

grave a very short time. Already many of its provisions have been adopted by the largest coke company in the district. This shows plainly that some of the coal companies are far in advance of our law makers. I regret very much to have to report so large a number of persons killed. One hundred and nine perished in an explosion at the Mammoth mines; and from all the evidence that was produced, no one seems to be accountable for their deaths. A majority of the other twenty-five persons killed were killed by recklessness or the want of forethought on their own part. I have always made an effort to enforce the provisions of the law, and in this effort have met with strong opposition, as the following resolution will clearly show: "At a meeting of the Yough slope miners the following resolution was adopted: *Resolved*, That we, the miners of the Yough slope, having worked under Samuel Woods as fire-boss for nineteen months, do hereby testify to his faithfulness, and express our confidence in his efficiency, and extend to him our sympathy in his being caught up in matters of small importance.

(Signed)

"AMBROSE WILLIAM,

"JOHN WEBSTER."

This man Woods was fire-boss at the Yough slope, and on the 23d day of February, 1891, he claimed to have examined all the working places and he reported them safe. On my visit later on in the day I discovered that he had not examined one-half of the mine where the miners were working, and had wilfully sent the miners in like so many cattle to the slaughter house, and this is what the miners consider of small importance. This mine generates far more fire-damp than the Mammoth mines ever did. If our miners will not submit to a more rigid discipline, and report all violations of the law of which they have any knowledge, I fear for their future safety, as the dangers are increasing from fire-damp every year as we penetrate farther into the bowels of the earth.

MAMMOTH MINES.

On the 27th day of January, 1891, an explosion occurred in this mine by which one hundred and nine persons were killed, being by far the most disastrous accident that ever occurred in this state, and in view of this fact I think it would be well to give a brief history of the mines. They are located on the Sewickley Branch of the South West Pennsylvania railroad, in Mount Pleasant township, Westmoreland county. They were opened by Colonel J. W. Moore in 1885, and operated by him until August 31, 1889, at which time they were purchased and operated by H. C. Frick until October of the same year, when they were transferred to the H. C. Frick Coke Company, which was operating them at the time of the explosion. During 1885 and 1886 the mine was ventilated by the exhaust steam from the pump, and was defective until a connection was made with the shaft which was commenced in the spring

of 1886, and located north $67^{\circ} 25''$ west 3,050 feet from the mouth of the slope; I made two visits to this mine in 1885, and measured an average of 9,240 cubic feet of air per minute going in at the inlet. An average of 57 persons were employed in the mine during this year. The shaft is 100 feet deep and divided into three compartments, two for cage-ways, and the other for pumping and ventilation. After the heading was driven a short distance from the bottom of the shaft a feeder of gas (fire-damp) was struck which came from a rent in the rock and roof coal. The shaft bottom at this time was ventilated by a small hand-fan, and the air was carried in a box 12 inches square, which was broken by a fall allowing the gas to accumulate, and it was fired, slightly burning one man. In October, 1886, connection was made with the slope and the quantity of air increased to 20,720 cubic feet per minute. An average of one hundred and seventy-five persons were employed in the mine, which I visited five times during the year. In 1887 a fan 25 feet in diameter was erected which was driven by an engine $20'' \times 36''$. I made four visits to the mine in that year and found it in good condition and clear of fire-damp except a small feeder on the slope a short distance from the shaft. During one of my visits I measured 77,400 cubic feet per minute going in at the inlet, with the fan making twenty-four revolutions per minute, which quantity could be doubled by increasing the speed of the fan. In 1888 a man was slightly burned by an explosion of fire-damp, which came from a fall in the roof in No. 6 flat in the slope. This heading had been driven some distance ahead of the air current. The heading had been examined by the fire-boss some time before the miner went to work, and was found clear of gas. I made four visits to the mine in that year, and found it in good condition, with an average of 47,327 cubic feet of air per minute in circulation. An average of two hundred and fifty persons were employed in these mines during the year. In 1889 I made an effort to have the steam line removed from the dip, for the reason that it interfered with the ventilation, and heated a portion of the dip so as to make it uncomfortable to work in; I made four visits to the mines during the year, found the drainage somewhat neglected. I found no fire-damp, neither was any reported by the fire-bosses of whom I inquired at each visit. The average air measurement in that year, was 48,640 cubic feet per minute. In the beginning of 1890 an air compressor was substituted for the steam line which had been a source of annoyance to me since 1885. Other improvements were also made during the year which were conducive to the sanitary condition of the mine, viz., a new pump $12'' \times 24'' \times 48''$ was placed in the mines. The roads which were under water in some parts of the mine were raised and corduroyed, and a parallel heading was mapped off to the right of the main slope, to be used as an intake air-way, so as to take the main inlet of air off the main hauling slope, this heading was started but a short time before the explosion. During that year I made five visits to

