

In view of the large increase in the number of mines in the coke regions which are very gaseous, I would here recommend that the Bituminous region be re-districted, and that twelve districts be made of the present ten.

What has been said in reference to the Anthracite Inspectors is equally applicable to the Bituminous ones, but I wish to add that my relations with the Inspectors of both regions have been harmonious during the year. I also take great pleasure in stating that the Bureau has had no friction with either operators or superintendents. Of course we have not always agreed on matters pertaining to mining, but no disputes of a serious nature have occurred.

EXPLOSIONS OF FIRE DAMP.

A most distressing accident occurred in the **Braznell mine**, on December 23d, 1899, by which 20 persons lost their lives by an explosion of gas. This was one of the most unjustifiable accidents that I have ever known or heard of. If the mine foreman and fire boss had used only ordinary precautions this accident could not have happened, as the mine was new, being opened for only a few hundred feet in each direction from the shaft. The quantity of gas generated in the mine was small, and a small, steady current of air would have kept the place safe and free from explosive gases in dangerous quantities, as it had done heretofore. After making a close personal inspection of this mine in company with several Inspectors, a few days after the accident occurred, and before the inquest was held, I came to the conclusion that either one of two men was directly accountable for the catastrophe, viz: The fire boss or water hauler. One of these two men must have left a door open some time before half past four A. M., the day of the accident, as they ascended the shaft together at that time. The door being left open, the gas had accumulated in great quantity during the preceding hours, and up to the time that Andy Yamunski entered the chamber in which he worked and fired the gas, at about six A. M.

If my conclusions are not correct, the only other way to account for the large quantity of gas in the mine upon this morning, is that the fan on the surface must have been stopped for a period of time, or slowed to such an extent that the volume of air passing was not strong enough to keep the mine clear of gas. Even if the mistake of not closing one of the doors had been made, or the slowing or stopping of the fan had occurred, if the fire boss had performed his duty as required by law, the accident would not have happened, as he would have detected the large body of gas, and would have prevented any person from entering the shaft. I claim that either the Superinten-

dent or mine foreman, or both, should have seen to it that the fire boss did his duty, as both officials must have been aware of the fact that the fire boss entered the shaft at about 6 P. M., as a man of all work, and that he went out of the mine between 4 and 4:30 A. M., after working his ten hour shift, and they should have instructed him to change his hours of leaving the mine from 4:30 to 6 A. M. The mine foreman should also have insisted on the fire boss making a verbal report to him every morning before he left for home. The fire boss should have insisted that no person whatever be allowed in the mine, or at least inside of the "danger station" provided by law (which the said fire boss should have located) while he was making his examination of the mine with a safety lamp, until he had finished the examination and returned to the "danger station," and had pronounced the mine safe. If this provision of the law had been complied with, there would have been no person in the mine except the fire boss while he was making his examination. In justice to the fire boss, I do not think there would have been any doors left open had he been alone in the mine, and he should not be held responsible for the open door when another irresponsible person was allowed in the mine.

I hold that the mine foreman, superintendent, and even Mr. Braznell, were negligent in allowing the fire boss to go into the mine at 6 P. M. to do odd jobs, work his ten hours, few of which were spent in examining the mines with a safety lamp, then go home without reporting to the mine foreman. I include Mr. Braznell for the reason that the foreman's office was used by the Superintendent and Mr. Braznell, and the record books of the mine foreman and the fire boss were open and accessible to all. The superintendent admitted signing the records, but no question was asked Mr. Braznell at the inquest. I am of the opinion that Mr. Braznell must have seen the records, and for this reason I think that the superintendent and operator should have been included in the verdict of the jury, but the jury brought in a verdict censuring the mine foreman and fire boss. The foreman and fire boss were discharged, and instructions given the District Inspector to proceed against them according to the provisions of the Bituminous mine law. After the accident at Braznell, the following letter, which speaks for itself, was written by one of the general superintendents in the Fifth Bituminous district, and a copy sent to each superintendent under him:

"January 5, 1900.

