.....	.....	1,335	900	46
Atteridge Coal & Sons, Limited,	59,145	1,550	.....	62,948	.....	.....	276	27	.....	.....	420	1,500	7
Baltzell Coal Co.,	59,145	.....	300	62,948	.....	.....	276	27	.....	.....	420	1,500	7
Lorain Steel Co.,	29,218	100	50	29,368	2,441	11	210	34	.....	.....	154	40	3
Madill & Barker Brothers,	1,009	.....	.....	1,009	.....	.....	69	16	.....	.....	.....	.....	2
Ljstie Mining and Manfg. Co.,	209,723	700	356	210,779	.....	.....	266	17	.....	.....	1,800	.....	20
Loydell Coal Co.,	49,476	.....	600	50,476	.....	.....	241	87	.....	.....	300	.....	12
Logan Coal Co.,	51,891	720	.....	52,711	.....	.....	295	165	.....	.....	238	250	10
Lilly Coal Co.,	60,106	153	490	60,759	.....	.....	221	165	.....	.....	75	200	12
Nant Y Glo,	51,748	50	.....	51,798	.....	.....	231	91	.....	.....	600	.....	16
E. P. McCormick,	18,108	840	.....	18,128	.....	.....	180	71	.....	.....	100	.....	6
Reading Iron Co.,	16,476	.....	133	17,579	.....	.....	160	48	.....	.....	137	2,350	10
E. R. Jackman & Co.,	20,265	.....	.....	20,265	.....	.....	105	105	.....	.....	180	300	5
Oakridge Coal and Coke Co.,	43,826	220	604	52,069	3,800	50	335	105	.....	.....	402	30	5
Penn Bituminous Coal Co.,	31,744	1,636	.....	33,384	.....	.....	118	18	.....	.....	167	.....	4
Morrisdale Coal Co.,	46,354	.....	27	46,381	.....	.....	203	30	.....	.....	390	.....	11

Precilla Coal Co.,	36,434	240	70	35,744	244	69	180	180	1	180	1
J. W. Mentzer,	27,620	5,290	290	27,840	209	58	300	300	1	300	1
Loyalhanna Coal and Coke Co.,	290,467	5,171	318	295,956	238	269	600	600	1	600	1
Stineman Brothers,	244,359	4,800	318	248,159	246	267	1,344	1,344	1	1,344	1
Stineman Coal and Coke Co.,	117,953	660	167	118,583	278	161	900	900	1	900	1
South Fork Coal Mining Co.,	97,210	3,248	167	100,625	279	137	300	300	1	300	1
Standard Coal Co., Limited,	42,369	.....	168	42,369	279	51	200	200	1	200	1
Derringer Brothers,	31,852	.....	168	31,852	231	51	200	200	1	200	1
Stewart Coal Co.,	29,875	195	50	30,068	233	50	250	250	1	250	1
A. F. John,	4,563	.....	.....	4,563	93	26	70	70	1	70	1
Forest Coal Co.,	193,734	2,000	872	196,627	252	271	1,300	1,300	1	1,300	1
W. B. Garfield, Inc., C. Corp.,	35,850	.....	.....	35,850	178	63	210	210	1	210	1
Wright Run Coal Co.,	40,682	150	150	40,882	280	62	160	160	1	160	1
Wellsbrook Coal Co.,	1,015	.....	.....	1,022	35	16	80	80	1	80	1
Rich Hill Coal Co.,	25,584	.....	.....	25,584	187	42	190	190	1	190	1
Cambria Coal Mining Co., .....	.....	.....	.....	.....	276	13	50	50	1	50	1
M. L. Williams & Co., .....	.....	.....	.....	.....	271	24	75	75	1	75	1
Basic Coal Co., .....	.....	.....	.....	.....	18,011	25	15	15	1	15	1
D. J. Llewellyn,	16,658	.....	51	11,009	164	23	33	33	1	33	1
Davis Spencer & Co.,	8,000	50	250	8,300	164	23	150	150	1	150	1
Jackson & Walker,	3,296	.....	75	3,371	277	64	150	150	1	150	1
Coaldate Mining Co.,	18,004	.....	75	18,004	230	17	100	100	1	100	1
J. A. Shoemaker,	9,666	.....	.....	9,606	240	17	100	100	1	100	1
Moshannon Coal and Coke Co.,	4,356	1,080	.....	5,606	132	36	40	40	1	40	1
Grand total,	10,067,978	136,579	35,812	10,604,627	787	14,879	30	72,569	38	56,313	1,167

Recapitulation—Continued.

Names of Operators and Collieries.	County.	Number of Boilers.				Total horse power.	Locomotives.			Number steam engines of all classes.	Total horse power.	Number pumps delivering water to surface.	Capacity in Gallons per minute.	Quantity delivered to surface per minute—gallons.	Number electric dynamos.	Number air compressors.
		Cylindrical.	Horse power.	Tubular.	Horse power.		Steam.	Air.	Electric.							
D. J. Llewellyn	62	8,965	123	11,685	20,650	3	3	65	124	14,707	37	17,313	9,950	42	52
Davis Spencer & Co.															
Rackson, Walker															
Conrad Mining Co.															
J. A. Shoemaker			2	180	180				1	90	1	100	60		1
Moshannon Coal and Coke Co.															
Grand total	62	8,965	123	11,685	20,650	3	3	65	124	14,707	37	17,313	9,950	42	52

TABLE III—Showing the number of each class of employes at each colliery in the Sixth Bituminous District during the year 1900.

Names of Operators and Collieries.	County.	Occupations of Persons Employed Inside.										Occupations of Persons Employed Outside.							
		Occupations of Persons Employed Inside.										Occupations of Persons Employed Outside.							
		Inside foreman or mine boss.	Fire bosses.	Miners.	Miners' laborers.	Drivers and runners.	Door boys and helpers.	All other employes.	Total inside.	Outside foreman.	Backsmiths and carpenters.	Enginemen and firemen.	State pickers.	Employed in the manufacture of coke.	Superintendents, book-keepers and clerks.	All other employes.	Total outside.	Grand total, inside and outside.	
Berwind White Coal Mining Co.	Somerset.	3	352	28	14	30	426	1	1	10	1	1	1	1	1	1	1	467	
Eureka No. 30.	Somerset.	1	372	62	14	37	487	1	1	5	1	1	1	1	1	1	1	521	
Eureka No. 31.	Somerset.	1	330	50	11	18	381	1	1	6	1	1	1	1	1	1	1	410	
Eureka No. 32.	Somerset.	1	350	25	9	17	381	1	1	5	1	1	1	1	1	1	1	410	
Eureka No. 33.	Somerset.	1	350	25	9	17	381	1	1	5	1	1	1	1	1	1	1	410	
Eureka No. 34.	Somerset.	1	350	25	9	17	381	1	1	5	1	1	1	1	1	1	1	410	
Eureka No. 35.	Somerset.	1	350	25	9	17	381	1	1	5	1	1	1	1	1	1	1	410	
Eureka No. 36.	Somerset.	1	157	31	11	17	216	1	1	4	1	1	1	1	1	1	1	237	
Eureka No. 37.	Somerset.	1	150	15	7	18	190	1	1	4	1	1	1	1	1	1	1	217	
Yellow Run shaft.	Cambridia.	1	239	15	19	6	274	1	1	5	1	1	1	1	1	1	1	291	
Total.		18	2,500	236	102	6	3,048	8	19	52	17	9	9	9	151	256	3,304		
Barnes & Tucker.																			
Lancashire No. 6.	Cambridia.	1	60	4	4	1	74	1	1	3	1	1	1	1	1	1	1	79	
Lancashire No. 7.	Cambridia.	1	126	16	5	4	153	1	1	2	1	1	1	1	1	1	1	164	
Lancashire No. 8.	Cambridia.	1	77	1	3	1	84	1	1	1	1	1	1	1	1	1	1	89	
Junilata.	Cambridia.	1	47	1	4	1	55	1	1	1	1	1	1	1	1	1	1	59	
Lancashire No. 4.	Cambridia.	1	3	1	1	1	6	1	1	1	1	1	1	1	1	1	1	8	
Lancashire No. 8.	Cambridia.	2	98	13	5	3	123	1	1	1	1	1	1	1	2	7	130		
Total.		6	411	35	21	13	492	5	6	5	3	3	3	3	8	32	524		

Coulter & Huff.													
Argyle	1	158	15	2	4	182	1	5	3	3	26	38	220
Conemaugh	1	46	1	1	1	53	1	1	2	1	4	2	82
Kokomo	1	29	1	1	1	32	1	1	1	1	1	2	34
Total	3	234	21	2	6	267	2	7	5	4	31	49	316
Webster Coal and Coke Co.													
Webster No. 3	1	173	29	4	29	238	3	3	2	2	12	19	237
Webster No. 5	1	134	25	3	20	185	1	4	3	2	16	30	215
Webster No. 6	1	57	7	2	5	73	2	2	1	1	10	14	87
Webster No. 8	1	128	12	5	16	162	3	4	2	2	4	15	177
Webster No. 7	1	492	73	14	70	653	1	12	10	7	6	42	736
Total	5	492	73	14	70	653	1	12	10	7	6	42	736
Mitchel Coal and Coke Co.													
Gallitz slope	1	200	20	9	36	266	1	6	7	11	4	78	373
Columbia No. 4	1	85	10	1	8	98	2	2	1	1	8	107	310
Columbia No. 7	1	40	5	1	5	47	1	1	1	1	1	3	63
Columbia No. 6	1	32	5	1	8	47	1	1	1	1	1	4	51
Hastings No. 1	1	109	11	5	21	147	1	4	5	2	63	75	222
Hastings No. 2	1	68	5	1	2	77	1	1	1	1	1	1	77
Total	6	524	56	17	75	690	2	14	17	14	8	151	896
Duncan & Spangler.													
Blubaker No. 8	1	141	15	3	24	217	1	8	5	2	2	12	30
Blubaker No. 10	1	41	1	1	1	43	1	1	1	1	1	1	14
Blubaker No. 11	1	20	2	1	1	25	1	1	1	1	2	6	31
Blubaker No. 13	1	33	3	2	1	40	1	1	1	1	1	3	43
Delta	1	41	6	6	14	71	1	2	4	1	6	15	89
Total	5	219	27	12	39	369	4	12	10	5	3	21	424
Columbia Steel Co.													
Rolling Mill	2	357	50	4	52	485	1	6	15	3	34	59	544
Franklin No. 1	1	105	14	3	127	133	3	3	1	1	12	16	143
Franklin No. 2	1	110	9	5	125	149	1	3	3	1	16	24	149
Conemaugh slope	1	110	9	5	125	149	1	3	3	1	16	24	149
Total	4	572	72	25	60	737	2	12	18	5	62	99	836
Allport Coal Co.													
Allport No. 1	1	100	5	1	12	119	1	1	1	1	1	6	125
Allport No. 2	1	45	2	1	1	50	1	1	1	1	1	4	54
Total	2	145	7	2	13	169	2	2	2	2	2	10	179
Pardee Collieries Co.													
Pardee No. 3	1	124	25	9	3	177	1	2	3	3	6	15	192
Pardee No. 4	1	85	14	4	2	111	1	2	3	3	4	11	122

Henrietta Coal Mining Co.,	1	173	9	23	7	5	218	.....	4	4	.....	1	11	20	238
A. J. Haws & Sons, Limited,	1	45	6	3	10	65	43	.....	1	2	.....	.....	7	9	59
Palmer Steel Co.,	1	28	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	10	75
Lafayette Steel Co.,	1	8	3	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	3	34
Madill & Barker Brothers,	1	125	15	4	16	161	13	.....	1	.....	.....	.....	.....	2	16
Liste Mining and Manfg. Co.,	1	65	8	2	4	80	80	.....	1	2	.....	.....	.....	7	177
Lloydell Coal Co.,	1	72	10	7	5	3	99	.....	1	2	.....	.....	.....	7	87
Logan Coal Co.,	1	78	2	9	2	9	84	.....	1	.....	.....	.....	.....	6	105
Lilly Coal Co.,	1	70	2	8	3	4	69	.....	1	.....	.....	.....	.....	7	91
Nant Y Glo Coal Co.,	1	50	8	.....	.....	.....	.....	.....	1	.....	.....	.....	.....	2	71
E. P. McCormick,	1	30	4	1	3	39	37	.....	1	.....	.....	.....	.....	9	48
Reading Iron Co.,	1	23	4	2	1	.....	.....	.....	1	.....	.....	.....	.....	3	48
E. R. Jackman & Co.,	1	80	.....	.....	.....	.....	.....	.....	1	.....	.....	.....	.....	1	40
Oakridge Coal and Coke Co.,	1	80	.....	.....	.....	.....	.....	.....	1	.....	.....	.....	.....	13	40
Venn, Bit. Coal Co.,	1	70	.....	.....	.....	.....	.....	.....	1	.....	.....	.....	.....	14	118
Morrisdale Coal Co.,	1	55	.....	.....	.....	.....	.....	.....	1	.....	.....	.....	.....	4	90
Prichard Coal Co.,	1	40	.....	.....	.....	.....	.....	.....	1	.....	.....	.....	.....	5	69
J. W. Mentzer,	1	55	2	5	1	.....	.....	.....	1	.....	.....	.....	.....	1	58
Loyalhanna Coal and Coke Co.,	1	156	10	18	.....	.....	.....	.....	1	.....	.....	.....	.....	2	209
Stineman Brothers,	2	220	.....	.....	.....	.....	.....	.....	3	6	.....	.....	.....	8	267
Stineman Coal and Coke Co.,	1	130	.....	.....	.....	.....	.....	.....	3	5	.....	.....	.....	13	161
South Fork Coal Mining Co.,	1	106	.....	.....	.....	.....	.....	.....	2	.....	.....	.....	.....	8	137
Standard Coal Co., Limited,	1	1	.....	.....	.....	.....	.....	.....	2	4	.....	.....	.....	14	137
Deeringer Brothers,	1	50	1	5	1	.....	.....	.....	1	.....	.....	.....	.....	3	61
Derringer Coal Co.,	1	45	.....	.....	.....	.....	.....	.....	1	.....	.....	.....	.....	3	61
Stewart Coal Co.,	1	29	2	1	.....	.....	.....	.....	1	.....	.....	.....	.....	7	49
A. F. John,	1	38	1	6	2	.....	.....	.....	1	.....	.....	.....	.....	4	50
Forest Rose Coal Co.,	1	24	.....	.....	.....	.....	.....	.....	1	.....	.....	.....	.....	2	26
W. B. Clearfield Bit. C. Corp.,	2	132	19	.....	.....	.....	.....	.....	1	.....	.....	.....	.....	29	275
Walnut Run Coal Co.,	1	49	.....	.....	.....	.....	.....	.....	1	.....	.....	.....	.....	5	62
Walnut Run Coal Co.,	1	49	.....	.....	.....	.....	.....	.....	1	.....	.....	.....	.....	5	62
Rich Hill Coal Co.,	1	49	.....	.....	.....	.....	.....	.....	1	.....	.....	.....	.....	4	16
Cambria Coal Mining Co.,	1	35	1	2	1	.....	.....	.....	1	.....	.....	.....	.....	1	42
M. L. Williams & Co.,	1	10	.....	.....	.....	.....	.....	.....	1	.....	.....	.....	.....	1	13
Basic Brick Co.,	1	20	1	2	.....	.....	.....	.....	1	.....	.....	.....	.....	2	24
D. J. Llewellyn,	1	18	1	1	.....	.....	.....	.....	1	.....	.....	.....	.....	2	23
Davis Spencer & Co.,	1	25	.....	.....	.....	.....	.....	.....	1	.....	.....	.....	.....	2	30
Jackson & Walker,	1	20	.....	.....	.....	.....	.....	.....	1	.....	.....	.....	.....	2	25
Coaldale Mining Co.,	1	45	6	2	.....	.....	.....	.....	1	.....	.....	.....	.....	4	64
J. A. Shoemaker & Co.,	1	12	.....	.....	.....	.....	.....	.....	1	.....	.....	.....	.....	2	17
Moshanon Coal and Coke Co.,	1	20	10	1	.....	.....	.....	.....	1	.....	.....	.....	.....	4	36
Grand total,	145	10,797	571	913	222	687	13,356	49	192	216	78	52	794	1,553	14,879

NOTE.—Data for companies operating single mines will be found in Recapitulation.

Cymbria Coal Co.	22	21	23	19	31	13	16	31	20	23	18	16	233
Cresson Coal and Coke Co.	22	18	20	23	22	19	22	22	18	20	20	15	248
Johnstown Coal Co.	16	13	20	16	20	13	20	20	10	15	20	20	175
Colonial Coal Co.	23	22	22	19	19	17	17	15	16	17	17	6	177
D. Laughman.	23	22	25	20	21	18	18	13	2	2	2	17	236
Elmora Coal Co.	20	20	20	20	18	17	21	19	22	19	23	21	240
Edwards & Co.	22	25	27	23	20	12	14	16	17	17	17	12	227
Taylor & McCoy Coal and Coke Co.	26	24	27	2	2	18	11	11	15	17	12	12	368
Spangler Coke and Coal Co.	27	23	27	26	24	25	24	27	25	26	24	24	302
Hemietta Coal Mining Co.	18	19	35	20	22	22	21	24	25	24	13	25	250
A. J. Haws & Sons, Limited.	18	18	22	13	12	9	9	10	8	12	24	15	169
Lorain Steel Co.	23	16	22	32	32	32	32	32	19	17	18	25	268
Madill & Barker Brothers.	13	32	30	31	31	27	24	29	25	25	21	21	241
Listie Mining and Manufacturing Co.	23	22	22	20	20	20	20	20	20	20	20	20	255
Lloydell Coal Co.	23	18	23	15	13	13	14	18	15	19	17	22	219
Lilly Coal Co.	23	21	23	23	19	17	17	17	15	21	16	16	231
Northwestern Coal Co.	22	20	23	21	24	19	19	20	10	12	8	5	180
Reading Iron Co.	20	14	18	21	5	22	21	23	21	22	22	21	261
Roading Iron Co.	20	14	18	21	15	12	14	14	14	11	16	16	152
E. R. Jackson & Co.	25	22	25	23	26	24	24	24	24	24	20	20	195
Oakridge Coal and Coke Co.	25	20	23	23	23	21	9	9	3	14	16	3	288
Pennsylvania Bituminous Coal Co.	19	20	23	22	13	20	19	21	20	22	22	22	244
Morrisdale Coal Co.	20	19	21	16	13	16	16	10	20	20	22	14	200
Priscella Coal Co.	25	22	25	17	18	17	17	17	17	17	17	17	248
J. W. Mentzer.	23	22	24	21	23	22	23	22	23	23	23	23	276
Loyalhanna Coal and Coke Co.	23	22	24	21	23	22	23	22	23	23	23	23	278
Steinman Brothers.	27	22	26	23	24	23	23	24	18	20	23	23	276
Stineman Coal and Coke Co.	26	22	24	23	23	23	21	23	23	23	24	24	272
South Fork Coal Mining Co.	23	17	22	20	22	18	20	21	23	23	22	21	221
Standard Coal Co., Limited.	23	17	22	20	23	12	15	16	15	25	25	25	51
Starringer Brothers.	27	21	23	19	25	25	21	25	20	26	22	22	233
Starringer Coal Co.	26	20	25	23	26	24	24	24	24	24	20	20	393
A. F. John.	26	17	20	21	17	9	9	8	11	19	21	21	252
Forest Ross Coal Co.	15	23	16	16	20	23	23	23	20	22	14	15	178
W. B. Clearfield Bituminous Coal Corp.	16	18	20	18	13	8	11	12	15	15	12	12	250
Walnut Run Coal Co.	24	25	22	23	24	21	21	21	21	21	21	21	271
Wells Cheek Coal Co.	24	27	26	26	27	33	31	32	32	32	32	32	275
Ritch Hill Coal Co.	24	25	25	25	25	17	14	13	20	22	19	13	164
Cambria Coal Mining Co.	20	17	16	16	16	15	15	15	15	15	15	15	198
M. L. Williams & Co.	24	25	26	26	27	33	31	32	32	32	32	32	277
Basic Brick Co.	24	25	26	26	27	33	31	32	32	32	32	32	238
D. J. Llewellyn.	20	17	16	16	16	15	15	15	15	15	15	15	240
Davis Spencer & Co.	24	25	26	26	27	33	31	32	32	32	32	32	238
Jackson & Walker.	20	20	20	20	20	20	20	20	20	20	20	20	240
Outdick Mining Co.	20	20	20	20	20	20	20	20	20	20	20	20	240
J. Shumaker & Co.	20	20	20	20	20	20	20	20	20	20	20	20	240
Moshannon Coal and Coke Co.	20	20	20	20	20	20	20	20	20	20	20	20	240
Average days worked.	221	221	221	221	221	221	221	221	221	221	221	221	221

TABLE IV—List of fatal accidents that occurred in and about the mines of the Sixth Bituminous District for the year ending December 31, 1900.

Date of accident.	Name of Person.	Nationality by Birth.	Occupation.	Age.	Married or Single.	Number of Widows.	Number of Orphans.	Name of Colliery.	County.	Nature and Cause of Accident in Brief.
Jan. 4	Henry Garman, ...	American, ..	Miner,	17 S.	S. ....	.....	.....	Allport No. 2,	Cambria, ...	Killed by a fall of coal while undermining, caused either by carelessness or ignorance.
5	Edward Darby, ...	American, ..	Electrician, ..	31 S.	S. ....	.....	.....	Eureka No. 30,	Somerset, ..	Killed by electric shock; in making some repairs to wire in the mine he came in contact with the trolley wire and was instantly killed.
12	Mike Sherban,	Slav,	Miner,	36 M.	M. 1 .....	.....	.....	Lancashire No. 3,	Cambria, ...	Fatally injured by a fall of rock, which he was warned to prop up, but did not heed.
Feb. 5	John Gordon,	Slav,	Miner,	18 S.	S. ....	.....	.....	Yellow Run shaft,	Cambria, ...	Killed by fall of coal which he neglected to sprag.
8	Philip Howat,	Slav,	Miner,	23 S.	S. ....	.....	.....	Yellow Run shaft,	Cambria, ...	Fatally injured by a fall of draw slate from the side of the headings; an unavoidable accident.
March 23	John Peden,	Scotch,	Miner,	26 M. 1	M. 1 .....	.....	.....	Portage slope,	Cambria, ...	Killed by a fall of coal; he lay down to mine out a coal sprag.
April 2	James Andrew,	Slav,	Loader,	40 M. 1	M. 1	1	1	Eureka No. 31,	Somerset, ..	Fatally injured by fall of coal owing to his carelessness in not spragging it.
10	Alex. Tautlinger,...	American, ..	Runner,	19 S.	S. ....	.....	.....	Franklin No. 1, ...	Cambria, ...	Run over by loaded cars in the mine; the cars were completely and he was trampled for the hind end of both and fell and the two cars that had broke loose ran over him.
20	Nickodemus Anala, Fin,	Fin,	Miner,	26 S.	S. ....	.....	.....	Nant Y Glo,	Cambria, ...	Killed by fall of coal owing to neglect in not spragging.
May 10	Jas. Machokas,	Pole,	Miner,	35 S.	S. ....	.....	.....	Sonman shaft No. 1,	Cambria, ...	Killed by a fall of rock while he was drawing a pillar.
16	Wm. Kibbling, ...	English,	Miner,	54 M. 1	M. 1	3	.....	Eureka No. 31,	Somerset, ..	Fatally injured by a fall of draw slate; was drawing a pillar and the place was squeezed and crushed the draw slate around the prop, causing it to fall on him.
June 28	Gober Bober,	Slav,	Miner,	40 M. 1	M. 1	1	.....	Big Bend,	Cambria, ...	Killed by fall of coal while lying under it after blasting, without putting any sprags under.

21	Joseph Balascock,	Hungarian,	Track man,	21	S.	.....	Eureka No. 32,	.....	Somerset,	..	Killed by electric shock; was warned by his partner to look out for the wire, but pushed his head against it.
23	Andrew Charny,	Slav,	Loader,	18	S.	.....	Rolling Mill,	.....	Cambria,	...	Fatally injured by being caught between cage and timber in the shaft.
July	John Bassock,	Slav,	Laborer,	26	S.	.....	Eureka No. 33,	.....	Somerset,	..	Killed by electric shock; was walking on heading with an iron bar on his shoulder and it touched the trolley wire.
25	James Nelson,	American,	Mine foreman,	30	M.	1	3	Sorman shaft No. 1,	Cambria,	...	Killed; the mine was not working on this date and all day hands were working on a new turnout, on which a large piece of rock was to be blown down; a place was selected for the mine, but suddenly it fell and caught Nelson. He was one of the most careful and intelligent foremen in the district.
31	John Hunter,	American,	Loader,	13	S.	.....	Eureka No. 34,	.....	Somerset,	..	Was run over by motor while on his way home out of mine. The road is double and he stepped out from in front of empty trip right in front of full load and was run over. Killed by a fall of rock by neglect to prop it. Foreman had ordered them to prop the place or take their tools out.
Aug.	Nickolas Grille,	Italian,	Miner,	30	S.	.....	Conemaugh slope,	.....	Cambria,	...	Killed by a fall of rock; was an unavoidable accident.
25	Joseph Bradock,	Austrian,	Miner,	30	M.	1	.....	Rolling Mill,	Cambria,	...	Killed by electric shock; he was in a hurry to get out of the mine and climbed over the trip and his head touched the trolley wire.
28	Kalman Valastie,	Slav,	Miner,	31	M.	1	2	Puritan No. 1,	Cambria,	...	When the mine he stepped in front of a motor; he had a high lamp, therefore could not be seen by motormen.
Sept.	Martin Feiden,	Hungarian,	Loader,	40	M.	1	8	Eureka No. 30,	Somerset,	..	Fatally injured by hauling rope; he was repairing rollers on a curve in the mine and the rope slipped off the shieve and cut both legs nearly off; he was taken to hospital and died next day.
12	Conrad Brogli,	Austrian,	Carpenter,	45	M.	1	7	Webster No. 3,	Cambria,	...	Killed by a fall of rock; was an unavoidable accident.
12	Wm. Vogle,	American,	Miner,	28	M.	1	4	Mostollar No. 2,	Somerset,	..	Fatally injured by a fall of rock in a heading; accident was unavoidable.
24	Mike Comentlek,	Slav,	Miner,	36	M.	1	1	Eureka No. 36,	Somerset,	..	Killed by a fall of slate, which should have been taken down.
29	Sidney Paul,	American,	Miner,	20	S.	.....	Stheman No. 1,	.....	Cambria,	...	This boy went into another man's place, and laid down to mine under a piece of coal that had disengaged and it fell, causing his death.
Oct.	Magaran George,	Slav,	Miner,	17	S.	.....	Big Bend,	.....	Cambria,	...	Killed by fall of slate, which was in at face of the coal that could not be seen.
30	Fred'k Blackburn,	English,	Machine runner,	23	S.	.....	Gallitzin slope,	.....	Cambria,	...	Fatally injured by fall of rock; was an unavoidable accident.
Nov.	Vindan Lucas,	Austrian,	Miner,	25	S.	.....	Dean No. 8,	.....	Cambria,	...	Was killed by being crushed by cars.
30	Tony Bhook,	Hungarian,	Loader,	36	S.	.....	Vintondale No. 3,	.....	Cambria,	...	Instantly killed by a fall of rock; if props would have been put up before blasting the coal after the machine, as is customary, accident would have been avoided.
Dec.	George Hollver,	Hungarian,	Loader,	26	M.	1	1	West Branch,	Cambria,	...	

TABLE V—List of non-fatal accidents that occurred in and about mines of the Sixth Bituminous District for the year ending December 31, 1900.

Date of accident.	Name of Person.	Nationality by Birth.	Occupation.	Age.	Married or single.	Name of Colliery.	County.	Nature and Cause of Accident in Brief.
Jan. 6	Thomas Caruthers.	Scottish.	Driver.	22	S.	Lilly slope.	Cambria.	Was kicked by a mule.
Feb. 2	Catvin Meyers.	American.	Rock man.	23	S.	Eureka 35.	Somerset.	Back hurt by a fall of rock.
4	Steve Smutko.	Slav.	Laborer.	25	S.	Rolling Mill.	Cambria.	Leg broken by a fall of rock.
16	John Chirgha.	Hungarian.	Miner.	35	S.	Big Bend.	Cambria.	Shoulder bone broken by fall of coal.
March 3	George Sabo.	Pole.	Coke worker.	42	M.	Hasting No. 2.	Cambria.	Collar bone and two ribs broken. Was squeezed between cars.
8	Joseph Shook.	German.	Motor man.	30	M.	Hasting No. 2.	Cambria.	Two ribs broken by fall of rock.
9	Fred. Lovence.	Swede.	Machine helper.	36	M.	Gallitzin slope.	Cambria.	Leg injured, necessitating amputation; was caught in the chain bits.
16	John A. Jenson.	Swede.	Miner.	34	M.	Somman No. 2.	Cambria.	Two ribs broken by a fall of coal.
26	Joseph Shunk.	Slav.	Miner.	54	S.	Dysert.	Cambria.	Two ribs and collar bone broken by a fall of coal.
27	Paul Morris.	American.	Track layer.	35	M.	Rolling Mill.	Cambria.	Leg broken, necessitating amputation; was struck by tail rope slipping off the shieve.
29	Martin Geng.	German.	Loader.	30	S.	Eureka 30.	Somerset.	Fractured leg, caused by a fall of coal.
31	Rudolph Touniko.	Slav.	Miner.	24	S.	West Branch.	Cambria.	Body badly bruised by a fall of coal.
31	James Lowry.	Irish.	Miner.	58	S.	Lilly slope.	Cambria.	Rib broken; run over by a loaded car.
April 3	Robert Conner.	American.	Machine miner.	24	M.	Lancashire No. 7.	Cambria.	Leg broken by mining machine.
4	George Saffron.	Slav.	Laborer.	30	M.	Rolling Mill.	Cambria.	Fracture of leg; was struck by hauling rope.
11	Joseph Miller.	American.	Miner.	42	M.	Argyle.	Cambria.	Foot injured by fall of coal.
24	Wm. Williams.	American.	Switch boy.	16	S.	Rolling Mill.	Cambria.	Was slightly bruised about body by car.
28	Cecil Alpheart.	American.	Laborer.	17	S.	Eureka 36.	Somerset.	Slightly injured by being struck by a runaway car.
May 11	Mike Mantska.	Slav.	Miner.	25	M.	Somman No. 2.	Cambria.	Fracture of leg; was struck by a runaway car.
14	Shon Dorady.	Hungarian.	Miner.	30	M.	Somman shaft No. 2.	Cambria.	Slightly injured by fall of slate.
18	Herman Spangler.	American.	Driver.	20	M.	Mostellar.	Somerset.	Shoulder and rib broken; caught between car and rib.
June 5	Fredly Beransky.	Slav.	Miner.	39	S.	Conemaugh slope.	Cambria.	Leg broken; struck by a car.
8	Michael Cronaws.	American.	Miner.	44	M.	Gallitzin shaft.	Cambria.	Collar bone broken by fall of coal.
5	Mick Joubig.	Slav.	Miner.	25	S.	Delta.	Cambria.	Leg broken and bruised by being squeezed between cars.

July	13	Jacob Cliter, ..	American, ..	Miner,	35	M.	Conemaugh slope,	Cambria, ...	Back badly injured by a fall of slate.
Aug.	21	Patrick Long, ..	Irish,	Trapper,	15	S.	Webster No. 3,	Cambria, ...	Knee fractured and toes of both feet slightly injured by being struck by a car.
Sept.	9	Frank Rehenick, ..	Austrian, ..	Miner,	18	S.	Rolling Mill,	Cambria, ...	Leg slightly injured by a fall of rock.
	14	Mike Danks,	Slovak,	Loader,	20	S.	Eureka No. 30,	Somersct, ...	Leg badly injured by a piece of coal.
	15	Mike Nicholass, ..	Slav,	Machine helper, ..	25	S.	Columbia,	Cambria, ...	Leg badly injured by being caught in the chain of a mining machine.
Oct.	26	R. L. Heater,	American, ..	Driver,	23	S.	Nant Y Glo,	Cambria, ...	Leg broken; caught between the bumpers of cars.
	3	Wm. Shereck,	American, ..	Machine cutter, ..	23	S.	Gallitzin shaft,	Cambria, ...	Leg broken; was run over by a machine truck.
Dec.	23	Henry Key,	English,	Miner,	58	M.	Yellow Run shaft,	Cambria, ...	Leg broken; struck by a runaway car.
	25	Edward Singleton, ..	English,	Miner,	48	M.	Webster No. 8,	Cambria, ...	Breast bone broken by a fall of rock.
	30	Frank McClain,	American, ..	Compler,	27	M.	Webster No. 5,	Cambria, ...	Shoulder dislocated; was struck by a prop.
	3	Albert Werner,	American, ..	Miner,	43	M.	Webster No. 3,	Cambria, ...	Collar bone and leg broken by fall of coal.
	18	Rose Kempseeh,	Italian,	Miner,	24	S.	Eureka 34,	Somersct, ...	Leg broken below the knee by a fall of coal.
Dec.	20	Henry Brosko,	German,	Miner,	40	M.	Coaldale No. 9,	Cambria, ...	Cushped about breast by a fall of coal.
	22	Nickolas Sendweid, ..	Italian,	Miner,	35	M.	Sonman No. 2,	Cambria, ...	Rib broken by a fall of coal.



Seventh Bituminous District.

(ALLEGHENY AND WASHINGTON COUNTIES.)

Idlewood, Pa., February 13, 1901.

Hon. James W. Latta, Secretary of Internal Affairs, Harrisburg, Pa.:

Sir: I have the honor of herewith submitting for your consideration my sixteenth annual report as Inspector of Coal Mines for the Seventh Bituminous district for the year 1900.

There was an increase in the coal production of 444,419 tons over that for 1899. The number of persons employed was 10,045, as against 8,390 for the previous year. Twenty-three persons lost their lives in and about the mines, a decrease of 5 from 1899. The number of persons injured was 72, which is an increase of 8.

Eleven new mines have been opened, five of which are now in course of construction; two of the old mines were abandoned, and ten others were idle throughout the year. Several of these will probably not be operated again in the near future and may be permanently abandoned and the coal mined at other openings.

The general condition of the mines relative to healthfulness and safety is in most cases satisfactory. Considerable improvements have been made, and others are progressing toward completion at a number of mines now owned and operated by the Pittsburg Coal Company. This company was organized, and purchased most of the mining properties in this district during the latter part of the year 1899; previous to that time the coal business had for several years been unremunerative and many of the individual operators thought they could economize by conducting their operations on make-shift principles, consequently when the new company took charge, improvements were urgently needed at many of the mines, and the task that confronted it was a formidable one, but I can truly say that the managers are steadily persevering along scientific lines, and are introducing improvements of a permanent character.

The report contains a description of a disastrous mine fire at Essen No. 3 mine; also a brief description of the condition of the several groups of mines, together with the usual statistical tables. All of which is respectfully submitted.

Yours truly,

JAMES BLICK,
Inspector.

Summary of Statistics.

Number of mines in the district,	80
Number in operation during 1900,	70
Number of tons of coal produced,	6,933,576
Number of tons shipped,	6,485,977
Number of tons used for steam at mines,	91,718
Number of tons sold to employes and local trade,....	355,881
Number of persons employed inside the mines,	8,947
Number of persons employed outside the mines, ...*.	1,098
Number of fatal accidents,	23
Number of tons of coal produced per each fatal accident,	301,460
Number of non-fatal accidents,	72
Number of tons of coal produced per each non-fatal accident,	96,300
Number of persons employed per each fatal accident,.	437
Number of persons employed per each non-fatal accident,	140
Number of wives made widows by accidents,	13
Number of children orphaned by accidents,	35
Number of kegs of powder used,	21,096
Number of pounds of dynamite used,	1,950
Number of cylindrical boilers in use,	51
Number of tubular boilers in use,	111
*Number of steam locomotives,	5
Number of electric locomotives,	26
Number of horses and mules in use,	744

*Only one steam locomotive in use inside the mines.

TABLE—Showing the Production of Coal, Number of Persons Employed by Each Company and Average Number of Tons Produced Per Employee, Number of Fatal Accidents and Tons of Coal Produced Per Life Lost, Number of Fatal and Non-Fatal Accidents and Number of Tons of Coal Produced Per Accident in the Seventh Bituminous District 1900.

Names of Operators.	Number of persons employed.	Number of tons of coal produced.	Number of fatal accidents.	Number of tons produced per life lost.	Number of fatal and non-fatal accidents.	Number of tons produced per accident.
Pittsburg Coal Co.,	7,809	5,609,062	22	254,957	89	63,023
Monongahela River C. C. & C. Co., ..	779	262,273			2	131,137
Mansfield Coal and Coke Co.,	373	393,366			12	196,683
P. S. M. Co.,	168	147,510				
McFetridge Brothers,	165	142,889	1	142,889	1	142,889
Brackenridge Coal Co.,	48	12,000				
Castle Shannon Railroad Co.,	131	110,158			1	110,158
Harrison Gas Coal Co.,	61	54,846				
Thomas Fox Estate,	19	11,009				
Witch Hazel Coal Co.,	75	7,375				
John Blyth,	12	1,764				
Mankedick Coal Co.,	81	52,344				
W. S. B. Hays,	12	13,000				
O. A. Deuttner,	19	6,800				
Freeport Coal Co.,	24	12,110				
Pittsburg and Buffalo Co.,	81	15,150				
Cook & Sons,	14					
Carnegie Coal Co.,	87	35,870				
Midland Coal Co.,	87	16,050				
Total and average,	10,045	6,933,576	23	301,460	93	72,985

Average production in tons per employe, 690.2.

The total production was made up as follows:

Shipped to market,	6,485,977
Used for steam and heat at mines,	91,718
Sold at mines for local use,	211,088
Used by P. S. M. Co. at their own works,	144,793
Total,	6,933,576

Classification of Accidents.	Fatal.	Non-fatal.	Total.
By falls of slate,	13	31	44
By falls of roof,	1	3	4
By falls of coal,	1	6	7
By mine cars,	3	21	24
By explosions of gas, .....	.....	4	4
By electric shock,	1	.....	1
By mining machines, .....	.....	1	1
Suffocation by smoke,	1	.....	1
By powder blasts,	1	1	2
By electric motor, .....	.....	1	1
Miscellaneous, inside, .....	.....	2	2
Miscellaneous, outside,	2	2	4
Total,	23	72	95

Nationalities of Persons Killed or Injured.	Fatal.	Non-fatal.	Total.
Americans,	4	20	24
English,	2	7	9
Scotch, —, .....	.....	2	2
Irish,	1	4	5
Germans,	1	7	8
Poles,	4	4	8
Slavs, .....	.....	3	3
Hungarians, .....	.....	3	3
Italians,	3	5	8
Austrians,	1	2	3
Russians,	2	3	5
Belgians,	2	4	6
French,	1	3	4
Lithuanians, .....	.....	2	2
Bohemians,	1	.....	1
Total,	23	72	95

Occupations of Persons Killed or Injured.	Fatal.	Non-fatal.	Total.
Miners,	16	49	65
Mule drivers,	2	15	17
Motor men,	1	1	2
Laborers,	2	3	5
Machine runners,	1	.....	1
Machine helpers,	1	2	3
Trlp runners, .....	.....	1	1
Door boys, .....	.....	1	1
Total,	23	72	95

Mine Fire at Essen No. 3 Mine.

On April 13th a disastrous fire occurred in the above mine, resulting in the loss of one life. Fortunately they had quit running coal at noon on this date and most of the men had left the mine before the fire broke out; otherwise the loss of life might have been far greater. On the other hand if the mine had been in full operation it is possible that the fire might have been discovered and extinguished before any evil effects could have resulted therefrom. The fire originated in the electric pump-house, located in a cut-through between the main intake and main return airways and about one mile distant from the main entrance; it was discovered by a driver and one of the road men at about 1.30 P. M. At that time it had not gained much headway, and the men approached to within a few feet of the pump house, but it appears they made no effort to extinguish the flames, which at that time had not extended outside of the cut-through where the pump was located; but they immediately went outside to inform the mine officials, and from the time the men left the location of the fire until the mine officials arrived at that point, considerable time had elapsed, and the flames, fed by a strong air-current (propelled by a fan producing at that time five inches of water gauge), had gained such headway that it was impossible to approach it. The fire and smoke quickly obstructed both passageways leading to the workings inside of the fire, rendering escape impossible. One man escaped through the smoke before the fire had extended far outside of the pump-house, and he stated that he saw no other person in that part of the mine, but it was reported that at least one miner was still missing, and it was known that his working place was inside of the location of the fire. I arrived at the mine about 8 P. M., and saw that all possible efforts were being made to rescue the imprisoned miner, but this was found to be impossible.

At about midnight a consultation was held, and all were perfectly agreed in the opinion that the workings beyond the fire were so heavily charged with coal smoke and noxious gases as to preclude the possibility of life existing therein, and to avoid further loss of life (there being great danger of a gas explosion), it was agreed that temporary bulkheads should be erected around the fire as quickly as possible.

After this was done, permanent masonry stoppings were erected, a drill hole put down from the surface and water passed down to flood the workings affected. It took several weeks to accomplish this on account of the difficulty experienced in procuring a sufficient supply of water, which had to be pumped a long distance through a pipe line. However the work was finally accomplished and the fire extinguished. On July 24th the water having been

drained from the mine, an opening was made through one of the bulkheads and an investigation made, when it was found that both the passageways were blockaded by roof falls, part of which had to be removed before the workings affected by the fire could be examined.

On August 1st we were enabled to pass over the roof falls to the place where the fire originated; beyond this point progress was very slow by reason of the workings being full of explosive gas.

On account of the airway being closed by falls of roof, much difficulty was experienced in conducting an air current forward to remove the gas. Early on the morning of August 2d the body of the miner who was imprisoned by the fire was found on the main entry beyond where the roof had fallen and about four hundred feet from his working place. The man was dressed and had his dinner bucket with him, which would lead to the belief that he had left his room and was on his way home before he became aware of the existence of the fire, or his departure from the room might have been hastened by seeing the coal smoke which being carried by the air current would quickly penetrate all of the workings in that section of the mine.

Upon making an investigation into the cause of this accident, I came to the conclusion that the fire was caused by the armature of the electric pump burning out and the intense heat generated by the electric force communicated the fire to the coal and woodwork in the pump house, parts of the metal connected with the pump were melted into a shapeless mass, which would indicate a more intense heat than that which was generated by the burning coal; this view of the case was strengthened by the fact that the iron frame-work of a mine car that was in the midst of the fire was not affected to any appreciable extent.

