dust in the presence of a small percentage of explosive gas being exploded by a blown-out shot, augmented by the powder keg exploding.

Those killed in the explosion appear to have died from the effects of the gases, and not from violence or burns, although one body showed evidence of heat and had some deep burns.

On November 6, 1905, at Vivian, in the presence of Mr. J. R. Greenwalt, a Justice of the Peace for Browns Creek District, McDowell County, S. S. Cooper, Inspector of the Seventh District, and J. W. Paul, Chief Mine Inspector, some evidence was taken for the purpose of ascertaining any and all information that would aid in determining the conditions under which the explosion occurred, and wherein any violation of the mining laws had contributed to the loss of the seven lives, a copy of which evidence is on file in the office of the Department of Mines.

No Coroner's Jury was empaneled and consequently no verdict rendered.

All witnesses of any infraction of the law within the mine, if any, were killed by the explosion; and, while there appeared to have been some doors left open, no positive proof could be had, other than conjecture on the part of those who visited the scene of the disaster after the explosion. Respectfully,

JAMES W. PAUL, Chief Mine Inspector.

December 14, 190

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SEVEN LIVES LOST — HORTON MINE FIRE.

Deecember 4, 1905, 2 P. M.

CHELYAN, KANAWHA COUNTY, December 30, 1905.

MR. JAMES W. PAUL, Chief Mine Inspector, Charleston, W. Va.

Dear Sir: At your request, I hereby submit to you a brief report of the disaster which occured December 4, 1905, at the Horton Mines, on Cabin Creek and in the Sixth Mining District, belonging to the Cardiff Coal Company, resulting in the death of J. H. Crabtree, Mose Chapman, S. F. Combs, William Vass, John Gowens, Robert Gowens and John Waterson, all white.

These men were in their working places, between one and two o'clock P. M., when the cross timbers in the air course caught fire from the furnace, which was used to ventilate the mine; the fire soon extended to the furnace stack and the wind was very high and drove the smoke into the mine; and, while fighting the fire, some men left the trap door open between the first and second right entries, and this gave the smoke a short course to the outside, and this mine has only one opening except the air course, and the men were forced to come through the smoke to reach the outside; but when they reached the point where the door was left open the smoke seemed to have been very thick and they suffocated before they could reach pure air. Their bodies were found between 75 and 300 feet inside the mine.

So far as I could learn, these men were not warned of the danger.

The furnace was such as is used throughout this district, and when I inspected this mine, November 7, 1905, it seemed to be in very good condition.

Hoping that this will be satisfactory, I remain your tru.y,
BONNER H. HILL, Mine Inspector 6th District.

TESTIMONY TAKEN BY BONNER H. HILL, DISTRICT MINE INSPECTOR, IN REGARD TO THE DISASTER WHICH OCCUBRED AT THE HORTON MINES OF THE CARDIFF COAL COMPANY ON THE 4TH OF DECEMBER, 1905:

After being duly sworn by Bonner H. Hill, District Mine Inspector, R. A. Hemmings deposes and says:

"Between one and two o'clock, James Crabtree, coal trimmer on the cars under the tipple, came to my place of work, on third left entry, No. 2 room, and asked for the dinner buckets of the miners. I asked him what he wanted with them, and he said that they wanted to carry water to put out the fire that had caught from the furnace. I said, 'You had better gather up powder kegs and cut the heads out of them and leave the dnner buckets.' He then went on out with two dinner buckets and I went to my work. I dug and loaded two more cars, when I smelled a peculiar smell, which was found to be coal smoke. I then started for the main entrance of the mine, and when I struck the body of smoke my lamp went out. There were men in front of me whose names are H. S. Combs, John Waterson, J. Harvey Crabtree, Mose Chapman, Robert and John Gowens, and who were making for the main entrance also. I instructed them to get down and crawl. They paid no attention to me, and I was crawling at that time. I crawled on within 40 feet of the entrance of the mine, and in doing so I crawled over five bodies, who were groaning and asking for help, but I was unable to help them. I was exhausted when I reached this point and hollowed for help, and Howard, my son, and Will Wilburn came to my rescue, and I was taken to the outside, when I recovered. I then told them where there were some men lying, and they went back and found Thomas Gowens and brought him outside, and he recovered also. All the above names mentioned except Thomas Gowens were suffocated in the smoke. The drum-runner, Charles Basham, was supposed to look after the furnace, which was within about 60 feet of the drum house. The furnace was such as is used through all this mining region. The stack was built with wood. But so far as being the neglect of any one, I could not say."

(Signed) R. A. HEMMINGS.

After being duly sworn by Bonner H. Hill, District Mine Inspector, Thomas Gowens deposes and says:

"My son, Robert, was 14 years of age last June, 1905. His occupation was helping me in mines as a miner. I worked in what is known as the third left entry, in room. My son John came into my place and asked me how many more cars I was going to load, and afterwards returned to his place of work, but returned to my place in about two or three minutes



and said, 'Oh, Pa, get your things and lets get out of here,' and I grabbed my things and started. My son Robert grabbed my bucket and started with me. My older son, John, took Robert and told me to go on. The above is all the notice I had of the furnace being on fire and smoke coming back in the mine."