the mines, and measured at the inlet an average of 52,645 cubic feet of air per minute going in, 23,760 going into the dip workings and 28,885 going on the slope side; I saw no fire-damp, neither was any reported by the fire-bosses of whom I made inquiry at each visit. January 16, 1891 I visited the mine for the purpose of investigating an accident to a miner, which having done, I proceeded to examine the mine. The measurement of air going into the dip showed 23,940 cubic feet per minute, at this time one hundred persons were working in the dip, thus giving each person 239 cubic feet or 139 cubic feet more than required by law. I also measured on No. 2 flat showing 10,640 cubic feet, No. 3 flat showing 10,290 cubic feet, No. 4 flat was also measured but I forgot to make a record, but it was all right, and upon coming out I reported the mine in fair condition; I saw no fire-damp, neither was any reported by the fire-bosses of whom I made inquiry. Mr. Eaton, the mine-boss, measured the air during the fourth week of the month with the following results: Inlet to the dip 27,090 cubic feet per minute, 248 cubic feet for each person working in the dip. Measurements in Nos. 1, 2, 3 and 4 flats showed as follows: No. 1, 19,600, No. 2, 19,040, No. 3, 18,760 and No. 4, 16,320 cubic feet of air per minute. The inlet to the dip except what leaked through the doors of Nos. 1, 2 and 3 flats went down to No. 4 flat where eighteen persons were working, it passed on to No. 3 flat, and was joined here by 2,440 feet of fresh air that leaked through the door on the mouth of No. 3 flat. This quantity, except what leaked through the doors on the mouth of each butt heading, passed too near the face. The air after going to the face of No. 3 flat returned on the parallel, and part went up Nos. 1, 2 and 3 butt headings into No. 2 flat, here it was joined by 280 cubic feet which leaked through the door at the mouth of No. 2 flat, and so on to the slope workings.

The system of ventilation in this mine is the same as is in practice in other mines in the bituminous coal regions, that of dividing the same around the mine, and from the foregoing it can be seen that the mine was fairly ventilated and that the quantity of air was largely in excess of what the law requires.

On Monday, January 26, James Eaton, mine-boss, and William Snaith, fire-boss, went over the fall with naked lights where the gas generated afterwards.

On Tuesday morning William Snaith, fire-boss, made an examination of the mine before any one was permitted to enter and made the following report:

This is to certify that I have this day, January 27, 1891, examined the working places in the Mammoth and found the same to be in a fit condition for miners and other persons employed therein.

(Signed) WILLIAM SNAITH,
Fire-boss.

That William Snaith, the fire-boss, after making his report at once returned into the mine and to the farthest point in the dip, is evidence that he believed the mine perfectly safe and in that, he is sustained by the testimony of the persons who had charge of the mines and from my own knowledge of the absence of gas during my inspection of the mine. James Eaton, mine-boss, had been in charge of the mine for one year and had not seen fire-damp and none was ever reported to him by the fire-bosses or any one else. Peter Lowther was fire-boss in the mine for more than three years and never detected fire-damp. John Eaton examined the mine on the mornings of the 8th, 9th and 10th of December, 1891, examining places that were not working, as well as those that were; spending four hours in making the examination each morning, but found no indication of fire-damp. Richard Davis was engaged in making a complete survey of the mine in January, February, March and April, 1891; most of the work was done at night, but saw no indication of fire-damp. J. J. Davis, ex-mine inspector, now private inspector for the H. C. Frick Coke Company, made an examination of the mine in October, 1890, and reported the ventilation good and no indication of fire-damp. Fred. C. Keighley, superintendent, had been in charge of the works for three months nearly, and says the mine was in fair condition and that he almost daily questioned the fire-bosses, who were all practical miners, if they had discovered indications of fire-damp and he always received a negative reply.