The lesson taught by this accident is that an electric machine should at all times be under the constant supervision of an attendant, when in operation in mines.

Description of Mines.

Mines on the Monongahela River, on the Wheeling Division of the B. & O. R. R., and on the Little Saw Mill Run R. R.

There are now only fourteen mines in this part of the district. The Bellwood mine having been worked out and abandoned, the Venture mine was not operated during the year. The general condition of the mines in this section of territory relative to healthfulness and safety is reasonably satisfactory, excepting Ormsby and Lick Run. At both of these mines more powerful ventilating machinery is re-

quired; there is a large air volume produced at each mine, but both mines generate explosive gas very freely, necessitating brisk sweeping air-currents. The management is considering plans and locations with a view to the introduction of new ventilating fans.

Mines Located on the Main Line of the Pan Handle Railroad.

There are twenty mines in this division of the district including a new shaft which is now being sunk near Bulger Station. Seven of these mines were not in operation during the year. The old Camp Hill Colliery which was abandoned about twelve years ago has been reopened and equipped with an electric mining and haulage plant, and about seventy persons are now employed inside. The ventilation is slack, and the first requirement is an equipment consisting of an improved ventilating plant to keep the workings in a safe, healthful condition, which the operator has promised to provide forthwith.

It may be said that all of the other mines in this territory are in reasonably fair condition, but in some cases improvements could be made in ventilation and other matters, that would be beneficial to operators and workmen.

Mines on the Chartiers Valley and Miller's Run Branches of the Pan Handle Railroad.

At the commencement of the year there were nineteen mines located in this section, three of which were not operated during the year. All the others have worked nearly full time during the summer months, excepting Laurel Hill No. 2, at which no coal has been mined for about two years; but work has been in progress for several months cleaning and repairing the roadways and working places preparatory to a resumption of operations. But, on account of many years of bad management (on the part of the former owners), the condition of the mine and its equipments are such as to preclude the possibility of coal shipments for several months to come. During the year four new mines were opened, and two are now being opened, making a total of twenty-five mines in this division of the district. Hazel and Midland which are two of the new collieries, are equipped with mining machinery; at the former the power is electricity, and compressed air is used at the Midland. Both mines are being developed in accordance with the latest improved methods, and will in the near future become large producers. Powerful ventilating fans of the Capel type will be provided at each mine. The ventilating fan at Manseld No. 2 mine has not sufficient capacity (at its present location) to properly ventilate the workings, but this difficulty will be overcome by providing a small Capel fan to ventilate No. 1 section of the workings, leaving the present fan to

ventilate the other part of the mine and as both fans will have separate intake and return airways; this arrangement will likely be effectual for some time to come.

At Summer Hill mine, a shaft has been sunk at the face of the workings. A sixteen-foot Capel fan is being erected on top of this shaft, which will also be used to ventilate Nixon and Leasdale mines. It is expected that this fan will be ready for operation by the latter end of March, after which I think there will be no cause for complaint relative to the ventilation at these mines. A fan has been provided at the Boon mine and a new furnace built at Allison and the condition of both mines is now satisfactory.

The condition of the other mines in this part of the district is fairly good, but not beyond improvement.

Mines Situated on the Moon Run and Montour Railroad West of the Allegheny River.

There are twelve mines in this division of the district. At Moon Run, arrangements are being made to erect a new fan to ventilate No. 1 section of the workings, the furnace not having sufficient capacity to produce the required air volume for the number of persons employed. At the present time one fan and three furnaces are in use to produce ventilation for the whole of the mine workings, which extend over a large area of territory consisting of several independent openings.

The ventilation at the Margerum and Partridge mines is not up to the requirements, but I have been notified by the General Superintendent that new ventilating appliances will be provided for them at once.

A new ventilating furnace has been erected at Freeport mine. They are now cleaning up and enlarging the main airway, and after this is done I expect to find the sanitary condition of the mine satisfactory. Faults and rock rolls are numerous, and the coal is low, making it very difficult to maintain airways of sufficient area.

A new fan has been provided at Natrona No. 2 and the workings are now well supplied with good sweeping air-currents.

There are eleven mines located on the P. C. & Y. R. R., two of which have been opened during the past year; all of these mines are in reasonably good condition excepting Harrison and O. I. C. At the former the ventilation is rather slack, but they are now cleaning and enlarging the main airways which will remedy the defect. At O. I. C. a more powerful ventilator is required, which the manager has promised to provide at once.

TABLE I.—Showing names of operators, railroads, etc., and location of collieries in the Seventh Bituminous District for the year 1900.

Names of Operators and Collieries.	County.	Name of General Superintendent.	P. O. Address.	Name of Superintendent.	P. O. Address.	Railroad to Mine.
Pittsburg Coal Co.						
Moon Run,	Allegheny	Geo. W. Schluederberg,	232 5th av., Pbg.,...	N. F. Sanford, ...	Moon Run,	P. & L. E.
First Pool No. 1,	Allegheny	Geo. W. Schluederberg,	232 5th av., Pbg.,...	Charlton Dixon, ...	Willock,	B. & O.
First Pool No. 2,	Allegheny	Geo. W. Schluederberg,	232 5th av., Pbg.,...	Charlton Dixon, ...	Willock,	B. & O.
Pan Handle,	Allegheny	Geo. W. Schluederberg,	232 5th av., Pbg.,...	Thomas Renshaw, ..	Borland,	V. C. & Y.
Essen No. 1 (Reading), ..	Allegheny	Geo. W. Schluederberg,	232 5th av., Pbg.,...	Thomas Renshaw, ..	Borland,	V. C. & Y.
La Superior,	Allegheny	Geo. W. Schluederberg,	232 5th av., Pbg.,...	Wm. Herberson, ...	Federal,	P. C. & Y.
O. I. C.	Allegheny	Geo. W. Schluederberg,	232 5th av., Pbg.,...	Wm. Herberson, ...	Federal,	P. C. & Y.
Essen No. 2,	Allegheny	Geo. W. Schluederberg,	232 5th av., Pbg.,...	Wm. Herberson, ...	Federal,	P. C. & Y.
National,	Allegheny	Geo. W. Schluederberg,	232 5th av., Pbg.,...	Wm. Herberson, ...	Federal,	P. C. & Y.
Oak Ridge,	Allegheny	Geo. W. Schluederberg,	232 5th av., Pbg.,...	James J. Boyle, ...	Walkers Mills, ...	P. C. C. & St. L.
Cherry,	Allegheny	Geo. W. Schluederberg,	232 5th av., Pbg.,...	James J. Boyle, ...	Walkers Mills, ...	P. C. C. & St. L.
Fort Pitt,	Allegheny	Geo. W. Schluederberg,	232 5th av., Pbg.,...	James J. Boyle, ...	Walkers Mills, ...	P. C. C. & St. L.
Yumbo,	Washington	Geo. W. Schluederberg,	232 5th av., Pbg.,...	James J. Boyle, ...	Walkers Mills, ...	P. C. C. & St. L.
Brier Hill,	Washington	Geo. W. Schluederberg,	232 5th av., Pbg.,...	Benj. Fereday, ...	McDonald, ...	P. C. C. & St. L.
Nickel,	Allegheny	Geo. W. Schluederberg,	232 5th av., Pbg.,...	Benj. Fereday, ...	McDonald, ...	P. C. C. & St. L.
Laurel Hill No. 1,	Allegheny	Geo. W. Schluederberg,	232 5th av., Pbg.,...	Benj. Fereday, ...	McDonald, ...	P. C. C. & St. L.
Laurel Hill No. 2,	Washington	Geo. W. Schluederberg,	232 5th av., Pbg.,...	Benj. Fereday, ...	McDonald, ...	P. C. C. & St. L.
Champion,	Allegheny	Geo. W. Schluederberg,	232 5th av., Pbg.,...	Benj. Fereday, ...	McDonald, ...	P. C. C. & St. L.
Hartley & Marshall (Enterprise), ..	Allegheny	Geo. W. Schluederberg,	232 5th av., Pbg.,...	Benj. Fereday, ...	McDonald, ...	P. C. C. & St. L.
Nixon,	Allegheny	Geo. W. Schluederberg,	232 5th av., Pbg.,...	F. M. Fritchman, ...	870 W. Carson st., Pittsburg,	W. E. R. & St. L.
Leasdale,	Allegheny	Geo. W. Schluederberg,	232 5th av., Pbg.,...	Wm. Linsley, ...	Woodville,	P. C. C. & St. L.
Summer Hill,	Allegheny	Geo. W. Schluederberg,	232 5th av., Pbg.,...	Wm. Linsley, ...	Woodville,	P. C. C. & St. L.
Bower Hill,	Allegheny	Geo. W. Schluederberg,	232 5th av., Pbg.,...	Wm. Linsley, ...	Woodville,	P. C. C. & St. L.
Bridgeville,	Allegheny	Geo. W. Schluederberg,	232 5th av., Pbg.,...	Wm. Linsley, ...	Woodville,	P. C. C. & St. L.
Slope (fastings slope), ..	Allegheny	Geo. W. Schluederberg,	232 5th av., Pbg.,...	Wm. Linsley, ...	Woodville,	P. C. C. & St. L.
Moran,	Allegheny	Geo. W. Schluederberg,	232 5th av., Pbg.,...	Charles Fereday, ...	Cecil,	P. C. C. & St. L.
Y. V. Hill No. 5,	Allegheny	Geo. W. Schluederberg,	232 5th av., Pbg.,...	Charles Fereday, ...	Cecil,	P. C. C. & St. L.
Credmore,	Washington	Geo. W. Schluederberg,	232 5th av., Pbg.,...	Charles Fereday, ...	Cecil,	P. C. C. & St. L.
Blagway,	Washington	Geo. W. Schluederberg,	232 5th av., Pbg.,...	Charles Fereday, ...	Cecil,	P. C. C. & St. L.
Boon,	Washington	Geo. W. Schluederberg,	232 5th av., Pbg.,...	W. A. Lockart, ...	Cannonsburg, ...	P. C. C. & St. L.
Allison,	Washington	Geo. W. Schluederberg,	232 5th av., Pbg.,...	W. A. Lockart, ...	Cannonsburg, ...	P. C. C. & St. L.
Enterprise (Enterprise No. 2), ..	Washington	Geo. W. Schluederberg,	232 5th av., Pbg.,...	W. A. Lockart, ...	Cannonsburg, ...	P. C. C. & St. L.
Fair Haven (Ormsby),	Allegheny	Geo. W. Schluederberg,	232 5th av., Pbg.,...	Peter J. Kealing, ...	South Side, Pbg., ...	P. C. C. & St. L.

TABLE I—Continued.

Names of Operators and Collieries.	County.	Name of General Superintendent.	P. O. Address.	Name of Superintendent.	P. O. Address.	Railroad to Mine.
Pittsburg Coal Co.—Con.						
Glenshaw (Pine Creek),*	Allegheny.	Geo. W. Schluederberg.	222 5th av., Pbg.	W. B. McCoy.	Finleyville.	P. & W.
Lick Run.	Allegheny.	Geo. W. Schluederberg.	222 5th av., Pbg.	J. F. Crouch.	Imperial.	R. & O.
Dickson.	Allegheny.	Geo. W. Schluederberg.	222 5th av., Pbg.	J. E. Crouch.	Imperial.	M. T. R. R.
Margenau.	Allegheny.	Geo. W. Schluederberg.	222 5th av., Pbg.	J. E. Crouch.	Imperial.	M. T. R. R.
Partridge.	Allegheny.	Geo. W. Schluederberg.	222 5th av., Pbg.	J. E. Crouch.	Imperial.	M. T. R. R.
Monongahela R. C. & C. Co.	Allegheny.	O. A. Blackburn.	Pittsburg.	Wm. Fellabom.	Hope Church.	River.
Hess Street Run Nos. 2 & 3.	Allegheny.	O. A. Blackburn.	Pittsburg.	John Kopp.	Redman Mills.	River.
Walton.	Allegheny.	O. A. Blackburn.	Pittsburg.	E. M. Thomas.	Redman Mills.	River.
Becks Run.	Allegheny.	O. A. Blackburn.	Pittsburg.	E. M. Thomas.	Redman Mills.	River.
Mansfield Coal and Coke Co.	Allegheny.	O. A. Blackburn.	Pittsburg.	E. M. Thomas.	Redman Mills.	River.
Mansfield No. 2.	Allegheny.	O. A. Blackburn.	Pittsburg.	E. M. Thomas.	Redman Mills.	River.
P. S. M. Co.	Allegheny.	O. A. Blackburn.	Pittsburg.	E. M. Thomas.	Redman Mills.	River.
Natrona Nos. 1 and 2.	Allegheny.	R. Heerlein.	Natrona.	R. Heerlein.	Natrona.	P. C., C. & St. L.
McFetridge Brothers.	Allegheny.	G. H. McFetridge.	Hite.	G. H. McFetridge.	Hite.	P. R. R.
Hite.	Allegheny.	G. H. McFetridge.	Hite.	G. H. McFetridge.	Hite.	P. R. R.
West Tarentum.	Allegheny.	G. H. McFetridge.	Hite.	G. H. McFetridge.	Hite.	P. R. R.
Brackenridge Coal Co.	Allegheny.	G. H. McFetridge.	Hite.	G. H. McFetridge.	Hite.	P. R. R.
Brackenridge.	Allegheny.	G. H. McFetridge.	Hite.	G. H. McFetridge.	Hite.	P. R. R.
Castle Shannon R. R. Co.	Allegheny.	E. J. Reamer.	Carson st., Pbg.	N. S. Hicks.	Leechburg.	P. R. R.
Castle Shannon.	Allegheny.	E. J. Reamer.	Carson st., Pbg.	N. S. Hicks.	Leechburg.	P. R. R.
Harrison Gas Coal Co.	Allegheny.	E. J. Reamer.	Carson st., Pbg.	N. S. Hicks.	Leechburg.	P. R. R.
Streets Run.	Allegheny.	E. J. Reamer.	Carson st., Pbg.	N. S. Hicks.	Leechburg.	P. R. R.
Thomas Fox Estate.	Allegheny.	James T. Fox.	Wabash av., Pbg.	Wm. Nancarrow.	Hope Church.	P. & C. S.
Fox.	Allegheny.	James T. Fox.	Wabash av., Pbg.	Wm. Nancarrow.	Hope Church.	P. R. R.
Witch Hazel Coal Co.	Allegheny.	John Blyth.	Pittsburg.	David Jacob.	Beadling.	P. C. & Y.
Witch Hazel.	Allegheny.	John Blyth.	Pittsburg.	David Jacob.	Beadling.	P. C. & Y.
John Blyth.	Allegheny.	John Blyth.	Pittsburg.	David Jacob.	Beadling.	P. C. & Y.
Blyth.	Allegheny.	John Blyth.	Pittsburg.	David Jacob.	Beadling.	P. C. & Y.
Mankedick Coal Co.	Allegheny.	John Blyth.	Pittsburg.	David Jacob.	Beadling.	P. C. & Y.
Pine Ridge.	Allegheny.	John Blyth.	Pittsburg.	David Jacob.	Beadling.	P. C. & Y.
				John Mullooly.	Noblestown.	P. C., C. & St. L.

W. S. B. Hays. Cathoon,	Allegheny, .....	.....	.....	L. O. Hays,	Homestead,	P. R. R.
O. A. Buettner. Hickman (Buettner),*	Allegheny, .....	.....	.....	Wm. Neilson,	Federal,	P., C. & Y.
Freeport Coal Co. Freeport,	Allegheny, .....	.....	.....	N. S. Hicks,	Leechburg,	P. R. R.
Pittsburg and Buffalo Co. Hazel,	Washington,	D. G. Jones,	Canonsburg,	Chas. Dewaet,	Canonsburg,	P., C., C. & St. L.
Cook & Sons. Atch Hill,	Washington, .....	.....	.....	R. M. Cook,	Meadow Lands,	P., C., C. & St. L.
Carnegie Coal Co. Carnegie,	Allegheny,	R. P. Burgan,	Carnegie,	R. P. Burgan,	Carnegie,	P., C., C. & St. L.
Midland Coal Co. Midland,	Washington, .....	.....	.....	J. M. McCrickart,	Houstonville,	P., C., C. & St. L.

*Names by which these mines were formerly known.

TABLE II—Gives the total number of tons of coal mined in each colliery, number of days worked, number of employees, number of persons killed and injured, number of kegs of powder, etc., used in the Seventh Bituminous District for the year ending Dec. 31, 1900.

Names of Operators and Collieries.	County.	Shipments of coal in tons by rail or otherwise.	Number of tons used for steam and heat at colliery.	Sold to local trade and used by employees—tons.	Total production of coal in tons.	Number days worked.	Number persons employed.	Number fatal accidents.	Number non-fatal accidents.	Number kegs powder used.	Number pounds of dynamite used.	Number horses and mules.
Pittsburg Coal Co.												
Moon Run,	Allegheny	394,961	5,508	1,383	401,852	287,12	484	2	3	1,400	200	95
First Pool No. 1,	Allegheny	510,629	6,377	1,090	518,096	267,12	245	3	2	1,450	150	28
First Pool No. 2, *	Allegheny	.....	.....	.....	.....	252,50	315	.....	.....	100	100	23
Pan Handle,	Allegheny	138,562	3,778	75	142,415	235,75	190	.....	.....	700	100	14
Essen No. 1,	Allegheny	194,113	1,390	250	195,753	242	247	1	5	650	25	13
Harrison,	Allegheny	167,223	2,981	584	170,788	215,75	178	.....	.....	650	50	7
Lake Superior,	Allegheny	112,396	1,682	210	114,288	203	152	.....	.....	.....	.....	8
O. I. C.,	Allegheny	51,030	309	51	51,390	167	84	.....	.....	.....	.....	7
Essen No. 2,	Allegheny	129,416	941	33	130,390	192,50	204	.....	.....	.....	500	10
Essen No. 3,	Allegheny	32,080	270	2	32,352	48,62	179	1	1	.....	.....	8
Federal No. 2,	Allegheny	84,852	1,355	67	86,374	186,62	120	.....	.....	.....	.....	8
National,	Allegheny	63,595	368	.....	69,474	297,25	67	.....	.....	.....	.....	7
Oak Ridge,	Allegheny	68,595	1,373	.....	91,434	227,10	85	.....	.....	.....	.....	7
Cherry,	Allegheny	90,914	549	31	91,434	227,10	87	.....	.....	.....	.....	7
Boyd,	Allegheny	68,092	295	270	68,686	221,12	77	.....	.....	.....	.....	11
Fort Pitt,	Allegheny	69,581	838	1	70,420	151,12	113	.....	.....	.....	.....	8
Jumbo,	Washington	213,948	6,771	619	221,338	261	363	.....	.....	2,088	.....	27
Erler Hill,	Washington	167,794	1,641	589	170,024	254	251	.....	.....	1,778	.....	16
Nickel Plate,	Allegheny	125,064	2,600	521	128,185	259	180	.....	.....	1,550	.....	17
Laurel Hill No. 1,	Allegheny	186,877	3,878	461	190,716	222	363	.....	.....	1,332	100	33
Laurel Hill No. 2,	Washington	.....	.....	.....	.....	.....	24	.....	.....	.....	.....	1
Champion,	Allegheny	180,761	2,626	1,163	184,560	243	285	.....	.....	1,458	.....	19
Marble & Marshall,	Allegheny	124,744	1,567	181	126,502	199	243	.....	.....	1,400	200	14
Leasdale,	Allegheny	193,604	1,677	260	195,541	240,62	182	.....	.....	1,400	.....	15
Summer Hill,	Allegheny	182,222	378	164	182,861	223,50	95	.....	.....	2,900	.....	7
Bower Hill,	Allegheny	63,950	1,030	90	64,145	238,25	170	.....	.....	2,300	.....	14
Bridgeville,	Allegheny	153,238	2,597	508	156,643	197,12	166	.....	.....	2,300	.....	8
Slope,	Allegheny	29,761	807	3	30,571	208,50	40	.....	.....	400	.....	14

Morgan,	115,790	2,032	560	118,382	215,12	144	2	3	540	8
Utcan,	208,718	3,907	407	213,032	199,50	221	2	2	1,000	14
Lead Hill No. 6,	128,283	2,134	464	130,861	196,87	204	.....	.....	.....	21
Cadmore,	154,743	4,116	748	160,406	204,75	283	.....	3	690	17
Ridgeway,	142,821	3,816	1,141	147,778	235,50	218	1	4	150	16
Boon,	103,533	695	2,272	104,500	206,37	152	.....	.....	6	12
Alton,	124,799	73	220	125,102	197,62	152	4	.....	10	15
Enterprise,	Washington,	252	154	47,881	156,75	88	1	1	3	5
Fair Haven,	Washington,	2,859	316	137,717	257	176	1	.....	.....	13
Glenash,	47,475	451	306	58,891	238,75	195	.....	.....	463	11
Lick Run,	58,134	1,481	409	75,071	209,62	153	.....	.....	50	10
Dickson,	170,368	1,094	673	173,253	243,26	226	.....	1	.....	10
Marquette,	170,368	2,183	912	173,253	243,26	226	.....	.....	.....	18
Partridge,	167,189	895	318	168,406	240,75	239	1	.....	.....	26
Total,	5,513,365	80,389	15,408	5,669,062	204	7,809	22	67	17,708	575
Monongahela R. C. C. & C. Co.	33,690	180	90	33,960	60,50	271	.....	1	.....	18
Hiays Street Run Nos. 2 & 3,	167,735	979	669	169,231	261,50	258	.....	.....	.....	22
Walton,	57,848	515	669	59,022	117	250	.....	1	.....	16
Becks Run, .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	16
Total,	259,273	1,674	1,326	262,273	121	779	.....	2	.....	56
McFetridge Brothers.	124,234	2,229	3,304	129,767	295,50	146	1	.....	1,259	16
Hite, .....	.....	.....	13,122	13,122	311	19	.....	.....	194	2
West Tarentum, .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Total,	124,234	2,229	16,426	142,889	303	165	1	.....	1,413	18

NOTE.—Production of companies operating single collieries will be found in the Recapitulation.

*Production, etc., included in No. 1 mine.

Recapitulation.

Pittsburg Coal Company,	5,513,265	80,389	15,408	5,669,062	204	7,809	22	67	17,708	575
Monongahela R. C. C. & C. Co.,	359,273	1,674	1,326	362,273	121	279	.....	2	.....	56
Mansfield Coal and Coke Co.,	389,838	2,300	1,228	393,866	280	373	.....	.....	300	28
P. S. M. Co.,† .....	.....	2,229	16,426	147,510	310	168	.....	1	1,052	20
McFetridge Brothers,	124,234	2,229	3,304	142,839	303	168	.....	.....	1,700	18
Brackenridge Coal Co., .....	.....	.....	.....	42,000	310	48	.....	.....	.....	4
Pbg. & Castle Shannon R. Co., .....	.....	.....	.....	110,158	308	131	.....	1	.....	14
Harrison Gas Coal Co.,	53,533	1,064	189	54,846	269	61	.....	.....	.....	3
Thomas Fox Estate, .....	.....	.....	10,809	11,009	161	19	.....	.....	.....	2
Witch Hazel Coal Co.,	6,886	69	7,375	78	75	76	.....	.....	.....	3
John Blyth,	1,614	150	.....	1,764	89	12	.....	.....	.....	1
Manfredok Coal Co.,	52,344	.....	.....	52,344	282	51	.....	.....	.....	6
W. S. B. Hays, .....	.....	.....	13,000	13,000	.....	19	.....	.....	.....	2
O. A. Hughes,	6,650	150	.....	6,800	313	19	.....	.....	.....	2
Freeport Coal Co.,	12,010	100	.....	12,110	301	24	.....	.....	.....	2

Recapitulation—Continued.

Names of Operators and Collieries.	County.	Shipments of coal in tons by rail or otherwise.	Number of tons used for steam and heat at colliery.	Sold to local trade and used by employes—tons.	Total production of coal in tons.	Number days worked.	Number persons employed.	Number fatal accidents.	Number non-fatal accidents.	Number kegs powder used.	Number pounds of dynamite used.	Number horses and mules.
Pittsburg and Buffalo Co.,	Washington,	15,000	75	75	15,150	50	81	.....	.....	.....	.....	2
Cook & Sons,	Washington,	35,270	450	150	35,870	122	14	.....	.....	25	390	4
Carnegie Coal Co.,	Allegheny,	16,000	50	50	16,050	80	87	.....	.....	.....	.....	2
Midland Coal Co.,	Washington, .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	4
Total, .....	.....	6,485,977	91,718	211,688	6,893,376	212	10,945	23	72	21,096	1,950	744

†144,783 tons were used by P. S. M. Co. in their works located at mines.

TABLE NO. II. —Continued.

Names of Operators and Collieries.	County.	Number of Boilers.			Locomotives.			Total horse power.	Number steam engines of all classes.			Total horse power.	Number pumps delivering water to surface.	Capacity in gallons per minute.	Quantity delivered to surface per minute—gallons.	Number electric dynamos.	Number air compressors.
		Cylindrical.	Tubular.	Horse power.	Steam.	Air.	Electric.		Horse power.	Horse power.	Horse power.						
Pittsburg Coal Company,	Alle'y & Wash.	38	1,728	96	10,475	11,903	2	2	22	105	9,409	57	8,011	5,915	26	21	
Monongahela R. C. & C. Co.,	Allegheny.	6	245	1	60	305	1	1	1	1	300	1	400	100	1	1	
Mansfield Coal and Coke Co.,	Allegheny.	1	425	3	425	425	1	1	3	3	305	2	350	80	2	2	
M. F. M. Co.,	Allegheny.	2	120	1	100	220	1	1	3	3	215	2	250	250	1	1	
McClellan Brothers,	Allegheny.	2	90	2	50	140	1	1	1	1	115	2	250	250	1	1	
McClellan Coal Co.,	Allegheny.	2	90	2	50	140	1	1	1	1	115	2	250	250	1	1	
Phig. & Castle Coal Co.,	Allegheny.	1	50	1	60	60	1	1	1	1	50	1	90	90	1	1	
Harrison Gas Coal Co.,	Allegheny.	1	50	1	60	60	1	1	1	1	50	1	90	90	1	1	
Thomas Fox Estate,	Allegheny.	1	50	1	60	60	1	1	1	1	50	1	90	90	1	1	
Witch Hazel Coal Co.,	Allegheny.	2	400	2	250	550	2	2	3	3	100	1	10	10	1	1	
John Blyth,	Allegheny.	2	400	2	250	550	2	2	3	3	100	1	10	10	1	1	
Allegheny Coal Co.,	Allegheny.	2	400	2	250	550	2	2	3	3	100	1	10	10	1	1	
Mankedick Coal Co.,	Allegheny.	2	400	2	250	550	2	2	3	3	100	1	10	10	1	1	
W. S. B. Hays,	Allegheny.	2	400	2	250	550	2	2	3	3	100	1	10	10	1	1	
O. A. Buettner,	Allegheny.	2	400	2	250	550	2	2	3	3	100	1	10	10	1	1	
Freeport Coal Co.,	Allegheny.	2	400	2	250	550	2	2	3	3	100	1	10	10	1	1	
Pittsburg and Buffalo Co.,	Washington,	2	400	2	250	550	2	2	3	3	100	1	10	10	1	1	
Cook & Sons,	Allegheny.	2	400	2	250	550	2	2	3	3	100	1	10	10	1	1	
Carnegie Coal Co.,	Allegheny.	2	400	2	250	550	2	2	3	3	100	1	10	10	1	1	
Midland Coal Co.,	Washington,	2	400	2	250	550	2	2	3	3	100	1	10	10	1	1	
Washington,	Washington,	2	400	2	250	550	2	2	3	3	100	1	10	10	1	1	
Total,		51	2,633	111	11,870	14,502	5	5	26	128	11,709	70	9,741	6,600	31	24	

Bower Hill,	1	1	95	.....	9	1	6	112	1	2	2	1	1	7	14	126
Allegheny,	1	1	125	.....	34	1	6	145	1	3	3	.....	.....	2	16	164
Allegheny,	1	.....	25	.....	3	4	4	33	1	3	.....	.....	.....	1	7	40
Slope,	1	.....	92	.....	8	4	23	129	.....	3	.....	.....	.....	1	15	144
Morgan,	1	1	173	.....	9	2	13	200	.....	3	.....	.....	.....	1	21	221
Vulcan,	1	2	150	.....	10	4	15	182	.....	3	.....	.....	.....	1	11	204
Laurel Hill No. 5,	1	2	200	.....	13	4	15	235	.....	3	.....	.....	.....	1	38	253
Creedmore,	1	2	137	.....	20	3	36	139	.....	3	.....	.....	.....	1	10	178
Washington,	1	1	125	.....	9	2	2	149	.....	3	.....	.....	.....	1	19	155
Boon,	1	1	170	.....	9	.....	.....	140	.....	3	.....	.....	.....	1	6	155
Allegheny,	1	1	107	.....	12	.....	.....	186	.....	1	.....	.....	.....	1	8	188
Antwerp,	1	1	75	.....	12	1	14	144	.....	1	.....	.....	.....	2	17	32
Allegheny,	1	1	118	.....	2	.....	.....	85	.....	2	.....	.....	.....	6	10	95
Glenshaw,	1	1	182	.....	17	4	5	209	.....	3	.....	.....	.....	1	9	163
Lick Run,	1	.....	112	.....	9	1	6	129	.....	3	.....	.....	.....	2	16	225
Dickson,	1	.....	133	.....	19	3	5	221	.....	3	.....	.....	.....	3	12	141
Margaron,	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	3	6	239
Partridge,	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	3	12	141
Total,	43	58	5,704	83	466	86	506	6,946	15	133	149	7	64	413	863	7,809
Monongahela R. C. C. & C. Co.,	2	.....	220	1	15	5	3	846	.....	3	1	.....	.....	2	19	271
Hays Street Run Nos. 2 and 3,	1	2	203	1	17	1	5	520	.....	1	.....	.....	.....	2	25	528
Walton,	1	1	200	8	12	1	.....	223	1	2	3	.....	.....	2	18	288
Becks Run,	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	2	19	286
Total and average,	4	3	623	10	44	7	8	699	2	8	8	.....	.....	6	56	779
Mansfield Coal and Coke Co.,	1	4	285	.....	15	2	31	338	.....	12	3	.....	.....	4	16	373
Mansfield No. 2,	2	.....	111	.....	14	3	11	141	.....	3	7	.....	.....	.....	17	168
Natrona Nos. 1 and 2,	1	1	112	.....	8	3	7	132	1	2	3	.....	.....	2	6	146
McFetridge Brothers,	1	.....	16	.....	1	.....	.....	18	1	.....	.....	.....	.....	.....	1	19
Hite,	2	1	128	.....	9	3	7	150	2	2	3	.....	.....	2	6	165
West Tarentum,	1	.....	42	.....	3	.....	.....	46	.....	.....	.....	.....	.....	.....	2	48
Total and average,	1	.....	110	3	6	.....	.....	120	.....	4	.....	.....	.....	7	11	131
Brackenridge Coal Co.,	1	.....	48	.....	3	1	2	55	.....	1	1	.....	.....	1	3	61
Brackenridge,	1	.....	15	.....	1	.....	.....	17	.....	.....	.....	.....	.....	.....	2	19
Castle Shannon R. R. Co.,	1	.....	54	1	4	.....	.....	66	1	1	2	.....	.....	1	3	75
Harrison Gas Coal Co.,	1	1	1	1	4	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Streets Run,	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Thomas Fox Estate,	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Fox,	1	1	1	1	4	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Witch Hazel Coal Co.,	1	1	1	1	4	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Witch Hazel,	1	1	1	1	4	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

TABLE III—Continued.

Names of Operators and Collieries.	County.	Occupations of Persons Employed Inside.							Occupations of Persons Employed Outside.							Grand total, inside and outside.
		Inside foreman or mine boss.	Fire bosses.	Miners.	Miners' laborers.	Drivers and runners.	Door boys and helpers.	All other employes.	Total inside.	Outside foreman.	Blacksmiths and carpenters.	Engineers and firemen.	State pickers.	Superintendents, book-keepers and clerks.	All other employes.		Total outside.
John Blyth.	Allegheny,	1	5	1	1	1	1	8	.....	1	1	.....	.....	2	4	12
Blyth,	Allegheny,	1	70	1	5	.....	.....	77	.....	.....	.....	.....	2	2	4	81
Mankedick Coal Co. Pine Ridge,	Allegheny, .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
W. S. B. Hays. Calhoon,	Allegheny, .....	.....	8	.....	1	.....	.....	9	.....	.....	.....	.....	1	2	3	12
O. A. Buettner. Hickman,	Allegheny,	1	16	.....	1	.....	.....	18	.....	.....	.....	.....	1	.....	1	19
Freeport Coal Co. Freeport,	Allegheny,	1	20	.....	1	.....	.....	22	.....	.....	.....	.....	1	1	2	24
Pittsburg and Buffalo Co. Hazel,	Washington,	1	40	7	2	.....	24	75	1	1	1	.....	2	.....	6	81
Cook & Sons. Rich Hill,	Washington,	1	.....	10	.....	.....	.....	11	.....	1	.....	.....	2	.....	3	14
Carnegie Coal Co. Carnegie,	Allegheny,	1	55	2	4	2	4	68	.....	6	2	.....	3	8	19	87
Midland Coal Co. Midland,	Washington,	1	73	.....	2	1	4	81	.....	1	1	.....	1	3	6	87
Total, .....	.....	63	7,407	118	582	105	602	8,947	22	174	180	8	91	623	1,068	10,045

Recapitulation.

Names of Operators and Collieries.	County.	Occupations of Persons Employed Inside.							Occupations of Persons Employed Outside.							Grand total, inside and outside.	
		Inside foreman or mine boss.	Fire bosses.	Miners.	Miners' laborers.	Drivers and runners.	Door boys and helpers.	All other employes.	Total inside.	Outside foreman.	Blacksmiths and carpenters.	Partneres and firemen.	State pickers.	Superintendents, book-keepers and clerks.	All other employes.		Total outside.
Pittsburg Coal Co.,	Allegheny & Wash.,	43	55	5,704	83	466	86	506	6,486	15	133	139	7	64	485	862	7,809
Monongahela R. C. & C. Co.,	Allegheny	1	3	923	10	44	7	8	689	2	8	8	.....	6	56	80	779
Mansfield Coal and Coke Co.,	Allegheny	1	4	133	15	15	2	31	338	2	12	3	.....	4	16	35	373
P. S. M. Co.,	Allegheny	2	1	128	.....	14	3	11	141	.....	3	7	.....	.....	17	27	168
McFetridge Brothers,	Allegheny	2	1	42	.....	3	3	1	150	.....	2	3	.....	.....	6	15	165
Brackenridge Coal Co.,	Allegheny	1	.....	.....	.....	.....	.....	.....	46	.....	.....	.....	.....	.....	2	48	.....
Castle Shannon Railroad Co.,	Allegheny	1	.....	.....	.....	.....	.....	.....	120	.....	.....	.....	.....	.....	.....	.....	.....
Harrison Gas Coal Co.,	Allegheny	1	.....	.....	.....	.....	.....	.....	17	.....	.....	.....	.....	.....	.....	.....	.....
Thomas Fox Estate,	Allegheny	1	.....	.....	.....	.....	.....	.....	17	.....	.....	.....	.....	.....	.....	.....	.....
Witch Hazel Coal Co.,	Allegheny	1	1	54	1	4	.....	5	66	1	1	.....	.....	.....	.....	.....	.....
Loch Drych,	Allegheny	1	.....	.....	.....	.....	.....	.....	8	.....	.....	.....	.....	.....	.....	.....	.....
Wankel Coal Co.,	Allegheny	1	.....	.....	.....	.....	.....	.....	17	.....	.....	.....	.....	.....	.....	.....	.....
W. S. B. Haas,	Allegheny	1	.....	.....	.....	.....	.....	.....	8	.....	.....	.....	.....	.....	.....	.....	.....
O. A. Buetner,	Allegheny	.....	.....	.....	.....	.....	.....	.....	77	.....	.....	.....	.....	.....	.....	.....	.....
Freeport Coal Co.,	Allegheny	1	.....	.....	.....	.....	.....	.....	9	.....	.....	.....	.....	.....	.....	.....	.....
Allegheny	Allegheny	1	.....	.....	.....	.....	.....	.....	18	.....	.....	.....	.....	.....	.....	.....	.....
Pittsburg and Buffalo Co.,	Allegheny	1	.....	.....	.....	.....	.....	.....	22	.....	.....	.....	.....	.....	.....	.....	.....
Washington	Washington	1	1	40	7	2	.....	24	75	1	.....	.....	.....	.....	.....	.....	.....
Cook & Sons,	Washington	1	.....	.....	.....	.....	.....	.....	11	.....	.....	.....	.....	.....	.....	.....	.....
Carnegie Coal Co.,	Allegheny	1	.....	.....	.....	.....	.....	.....	68	.....	.....	.....	.....	.....	.....	.....	.....
Midland Coal Co.,	Washington,	1	.....	.....	.....	.....	.....	.....	81	.....	.....	.....	.....	.....	.....	.....	.....
Grand total,	.....	65	68	7,407	118	582	105	602	8,947	22	174	180	8	91	623	1,098	10,045

TABLE IV—List of fatal accidents that occurred in and about the mines of the Seventh Bituminous District for the year ending December 31, 1900.

Date of accident.	Name of Person.	Nationality by Birth.	Occupation.	Age.	Married or single.	Number of widows.	Number of orphans.	Name of Colliery.	County.	Nature and Cause of Accident in Brief.
Feb. 15	Jos. Boudora,	Russian,	Miner,	34	M.	1	5	First Pool No. 1, ..	Allegheny,	Killed by fall of slate in his room; the slate was encroached by a free natural slip and he failed to set props under it.
16	Alberto Albertine,	Italian, ...	Miner,	47	M.	1	5	First Pool No. 1, ..	Allegheny,	Killed by fall of slate; he was striking the back props in pillar workings and failed to set sufficient posts to secure a safe way of retreat.
27	George Kargle,	Austrian, ...	Miner,	45	M.	1	6	National,	Allegheny,	Killed by fall of slate in his room; he failed to set props to protect himself; he was warned of the danger by the fire boss and was told to set props for safety.
March 14	Frank Gill,	French, ...	Miner,	61	M.	...	...	Moon Run,	Allegheny,	Fatally injured by fall of coal and slate; he was undermining coal in a crop room where the coal was soft and neglected to set sprags under it.
17	W. H. Abbott,	American, ..	Motorman, ...	27	M.	1	1	Ormsby,	Allegheny,	Killed on a trip of full cars; he fell from the electric locomotive and part of the trip passed over his body, causing instant death.
April 6	George Stauffer,	American, ...	Miner boy, ...	15	S.	...	...	Hite,	Allegheny,	Fatally burned by powder; he was pouring powder from one vessel into a canister, having his open lamp on his cap, which fell and ignited the powder.
13	Wencel Sternott,	Bohemian, ...	Miner,	45	W.	...	3	Essen No. 3,	Allegheny,	Killed by being suffocated by smoke from a mine fire.
May 2	Jacob Gerstner,	German,	Miner,	61	M.	1	...	Allison,	Washington, ...	Killed by fall of slate; he was standing on a room parting for the trip of cars to pass, when the slate fell upon him, causing instant death.

TABLE IV—Continued.

Date of accident.	Name of Person.	Nationality by Birth.	Occupation.	Age.	Married or single.	Number of widows.	Number of orphans.	Name of Colliery.	County.	Nature and Cause of Accident in Brief.
May	17 Victor Sterkman,	Belgian,	Miner,	52	S.	.....	.....	Ridgeway,	Washington, ...	Killed by fall of slate in his room. In this case the slate broke away from a free slip which could not be seen until after the slate fell.
Sept.	22 Wm. Peach,	American, ..	Miner,	36	S.	.....	.....	Vulcan,	Allegheny,	Killed by fall of slate and roof; he was riding on a pillar when a large mass of slate and roof fell upon him without warning.
	23 Victor Vircumins,	Belgian,	Miner boy, ...	18	S.	.....	.....	Laurel Hill No. 1,	Allegheny,	Killed by fall of slate in a room; the father of the boy was to blame for permitting his son to work under loose slate, which should have been taken down.
Aug.	3 John Fytrik,	Pole,	Miner,	36	M.	1	3	Partridge,	Allegheny,	Killed by fall of slate in his room; he failed to set props to protect himself.
Sept.	1 John Timlin,	American, ..	Driver,	24	M.	1	1	Laurel Hill No. 1,	Allegheny,	Killed by being caught between empty car and side of entry; the car struck the back of his head.
	15 John Nelson,	English,	Driver,	38	M.	1	5	Cherry,	Allegheny,	Killed by the top of a car; he was riding on front end of his trip and fell off the car, which passed over his body, causing instant death.
	25 Peter J. Smith,	English,	Miner,	55	S.	.....	.....	Moon Run,	Allegheny,	Killed by a fall of roof; he went back from where the props had been withdrawn on the previous day and the roof fell upon him; careless on his own part.
Oct.	8 Joseph McCatch,	Pole,	Machine help- et.	33	S.	.....	.....	Leasdale,	Allegheny,	Killed by electric shock; the mining machine became charged and the current was transmitted to the victim through his shovel touching the machine.

12	F. J. O'Rourke,	Irish,	Laborer,	38	M. 1 ...	Vulcan,	Allegheny,	Killed by being crushed between railroad car and pillar supporting the tibble outside of the mine, while moving the car forward to the screen.
19	John Kargnel,	Italian,	Miner,	30	M. 1 2	Essen No. 1,	Allegheny,	Killed by fall of slate; he went back to the face of room after firing a blast and did not inspect the slate.
27	Louis Rovesta,	Italian,	Machine runner,	37	S.	Bridgeville,	Allegheny,	Killed by fall of slate in his room; he neglected to examine the slate, which was loosened by the jar of the mining machine.
27	Mike Kellyvitch,	Pole,	Miner,	35	M. 1 2	Laurel Hill No. 1,	Allegheny,	Killed instantly by fall of slate in his room; he failed to set props to protect himself.
Nov. 5	Chas. Stablnt,	Croat,	Miner,	36	S.	First Pool No. 1, ..	Allegheny,	Killed by fall of slate in his room; he was setting a prop under the loose slate when it fell upon him.
Dec. 10	Paul Galetskle,	Pole,	Miner,	30	M. 1 2	Nixon,	Allegheny,	Fatally injured by fall of slate; died within 24 hours; he and another of them worked together; neither of them were competent to protect themselves.
28	George Soyock,	Hungarian, ..	Laborer,	50	M. 1	Laurel Hill No. 2, ..	Washington, ...	Killed at the tibble outside; he was helping to move a railroad car under the tibble and his head was crushed between the car and trestle support.