(Signed) THOMAS (X) GOWENS.

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After being duly sworn by Bonner H. Hill, District Mine Inspector, A. W. Wilburn deposes and says:

"My occupation was mining, driving fourth and fifth left headings. Charles Basham came to my place and asked me to come and help get a box of water to put out the fire that had caught from the furnace. When I realized the condition of the matter I said to Howard Hemmings, 'You had better go in and tell the men that they had better come outside the mine as quick as possible.' Howard made the attempt, but could not penetrate the mine for the smoke, and when Howard failed, I made the attempt myself, but failed also. J. Harvey Crabtree and Mose Chapman, who were suffocated by the smoke, were working for me as laborers, and heard Basham ask me to come and help him get the water to put out the fire."

(Signed) A. W. WILBURN.

After being duly sworn by Bonner H. Hill, District Mine Inspector, James Crabtree deposes and says:

"My occupation is laborer on the tipple. It was about two o'clock when Mr. Thomas, the tipple boss, told me to go to the mine on the north side of the hollow and help put some fire out which had caught from the furnace. As soon as I reached the mine, Jess Hicks told me to go in the mine and get the miners' dinner buckets. I first went to R. A. Hemmings' place of work and asked him for his bucket, and he said, "Get powder kegs and cut out the heads out of them.' I told him that the furnace was on fire, but did not tell him there was any danger. I then went to where J. Harvey Crabtree and Most Chapman were at work and asked them for their buckets, which I got and brought outside. I told them the furnace was on fire, but did not tell them to come outside the mine or warn them of any danger. After coming outside the mine, Mr. Thomas and I went down the hill to the tipple. They then 'phoned in about five minutes for us to come back up the hill and help to get the men out of the mine, and when we reached the drum house the smoke was coming out of the bank mouth so bad it was impossible for any one to go inside."

(Signed) JAMES CRABTREE.

After being duly sworn by Bonner H. Hill, District Mine Inspector, H. L. Hemmings deposes and says:

"My occupation at this time was driver. Some time between one and two o'clock P.M., Charles F. Basham, the drum runner, informed me that the furnace had been on fire and there was danger of its catching

again, and at two o'clock he again said to me that it was on fire, and asked me to help him get a car of coal over the knuckle to pull some men up the hill to help put the fire out; but just at this time two men came up and I went in the mines and got a loaded car from my father, R. A. Hemmings. While in my father's room, James Crabtree came in and asked for his dinner buckets to carry water to put the fire out, but my father told him to get powder kegs and cut the heads out to use instead of the buckets. He asked father and I where his brother, J. Harvey Crabtree, and Mose Chapman worked, and we told him, but whether he went to their places I do not know. I took the car of coal to drum house and then went and hauled a box of water which Will Wilburn had dipped up, and when we had switched it to where we could get it to the fire I suggested that some one had better go in the mines and notify the miners. to come out. I made an effort to go get them, but failed, owing to the smoke, which at this time was very thick. After seeing that I could not reach them, I helped to fight the fire until I heard my father call for help, and then Will Wilburn and myself helped him to get out of the mine. We also got Thomas Gowens out, who had also fallen.

"I was not in any of the miners' working places except my father's after the fire caught, neither do I know whether they were warned of the danger or not. I did not see Gus Means, the mine foreman, until it was impossible to get in the mines. If he made any attempt to warn the men of the danger I do not know it."

(Signed) H. L. HEMMINGS.

After being duly sworn by Bonner H. Hill, District Mine Inspector, C. F. Basham deposes and says:

"My work consisted of running the sheaves and firing the furnace.

"I was asked by Mr. Clark, the Superintendent, and Mr. Gus Means, the mine foreman, to fire the furnace very heavy, as the men would be shooting and much smoke in the mines. I informed them that it was not safe with a big fire, for the timbers would catch fire on the left side of the furnace.

"About one or two o'clock P.M., Z. Comets came out from the furnace and informed me that the timbers were on fire and that I had better do something to put it out. I immediately called Mr. Thomas, the tipple boss, and asked him to send me some help to fight the fire, and in a few minutes James Crabtree and Charles Young came up the hill, and a few minutes later Jess Hicks, Will Whitney and Mr. Thomas came. Jess Hicks said to James Crabtree, "Go in the mines and get some dinner buckets from the miners." He went and got four buckets, but whose they were I do not know, neither do I know whether he informed any of the miners of the danger.