J. H. Paddock, chief mining engineer of the company, made monthly visits to the mine and always made inquiries of the mine-boss and fire-bosses if they had discovered indications of fire-damp, but always received a negative reply. He says the ventilation was fairly good.

The testimony of these men was taken before the Mammoth mine commission and at the coroner's inquest, and shows clearly that the mine was in good condition and free from fire-damp on the day before the explosion.

The question that naturally presents itself is, can fire-damp accumulate in so short a time and in such quantities as to cause a disastrous explosion, such as occurred at the Mammoth mines? I answer yes. Many instances to substantiate this are on record, but I will cite one only. The explosion which occurred in 1866 at the Oaks colliery in Yorkshire, England, where 362 persons were killed, was caused by a sudden outflow of gas. The same thing may happen here, and when we take into consideration the fact that in no place in the known world has there been such a reservoir of natural gas discovered as in Westmoreland county, and but a very small crevice in the rock would be sufficient to cause even a more disastrous explosion than the one at the Mammoth mine. There is a feeder of gas less than two miles from the Mammoth mine coming from the bottom, which will ignite from two to three feet above the floor of the mine with 20,000 cubic feet of air passing over it

per minute. It would take but a few hours to fill the mine with gas if the ventilation was cut off.

On Wednesday night after the explosion, in company with Mine Inspector James Blick, John Simpson and Fred. C. Keighley, I examined the fall and found fire-damp nine inches above the level of the coal, which indicated 8,000 cubic feet of fire-damp. Three hours later another examination was made, at this time the gas was three feet below the roof and extending quite a distance into the rooms and there must have been three times as much gas at this time as there was on the first visit. This shows clearly that gas was generating very fast from the fall or the rock above. The primary cause of the disaster was fire-damp, which was mostly if not all generated by the fall between Nos. 1 and 2 butts off No. 3 flat and the explosion was intensified by fine coal dust, which was raised by the force of the explosion and battered against the posts in some places nearly an inch thick, showing plainly the direction of the explosion. Fully 75 per cent. of the persons killed were smothered by after-damp. The only conclusion that can be deduced is that the gas was generated by the fall, hence we cannot be too careful but should watch for it at all times.

On the day of the disaster I was visiting the Osceola mine and upon my arrival home found a message informing me of the explosion, I at once started and arrived there a little after six o'clock, I at once took charge with others and directed the rescuing parties and assisted in building temporary stoppings so as to direct the current of air to the face of the headings, to enable us to secure the bodies. On Tuesday, near midnight, I discovered fire smouldering in the bottom in several places in Nos. 1 and 2 butts of 3 flat, I at once turned off the air, fearing the fire would be fanned into a flame, but with the timely assistance of General Manager Thomas Lynch and a few others with tubs and buckets of water the fire was soon extinguished. Many of the rescuing parties were apparently panic stricken when they heard about the fire and it was with difficulty that they were induced to assist in recovering the dead.

The condition of a great majority of the bodies showed clearly that they died from the effects of after-damp, which contained a large percentage of white-damp, although some were mutilated, an evidence that they were killed by the force of the explosion.