TABLE V—List of non-fatal accidents that occurred in and about the mines of the Seventh Bituminous District for the year ending December 31, 1900.

Date of accident.	Name of Person.	Nationality by Birth.	Occupation.	Age.	Married or single.	Name of Colliery.	County.	Nature and Cause of Accident in Brief.
Jan. 9	Wm. Halliwell,	American, ..	Pumper,	16	....	Essen No. 2,	Allegheny,	Leg broken by cars; he attempted to get in car while it was in motion.
11	Stephen Hedges,	Hungarian, ..	Miner,	28	M.	Ridgeway,	Washington, ...	{ Rib broken by } These men were taking
11	L. Horkai,	Hungarian, ..	Miner,	35	S.	Ridgeway,	Washington, ...	{ fall of slate. } down the same piece of
24	John Smith,	American, ..	Driver,	19	S.	Moon Run,	Allegheny,	{ Arm broken by } both, which struck
25	John Hindman,	American, ..	Driver,	30	S.	Eenterprise,	Allegheny,	{ fall of slate. } both of them.
								Arm broken; caught between car and pillar of coal.
								Foot and leg injured; his foot caught in a track, and a room parting and the car struck him.
Feb. 2	Victor Bargaw,	Italian,	Miner,	28	M.	Essen No. 1,	Allegheny,	Burned about the face by a gas explosion; he crossed over a danger signal with open light.
2	James McNeal,	Scotch,	Driver,	38	M.	Bridgeville,	Allegheny,	Leg severely injured; caught between cars.
9	Edward Miller,	American, ..	Driver,	30	S.	Pan Handle,	Allegheny,	Leg injured; caught between cars, which jumped the track.
21	Albert Noble,	German,	Miner,	26	S.	Hays Street Run, ...	Allegheny,	Leg broken by fall of coal; he failed to set sprags while undermining.
21	Daniel Morgan,	Irish,	Miner,	28	M.	Laurel Hill No. 1, ..	Allegheny,	Leg broke by fall of slate at face of an entry; he should have pulled the loose slate down.
25	Adam Hutchison,	American, ..	Miner boy, ...	14	....	Boyd,	Allegheny,	Severe flesh wound on thigh; caught between cars while riding down dip.
28	Henry Baserellan,	Italian,	Miner,	28	S.	Partridge,	Allegheny,	Back injured by fall of slate; he had been warned of his danger.
March 19	Charles Jukes,	English,	Driver,	22	M.	Ridgeway,	Washington, ...	Leg broken; his mule, turned from the entry into a room and his leg got entangled in the tall chain.
19	Robert Kettle,	English,	Miner,	49	M.	Jumbo,	Washington, ...	Ankle bone broken by a piece of coal falling upon him.
21	Louis Hart,	German,	Miner,	54	M.	Castle Shannon, ...	Allegheny,	Slightly injured on breast by a piece of roof coal falling upon him.
26	John Mardoff,	Belgian,	Miner, .....	....	S.	Pan Handle,	Allegheny,	Leg injured, necessitating amputation; he fell under car.

29	John Blats,	Hungarian, ..	Miner,	28	S.	Essen No. 3,	Allegheny,	Ankle slightly injured by a piece of slate falling upon it in his working place.
5	Henry Savage,	English,	Miner,	54	M	Pan Handle,	Allegheny,	Arm broken by fall of slate; he was pulling the slate down.
13	Sim. Yegerhoff,	Russian,	Miner,	29	S.	Essen No. 1,	Allegheny,	Leg broke by a fall of coal while underminting; he neglected to set aprags.
17	Samuel Ferree,	American, ..	Machine helper, ..	16	....	Pan Handle,	Allegheny,	Hip and side injured by fall of coal; the coal broke away from a clay slip.
14	Forman Phillips,	Russian,	Miner,	60	M.	First Pool No. 1, ..	Allegheny,	Leg broke by fall of slate in his room; he neglected to set props.
14	Frank Bower,	German,	Miner, .....	....	M.	Becks Run,	Allegheny,	Side of body and foot slightly injured; he was pulling down slate, which fell up n him.
16	John Smolker,	Austrian, ..	Miner,	41	M.	Boyd,	Allegheny,	Seriously injured by fall of slate in his room; he neglected to set props.
24	Henry Roe,	American, ..	Motorman,	21	S.	Moon Run,	Allegheny,	Leg injured, necessitating amputation; the motor jumped the track and Roe jumped from the motor and his leg was crushed under the wheel.
25	Andy Strazer,	Hungarian, ..	Miner,	29	S.	Rtdgeway,	Washington, ...	Collar bone broken by a piece of coal falling upon him.
29	Thomas Drennan,	American, ..	Miner,	30	S.	Fort Pftt,	Allegheny,	Leg broke by a piece of slate.
29	Justin Vincent,	French,	Miner,	22	S.	Brier Hill,	Washington, ...	Hurt about the body by fall of slate; he was taking out props when the slate fell upon him.
4	Chas. Mickel,	American, ..	Miner,	45	M.	Laurel Hill No. 1, ..	Allegheny,	Back and side injured by fall of slate, which he should have pulled down.
16	James Currrens,	Irish,	Rope rider,	20	S.	Essen No. 1,	Allegheny,	Body bruised; struck by moving cars.
19	Wm. Bohmer,	German,	Mule driver,	30	M.	Mansfield No. 2, ...	Allegheny,	Hip dislocated and bruised about the body by a fall of slate.
26	Robert Herman,	German,	Machine helper, ..	23	S.	Mansfield No. 2, ...	Allegheny,	Severe injury to wrists on thigh and lower part of body, caused by cutter chain of mining machine.
27	Chas. Dominal,	Pole,	Miner,	38	M.	Leasdale,	Allegheny, ...	Back injured; he fell upon a rail when stepping out of the way of a piece of falling slate.
29	Henry Crump,	American, ..	Miner,	50	M.	Jumbo,	Washington, ...	Head and hand injured; caught between car and side of entry.
14	Paul Gidden,	Hungarian, ..	Miner,	25	M.	Morgan,	Allegheny,	Leg and several ribs broken by a fall of loose slate.
16	F. Swanger,	Slav,	Miner,	40	M.	Morgan,	Allegheny,	Head and hand injured by fall of slate.
25	Furner Pyskey,	Pole,	Miner,	38	M.	Bower Hill,	Allegheny,	Several ribs broken and leg injured by fall of slate; he had fired a blast in the slate and went under it to work.
8	John Neish,	English,	Mble driver,	20	S.	Bower Hill,	Allegheny,	Thigh severely cut; caught between cars.
10	George Hausbury,	American, ..	Miner,	31	M.	Jumbo,	Washington, ...	Leg broken; he was struck by the dilly-coupling.
24	Peter Piker,	American, ..	Mule driver,	34	S.	Fort Pftt,	Allegheny,	Leg injured; caught between cars while coupling.
29	Poni Carlo,	Italian,	Miner,	28	M.	Essen No. 1,	Allegheny,	Burned by gas explosion. These men went from their own rooms to another room, where a large roof fall had just occurred, liberating gas; they went on the fall and ignited the gas.
29	Paul Miller,	Italian,	Miner,	22	S.	Essen No. 1,	Allegheny,	

TABLE V—Continued.

Date of accident.	Name of Person.	Nationality by Birth.	Occupation.	Age.		Name of Colliery.	County.	Nature and Cause of Accident in Brief.
				Married	or single.			
Sept. 4	George Sochock,	Slav,	Miner,	37	M.	Creedmore,	Washington, ...	Leg broken by fall of slate; he had been ordered to pull the slate down but failed to do so.
7	Charles Hamyson,	American, ..	Miner boy, ...	14	....	Dickson,	Allegheny,	Arm severed from body by fall of coal and slate; accident due to carelessness on part of two elder brothers.
7	Peter Volling,	Italian,	Miner,	26	M.	Pan Handle,	Allegheny,	Back slightly injured by fall of slate.
11	John Tuul,	Russian,	Miner,	18	S.	Pan Handle,	Allegheny,	Head and breast injured by fall of slate in his room.
15	Desire Paskin,	Belgian,	Miner,	44	M.	Nickel Plate,	Allegheny,	Foot severely injured by falling coal and slate.
24	Philip Conly,	American, ..	Door boy, ...	15	S.	Boyd,	Allegheny,	Thigh and foot broken; the overhead safety block on incline outside, fell upon him while it was being placed in position.
24	Elmer Beal,	American, ..	Mule driver, ..	18	S.	Boyd,	Allegheny,	Arm broken; caught between car and side of entry car, jumped to the track.
26	James Clark,	Irish,	Miner,	37	S.	Nickel Plate,	Allegheny,	Foot of mule injured by fall of slate; he was in the act of pulling the loose slate down.
29	Edward Eckels,	American, ..	Oiler,	16	S.	Creedmore,	Washington, ...	Leg broken by falling under the cage at bottom of shaft.
Oct. 4	Levi Britton,	English,	Mule driver, ...	20	S.	Bridgeville,	Allegheny,	Leg broken; fell under a car.
5	John Youna,	Austrian, ...	Miner,	30	S.	Bridgeville,	Allegheny,	Back seriously injured by fall of roof; he was taking down loose slate and a piece of upper roof fell upon him.
5	Mike Bubna,	Lithuanian, ..	Miner,	26	S.	Fort Pitt,	Allegheny,	Back injured by fall of slate in his room.
8	Charles Dublosky,	Lithuanian, ..	Miner,	40	S.	Essen No. 2,	Allegheny,	Two ribs broken by coal flying from a blast; another man fired the shot without giving warning.
9	Mathias Lecht,	German,	Mule driver, ...	30	S.	Enterprise No. 2, ...	Washington, ...	Leg injured, necessitating amputation of the leg; caught between cars, which jumped the track.
9	Hugh Herron,	American, ..	Mule driver, ...	17	S.	Fort Pitt,	Allegheny,	Both legs broken by fall of roof; mule caught against cross timber, pulling it down and liberated the roof, which fell.
11	Joseph Lucas,	Slav,	Mule driver, ...	19	S.	O. I. C.,	Allegheny,	Foot seriously injured; caught in turnout rail and he fell under the car.

17	F. Steumce,	American, ..	Mule driver, ...	20	S.	First Pool No. 1, ...	Allegheny,	Back and pelvic bone injured by coming in collision with another trip; flagman gave wrong signal. (Both legs broken by fall of slate worked together in his room. Leg broke by fall of slate in the room.)
18	John Rudd,	English,	Miner,	45	M.	Vulcan,	Allegheny,	The father and son worked together in his room.
18	Chriss Rudd,	English,	Miner boy, ...	15	S.	Vulcan,	Allegheny,	Father to set prop but he failed to do so.
29	Peter Zelger,	Pole,	Miner,	35	S.	Leasdale,	Allegheny,	Several ribs broken and injured internally by a fall of coal and slate.
2	Frank Blink,	American, ..	Mule driver, ...	28	S.	Pine Creek,	Allegheny,	Three ribs broken and hand injured; was spragging the wheels and was caught between car and side of entry.
9	Henry Prevot,	French,	Miner,	22	S.	Jumbo,	Washington, ...	Leg broken; caught between cars on the main change parting.
9	Hypollite Pauline,	Belgian,	Miner,	34	M.	Creedmore,	Washington, ...	Injured about the body by falling slate and coal.
19	Pauline Bastide,	French,	Miner,	30	M.	Brier Hill,	Washington, ...	Slightly injured by a fall of slate in his room.
21	Richard Harris,	American, ..	Miner,	40	M.	O. I. C.,	Allegheny,	Leg broke by fall of slate in his room.
26	Hugh Tansey,	Scotch,	Miner,	45	S.	Laurel Hill No. 2, ...	Washington, ...	Head and shoulder injured by falling roof.
9	Anton Michofsky,	Pole,	Miner,	39	M.	Nixon,	Allegheny,	Ignited by Gas explosion; he went over danger signal and ignited the gas.
10	John Brindle,	German,	Miner,	69	S.	Morgan,	Allegheny,	Squeezed about the body between roof and empty car; he attempted to get into the car while it was in motion.
10	Felix Delveaux,	Belgian,	Miner,	44	M.	Brier Hill,	Washington, ...	Injured by fall of slate.
10	James Boyd,	Irish,	Laborer,	44	M.	Hickman,	Allegheny,	Arm broken and head injured at tippie; a piece of coal fell over the screen on him.
29	Joseph Nattuck,	Hungarian, ..	Miner,	22	S.	First Pool No. 1, ...	Allegheny,	Leg broken by fall of slate while he was drawing out props.

Nov.

Dec.



Eighth Bituminous District.

(CLEARFIELD, CENTRE, JEFFERSON AND INDIANA COUNTIES.)

Philipsburg, Pa., February 15th, 1901.

Hon. James W. Latta, Secretary of Internal Affairs, Harrisburg, Pa.:

Sir: I have the honor of presenting my sixth annual report as Mine Inspector of the Eighth Bituminous district, which contains a report of mines in parts of Centre, Clearfield and Jefferson counties; also of one new mine in Indiana county. The report contains the usual statistical tables, showing the number of net tons of coal produced, shipped, consumed at the mines, and sold for domestic use, together with the number of men employed, and their occupations with the name of each coal company; also the fatal and non-fatal accidents. The total number of tons produced was 4,342,176 as against 4,476,814 tons during the preceding year, being a decrease of 134,638 tons, which is attributable to the decrease in capacity of some of the old mines. The number of fatal accidents was 9 against 11; and non-fatal, 27 against 29 in the preceding year, showing a slight decrease in the number of fatal accidents. There was one accident for every 482,464 tons mined, against 406,983 in 1899, a difference of 75, 481 tons of coal more produced per fatal accident, and one non-fatal case for every 160,821 tons mined against 154,373 in 1900, or a difference of 6,448 tons mined from that of the preceding year. While the difference is very slight it is a change in the right direction which is very gratifying. While there has been a great increase in the number of mines in the district, a few of them are of small capacity, but some of the new ones promise to be substantial operations with modern equipment, showing a tendency to an advancement in the methods of mining, also a greater capacity for output, with every facility for the protection of the health, and safety of the employes.

I remain,

Very respectfully,

JOSEPH KNAPPER,
Inspector Eighth District.

Summary of Statistics.

Number of mines in the district,	120
Number in operation,	120
Number of net tons of coal mined,	4,342,176
Number of tons shipped by rail,	4,225,931
Number of tons used for steam and heat at mines, ...	57,364
Number of tons sold to employes,	13,678
Number of coke ovens,	156
Number of tons of coke produced,	20,724
Number of persons employed inside of mines,	6,719
Number of persons employed outside of mines,	611
Number of fatal accidents,	9
Number of tons produced per each fatal accident, ...	482,464
Number of non-fatal accidents,	27
Number of tons produced per each non-fatal accident,	160,821
Number of persons employed per each fatal accident,.	839
Number of wives left widows by accidents,	6
Number of orphans,	13
Number of kegs of powder used,	25,626
Number of pounds of dynamite used,	18,078
Number of cylindrical boilers in use,	29
Number of tubular boilers in use,	61
Number of electric locomotives,	16
Number of new mines opened,	24
Number of old mines abandoned,	5
Number of mules employed,	769

TABLE A—Showing the Production of Coal, Number of Persons Employed by Each Company During the Year 1900, and the Average Number of Tons Produced Per Employee.

Names of Coal Companies and Individual Operators.	Total number of tons.	Number of persons employed.	Average number of tons produced per each employee.
Berwind-White Coal Mining Co.,	1,434,271	1,970	728
Morrisdale Coal Company,	377,349	684	551.8
Peale, Peacock & Kerr, Incorporated,	250,948	343	731.8
C. J. Whittenburg and O. P. Jones' Estate,	127,976	206	621.2
Irish Brothers,	130,664	256	508
Ophir Coal Company and J. Swires,	130,405	211	618
Beulah Coal Company,	97,267	153	635.7
H. Liveright,	95,087	136	699.1
Thomas C. Heins and Company,	87,676	152	576.8
J. S. and W. H. Todd,	92,395	130	694.6
Ghem Coal Company,	84,343	87	969.4
Henrietta Coal Company,	85,598	108	792.6
Thomas Blythe,	74,348	115	646.5
G. L. Whitehead and Company,	70,739	171	406.5
Cambria Coal Company,	123,235	193	638.5
Platt Coal Mining Company,	61,301	130	470.6
Thos. J. Lee and Company, Limited, and Lee Coal Co.,	57,261	93	615.7
J. McLeary Company,	47,301	128	369.5
M. Burns,	46,250	72	641.6
Williams, Morris and Company,	45,867	36	1,273
Adams and Company,	41,298	55	750.9
M. and F. Craig,	38,640	59	654.9
J. Barnes and Sons,	38,641	65	594.4
J. Heaton and Son,	37,408	91	411.8
Blair Brothers,	38,911	59	659.4
W. J. Jackson,	37,061	76	487.6
Christoff Brothers and Company,	5,852	12	487.6
W. A. Gould and Brothers,	20,871	107	288.5
Moshannon Coal Mining Company,	30,688	86	356.8
Fcrest Coal Mining Company,	30,258	49	617.5
P. Gallagher,	29,121	26	1,120
J. R. Brown,	27,480	54	509
American Union Coal Company,	24,304	68	357.4
S. J. Mountz,	25,314	38	666.1
L. Milton Wilson,	22,936	44	521.2
W. A. Preston,	20,571	77	267.1
Brown and Dyer,	19,826	75	264.3
Townsend and Milsom,	19,520	26	750.8
Clearfield Bituminous Coal Corporation,	18,900	246	76.8
Rekirt Bro. and Company,	18,863	46	406
Penn Iron Company, Limited,	18,219	43	423.7
Harbison, Walker and Company,	17,449	24	727
W. F. Holt,	17,304	36	470
Harman and Straehan,	16,960	35	484.5
H. M. Hughes,	16,869	38	437
Thomas Wood,	15,680	16	980
Stratton Brothers,	14,430	27	534.4
Meadow Brook Coal Mining Co.,	12,591	25	503.6
W. J. Davis,	10,335	17	598
William Casker,	8,108	11	737
Anda and Company, Limited,	7,832	17	461.9
J. Walton and Son,	5,650	17	332.3
James E. Stott,	3,900	9	436.6
James Gatehouse,	4,562	13	351
Shelov and Benford,	3,600	22	163.6
Boytan Coal Company,	2,170	11	195.4
Graver and Company, Limited,	1,152	21	48
Coaldale Mining Company,	24,698	71	487.7
Samuel Styre,	16,298	11	306
Bolsena Coal and Coke Company,	38,222	88	434.1

TABLE B—Number of Fatal Accidents and Tons of Coal Producer Per Life Lost.

Names of Companies.	Fatal accidents.	Tons of coal mined per accident.
Berwind-White Coal Mining Company,	4	358,567
Morrisdale Coal Company,	1	377,349
Thomas Blythe,	1	74,348
Cambria Coal Company,	1	123,235
M. Burns,	1	46,280
Coaldale Mining Company,	1	34,698
Total,	9	1,002,477

TABLE C—Showing the Number of Fatal and Non-Fatal Accidents, and the Number of Tons of Coal Produced Per Accident.

Names of Companies.	Number of accidents.	Number of tons of coal produced per accident.
Berwind-White Coal Mining Co.,	12	119,189
Morrisdale Coal Company,	3	125,783
Peale, Peacock and Kerr, Incorporated,	1	250,948
O. P. Jones' Estate and J. C. Whittenburg,	3	42,658
Irish Brothers,	2	65,052
Ophir Coal Company,	1	130,405
Beulah Coal Company,	1	97,267
Ghem Coal Company,	2	42,171
Thomas Blythe,	1	74,348
G. L. Whitehead and Company,	2	35,369
Cambria Coal Company,	1	123,235
J. M. McLeary and Company,	1	47,301
M. Burns,	1	46,280
Adams and Company,	1	41,298
L. Milton Wilson,	1	22,936
W. A. Preston,	1	20,571
Coaldale Mining Company,	1	34,698
Samuel Styre,	1	16,238
Total,	36	1,335,727

TABLE D—Classification of Accidents.

	Fatal accidents.	Injured.	Total.
By falls of coal,	6	9	15
By falls of slate and roof,	2	11	13
By machinery,	1	.....	1
By mine cars, .....	.....	7	7
Total,	9	27	36

TABLE E—Occupation of Persons Killed or Injured.

	Fatal accidents.	Injured.	Total.
Miners, men and boys,	8	25	33
Car coupler,	1	.....	1
Drivers, .....	.....	2	2
Total,	9	27	36

TABLE F—Nationalities of Persons Killed or Injured.

	Killed.	Injured.	Total.
English,	1	5	6
Welsh,	1	1	2
Irish,	2	2	4
German, .....	.....	1	1
Swede,	1	.....	1
French,	1	2	3
Italian, .....	.....	2	2
Hungarian, .....	.....	3	3
Poles, .....	.....	3	3
Slavs,	3	5	8
Americans, .....	.....	3	3
Total,	9	27	36

Description of Mines in Clearfield County on Pennsylvania, N. Y. C.
and H. R. and P. J. E. and E. Railroads.

Eureka No. 5 Slope.—Air was weak in No. 8 right heading, other places were in very fair condition as to ventilation and drainage.

Eureka No. 7 Shaft.—The ventilation and drainage were in very good condition, and the mine well timbered.

Eureka No. 16 Drift.—Air was sufficient for the number of men employed, and the drainage was greatly improved.

Eureka No. 18 Drift.—Ventilation and drainage were in very fair condition.

Eureka No. 19 Drift.—Ventilation and drainage were in very fair condition.

Eureka No. 22 Drift.—Ventilation was in very fair condition, but there were local defects in drainage. A few miners were found who neglected to prop the roof and spragg coal, which I called the foreman's attention to.

Eureka No. 24 Drift.—Ventilation and drainage were in good condition.

Eureka No. 27 Drift.—Is a new operation having two haulage drifts and furnace ventilation which was in a very good condition. The same can be said of the drainage.

Atlantic No. 1 Drift.—On my last visit there were some irregularities through not keeping heading and airway together, causing defects in air in those sections, which I called the foreman's attention to.

Morrisdale Shaft No. 1.—Ventilation was in very fair condition for the number of men employed, with local defects in drainage which were being removed.

Morrisdale No. 2 Shaft.—Ventilation was in very fair condition with some local defects in drainage.

Morrisdale No. 4 Drift.—Ventilation and drainage was very fair, with only nine men employed the greater part of the year.

Morrisdale No. 5 Drift.—Ventilation and drainage were very fair, but the mine is now abandoned.

Morrisdale No. 6 and 7 Drifts.—Were naturally very dry with good ventilation. Both operations use the same tippie.

Morrisdale No. 8 Drift.—Ventilation in very fair condition, but there are local defects in drainage.

Troy Mine.—In the upper draft E vein there was local defects in ventilation; mine naturally dry. In the lower drift ventilation and drainage were in fair condition.

Mable Mine.—Ventilation in very fair condition, but there are local defects in drainage.

Decatur Nos. 1, 2 and 3 Mines.—Are connected inside and subject to the same ventilating current of air. Some defects were found at the face of several places in each drift, caused by leaky and defective brattice, to which the foreman's attention was called. No. 4 was in fair condition.

Acme No. 1 and 2 Slopes.—Ventilation and drainage very fair in both mines; they are connected on the same ventilating fan, which was put in this year, and is a 12-foot Stine.

Colorado Drift No. 3.—The total volume of air was insufficient for the blasting done, and the company expect to put in a new furnace shaft in the near future near the solid workings.

Baltic Drift No. 3.—Air was defective in the fourteenth right heading, owing to defects in brattice, and a furnace shaft in No. 15 right would remedy all defects, which I suggested. Some local defects exist in drainage.

Red Jacket Drift.—Ventilation and drainage were in very fair condition, this is a very dangerous roof and needs close attention, which it generally gets from the foreman.

Ashman Drift No. 1 had some defects caused by ventilating furnace being too small. No. 2 drift air was very fair. The mine being naturally dry, drainage needs little attention.

Webster No. 4 Drift.—In ninth and tenth right headings the air was very defective. In other places was fair. The headings referred to were constantly impregnated with carbonic acid gas. Drainage was fair.

Fairmount No. 1 and 2 Drifts.—No. 1 air was very fair and roads naturally dry but men were blasting too early in the morning. Rule No. 49 was being violated by some miners, which I ordered stopped. No. 2 mine was in very fair condition.

Lenore Drift.—E seam air still defective, new furnace not completed. D seam, air very fair. Both drifts had some local defects in drainage, which I called the foreman's attention to.

Lane Drift No. 1 and 2.—Air in very fair condition and also drainage, but a manway is needed in the upper drift, which I ordered them to have made as rapidly as possible.

Friendship and Henrietta Drift Mines were well ventilated and drained; both operations being on coal left by other operations that had been abandoned.

Alexandria Drift.—Ventilation was very fair, except at face of a few rooms; to remedy the defect I ordered check doors on heading, and I also called attention to spragging of coal.

Leland Drift Mines No. 1.—Ventilation very fair, but drainage defective. No. 2, air very fair, drainage had local defects. No. 3, ventilation and drainage very fair. No. 4, new operation, but the furnace and manway were not completed, which they were busily engaged in putting in order.

Standard Drift Mines.—Air defective in 2 left and face of main heading.

Standard No. 8 Shaft.—Formerly called Prospect Shaft. The water has been pumped out of this mine after it had been standing idle for eight years. One pump was under thirty feet of water for that period, but started promptly when steam was turned on.

Mt. Vernon No. 6 Shaft.—Ventilation and drainage of this mine were in very fair condition, but the mine is now abandoned, coal having been exhausted.

Guion Mine.—On my last visit the ventilation was in very fair condition, with the exception of the 9th left heading, where I ordered brattice repaired. Drainage very fair.

Cuba Mine.—No. 2 left and No. 3 main headings, air insufficient, at other places ventilation and drainage very fair.

Colorado No. 2.—Ventilation and drainage very fair when the furnace is kept in full operation.

Gearhart.—The air was weak at the face of right main heading, other places were very fair. The mine being naturally dry requires scarcely any drainage.

Lee Mine.—Ventilation and drainage were in very fair condition, with part of the time only employing nine persons in the mine.

Raybold No. 2.—Ventilation was very fair with local defects in drainage, there was a general neglect in propping roof and spragging coal, which I called the foreman's and miners' attention to.

Bessemer Mine.—The ventilation was very fair, with defects in drainage; only nine persons were generally employed.

Glenwood Mine.—Ventilation and drainage in very fair condition, but the mine is now abandoned coal having been exhausted.

Jefferson Mine.—Ventilation and drainage were in good condition.

Sterling No. 2 and 3.—In the former mine 8 men only were employed, and in the latter, air was defective at face of several rooms, check door being needed. There were also some local defects in drainage.

Lancashire No. 1.—In a few places at face of main heading air was defective for want of check doors, there were also some defects in drainage which the foreman's attention was called to.

Lancashire No. 2.—The ventilation was in very fair condition; the mine being naturally dry, drainage needs very little attention.

Black Diamond.—A drift mine and a new operation near Munson station on B seam of coal and which was well ventilated by a furnace. Mine being naturally dry, drainage needed very little attention.

Grampian No. 1.—The ventilation of this mine was in a very fair condition, and the haulage roads well drained. A new water course is being put in at considerable expense, to drain off a body of water.

Staffordshire Mine.—In the 1st and 2d left heading the air was defective from leaky brattice, which I called the official's attention to. Drainage was very fair.

Midvale No. 1.—Air very fair. Drainage had local defects.

Midvale No. 2.—Air rather weak in new drift. Other places very fair. Drainage some unavoidable defects.

Henderson No. 2.—When doors are completed air will be very fair for men employed. Drainage was very fair. This is a new operation on crop coal.

Moshannon No. 1.—The ventilation was in very fair condition except at one point which on the day of my visit they expected to connect with an old shaft. The drainage was in very fair condition.

Moshannon No. 2.—Ventilation and drainage were in very fair condition.

Forest Mine.—Was well ventilated and drained during the year.

Hobson Mine.—Was in very condition and had only 9 men employed the greater part of the year.

Mapleton Mine.—Was well ventilated and drained.

Mt. Vernon No. 7.—Air in very fair condition, but there was defective drainage on haulage roads which the foreman was requested to improve.

Mt. Vernon No. 11.—Is a new operation and on D seam of coal. It has been ventilated by a furnace, and is well drained.

Mountz Mine.—Air was very weak and only a few men were employed. Was ordered to be improved by making proper airways.

Whiteside No. 1 and 2.—The air was weak on my last visit, but there were only nine men employed. Drainage was very fair.

Schwinn Mine.—Has been re-opened and a new drift put in by a new firm which has bought the property, which I think will be kept in a very fair condition.

Union No. 4 and 5.—The former is only a small operation with 4 or 5 men employed. No. 5 is a new opening on crop coal left by other abandoned mines.

Shoff No. 2.—Ventilation and drainage has been very fair during the year.

Lorraine Mine.—On my last visit I ordered all places stopped in the first left heading in the lower drift until the brattice was properly built to conduct the air to the working places. Drainage was poor.

Reading Mine.—Ventilation was in very fair condition for number of men employed; drainage fair.

Parks Mine.—Ventilation and drainage were in good condition.

Phoenix.—A new operation on old Coaldale No. 3 property; the drainage and ventilation were found in very fair condition.

Madeira Mine.—Is a new operation on B seam of coal, with a gasoline pump for drainage and furnace for ventilation, which was in very fair condition.

Leader No. 1 and 2.—Had very fair ventilation during the year, but there was local defects in drainage in No. 2 and lower drift.

Victor No. 2 and 3 Mines.—Have separate tipples delivering coal to the same railroad cars, were in fair condition but had only eight men in each opening on my last visit.

Kentuck Mine.—Had a local defect in ventilation; drainage fair.

Meadowbrook Mine.—Ventilation was very fair for the number of men employed, but there were some local defects in drainage and the manway needed some repairs which I called the forman's attention to.

Davis Mines.—On old Coaldale No. 5 property, is in fair condition both in ventilation and drainage.

Birdseye Mine.—Air rather defective at the face of solid workings, but there were only nine men employed on my last visit. Drainage was in fair condition.

London Mine.—Is a small operation. The ventilation and drainage, however, were in good condition.

Highland Mine.—Was well ventilated for the few men employed, and is naturally dry.

Banion Slope.—Had fair ventilation for the few men employed, but has not been worked very steadily during the year, and with a small number of men. Drainage was neglected.

Porter Run Mine.—Was formerly Belsena No. 4, and had very fair ventilation, but there are local defects in drainage.

McCartney Mine.—Has changed owners during the year and could have been better ventilated by the former operators. The drainage was in fair condition.

Imperial No. 1.—Air was defective in Galbraith heading, and part of the men were ordered out of their places until sufficient air should be supplied. There were also some defects in drainage.

Black Diamond No. 2.—Ventilation and drainage were in very fair condition.

Centre County Mines.

Eureka No. 21.—Ventilation was weak at face of No. 2 left heading owing to broken canvas; other places were very fair. Drainage had unavoidable defects caused by soft bottom, and numerous springs of water.

Ophir Mine.—Air was found defective at the face of the sixth and seventh headings, other places were very fair. Drainage was also in fair condition.

Phoenix Mine.—Ventilation and drainage were in very fair condition.

Electric Mine.—Ventilation and drainage were in fair condition for the number of men employed on my last visit.

Ghem Mine.—Ventilation is in very good condition, a new shaft having been sunk and furnace built during the year. Mine was well drained.

Standard Nos. 1 and 2.—The former has fair drainage and ventilation, the latter has eight men employed and does not come under the inspection law.

Orient No. 1 Mine.—The ventilation and drainage were in fair condition, a new furnace shaft having been put down during the year.

Orient No. 2 Mine.—Is a new operation on B seam of coal with compressed air mining machines and mule haulage. The ventilation and manway are not yet completed, but the air was fair for number of men employed; drainage was good.

Osceola No. 3.—The ventilation of this mine was in very fair condition, but there were local defects in drainage. A gasoline pump has been put in to take the place of mule power.

Bear Run.—The ventilation was in fair condition when the furnace was in full operation. Drainage was also fair.

Union No. 3 Mine.—Ventilation of this mine is not yet complete, but was in fair condition for the few men employed. I have requested the company also to complete the manway.

Mountain Branch Mine.—Ventilation fair for the number of men employed, on last visit, but it did not come under inspection with the nine men employed.

Beaver Nos. 1 and 2.—Are new operations on B and C seams of coal; it is a small concern with only a few men employed. The air and drainage in fair condition.

Jefferson County Mines.

West Eureka No. 1.—Ventilation and drainage were in good condition.

West Eureka No. 4.—Ventilation in very fair condition but unnecessarily polluted by constant blasting. Drainage has local defects. A fire was discovered at this colliery on Sunday November 25th, 1900, and after several hours of efforts to extinguish it, it was deemed advisable to seal the mine up, as it was thought by this means to smother the fire out in a few days, but on opening the mine on November 30th, it was found that this had not been successful. After a week of unceasing fighting of the fire, the work had to be abandoned, the mine re-sealed and water pumped into it for the purpose of flooding the fire district. Up to this date, February 12th, 1901, work has not been resumed, but it is now thought that the fire is extinguished, and that the mine can again be put in working condition. My information as to the origin of the fire is, that workmen had been engaged for several days prior

in taking up a 10-inch cast iron pipe line along the main heading, building fire to melt the lead connections. When leaving work on Saturday afternoon they thought all fire was safely extinguished, but some smoldering sparks had been left and the motion of the air throughout the mine during the night caused by the fan soon fanned it into a serious flame.

West Eureka No. 5.—Ventilation and drainage were in very fair condition, but it is now abandoned, coal having been exhausted.

West Eureka No. 6.—Ventilation and drainage have been kept in very fair condition. Mine still continues to give off gas and is worked partly with safety lamps.

West Eureka No. 10.—Air was found defective on last visit in Jefferson and six North on 9th section, brattice being disarranged by a creep; there were also some defects in drainage.

West Eureka No. 11.—Ventilation and drainage were in very fair condition.

West Eureka No. 12.—Was well drained and ventilated, but it is now abandoned, coal having been exhausted.

West Eureka No. 13.—Ventilation and drainage were in very fair condition.

Conrad No. 1.—Is a new operation and in the early part of the year was poorly ventilated, but with shaft put down and a furnace built, the ventilation is in a good condition. The same can be said of drainage.

Sheller No. 3 Mine.—Is a new operation and everything has been put in, with a view to good ventilation and drainage. Fan engine 14x24x75 horse power with a Capel fan 7 ft. x 9 ft. and double inlets.

Penn No. 2.—The ventilation of this mine is defective. It needs a new shaft, and a furnace built, which I have requested them to have done. The drainage is in fair condition.

Indiana County Mine.

Canoe Ridge.—Three new drift openings on Canoe Creek with electric and tail-rope haulage and compressed air mining machine, and a Stine fan for temporary ventilation. Mine was still under construction on my last visit, and promises to be a first class operation.

Mines Abandoned During the Year.

West Eureka No. 5.

Morrisdale No. 5.

Mt. Vernon No. 6.

Glenwood Nos. 1 and 2.

O'Brien Nos. 1 and 2; total, 5.

Mines Opened During the Year Are.

Eureka No. 27.

Morrisdale No. 6, 7 and 8.

Decatur No. 4.

Standard No. 7.

Conrad No. 1.

Sholler No. 3.

Orient No. 2.

Henderson No. 4.

Moshannon No. 2.

Forest.

Mt. Vernon No. 11.

Union Nos. 3, 4 and 5.

Canoe Ridge.

Phoenix.

Madera.

Davis Mine.

London.

Beaver Nos. 1 and 2.

Leland No. 4.

Black Diamond; total, 24.

One hundred and fifteen mines are now in operation in the district.

One hundred and twenty mines have been in operation during the year.

TABLE I—Showing names of operators, railroads, etc., and location of collieries in the Eighth Bituminous District for the year 1900.

Names of Operators and Collieries.	County.	Name of General Superintendent.	P. O. Address.	Name of Superintendent.	P. O. Address.	Railroad to Mine.
Berwind-White Coal Mining Co.						
Eureka No. 5	Clearfield	Thomas Fisher	Betz Eg. Phila.	A. S. R. Richards	Osceola Mills	Pennsylvania Railroad.
Eureka No. 6	Clearfield	Thomas Fisher	Betz Eg. Phila.	A. S. R. Richards	Osceola Mills	Pennsylvania Railroad.
Eureka No. 7	Clearfield	Thomas Fisher	Betz Eg. Phila.	A. S. R. Richards	Osceola Mills	Pennsylvania Railroad.
Eureka No. 8	Clearfield	Thomas Fisher	Betz Eg. Phila.	A. S. R. Richards	Osceola Mills	Pennsylvania Railroad.
Eureka No. 9	Clearfield	Thomas Fisher	Betz Eg. Phila.	A. S. R. Richards	Osceola Mills	Pennsylvania Railroad.
Eureka No. 10	Clearfield	Thomas Fisher	Betz Eg. Phila.	A. S. R. Richards	Osceola Mills	Pennsylvania Railroad.
Eureka No. 11	Clearfield	Thomas Fisher	Betz Eg. Phila.	A. S. R. Richards	Osceola Mills	Pennsylvania Railroad.
Eureka No. 12	Clearfield	Thomas Fisher	Betz Eg. Phila.	A. S. R. Richards	Osceola Mills	Pennsylvania Railroad.
Eureka No. 13	Clearfield	Thomas Fisher	Betz Eg. Phila.	A. S. R. Richards	Osceola Mills	Pennsylvania Railroad.
Atlantic No. 1	Clearfield	Thomas Fisher	Betz Eg. Phila.	A. S. R. Richards	Osceola Mills	Pennsylvania Railroad.
West Eureka No. 1	Jefferson	W. A. Crist	Johnstown	A. J. Cook	Horatio	Penna. & N. Western.
West Eureka No. 4	Jefferson	W. A. Crist	Johnstown	A. J. Cook	Horatio	Penna. & N. Western.
West Eureka No. 5	Jefferson	W. A. Crist	Johnstown	A. J. Cook	Horatio	Penna. & N. Western.
West Eureka No. 6	Jefferson	W. A. Crist	Johnstown	A. J. Cook	Horatio	Penna. & N. Western.
West Eureka No. 10	Jefferson	W. A. Crist	Johnstown	A. J. Cook	Horatio	Penna. & N. Western.
West Eureka No. 11	Jefferson	W. A. Crist	Johnstown	A. J. Cook	Horatio	Penna. & N. Western.
West Eureka No. 12	Jefferson	W. A. Crist	Johnstown	A. J. Cook	Horatio	Penna. & N. Western.
West Eureka No. 13	Jefferson	W. A. Crist	Johnstown	A. J. Cook	Horatio	Penna. & N. Western.
Morrisdale Coal Co.						
Morrisdale shaft No. 1	Clearfield	J. E. Hedding	Morrisdale Mines	Jas. Starford	Morrisdale Mines	New York Central R. R.
Morrisdale shaft No. 2	Clearfield	J. E. Hedding	Morrisdale Mines	Jas. Starford	Morrisdale Mines	Pennsylvania Railroad.
Morrisdale drift No. 4	Clearfield	J. E. Hedding	Morrisdale Mines	Jas. Starford	Morrisdale Mines	New York Central R. R.
Morrisdale drift No. 5	Clearfield	J. E. Hedding	Morrisdale Mines	Jas. Starford	Morrisdale Mines	New York Central R. R.
Morrisdale drift No. 6	Clearfield	J. E. Hedding	Morrisdale Mines	Jas. Starford	Morrisdale Mines	New York Central R. R.
Morrisdale drift No. 7	Clearfield	J. E. Hedding	Morrisdale Mines	Jas. Starford	Morrisdale Mines	New York Central R. R.
Morrisdale drift No. 8	Clearfield	J. E. Hedding	Morrisdale Mines	Jas. Starford	Morrisdale Mines	New York Central R. R.
Troy	Clearfield	J. E. Hedding	Morrisdale Mines	Jas. Starford	Morrisdale Mines	New York Central R. R.
Mabel	Clearfield	J. E. Hedding	Morrisdale Mines	Jas. Starford	Morrisdale Mines	Pennsylvania Railroad.
Peate, Peacock & Kerr, Incorp.						
Decatur No. 3	Clearfield	Alex. Dunsmore	Glen Richey	Jas. C. Dunsmore	Phillipsburg	New York Central R. R.
Decatur No. 2	Clearfield	Alex. Dunsmore	Glen Richey	Jas. C. Dunsmore	Phillipsburg	New York Central R. R.
Decatur No. 1	Clearfield	Alex. Dunsmore	Glen Richey	Jas. C. Dunsmore	Phillipsburg	New York Central R. R.
Decatur No. 4	Clearfield	Alex. Dunsmore	Glen Richey	Jas. C. Dunsmore	Phillipsburg	New York Central R. R.
C. J. Whittenburg.						
-Acme No. 1	Clearfield	C. J. Whittenburg	11 Br'way, N. Y.	S. M. Miller	Phillipsburg	New York Central R. R.
-Acme No. 2	Clearfield	C. J. Whittenburg	11 Br'way, N. Y.	S. M. Miller	Phillipsburg	New York Central R. R.