"To Superintendents:

"Another chapter has been added to the already long list of casualties, due to negligence in the presence of explosive gas, and I earnestly hope that the recent disaster at Braznell Mine has impressed you, as it has me, with the necessity for constant vigilance in dealing with such conditions. I do not know what the investigation may develop, and I would suggest that you keep a close watch on these proceedings,

to see whether any weak points or laxity in the management there may not also be present at your own mine. Enough, I think, is now known to indicate the usual causes—open lights in gas, neglect to properly fence off danger, when discovered, by the fire boss, unlocked safety lamps, and, perhaps, insufficient ventilation. I wish you would again go over these matters carefully with your mine officials. Look well to your ventilation—not alone the volume, but its distribution as well. If your ventilating appliances are insufficient, they will be strengthened. Is your system such as to render defective or unlocked safety lamps in the mine impossible? Do you know that the fire bosses complete their examinations as nearly as possible to the time of starting the pit? The presence of danger for any length of time is liable to breed carelessness—we become accustomed to it. Be sure that your vigilance is constant, and not spasmodic.

“If you know of any safety appliances that are not now a part of your equipment, and which, in your judgment, would tend to improve the conditions at your mine, or add to the safety of those employed therein, we will not hesitate to supply the same. One explosion such as Braznell would pay ten times over for all the appliances and precautions that could possibly be required.

Very truly yours,”

The inquest by the coroner of Fayette county continued for three days, in endeavoring to find the parties who were responsible for this terrible accident. This inquest brought out a mass of valuable testimony, which should have been kept as a matter of record. With this in view the Inspector of the District was instructed to have a good stenographer present to take down all the evidence submitted. The stenographer was there, and the evidence was taken down, but to this date I have failed to get a typewritten copy of the same. The Inspector and myself have both made efforts to get this typewritten copy, but have failed. Why the stenographer fails to reduce his notes to manuscript, I am unable to explain. The excuse given by him was sickness. The testimony taken at the inquest was a revelation, showing gross general neglect on the part of the foreman and fire boss, incompetency on the part of the superintendent, and a general tendency on the part of the operator (who had been the acting superintendent to within a few months of the accident) to have as cheap labor as possible in every capacity, irrespective of qualifications, especially in the hiring of engineers, firemen and fan runners.

The evidence taken before the jury that investigated the accident that occurred at Grindstone, July 24, 1899, by which five men lost their lives by an explosion of gas, shows equal carelessness and lack of system on the part of the mine foreman and fire boss.

The fire boss testified before the coroner's jury that he had reported

the condition of the mine to the mine foreman every morning except on that of the accident.

The following is the testimony of the two officials at the coroner's inquest:

"The fire boss was first sworn. He had been at this mine nearly two years and had a certificate. He made a regular examination of the mine Monday morning, and put up danger boards at rooms where gas was known to exist. He found gas in rooms 35 and 36, on entry 9, and 23 and 30 and 31, on 10 entry, and a little in 13 and 14, on entry 11. The men had worked in entry No. 23 two or three days last week. The danger board was written in English. Gas in No. 23 raised in a volume, but was too high up to pass through out into room 22. He permitted the men to use open lamps in room 22, because he never found gas there, and considered it safe. Witness had been fire boss at this mine two years and reported all danger at all times to the mine foreman, except Monday morning."

"The mine foreman was next sworn. He said he received no report from the fire boss Monday morning, although it was his custom to do so, but he was in a hurry to get the work started. 'I did not go to the lamp shanty for a report and did not examine the fire boss' report book before going down into the pit. I signed the report about eight o'clock, after the accident had occurred. I did not know the amount of gas in room 23. The danger board was up. It meant that any men outside should stay outside. I had found gas in room 23 about a week ago, 10 inches deep on the face, and would not have allowed the men to work in 22 with open lamps had I known there was so much gas. I failed to receive a report from the fire boss on that morning. I went past the lamp house, but did not stop, and the fire boss did not stop me to give me the report.' "

THE PRODUCTION OF COKE.

The coke trade of 1899 was by long odds the greatest in the history of the Connellsville coke region. The trade of 1898, to quote The Courier's annual review at that time, was "the biggest and best year's business the region ever knew," yet the output of 1899 exceeded it 20 per cent. Prices, too, were much better, the average being above any previous year, and the aggregate gross income of the Connellsville operators was fully 50 per cent. greater than the greatest year on record. In short, all previous records have been broken and far outclassed.

The result, however, was not wholly unexpected. The Courier advised its readers that the coke output for 1899 would reach the enor-