It is evident that the quantity of gas fired was not large, as there was little damage done to property, compared with the great loss of life. The ventilating fan was not injured, it being a forcing fan, neither was the shaft, cages nor derrick. The fan continued in operation after the explosion. Many of the bodies were found with their clothes on and their dinner buckets in their hands as though cut down while making their way out leisurely. The bodies found on the slope, Nos. 3 and 4 flats, were badly disfigured and many that were found on Nos. 1 and 2

butts were badly burned, which shows conclusively that this was the center of the explosion. Superintendent Robert Ramsay, Ex-mine Inspector Keighley, Mine Inspectors Blick, King and myself again visited Nos. 1 and 2 butts of No. 3 flat, examined the place carefully and all are of the opinion that the gas was fired at this point. The distance from the bottom of the shaft to where the gas accumulated is about 2,400 feet and to the face of the dip about 3,100 feet.

Many theories have been advanced as to the immediate cause of the explosion, but I do not think it necessary to enumerate them, as I have already given my views corroborated by the mine Inspectors and other practical men who made a thorough investigation, and from the fact that the mine was considered free from gas. The H. C. Frick Coke Company has always shown a willingness to make improvements having any merit, having from two to four times the quantity of air required by law circulating through their mines. The following letter was sent by General Manager Thomas Lynch to all the company's mines soon after the Hill Farm disaster: The late disaster at the Hill Farm mine should serve as a reminder and warning to us all, that we are liable to have accidents of the same kind, and we should spare neither time, labor, nor expense to guard against them. We should always keep the fact prominently in our minds that it is the desire of our company, and our duty as well, that we make the safety of the lives of our employes our first and most important business. If we have any weak places in the ventilation, or in any of the appliances for operating our mines, have them strengthened and made secure at once, and see they are kept in that condition. You should guard especially against fire, and allow nothing in the mine that would be likely to cause a fire. When you have gas, be sure you have competent, reliable and sober men for fire-bosses, study well the mining laws, and always do more than the law requires. It would be well for you to assume you had a fire or an explosion in your mine, and think out what would be the best thing to do, and what you would need to extinguish a fire, or give relief to the injured, or to rescue the imprisoned men, and provide everything you would likely need in such a case. It is very important that stairways, air shafts, manways and other means of ingress and egress to and from the mine be kept open and in good condition always. Do not overlook this under any circumstances.

(Signed)

THOMAS LYNCH,
General Manager.

In November, General Manager Lynch sent another warning saying: The newspapers of last week furnish two warnings of danger from gas in the mines, and I would suggest that you take advantage of them to impress on your men the necessity of care and vigilance in every mine where the lives of men are at stake.

The foregoing letters explain themselves, and I will add that in an experience of forty years, I have seen no mines better equipped than those owned and operated by this company. They pay the highest salaries, and employ the most competent men to look after their mines.

The coroner held an inquest on the 5th and 6th of February, examined thirty witnesses, nearly all of whom were men who worked in the mine at the time of the explosion, or a short time preceding it. The examination of witnesses was conducted openly and was most searching, as the representatives of the miners as well as the company were permitted to ask questions. On the 14th of February the jury rendered a verdict in which they commended the general condition of the mine, and exonerated the company and its officials from all blame. The commission appointed by the legislature examined forty-four witnesses and made the following report. We are of the opinion that the Mammoth coal mines were reasonably well ventilated."

In conclusion, I will say that too much praise cannot be given to the superintendents, mine-bosses, fire-bosses, and English-speaking miners who aided in restoring the ventilation, exploring the mine and recovering the bodies.

I have been informed by some of the rescuing parties that their services had been recognized by small donations of money from the company. They were surprised, as they were not looking for anything, but were too willing to render any assistance in their power to rescue their unfortunate brethren. This act of the company is commendable, and should be the means of securing farther help should it ever be needed.

A small map accompanys this report, showing the location of the bodies found after the explosion.

On April 30, 1890, I gave notice to John P. Brennen, general superintendent of the McClure Coke Company, to employ four additional mining-bosses, as they were running seven mines with only three mining-bosses, viz: Hazlett shaft, Hazlett slope, Bessemer, Rising Sun, Donnelly No. 1, Donnelly No. 2 and Mayfield mines. General Superintendent Brennen appealed from my decision. On the 4th of October, 1890, the court appointed three practical persons to go at once and examine the mines and report under oath the facts as they existed. For some unexplained reason they did not report to the court until September, 1891. Finally, on January 30, 1892, the court sustained my decision.