Irish Brothers	Colorado, ..	Clearfield, ..	George Scott, ..	Phillipsburg, ..	Phillipsburg, ..	Phillipsburg, ..	New York Central R. R. Penna. & N. Y. C. R. R. Pennsylvania Railroad.
	Baltic, ..	Clearfield, ..	George Scott, ..	Phillipsburg, ..	Phillipsburg, ..	Phillipsburg, ..	
	Red Jacket, ..	Clearfield, ..	George Scott, ..	Phillipsburg, ..	Phillipsburg, ..	Phillipsburg, ..	
Ophir, ..	Centre, ..	Centre, ..	J. Swires, ..	Phillipsburg, ..	Phillipsburg, ..	Phillipsburg, ..	New York Central R. R.
J. Swires, ..	Clearfield, ..	Clearfield, ..	J. Swires, ..	Phillipsburg, ..	Phillipsburg, ..	Phillipsburg, ..	New York Central R. R.
Ashman, ..	Clearfield, ..	Clearfield, ..	J. Swires, ..	Phillipsburg, ..	Phillipsburg, ..	Phillipsburg, ..	New York Central R. R.
Webster No. 4, ..	Clearfield, ..	Clearfield, ..	Jas. H. Minds, ..	Ramey, ..	Ramey, ..	Ramey, ..	Pennsylvania Railroad.
H. Liveright	Centre, ..	Centre, ..	Henry Liveright, ..	Osceola Mills, ..	Osceola Mills, ..	Osceola Mills, ..	Pennsylvania Railroad.
Fairmont No. 1, ..	Clearfield, ..	Clearfield, ..	Henry Liveright, ..	Osceola Mills, ..	Osceola Mills, ..	Osceola Mills, ..	Pennsylvania Railroad.
Fairmont No. 2, ..	Clearfield, ..	Clearfield, ..	Henry Liveright, ..	Osceola Mills, ..	Osceola Mills, ..	Brisbin, ..	Pennsylvania Railroad.
Thos. C. Helms & Co.	Clearfield, ..	Clearfield, ..	Thos. C. Helms, ..	Osceola Mills, ..	Osceola Mills, ..	Osceola Mills, ..	Pennsylvania Railroad.
Electric, ..	Centre, ..	Centre, ..	Thos. C. Helms, ..	Osceola Mills, ..	Osceola Mills, ..	Osceola Mills, ..	Pennsylvania Railroad.
J. S. and W. H. Todd,	Clearfield, ..	Clearfield, ..	J. T. Todd, ..	Phillipsburg, ..	Phillipsburg, ..	Phillipsburg, ..	New York Central R. R.
Lane Nos. 1 and 2, ..	Clearfield, ..	Clearfield, ..	J. T. Todd, ..	Phillipsburg, ..	Phillipsburg, ..	Phillipsburg, ..	
Ghem Coal Co.	Centre, ..	Centre, ..	Geo. Good, ..	Osceola Mills, ..	Osceola Mills, ..	Osceola Mills, ..	Pennsylvania Railroad.
Friendship, ..	Clearfield, ..	Clearfield, ..	Geo. Lobb, ..	Brisbin, ..	Brisbin, ..	Brisbin, ..	Pennsylvania Railroad.
Henrietta Coal Co.	Clearfield, ..	Clearfield, ..	Geo. Lobb, ..	Brisbin, ..	Brisbin, ..	Brisbin, ..	Pennsylvania Railroad.
Henrietta, ..	Clearfield, ..	Clearfield, ..	Geo. Lobb, ..	Brisbin, ..	Brisbin, ..	Brisbin, ..	Pennsylvania Railroad.
Thomas Blythe,	Clearfield, ..	Clearfield, ..	Thos. Blythe, ..	Madefra, ..	Madefra, ..	Madefra, ..	Pennsylvania Railroad.
Alexander, ..	Clearfield, ..	Clearfield, ..	Thos. Blythe, ..	Madefra, ..	Madefra, ..	Madefra, ..	
Cambria Coal Co.	Clearfield, ..	Clearfield, ..	E. S. Brubaker, ..	Smokerun, ..	Smokerun, ..	Smokerun, ..	Pennsylvania Railroad.
Leland No. 1, ..	Clearfield, ..	Clearfield, ..	E. S. Brubaker, ..	Smokerun, ..	Smokerun, ..	Smokerun, ..	Pennsylvania Railroad.
Leland No. 2, ..	Clearfield, ..	Clearfield, ..	E. S. Brubaker, ..	Smokerun, ..	Smokerun, ..	Smokerun, ..	Pennsylvania Railroad.
Leland No. 3, ..	Clearfield, ..	Clearfield, ..	E. S. Brubaker, ..	Smokerun, ..	Smokerun, ..	Smokerun, ..	Pennsylvania Railroad.
Leland No. 4, ..	Clearfield, ..	Clearfield, ..	E. S. Brubaker, ..	Smokerun, ..	Smokerun, ..	Smokerun, ..	Pennsylvania Railroad.
G. L. Whitehead & Co.	Centre, ..	Centre, ..	Thos. C. Whitehead, ..	Houtzdale, ..	Houtzdale, ..	Houtzdale, ..	Pennsylvania Railroad.
Standard No. 1, ..	Clearfield, ..	Clearfield, ..	Thos. C. Whitehead, ..	Houtzdale, ..	Houtzdale, ..	Houtzdale, ..	Pennsylvania Railroad.
Standard No. 2, ..	Clearfield, ..	Clearfield, ..	Thos. C. Whitehead, ..	Houtzdale, ..	Houtzdale, ..	Houtzdale, ..	Pennsylvania Railroad.
Standard No. 3, ..	Clearfield, ..	Clearfield, ..	Thos. C. Whitehead, ..	Houtzdale, ..	Houtzdale, ..	Houtzdale, ..	Pennsylvania Railroad.
Standard No. 4, ..	Clearfield, ..	Clearfield, ..	Thos. C. Whitehead, ..	Houtzdale, ..	Houtzdale, ..	Houtzdale, ..	Pennsylvania Railroad.
Standard No. 5, ..	Clearfield, ..	Clearfield, ..	Thos. C. Whitehead, ..	Houtzdale, ..	Houtzdale, ..	Houtzdale, ..	Pennsylvania Railroad.
Standard No. 6, ..	Clearfield, ..	Clearfield, ..	Thos. C. Whitehead, ..	Houtzdale, ..	Houtzdale, ..	Houtzdale, ..	Pennsylvania Railroad.
Standard No. 7, ..	Clearfield, ..	Clearfield, ..	Thos. C. Whitehead, ..	Houtzdale, ..	Houtzdale, ..	Houtzdale, ..	Pennsylvania Railroad.
Standard No. 8, ..	Clearfield, ..	Clearfield, ..	Thos. C. Whitehead, ..	Houtzdale, ..	Houtzdale, ..	Houtzdale, ..	Pennsylvania Railroad.
Mt. Vernon No. 6, ..	Clearfield, ..	Clearfield, ..	Thos. C. Whitehead, ..	Houtzdale, ..	Houtzdale, ..	Houtzdale, ..	Pennsylvania Railroad.
Platt Coal Mining Co.	Clearfield, ..	Clearfield, ..	Wm. Powell, Jr., ..	Phillipsburg, ..	Phillipsburg, ..	Phillipsburg, ..	Pennsylvania Railroad.
Guion, ..	Clearfield, ..	Clearfield, ..	Wm. Powell, Jr., ..	Phillipsburg, ..	Phillipsburg, ..	Phillipsburg, ..	New York Central R. R.
Cuba, ..	Clearfield, ..	Clearfield, ..	Wm. Powell, Jr., ..	Phillipsburg, ..	Phillipsburg, ..	Phillipsburg, ..	Penna. & N. Y. C. R. R.
Colorado No. 2, ..	Clearfield, ..	Clearfield, ..	Wm. Powell, Jr., ..	Phillipsburg, ..	Phillipsburg, ..	Phillipsburg, ..	

TABLE 1—Continued.

Names of Operators and Collieries.	County.	Name of General Superintendent.	P. O. Address.	Name of Superintendent.	P. O. Address.	Railroad to Mine.
Thos. J. Lee & Co., Limited. Gearhart,	Clearfield, ..	Thos. J. Lee,	Phillipsburg,	Thos. J. Lee,	Phillipsburg,	Penna. & N. Y. C. R. R.
Lee Coal Co.	Clearfield, ..	Thos. J. Lee,	Phillipsburg,	Thos. J. Lee,	Phillipsburg,	New York Central R. R.
J. McLeary & Co. Conrad No. 1,	Jefferson, Jefferson, ..	J. McLeary,	Punxsutawney, Punxsutawney, ..	John Neverla,	Adrian,	Penna. & N. W. R. R. Penna. & N. W. R. R.
Schollar No. 3,	Jefferson, ..	J. McLeary, .....	.....	Joseph Gregory, Sr., ..	Anita, .....	.....
M. Burns Rayhold No. 2,	Clearfield, ..	M. Burns,	Brisbin,	M. Burns,	Brisbin,	Pennsylvania Railroad. Pennsylvania Railroad.
Bessemer,	Clearfield, ..	M. Burns,	Brisbin,	M. Burns,	Brisbin, .....	.....
Williams, Morris & Co. Glenwood,	Clearfield, ..	J. E. Campbell,	Phillipsburg,	J. E. Campbell,	Phillipsburg,	Pennsylvania Railroad.
Jefferson,	Clearfield, ..	Geo. B. Friday,	Phillipsburg, .....	.....	.....	Pennsylvania Railroad.
M. and T. Craig. Sterling Nos. 2 and 3,	Clearfield, ..	M. Craig,	Brisbin,	M. Craig,	Brisbin,	Pennsylvania Railroad.
J. Barnes & Sons Lancashire No. 1,	Clearfield, ..	Joseph Barnes,	Phillipsburg, .....	.....	.....	Penna. & N. Y. C. R. R. Penna. & N. Y. C. R. R.
Lancashire No. 2,	Clearfield, ..	Joseph Barnes,	Phillipsburg, .....	.....	.....	.....
J. Hooton & Son. Black Diamond,	Clearfield, ..	John Hooton,	Munson Station,	James Hooton,	Munson Station,	New York Central R. R.
Blair Brothers. Orient No. 1,	Centre,	H. C. Blair,	Tyrone,	C. F. Blair,	Tyrone,	Pennsylvania Railroad. Pennsylvania Railroad.
Orient No. 2,	Centre,	H. C. Blair,	Tyrone,	C. F. Blair,	Tyrone, .....	.....
W. J. Jackson. Grampian No. 1,	Clearfield, ..	Fredrick Jackson, ..	Grampian,	Edward Hughes,	Grampian,	Pennsylvania Railroad.
W. A. Gould & Brothers. Staffordshire,	Clearfield, ..	W. A. Gould,	Brisbin,	W. A. Gould,	Brisbin,	Pennsylvania Railroad. Pennsylvania Railroad.
Midvale No. 1,	Clearfield, ..	W. A. Gould,	Brisbin,	W. A. Gould,	Brisbin,	Pennsylvania Railroad. Pennsylvania Railroad.
Midvale No. 2,	Clearfield, ..	W. A. Gould,	Brisbin,	W. A. Gould,	Brisbin,	Pennsylvania Railroad. Pennsylvania Railroad.
Henderson,	Clearfield, ..	W. A. Gould,	Brisbin,	W. A. Gould,	Brisbin,	Pennsylvania Railroad.

Moshannon Coal Mining Co. Moshannon No. 1	Clearfield, ..	C. H. Rowland, ..	Houtzdale, ..	Houtzdale, ..	Pennsylvania Railroad. Pennsylvania Railroad.
Moshannon No. 2	Clearfield, ..	C. H. Rowland, ..	Houtzdale, ..	Houtzdale, ..	Pennsylvania Railroad. Pennsylvania Railroad.
Forest Coal Mining Co. Furset, .. Hobson, ..	Clearfield, .. Clearfield, ..	Frank W. Hess, .. Frank W. Hess, ..	Philipsburg, .. Philipsburg, ..	Philipsburg, .. Philipsburg, ..	Pennsylvania Railroad. New York Central R. R.
Mapleton, .. P. Gallagher, ..	Clearfield, ..	P. Gallagher, ..	Osceola Mills, ..	Osceola Mills, ..	Pennsylvania Railroad.
Osceola No. 3, .. J. R. Brown, ..	Centre, ..	J. R. Brown, ..	Osceola Mills, ..	Osceola Mills, ..	Pennsylvania Railroad.
American Union Coal Co. Mt. Vernon No. 1, .. Mt. Vernon No. 11, ..	Clearfield, .. Clearfield, ..	J. O. Reed, .. J. O. Reed, ..	Philipsburg, .. Philipsburg, ..	Reecoria, .. West Moshannon, ..	Pennsylvania Railroad. A. & C. R. R.
Mountz, .. S. J. Mountz, ..	Clearfield, .. Clearfield, .. Clearfield, ..	S. J. Mountz, .. S. J. Mountz, .. S. J. Mountz, ..	Morann, .. Morann, .. Morann, ..	..... ..... .....	Pennsylvania Railroad. Pennsylvania Railroad. Pennsylvania Railroad.
L. Milton Wilson. Fear Run, .. Schwinn, ..	Centre, .. Clearfield, ..	L. Milton Wilson, .. L. Milton Wilson, ..	Blairstown, N. J., .. Blairstown, N. J., ..	Houtzdale, .. Houtzdale, ..	Pennsylvania Railroad. Pennsylvania Railroad.
Penn Mine No. 2, .. W. A. Preston, ..	Jefferson, ..	W. A. Preston, ..	Pittsburg, ..	Winslow, ..	P. & N. W. R. R.
Brown & Dyer. Union No. 2, .. Union No. 3, .. Union No. 4, .. Union No. 5, ..	Centre, .. Clearfield, .. Clearfield, ..	Albert S. Brown, .. Albert S. Brown, .. Albert S. Brown, ..	Osceola Mills, .. Osceola Mills, .. Osceola Mills, ..	Osceola Mills, .. Osceola Mills, .. Osceola Mills, ..	Pennsylvania Railroad. Pennsylvania Railroad. Pennsylvania Railroad.
Townsend & Milsom. Shoff No. 2, ..	Clearfield, ..	E. F. Townsend, ..	Philipsburg, ..	Philipsburg, ..	Pennsylvania Railroad.
Clearfield Bituminous Coal Corp. Canoe Ridge mine, ..	Indiana, ..	R. A. Shillingford, ..	Clearfield, ..	Rossiter, Ind., ..	P. & N. W. R. R.
Lorraine, .. Reakirt Bros. & Co.	Clearfield, ..	F. A. Van Bonburgh, ..	Philadelphia, ..	Brisbin, ..	Pennsylvania Railroad.
Penn Iron Co., Limited. Reading, ..	Clearfield, ..	H. C. Burrows, ..	Lancaster, ..	Osceola Mills, ..	Pennsylvania Railroad.
Harblson, Walker Co. Parks mine, ..	Clearfield, ..	H. M. Kurtz, ..	Woodland, ..	Woodland, ..	Mine track only.
W. F. Holt. Phoenix, ..	Clearfield, ..	W. T. Holt, ..	Philipsburg, ..	Philipsburg, ..	New York Central R. R.

TABLE I—Continued.

Names of Operators and Collieries.	County.	Name of General Superintendent.	P. O. Address.	Name of Superintendent.	P. O. Address.	Railroad to Mine.
Harman & Straehan.	Clearfield.	J. Strahan.	Mechra.	C. J. Paul.	Philipsburg.	Pennsylvania Railroad.
Madera.	Clearfield.	H. M. Hughes.	Drane.	H. M. Hughes.	Drane.	Pennsylvania Railroad.
Leader Nos. 1 and 2.	Clearfield.	Thos. Wood.	Victor P.	Thos. Wood.	Victor.	Pennsylvania Railroad.
Victor Nos. 2 and 3.	Clearfield.	Stratton Brothers.	.....	P. C. Stratton.	Philipsburg.	Pennsylvania Railroad.
Kentuck.	Clearfield.	Meadow Brook Coal Mining Co.	.....	J. D. Huddell.	Philipsburg.	Pennsylvania Railroad.
Meadow Brook.	Clearfield.	W. J. Davis.	Hawkrun.	.....	.....	New York Central R. R.
Davis mine.	Clearfield.	Wm. Caskar.	Houtzdale.	.....	.....	Pennsylvania Railroad.
Birds Eye.	Clearfield.	Jonas Anda.	Houtzdale.	.....	.....	Pennsylvania Railroad.
Anda & Co., Limited.	Centre.	.....	.....	J. Walton.	Philipsburg.	Pennsylvania Railroad.
Mountain Branch.	Centre.	.....	.....	J. F. Stott.	Philipsburg.	New York Central R. R.
J. Walton & Son.	Clearfield.	J. F. Stott.	Philipsburg.	Jas. Gatehouse.	Ventland.	Pennsylvania Railroad.
Highland.	Clearfield.	Jas. Gatehouse.	Ventland.	Thos. Morgan.	Philipsburg.	Pennsylvania Railroad.
Barton.	Clearfield.	.....	.....	.....	.....	Pennsylvania Railroad.
Shelov & Benford.	Clearfield.	G. W. Turley.	Philipsburg.	.....	.....	Pennsylvania Railroad.
Porter Run.	Centre.	.....	.....	Jas. W. Boulton.	McCartney.	Pennsylvania Railroad.
Boynton Coal Co.	Clearfield.	.....	.....	.....	.....	Pennsylvania Railroad.
Beaver Nos. 1 and 2.	Centre.	.....	.....	.....	.....	Pennsylvania Railroad.
Graver & Co., Limited.	Clearfield.	.....	.....	.....	.....	Pennsylvania Railroad.
McCartney.	Clearfield.	.....	.....	.....	.....	Pennsylvania Railroad.

Coal Dale Mining Co. Imperial No. 1,	Clearfield,	Robert Scott,	Lloyd,	J. R. Fleming,	Phillipsburg,	Pennsylvania Railroad.
Samuel Styre. Black Diamond No. 2,	Clearfield,	R. K. Styre,	Osceola Mills, ...	R. K. Styre,	Osceola Mills, ...	Pennsylvania Railroad.
Belsena Coal and Coke Co. Belsena No. 3,	Clearfield,	John H. Klock,	Berlin,	W. J. Eicher,	Belsena Mills, ...	Pennsylvania Railroad.

Morrisdale drift No. 8,	Clearfield.	5,357	10,612	952	21,357	170	97	110	2
Troy,	Clearfield.	42,256			14,430	146	77	377	1
Mabel,	Clearfield.	4,921			7,521	128	22	40	1
Total,		365,787	10,612	952	377,349	146	684	3,257	2
Peale, Peacock & Kerr, Inc.									
Decatur No. 3,	Clearfield.	59,638	78	48	54,764		138		
Decatur No. 2,	Clearfield.	96,370			96,360		85		
Decatur No. 1,	Clearfield.	90,726	10	10	90,736		92		
Decatur No. 4,	Clearfield.	4,088			4,088		28		
Total,		250,812	78	58	250,948		343		
O. P. Jones' Estate.									
Acme No. 1,	Clearfield.	71,636	336	1,192	73,164		109		
Acme No. 2,	Clearfield.	38,531	2,164		41,055		89		
C. J. Whittenburg.									
Acme No. 1,	Clearfield.	7,545	40	11	7,546		117		
Acme No. 2,	Clearfield.	5,757	389	5	6,161		97		
Total,		123,529	3,239	1,208	127,976		412		
Irish Brothers.									
Colorado No. 3,	Clearfield.	61,665	98	72	61,835		105		
Baltic,	Clearfield.	45,030	5	74	45,104		95		
Red Jacket,	Clearfield.	22,851	9	280	23,120		56		
Total,		129,526	112	426	130,061		256		
Ophir,	Centre,	94,978		434	95,412		139		
Ashman,	Clearfield.	31,993			34,993		72		
Total,		129,971		434	130,405		211		
H. Liverlight.									
Phoenix,	Centre,	21,584			21,584		28		
Fairmont No. 1,	Clearfield.	21,359			21,359		22		
Fairmont No. 2,	Clearfield.	52,053	91	91	52,144		76		
Total,		94,996		91	95,087		136		
Thos. C. Heims & Co.									
Lenox,	Clearfield.	26,158			26,158		59		
Electric,	Centre,	61,548			61,548		93		
Total,		87,676			87,676		152		

TABLE II—Continued.

Names of Operators and Collieries.	County.	Shipments of coal in tons by rail or otherwise.	Number of tons used for steam and heat at colliery.	Sold to local trade and used by employes—tons.	Total production of coal in tons.	Total production of coke in tons.	Number of coke ovens.	Number days worked.	Number persons employed.	Number fatal accidents.	Number non-fatal accidents.	Number kegs powder used.	Number pounds of dynamite used.	Number horses and mules.
Henrietta Coal Co.	Clearfield.	5,610	.....	22	5,622	.....	.....	146	32	.....	.....	38	3	4
Friendship,	Clearfield.	79,587	.....	389	79,976	.....	.....	166	76	.....	.....	15	6	16
Henrietta, .....	.....	85,197	.....	411	85,598	.....	.....	156	108	.....	.....	52	9	20
Total, .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
G. L. Whitehead & Co.	Centre.	16,852	.....	.....	16,852	.....	.....	246	91	.....	.....	205	415	8
Standard No. 1,	Centre.	4,984	.....	.....	4,984	.....	.....	216	11	.....	.....	103	262	2
Standard No. 2,	Clearfield.	4,737	.....	.....	4,737	.....	.....	208	9	.....	.....	112	241	2
Standard No. 3,	Clearfield.	13,036	.....	.....	13,036	.....	.....	151	25	.....	.....	204	322	1
Standard No. 4,	Clearfield.	1,128	.....	.....	1,128	.....	.....	137	6	.....	.....	83	116	1
Standard No. 5,	Clearfield.	27,909	1,310	.....	29,219	.....	.....	144	85	.....	.....	192	525	16
Mt. Vernon No. 6,	Clearfield.	459	323	.....	782	.....	.....	42	17	.....	.....	29	175	1
Standard No. 8,	Clearfield.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Total, .....	.....	69,106	1,633	.....	70,739	.....	.....	162	174	.....	.....	929	2,057	25
Camabria Coal Co.	Clearfield.	88,819	.....	.....	89,491	.....	.....	200	150	.....	.....	.....	.....	10
Leland No. 1,	Clearfield.	12,388	672	.....	12,388	.....	.....	185	12	.....	.....	.....	.....	2
Leland No. 2,	Clearfield.	1,614	.....	.....	1,614	.....	.....	178	14	.....	.....	.....	.....	2
Leland No. 4,	Clearfield.	2,312	.....	.....	2,312	.....	.....	118	12	.....	.....	.....	.....	1
Total, .....	.....	123,563	672	.....	123,235	.....	.....	170	193	.....	.....	.....	.....	15
Platt Coal Mining Co.	Clearfield.	19,148	.....	56	19,271	.....	.....	130	50	.....	.....	.....	.....	6
Gutan,	Clearfield.	10,990	67	.....	11,082	.....	.....	100	34	.....	.....	.....	.....	4
Cuba,	Clearfield.	30,852	67	28	30,948	.....	.....	171	46	.....	.....	.....	.....	6
Colorado No. 2,	Clearfield.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Total, .....	.....	60,991	190	120	61,301	.....	.....	184	130	.....	.....	.....	.....	16

TABLE II—Continued.

Names of Operators and Collieries.	County.	Shipments of coal in tons by rail or otherwise.	Number and heat at colliery.	Sold to local trade and used by employes—tons.	Total production of coal in tons.	Total production of coke in tons.	Number of coke ovens.	Number days worked.	Number persons employed.	Number fatal accidents.	Number non-fatal accidents.	Number kegs powder used.	Number pounds of dynamite used.	Number horses and mules.
American Union Coal Co.														
Mt. Vernon No. 7.	Clearfield.	13,608	58	29	13,695			258	22					3
Mt. Vernon No. 11.	Clearfield.	9,150	25	1,404	10,669			208	26					2
Total.		22,758	83	1,433	24,304			233	68					5
S. J. Mountz.														
Mountz.	Clearfield.	10,966			10,966			158	9					1
Whiteside No. 1.	Clearfield.	9,600			9,600			208	20					1
Whiteside No. 2.	Clearfield.	4,748			4,748			202	9					1
Total.		25,314			25,314			189	38					3
L. Milton Wilson.														
Bear Run.	Centre.	16,404			16,404			298	32			60	200	3
Schwinn.	Clearfield.	6,175		57	6,332			165	12		1	60	600	2
Total.		22,579		57	22,636			117	44		1	120	800	5
Brown & Dyer.														
Union No. 3.	Centre.	16,640			16,640			190	38			125		2
Union No. 4.	Clearfield.	260			260			30	9					1
Union No. 5.	Clearfield.	2,926			2,926			31	28			15		3
Total.*		19,826			19,826			126	75			140		6

*Production, etc., of companies operating single collieries, will be found in the Recapitulation.

Recapitulation.

Berwind-White Coal Mining Co.,	1,387,457	36,625	219	1,434,271	188	1,970	4	8	16,343	7,942	241
Morrisdale Coal Co.,	351,457	16,012	562	377,349	123	684	1	2	3,257	2,000	56
Pea Ridge & Kerr, Inc.,	256,812	78	58	256,948	153	343	1	1	.....	100	32
P. Jones' Estate and J. C. Whiteburg,	3,229	1,298	.....	127,976	SS	296	.....	3	750	.....	50
Irish Brothers,	129,526	112	426	130,664	232	256	.....	2	685	50	26
Ophir Coal Co. and J. Swires,	129,571	.....	434	130,105	222	211	.....	2	900	.....	20
Bulah Coal Co.,	96,584	359	324	97,297	182	153	.....	1	502	700	20
H. Liveright,	84,896	.....	91	85,076	236	136	.....	1	463	.....	25
Thos. C. Helms & Co.,	87,676	.....	532	92,335	134	152	.....	12	550	.....	12
J. S. and W. H. Todd,	81,863	.....	220	84,343	187	87	.....	2	480	10	18
Ghem Coal Co.,	84,123	.....	411	85,398	156	108	.....	2	276	.....	7
Henrietta Coal Co.,	85,187	.....	84	74,318	276	115	.....	1	400	9	20
Thos. Blythe,	74,264	.....	.....	70,739	162	174	.....	2	929	2,657	25
C. L. Whitehead & Co.,	69,106	652	.....	123,235	170	133	.....	1	.....	.....	13
Cambria Coal Co.,	122,565	190	.....	130,301	131	130	.....	1	615	.....	16
Platt Coal Mining Co.,	60,391	.....	120	61,301	187	92	.....	.....	250	.....	9
Thos. Lee & Co., Ltd., and Thos. Lee,	53,563	196	3,562	57,361	111	128	.....	1	.....	.....	9
J. C. McLeary & Co.,	46,280	112	100	47,301	206	72	.....	.....	.....	.....	5
M. Burns,	46,280	.....	.....	46,280	206	72	.....	1	.....	.....	5
Williams, Morris & Co.,	45,755	.....	112	45,867	297	36	.....	.....	191	.....	6
Adams & Co.,	41,074	224	.....	41,298	264	55	.....	1	125	.....	5
M. and F. Craik,	38,640	.....	.....	38,640	179	59	.....	3	180	.....	3
J. Barnes & Sons,	38,641	.....	448	38,641	221	65	.....	.....	220	.....	8
J. Hooton & Son,	36,960	.....	.....	37,408	221	91	.....	5	500	200	5
Blair Brothers,	35,463	448	.....	38,311	186	59	.....	.....	250	.....	11
W. J. Jackson,	35,740	1,269	112	37,061	282	76	.....	.....	175	200	5
Christoff Bros. & Co.,	5,840	.....	12	5,852	132	12	.....	.....	50	.....	2
W. A. Gould & Bros.,	36,753	.....	112	30,871	126	107	.....	.....	.....	.....	12
Mostannon Coal Mining Co.,	30,288	.....	.....	30,688	137	86	.....	.....	.....	.....	7
Pures coal Mining Co.,	29,528	.....	.....	29,528	137	86	.....	.....	.....	.....	7
P. R. Brown,	28,947	.....	17	27,480	272	46	.....	.....	36	.....	2
J. K. Brown,	27,940	173	67	27,480	267	54	.....	.....	40	.....	3
American Union Coal Co.,	25,788	83	1,433	25,314	233	63	.....	.....	48	50	9
S. J. Mouniz,	25,314	.....	.....	25,314	189	38	.....	.....	.....	.....	3
L. Milton Wilson,	22,879	.....	57	22,956	117	43	.....	.....	120	800	1
W. A. Preston,	20,571	.....	.....	20,571	264	77	.....	1	.....	.....	1
Brown & Dyer,	19,826	.....	.....	19,826	126	75	.....	.....	140	.....	6
Townsend & Milson,	19,520	.....	.....	19,520	185	26	.....	.....	35	5	3
Rekirt Bros. & Co.,	18,863	.....	.....	18,863	181	46	.....	.....	.....	.....	4
Clearfield Bituminous Coal Corp.,	18,116	672	112	18,900	78	246	.....	.....	480	3,400	6
Penn Iron Co. Limited,	18,219	.....	.....	18,219	252	210	.....	.....	210	.....	4
Harbison Walker Co.,	17,449	.....	.....	17,449	303	43	.....	.....	625	.....	2
W. F. Holt,	17,269	35	.....	17,301	177	36	.....	.....	.....	.....	3
Harman & Strachan,	16,852	.....	28	16,900	161	33	.....	.....	.....	.....	1
H. H. Rhodes,	15,680	240	.....	14,430	18	18	.....	.....	50	.....	4
Thos. Wood,	15,680	.....	.....	14,430	176	15	.....	.....	.....	.....	3
Stratton Bros.,	14,318	.....	112	14,430	121	27	.....	.....	50	.....	4
Meadow Brook Coal Mining Co.,	12,220	196	168	12,584	268	25	.....	.....	114	150	3
W. J. Davis,	10,200	.....	75	10,335	177	17	.....	.....	46	.....	2

Recapitulation.—Continued.

Names of Operators and Collieries.	County.	Shipments of coal in tons by rail or otherwise.	Number of tons used for steam and heat at colliery.	Sold to local trade and used by employes—tons.	Total production of coal in tons.	Total production of coke in tons.	Number of coke ovens.	Number days worked.	Number persons employed.	Number fatal accidents.	Number non-fatal accidents.	Number kegs powder used.	Number pounds of dynamite used.	Number horses and mules.
Wm. Casler,	7,816	244	48	8,108	.....	.....	182	11	.....	.....	80	.....	8
Andia & Co. Limited,	7,830	.....	13	7,852	.....	.....	134	17	.....	.....	50	.....	2
J. Walton & Son,	5,584	.....	56	5,652	.....	.....	126	17	.....	.....	40	.....	2
Jas. F. Stott,	2,810	.....	1,420	3,930	.....	.....	162	9	.....	.....	.....	.....	1
Jas. Gatehouse,	4,476	56	30	4,562	.....	.....	113	23	.....	.....	50	100	1
Shelov & Benford,	3,600	.....	.....	3,600	.....	.....	62	13	.....	.....	30	50	1
Boynton Coal Co.,	2,141	.....	9	2,150	.....	.....	90	11	.....	.....	12	10	1
Graver & Co., Limited,	1,142	.....	10	1,152	.....	.....	27	24	.....	.....	10	.....	1
Coal Dale Mining Co.,	34,698	.....	.....	34,698	.....	.....	176	71	1	.....	85	.....	7
Samuel Styre,	16,149	23	66	16,238	.....	.....	223	41	.....	.....	90	.....	3
Balsena Coal and Coke Co.,	9,872	337	137	38,222	20,724	50	277	88	.....	.....	701	138	10
Grand total and average,	4,225,931	57,364	13,678	4,342,176	20,724	50	181	7,330	9	27	25,926	18,078	769

Recapitulation.—Continued.

Name of Operators.	County.	Number of Boilers.			Total horse power.	Locomotives.			Number steam engines of all classes.	Total horse power.	Number pumps delivering water to surface.	Capacity in gallons per minute.	Quantity delivered to surface per minute—gallons.	Number electric dynamos.	Number air compressors.
		Cylindrical.	Tubular.	Horse power.		Steam.	Air.	Electric.							
P. Galliger
J. R. Beavin
American Union Coal Co.
S. J. Mountz
L. Milton Wilson
W. A. Preston
Brown & Dyer
Townsend & Milson
Rekirt Bros. & Co.
Clearfield Bituminous Coal Corp.	4	.....	600	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Penn Iron Co., Limited
Warfleson, Walker Co.
W. F. Root
W. F. Root & Co.
H. M. Hughes
Thos. Wood
Stratton Bros.
Meadow Brook Coal Mining Co.
W. J. Davis
Wm. Casker
Anda & Co., Limited
J. Walton & Son
Jas. F. Stott
Jas. Garehouse
Shelov & Benford
Rayton Coal Co.
Grayton Coal Co., Limited
Coal Dale Mining Co.
Samuel Styre
Belsena Coal and Coke Co.
Grand total and average	29	61	4,843	6,588	1	16	44	3,140	54	20,911	6,385	10	9	

TABLE III—Showing the number of employees at each colliery in the Eighth Bituminous District, during the year 1900.

Names of Operators and Collieries.	County.	Occupations of Persons Employed Inside.							Occupations of Persons Employed Outside.									
		Inside foreman or mine boss.	Fire bosses.	Miners.	Miners' laborers.	Drivers and runners.	Door boys and helpers.	All other employes.	Total inside.	Outside foreman.	Blacksmiths and carpenters.	Engineers and firemen.	State pickers.	Employed in the manufacture of coke.	Superintendents, book-keepers and clerks.	All other employes.	Total outside.	Grand total, inside and outside.
Berwind-White Coal Co.																		
Eureka No. 5.	Clearfield.	1		95		6	1	4	107		1	4			1	6	12	119
Eureka No. 7.	Clearfield.	1		102		5	3	3	112		1	3			1	4	9	127
Eureka No. 16.	Clearfield.	1		81		2	2	2	86		1	2			1	3	7	102
Eureka No. 18.	Clearfield.	2		58		3	1	2	64		1	2			1	4	9	70
Eureka No. 19.	Clearfield.	2		45		3	1	2	53		1	2			1	4	9	57
Eureka No. 21.	Centre.	1		41		1	1	1	44		1	1			1	3	15	47
Eureka No. 22.	Clearfield.	2		149		6	1	5	161		1	5			2	8	13	182
Eureka No. 24.	Clearfield.	1		36		3	1	1	41		1	3			1	5	10	47
Eureka No. 27.	Clearfield.	1		38		1	1	2	42		1	2			2	6	10	47
Atlantic No. 1.	Clearfield.	1		169		8	1	2	180		2	3			2	8	10	191
West Eureka No. 1.	Jefferson.	1		167		22	16	2	207		3	5			1	3	14	226
West Eureka No. 2.	Jefferson.	1		31		4	2	1	39		1	1			1	3	5	41
West Eureka No. 3.	Jefferson.	1		20		1	1	1	23		1	1			1	3	5	28
West Eureka No. 10.	Jefferson.	1	1	123		7	1	9	140		4	3			1	6	19	167
West Eureka No. 11.	Jefferson.	1		96		10	9	4	115		2	4			1	3	11	131
West Eureka No. 12.	Jefferson.	1		18		1	1	4	22		1	1			1	5	8	30
West Eureka No. 13.	Jefferson.	1		18		2	1	1	22		1	1			1	2	5	25
Total and average.		20	1	1,552	71	90	28	59	1,821	95	88	7			19	60	149	1,970
Morrisdale Coal Co.																		
Morrisdale shaft No. 1.	Clearfield.	2		214		23	35	27	301	1	7	9			7	13	39	340
Morrisdale shaft No. 2.	Clearfield.	1		80		7	20	14	122	1	3	5			3	3	13	135
Morrisdale drift No. 4.	Clearfield.	1		12		1	1	1	15		1	1			1	1	1	16
Morrisdale drift No. 5.	Clearfield.	1		18		1	2	1	23						1	1	1	24

O. P. Jones' Estate.															
Acme No. 1,	1	84	.....	5	2	3	95	.....	2	2	2	2	2	4	14
Acme No. 2,	1	70	.....	3	1	4	79	.....	2	3	3	1	.....	4	10
C. J. Whittenburg.															
Acme No. 1,	1	90	.....	6	4	1	103	.....	1	2	2	.....	.....	4	14
Acme No. 2,	1	80	.....	4	1	2	89	.....	1	1	3	1	.....	2	8
Total and average,	4	324	.....	18	8	10	326	.....	2	6	10	6	.....	8	46
Irish Brothers.															
Colorado No. 3,	1	68	.....	3	5	4	87	.....	1	2	.....	.....	.....	3	10
Baltic,	1	66	.....	3	3	3	81	.....	1	2	.....	.....	.....	2	8
Red Jacket,	1	34	.....	2	3	2	44	.....	1	2	.....	.....	.....	3	14
Total and average,	3	168	.....	7	13	9	212	.....	3	6	2	.....	.....	8	25
H. Liverlight.															
Phoenix,	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Fairmont No. 1,	1	24	.....	2	.....	.....	27	.....	1	.....	.....	.....	.....	.....	1
Fairmont No. 2,	1	28	.....	1	.....	.....	30	.....	1	.....	.....	.....	.....	2	2
Total and average,	3	64	.....	1	6	1	73	.....	1	.....	.....	.....	.....	2	3
Piatt Coal Mining Co.															
Gulon,	1	40	.....	3	1	.....	45	.....	.....	.....	.....	.....	.....	2	1
Cuba,	1	30	.....	.....	.....	.....	33	.....	1	.....	.....	.....	.....	1	34
Colorado No. 2,	1	40	.....	3	.....	.....	44	.....	1	.....	.....	.....	.....	1	2
Total and average,	3	110	.....	6	1	.....	122	.....	3	.....	.....	.....	.....	2	46
W. A. Gould & Co.															
Staffordshire,	1	10	.....	1	.....	.....	12	.....	.....	.....	.....	.....	.....	.....	.....
Midvale No. 1,	1	40	.....	4	1	.....	46	.....	.....	.....	.....	.....	.....	.....	12
Midvale No. 2,	1	28	.....	4	.....	.....	33	.....	.....	.....	.....	.....	.....	.....	46
Henderson,	1	14	.....	1	.....	.....	16	.....	.....	.....	.....	.....	.....	.....	33
Total and average,	4	92	.....	10	1	.....	107	.....	.....	.....	.....	.....	.....	.....	16
Brown & Dyer.															
Union No. 3,	1	30	.....	2	1	1	35	.....	.....	.....	.....	.....	.....	2	3
Union No. 4,	1	8	.....	.....	.....	.....	9	.....	.....	.....	.....	.....	.....	.....	.....
Union No. 5,	1	20	.....	2	.....	3	28	.....	.....	.....	.....	.....	.....	.....	9
Total and average,	2	58	.....	2	4	2	4	72	.....	.....	.....	.....	.....	.....	28
S. J. Mountz.															
Mountz,	1	8	.....	1	.....	.....	9	.....	.....	.....	.....	.....	.....	.....	.....
Whiteside No. 1,	1	16	.....	1	.....	.....	19	.....	.....	.....	.....	.....	.....	.....	9
Whiteside No. 2,	1	8	.....	1	.....	.....	9	.....	.....	.....	.....	.....	.....	.....	.....
Total and average,	1	32	.....	1	.....	.....	37	.....	.....	.....	.....	.....	.....	.....	38

TABLE III—Continued.

Names of Operators and Collieries.	County.	Occupations of Persons Employed Inside.								Occupations of Persons Employed Outside.								Grand total, inside and outside.
		Inside foreman or mine boss.	Fire bosses.	Miners.	Miners' laborers.	Drivers and runners.	Door boys and helpers.	All other employes.	Total inside.	Outside foreman.	Blacksmiths and carpenters.	Engineers and firemen.	State pickers.	Employed in the manufacture of coke.	Superintendents, book-keepers and clerks.	All other employes.	Total outside.	
J. Swires and Ophir Coal Co.	Centre,	1	123	.....	6	2	2	134	.....	1	.....	1	.....	1	.....	2	139
Ophir,	Clearfield,	1	62	.....	5	1	1	70	.....	1	.....	1	.....	1	.....	1	72
Ashman, .....	.....	2	185	.....	11	3	3	204	.....	2	.....	1	.....	1	.....	3	211
Total and average, .....	.....	4	158	.....	8	6	.....	180	.....	4	.....	2	.....	2	.....	2	193
Cambria Coal Co.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Leland No. 1,	Clearfield,	1	127	.....	4	5	.....	140	.....	1	.....	2	.....	2	.....	2	150
Leland No. 2,	Clearfield,	1	15	.....	1	1	.....	17	.....	1	.....	.....	.....	.....	.....	.....	12
Leland No. 3,	Clearfield,	1	18	.....	1	1	.....	20	.....	.....	.....	.....	.....	.....	.....	.....	1
Leland No. 4,	Clearfield,	1	8	.....	1	1	.....	11	.....	1	.....	.....	.....	.....	.....	.....	19
Total and average, .....	.....	4	158	.....	4	8	.....	180	.....	4	.....	2	.....	2	.....	2	193
Thos. C. Helms & Co.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Lenore,	Clearfield,	1	49	.....	4	1	2	57	.....	1	.....	.....	.....	1	.....	.....	59
Electric,	Centre,	1	81	.....	5	.....	1	87	.....	1	.....	2	.....	1	.....	2	93
Total and average, .....	.....	2	130	.....	9	1	3	144	.....	2	.....	2	.....	2	.....	2	152
Henrietta Coal Co.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Friendship,	Clearfield,	1	30	.....	2	.....	.....	32	.....	.....	.....	.....	.....	.....	.....	.....	32
Henrietta,	Clearfield,	1	67	.....	4	.....	1	73	.....	1	.....	.....	.....	1	.....	.....	76
Total and average, .....	.....	1	97	.....	6	1	.....	105	.....	1	.....	1	.....	1	.....	.....	188

TABLE III—Continued.

Names of Operators and Collieries.	County.	Occupations of Persons Employed Inside.							Occupations of Persons Employed Outside.							Grand total, inside and outside.	
		Inside foreman or mine boss.	Fire bosses.	Miners.	Miners' laborers.	Drivers and runners.	Door boys and helpers.	All other employes.	Total inside.	Outside foreman.	Blacksmiths and carpenters.	Engineers and firemen.	State pickers.	Employed in the manufacture of coke.	Superintendents, book-keepers and clerks.		All other employes.	Total outside.
Thos. J. Lee & Co., Ltd., and Gearhart, Lee,	Clearfield, Clearfield,	1	1	62	4	2	3	2	72	1	1	1	1	2	1	5	77
Total and average,	2	2	74	6	2	3	2	87	1	1	1	1	2	1	6	93
M. Burns,	Clearfield,	1	54	3	3	.....	.....	58	1	1	.....	.....	2	2	5	63
Raybold No. 2,	Clearfield,	8	8	1	1	.....	.....	9	.....	.....	.....	.....	2	2	9	9
Total and average, * .....	.....	1	62	4	4	.....	.....	67	1	1	.....	.....	2	2	5	72

*Number of employes, etc., of single collieries will be found in the Recapitulation.

Recapitulation.