"Jess Hicks and James Crabtree went through the first right trap door and back towards the furnace, but the smoke drove them back, and as they came back they left the door open. Mr. Thomas and I tried to pry the furnace stack over, but could not, and about this time, Gus Means, the mine foreman, came up and asked me where the driver was, and I informed him that he was inside the mines after a car. He then said,



'You go in the mines and have him haul a box of water.' I went and called to him and he said, 'Go dip it up and I will come and get it in a few minutes.' I went and called Will Wilburn to help me dip the water, and he came and dipped it, and in about five minutes the driver came and got it and took it outside.

"As we approached the drum house I noticed the smoke coming through the first right door, and when we reached the outside, I said to the mine-foreman, 'You had better send some one to notify the miners that the smoke is going in the mine on them,' and Howard Hemmings attempted to go in to notify them, but the smoke was too thick for him to get in. It was only a short time until Mr. Hemmings hollowed for help, and we got him out, and I assisted in getting the others out."

(Signed) CHARLES F. BASHAM.

STATE OF WEST VIRGINIA,

KANAWHA COUNTY, to-wit .:

This day personally appeared before me, the undersigned authority, in and for the said County and State, R. A. Hemmings, who being by me first duly sworn, deposed and said as follows: "I was working in No. 2, in third left entry, mining coal, at Horton Mines on yesterday, the 4th day of December, 1905, and soon after dinner, between 1 and 2 o'clock P. M., James Crabtree, a coal trimmer under tipple, came into my place and asked for my dinner bucket and said the timbers were on fire at the furnace, and with the suggestion to him that he take empty powder cansand cut out tops and use them instead of the men's dinner buckets. He left the mine and I thought nothing of it, but went ahead and dug and loaded two cars more of coal. I then smelled smoke and knew that it wascoal smoke. I then started immediately for the entrance. Combs. two-Gowens boys, Chapman, Crabtree and Waterson and J. W. Vass were in front of me, going toward entrance. When I overtook them they were all walking upright and I told them to get down and crawl, but they paid no attention to me or my directions, and soon they began to fall. I passed, on my hands and knees, over five of them, and crawled to within 40 feet of the entrance, when I lost control of myself and hollowed. My son and Will Wilburn came in and rescued me. Mr. Gowens (old gent.) was also rescued alive. I heard no other warning than above detailed. Charles-Basham, the drum runner, builds the fire in the ventilating furnace. which is situated about 75 feet from the drum house.

"The seven men died from suffocation produced by coal smoke.

"The mine is now burning in the air shaft. I do not know of any one whose fault it was that the fire caught.

"There was a wooden flue, but it is such as is commonly used by minesthroughout West Virginia."

And further deponent saith not.

R. A. HEMMINGS.

Taken, sworn to and subscribed before me this 5th day of December, 1905.

F. L. BEARDSLEY, Notary Public.

A true copy from record.

Teste: F. L. BEARDSLEY, Coroner Kanawha County, W. Va-



This mine was provided with two openings, one of which was used for the mine cars and a traveling way for the employes, and the other for a return air course, which latter was provided at its outlet with a furnace and stack, and was free and unobstructed, as required by law, for the travel of the employes.

The law fails to delegate to any official or employe the duty of directing the withdrawal of the employes in the event of a mine fire, or any other unforseen danger occurring in a non-gaseous mine, and in this respect the law, unfortunately, is lacking.

From the evidence herewith furnished it appears that some of the inside employes had been made aware of the fire in the air course, but they continued at work until they were literally smoked out. Respectfully,

JAMES W. PAUL, Chief Mine Inspector.

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TWENTY-TWO LIVES LOST - COALDALE MINE EXPLOSION.

Mercer County, 11:30 A. M., January 4, 1906.

The Coaldale Mine is operated by the Coaldale Coal & Coke Company, owned by the Mill Creek Coal & Coke Company, at Coaldale, Mercer County, and operates the No. 3, or Pocahontas Coal, which has an average thickness of 10 feet 5 inches.

At 11:30 o'clock on the forenoon of January 4, 1906, an explosion occurred in the Smoky Hollow section, resulting in the death of twenty-two persons.

The section of the mine affected was in the workings of the three drifts known as the Crackers Neck, New and Old Smoky Hollow.

At the time of the explosion there were only 22 persons in these three sections.

The Crackers Neck section had connection with the Old Smoky Hollow workings and the workings of the main Coaldale Mine.

The Old and New Smoky sections were connected, and the ventilation of these three sections was dependent upon the same current of air which entered the New Smoky opening and passed through these three sections and found its exit at the fan, near the entranc to the main Coaldale opening, at which place was located a Capell fan 8 feet by 16 feet and having a capacity of 250,000 to 300,000 cubic feet per minute.

The force of the explosion was quite great and disastrous. The heavy timbers which supported the material over the drift mouths of the three openings were blown out and carried 300 feet, and in one instance the timbers were blown across the valley, mowing down small timbers which grew on the side of the mountain. Mine cars were found to be badly broken and distorted. At a number of places in the mine the fine coal dust was found to be charred and coked, adhering to timbers and the ribs of the coal.

With the exception of the workings in the New Smoky opening, all the development had reached the limit of the "first work" and the workings