On the 23d day of February I instituted legal proceedings against Samuel Woods for violating a part of section four, which reads as follows: "And every working place, and all other places, where gas is known to exist or supposed to exist, shall be carefully examined by the fire-boss, immediately before each shift." Mr. Woods was acting as fire-boss at the Yough slope at the time. The judge suspended sentence upon payment of costs, which amounted to \$35.00

On October 19 I made another information against Herman Weire, for carrying a pipe and matches into a mine that was worked by safety lamps. The court suspended sentence in this case also, upon payment of costs. I can't guarantee that the court will always suspend sentence, so the best policy for all concerned is to obey the law and avoid trouble and expense.

Accompanying this report are the decisions and opinions of the Hon. Lucien Doty, judge of the several courts of Westmoreland county, on sections four, five and six of the bituminous mining act of June 30, 1885, that should be embodied in the report for future reference.

IN THE COURT OF QUARTER SESSIONS OF WESTMORELAND COUNTY, PA.

In re—Appeal of John P. Brennen, Superintendent of the McClure Coke Company's Mines, from the Decision of William Jenkins, Mine Inspector of the Second Bituminous District. Nos. 90, 91 and 92, May Term. Finding of Facts.

To the Honorable LUCIEN W. DOTY, *Judge of the Several Courts of Westmoreland county, Pa.:*

HONORABLE SIR: In pursuance of our appointment as a commission to examine and report on the facts as we find them, as to the mines of the McClure Coke Company, we hereby make the following report:

We examined the mines in question, and find the Hazlett mine composed of a shaft and slope, as per plan or tracing attached, marked "A." This mine has connection between the shaft and slope by an entry for drainage only, it being impassable for a traveling way, and has no traveling way communication underground, access between the shaft and slope being above ground. There are employed in this mine, in the shaft part about 73 men, and in the slope part about 31 men, and have for the overseeing of these two parts, one mine-boss—Alex. Davenport. Each part has its own tipple and each part is ventilated separately. The total number of men in both parts of the mine aggregate about 104, or about 75 miners.

Bessemer and Rising Sun mines, drifts; plan or tracing marked "B." We find these two mines connected by underground traveling way; they are both of small area and confined within a limited space. There are about 70 men employed in the Bessemer and about 43 in the Rising Sun, or about 86 miners in both. Each mine has its own tipple and are separately ventilated. There is one mining-boss employed for these two mines—George Burns.

Donnelly mines Nos. 1 and 2 and Mayfield mine; plan or tracing marked "C;" drift mines. East Donnelly mine lies on the east side of the railroad and was not connected with either of the other two, yet entries were being driven to connect it with the West Donnelly. There are about 45 men employed in this mine. Andrew Neish being mine-boss for this mine along with West Donnelly.

West Donnelly mine and Mayfield mine are both on the west side of the railroad and are connected with each other by a traveling way underground, made however since the action of the mine Inspector. There are employed in West Donnelly about 45 men and in Mayfield about 37 men, making a total of about 127 in the three mines, or about 103 miners. Andrew Neish is mine-boss for both West and East Donnelly mines, and Peter Glenn mine-boss for the Mayfield mine, he acting also as superintendent of the three mines inside and outside. Each of these three mines has its own tippie, and we understand that each of these three mines are separately ventilated.

We hereby offer or submit the above as a report of the facts.

JOHN F. WOLF,
ADAM B. HUFF,
PETER WISE.

The above report is sworn to by all the commission.

In the Court of Quarter Sessions of Westmoreland County.

In re-appeal of)
John P. Brennen. }

By the Court: On 30 June, 1885 the legislature of this commonwealth passed an act entitled "An act relating to bituminous coal mines and providing for the lives, health, safety and welfare of persons employed therein." It was intended to be a complete system. Everything is required that was thought to be for the welfare of the miners, and everything prohibited that was likely to prove detrimental to the lives, health or safety of those employed in such mines.