Berwind-White Coal Mining Co.,	20	1	1,552	71	90	28	59	1,821	25	38	7	7	19	60	149	1,970
Morrisdale Coal Co.,	10	458	44	60	62	624	11	14	3	9	9	9	9	21	60	684
G. L. Whiteside & Co.,	7	137	10	2	4	160	2	4	1	2	4	1	4	3	14	174
Peale, Peacock & Kerr,	3	293	19	2	6	324	3	3	3	2	3	3	2	11	19	343
O. P. Jones' Estate and C. J.	2	162	1	9	4	183	1	3	3	1	3	3	4	7	23	206
Irish Brothers,	3	168	7	13	9	212	3	6	2	8	2	2	8	25	44	236
H. Liveright,	3	116	9	1	12	130	2	3	1	3	1	1	3	4	6	136
Platt Coal Mining Co.,	3	110	1	.....	8	122	3	.....	1	.....	.....	.....	2	2	8	130

W. A. Gould & Co.	4	92	10	1	107	1	2	3	107
Brown & Dyer	2	58	4	2	72	1	1	3	75
S. J. Mountz	1	32	3	3	37	1	1	1	78
J. Swires and Ophir Coal Co.	2	185	11	3	204	1	2	5	918
Cambria Coal Co.	4	138	8	6	180	4	2	13	193
Thos. C. Helms & Co.	2	130	9	1	105	1	2	3	152
Hennietta Coal Co.	2	403	1	2	113	1	1	3	108
J. M. Leavy & Co.	2	51	5	2	113	1	2	1	128
J. Barnes & Sons	2	70	2	3	60	1	1	15	65
Moshannon Coal Mining Co.	2	45	4	3	79	1	2	7	86
Hair Bros.	2	42	2	2	54	1	1	4	57
Porter Coal Mining Co.	2	44	4	3	47	1	1	5	59
L. Milton Wilson	1	34	3	2	41	2	1	1	49
American Union Coal Co.	2	54	3	1	62	2	4	3	44
Reulah Coal Co.	1	120	8	5	138	3	1	6	68
Ghem Coal Co.	1	76	5	1	84	1	1	15	132
Thos. J. Lee & Co., Ltd., and Lee Coal Co.	2	74	6	3	87	1	1	3	87
M. Burns	1	62	2	2	87	1	1	2	93
Williams, Morris & Co.	1	30	2	1	91	1	1	3	72
Adams & Co.	1	46	3	1	53	1	1	2	36
M. and F. Craig	1	56	1	1	57	1	1	2	55
W. J. Jackson	1	65	3	1	73	1	1	2	59
F. Gallagher	1	23	3	2	65	1	2	3	76
J. P. Gallagher	1	45	2	1	26	1	1	3	26
Chesterfield Bituminous Coal Co.	1	100	7	2	52	1	2	1	54
Reakirt Bros. & Co.	1	42	3	2	150	1	1	2	246
Penn Iron Co., Limited	1	38	2	2	46	1	1	1	46
Harbison, Walker Co.	1	18	1	1	42	1	1	1	43
W. F. Holt	1	29	2	1	22	2	2	2	34
Harman & Straehan	1	34	3	1	32	1	1	1	36
H. M. Hughes	1	14	2	2	35	1	1	1	33
Thos. Wood	1	20	2	1	26	1	1	1	16
Stratton Bros.	1	18	2	1	22	1	1	2	27
Mendow Brook Coal Mining Co.	1	17	2	1	22	1	1	3	25
W. J. Davis	1	17	2	1	17	1	1	1	17
Wm. Casper	1	12	1	1	9	1	1	2	11
Anda & Co., Limited	1	15	1	1	14	1	1	3	17
Jas. F. Strout	1	6	1	1	17	1	1	1	17
Gatehouse	1	10	1	1	17	2	1	1	17
Shelov & Benford	1	14	1	1	8	1	1	1	9
Boynon Coal Co.	1	8	1	1	13	1	1	1	9
Graver & Co., Limited	1	20	4	2	20	1	1	2	22
Coaldale Mining Co.	1	69	5	1	10	1	1	1	11
Samuel Styre	1	35	3	2	22	1	1	3	24
Belsena Coal and Coke Co.	1	54	4	3	67	1	1	4	41
Christoff Bros. & Co.	1	8	1	1	13	1	1	2	88
W. A. Preston	1	92	2	1	73	1	1	1	12
Townsend & Milson	1	50	4	1	25	1	1	1	26
J. Hooton & Son	1	80	4	1	86	1	1	1	91
Thos. Blythe	1	100	4	2	111	1	2	1	115

Recapitulation. Continued.

Names of Operators and Collieries.	County.	Number of Days Worked in Each Month.												Total.	
		January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.		
Bervind-White Coal Mining Co.,	22	20	12	17.70	22.10	19.90	16	12.50	14.30	18.70	16.40	15.80	16.40	15.80
Morrisdale Coal Co.,	16.83	13	13	14.75	15	14.70	16.40	16.60	14	16.25	13.75	9.50	18.10	18.60
G. L. Whitehead & Co.,	20.25	18	17	20.60	24.60	27	27.10	21.30	17	18.10	21	15	18.10	18.60
Peale, Peacock & Kerr,	20.50	18	17	20.60	24.60	27	27.10	21.30	17	18.10	21	15	18.10	18.60
O. P. Jones' Estate and C. J. Whittenburg,	22	21	18	20.60	24.60	27	27.10	21.30	17	18.10	21	15	18.10	18.60
Irish Bros.,	24	23	25	16.60	24	16.30	24.30	20.60	20	21.30	23.50	22.50	23.50	22.50
H. Liveright,	22	20	20	16.60	24	16.30	24.30	20.60	20	21.30	23.50	22.50	23.50	22.50
Platt Coal Mining Co.,	13.33	14.30	13	16.30	15.30	12	12	11	17.80	11.50	11.25	6.66	13.60	17
W. A. Gould & Co.,	15.50	18	16.50	16.30	15.30	12	12	11	17.80	11.50	11.25	6.66	13.60	17
Brown & Dyer,	24	24	24	22	20	8	14	13	20	19.24	16	13	27	13
S. J. Mountz,	21.50	23.50	21	22.75	20	8	14	13	20	19.24	16	13	27	13
J. Swires and Ophir Coal Co.,	17	18.50	16.50	24	24.50	22	22.50	14.50	14	24	9.60	10	18	13
Gambria Coal Co.,	20	19	22.50	14.60	13	13.60	14.60	17.75	15.25	17.25	18	13.25	14	13.25
Thomas C. Helmus & Co.,	22.87	21.25	24.50	22	18.12	10.25	13.12	11.62	14.12	17.62	8.62	9.25	14	13.25
H. McLeavy & Co.,	21.50	15.50	13	22.50	30	8.50	10.50	13	8.50	10	14.50	18.50	16	16
J. Barnes & Sons,	21	20.50	17	25	20	23	23	15	15	16	15	21	16	16
Moshannon Coal Mining Co.,	13.50	11.50	15.50	13.50	23	16.50	16	16.50	19.30	18.50	18	12	18	12
Blair Brothers,	20	19	23	13.50	23	22	20	19	20	24.50	21	23	24	23
Forest Coal Mining Co.,	9.50	18.50	17.25	20	13.50	18.87	13.75	8.25	5	14.25	9.62	8	14	9
L. Milton Wilson,	24	22	20	22	19	19.50	23	17.50	16	15.50	24	18	15.50	14.50
American Union Coal Co.,	15.50	12.50	21	20	15	23	23	25	23.50	26.50	24	18	26.50	24
Benlah Coal Co.,	25.75	20.75	23.75	19.50	10.75	10.75	10.25	12.50	10	21.75	9.25	15.25	22	15.25
Ghem Coal Co.,	26	22	23.75	25	18.50	18.25	23.50	24.75	22	25.25	20.50	18.25	22	20.50
Thos. J. Lee & Co., Ltd., and Lee Coal Co.,	16	18.50	17	22.50	24	15.50	20	11	10.50	10.50	12	9.50	12	10.50
M. Burns,	17.50	20.50	21	22	20.50	18	12.50	16	20	20	15	11.50	20	11.50
Williams, Morris & Co.,	25	24	25	24	24	22	23	25	24	26	25	25	26	25

Adams & Co.,	21	23	24	22.50	20	24	23	23.50	19	20
W. and F. Cavig,	15	17	17	17	13	15	14	12	12	14
W. Jackson,	27	24	27	27	25	21	21	26	23	15
P. Gallagher,	26	24	24	24	20	19	27	24	21	21
J. R. Brown,	23	21	26	21	17	25	23	25	14	25
Clearfield Bituminous Coal Co.,	14	17	13	16	13	18	16	4	21	21
Reakirk Bros. & Co.,	25	22	17	20	26	29	25	18	11	19.50
Penn Iron Co., Limited,	27	26	27	27	23	29	27	25	27	15
Harblison, Walker Co.,	21	25	21	24	20	25	18	25	19	10
W. F. Holt,	22	22	21	24	10	7	8	15	22	8
Harman & Straehan,	22	22	16	19	12	11	14	15	19	6
H. M. Hughes,	21	10	15	19	14	16	11	16	17	9
Thos. Wood,	20	12	10	5	5	7	7	8	14	15
Stratton Bros.,	50	22	26	25	26	25	24	22	22	26
Meadow Brook Coal Mining Co.,	17	16	12	22	17	17	17	11	9	8
W. J. Davis,	15	16	8	12	17	18	12	19	16	6
Wm. Cusker,	20.25	23.25	21.25	23.50	8	6	16	16	25	9
Anda & Co., Limited,	13	18	10	15	13	15	16	14	17	7
Jas. F. Stott,	13	13	13.50	12.75	19.50	16	20	9	15	11.50
Gatehouse,	13	13	21.75	13.50	15	16	20	15	11	11.50
Shelow & Benford,	13	13	13	13	13	13	13	13	13	13
Boynton Coal Co.,	13	13	13	13	13	13	13	13	13	13
Graver & Co., Limited,	18.50	19.50	22.50	13.25	11.25	14	14	10.50	6.75	9
Coaldale Mining Co.,	25	24	25	19	16	16	15	16	12	13
Samuel Styre,	27	24	23	26	23	22	26	27	22	17
Balsena Coal and Coke Co.,	16	20	17	13	10	12	14	10	2	2
Thristoff Bros. & Co.,	16	20	18	13	10	12	14	10	2	2
W. A. Weston,	18.25	18.25	27.50	23.50	19.50	21.50	26.75	21	25.50	26
W. A. Weston,	21	17	22	18	5	12	14	12	14	19
Townsend & Milson,	21	23	22	24	22	21	23	22	24	20
J. Horton & Son,	21	23	22	24	22	21	23	22	24	20
Thos. Blythe,	26	24	26	24.50	19	22	25.50	20.50	17	21.50

TABLE IV—List of fatal accidents that occurred in and about the mines of the Eighth Bituminous District for the year ending December 31, 1900.

Date of accident.	Name of Person.	Nationality by Birth.	Occupation.	Age.	Married or single.	Number of widows.	Number of orphans.	Name of Colliery.	County.	Nature and Cause of Accident in Brief.
Jan. 31	Samuel Walker,	English,	Miner,	30	S.	.....	.....	Troy,	Clearfield, ...	Skull crushed under a fall of coal, having neglected to set sprags under the loose end while undermining.
April 19	Henry Margrett,	French,	Miner,	47	M.	1	1	Eureka No. 5 slope,	Clearfield, ...	Instantly killed by a fall of slate while he was brushing down loose coal. Two men, one parallel with road and one at right angles, were on the roof. Place was approaching edge of the side track. He was a coupler on the side track, and while haulage rope was in motion a shelve wheel came off and struck him on the head.
July 7	Jos. Straweva,	Slav,	Miner,	38	M.	1	.....	Raybold Grampian No. 2,	Clearfield, ...	Body crushed under a fall of coal while mining without any sprags, causing instant death.
Aug. 3	John Martin,	Slav,	Miner,	45	M.	1	5	Leland No. 1,	Clearfield, ...	Skull fractured and body crushed under a fall of coal, which he was undermining with a loose end and no sprags.
24	Richard Walters,	Welsh,	Miner,	67	M.	1	.....	Coaldale No. 4,	Clearfield, ...	Skull fractured; fatal after five days. Was caught between the side of a pillar and fall of coal which he was shearing at the time.
28	John Johnson,	Swede,	Miner boy,	13	S.	.....	.....	W. Eureka No. 10,	Jefferson,	Body crushed between a prop, set to secure the roof and a fall of coal, while he was standing in front of it shoveling.
Sept. 17	John Moyses,	Slav,	Miner,	44	M.	1	7	Eureka No. 5,	Clearfield, ...	Body crushed under a fall of slate which he was drawing and undermining at the time.
Nov. 16	James Lennon,	Irish,	Miner,	56	M.	1	.....	Alexandra,	Clearfield, ...	Skull fractured and an artery in his neck ruptured; caught under a fall of coal which he was undercutting.

TABLE V—List of non-fatal accidents that occurred in and about the mines of the Eighth Bituminous District for the year ending December 31, 1900.

Date of accident.	Name of Person.	Nationality by Birth.	Occupation.	Age.	Married or single.	Name of Colliery.	County.	Nature and Cause of Accident in Brief.
Jan. 11	Wm. Wade	English	Miner	30	S.	Ophir	Centre	Simple fracture of arm; fell from tippie.
12	John Maletz	Irish	Miner	27	M.	West Eureka No. 10	Jefferson	Hips severely bruised by a fall of coal.
16	Abendigo Crane	American	Miner	61	M.	Columbia No. 3	Clearfield	Forearm and hand severely fractured, and his collar bone was broken.
Feb. 31	Adolphus Lambria	French	Miner	26	S.	Decatur No. 1	Clearfield	Hips severely bruised by fall of coal.
3	Wm. Tespey	Pole	Miner	21	S.	Ghem	Centre	Hips and aukle severely bruised by fall of coal.
13	Chas. Loyd	Welsh	Miner	50	M.	Eureka No. 22	Clearfield	Ankle severely bruised and sprained by being struck by a car.
15	Jas. Craega	Hungarian	Miner	33	M.	Acme No. 2	Clearfield	Both shoulders dislocated, collar bone broken by a fall of bone coal.
15	Andrew Yomitch	Hungarian	Miner	19	S.	Acme No. 2	Clearfield	Collar bone broken and shoulder dislocated under the same fall of coal.
April 2	John McCrory	Irish	Driver	34	M.	Penn Mine No. 2	Jefferson	Simple fracture of lower limb; caught between cars.
17	John Remizer	Pole	Miner	31	S.	Ghem	Centre	Simple fracture of lower limb; fall of coal.
18	Geo. Wm. Fish	English	Miner	48	M.	Morrisdale No. 1	Clearfield	Spine injured, rib broken and other injuries by a fall of coal.
26	Steve Maturko	Slav	Miner	29	M.	Webster No. 4	Clearfield	Ribs fractured and body bruised by a fall of roof slate.
27	Andrew Rushneck	Slav	Miner	46	M.	Morrisdale No. 1 shaft	Clearfield	Simple fracture of lower limb; fall of coal.
30	George Brown	English	Driver	26	M.	Baltic No. 1	Clearfield	Back severely bruised between the top of loaded mine car and the roof.
June 4	Romain Schakel	German	Miner	22	S.	Mt. Vernon No. 6	Clearfield	Compound fracture of left leg, necessitating amputation, by fall of slate.
July 25	Steve Lencotch	Hungarian	Miner boy	15	S.	Acme No. 1	Clearfield	Arm broken between loaded mine cars.
Aug. 4	Thos. Hartley	English	Miner	43	M.	Eureka No. 7 shaft	Clearfield	Skull severely bruised, causing slight concussion of the brain, by a fall of coal.
Oct. 2	Fred Dawson	American	Miner	33	M.	Red Jacket	Clearfield	Simple fracture of leg by a fall of slate.
4	August Libby	French	Miner	43	M.	Standard No. 4	Clearfield	Fracture of collar bone and two ribs by a fall of slate.
13	John Davis	English	Miner boy	13	S.	Eureka No. 19	Clearfield	Simple fracture of leg, outside of mine; struck by cars.

TABLE V—Continued.

Date of accident.	Name of Person.	Nationality by Birth.	Occupation.	Age.	Married or single.	Name of Colliery.	County.	Nature and Cause of Accident in Brief.
30 Nov.	Thos. Phillips, Mike Cacara,	American, Italian,	Miner boy, Miner,	13 43	S. M.	Jefferson,	Clearfield,	Simple fracture of leg; struck by cars.
6	Mike Kuchar,	Pole,	Miner,	52	M.	Bear Run,	Centre,	Simple fracture of left pelvis by fall of roof.
14	Nicholas Faro,	Italian,	Miner,	38	M.	Conrad, West Eureka No. 6,	Jefferson, Jefferson,	Simple fracture of leg by fall of coal. Simple fracture of leg by fall of coal.

Ninth Bituminous District.

(ALLEGHENY, FAYETTE AND WESTMORELAND COUNTIES.)

Connellsville, Pa., February 25, 1901.

Hon. James W. Latta, Secretary of Internal Affairs:

Sir: I have the honor to submit herewith my annual report as Inspector of Mines of the Ninth Bituminous district for the year ending December 31, 1900.

The quantity of coal mined was 7,571,754 tons, or 325,736 tons less than was mined in 1899. The quantity of coke was 2,241,153 tons, or 293,988 tons less than 1899. There was a slight depression in the coke trade, which caused some of the mines to shut down for a while, but they are all at work again. The number of fatal accidents was 21, two less than for the previous year, and also six fewer non-fatal accidents than in 1899. There were ten wives made widows and fourteen children made orphans by these casualties. A brief description of the accidents is given, and how some of them might have been averted. I have made from four to six visits to each of the mines that were in operation during the whole year, and have found them in fairly good condition. The dangerous ones, in regard to explosive gas, were well looked after. I have described the condition of all the mines in the district. The statistical tables will be found in the different forms in their respective places in this report.

All of which is respectfully submitted.

BERNARD CALLAGHAN,
Inspector.

Summary of Statistics for 1900.

Number of mines in the district,	64
Number of mines in operation during 1900,	60
Number of tons of coal produced,	7,571,754
Number of tons shipped,	3,888,262

Number of tons used for steam at mines,	112,558
Number of tons sold to employes and others,	69,962
Number of coke ovens,	5,346
Number of tons of coke produced,	2,241,153
Number of persons employed inside the mines,	6,693
Number of persons employed outside the mines,	2,095
Number of fatal accidents,	21
Number of tons of coal produced per fatal accident, ..	360,559
Number of non-fatal accidents,	38
Number of tons produced per non-fatal accident,	199,257
Number of persons employed per fatal accident,	463
Number of persons employed per non-fatal accident, ..	231
Number of wives made widows by accidents,	10
Number of children orphaned,	14
Number of kegs of powder used,	23,058
Number of pounds dynamite used,	9,361
Number of horses and mules,	893
Number of cylindrical boilers in use,	87
Number of tubular boilers in use,	96
Number of steam locomotives,	14
Number of air locomotives,	1
Number of electric locomotives,	12
Number of new mines opened,	1
Number of mines abandoned,	5

Production of Coal by Each Company in Tons During the Year 1900.

H. C. Frick Coke Co.,	2,858,000
Pittsburg Coal Co.,	3,045,967
W. J. Rainey,	425,431
Laughlin & Co., Limited,	85,530
B. F. Keister,	49,375
J. R. Stauffer & Co.,	22,974
Pennsville Coke Co.,	50,386
Jackson Mine Co.,	29,695
Cochran Brothers,	16,561
James W. Shields,	152,076
Monongahela River Coal and Coke Co.,	192,028
Amyville Coal Co.,	41,541
James W. Ellsworth & Co.,	325,751
Scottdale Steel Sheet Co.,	18,129
Lake Shore Gas Coal Co.,	83,775
Stauffer & Wiley,	17,327
Frank Rocks,	24,843

Glassport Coal Co.,	2,166
D. H. Lynch,	5,250
Marietta & Stillwagon,	100,720
J. W. Overholt & Co.,	24,229
Total,	7,571,754

TABLE A—Showing the Production of Coal, Number of Persons Employed by Each Company During the Year 1900, and Average Number of Tons Produced Per Employee.

Names of Companies.	Number of tons produced.	Number of persons employed.
H. C. Frick Coke Co.,	2,858,000	3,025
Pittsburg Coal Co.,	3,045,967	3,369
W. J. Rainey,	425,431	618
Laughlin & Co., Limited,	85,530	32
B. F. Keister & Co.,	49,375	33
J. R. Stauffer & Co.,	22,974	26
Pennsville Coke Co.,	50,386	51
Jackson Mine Co.,	29,695	36
Cochran Brothers,	16,561	42
James W. Shields,	152,076	222
Monongahela River Coal and Coke Co.,	192,028	932
Amyville Coal Co.,	41,541	55
James W. Ellsworth & Co.,	325,751	265
Scottdale Steel Sheet Co.,	18,129	19
Lake Shore Gas Coal Co.,	83,775	141
Stauffer & Wiley,	17,327	12
Frank Rocks,	24,843	19
Glassport Coal Co.,	2,166	21
D. H. Lynch,	5,250	8
Marietta & Stillwagon,	100,720	19
J. W. Overholt & Co.,	24,229	19
Total,	7,571,754	8,969

TABLE B—Number of Fatal Accidents and Tons of Coal Produced Per Life Lost.

Names of Companies.	Number of fatal accidents.	Number of tons of coal produced per life lost.
H. C. Frick Coke Co.,	4	714,500
Pittsburg Coal Co.,	14	217,569
W. J. Rainey,	1	425,431
Laughlin & Co., Limited,		
B. F. Keister & Co.,		
J. R. Stauffer & Co.,		
Pennsville Coke Co.,		
Jackson Mine Co.,		
Cochran Brothers,		
James W. Shields,	1	152,076
Monongahela River Coal and Coke Co.,		
Amyville Coal Co.,		
James W. Ellsworth & Co.,	1	325,751
Scottdale Steel Sheet Co.,	1	
Lake Shore Gas Coal Co.,		
Stauffer & Wiley,		
Frank Rocks,		
Glassport Coal Co.,		
D. H. Lynch,		
Marietta & Stillwagon,		
J. W. Overholt & Co.,		
Total and average,	21	360,559

TABLE C—Showing the Number of Fatal and Non-Fatal Accidents, and the Number of Tons of Coal Produced Per Accident.

Names of Companies.	Number of accidents.	Number of tons of coal produced per accident.
H. C. Frick Coke Co.,	11	259,818
Pittsburg Coal Co.,	33	92,302
W. J. Rainey,	1	425,431
Laughlin & Co.,		
B. F. Keister & Co.,		
J. R. Stauffer & Co.,		
Pennsville Coke Co.,		
Jackson Mine Co.,		
Cochran Brothers,		
James W. Shields,	2	76,058
Monongahela River Coal and Coke Co.,		
Amyville Coal Co.,	2	20,770
James W. Ellsworth & Co.,	7	46,536
Lake Shore Gas Coal Co.,	1	83,775
Stauffer & Wiley,		
Frank Rocks,		
Glassport Coal Co.,		
D. H. Lynch,		
Marietta & Stillwagon,	1	100,720
J. W. Overholt & Co.,		
Total,	58	130,547

TABLE D—Classification of Accidents.

Classification of Accidents.	Killed or fatally Injured.	Injured.	Total.
Falls of slate,	12	15	27
Falls of roof and coal,	1	7	8
Explosions of gas,	1	.....	1
Powder,	1	.....	1
By mining machine,	1	1	2
Coal, .....	.....	3	3
Wagons,	4	8	12
Miscellaneous, outside,	1	.....	1
Coal and slate, .....	.....	3	3
Total,	21	37	58

TABLE E—Occupations of Persons Killed and Injured.

Occupations.	Killed or fatally Injured.	Injured.	Total.
Miners,	17	27	44
Laborers,	1	1	2
Drivers,	2	3	5
Machine runners,	1	1	2
Machine helpers, .....	.....	2	2
Track layers, .....	.....	1	1
Trapper, .....	.....	1	1
Coupler, .....	.....	1	1
Total,	21	37	58

TABLE F—Nationalities of Persons Killed or Injured.

	Slavs.	American.	English.	Hungarians.	Italians.	Scotch.	Poles.	Irish.	Austrians.	German.	Russian.	Swede.	Total.
Killed,	5	6	1	1	1	1	3	1	1	1	.....	.....	21
Injured,	7	8	2	2	2	.....	1	1	1	4	1	1	37
Total,	12	14	3	3	3	1	4	2	2	5	1	1	58

Fatal Accidents.

Frank Gates was killed in Shaner mine on January 23d. He was knocking down coal from under slate and had two posts under it, but it seems that this was not enough, for it swung the posts out and fell on him.

Charles Dillinger, sixteen years of age, while helping to dump coal at Sterling mine No. 1 was run over by the Larry and died three hours after; his brother was charging the ovens and the switch overbalanced and he fell on the rail.

William Butley a miner in Forrest Hill mine was instantly killed by a fall of slate on February 23d. They had two posts under the slate and it seemed that those were enough, but there was a slip unseen alongside of outer post which allowed the slate to give way while he was knocking coal from under it.

Mike Ribovick was instantly killed in Darr mine Feb. 27th. He was loading coal that was shot down, there was a piece of slate hanging that he thought was beyond danger, but it fell, striking him on the head.

August Kolar was instantly killed in Darr mine, March 3d, by a fall of slate. He and another man were pushing an empty wagon into his room and a piece of slate fell on him. The strange part of this accident was, that the mine foreman visited this place regularly, and was there the previous day, and did not see the danger.

Frank Vendell, miner, was instantly killed by fall of slate in Darr mine, March 7th. He and his partner had loaded all the coal but one wagon. Vendell went over to the rib side where he had no business and where a dangerous piece of slate was hanging, when it fell on him.

John Nunce, driver, was instantly killed by being caught between his loaded trip and rib. He was standing between first and second wagons, and while passing narrow part of entry he leaned over too far and was pulled in between wagon and rib. He was dead when found.

W. H. Mackey, miner, was fatally burned by powder in Valley mine, April 12th. He had prepared a cartridge and was walking with it in one hand and his open light in the other, when he fell, and the open lamp exploded the cartridge, burning him so that he died sixteen days after.

Alex Buchan, machine runner. Leg was so badly injured by a mining machine, that it was necessary to amputate it. He died three weeks after.

Martin Marchinock, miner, was instantly killed in Union mine May 26th. He was standing in a shelter hole when the driver was passing,

and he attempted to get on trip between second and third wagon. The rib was close to the trip and he was caught between loaded trip and the rib.

Mike Dawnoranobe, miner, was instantly killed by fall of slate in Port Royal mine May 31st. He depended too much on one post instead of having more under it.

Joseph Foncko, miner, was instantly killed in Tip Top mine on June 13th. He and another man were timbering a piece of bad roof along the entry, and while cutting a place inside, a piece of roof fell on him.

Joe Kamoski, miner, was almost instantly killed by fall of slate in Ocean No. 4, June 13th. He was loading a wagon when his partner commenced to wedge down the slate; there were two posts under it, but it swung them out.

John McQuillion, miner, was fatally injured by fall of slate in Banning No. 1 mine on June 7th, and died on the 15th. He had fired a shot in the coal, it being a pillar. He rushed in to see what it had done, before the smoke was cleared, when a large piece fell on him.

Edward Rice, miner, was fatally injured by trip of loaded cars in Ocean No. 2 mine, August 31st. It being the last trip of the electric motor, the boss driver seeing some miners behind the trip, warned them of the danger, but they did not heed him, and when part of the trip was cut off they ran on Rice, injuring him so that he died 29 hours after.

James McLaughlin, miner, was fatally injured by fall of slate in Ocean No. 7, August 31st. He knew the slate was dangerous, and instead of taking it down continued to work under it. He died two days after.

William L. Keffer, driver, was instantly killed by trip of cars in Coal Brook mine October 16th. He was an active driver, and so as to be out soon, he was running to the front of his trip, when his clothing caught on the end gate bar throwing him in front of the trip.

David McBeth, miner, was fatally injured by fall of slate in Cornell mine October 17th. He and his partner were loading a wagon; there were two posts under a large piece of slate. They thought it was sufficiently supported, but the slate being loose swung out the posts, falling on McBeth; he died three hours after.

August Bertie, miner, was burned to death by explosive gas in Ocean No. 6, November 11th. The mine had been idle for three days, and as Bertie was leaving to go to another mine, he concluded to go for his tools on Sunday at 4 A. M., when no one was about, and although knowing there was explosive gas in the entry, he risked it and lost his life.

John Bachart, miner, was instantly killed by fall of slate in Osceola mine, November 14th. He had only one post under a large piece of slate, and although warned of danger, worked under it until it fell on him.

George Viniski, miner, was fatally injured by fall of slate in Ocean No. 1, November 23d. He had just fired a shot in the middle of the room, which brought down the coal, and left the slate up; he commenced to load coal before the powder smoke had cleared away, when slate fell on him; he died six hours after.

Description of Mines.

Mines on B. and O. Railroad.

B. & O.—Number of miners has been reduced to ten, owing to the coal on east side of Youghiogheny river being nearly all worked out, but they will soon have coal opened on the west side.

Davidson Shaft.—Is in good condition both as to ventilation and drainage; there were no accidents of any kind during the year.

Rocks Slope.—Is all worked out; it lasted only four years, and was but a short time under the provisions of the mining law.

Henry Clay.—Keeps its record for good ventilation and drainage.

Tyrone.—Is nearly all worked out, two or three months will be as long as it will last. Much credit is due to the management of this place for getting out all the coal, and there being only one fatal accident during its lifetime of 25 years.

At Sterling No. 1 mine the coal is all worked out.

At Jackson mine the coal is all worked out, only a small quantity at front of hill, where there is a fire, so that what was not worked out will now be burned out.

Spring Grove.—Is an old mine that has not been worked for sixteen years, there is considerable coal to be worked yet, and it is in good condition.

Sterling No. 2.—Has worked only about six months during the year. I always found it in good condition.

Eureka.—Has kept its reputation for good condition.

Smithton No. 2.—Has been improved both in regard to ventilation and drainage, but a little more would help it.

Port Royal No. 1.—At this mine there was trouble from a squeeze that shut off part of the motor hauling road; its cause was not in taking out the ribs, it was because they did not take any out. The ventilation and drainage are good.

Euclid.—Is in good condition regarding ventilation and drainage. They had a little squeeze for want of pillar drawing, but it did not interfere with them much. Their improvements this year is a pair of new hoisting engines.

Yough Slope.—This mine is in excellent condition both as to ventilation and drainage. They still have trouble with bad roof, but the wide room system is continued with good effect.

Amyville.—This mine would have been worked out, but the operator bought a piece of unmined coal adjoining. Mine is in good condition.

Ocean No. 1.—Has been improved in ventilation, but has muddy roads; they are sinking an air shaft which will improve the ventilation.

Shaners.—There is a great improvement in this mine, both as to ventilation and drainage, a Capel fan was installed in place of the excuse for a fan which they had before.

Ocean No. 6.—This mine is in good condition, although it could be improved a little more by preventing some of the return air from No. 7 mixing with that of this mine.

Ocean No. 7.—The Capel fan at Shaners has improved the ventilation here also.

Osceola.—Is in fairly good condition, although I don't approve of the system of mining coal by leaving in the ribs, the faults of this is showing already in some entries.

Mines Along the Southwest P. R. R.

Plumer.—Will be entirely worked out in the course of two months.

Coal Brook.—Is in good condition, and although worked exclusively with locked safety lamps, explosive gas has never been encountered.

Grace.—Maintains its good conditions.

Pennsville.—Is in good condition.

Enterprise.—Has not been worked since May.

Union.—Has not been worked since July.

Alverton No. 1.—Has not been worked for about six months. No. 2 has been idle since May.

Mines on P. and L. E. R. R.

Adelaide.—Is in good condition, both as to ventilation and drainage; great improvements have been made at the shaft bottom by changing the system of hauling to shaft bottom and cageing, before they hauled the trips beyond the shaft and dropped them down to the cage, but now they have lowered the bottom for the empty wagons to run, and have raised the loaded track on haulage side of shaft, with enough grade for the loads to run to cage without having to pass beyond the shaft as before. The bottom is well arched with stone and brick, at considerable expense.

Fort Hill.—Is in good condition as to ventilation and drainage.

Rainbow.—Is in fairly good condition. The ventilation is sufficient at present, but the present fans will hardly produce enough when the mine is extended a little farther.

Banning No. 2.—Is a new opening, and nothing is being done but driving entries; their methods are good if they are continued; ventilation and drainage good.

Banning No. 1.—Is in good condition for a gaseous mine. On my last two visits I failed to find any gas in the gobs all through, and must say that it is well looked after.

Wick Haven.—Has been greatly improved as to ventilation and drainage; it gives off plenty of gas, but is exceedingly well looked after.

Darr mine, like the others adjoining, is well looked after. In my last three visits I failed to discover gas in any of the gobs.

Port Royal No. 2.—Is in fairly good condition as to ventilation and drainage, but they have not attempted to take out ribs yet.

West Newton Shaft.—Is almost like a new opening; the old territory is nearly worked out, but they are opening near the shaft, in a large coal field; the roof at present is not as good as is desirable for machine mining, but will improve; ventilation and drainage are good.

Ocean No. 5.—Is ventilated by a furnace which does fairly well, but when mine is extended it will hardly be sufficient if machine mining be continued, as very likely it will.

Forrest Hill.—The conditions in this mine are all fairly good.

Sarah.—Will soon be one of the large ones, as it has plenty of coal. Instead of hauling coal up a grade by a rope, they have put in a three rail motor, which seems to give good results. They expect to put in a fan immediately, which will give plenty of air.

Ocean No. 2.—The conditions of this mine are all fairly good.

Ocean No. 4.—Has not been worked very much during the year. Its conditions are fairly good.

Cornell.—A little more ventilation, which operators intend having, will improve this mine greatly; there are two furnaces, but they are going to install a fan.

Dravo.—Has been improved in ventilation; the hauling roads in some places are muddy on account of hauling water over them.

Browns Nos. 1 and 2.—Has not been worked very much this year, especially No. 1. An improvement in ventilation will soon have to be made here as the workings are too extensive for furnaces.

Mines Along the Belle Vernon R. R.

Belle Bridge.—One of the openings has been worked out and they are now working in a new field; the ventilation and drainage is fairly good.

Lovedale.—Was not worked during the year.

Horner & Roberts.—Very little work has been done this year, and they are not likely to do much next year.

Gospel.—This being a new opening the operators went to great expense putting in a furnace for ventilation; better results could have been had with a fan, and perhaps for less cost; at last visit ventilations and drainage were fairly good.

Mines on Mount Pleasant Branch.

Rist.—Is in good condition and a pair of first motion haulage engines, size 16x30, drums 5 feet in diameter, have been installed, which were built by the Robinson Machine Company of Monongahela City, Pa. Length of haulage road 4,000 feet. Maximum grade 3.6 per cent., which is adverse grade, or against a loaded trip. In each trip 28 wagons of 45 bushels capacity each are hauled.

Morgan.—Is worked out.

Summit & Eagle.—Are connected inside, but Eagle will soon be exhausted; they are in good condition.

Franklin.—Ventilation, drainage, and other conditions good.

Tip Top.—Is in good condition.

Valley.—Keeps its reputation for being in good condition.

Scottdale.—This mine is getting better as it works back.

Painter & Diamond.—Are in good condition.

Rising Sun & Bessemer.—Has not worked more than half of the year. Number 2 has worked the whole year.

Buckeye.—Is in excellent condition, both as to ventilation and drainage.

Mullen.—Was in good condition on my last visit; it has not been worked for four months.

White.—Ventilation and drainage is good.

Dexter.—This mine is getting better as it works back.

TABLE—Giving names of mines, methods of haulage and ventilation type of fan, pick or mine machine, shaft, drift or slope.

Name of Mine.	Name of Company.	System of Haulage.	Method of Ventilation and capacity of cubic feet of air per minute.	Type of Fan.	Pick or Machine.	Shaft, Drift or Slope.
Adelaide.	H. C. Frick Coke Co.	Wire rope.	Fan.	Vulcan.	Pick.	Shaft and slope.
Alverton No. 1.	H. C. Frick Coke Co.	Wire rope.	Fan.	Brazil.	Pick.	Drift.
Alverton No. 2.	H. C. Frick Coke Co.	Mules.	Furnace.		Pick.	Drift.
Amyville.		Mules.	Furnace.		Pick.	Drift.
Browns No. 1.	Monon, R. C. C. & C. Co.	Wire rope.	Fan.	Robertson.	Machine, electric.	Drift.
Browns No. 2.	Monon, R. C. C. & C. Co.	Wire rope.	Furnace.		Machine, electric.	Drift.
Banning No. 1.	Pittsburg Coal Co.	Wire rope and motor.	Fan.	Vulcan.	Machine, electric.	Drift.
Banning No. 2.	Pittsburg Coal Co.	Wire rope.	Fan.	Brazil.	Machine, electric.	Drift.
Belle Bridge.	Monon, R. C. C. & C. Co.	Wire rope.	Furnace.		Pick.	Drift.
B. & O.	Marietta & Stillwagon.	Wire rope.	Fan.	Brazil.	Pick.	Drift.
Buckeye.	H. C. Frick Coke Co.	Wire rope.	Fan.	Brazil.	Pick.	Drift.
Burgess Nos. 1 & 2.	H. C. Frick Coke Co.	Rope and mules.	Fan.	Brazil.	Pick.	Drift.
Coal Brook.	H. C. Frick Coke Co.	Wire rope.	Furnaces.		Pick.	Drift.
Cornell.	Pittsburg Coal Co.	Mules.	Furnaces.		Machine in part, electric.	Drift.
Davidson shaft.	H. C. Frick Coke Co.	Wire rope.	Natural.	Vulcan.	Pick.	Shaft.
Dexter.	J. R. Stauffer & Co.	Mules.	Natural.		Pick.	Drift.
Diamond.	H. C. Frick Coal Co.	Mules.	Natural.		Pick.	Drift.
Darr.	Pittsburg Coal Co.	Wire rope and motors.	Fan.	Vulcan.	Machine in part, electric.	Drift.
Dravo.	Lake Shore Coal Co.	Motor.	Furnace.		Machine in part, electric.	Drift.
Emma.	J. W. Overholt.	Mules.	Furnace.		Pick.	Drift.
Enterprise.	H. C. Frick Coke Co.	Mules.	Natural.	Clark & Brazil.	Pick.	Drift.
Eureka.	Pittsburg Coal Co.	Wire rope.	Fans.		Machine, electric.	Drift.
Fuelde.	Pittsburg Coal Co.	Motor.	Fan.	Brazil.	Machine, electric.	Shaft.
Franklin.	S. F. Kiester & Co.	Mules.	Furnace.		Pick.	Drift.
Forest Hill.	W. J. Elmsley & Co.	Mules and rope.	Fan.	Brazil.	Pick.	Drift.
Grace.	W. J. Rainey & Co.	Motors.	Fan.	Capell.	Machine in part, electric.	Drift.
Gospel.	W. J. Rainey & Co.	Wire rope.	Fan.	Brazil.	Pick.	Drift.
Glassport.	Monon, R. C. C. & C. Co.	Wire rope.	Furnace.		Machine in part, electric.	Drift.
Henry Clay.	H. C. Frick Coke Co.	Mules.	Natural.		Pick.	Slope.
Home Works.	Stauffer & Wiley.	Wire rope.	Fan.	Brazil.	Pick.	Drift.
Homer & Roberts.	Monon, R. C. C. & C. Co.	Mules.	Natural.		Pick.	Drift.
Jackson.	Cochran Brothers.	Wire rope.	Furnace.		Pick.	Drift.
Lovedale.	Monon, R. C. C. & C. Co.	Wire rope.	Furnace.		Pick.	Drift.

Mullin	H. C. Frick Coke Co.	Wire rope	Fan	15,100	Brazil	Pick	Drift.
Ocean No. 1	Pittsburg Coal Co.	Electric motor	Fan	50,000	Capell	Machine in part, electric	Drift.
Ocean No. 2	Pittsburg Coal Co.	Electric motor	Fan	67,000	Capell	Machine in part, electric	Drift.
Ocean No. 4	Pittsburg Coal Co.	Mules	Furnace	16,700	Capell	Machine in part, electric	Drift.
Ocean No. 5	Pittsburg Coal Co.	Mules	Furnace	17,500	Capell	Machine in part, electric	Drift.
Ocean No. 6	Pittsburg Coal Co.	Wire rope	Fan	31,000	Capell	Pick	Drift.
Ocean No. 7	Pittsburg Coal Co.	Wire rope	Fan	19,500	Vulcan	Machine in part, electric	Drift.
Oscoda	Jas. W. Shields	Wire rope	Fans	53,000	Brazil & Robert-son	Machine in part, electric	Drift.
Port Royal Nos. 1 & 2	Pittsburg Coal Co.	Motors, air & electric	Fans	75,000	Brazil	Machine, compressed air	Shafts.
Painter	Pittsburg Coal Co.	Wire rope	Fan	48,000	Brazil	Pick	Drift.
Plumer	H. C. Frick Coke Co.	Wire rope	Fan	13,400	Brazil	Pick	Drift.
Pennsville	Pennsville Coke Co.	Wire rope	Fan	13,400	Brazil	Pick	Drift.
Rist	H. C. Frick Coke Co.	Wire rope	Fan	54,000	Brazil	Pick	Drift.
Rainbow	Pittsburg Coal Co.	Wire rope	Fans	40,000	Clark & Brazil	Pick	Drift.
Sarah	Pittsburg Coal Co.	Electric motor	Furnace	7,604	Brazil	Machine in part, electric	Drift.
Sterling Nos 1 & 2	H. C. Frick Coke Co.	Wire rope and mules	Fans	43,000	Brazil	Pick	Drift.
Summit	H. C. Frick Coke Co.	Mules	Fan	41,000	Brazil	Pick	Drift.
Spring Grove	Cochran Brothers	Mules	Natural	3,000	Brazil	Pick	Drift.
Smithton No. 2	Pittsburg Coal Co.	Wire rope	Fan	18,000	Brazil	Pick	Shaft.
Shaner	Pittsburg Coal Co.	Wire rope	Fan	19,200	Capell	Machine in part, electric	Drift.
Tyrene	Langhain & Co.	Mules	Fan	21,000	Brazil	Pick	Drift.
Tip Top	H. C. Frick Coke Co.	Mules	Fan	22,000	Brazil	Pick	Drift.
Valley	H. C. Frick Coke Co.	Wire rope	Natural	2,000	Brazil	Pick	Drift.
West Newton shaft	Pittsburg Coal Co.	Wire rope	Fan	67,000	Brazil	Machine in part, electric	Drift.
Wick Haven	Pittsburg Coal Co.	Wire rope	Fan	48,500	Capell	Machine in part, com. air	Shaft.
White	H. C. Frick Coke Co.	Mules	Fan	64,000	Brazil	Pick	Drift.
Yough slope	Pittsburg Coal Co.	Wire rope	Fan	34,000	Brazil	Machine in part, electric	Slope.