Among other provisions the act provides for the appointment of Inspectors, and prescribes minutely the duties to be performed by such Inspectors. It is one of the duties of an Inspector "to examine the mines in his district, as often as possible, which shall not be less than once in three months, to see that the provisions of this act are observed and strictly carried out."

In pursuance of his duty William Jenkins, an Inspector of the Second district, on the 30th of April, 1890, gave notice to John P. Brennen, superintendent of the McClure Coke Company, that but one mine-boss was employed for two mines, known as Bessemer and Rising Sun, contrary to the provisions of the fifth section of the said act of assembly, and requested an additional mine-boss to be employed by said company. From this decision of the Inspector an appeal was taken to the court of quarter sessions under the fourteenth section of the act. Again it was decided by the Inspector that the McClure Company was violating the fifth section in employing only one mining-boss for the mines known as Donnelly No. 1, Donnelly No. 2 and Mayfield, and also in employing one mining-boss for Hazlett shaft and Hazlett slope. From these latter decisions appeals were also taken. On 4th October, 1890, the court ap-

pointed three practical, reputable, competent and disinterested persons to forthwith examine such mines and report under oath the facts as they exist, together with their opinions. For some unexplained reason such report was not filed in court until 22d September, 1891. There is a difference of opinion among the viewers, but an agreement as to the facts as they exist. The fifth section of the act provides as follows: "In order to better secure the proper ventilation of every coal mine, and promote the health and safety of the persons employed therein, the owner or agent shall employ a competent and practical inside overseer, to be called the mining-boss." * * * We think there is no difficulty in arriving at the meaning of this section. From the language of the section, the expressed purpose of the act and the many and exacting duties imposed on the inside overseer, it seems plain that the section requires a mining-boss to be employed for every coal mine. The plain requirement is that to secure the proper ventilation of every coal mine a mining-boss shall be employed.

What then is a coal mine in the sense in which it is employed in this statute? A coal mine is defined as "a mine or pit containing mineral coal," and a mine is "a pit or excavation in the earth from which ores are taken by digging." The number of men employed is immaterial, as it is provided in a subsequent section that the act shall apply to every mine employing more than ten men. The extent of the mine does not seem to be a consideration in the mind of the legislature, nor the amount of territory embraced in one mine. It seems equally clear that it is not the intention to require a mining-boss for each separate working drift into the same mine. Nor is it necessary to inquire as to quantity of coal mined, or whether the output from a mine goes to different places. It is not intended that but one mining-boss should be employed by each coal company, or the legislature would have said so in unmistakable terms.

A single company may and frequently does control many mines extending over a great extent of territory. Underground communication is an element not to be lost sight of, but these ramifications underground may connect many different coal mines.

"Every coal mine," then, evidently, means every separate and distinct mining operation: a mine disconnected with any other mine; an excavation from which coal is taken by digging, having a system distinct and disconnected from any other mine. We have seen the definition of Webster, and as commonly understood, a coal mine is also a pit where coals are taken out by digging in a distinct and separate operation. Every coal mine has its machinery and equipment for taking out the coal; its shaft or slope, and system of ventilation; its mules and tracks and the men who work specially in that mine; and in and of itself contains every element of the definition, and so far as its operations are concerned, is independent of and disconnected from any other mine.

Now, what are the facts in these cases? The Hazlett mines are known as the Hazlett shaft and Hazlett slope. The two are connected by an entry for the purpose of drainage, but the entry is not sufficient as a passage for travel. Each mine has its tibble and its system of ventilation and, apparently, all the appliances for mining. Seventy-three men are employed in the one and thirty-one in the other. The only three things in common are, that they are operated by the same company, have substantially the same name and one mining-boss has supervision over both. In all other respects, so far as we are advised of the facts, each is independent of the other. We have no doubt that one mining-boss could supervise both these mines. The territory is not large and not many men are employed; but we are also persuaded that each is a distinct coal mine, and under the act it will be necessary to employ another certificated mining-boss, one for Hazlett and one for Hazlett slope. It might be a more reasonable requirement to give a mining-boss supervision of a certain amount of territory, or over a certain number of men; but if such change is desirable it is for the legislature and not for the court.