TABLE 1—Showing names of operators, railroads, etc., and location of collieries in the Ninth Bituminous District for the year 1900.

Names of Operators and Collieries.	County.	Name of General Superintendent.	P. O. Address.	Name of Superintendent.	P. O. Address.	Railroad to Mine.
Pittsburg Coal Co.						
Eureka,	Westmoreland,	G. W. Schluederberg,	222 5th av., Pbg.,	William McCune,	West Newton,	Baltimore & Ohio.
Smithton No. 2,	Westmoreland,	G. W. Schluederberg,	222 5th av., Pbg.,	William McCune,	West Newton,	Baltimore & Ohio.
Fort Royal No. 1,	Westmoreland,	G. W. Schluederberg,	222 5th av., Pbg.,	William McCune,	West Newton,	Baltimore & Ohio.
Fort Royal No. 2,	Westmoreland,	G. W. Schluederberg,	222 5th av., Pbg.,	William McCune,	West Newton,	P. & L. E.
English,	Westmoreland,	G. W. Schluederberg,	222 5th av., Pbg.,	William McCune,	West Newton,	Baltimore & Ohio.
Yanhow slope,	Westmoreland,	G. W. Schluederberg,	222 5th av., Pbg.,	William McCune,	West Newton,	Baltimore & Ohio.
Banning No. 1,	Fayette,	G. W. Schluederberg,	222 5th av., Pbg.,	A. W. Osborne,	West Newton,	P. & L. E.
Banning No. 2,	Fayette,	G. W. Schluederberg,	222 5th av., Pbg.,	A. W. Osborne,	West Newton,	P. & L. E.
Wick Haven,	Westmoreland,	G. W. Schluederberg,	222 5th av., Pbg.,	A. W. Osborne,	West Newton,	P. & L. E.
Darr,	Westmoreland,	G. W. Schluederberg,	222 5th av., Pbg.,	A. W. Osborne,	West Newton,	P. & L. E.
West Newton shaft,	Westmoreland,	G. W. Schluederberg,	222 5th av., Pbg.,	A. W. Osborne,	West Newton,	P. & L. E.
Ocean No. 1,	Westmoreland,	G. W. Schluederberg,	222 5th av., Pbg.,	A. W. Osborne,	West Newton,	P. & L. E.
Ocean No. 2,	Westmoreland,	G. W. Schluederberg,	222 5th av., Pbg.,	A. W. Osborne,	West Newton,	P. & L. E.
Ocean No. 3,	Westmoreland,	G. W. Schluederberg,	222 5th av., Pbg.,	A. W. Osborne,	West Newton,	P. & L. E.
Ocean No. 4,	Westmoreland,	G. W. Schluederberg,	222 5th av., Pbg.,	A. W. Osborne,	West Newton,	P. & L. E.
Ocean No. 5,	Westmoreland,	G. W. Schluederberg,	222 5th av., Pbg.,	A. W. Osborne,	West Newton,	P. & L. E.
Ocean No. 6,	Westmoreland,	G. W. Schluederberg,	222 5th av., Pbg.,	A. W. Osborne,	West Newton,	P. & L. E.
Ocean No. 7,	Westmoreland,	G. W. Schluederberg,	222 5th av., Pbg.,	A. W. Osborne,	West Newton,	P. & L. E.
H. C. Frick Coke Co.						
Adelade,	Fayette,	O. W. Kennedy,	Scottdale,	James A. Childs,	Adelade,	P. & L. E.
Alverton No. 1,	Westmoreland,	O. W. Kennedy,	Scottdale,	Andrew Nesh,	Alverton,	Penna. Railroad.
Alverton No. 2,	Westmoreland,	O. W. Kennedy,	Scottdale,	Andrew Nesh,	Alverton,	Penna. Railroad.
Bessemer Nos. 1 and 2,	Westmoreland,	O. W. Kennedy,	Scottdale,	John Devellin,	Staufffer,	Baltimore & Ohio.
Buckeye,	Westmoreland,	O. W. Kennedy,	Scottdale,	John Devellin,	Staufffer,	Baltimore & Ohio.
Coal Brook,	Fayette,	O. W. Kennedy,	Scottdale,	R. M. Cook,	Moyer,	Penna. Railroad.
Davison shaft,	Fayette,	O. W. Kennedy,	Scottdale,	W. H. Hugas,	Cornellsville,	Penna. Railroad.
Entrprise,	Fayette,	O. W. Kennedy,	Scottdale,	D. B. Stauff,	Scottdale,	Baltimore & Ohio.
Henry Clay,	Westmoreland,	O. W. Kennedy,	Scottdale,	P. P. Glenn,	Alverton,	Penna. Railroad.
Morgan,	Fayette,	O. W. Kennedy,	Scottdale,	W. C. Mullen,	Broad Ford,	Baltimore & Ohio.
Mullin,	Fayette,	O. W. Kennedy,	Scottdale,	W. C. Mullen,	Broad Ford,	Baltimore & Ohio.
Plumer,	Westmoreland,	O. W. Kennedy,	Scottdale,	John Stevenson,	Staufffer,	Baltimore & Ohio.
Painter,	Fayette,	O. W. Kennedy,	Scottdale,	W. H. Hugas,	Staufffer,	Penna. Railroad.
Rist,	Fayette,	O. W. Kennedy,	Scottdale,	V. C. Muffitt,	Scottdale,	Baltimore & Ohio.
Sterling No. 1,	Fayette,	O. W. Kennedy,	Scottdale,	W. C. Mullen,	Broad Ford,	Baltimore & Ohio.
Sterling No. 2,	Fayette,	O. W. Kennedy,	Scottdale,	James A. Childs,	Adelade,	Baltimore & Ohio.
				John M. White,	Pawson,	Baltimore & Ohio.

Summit,	Fayette,	O. W. Kennedy,	Scottsdale,	W. C. Mullen, ...	Broad Ford, ...	Baltimore & Ohio,
Tip Top,	Fayette,	O. W. Kennedy,	Scottsdale,	James Lynch, ...	Scottsdale,	Baltimore & Ohio,
White,	Fayette,	O. W. Kennedy,	Scottsdale,	James Lynch, ...	Broad Ford, ...	Penna. Railroad,
Valley,	Fayette,	O. W. Kennedy,	Scottsdale,	W. C. Mullen, ...	Broad Ford, ...	Baltimore & Ohio,
W. J. Rainey.						
Fort Hill,	Fayette,	T. J. Mitchell,	Connellsville,	J. B. Henderson, ..	Vanderbilt,	P. & L. E. & T. & O.
Grove,	Fayette,	T. J. Mitchell,	Connellsville,	Thomas Johns, ...	Moyer,	Penna. Railroad,
Union,	Westmoreland, ..	T. J. Mitchell,	Connellsville,	William Duncan, ..	Alverton,	Penna. Railroad,
Jackson Mining Co.						
Jackson,	Fayette,	M. M. Cochran,	Uniontown,	H. J. Cochran, ...	Hawson,	Baltimore & Ohio,
Spring Grove,	Fayette,	M. M. Cochran,	Uniontown,	H. J. Cochran, ...	Hawson,	Baltimore & Ohio,
James W. Shields.						
Osceola,	Allegheny,	James W. Shields,	Lock Box 502, Pbg.,	Jas. W. Shields,	Emblem,	Baltimore & Ohio,
Pennsylvania Coke Co.,						
Pennsville,	Fayette,	J. D. Sherrick,	Pennsville,	J. D. Sherrick, ...	Pennsville,	Penna. Railroad,
Jas. W. Ellsworth & Co.						
Forrest Hill,	Allegheny,	A. A. Augustus,	Cleveland, Ohio, ...	Robert Watson, ...	Suterville,	P. & L. E.
B. F. Keister & Co.						
Franklin,	Fayette,	B. F. Keister,	Summit Mines,	B. F. Keister, ...	Summit Mines,	Baltimore & Ohio,
J. R. Stouffer & Co.						
Dexter,	Fayette,	J. R. Stouffer,	Scottsdale,	S. R. Fairchild,	Scottsdale,	Baltimore & Ohio,
Scottdale Iron & Steel Co.						
Scottdale,	Fayette,	Robert Skemp,	Scottsdale,	Robert Kemp, ...	Scottsdale,	Baltimore & Ohio,
Monongahela R. C. C. & C. Co.						
Browns No. 1,	Allegheny,	O. A. Blackburn,	Pittsburg,	James Dewar, ...	Boston,	Monongahela River,
Browns No. 2,	Allegheny,	O. A. Blackburn,	Pittsburg,	James Dewar, ...	Boston,	Monongahela River,
Turner & Roberts,	Allegheny,	O. A. Blackburn,	Pittsburg,	Ezra Conway, ...	Elizabeth,	Monongahela River,
Belle Bridge,	Allegheny,	O. A. Blackburn,	Pittsburg,	Thomas Jones, ...	Belle Bridge,	Monongahela River,
Gospel,	Allegheny,	O. A. Blackburn,	Pittsburg,	Ezra Conway, ...	Elizabeth,	Monongahela River,
Glassport Coal Co.						
Glassport,	Allegheny,	R. M. Wilson,	Glassport,	R. M. Wilson, ...	Glassport,	Custom Sale,
Stauffer & Wiley.						
Home Works,	Fayette,	J. W. Wiley,	Everson,	J. W. Wiley, ...	Everson,	Penna. Railroad,
J. W. Overholt.						
Emma No. 2,	Fayette,	J. W. Overholt,	Scottsdale,	C. F. Overholt, ...	Scottsdale,	Baltimore & Ohio,
Dravo,	Allegheny,	C. H. Wisser,	Robbins Station, ...	C. H. Wisser, ...	Robbins Station,	P. & L. E.

TABLE II—Gives the total number of tons of coal mined and tons of coke produced in each colliery, number of days worked, number of employees, number of persons killed and injured, number of kegs of powder, etc., used in the Ninth Bituminous District for the year ending December 31, 1900.

Names of Operators and Collieries.	County.	Shipments of coal in tons by rail or otherwise.	Number of tons used for steam and heat at colliery.	Sold to local trade and used by employes—tons.	Total production of coal in tons.	Total production of coke in tons.	Number of coke ovens.	Average number days worked.	Number persons employed.	Number fatal accidents.	Number non-fatal accidents.	Number kegs powder used.	Number pounds of dynamite used.	Number horses and mules.
Pittsburg Coal Co.														
Rainbow.	Fayette.	114,423	1,471	235	116,129	.....	.....	199	139	.....	3	500	.....	9
Banning No. 1.	Fayette.	277,288	6,988	5	284,281	.....	.....	240	235	1	5	1,200	75	20
Banning No. 2.	Fayette.	25,772	.....	.....	25,772	.....	.....	201	42	.....	.....	350	200	4
Wick Haven.	Fayette.	196,470	6,977	625	204,072	.....	.....	212	176	1	.....	900	100	20
Darr.	Westmoreland.	337,088	6,970	2	404,060	.....	.....	241	322	3	.....	1,600	75	25
West Newton shaft.	Westmoreland.	165,068	4,597	280	169,668	.....	.....	247	176	.....	1	980	300	11
Ocean No. 2.	Allegheny.	320,439	5	.....	320,744	.....	.....	249	356	2	.....	2,130	.....	26
Ocean No. 4.	Allegheny.	151,967	.....	63	153,162	.....	.....	186	86	1	.....	150	.....	10
Ocean No. 5.	Allegheny.	171,967	253	44	172,320	.....	.....	186	116	.....	.....	500	.....	14
Sagehen.	Allegheny.	171,967	.....	44	172,320	.....	.....	186	116	.....	.....	500	.....	14
Cornell.	Allegheny.	175,465	982	19	176,460	.....	.....	84	226	.....	.....	500	.....	9
Eureka.	Allegheny.	186,110	1,565	523	188,198	.....	.....	226	177	1	1	950	.....	9
Smithton No. 1.	Westmoreland.	80,615	1,338	197	82,150	.....	61	168	155	.....	.....	250	400	13
Smithton No. 2.	Westmoreland.	92,079	3,517	357	95,983	.....	61	220	124	.....	.....	350	.....	15
Port Royal No. 1.	Westmoreland.	103,459	2,625	354	106,438	.....	.....	225	114	1	1	350	.....	12
Port Royal No. 2.	Westmoreland.	124,730	3,480	152	128,362	.....	25	203	134	.....	.....	300	.....	8
Euclid.	Westmoreland.	104,868	1,954	.....	106,822	.....	.....	190	119	.....	.....	150	.....	9
Yough slope.	Westmoreland.	169,373	5,582	582	175,747	.....	.....	211	191	1	.....	109	.....	19
Ocean No. 1.	Westmoreland.	80,800	1,306	142	82,248	.....	.....	190	104	1	.....	200	.....	9
Ocean No. 2.	Westmoreland.	86,332	.....	103	86,369	.....	.....	208	115	1	2	200	.....	9
Ocean No. 6.	Westmoreland.	86,042	155	103	86,300	.....	.....	192	125	1	.....	200	.....	17
Ocean No. 7.	Westmoreland.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Total.	.....	2,992,954	49,899	3,774	3,045,967	23,840	147	204	3,269	14	19	13,662	1,150	278
Monongahela R. C. C. & C. Co.														
Browns No. 1.	Allegheny.	74,630	1,243	394	76,317	.....	.....	101	272	.....	1	200	.....	15
Browns No. 2.	Allegheny.	13,217	528	108	13,853	.....	.....	87	260	.....	.....	200	.....	15
Belle Bridge.	Allegheny.	47,093	55	30	47,478	.....	.....	144	175	.....	1	4	.....	7

Horner & Roberts,	12,087	38	12,240	84	112	320	6
Gospel,	41,588	107	42,440	188	112	370	8
Total,	188,045	667	192,028	121	932	1,094	51
H. C. Frick Coke Co.							
Atleidae,	4,148	2,287	334,000	275	333	750	36
Westmoreland,	1,262	1,364	109,000	252	149	224	19
Alverton No. 1,	22	8	35,000	104	1	1	13
Westmoreland,	487	718	158,000	273	177	75	28
Bessemer Nos. 1 and 2,	3,685	403	217,000	160	239	125	40
Buckeye,	1,064	965	141,000	160	239	290	17
Coal Brook,	3,846	1,388	337,000	333	329	228	25
Davidson shaft,	110	213	35,000	66	47	1	5
Diamond,	3,401	1,111	124,000	120	113	120	12
Enterprise,	3,476	3,476	124,000	120	113	550	16
Westmoreland,	1,111	716	41,000	82	94	1	9
Pullin,	379	300	30,000	284	30	1	2
Fayette,	817	1,070	188,000	228	193	480	25
Palmer,	319	3,310	282,200	366	260	1,170	23
Bistler,	1,969	3,394	37,000	109	33	10	6
Fayette,	702	1,191	122,000	294	140	1	37
Sterling No. 1,	236	2,241	105,000	222	188	450	21
Fayette,	91	50	76,000	121	96	50	22
Summit,	1,553	1,601	277,000	251	242	2,000	22
Tip Top,	133	3,221	148,000	200	152	630	21
Fayette,							25
White,							
Total,	25,093	23,927	2,858,000	3,868	240	5,685	401
W. J. Ralney.							
Fert Hill,	3,642	1,618	218,465	372	291	300	32
Grace,	2,986	2,873	191,832	407	276	1	22
Union,	40	73	15,134	70	161	1	8
Total,	6,668	4,564	425,431	849	618	600	62
Cochran Brothers.							
Spring Grove,	150	200	16,561	50	42	40	5
Jackson,	840	350	29,695	53	36	1	1
Total,	990	550	46,256	103	78	40	6
Laughlin & Co. (Limited).							
Tyrone,	520	730	85,530	141	300	100	2
Fayette,							
B. F. Kelster & Co.							
Franklin,	150	300	49,375	50	293	25	6
Dexter,		75	22,974	40	282	30	2
J. R. Stouffer & Co.							
Pennsville Coke Co.		598	50,336	92	281	65	3
Pennsville,							

TABLE II—Continued.

Names of Operators and Collieries.	County.	Shipments of coal in tons by rail or otherwise.	Number of tons used for steam and heat at colliery.	Sold to local trade and used by employes—tons.	Total production of coal in tons.	Total production of coke in tons.	Number of coke ovens.	Average number days worked.	Number persons employed.	Number fatal accidents.	Number non-fatal accidents.	Number kegs powder used.	Number pounds of dynamite used.	Number horses and mules.
Stauffer & Wiley.	Fayette.	.....	.....	2,440	17,327	11,165	20	284	12	.....	.....	20	.....	1
Home Works.	Fayette.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Marletta & Stillwagon.	Fayette.	100,000	720	.....	100,720	.....	.....	365	19	.....	1	.....	.....	4
B. & O.	Fayette.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
James W. Shields.	Allegheny.	150,076	2,000	.....	152,076	.....	.....	292	222	1	1	600	.....	13
Osceola.	Allegheny.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
D. H. Lynch.	Allegheny.	.....	.....	5,250	5,250	.....	.....	240	8	.....	.....	.....	.....	1
Lake Shore Gas Coal Co.	Allegheny.	83,620	125	.....	83,745	.....	.....	229	141	.....	1	130	.....	8
Dravo.	Allegheny.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
James W. Ellsworth & Co.	Allegheny.	321,616	4,135	.....	325,751	.....	.....	288	265	1	5	920	20	18
Forrest Hill.	Allegheny.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Scottdale American Steel Co.	Allegheny.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Scottdale.	Allegheny.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Frank Rocks & Co.	Allegheny.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Rocks.	Allegheny.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Amyville Yough Gas Coal Co.	Allegheny.	.....	.....	24,267	24,843	.....	.....	273	19	.....	.....	.....	.....	6
Amyville.	Allegheny.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
J. W. Overholt.	Allegheny.	41,451	.....	95	41,541	.....	.....	295	55	.....	.....	60	.....	5
Emma No. 2.	Allegheny.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Glassport Coal Co.	Allegheny.	.....	.....	529	24,229	18,332	36	306	19	.....	.....	20	300	9
Glassport.	Allegheny.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Grand total.	Allegheny.	3,888,262	112,558	69,662	7,574,754	2,241,153	5,346	261	9,061	21	37	23,058	9,361	893

TABLE II—Continued.

Name of Operators.	County.	Number of Boilers.			Locomotives.			Number steam engines of all classes.	Total horse power.	Number pumps delivering water to surface.	Capacity in fallons per minute.	Quantity delivered to surface per minute—fallons.	Number electric dynamos.	Number air compressors.
		Cylindrical.	Tubular.	Horse power.	Steam.	Air.	Electric.							
Pittsburg Coal Co.,	Fayette,	25	650	45	4,350	5,000	.....	1	9	.....	2,490	14	9
Monongahela R. C. C. & C. Co.,	Allegheny,	11	610	6	465	1,015	.....	.....	.....	.....	580	3	.....
H. C. Frick Coke Co.,	Fayette,	38	1,299	20	1,434	2,733	11	.....	.....	.....	2,824	2	1
W. J. Rainey,	Fayette,	3	180	10	650	830	.....	.....	.....	.....	440	.....	.....
Cochran Brothers,	Fayette,	.....	.....	3	80	80	.....	.....	.....	.....	60	.....	.....
Laughlin & Co. (limited),	Fayette,	.....	.....	.....	.....	10	.....	.....	.....	.....	.....	.....	.....
B. F. Keister & Co.,	Fayette,	1	10	.....	.....	10	.....	.....	.....	.....	.....	.....	.....
D. R. Shouffer & Co.,	Fayette,	2	40	2	30	130	1	.....	.....	.....	.....	.....	.....
Sam's Tire & Co.,	Allegheny,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Stoffle Wiley,	Allegheny,	2	40	2	75	115	.....	.....	.....	.....	.....	.....	.....
Marletta & Sullivan,	Allegheny,	4	200	2	300	500	.....	.....	.....	.....	.....	.....	.....
James W. Shields,	Allegheny,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
D. H. Lynch,	Allegheny,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Lake Shore Gas Coal Co.,	Fayette,	.....	.....	1	150	150	.....	.....	.....	.....	.....	.....	.....
James W. Ellsworth & Co.,	Fayette,	.....	.....	5	650	650	.....	.....	.....	.....	.....	.....	.....
Scottdale American Steel Co.,	Fayette,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Frank Rocks & Co.,	Fayette,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Amyville Youth Gas Coal Co.,	Westmoreland,	1	30	.....	.....	30	.....	.....	.....	.....	.....	.....	.....
J. W. Overholt,	Westmoreland,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Glassport Coal Co.,	Allegheny,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Total,	87	3,650	96	8,184	11,243	14	1	12	128	9,777	48	23	11

H. C. Fricke Coke Co.															
Adelaide,	1	2	146	28	16	1	1	194	1	5	5	125	2	139	333
Alverton No. 1,	1		94	4	10	3	6	118	1	5	5	92	3	106	224
Alverton No. 2,	1		46	3	6	1	1	59	1	1	1	36	2	41	100
Bessemer Nos. 1 and 2,	1		10	6	11	2	9	30	1	2	2	59	2	57	177
Buckeye,	1		149	7	16	2	9	171	1	3	2	43	1	57	248
Coalbrook,	1		1					21	1			43	1	48	118
Diamond shaft,	1		175	10	16	1	8	213	1	3	7	93	3	107	320
Diamond,	1		2	19	2	2	2	24	1	2	2	20	2	23	47
Enterprise,	1		21	2	5	2	2	29	1	1	1	15	2	19	48
Henry Clay,	1		51	2	7	2	2	64	1	1	4	47	2	55	119
Hazlett & Buckeye,	1														
Morgan,	1							1							1
Mullin,	1							51						44	95
Westmoreland,	1		18		1			20	1			9		10	30
Fayette,	1		80	4	1	4	4	98	1	3	3	86	2	95	183
Painter,	1		99	4	11	1	6	123	2	2	5	126	2	137	260
Rist,	1		14	1	1			18	1	1		12	1	15	53
Sterling No. 1,	1		80	6	15	2	3	110	1	3	2	52	1	60	149
Sterling No. 2,	1		52	3	11	1	1	68	1	1	1	33	2	40	119
Stumpt,	1		104	4	11	6	6	133	1	2	2	101	3	95	196
Thompson,	1		55	6	10	6	6	72	1	1	1	75	2	109	242
Valley,	1													80	152
White,	1														
Total,	21	9	1,266	92	171	20	49	1,778	18	38	46	1,160	35	1,341	3,025
Monongahela R. C. C. & C. Co.															
Browns No. 1,	1		236	8	13	7	7	260	1	5	4		2	12	272
Browns No. 2,	1		220	2	13	2	2	242	1	4	3		2	8	18
Belle Bridge,	1		140	5	5	2	4	157	1	1	1		1	14	18
Horner & Roberts,	1		89	1	5	2	3	102	1	1	1		1	5	10
Gospel,	1		75	5	9	2	9	96	1	2	3		1	10	112
Total,	5	4	754	16	45	15	18	857	5	14	12		7	37	75
W. J. Rainey.															
Grace,	1		225		12	2	3	243	1	2	5		20	40	283
Fort Hill,	1		120	3	15		6	146	1	2	3		120	130	276
Union,	1		32	2	3			38	1	1	1		16	21	59
Total,	3	1	377	5	30	2	9	427	3	5	9		156	191	618
Jackson Mining Co.															
Jackson,	1		15	3	3			22	1	1	1		10	14	36
Spring Grove,	1		18	3	3			25	1	1	1		14	17	42
Total,	2		33	6	6			47	2	2	2		24	31	78
B. F. Kelster & Co.															
Franklin,	1		18	1	3			23	1				14	15	38
Pennsville Coke Co.															
Pennsville,	1		32	2	2			37		1	4		7	14	51

TABLE III—Continued.

Names of Operators and Collieries.	County.	Occupations of Persons Employed Outside.										Grand total, inside and outside.								
		Inside foreman or mine boss.	Fire bosses.	Miners.	Miners' laborers.	Drivers and runners.	Door boys and helpers.	All other employes.	Total inside.	Outside foreman.	Blacksmiths and carpenters.		Engineers and firemen.	State pickers.	Employed in the manufacture of coke.	Superintendents, book-keepers and clerks.	All other employes.	Total outside.		
Laughlin & Co. (Limited.)	Fayette,	1		11	2	1							1	12	1			17	32	
Tyrone,																				
Marjetta & Stillwagon, B. & O.,	Fayette,	1		10	1	1							1		1			3	19	
Dravo, Visser & Dravo,	Allegheny,	1		115	2	8	2						1		2			8	141	
Osceola, James W. Shields,	Allegheny,	1	1	173	4	7	2	4					3		7			14	222	
Dexter, J. R. Stouffer & Co.,	Fayette,	1		11	2	2													26	
American Sheet Steel Co. Scottsdale,	Fayette,	1		12	1	3													19	
Home Works, Stauffer & Wiley,	Fayette,			7		1													12	
Frank Rocks & Co.,	Fayette,	1		11		2									1			3	19	

TABLE III—Continued.

Names of Operators and Collieries.	County.	Number of Days Worked in Each Month.												Total.
		January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	
Pittsburg Coal Co.														
Rainbow, No. 1,	Fayette,	19	17	23	17	24	19	16	16	9	11	15	13	199
Banning No. 2,	Fayette,	25	23	24	13	25	20	18	19	15	16	23	19	240
Wick Haven,	Fayette,	26	24	24	10	24	26	24	25	26	27	24	25	201
Darr,	Westmoreland,	26	24	26	10	26	19	15	14	11	12	13	16	212
West Newton shaft,	Westmoreland,	18	23	22	16	24	22	18	17	13	20	22	18	241
Ocean No. 2,	Allegheny,	19	20	21	18	25	25	23	17	22	20	21	17	247
Ocean No. 4,	Allegheny,	18	15	21	7	26	24	25	15	24	26	15	24	249
Ocean No. 5,	Allegheny,	18	15	21	12	26	18	11	11	18	23	21	18	116
Sarah,	Allegheny,	20	16	25	7	26	23	22	9	18	23	21	28	183
Cornell,	Allegheny,	23	25	27	19	24	23	23	17	17	15	18	25	226
Bureka,	Westmoreland,	21	15	27	17	24	22	18	19	17	23	19	13	240
Smithton,	Westmoreland,	20	19	27	15	25	19	15	15	17	8	16	17	168
Port Royal No. 1,	Westmoreland,	20	19	22	22	26	18	4	15	19	15	16	17	220
Port Royal No. 2,	Westmoreland,	22	18	22	20	24	19	23	16	10	15	16	19	226
Paugh slope,	Westmoreland,	23	19	21	5	15	19	19	17	6	19	5	12	203
Ocean No. 1,	Westmoreland,	14	12	21	8	23	21	21	15	18	13	12	11	190
Shaners,	Westmoreland,	18	20	22	13	17	17	19	14	13	20	21	16	211
Ocean No. 6,	Westmoreland,	19	17	13	16	20	23	24	18	17	17	12	13	209
Ocean No. 7,	Westmoreland,	15	11	15	13	19	17	23	16	18	19	14	12	192
Total,		20.50	18.50	22	13.50	22.33	20.50	19	16	16	15	17	16	212

H. C. Frick Coke Co.

Adelaide,	97	94	96	95	94	92	93	22	17	23	20	22	275	
Alverton No. 1,	27	24	27	25	24	22	22	22	22	22	20	22	119	
Alverton No. 2,	27	24	27	25	24	22	22	22	22	22	20	22	119	
Bessemer Nos. 1 and 2,	27	24	27	25	24	22	22	22	22	22	20	22	254	
Buckeye,	55	24	27	25	24	22	22	22	22	22	20	22	254	
Coal Brook,	27	24	27	25	24	22	22	22	22	22	20	22	254	
Davidson shaft,	27	24	27	25	24	22	22	22	22	22	20	22	258	
Diamond,	27	24	27	25	24	22	22	22	22	22	20	22	258	
Enterprise,	27	24	27	25	24	22	22	22	22	22	20	22	258	
Henry Clay,	27	24	27	25	24	22	22	22	22	22	20	22	141	
Hazlet & Buckeye,	25	24	27	25	24	22	22	21	22	22	20	24	251	
Morgan,	27	24	27	25	24	22	22	8	25	23	23	25	268	
Morfan,	27	24	27	25	24	22	22	16	25	23	23	25	268	
Westmoreland,	27	24	27	25	24	22	22	16	25	23	23	25	166	
Phuin,	27	24	27	25	24	22	22	22	22	22	20	24	284	
Painter,	27	24	27	25	24	22	22	22	22	22	20	24	284	
Rist,	27	24	27	25	24	22	22	22	22	22	20	24	285	
Fayette,	27	24	27	25	24	22	22	22	22	22	20	24	287	
Stirling No. 1,	27	24	27	25	24	22	22	22	22	22	20	24	287	
Stirling No. 2,	27	24	27	25	24	22	22	22	22	22	20	24	287	
Summit,	27	24	27	25	24	22	22	22	22	22	20	24	287	
Tip Top,	27	24	27	25	24	22	22	3	22	22	20	24	287	
Valley,	27	24	27	25	24	22	22	22	22	22	20	24	188	
White,	27	24	27	25	24	22	22	22	22	22	20	24	188	
White,	27	24	27	25	24	22	22	22	22	22	20	24	286	
White,	27	24	27	25	24	22	22	22	22	22	20	24	286	
Total,	27	24	27	25	24	22	22	21	21	22	23	20	23	243
Monongahela River Cons'd Coal and Coke Co.														
Browns No. 1,	19	9	20	8	23	22	19	5	4	.....	.....	.....	101
Browns No. 2,	14	16	16	14	23	24	16	.....	.....	.....	.....	.....	87
Belle Bridge,	14	18	17	8	22	24	16	2	.....	.....	.....	15	144
Horner & Roberts,	14	20	22	11	25	8	.....	.....	.....	.....	.....	.....	84
Gospel,	14	20	22	11	25	8	.....	.....	.....	.....	.....	.....	84
Total,	14	15	21	10	21	18	18	3	12	27	22	15	188	
W. J. Rainey.														
Grace,	27	24	26	25	22	18	22	23	24	22	21	22	276	
Fort Hill,	27	24	26	25	24	25	22	23	24	22	21	22	281	
Union,	24	23	26	25	21	20	18	4	.....	.....	.....	.....	281
Westmoreland,	24	23	26	25	21	20	18	4	.....	.....	.....	.....	161
Total,	26	24	26	25	22	21	21	16	24	22	19	23	239	
Jackson Mining Co.														
Jackson,	26	22	27	23	26	26	25	26	22	22	23	14	260	
Spring Grove,	26	22	27	23	26	26	25	26	22	22	23	14	260	
Total,	26	22	27	23	26	26	25	26	22	22	23	14	260	
B. F. Kelster & Co.														
Franklin,	27	24	27	25	26	26	25	22	22	24	21	24	299	
Pennsville,	27	23	27	25	24	22	22	22	22	22	23	19	281	

TABLE II—Continued.

Names of Operators and Collieries.	County.	Number of Days Worked in Each Month.												Total.	
		January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.		
Tyrone,	Fayette,	25	24	27	25	27	26	20	26	24	25	26	25	25	300
Laughlin & Co. (Limited),	Fayette,														
B. & O.,	Fayette,	31	28	31	30	31	30	31	31	30	31	30	31	31	365
Dravo,	Allegheny,	21	22	23	25	22	21	19	15	14	15	15	17	17	229
Osceola,	Allegheny,	22	24	25	25	23	25	24	25	25	26	23	25	25	292
Dexter,	Fayette,	27	23	27	25	25	23	22	22	21	22	22	23	23	282
Scottdale,	Fayette,	21	23	9	24	27	17	20	5	6	24	22	19	217	
Home Works,	Fayette,	27	24	27	25	26	23	22	22	21	22	22	23	284	
Rocks,	Fayette,	25	24	27	25	26	25	25	24	24	24	24	.....	273	
Amyville,	Westmoreland, ..	21	24	26	24	23	24	25	26	26	25	25	26	265	

Erma No. 2	Overholt	27	23	26	25	26	25	25	27	25	27	25	25	25	306
Glassport	Westmoreland	121	118	115	123	128	114	117	104	126	147	144	119	101	101
	Allegheny									24	25	26	26	26	101
Total		121	118	115	123	128	114	117	104	126	147	144	119	101	101
Grand total		1,397	1,283.5	1,474	1,290.5	1,485	1,310	1,174	996	1,020	1,102	1,008	1,064	1,064	262

TABLE IV.—List of fatal accidents that occurred in and about the mines of the Ninth Bituminous District for the year ending December 31, 1900.

Date of accident.	Name of Person.	Nationality by Birth.	Occupation.	Age.	Married or single.	Number of widows.	Number of orphans.	Name of Colliery.	County.	Nature and Cause of Accident in Brief.
Jan. 23	Frank Sates.	Slav.	Miner.	31	S.	.....	.....	Shaners No. 2.	Westmoreland.	Instantly killed by fall of slate.
Feb. 19	Charles Dillenger.	American.	Laborer.	16	S.	.....	.....	Sterling No. 1.	Fayette.	Fatally injured by being run over by the charging Larry.
23	William Batley.	English.	Miner.	25	M.	1	2	Forrest Hill.	Allegheny.	Instantly killed by a fall of slate.
27	Mike Ruck.	Slav.	Miner.	28	M.	1	.....	Dart.	Westmoreland.	Instantly killed by fall of slate.
3	August Kofler.	Austrian.	Miner.	30	M.	1	1	Dart.	Westmoreland.	Instantly killed by fall of slate.
7	Frank Vendell.	Hungarian.	Miner.	33	S.	.....	.....	Dart.	Westmoreland.	Instantly killed by fall of slate.
12	John Nunce.	Italian.	Driver.	24	S.	.....	.....	Wick Haven.	Fayette.	Instantly killed between loaded trip and rib.
April 12	W. H. Mackey.	American.	Miner.	62	M.	1	.....	Valley.	Allegheny.	Burned by powder.
May 25	Alex. Buchan.	Scotch.	Machine runner.	36	S.	.....	.....	Ocean No. 2.	Allegheny.	Leg torn off by mining machine.
26	Martin Marchnock.	Pole.	Miner.	25	M.	1	.....	Union.	Westmoreland.	Killed by being caught between loaded trip and rib.
31	Mike Daworanobe.	Pole.	Miner.	29	S.	.....	.....	Fort Royal No. 2.	Westmoreland.	Killed by fall of slate.
June 7	James McQuillion.	Irish.	Miner.	39	S.	.....	.....	Banning No. 1.	Fayette.	Fatally injured by fall of slate.
13	Joseph Foucks.	Slav.	Miner.	35	M.	1	2	Tip Top.	Fayette.	Killed by fall of roof.
13	Joseph Kamoskie.	Pole.	Miner.	21	S.	.....	.....	Ocean No. 4.	Allegheny.	Almost instantly killed by fall of slate.
Aug. 31	Edward Rice.	American.	Miner.	16	S.	.....	.....	Ocean No. 2.	Allegheny.	Fatally injured by cars.
Sept. 7	Edw. A. Schlich.	American.	Miner.	18	M.	.....	.....	Ocean No. 7.	Westmoreland.	Fatally injured by fall of slate.
16	William L. Kaffer.	American.	Driver.	43	M.	1	.....	Cornell Brook.	Fayette.	Killed by cars.
6	David McBeth.	American.	Miner.	55	M.	1	2	Cornell Brook.	Allegheny.	Fatally injured by fall of slate.
17	August Bertle.	Austrian.	Miner.	38	M.	1	.....	Ocean No. 6.	Westmoreland.	Burned to death by explosion of gas.
Nov. 11	John Bachart.	German.	Miner.	33	M.	1	1	Oseola.	Allegheny.	Instantly killed by fall of slate.
14	George Vlnsl.	Slav.	Miner.	43	M.	1	.....	Ocean No. 1.	Westmoreland.	Fatally injured by fall of slate.
23	George Vlnsl.	Slav.	Miner.	21	S.	.....	.....	Ocean No. 1.	Westmoreland.	Fatally injured by fall of slate.

TABLE V—List of non-fatal accidents that occurred in and about the mines of the Ninth Bituminous District for the year ending December 31, 1900.

Date of accident.	Name of Person.	Nationality by Birth.	Occupation.	Age.	Married or single.	Name of Colliery.	County.	Nature and Cause of Accident in Brief.
Jan. 9	John Loth.	Slav.	Miner.	45	M.	Diamond.	Fayette.	Leg broken by fall of roof coal.
17	John Welgus.	Slav.	Miner.	50	M.	Banning No. 1.	Fayette.	Leg broken by fall of slate.
29	John Anosky.	Russian.	Miner.	30	M.	Buellid.	Westmoreland.	Leg broken by fall of slate.
Feb. 5	Frank Yub.	Hungarian.	Miner.	35	M.	Forrest Hill.	Allegheny.	Arm broken and ribs crushed by fall of slate.
7	Arthur Wilkies.	English.	Miner.	24	M.	Osecola.	Allegheny.	Body crushed between mine wagons.
8	Mike Kobal.	Hungarian.	Driver.	16	S.	Alverton No. 2.	Westmoreland.	Leg broken by cars running on him.
21	Joseph Rodner.	Hungarian.	Miner.	50	M.	Darr.	Westmoreland.	Leg broken by fall of slate.
March 5	Andrew Barveny.	Hungarian.	Miner.	49	M.	Rainbow.	Fayette.	Part of foot cut off by piece of slate.
21	Rudolph Quibberman.	Hungarian.	Miner.	48	M.	Cornell.	Allegheny.	Leg broken by fall of coal.
29	Henry Maleman.	German.	Miner.	55	M.	Browns No. 1.	Allegheny.	Body injured by fall of slate.
30	Steve Franko.	Slav.	Miner.	28	S.	Banning No. 1.	Fayette.	Leg broken by fall of slate.
April 27	Robert Abbott.	American.	Coupler.	21	S.	Banning No. 1.	Fayette.	Leg broken by fall of slate.
30	Albert Haney.	American.	Miner.	45	M.	3-11 Bridge.	Allegheny.	Leg broken by fall of slate.
30	Frank Williams.	American.	Miner.	51	M.	Fayette.	Allegheny.	Leg broken by fall of slate.
May 11	Grabor Grawosky.	Hungarian.	Miner.	42	M.	Banning No. 1.	Westmoreland.	Leg broken by fall of slate.
12	Luke Ronk.	Polish.	Machine man.	29	M.	Darr.	Fayette.	Leg broken by fall of slate.
15	Matthew Smith.	Polish.	Machine helper.	39	M.	Forrest Hill.	Westmoreland.	Back broken by fall of slate.
16	John Muffin.	Slav.	Miner.	29	M.	Forrest Hill.	Allegheny.	Leg badly bruised by mining machine.
26	Giuseppe Papiceno.	Italian.	Miner.	35	S.	Darr.	Westmoreland.	Arm broken by fall of coal.
28	Joseph Espey.	American.	Driver.	25	S.	White.	Fayette.	Leg broken by empty wagon against a pillar.
June 29	Fred Hanel.	German.	Miner.	58	M.	Fuckeva.	Westmoreland.	Leg and hip badly crushed by fall of roof.
12	John Speacock.	Slav.	Miner.	45	M.	Alverton No. 1.	Westmoreland.	Arm broken and scalp wound by fall of slate.
20	George Duffey.	Irish.	Driver.	22	S.	Rainbow.	Fayette.	Ribs broken and scalp wound; caught between rollers of trip and ribs.
July 19	William Schmidt.	German.	Miner.	25	M.	Dart.	Westmoreland.	Foot broken by fall of coal and slate.
19	Hugo Killgren.	Swede.	Machine helper.	35	M.	Forrest Hill.	Allegheny.	Leg badly cut by fall of coal.
Aug. 1	Charles Buscha.	Austrian.	Miner.	27	S.	Summer.	Fayette.	Leg broken by fall of coal.
29	Paul Gaenzle.	Hungarian.	Miner.	47	S.	Porter.	Westmoreland.	Leg broken by fall of slate.
Sept. 20	August Cruttie.	Italian.	Trapper.	16	S.	W. Newton shaft.	Westmoreland.	Collar bone broken by wagon running on him.
Oct. 3	Paul Majorle.	Slav.	Miner.	26	S.	Banning No. 1.	Fayette.	Body bruised by fall of slate.

TABLE V—Continued.

Date of accident.	Name of Person.	Occupation.	Age.	Married or single.	Name of Colliery.	County.	Nature and Cause of Accident in Brief.
Oct.	6 Mike Gruvick,	Miner,	29	M.	Palmer,	Fayette,	Leg broken by fall of slate.
	18 John Simsick,	Miner,	27	S.	Ocean No. 6,	Westmoreland, ..	Head badly cut by fall of slate.
	18 John Zabinski,	Miner,	55	S.	Ocean No. 6,	Westmoreland, ..	Back hurt and otherwise bruised by fall of slate.
Dec.	20 William Davis,	Miner,	29	M.	Dravo,	Allegheny,	Injured internally by fall of coal.
	1 Barton Stillwagon,	Track layer,	41	M.	B. & O.,	Fayette,	Bone broken in leg and body bruised by cars.
	1 Charles Shaw,	Laborer,	21	S.	Forrest Hill,	Allegheny,	Leg broken by wagon running on it.
	2 Stephen Charko,	Miner,	22	S.	Rainbow,	Fayette,	Head cut and body bruised by fall of slate.
	23 Maybery Sluders,	Miner,	33	M.	Buckeye,	Westmoreland, ..	Leg broken and shoulder dislocated by fall of roof.

Tenth Bituminous District.

HUNTINGDON, BEDFORD, FULTON AND BLAIR COUNTIES, AND THE PARTS OF CLEARFIELD, CAMBRIA AND INDIANA COUNTIES LYING ADJACENT TO THE BELLS GAP RAILROAD, AND THE PARTS OF CLEARFIELD, CENTRE AND CLINTON COUNTIES LYING ADJACENT TO THE BEECH CREEK RAILROAD.

Altoona, Pa., March 5th, 1901.

Hon. James W. Latta, Secretary of Internal Affairs:

Sir: In accordance with the provisions of the Bituminous Mine Law, I herewith submit the annual report for this district for the year ending December 31st, 1900.

The coal trade was very good during the past year, and there was a considerable increase in the production and the number of persons employed. The number of accidents both fatal and non-fatal were in excess of the previous year, but many of them were due to carelessness on the part of the victims in not using proper precautions to make themselves safe while at work. The condition of the mines has been up to the average of previous years, and there is nothing special to report on the district as a whole. The number of new mines opened during the year was twenty, with prospect of a number more in near future. Following will be found a summary of the report, while the usual tables will be found in their proper places.

Respectfully submitted,

R. HAMPSON.

Summary of Statistics.

Number of mines in the district,	85
Number of mines in operation in 1900,	85
Number of tons of coal produced,	4,390,572
Number of tons shipped,	3,650,818
Number of tons used for steam, etc., at the mines,...	30,280

Number of tons sold to employes and others,	23,011
Number of coke ovens,	1,251
Number of tons of coke produced,	332,533
Number of persons employed, inside,	6,733
Number of persons employed, outside,	668
Total number of persons employed,	7,401
Number of fatal accidents,	21
Number of non-fatal accidents,	50
Number of tons of coal per fatal accident,	209,074
Number of tons of coal per non-fatal accident,	87,811
Number of persons employed per fatal accident,	296
Number of persons employed per non-fatal accident,	148
Number of wives made widows by accidents,	9
Number of children orphaned by accidents,	32
Number of kegs of powder used,	25,275
Number of pounds of dynamite used,	19,790
Number of cylindrical boilers in use,	24
Number of tubular boilers in use,	46
Number of steam locomotives,	4
Number of electric locomotives,	8
Number of new mines opened,	20

TABLE A—Showing the Production of Coal, Number of Persons Employed, and the Average Number of Tons Per Employee.

Names of Companies.	Number of tons produced.	Number of persons employed.	Number of tons produced per employee.
Altoona Coal and Coke Co.	257,091	432	595
Clearfield Bituminous Coal Corporation,	634,800	924	687
Crescent Coal Mining Co.	142,702	221	645
Colonial Iron Co.,	118,998	193	616
Glenwood Coal Co.,	179,097	277	646
O. P. Jones' Estate,	62,050	112	554
Lehigh Valley Coal Co.,	413,144	544	759
J. L. Mitchell,	68,184	100	681
Peale, Peacock & Kerr,	289,778	456	635
Rockhill Iron Co.,	199,054	355	560
W. H. Sweet,	110,418	181	610
Urey Ridge Coal Co.,	135,766	189	803
Horton Run Coal Co.,	69,979	206	310
Bradley & Meagher,	32,093	38	844
Harblson & Walker Co.,	2,926	49	47
Clearfield and Indiana Coal Co.,	12,344	100	123
E. F. Spencer & Co.,	24,700	72	343
John Langdon,	26,874	76	353
Clearfield Lumber Co.,	7,595	36	211
Adam Black,	10,231	35	292
Fred. Bland,	37,129	40	928
Blain Run Coal Co.,	73,300	138	531
W. W. Reed,	14,022	35	400
Burnside Coal Co.,	98,789	115	806
Kelly & Nugent,	11,375	30	379
Cush Creek Coal and Coke Company,	13,578	41	331
Morrison Coal Co.,	59,292	131	452
Great Eastern Seaboard Coal Mining Co.,	9,918	90	110
Snow Shoe Mining Co.,	27,207	44	618
Clark Brothers & Smith,	1,106	30	368
Dougherty Coal Co.,	10,301	16	643
Duval Coal Mining Co.,	35,402	76	465
Bennington Coal and Coke Co.,	26,668	65	410
E. Eichelberger & Co.,	17,000	30	566
Max Frick,	51,148	68	752
J. P. & M. F. Gates,	21,600	46	469
Bellwood Coal Co.,	43,628	83	525
J. Swires & Co.,	21,012	55	382
Glen White Coal and Lumber Co.,	58,853	97	609
Hickes Coal Mining Co.,	12,168	39	312
Irvona Coal Co.,	161,557	253	638
Indiana Coal Co.,	42,123	76	567
Joseph E. Thropp,	91,392	190	481
W. G. Fishburn,	114,824	190	604
Clearfield and Cambria Coal and Coke Co.,	23	23	1
Gallitzin Coal and Coke Co.,	95,854	92	1,030
Saxton Furnace Co.,	350	16	21
W. J. Nicolls,	38,844	69	562
O'Shanter Coal Co.,	25,053	53	472
S. Hegarty's Sons,	43,130	75	575
Reakirt Bros. & Co.,	81,903	94	871
Preston Coal Mining Co.,	4,404	46	95
Joseph Smittle,	3,770	24	157
Somerville & Buchanan,	121,993	133	917
Kelly Brothers,	103,450	147	703
Lambrith Mining Co.,	19,770	62	313
Smith & Fraser,	2,457	12	204
Total and average,	4,390,572	7,401	593

TABLE B—Showing Number of Employees, Number of Tons of Coal Produced, Number of Fatal Accidents, Number of Tons Per Fatal Accident, Number of Non-Fatal Accidents, Number of Tons Per Non-Fatal Accident, and Number of Tons Per Each Accident.

Name of Operator.	Number of employees.	Number of tons of coal produced.	Number of fatal accidents.	Number of tons per fatal accident.	Number of non-fatal accidents.	Number of tons per non-fatal accident.	Number of tons per accident.
Altoona Coal and Coke Co.,	432	257,091	1	257,091	4	64,272	51,418
Clearfield Bituminous Coal Corporation...	924	634,800	4	158,700	4	158,700	79,350
Crescent Coal Mining Co.,	221	142,702	1	142,702	3	47,567	35,675
Colonial Iron Co.,	193	118,998	.....	.....	2	59,499	59,499
Glenwood Coal Co.,	277	179,097	.....	.....	.....	.....	.....
O. P. Jones' Estate,	112	62,050	.....	.....	1	62,050	62,050
Lehigh Valley Coal Co.,	544	413,144	4	103,286	4	103,286	51,643
J. L. Mitchell,	100	68,184	1	68,184	2	34,092	22,728
Feale, Peacock & Kerr,	456	289,778	1	289,778	8	36,222	32,197
Rockhill Iron Co.,	355	199,054	1	199,054	1	199,054	99,527
W. H. Sweet,	181	119,418	.....	.....	.....	.....	.....
Urey Ridge Coal Co.,	169	135,766	.....	.....	.....	.....	.....
Bradley & Meagher,	206	63,979	.....	.....	.....	.....	.....
Harbison & Walker Co.,	38	32,093	1	32,093	2	16,042	10,698
Horton Run,	49	2,326	.....	.....	.....	.....	.....
Clearfield and Indiana Coal Co.,	100	12,344	.....	.....	.....	.....	.....
E. F. Spencer & Co.,	72	24,700	.....	.....	.....	.....	.....
John Langdon,	76	26,874	.....	.....	.....	.....	.....
Clearfield Lumber Co.,	36	7,595	.....	.....	.....	.....	.....
Adam Black,	35	10,231	.....	.....	.....	.....	.....
Fred. Bland,	40	37,129	.....	.....	1	37,129	37,129
Blain Run Coal Co.,	138	73,300	1	73,300	.....	.....	.....
W. W. Reed,	35	14,022	.....	.....	.....	.....	.....
Burnside Coal Co.,	115	92,789	2	46,394	2	46,394	23,197
Kelly & Nugent,	30	11,375	.....	.....	.....	.....	.....
Cash Creek Coal and Coke Co.,	41	13,578	.....	.....	.....	.....	.....
Morrisdale Coal Co.,	131	59,292	.....	.....	1	59,292	59,292
Great Eastern Seaboard Coal Mining Co.,	90	9,918	.....	.....	.....	.....	.....
Snow Shoe Mining Co.,	44	27,297	.....	.....	.....	.....	.....
Clark Brothers & Smith,	30	11,061	.....	.....	.....	.....	.....
Dougherty Coal Co.,	16	10,301	.....	.....	.....	.....	.....
Duval Coal Mining Co.,	76	35,402	.....	.....	1	35,402	35,402
Bennington Coal and Coke Co.,	65	26,668	.....	.....	.....	.....	.....
E. Eichelberger & Co.,	30	17,000	.....	.....	2	8,500	8,500
Max Frick,	68	51,148	.....	.....	.....	.....	.....
J. P. and M. F. Gates,	46	21,600	.....	.....	.....	.....	.....
Bellwood Coal Co.,	83	43,628	1	43,628	2	21,814	14,542
J. Swires & Co.,	53	21,012	.....	.....	1	21,012	21,012
Glen White Coal and Lumber Co.,	97	58,853	.....	.....	.....	.....	.....
Hickes Coal Mining Co.,	39	12,168	.....	.....	.....	.....	.....
Irvena Coal Co.,	253	161,557	1	161,557	2	80,778	53,852
Indiana Coal Co.,	76	43,123	.....	.....	2	21,561	.....
Joseph E. Thropp,	190	91,392	1	91,392	.....	.....	91,392
W. G. Fishburn,	190	114,824	1	114,824	1	114,824	57,412
Clearfield and Cambria Coal & Coke Co.,	23	23	.....	.....	.....	.....	.....
Gallitzin Coal and Coke Co.,	93	95,854	.....	.....	.....	.....	.....
Saxton Furnace Co.,	16	360	.....	.....	.....	.....	.....
W. J. Nicolls,	69	38,844	.....	.....	1	38,844	38,844
O'Shanter Coal Co.,	53	25,053	.....	.....	.....	.....	.....
S. Hegarty's Sons,	75	49,129	.....	.....	.....	.....	.....
Reakirt Bros. & Co.,	94	81,903	.....	.....	1	81,903	81,903
Preston Coal Mining Co.,	46	4,404	.....	.....	.....	.....	.....
Joseph Smittle,	24	3,770	.....	.....	.....	.....	.....
Sommerville & Buchanan,	133	121,993	.....	.....	.....	.....	.....
Kelly Brothers,	147	103,450	.....	.....	2	51,725	15,725
Lambirth Mining Co.,	62	19,770	.....	.....	.....	.....	.....
Smith & Fraser,	12	2,457	.....	.....	.....	.....	.....
Total,	7,401	4,390,572	21	.....	50	.....	.....

TABLE C—Classification of Accidents.

	Killed or fatally injured.	Injured.	Total.
Falls of coal and roof,	13	25	38
Premature blasts,		1	1
By mules, inside,		1	1
By mules, outside,		1	1
By cars, inside,	4	14	18
By cars, outside,			
By electric motors,		1	1
Careless use of powder,	4	4	8
Miscellaneous, inside,		1	1
Miscellaneous, outside,		2	2
Total,	21	50	71

TABLE D—Occupations of Persons Killed and Injured.

	Killed or fatally injured.	Injured.	Total.
Miners,	19	33	52
Drivers,	2	9	11
Mine foremen,		1	1
Trip Runners,		2	2
Dumper,		1	1
Machine runner,		1	1
Scraper,		1	1
Door tender,		1	1
Miner's helper,		1	1
Total,	21	50	71

TABLE E—Nationalities of Persons Killed and Injured.

	American.	English.	Irish.	Welsh.	German.	Swede.	Slav.	Hungarian.	Italian.	Nova Scotlan.	Total.
Killed,	5	1			12	3	5	1	1		21
Injured,	25	4	12	1	12	3	9	3		1	59
Total,	33	5	12	1	1	6	14	4	1	1	71

Description of the Fatal Accidents.

No. 1. George Ferick, was instantly killed at Moravian mine January 12th. He was going to work in the mine, and a loaded trip was coming out, and despite the warning of the driver he jumped on the trip, and in some way he fell off between the cars. The accident was due to carelessness on the part of the deceased.

No. 2. Benedetto Devicia was killed by a fall of coal at Delaney mine March 21st. Devicia and his butty were making an undercut and had it mined to a depth of about two feet when the coal fell upon him injuring him so severely that he died twenty minutes afterward. They had no sprags set, and the accident was due to their own negligence.

No. 3. George Glass was killed by a fall of slate in National No. 2 mine, April 16th. He was loading a car when a piece of slate fell from a slip in the roof which killed him instantly. This accident was due to neglect on the part of the deceased and his partner, as the props were not up to the face.

No. 4. Richard Sinclair, driver, was killed by falling off the front of his trip of loaded cars. He was driving from one sidetrack to another, and while engaged in bringing the trip and riding on the front end, he fell off. From the evidence, I considered it an unavoidable accident.

No. 5. John Ruby was killed by a fall of coal at Robertsdale slope, April 27th. He was engaged in mining from one slip to the other and the coal fell and his neck was broken. He had no sprags under the coal, and the accident was due to carelessness on his part.

No. 6. Joseph Kanir was killed by a fall of coal at Knox Run mine June 30th. He and his companion had fired a shot that brought down a portion of the coal, which they loaded out, and then Kanir lay down under the loose end without setting any sprags, and the coal fell upon him. The accident was due to his carelessness in not spragging the coal.

No. 7. Mike Duditch was killed by a fall of coal at Sugar Camp No. 3 mine, July 6th. He was shoveling out the bottom bench of coal, when the top bench fell from a slip and killed him. There were no props set under the top bench, and as the room was going toward the crop the slips ran through the coal, and it was from one of these that the coal fell. They were careless in not having had props under the top bench of coal.

No. 8. George Nail was killed by a fall of rock at Kearney mine July 23. He and a companion were working a room, and a roll came in the roof making it so low that the mine car could not pass under it, and the mine foreman gave orders for it to be shot down, and Nail called in the chairman of the pit committee to consult with him in re-

gard to it. The three men examined the rock and thought it was perfectly solid, and would have to be shot down, and the committeeman turned away to go out of the room, when Nail went toward the face to go to work, and as he was passing under the roll of rock it suddenly fell upon him, injuring him so severely he died the same evening. This was considered an unavoidable accident.

No. 9. Emile Holm was killed by falling from a trip of loaded cars at Ogle mine August 9th. His father had sent him on an errand out of the mine, and he rode out on a loaded trip, and just as the trip got outside the drift mouth, for some reason, he jumped up on the car, and struck his head against one of the trolley supports, and was knocked under the cars and dragged along a short distance, and when taken out he was dead. The boy seemed to have acted very carelessly.

Nos. 10 and 11. Chester Smith and John Richardson were so seriously burned by powder that they died. Smith was working in a room with a miner, and had gone to the powder box to make up a cartridge; Richardson, who worked in the adjoining room, was sitting some ten or twelve feet away, and in some way a spark fell from Smith's lamp and ignited the powder in the cartridge, and also that in a can, and burned them both so severely that Smith died on the evening of the 25th and Richardson on the evening of the 29th of August. On making an investigation, I considered it an unavoidable accident, as Smith was a very careful man. This accident occurred at the Burnside mine.

Nos. 12, 13 and 14. John Kindress, George Slaposkey and George Kulick, were killed at Sugar Camp mine August 24th. These miners were engaged in pulling out heading stumps, and on the morning in question they had gone to work early, and had gotten plenty of coal loose, and had mined the stump lengthwise of the heading, until it was not more than five or six feet in thickness, and when the driver came in with his first trip of cars he gave one to these men, and they had just pushed the car almost to the end of the pillar next the gob, when without warning, the roof gave way, swinging over the small pillar, and burying the men under the mass of rock. The men in this case seemed to have been very careless in getting so much coal loose, thus weakening the pillar too much. A fellow miner was in the place half an hour before the accident, and he said there was no squeeze on the props, nor any working of the roof at the time.

No. 15. William McKinney, was killed by a fall of slate in Great Bend mine, October 5th. He was at work making a crosscut and had props set to within five or six feet of the face, and as he was at work mining, a piece of slate fell out of a pot hole killing him instantly. The accident was unavoidable.

No. 16. August Kettron was seriously burned by powder at Harbi-

son-Walker mine August 16th. He undertook to open a keg of powder with his mining pick, and in pulling out the pick, the powder exploded, burning him so severely that he died the same night. This accident was due to the man's own carelessness.

No. 17. William Scott was killed at the Kyler mine October 24th. He was bringing a trip of loaded cars down the heading and in going down a short hill he lost control of the trip, and was trying to set the brake between the first and second cars when the first car jumped the track, and he was caught between the car and the roof, and was dead when released. The accident was unavoidable.

No. 18. Linus Swanson was killed by a fall of coal at Moravian mine, October 29th. He and his companion were at work in a heading, and they had almost finished mining across the heading, when the coal fell from a powder crack and caught Swanson, killing him. They had no sprags set, and as the roof at this point was smooth, it showed negligence on their part in not spragging up the coal.

No. 19. John E. Smith was killed by a fall of bone coal at Crescent mine No. 2, October 30th. He was at work at the loose end of the place, mining from one slip to another, when the bone coal gave way and fractured his skull. This was a preventable accident, for had the deceased taken proper precautions, and not mined so close to the slip, or if he had taken down the bone coal and so made himself secure, it would not have fallen.

No. 20. James Donley was killed by a fall of coal at Blain Run mine, November 6th. He and a companion were engaged in putting in a mining in the "tight," and had it nearly finished, when a piece of coal fell from a slip and struck Donley on the neck and shoulders, breaking his neck. The accident was unavoidable.

No. 21. Theodore Olsen, was seriously burned by powder at Pleasant Hill mine, December 21st. He was working with another man in a back heading, and had gone back to the powder and oil box to put a new cotton in his lamp, and he took the lighted cotton out of his lamp and placed it on the edge of the powder box, when the lighted cotton fell upon a keg of powder and ignited it, and he was so severely burned that he died the same evening. This accident was due to the gross carelessness on his part,

Condition of Mines.

Cato.—Is a small mine, working between twenty and thirty men, and has been worked steadily during the year. They are re-opening the old mine, and have drained the water out with syphon, which will give access to better coal than they have been mining. The ventilation was fair during the year.

Sugar Camp Mines.—The production of coal has been large. At

No. 2 mine a good deal of work has consisted in pulling out the heading pillars, and now a new drift is to be made that will cut all the present headings off, and again concentrate the work. The ventilation and drainage of this section was very good. At the No. 3 section nearly all the upper seam has been worked out and considerable ground is being opened up in the lower seam. The ventilation of this section was good. At the No. 4 section considerable difficulty has been experienced with swamps that interfered with the work very much, in the lower seam. In the upper seam the ground was very regular, and the coal of regular thickness. A furnace has been built at each of the mines, which are of ample size to ventilate them.

Cherry Run.—There is not much change to report at this mine, as they still have trouble with clay veins and rolls, thus making it a difficult mine to operate. The ventilation was all right during the year.

Snow Shoe.—This is the old Irvona mine, and is now operated by Kelly Brothers, and they have got three openings into the coal on the lower seam and an opening into the upper seam, but the territory of the upper seam is small, and the coal will be worked out this winter. There is a furnace for each of the openings, and the ventilation was good.

Grass Flat.—The general condition of this mine for ventilation and drainage has been very good the past year. They have reopened No. 9 and No. 11 drifts during the year, as the territory in No. 10 was becoming limited, and there is a good furnace at each of the newly reopened mines, while No. 10 is ventilated from the fan located at the Pleasant Hill side of the workings.

Knox Run.—During the year a great deal of work has been done in the old mine, and they have got across the dip, and are now in good ground, and will soon have the mine in good condition for producing coal. A new furnace has been built, and the ventilation is very good.

Moravian.—A new furnace has been built in this mine near the upper portion of the workings, which produces a good current of air at the face of the upper headings; the mine is in a good condition.

Pleasant Hill.—On the north side workings of this mine a good deal of work has been done, and a new furnace has been built near the upper part of the work. On the south side they have opened up quite a body of coal, and shortened the hauling road considerably. The general condition of the mine was good.

Sommerville.—Work has gone on steadily at this mine during the year, and they are not having so much trouble with water as heretofore, as the ground is rising ahead of them. The coal is cut by electric mining machines; electric pumps are used for pumping, and electric motors for hauling coal to the tippie. The ventilation of the mine was fair.

Ogle.—This mine adjoins the Sommerville mine, and is working on the same seam of coal. Here electricity is used for haulage, and compressed air for coal cutting machines and pumping. A great deal of ground has been opened up during the year. The south side of the workings was in good condition, while the north side was not so good at the last visit. A change has been made in the airway that has improved it very much since my last visit.

Forest.—There was very little work done at this mine during the year and a new operator has possession of it. There was very little new work opened up, as most of the work consisted in pulling out the room and heading pillars. The condition of the mine was fair.

Kyler.—Work was very good during the year, and a great deal of work has been done in opening up the coal, and a large number of men are employed. A new shaft has been sunk near the upper part of the workings, and a new furnace built. The ventilation was very good at the different visits.

Gem.—This is a new mine, and considerable difficulty has been experienced with a roll in the main dip headings, but on my last visit things were looking more promising for getting around it. The condition of the mine was good during the year.

Royal Slope.—This mine like the Forest has changed hands during the past year and the work was not very regular. The ventilation and drainage were very good.

Alder Run.—This is an old mine which was re-opened during the year. The vein is thin but the coal is of good quality. A new opening has been put in to take the place of the old opening, which was long and wet, as it went through a swamp, but the new one strikes the coal on higher ground. The ventilation was good.

Plane.—This is a small mine, and the product is used in the fire brick works near Woodland and Clearfield. A fault was met in the main heading, which has given some trouble. The mine is ventilated by furnace, and was in good condition.

O'Shanter.—Work has been irregular at this mine during the year. The ventilation was fair at the times the mine was visited.

Work in this mine is confined to the dip, and there has not been very much done during the year. It is ventilated by the fan at No. 4 mine. The condition of the mine was good.

Bloomington No. 4.—There has not been much ground opened up in this mine, most of the work being on pillars, as they have been left standing since the mine was first commenced. They are now starting to work some solid coal in the third left heading, and this is the only place where headings are being driven. In this part of the mine the ventilation was fair, and in the pillar part it was all right.

Bloomington No. 5.—During the year a good deal of ground has

been opened up in this mine, and as it was dependent on a small furnace for ventilation, at the last visit it was not good. A Stine fan was being installed to ventilate the mine, so that hereafter there will be ample ventilation.

Gazzam.—There is very little change to be noted at this mine. The coal is still very low, and not much prospects for it getting any higher. The mine has been worked regularly during the year, and the ventilation was always in good condition.

Burnside.—The general condition of this mine has been good during the year, the mine has been worked to its full capacity, and a great deal of work opened up. From the fifth left an opening has been made to the outside, and a tram road built across to the opposite hill and an opening put in there. A furnace shaft has been sunk and a furnace put in.

Glenwood No. 1.—These mines have run very steadily during the year, but one part of the workings in No. 5 at one of my visits was in poor condition owing to the mine being too much overcrowded by men. The other parts were in fair condition. Two new openings near Smethport have been put in and the coal will be hauled through No. 6 mine by electric motors to the tippie. Very little work was done at the slope mine during the year.

Glenwood No. 2.—This is a new mine opened near Burnside, and on my first visit it was in fair condition, and on subsequent visits it was in better condition, and from now on there is nothing to prevent its being kept up to the proper standard.

Clarks.—This is a new mine which was opened during the year, employing about thirty men. The coal is about four feet thick and the quality good. There is a small furnace for ventilating and the mine was in fair condition.

Indiana.—This mine was formerly known as Glenwood No. 2, but has passed into other hands. The ventilation was good during the year, in the slope parts of the mine, but in the old drift some coal left years ago is being worked, and in this part the ventilation was only fair.

Cush Creek.—This is a new mine, employing from twenty to thirty persons, and a shaft has been sunk and furnace put in for ventilation. Two more openings are now being made and hope to be shipping coal early in the next year.

Horton Run Nos. 1 and 2.—These are new openings, and on my last visit men were at work putting down ventilation shafts. The upper seam is reached by a long plane, but the two drifts on the lower seam are on the same level as the tipples.

Arcadia Nos. 1 and 2.—There are three new openings at this point, and at my last visit No. 2 was the only one from which coal was

being shipped, and the ventilation was poor, as they had no shaft sunk, but work was comenced at once and pushed until it was through. No. 1 had no railroad to it, No. 3 was being put in, and it was expected they would be shipping coal by the beginning of the year.

This mine has been operated very steadily during the year, and work has been pushed in the upper drift considerably. A new shaft was put down and a furnace built for the upper part of the work, while in lower part of the mine work has been on pillars during the year. The mine was in good condition.

Urey Nos. 1, 2 and 3.—These mines have been worked regularly during the year, but the ventilation was good. No. 2 was also in good condition during the year. No. 3 mine has worked steadiest of them all, and this was in good condition. A new drift was put in in the property lying between No. 2 and No. 3, a tram road graded, and the coal brought to No. 3 tipple.

Clearfield No. 1.—This is a new mine opened near La Jose, and I have paid it only one visit, as the railroad was not graded, and it will be some time before they can ship coal.

Wilson Run.—Sometimes this mine had men enough to come under the law, and at other times not enough, but on my last visit it was shut down.

National 1 and 2.—No. 1 mine has not been worked much, only a few miners working on pillars and stumps. In No. 2 considerable work has been done, and a connection made from the new into the old drifts, and they have also made an opening at the back side of the hill, and a trestle and tramway has been built, and a drift put in on the other side of the ravine, and the coal will come to No. 2 tipple. The condition of the mine was good.

Irvona No. 3.—Work has been good at this mine, and a large area of territory has been opened. Work has been commenced in the upper vein to bring coal down the plane. There are two openings in the lower seam, and a locomotive runs to each, and the quantity of coal coming from each opening is about equal. At the last visit an airway was being driven and a shaft will be put in, also a fan, so that the two sections of the mine will have each its own fan, and separate systems of ventilation. The condition of the mine was good.

Blain Run.—A great deal of work has been done in this mine, and a large territory opened up. A large fan was erected at the No. 2 opening, and the ventilation was good. At No. 1 section the ventilation was very fair.

Oakland.—During the year rope haulage has been installed at this mine, and the main heading has been pushed down the dip considerably, and men are now driving from the opposite side of the hill so as

to make a connection both for ventilation and drainage. The ventilation was not good at the last visit, as the furnace was utterly inadequate for the work, but the management has ordered a fan, which will give ample ventilation for the number of men employed.

Pennsylvania.—Very little work was done here during the greater part of the year, but on my different visits the mine was in good condition and as it has gone under new management. I think that the work hereafter will be more regular.

Pleasant Hill No. 2.—This is a new mine opened near Glasgow, and not many men are employed as yet. The ventilation was good.

Mountindale.—There is very little change to note in respect to this mine, as work has been very regular in the old mine, and the ventilation very good. A new opening near the tippie has been made to get at some coal left years ago, and this will help them out considerably as the territory is limited.

Eldorado.—There was little done at this mine but work on pillars, and on my last visit there were only a few men employed on the heading stumps.

The Union mine operated by the same firm has been worked regularly, and its condition was good.

Blands.—This mine has been worked regularly, but the big fault at the back end of the mine has been struck, so that the work is narrowing up in that section very fast, and now the coal near the drift mouth is being opened. A few men have been at work in the upper seam. The condition of the mine was very fair.

Great Bend.—Work has been good at this mine, and considerable heading work has been done. The roof still continues more or less treacherous, and needs careful watching on the part of the miner. The general condition of the mine was very fair.

Fricks.—This mine has been worked very regularly, and has been very carefully looked after, and the ventilation was good during the year. They have the same poor roof at this mine as at the Great Bend, and it needs careful watching by the miners.

Harbison-Walker.—This is a small mine, and the coal is used for burning fire bricks at the extensive brick works owned by this company. Fire clay is also mined here, and underlies the coal seam. The ventilation was very fair during the year.

Delaney.—This is a very extensive work, coal being brought from three openings at present. Part of the coal is cut by Ingersoll mining machines, and there are two large compressors for furnishing air for the cutters, for pumping, and for a hoisting engine, which is located inside the mine. The largest opening is ventilated by fan, and the other two by furnace, and the condition has been good during the year.

Horse Shoe.—This mine is operated by the same company that

operates the Delaney mine, and it has been worked only part of the year. The ventilation was good.

Glen White.—The slope mine was the only mine worked by this company during the year, the small vein having been shut down for some cause or other. They still have trouble with clay veins, making the work very irregular. The mine is ventilated by fan, and the condition was good.

East End.—Work has been again resumed after a years shut down; water has been pumped out below the first level, and the hauling rope has been extended up this heading to the side track. The ventilation was good.

Bradley No. 1.—This work is connected with the old Porter shaft, and part of the coal goes to the shaft, and the remainder is hauled out of the drift. The ventilation was fair during the year.

Bradley No. 2.—This old mine, has been reopened and trouble is still experienced from water, but a deep drain has been cut that will relieve it a little. A small furnace has been put in and ventilation was fair.

Robertsdale.—This is a very extensive mine, and a great deal of work has been done during the year. Both veins of coal are worked from this opening as a tunnel leads from the Barnet into the Fulton vein, and in the latter vein a great deal of heading work has been done, and the top shot down to grade the road properly. The roof in this vein is not as good as in the Barnet, and needs more attention. In the Barnet vein a connection has been made with the old workings, which has shortened the air current, so that it comes more direct to the face of the work. The ventilation was good in this vein, but on one visit it was a little deficient in the Fulton.

Woodvale Shaft.—This mine is in connection with the Robertsdale mine, and the workings are connected, so that one can travel from one to the other. A good deal of heading work was done in this mine in the Barnet seam, while in the lower or Fulton seam there has been a great deal of water to contend with, and on my last visit a big lodgment was being made for the water, and preparations were being made to instal a very large and powerful pump which will handle all the water that is now made. A great deal of heading work, and grading of roads has been done, and in a short time this will be a very productive mine, as the coal is of good thickness. The ventilation was good during the year.

Fisher.—Work has again been commenced at the back end of the old mine, and a ventilating shaft has been put down at the face of the work. In the other opening there is little left but the room and heading pillars, and this winter will see it worked out. The ventilation was good during the year.

Blacks.—This is a new mine recently opened, and the old Carbon mine has been cut into. The seam is being opened at a point on a

level with the tittle, which will do away with the plane being used. The ventilation was good.

Carbon.—The connection between the Barnet and Fulton seams in this mine has been made, and the coal from both seams is now brought out at the same opening. A heading is being run alongside the big roll which is opening up a good block of coal. The ventilation was good.

Ocean No. 1.—There has not much work been done in this mine, as a big dip cut off most of the work in the Barnet seam, and it will now be necessary to drive a tunnel from the Fulton seam to win the coal which they had to leave in the Barnet on account of the dip. The ventilation was good.

Ocean No. 2.—There has been trouble nearly all the year in this mine from a big dip, which has thrown the work into confusion, and on this account the ventilation was not good in parts of the mine. In the upper part it was all right. Connection is made at intervals with the Fisher mine, and this brings the air current nearer the face of the workings.

Ocean No. 3.—This is a new operation, two drifts having been put in during last summer, one on Barnet and the other on Fulton vein. This will take the place of the Huntingdon mine, which is nearly worked out.

Huntingdon.—The work is nearly finished in this mine, as there is little left other than the pillars and heading stumps, and the foreman and miners have been transferred to the Ocean No. 3 mine.

Benedict.—Work has been very irregular at this mine owing to the long distance to haul coal inside the mine, also outside. At the time of my last visit the mine was idle. The ventilation was fair.

Hickes.—This mine has been operated very regularly employing about twenty men during the year, and the ventilation was good when I visited the mine. The operator has put a drift into this vein on opposite side of the basin, which will be ready the coming year to ship coal from it.

Melrose.—I paid one visit to this mine, and coal will be shipped to the coke ovens of the Saxton Furnace Co., which company will operate the mine. There are two openings; efforts were being made to make a connection between the two. A shaft for ventilation will also be put down.

Durham No. 1.—This mine has been worked regularly as the product is made into coke for the furnaces at Riddlesburg. A slope to the bottom of the basin has been sunk and they are now driving the headings up the basin, and will soon get at the coal on the right hand pitch. The ventilation was good.

Durham No. 2.—This mine has not worked as regularly as No. 1, but the rope heading has been pushed into the basin, and they are

now following up the basin with headings. It has been very difficult to ventilate this mine properly owing to the old workings that have to be gone through.

Duval.—This mine, formerly the Harvey slope, passed into the hands of the Duval Coal Mining Co., and the name was changed to Duval. It has been worked fairly well, and been kept up to the standard required by law.

Cunard.—In the shaft mine trouble has been experienced from rolls, and this has interfered more or less with the ventilation in that part of the mine. A new slope road has been made into the basin, which is developing that part of the work. On the north side the workings have been extended, and the rooms keep cutting into the old mine above.

In the slope another lift has been sunk and they have turned headings off right and left, and a ventilating shaft has been sunk and furnace built. The mine was in fairly good condition during the year.

Fulton.—This is a mine that was operated during the war, and has now been re-opened, and most of the work was confined to the coal along the outcrop, and taking out pillars that had been left. A slope down into the basin has been sunk and when this is properly opened, it will provide a large body of coal to work. A small furnace was used and the ventilation was fair.

Warner.—The work has been irregular at this mine, and in the way of improvement, they have put in a self-acting plane that lands the loaded cars at the drift mouth, and inside on top of the hill they have also built a self-acting plane. The ventilation was fair.

Cambria 1.—This mine is now operated by John Langdon, and pillars have been taken out at the back end, and also on top of the hill adjoining the Kearney mine. A new road has been laid into the old rope road, and now coal can be had on the anticlinal on the left. The mine was in good condition.

Chevington No. 1.—This is a new opening put in this year to get at a body of coal lying at the back of the old Chevington mine, and it was necessary to make a road through a portion of the old workings. The condition of the mine was fair.

Chevington No. 2.—This is another new opening put in to win a body of coal that could not be reached from any other opening. Only a few men have been employed, but on my last visit the coal was improving, and the number of miners will soon be increased.

Crescent No. 1.—In the lower part of this mine the headings have run to the boundary, and a good deal of work has been done in taking out pillars. In the upper portion is the only solid coal, and this will last for quite a while. The condition of the mine was good.

Crescent No. 2.—This mine has been worked very regularly. A new opening has been put in which makes a level road, and the haulage is thereby much improved. The old Piper mine is still being cut into on the left of the work. The condition of the mine was good.

Crescent No. 3.—The number of men employed has not been large, and the headings have not been driven very far. The new opening has been in use for some time, and a plane been built from the tibble to the mouth of the new mine. The coal is low, but of good quality. The condition of the mine was fair during the year.

Kearney.—Work has been very regular here during the year. In the Plane mine men are still working alongside of and making connections with the old Cambria No. 1 mine, and are building an incline plane to let the coal from near the top of the hill down to the motor turn-out. In the slope mine, headings are being driven on the right, and from this section workings of an old mine above are being cut into. The general condition of the mine was good.

Cambria No. 3.—The work has not been regular here, as the property has changed hands. The main haulage road has been graded and was in readiness on my last visit to put in a rope haulage. The ventilation was good at the times I visited the mine.

TABLE I—Showing names of operators, railroads, etc., and location of collieries in the Tenth Bituminous District for the year 1900.

Names of Operators and Collieries.	County.	Name of General Superintendent.	P. O. Address.	Name of Superintendent.	P. O. Address.	Railroad to Mine.
Altoona Coal and Coke Co. Delaware Horse Shoe	Cambria, Blair	T. K. Maher, T. K. Maher	Philadelphia, Philadelphia	John Munro, John Munro	Kittanning Point, Kittanning Point	Penna. Railroad, Penna. Railroad.
Clearfield Bituminous Coal Corp. Gazzam Grass Flat Knox Run Pleasant Hill Moravian	Clearfield, Clearfield, Clearfield, Clearfield, Clearfield,	R. A. Shillingford, R. A. Shillingford, R. A. Shillingford, R. A. Shillingford, R. A. Shillingford,	Clearfield, Clearfield, Clearfield, Clearfield, Clearfield,	James Methven, James Methven, James Methven, James Methven, James Methven,	Gazzam, Gazzam, Gazzam, Gazzam, Gazzam,	B. C. R. R., B. C. R. R., B. C. R. R., B. C. R. R., B. C. R. R.
Crescent Coal Mining Co. Crescent 1, Crescent 2, Crescent 3,	Bedford, Bedford, Bedford,	..... ..... .....	..... ..... .....	John Langdon, John Langdon, John Langdon,	Hopewell, Hopewell, Hopewell,	H. & B. T. R. R., H. & B. T. R. R., H. & B. T. R. R.
Colonial Iron Co. Durham 1, Durham 2,	Bedford, Bedford,	William Lander, William Lander,	Riddlesburg, Riddlesburg,	James C. Allen, James C. Allen,	Riddlesburg, Riddlesburg,	H. & B. T. R. R., H. & B. T. R. R.
Glenwood Coal Co. Glenwood 1, Glenwood 2,	Indiana, Clearfield,	A. M. Riddle, A. M. Riddle,	Glen Campbell, Glen Campbell,	..... .....	..... .....	Penna. Railroad, Penna. Railroad.
O. P. Jones' Estate. Royal slope, Forest,	Clearfield, Clearfield,	W. P. Duncan, W. P. Duncan,	Phillipsburg, Phillipsburg,	H. M. D. Lorain, H. M. D. Lorain,	Phillipsburg, Phillipsburg,	B. C. R. R., B. C. R. R.
Lehigh Valley Colliery Co. Sugar Camp 2, Sugar Camp 3,	Centre, Centre,	W. A. Lathrop, W. A. Lathrop,	Wilkes-Barre, Wilkes-Barre,	Jas. F. Marsteller, Jas. F. Marsteller,	Snow Shoe, Snow Shoe,	Penna. Railroad, Penna. Railroad.
J. L. Mitchell. National 1, National 2,	Clearfield, Clearfield,	..... .....	..... .....	B. D. Beaver, B. D. Beaver,	Irvona, Irvona,	P. & N. W. R. R., P. & N. W. R. R.
Peale, Peacock & Kerr. Bloomington 3, Bloomington 4, Bloomington 5, Ogle,	Clearfield, Clearfield, Clearfield, Clearfield,	Alex. Dunsmore, Alex. Dunsmore, Alex. Dunsmore, Alex. Dunsmore,	Glen Richey, Glen Richey, Glen Richey, Glen Richey,	W. G. Dunsmore, W. G. Dunsmore, W. G. Dunsmore, R. H. George,	Glen Richey, Glen Richey, Glen Richey, Winburne,	B. C. R. R., B. C. R. R., B. C. R. R., B. C. R. R.

Rockhill Iron Co. Robertsdate slope, Woodvale shaft,	Huntingdon, Huntingdon,	.....	L. Logan, L. Logan,	Robertsdate, Robertsdate,	E. B. T. R. R. E. B. T. R. R.
W. H. Sweet. Carbon, Huntingdon, Huntingdon, Ocean 1, Ocean 2, Ocean 3,	Huntingdon, Huntingdon, Huntingdon, Huntingdon, Huntingdon, Huntingdon,	..... ..... ..... ..... ..... .....	W. H. Sweet, W. H. Sweet, W. H. Sweet, W. H. Sweet, W. H. Sweet,	Dudley, Dudley, Dudley, Dudley, Dudley,	H. & B. T. R. R. H. & B. T. R. R. H. & B. T. R. R. H. & B. T. R. R. H. & B. T. R. R.
Urey Ridge Coal Co. Urey 1, Urey 2, Urey 3,	Indiana, Indiana, Indiana,	..... ..... .....	Thomas Bells, Thomas Bells, Thomas Bells,	Burnside, Burnside, Burnside,	Penna. Railroad. Penna. Railroad. Penna. Railroad.
Bradley & Meagher. Bradley 1, Bradley 2,	Blair, Blair,	..... .....	F. H. Bradley, F. H. Bradley,	Gallitzin, Gallitzin,	Penna. Railroad. Penna. Railroad.
Plane. Harrison-Walker, Horton Run Coal and Coke Co. Horton 1, Horton 2,	Clearfield, Cambria, Indiana, Indiana,	..... ..... ..... .....	J. A. Boyd, J. O. Clark, J. O. Clark,	Blandsburg, Glen Campbell, Glen Campbell,	P. & N. W. R. R. Penna. Railroad. Penna. Railroad.
Clearfield and Indiana Coal Co. Arcadia 1, Arcadia 2, Eldorado, Union,	Indiana, Indiana, Cambria, Cambria,	..... ..... ..... .....	Wm. Fitzgerald, E. F. Spencer,	Glen Campbell, Mountaineale,	B. C. R. R. P. & N. W. R. R.
John Langdon. Cambria 1, Chevington 1, Chevington 2, Clearfield Lumber Co. Alden Run, Blacks, Blains, Blain Run Coal Co. Blain Run,	Bedford, Bedford, Bedford, Clearfield, Huntingdon, Cambria, Clearfield,	..... ..... ..... ..... ..... ..... ..... ..... ..... ..... ..... ..... ..... ..... .....	John Langdon, John Langdon, John Langdon, Guy Snyder, Adam Black, Fred. Bland, W. H. Helman,	Hopewell, Hopewell, Hopewell, Clearfield, Broad Top City, Blandsburg, Coalport,	H. & B. T. R. R. H. & B. T. R. R. H. & B. T. R. R. B. C. R. R. H. & B. T. R. R. P. & N. W. R. R. P. & N. W. R. R.

TABLE I—Continued.

Names of Operators and Collieries.	County.	Name of General Superintendent.	P. O. Address.	Name of Superintendent.	P. O. Address.	Railroad to Mine.
Benedict,	Huntingdon, ..	.....	.....	W. W. Reed,	Dudley,	H. & B. T. R. R.
Burnside Coal Co. Burnside,	Clearfield, .....	.....	.....	Thomas Bellis, ...	Burnside,	B. C. R. R.
Kelly & Nugent. Cato,	Centre, .....	.....	.....	L. Nugent,	Snow Shoe,	B. C. R. R.
Clearfield & Cush Creek C. & C. Co. Cush Creek,	Indiana, .....	.....	.....	John Hoover,	Glen Campbell, ...	Penna. Railroad.
Cunard,	Bedford, .....	.....	.....	R. H. Kay,	Six Mile Run, ...	H. & B. T. R. R.
Great Eastern Seaboard C. M. Co. Cambria 3,	Bedford, .....	.....	.....	Jas. Denithorne, ...	Langdondale, ...	H. & B. T. R. R.
Cherry Run,	Centre, .....	.....	.....	W. F. Holt,	Moshannon,	Penna. Railroad.
Clark Bros. & Smith. Clark,	Indiana, .....	.....	.....	J. O. Clark,	Glen Campbell, ...	Penna. Railroad.
Dougherty Coal Co. Dougherty,	Cambria, .....	.....	.....	John Dougherty, ...	Altoona,	P. J. E. & E. R. R.
Duval Coal Mining Co. Duval,	Bedford, .....	.....	.....	John McIntyre, ...	Six Mile Run, ...	H. & B. T. R. R.
Bennington Coal and Coke Co. East End,	Blair, .....	.....	.....	Henry Newhart, ...	Gallitzin,	Penna. Railroad.
E. Eichelberger & Co. Fisher,	Huntingdon, ..	.....	.....	John Griffith,	Broad Top City, ...	H. & B. T. R. R.
Fricks,	Cambria, .....	.....	.....	Max Frick,	Blandsburg,	P. & N. W. R. R.
J. P. and M. F. Gates. Fulton,	Bedford, .....	.....	.....	M. F. Gates,	Philadelphia,	H. & B. T. R. R.