When we look at Bessemer and Rising Sun mines, the situation is somewhat different. These are connected by underground traveling ways. Both are of small area and confined within a limited space and only about eighty-four miners are employed in the two mines. Each mine has its own tibble and its own system of ventilation, and one mining-boss has supervision of the two. Each seems to be complete in itself and independent of any other. Bessemer has all machinery and equipment necessary for mining coal, and the operations there would go on if the other had no existence.

What is true of Bessemer is also true of Rising Sun. The two mines are not one. The two have underground connection. One mining-boss, in our opinion, could easily superintend both mines. But we have no discretion in the matter and our duty is simply to construe the law, and, as we understand it, the law requires a mining-boss for every coal mine.

It is very evident that East Donnelly, West Donnelly and Mayfield are three distinct mines. Each has its own tibble. Each its system of ventilation and all the machinery and equipment necessary for mining coal. One mining-boss has supervision over East and West Donnelly and one mining-boss over Mayfield. Between East and West Donnelly there seems to be no connection underground. And yet in these three mines only 103 miners are employed. It seems an unnecessary burden to impose on the company the duty of employing three mine-bosses, but under the facts found, such seems to be the law.

The concluding paragraph of the minority opinion is as follows:

"I am also of the opinion that one mine-boss can properly attend to two or three or more small mines, where the outlets are convenient of access to each other and within close proximity to each other, where the

number of men aggregate within reason, say 200 men. There are many mines in the bituminous region having one boss where there are employed from 250 to 500 men, and the area of such mines being of far greater extent than is the area of any of these mines in dispute, namely, the Hazlett, Banner, Bessemer, Rising Sun, Donnellys 1 and 2 and Mayfield."

This seems to be reasonable but it is not law. The act requires a mining-boss for every mine. Such construction may be a hardship upon the mine owner, but if a hardship, the legislature alone can give relief.

And now, January 30, 1892, it is therefore ordered and directed that one certificated mining-boss be employed for each of the following mines: Hazlett shaft, Hazlett slope, East Donnelly, West Donnelly, Rising Sun, Mayfield and Bessemer.

And it is further ordered that the appellant pay the cost of this proceeding, including a reasonable compensation to the viewers, which compensation shall be agreed upon by the counsel for the parties, or, on failure to agree, hereafter to be fixed by the court.

During the last year I have made several attempts to enforce the mining law, all of which were successful.

On the 23d day of February, 1891, I made an information against Samuel Woods, a fire-boss at the Yough slope mine in Westmoreland county, for violating section four of the mining law, he having neglected his duty as fire-boss; he was subsequently indicted and tried at No. 65, May term, 1891, in the court of quarter sessions of Westmoreland county, Pa., entering a plea of guilty.

On the 19th of October, 1891, information was made against Herman Weire, a miner at the Calumet Coke Works, in Westmoreland county, and he was subsequently indicted and tried at No. 74, November session, 1891. Mr. Weire, on the 16th of October, 1891, was found with matches and a pipe in his possession, he being at the time in a part of the said mine worked by safety lamps; he was indicted for violating section six of the mining law, approved the 30th day of June, 1885, which provides as follows, to-wit:

"Any miner, workman or other person, who shall intentionally injure any shaft, lamp, instrument, air course or brattice, or obstruct or throw open any airways, or carry lighted pipes or matches into places that are worked by safety lamps, etc."

The question in this case was whether the act above recited referred to matches that were not lighted; the learned court construed the act to mean that no matches whatever were to be carried into such mines. The defendant was convicted and the learned court overruled a motion for a new trial.

Both these were first offenses and the learned judge suspended sentence upon payment of costs by the defendant.