TABLE I—Continued.

Names of Operators and Collieries.	County.	Name of General Superintendent.	P. O. Address.	Name of Superintendent.	P. O. Address.	Railroad to Mine.
Lambirth Mining Co. Warren,	Bedford, .....	.....	.....	G. McIntyre,	Six Mile Run,	H. & B. T. R. R.
Smith & Fraser, Wilson Run,	Clearfield, .....	.....	.....	Isaac Smith,	La Jose,	P. & N. W. R. R.

TABLE II—Gives the total number of tons of coal mined and tons of coke produced in each colliery, number of days worked, number of emplys, number of persons killed and injured, number of kegs of powder, etc., used in the Tenth Bituminous District for the year ending December 31, 1900.

Names of Operators and Collieries.	County.	Shipment of coal in tons by rail or otherwise.	Number of tons used for steam and heat at colliery.	Sold to local trade and used by employes.	Total production of coal in tons.	Total production of coke in tons.	Number of coke ovens.	Average number days worked	Number persons employed.	Number fatal accidents.	Number non-fatal accidents.	Number kegs powder used.	Number pounds of dynamite used.	Number horses and mules.
Altoona Coal and Coke Co.	Cambria.	.....	.....	.....	250,448	19,288	70	279	383	1	3	2,200	.....	38
Defaney, Horse Shoe,	Blair.	.....	.....	.....	6,643	.....	.....	109	49	.....	1	.....	200	4
Total.		.....	.....	.....	257,091	19,288	70	194	432	1	4	2,200	200	42
Clearfield Bit. Coal Corp.	Clearfield.	69,027	134	545	69,706	.....	.....	276	106	.....	.....	801	90	9
Gazgam	Clearfield.	180,851	500	981	182,372	45,581	.....	277	258	.....	.....	1,300	.....	9
Grass Flat.	Clearfield.	121,227	.....	191	124,418	14,008	.....	246	198	1	3	985	.....	15
Knox Run.	Clearfield.	.....	.....	2,880	126,911	1,241	.....	268	194	1	.....	950	2,450	14
Pleasant Hill.	Clearfield.	128,527	.....	56	128,583	2,176	.....	276	168	2	.....	1,000	.....	8
Moravian.	Clearfield.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Total.		629,512	634	4,653	634,800	53,066	150	269	924	4	1	5,236	2,540	58
Crescent Coal Mining Co.	Bedford.	84,751	713	412	85,966	.....	.....	229	128	.....	3	125	.....	13
Crescent No. 1.	Bedford.	33,349	.....	72	33,421	.....	.....	245	58	1	.....	.....	.....	7
Crescent No. 3.	Bedford.	17,375	.....	.....	17,375	.....	.....	202	35	.....	.....	.....	.....	3
Total.		111,475	713	484	112,702	.....	.....	222	221	1	3	125	.....	23
Colonial Iron Co.	Bedford.	8,370	1,230	1,658	73,820	39,801	118	293	99	.....	1	350	100	10
Durham No. 1.	Bedford.	44,755	412	.....	45,168	.....	.....	291	94	.....	1	400	.....	8
Durham No. 2.	Bedford.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Total.		53,125	1,613	1,658	118,998	39,801	118	247	193	.....	2	750	100	18

TABLE II—Continued.

Names of Operators and Collieries.	County.	Shipments of coal in tons by rail or otherwise.	Number of tons used for steam and heat at colliery.	Sold to local trade and used by employes—tons.	Total production of coal in tons.	Total production of coke in tons.	Number of coke ovens.	Average number days worked.	Number persons employed.	Number fatal accidents.	Number non-fatal accidents.	Number kegs powder used.	Number pounds of dynamite used.	Number horses and mules.
Glenwood Coal Co.	Indiana,	156,260	965	1,100	158,515	.....	.....	240	230	.....	.....	1,104	1,006	11
Glenwood No. 1,	Clearfield,	29,377	.....	105	29,382	.....	.....	148	47	.....	.....	213	50	3
Glenwood No. 2, .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Total, .....	.....	176,867	965	1,265	179,097	.....	.....	194	277	.....	.....	1,317	1,050	14
O. P. Jones' Estate.	Clearfield,	42,980	275	.....	43,255	.....	.....	178	72	.....	1	221	.....	9
Royal slope,	Clearfield,	18,795	.....	.....	18,795	.....	.....	137	40	.....	.....	124	.....	5
Forest, .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Total, .....	.....	61,775	275	.....	62,050	.....	.....	158	112	.....	1	345	.....	14
Lehigh Valley Coal Co.	Centre,	340,774	1,086	1,379	343,239	.....	.....	187	471	3	3	97	2,700	36
Sugar Camp No. 2,	Centre,	69,515	358	32	69,905	.....	.....	178	73	1	1	8	300	6
Sugar Camp No. 3, .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Total, .....	.....	410,289	1,444	1,411	413,144	.....	.....	182	544	4	4	105	3,200	42
J. L. Mitchell.	Clearfield,	3,934	300	254	24,839	.....	.....	.....	100	.....	1	386	150	13
National No. 1,	Clearfield, .....	.....	.....	.....	43,345	.....	.....	.....	.....	1	1	.....	.....	.....
National No. 2, .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Total, .....	.....	3,934	300	254	68,184	29,424	100	299	100	1	2	386	150	13
Peale, Peacock & Kerr.	Clearfield,	31,872	.....	120	31,992	.....	.....	223	63	.....	.....	279	.....	10
Bloomington No. 3,	Clearfield,	120,067	1,200	.....	121,267	.....	.....	218	172	.....	1	630	.....	29
Bloomington No. 4,	Clearfield,	26,559	.....	400	27,459	.....	.....	210	64	.....	.....	580	.....	5
Bloomington No. 5,	Clearfield,	106,905	1,748	407	109,060	.....	.....	212	157	1	7	587	300	1
Ogle,	Clearfield, .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Total, .....	.....	285,403	3,448	927	289,778	.....	.....	216	456	1	8	2,126	300	45

TABLE II—Continued.

Names of Operators and Collieries.	County.	Shipments of coal in tons by rail or otherwise.	Number of tons used for steam and heat at colliery.	Sold to local trade and used by employes—tons.	Total production of coal in tons.	Total production of coke in tons.	Number of coke ovens.	Average number days worked.	Number persons employed.	Number fatal accidents.	Number non-fatal accidents.	Number kegs powder used.	Number pounds of dynamite used.	Number horses and mules.
John Langdon.														
Cambria No. 1.	Bedford.	15,281	.....	55	15,336	.....	.....	105	45	.....	.....	15	.....	6
Chevington No. 1.	Bedford.	9,843	.....	173	10,016	.....	.....	126	30	.....	.....	10	.....	3
Chevington No. 2.	Bedford.	1,722	.....	.....	1,722	.....	.....	33	11	.....	.....	.....	.....	1
Total.		26,646	.....	228	26,874	.....	.....	87	76	.....	.....	25	.....	10
Clearfield Lumber Co.														
Alder Run.	Clearfield.	7,537	15	43	7,585	.....	30	177	36	.....	.....	128	51	3
Blacks.	Huntingdon.	10,105	.....	126	10,231	.....	.....	182	35	.....	.....	28	1,000	2
Fred. Bland.														
Blands.	Cambria.	37,129	.....	.....	37,129	.....	.....	308	40	.....	1	280	.....	5
Blain Run Coal Co.														
Blain Run.	Clearfield.	73,100	300	.....	73,300	.....	.....	280	138	1	.....	500	.....	8
W. W. Reed.														
Benedict.	Huntingdon.	14,000	.....	22	14,022	.....	.....	157	35	.....	.....	70	105	3
Burnside Coal Co.														
Burnside.	Clearfield.	92,680	.....	100	92,780	.....	.....	257	115	2	2	710	.....	9
Kelly & Nugent.														
Cato.	Centre.	11,144	.....	231	11,375	.....	.....	244	30	.....	.....	120	.....	2
Clearfield & Cush Cr. C. & C. Co.														
Cush Creek.	Indiana.	13,460	.....	118	13,578	.....	.....	156	41	.....	.....	200	10	1

TABLE II—Continued.

Names of Operators and Collieries.	County.	Shipments of coal in tons by rail or otherwise.	Number of tons used for steam and heat at colliery.	Sold to local trade and used by employes—tons.	Total production of coal in tons.	Total production of coke in tons.	Number of coke ovens.	Average number days worked.	Number persons employed.	Number fatal accidents.	Number non-fatal accidents.	Number kegs powder used.	Number pounds of dynamite used.	Number horses and mules.
Clearfield & Cambria C. & C. Co.	Clearfield,	23			23			1	23					2
Clearfield,	Clearfield,													
Gallitzin Coal and Coke Co.	Blair,	33,376			95,854	41,803	100	274	93			760		12
Lemon,	Blair,													
Saxton Furnace Co.	Huntingdon, ...	356			356	300		60	16					2
Melrose,	Huntingdon, ...													
W. J. Nicolls.														
Mountindale,	Cambria,	4,195	305	652	38,844	21,735	50	282	69	1	85	250		5
O'Shanter Coal Co.	Clearfield,	24,958		95	25,053			206	53					4
O'Shanter,	Clearfield,													
S. Hegarty's Sons.														
Oakland,	Clearfield,	42,452	467	210	43,130			278	75					4
Penn. Reakfrt Bros. & Co.	Indiana,	81,903			81,903			229	94	1				14
Preston Coal Mining Co.	Clearfield,	4,404			4,404			110	46					2
Pennsylvania,	Clearfield,													
Joseph Smittle.														
Pleasant Hill No. 2,	Cambria,	3,635	90	45	3,770			130	24					1
Sommerville & Buchanan.														
Sommerville,	Clearfield,	120,469	684	830	121,993			244	133					7

Kelly Brothers.	103,250	50	150	103,450	210	147	2	150	300	8
Snow Shoe,										
Lambirth Mining Co.	19,770			19,770	221	62				4
Warner,										
Smith & Fraser.	2,400		57	2,457		12				
Wilson Run,										

Recapitulation.

Altoona Coal and Coke Co.,	629,513	634	4,653	257,091	19,988	70	388	1	4	4	2,200	200	42
Clearfield Bituminous Coal Corp.,	141,475	743	4,831	634,800	53,096	150	1,363	4	4	4	5,286	2,540	58
Crescent Coal Mining Co.,	53,125	1,613	1,658	142,702	39,801	118	667	1	3	3	125	100	23
Colonial Iron Co.,	176,867	965	1,265	118,998	39,801	118	494	1	3	3	1,317	1,000	18
Glenwood Coal Co.,	61,775	275	1,411	179,097	29,424	200	388	1	1	1	628	4,350	14
O. P. Jones' Estate,	410,289	1,444	1,411	62,050	29,424	200	315	1	1	1	1,317	1,050	14
Lehigh Valley Coal Co.,	3,634	300	251	413,134	29,424	200	365	4	4	4	105	3,200	42
J. L. Mitchell,	285,403	3,448	927	68,184	29,424	100	299	1	2	2	386	150	13
Peale, Peacock & Kerr,	188,677	7,978	2,389	289,778	39,801	118	863	1	8	8	2,126	300	45
Rocky Iron Co.,	109,753	685	2,389	189,054	39,801	118	455	1	1	1	2,700	2,650	53
W. H. S.,	133,716	200	280	110,418	39,801	118	1,222	1	1	1	1,073	4,350	18
Urey Ridge Coal Co.,	12,318	171	809	135,766	39,801	118	508	1	1	1	1,073	16	16
Blair,	2,326	221	138	63,979	39,801	118	362	1	1	1	818	26	26
Harbison & Meagher,	11,985	221	138	52,683	39,801	118	529	1	2	2	818	3	3
Horton Run Coal Co.,	24,000	350	350	12,318	39,801	118	31	1	1	1	135	65	2
Clearfield and Indiana Coal Co.,	26,646	11,908	7,420	24,700	39,801	118	100	1	1	1	135	135	5
E. F. Spencer & Co.,	1,310,539	30,280	23,011	26,874	190,924	613	242	7	7	7	93	3	3
John Langdon,				1,617,174	190,924	613	267	7	7	7	93	3	3
Miscellaneous companies,				4,390,572	322,533	1,251	8,193	21	21	21	7,291	5,250	10
Grand total and averages, ..							*205	7,401	50	50	25,275	19,790	636

*Average.

Recapitulation.

Name of Operators.	County.	Number of Boilers.			Total horse power.	Locomotives.			Number steam engines of all classes.	Total horse power.	Number pumps delivering water to surface.	Capacity in gallons per minute.	Quantity delivered to surface per minute—gallons.	Number electric dynamos.	Number air compressors.
		Cylindrical.	Horse power.	Tubular.		Horse power.	Steam.	Air.								Electric.
Altoona Coal and Coke Co.,	Cam. & Blair, ..	4	160	2	200	360	.....	.....	1	200	1	60	30	.....	2
Clearfield Bituminous Coal Corp.,	Clearfield,	3	180	2	255	265	.....	.....	4	243	1	300	240	.....	.....
Crescent Coal Mining Co.,	Bedford, .....	.....	.....	.....	185	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Glendon Coal Co.,	Bedford, .....	.....	.....	.....	200	.....	.....	.....	1	60	1	300	360	.....	.....
Glendon Coal Co.,	Bedford, .....	.....	.....	.....	200	.....	.....	.....	2	160	.....	.....	.....	.....	.....
O. P. Jones' Estate,	Clearfield, .....	.....	.....	.....	300	.....	.....	.....	.....	250	.....	.....	.....	.....	.....
Lehigh Valley Coal Co.,	Clearfield, .....	.....	.....	.....	120	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
J. L. Mitchell,	Centre,	2	120	.....	120	.....	.....	.....	1	40	.....	.....	.....	.....	.....
Peale, Peacock & Kerr,	Clearfield, .....	.....	.....	.....	60	.....	.....	.....	.....	60	1	100	100	.....	.....
Rockhill Iron Co.,	Clearfield, .....	.....	.....	.....	1,050	.....	.....	.....	1	35	.....	.....	.....	.....	.....
Bradley & Meagher,	Huntingdon,	7	200	8	1,050	1,050	.....	.....	5	575	6	2,110	1,500	.....	1
Miscellaneous companies,	Blair,	1	40	.....	40	.....	.....	.....	4	30	.....	.....	.....	.....	1
.....	Clfd. & Cambria, ..	7	200	17	1,405	1,305	.....	.....	25	933	15	5,412	2,232	.....	2
Grand total and averages, ..	.....	24	900	46	3,720	4,620	.....	.....	45	3,065	27	9,812	5,302	.....	5

TABLE III—Continued.

Names of Operators and Collieries.	County.	Occupations of Persons Employed Inside.							Occupations of Persons Employed Outside.							Grand total inside and outside.	
		Inside foreman or mine boss.	Fire bosses.	Miners.	Miners' laborers.	Drivers and runners.	Door boys and helpers.	All other employes.	Total inside.	Outside foreman.	Blacksmiths and carpenters.	Engineers and firemen.	State pickers.	Employed in the manufacture of coke.	Superintendents, book-keepers and clerks.		All other employes.	Total outside.
Glenwood Coal Co. Glenwood No. 1. Glenwood No. 2.	Indiana, Indiana,	2	1	187	12	4	3	218	2	1	3	1	1	3	6	12	230
	.....	1	1	40	2	.....	1	44	1	1	2	.....	.....	.....	2	3	47
	Total,	3	2	237	14	4	4	262	3	1	5	1	1	3	8	15	277
O. P. Jones' Estate. Royal slope, Forest,	Clearfield, Clearfield,	1	1	55	1	1	3	63	1	2	1	1	.....	.....	4	9	78
	.....	1	.....	25	.....	.....	1	33	.....	.....	.....	.....	.....	5	7	40	
	Total,	2	1	80	3	3	8	96	3	2	2	2	.....	.....	9	16	112
Lehigh Valley Coal Co. Sugar Camp No. 2. Sugar Camp No. 3.	Centre, Centre,	1	3	392	18	8	20	439	3	5	3	5	.....	.....	22	32	471
	.....	2	.....	56	3	.....	3	65	2	.....	.....	.....	.....	1	5	73	
	Total,	3	3	448	21	9	23	504	5	5	5	5	.....	.....	3	27	544
J. L. Mitchell. National No. 1. National No. 2.	Clearfield, Clearfield,	1	.....	45	3	1	4	54	1	2	1	1	.....	.....	1	30	90
	.....	.....	.....	8	1	.....	.....	9	.....	.....	.....	.....	.....	.....	1	1	10
	Total,	1	.....	53	4	1	4	63	1	2	1	1	.....	.....	1	31	100
Peale, Peacock & Ferr. Bloomington No. 3. Bloomington No. 4.	Clearfield, Clearfield,	1	.....	45	8	4	.....	59	.....	.....	.....	.....	.....	.....	1	2	63
	.....	1	.....	140	11	4	5	161	.....	.....	.....	.....	.....	.....	1	1	172
	Total,	2	.....	190	19	8	5	220	.....	.....	.....	.....	.....	.....	2	3	233

Bloomington No. 3,	1	52	3	1	3	60	1	1	1	2	4	64
Ogle,	1	125	4	6	4	1	141	3	1	2	7	157
Total,	4	362	12	24	10	9	421	6	9	4	18	456
Rockhill Iron Co.												
Robertsdale slope,	1	180	17	3	6	207	2	3	4	8	17	224
Woodvale shaft,	1	95	7	3	3	115	2	3	5	9	16	131
Total,	2	275	24	6	15	322	4	8	4	17	33	355
W. H. Sweet												
Carbon,	1	44	3	2	2	50	1	1	1	2	2	52
Huntingdon,	1	8	1	1	9	9	34	1	1	1	1	35
Huntingdon,	1	30	3	3	3	34	1	1	1	1	1	35
Ocean No. 1,	1	36	4	4	4	41	1	1	1	1	1	42
Ocean No. 2,	1	38	2	1	1	42	1	1	1	1	1	43
Ocean No. 3,	1	156	12	1	3	176	4	1	1	5	181	
Total,	4	60	4	1	1	67	1	1	1	2	4	71
Urey Ridge Coal Co.												
Urey No. 1,	1	40	2	1	1	43	1	1	1	1	1	45
Urey No. 2,	1	45	3	1	1	50	1	1	1	1	1	52
Urey No. 3,	1	145	9	1	2	160	2	2	2	5	9	169
Total,	3	150	16	3	5	175	1	1	1	3	6	181
Bradley & Meagher												
Bradley No. 1,	1	20	2	1	1	24	1	1	1	1	1	25
Bradley No. 2,	1	170	18	3	6	199	1	1	1	4	7	206
Total,	2	190	20	4	7	219	2	2	2	5	8	226
Harbison & Walker Co.												
Plane,	1	15	1	2	19	19	2	2	2	2	2	21
Harbison-Walker,	1	14	1	1	16	16	1	1	1	1	1	17
Total,	2	29	2	3	35	35	2	2	2	3	3	38
Horton Run Coal and Coke Co.												
Horton No. 1,	1	5	2	1	9	9	1	1	2	3	3	9
Horton Nos. 2 and 3,	1	30	5	1	37	37	1	1	2	3	4	40
Total,	2	35	7	2	46	46	1	1	2	3	4	49
Clearfield and Indiana Coal Co.												
Arcadia No. 1,	1	15	1	1	17	17	1	1	1	1	2	19
Arcadia No. 2,	1	70	2	1	75	75	1	1	2	2	6	81
Total,	2	85	3	1	92	92	2	1	3	2	8	100

TABLE III—Continued.

Names of Operators and Collieries.	County.	Occupations of Persons Employed Inside.										Occupations of Persons Employed Outside.						Grand total inside and outside.
		Inside foreman or mine boss.	Fire bosses.	Miners.	Miners' laborers.	Drivers and runners.	Door boys and helpers.	All other employes.	Total inside.	Outside foreman.	Blacksmiths and carpenters.	Engineers and firemen.	State pickers.	Employed in the manufacture of coke.	Superintendents, book-keepers and clerks.	All other employes.	Total outside.	
Irvena Coal Co.	Clearfield,	3	180	.....	15	5	6	209	1	2	5	2	.....	2	32	44	253
Indiana Coal Co.	Indiana,	1	56	.....	5	.....	2	64	.....	1	2	1	.....	2	6	12	76
Joseph E. Thropp.	Bedford,	1	96	2	15	6	.....	120	.....	1	2	.....	.....	2	65	70	190
M. G. Fishburn.	Clearfield,	1	133	24	8	3	6	175	.....	4	.....	.....	.....	2	9	15	190
Clearfield & Cambria C. & C. Co.	Clearfield,	1	10	5	2	.....	3	21	.....	.....	.....	1	.....	1	.....	2	23
Gallitzin Coal and Coke Co.	Blair,	1	75	.....	7	.....	5	88	.....	1	.....	.....	.....	1	3	5	93
Saxton Furnace Co.	Huntingdon,	1	13	.....	1	.....	.....	15	.....	.....	.....	.....	.....	.....	1	1	16
W. J. Nicolls.	Cambria,	1	58	1	4	.....	.....	64	.....	1	1	.....	.....	1	2	5	69
O'Shanter Coal Co.	Clearfield,	1	40	.....	3	.....	3	47	.....	.....	.....	.....	.....	2	4	6	53

S. Hegarty's Sons, Oakland,	1	63	2	3	1	70	1	1	2	1	5	75	
Reakirt Bros. & Co., Penn.,	1	79	9	9	1	90	1	1	1	1	4	94	
Preston Coal Mining Co., Pennsylvania,	1	40	2	2	2	43	2	2	2	1	3	46	
Joseph Smittle, Pleasant Hill No. 2,	1	29	1	1	1	23	1	1	1	1	1	24	
Sommerville & Buchanan, Sommerville,	1	98	2	6	13	129	2	2	2	1	6	133	
Kelly Brothers, Snow Sh. e.,	2	115	14	5	1	140	1	2	1	3	7	147	
Lambirth Mining Co., Warner,	3	45	6	2	2	56	1	1	1	3	6	62	
Smith & Fraser, Wilson Run,	1	9	1	1	1	11	1	1	1	1	1	12	
Grand total,	89	5,777	124	421	112	210	6,733	15	97	70	23	668	7,401

TABLE III—Continued.

Names of Operators and Collieries.	County.	Number of Days Worked in Each Month.												Total.
		January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	
Altoona Coal and Coke Co.	Cambria.	27	16	27	25	23	21	18	22	24	27	25	24	279
Delaney.	Blair.	27	16	27	25	23	21	18	9	23	27	26	24	109
Horse Shoe.	Blair.	27	16	27	25	23	21	18	16	24	27	26	24	191
Total.														
Clearfield Bituminous Coal Corporation.	Clearfield.	25	24	27	21	24	23	21	22	22	24	23	20	276
Gazzam.	Clearfield.	25	21	27	24	24	23	20	22	22	24	23	20	276
Grass Flat.	Clearfield.	25	21	27	24	24	23	20	22	22	24	23	20	276
Knox Run.	Clearfield.	26	20	27	24	25	24	21	17	21	24	22	21	268
Pleasant Hill.	Clearfield.	25	21	27	24	24	23	21	22	22	24	23	20	276
Moravian.	Clearfield.	25	24	27	21	24	23	21	22	22	24	23	20	276
Total.		24	21	27	22	24	24	21	21	20	24	22	20	268
Crescent Coal Mining Co.	Bedford.	17	17	26	25	2	14	13	11	21	27	19	25	220
Crescent No. 1.	Bedford.	17	17	26	25	2	14	13	11	21	27	19	25	220
Crescent No. 2.	Bedford.	15	15	23	22	19	19	13	16	19	20	22	21	202
Crescent No. 3.	Bedford.	15	15	23	22	19	19	13	16	19	20	22	21	202
Total.		16	16	25	23	22	18	17	20	22	24	22	24	222
Colonial Iron Co.	Bedford.	26	23	27	25	26	26	16	23	24	27	25	25	293
Durham No. 1.	Bedford.	24	18	26	24	25	13	13	16	19	20	21	24	201
Durham No. 2.	Bedford.	24	18	26	24	25	13	13	16	19	20	21	24	201
Total.		25	21	27	25	25	19	16	23	24	27	23	25	247

E. F. Spencer & Co.	Cambria,	18	17	19	16	15	14	17	18	17	19	18	18	206
Eldorado, Union,	Cambria,	18	17	19	16	15	14	17	18	17	19	18	18	186
Total,														171
John Langdon.														
Cambria No. 1,	Bedford,							3	13	12	27	25	25	165
Chevington No. 1,	Bedford,							16	16	16	27	24	24	123
Chevington No. 2,	Bedford,											8	25	33
Total,								10	15	14	27	28	25	87
Alder Run,	Clearfield,				6	20	24	24.5	24.5	19.5	25	15.75	18.25	177.5
Blacks,	Huntingdon,													
Adam Black,														
Fred. Bland,														
Blands,	Cambria,	26	24	26	25	26	25	26	26	26	26	26	26	308
Blain Run Coal Co.														
Blain Run,	Clearfield,	25	23	26	26	26	24	15	23	22	26	22	22	280
Benedict,	Huntingdon,	18	10	21	14	18	20	22	11	10	9	4	.....	157
W. W. Reed,														
Burnside Coal Co.														
Burnside,	Clearfield,	22	21	24	25	24	26	10.5	18.5	22	26	21.5	17	257.5
Kelly & Nugent,														
Cato,	Centre,	17	19	20	17	25	21	24	26	22	14	18	21	244
Clearfield and Cush Creek Coal and Coke Co.														
Cush Creek,	Indiana,				8	14	22	12	16	16	24	24	20	156
Morrisdale Coal Co.														
Cunard,	Bedford,	2	13	26	23	25	24	24	25	24	27	23	18	254
The Great Eastern Seaboard Coal Mining Co.														
Cambria No. 3,	Bedford,										7	22	24	53
Snow Shoe Mining Co.														
Cherry Run,	Centre,	22	21	24	20	18	16	18	16	24	24	24	24	251
Clark Bros. & Smith,	Indiana,													
Clarks,														
Dougherty Coal Co.														
Dougherty,	Cambria,	26.5	23	25.5	23	25	23	15	14.5	24.5	25.5	24.5	23	273

TABLE III—Continued.

Names of Operators and Collieries.	County.	Number of Days Worked in Each Month.												Total.
		January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	
Duval,	Bedford,	20	20	21	24	23	22	8	23	15	25	16	8	231
Bennington Coal and Coke Co., Last End,	Blair, .....	.....	.....	.....	24	23.2	15.3	8.6	6.8	9.1	13.1	8.6	13.3	122
Fisher,	Huntingdon,	24	24	27	23	23	27	21	24	27	27	25	24	287
Fricks,	Cambria,	26	24	25	25	23	22	18	19	22	24	18	20	267
Fulton,	Bedford, .....	.....	.....	.....	11	23	25	20	20	23	26	22	23	193
Great Bend,	Cambria,	26	24	26	17	25	15	24	25	20	24	24	20	270
Gem,	Clearfield,	20	20	20	20	25	25	20	22	17	24	16	19	248
Glen White,	Blair,	25	23	26	24	26	25	25	21	25	22	26	24	295
Hickes,	Huntingdon,	20	20	24	25	23	25	24	25	24	24	23	22	279

TABLE IV.—List of fatal accidents that occurred in and about the mines of the Tenth Bituminous District for the year ending December 31, 1900.

Date of accident.	Name of Person.	Nationality by Birth.	Occupation.	Age.	Married or single.	Number of widows.	Number of orphans.	Name of Colliery.	County.	Nature and Cause of Accident in Brief.
Jan.	George Fenick	Slav.	Miner.	17	S.	1	1	Moravian.	Clearfield.	Killed by mine cars.
March	Beretto Davella.	Italian.	Miner.	47	S.	1	1	Delaware.	Clearfield.	Killed by fall of rock.
April	George Glass.	German.	Miner.	30	S.	1	1	National No. 2.	Clearfield.	Killed by a fall of slate.
	Richard Sinclair.	American.	Driver.	20	S.	1	1	Irvona No. 3.	Clearfield.	Killed by mine cars.
June	John Ruby.	American.	Miner.	18	S.	1	1	Robertsdale.	Huntingdon.	Killed by a fall of coal.
July	Joseph Kanir.	Hungarian.	Miner.	23	S.	1	1	Knox Run.	Clearfield.	Killed by fall of coal.
	Mike Duditch.	Slav.	Miner.	25	S.	1	1	Sugar Camp No. 10.	Centre.	Killed by fall of top coal.
	George Nail.	American.	Miner.	47	M.	1	1	Kearney.	Bedford.	Killed by fall of rock.
Aug.	Emile Holm.	Swede.	Miner.	14	S.	1	1	Ogle.	Clearfield.	Killed by mine cars.
	August Kittron.	German.	Miner.	38	M.	1	8	Harbison-Walker.	Clearfield.	Fatally burned by powder.
16	Chesten Smith.	American.	Miner.	17	S.	1	3	Burnside.	Clearfield.	Fatally burned by powder.
23	John Richardson.	American.	Miner.	30	M.	1	3	Sugar Camp No. 4.	Centre.	Killed by fall of roof.
23	John Schreder.	Slav.	Miner.	35	M.	1	3	Sugar Camp No. 4.	Centre.	Killed by fall of roof.
24	Geo. Rapsosky.	Slav.	Miner.	24	S.	1	2	Sugar Camp No. 4.	Centre.	Killed by fall of slate.
24	Geo. Kinney.	Swede.	Miner.	38	M.	1	8	Great Bend.	Cambria.	Killed by fall of coal.
Oct.	William McKinney.	American.	Miner.	40	W.	1	1	Kyle.	Cambria.	Killed by mine cars.
	William Scott.	English.	Driver.	23	S.	1	1	Moravian.	Clearfield.	Killed by fall of coal.
29	Llaus Swanson.	Swede.	Miner.	25	M.	1	3	Crescent No. 2.	Bedford.	Killed by fall of coal.
30	John E. Smith.	American.	Miner.	37	M.	1	5	Blain Run.	Bedford.	Killed by fall of coal.
Nov.	James Donley.	American.	Miner.	57	M.	1	5	Blain Run.	Bedford.	Killed by fall of coal.
Dec.	Theodore Olsen.	Swede.	Miner.	21	S.	1	1	Pleasant Hill.	Clearfield.	Fatally burned by powder.

TABLE V—List of non-fatal accidents that occurred in and about the mines of the Tenth Bituminous District for the year ending December 31, 1900.

Date of accident.	Name of Person.	Nationality by Birth.	Occupation.	Age.	Married or single.	Name of Colliery.	County.	Nature and Cause of Accident in Brief.
Jan. 9	George Gardwell,	American, ..	Miner,	19	S.	Burnside,	Clearfield,	Arm broken and back injured by explosion of blast.
9	James Gradwell,	American, ..	Miner,	13	S.	Burnside,	Clearfield,	Leg broken by explosion of blast.
22	Parker George,	American, ..	Miner,	36	M.	Piatt,	Clearfield,	Hurt about the face and eyes by explosion of blast.
23	J. J. Young,	English,	Miner,	38	M.	National No. 1, ..	Clearfield,	Collar bone and two ribs broken by fall of rock.
29	Peter McGann,	English,	Driver,	24	M.	Delaney,	Cambria,	Leg broken; trip of cars jumped the track and he was caught between.
29	Robert Carr,	American, ..	Driver,	20	S.	Great Bend,	Cambria,	Leg broken by a car.
30	Charles Swadley,	American, ..	Trip runner, ..	24	S.	Ogle,	Clearfield,	Collar bone broken by electric motor.
30	Raymond Smith,	American, ..	Runner,	16	S.	Penn.,	Indiana,	Leg crushed; fell under cars while trying to jump on the trip.
Feb. 16	Sylvester Fagan,	American, ..	Dumper,	30	M.	Harbison-Walker,	Cambria,	Fracture of wrist and knee pan; knocked
21	Amos Groom,	American, ..	Driver,	17	S.	National No. 2, ..	Clearfield,	Thigh broken by fall between cars.
24	George Dodson,	American, ..	Miner,	25	M.	Durham No. 2, ..	Bedford,	Badly bruised by fall of slate.
March 24	Wm. McDonald,	American, ..	Miner,	44	M.	Royal,	Clearfield,	Back bruised and injured internally by fall of bone coal.
26	William Fluck,	American, ..	Miner,	35	M.	Crescent No. 1, ..	Bedford,	Foot badly bruised by fall of coal.
30	W. Woodell,	American, ..	Driver,	23	S.	Blands,	Cambria,	Leg broken; car jumped the track and caught his leg.
April 2	William Bohm,	German,	Miner,	27	M.	Ogle,	Clearfield,	These men rode in the mine on the motor
2	Ulf Bohm,	German,	Miner,	23	S.	Ogle,	Clearfield,	trip, and in getting out Bohm,
2	Charles Gustrom,	Swede,	Machine runner,	29	S.	Ogle,	Clearfield,	who was carrying a 5 lb. can of powder,
8	John Groff,	Slav,	Miner,	37	M.	Ogle,	Clearfield,	struck it against the electric wire, and
10	John Kotchick,	Slav,	Miner,	37	M.	Sugar Camp,	Centre,	it exploded, burning them.
10	Mike Nashtack,	Slav,	Miner,	44	M.	Sugar Camp,	Centre,	Leg broken by fall of rock.
13	Albert Householder,	American, ..	Miner,	25	M.	Crescent No. 1, ..	Bedford,	Leg badly bruised by a fall of slate and
16	William Gann,	Nova Scotian	Miner,	36	M.	Great Bend,	Cambria,	Ankle and leg bruised by a fall of coal.
25	Joe Conrad,	Slav,	Miner,	32	M.	Sugar Camp,	Centre,	Back and leg injured by fall of slate.
27	M. Montgomery,	American, ..	Miner,	25	M.	Delaney,	Cambria,	Foot badly bruised by fall of coal.

TABLE V—Continued.

Date of accident.	Name of Person.	Nationality by Birth.	Occupation.	Age.	Name of Colliery.		County.	Nature and Cause of Accident in Brief.
					Married or single.			
May	2 Tony Lenard,	Hungarian,	Miner,	26	S.	Sugar Camp No. 5,	Centre,	Head cut and body bruised; knocked
	8 John F. Griffith,	American, ..	Mine foreman, ..	53	M.	Fisher,	Huntingdon, ...	Arm broken; was kicked by mule.
	8 Geo. N. Wilkins,	American, ..	Miner,	50	M.	Fisher,	Huntingdon, ...	Hand injured; caught between car and rock.
	18 Thomas Reed,	American, ..	Miner,	30	M.	Crescent No. 1, ...	Bedford,	Injured by a fall of rock.
	24 James S. Miller,	American, ..	Door tender, ...	63	M.	Duval,	Bedford,	Compound fracture of leg; struck by mine car.
	31 James Griffin,	Irish,	Helper,	14	S.	Snow Shoe,	Centre,	Arm, head and hip bruised by a fall of roof.
June	21 Sam. Strahura,	Slav,	Miner,	34	M.	Indiana,	Indiana,	Bruised arms and spine.
	21 John Strahura,	Slav,	Miner,	24	S.	Indiana,	Indiana,	Leg broken by a fall of bone coal.
	25 Thomas Butterworth,	English, ..	Driver,	21	S.	Knox Run,	Clearfield, ...	Leg squeezed between cars.
Aug.	1 Gust Holm,	Swede,	Miner,	45	M.	Ogle,	Clearfield, ...	Cut on neck by cars.
	27 Albert Mayes,	American, ..	Miner,	14	S.	Mountaine,	Bedford,	Leg broken; fall of slate.
	27 David Worthing,	Welsh,	Driver,	36	M.	Durham No. 1, ...	Bedford,	Back and ankle; caught between cars while coupling.
Sept.	6 Adam Liskwan,	Slav,	Miner,	35	M.	Knox Run,	Clearfield, ...	Back and leg injured by fall of bone coal.
	2 Aleck Dudack,	Hungarian, ..	Miner,	25	S.	Kyle,	Clearfield, ...	Hips and ankle bruised by fall of bone coal.
	28 Roy White,	American, ..	Miner,	40	M.	Woodvale shaft, ...	Huntingdon, ...	Arm broken and body bruised by fall of coal while undermining.
Oct.	3 Frank Mortensen,	American, ..	Driver,	18	S.	Horse Shoe,	Blair,	Finger cut off; caught in chain.
	8 John Hodock,	Hungarian, ..	Miner,	33	M.	Snow Shoe,	Centre,	Foot broken by a fall of rock.
	9 George Young,	American, ..	Driver,	33	M.	Gem,	Clearfield, ...	Leg broken by car striking him.
	10 Gust Swanson,	Swede,	Miner,	25	S.	Grass Flat,	Clearfield, ...	Back injured and leg broken by fall of bone coal.
	12 Lewis Eddings,	American, ..	Miner,	48	M.	Bloomington No. 4,	Clearfield, ...	Collar bone broken by fall of bone coal.
	18 Mike Treska,	Slav,	Miner,	38	S.	Ogle,	Clearfield, ...	Collar bone; car run upon him.
	25 Edgar Robison,	American, ..	Miner,	24	S.	Clearfield,	Bedford,	Hips squeezed; caught by cage in shaft.
	20 Edgar Beth,	American, ..	Miner,	23	S.	Irverna No. 3, ...	Clearfield, ...	Hand bruised by car jumping the track.
	30 William Newton,	English, ...	Miner,	40	M.	Irverna No. 3, ...	Clearfield, ...	Ribs injured and head cut by a fall of ripping.
Dec.	3 Nick Cwska,	Slav,	Miner,	49	M.	Knox Run,	Clearfield, ...	Leg broken; struck by cars.
	15 Michael McGwinn,	Irish,	Miner,	45	M.	Delaney,	Cambria,	Leg broken by a fall of coal.

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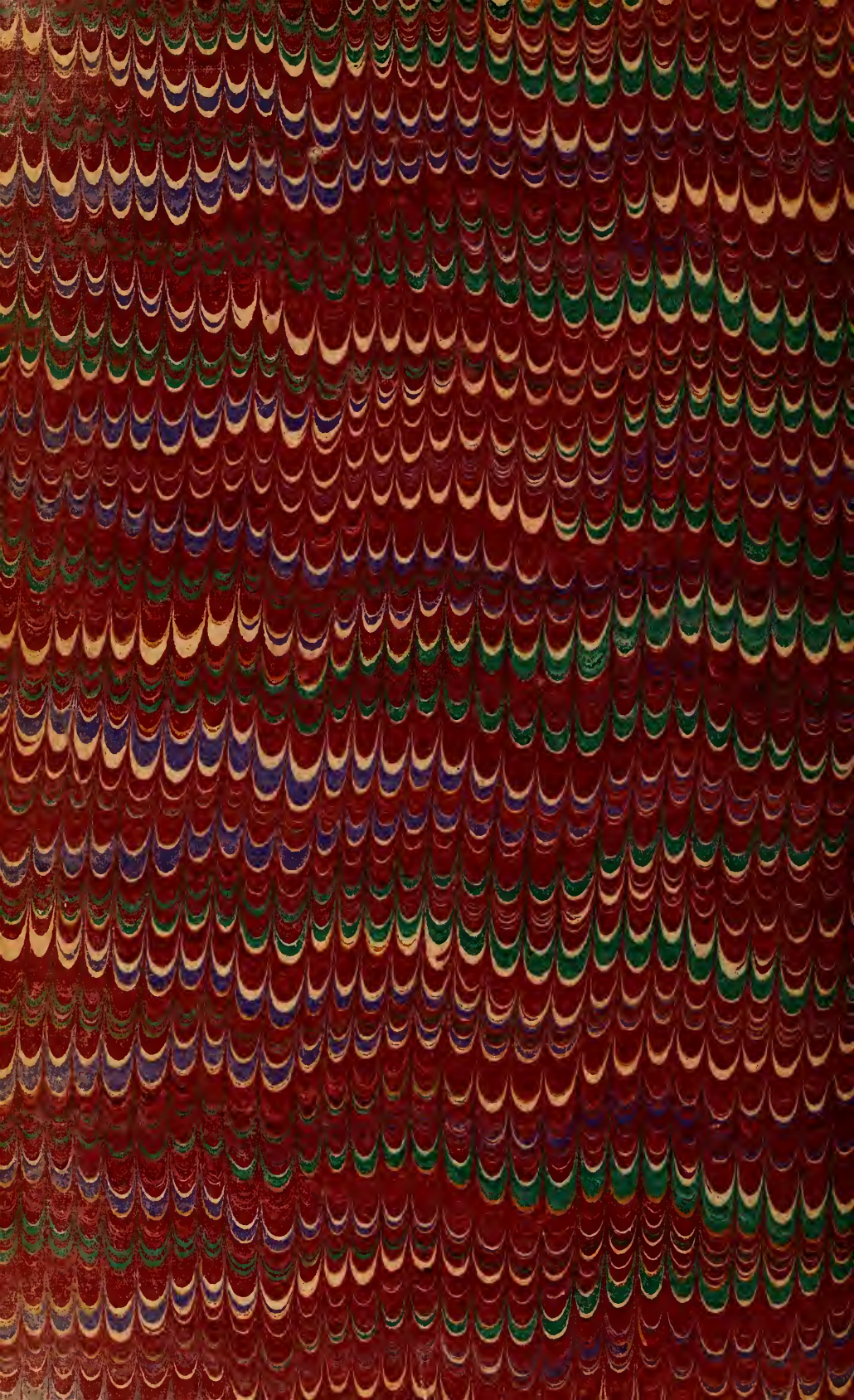
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Bohner



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