



Reports

**1904
Annual Report**

THE HARWICK EXPLOSION

On the 25th of January, 1904, about 8 o'clock in the evening the department was advised by telegram from Inspector F. W. Cunningham, Wilkesburg, that an explosion had taken place in the Harwick mine of the Allegheny Coal Company, located near Cheswick, Allegheny county, and that one hundred and seventy-seven workmen were entombed in the mine. I at once telegraphed Inspectors Louttit, Ross, Adams, Roby, Blick, Callaghan, Mollison and McCann to go to assist in the rescue of the men, and to make a thorough investigation as to the cause of the accident.

As soon as possible I started for Cheswick, and on reaching Pittsburgh got into communication with the mine officials, who confirmed the report as to the appalling character of the explosion. I had not thought it possible that a catastrophe so awful in proportions could occur in a mine like the Harwick, which was new and reported to be comparatively safe. The entire population of the village was in an uproar, and the utmost excitement prevailed. The explosion had been one of terrific force. The tibble, which was built of iron, was wrecked, the cages were blown out of the shaft, and a mule that had been at the bottom of the shaft was caught by the force of the explosion and blown out and over the tibble, a distance of about 300 feet.

I called the inspectors together as soon as possible, and after a hasty consultation the opinion was unanimously reached that there could be no person remaining alive inside of the mine. The accident had destroyed the organization that existed among the officials, as the mine foreman and the fire boss, as well as almost all the employes, had been killed. The officials who were present and had escaped the disaster seemed to be dazed and without confidence in themselves. I assumed control of affairs in the mine, and directed the inspectors to remain in charge of the mine until all the bodies that could possibly be recovered had been removed. I gave them instructions as to how to proceed to recover the bodies and impressed them with the necessity for protecting their own lives. With the assistance of such volunteers as were to be found, they began their efforts to remove any dangerous conditions about the mine that might be a further menace to human life. After that part of the work was completed, they commenced the gruesome task of removing the bodies that were strewn about the mine in all directions where the force of the explosion had blown them. No immediate attempt was made to recover the bodies completely covered

by debris, coal and slate. To do this efficiently the inspectors were divided into two shifts, night and day, to work continuously as long as necessary. On Wednesday the miners from adjoining mines responded nobly to the call for volunteers and faced every danger and hardship in the endeavor to recover the bodies of their brother workmen. The work was extremely dangerous, as the ventilation of the mine had been seriously disarranged and impaired; large quantities of gas had accumulated in many places and had to be cleared away to some extent at least before the bodies could be taken out, even though locked safety lamps were used. By Friday evening the work of recovering the bodies, except those that were hidden under heavy falls, had been completed. The inspectors were then directed to make a final examination of the whole mine to ascertain if possible the cause of the explosion, and to make a full report to the department as soon as practicable after the inspection was completed. The charge of the mine was then turned over to the manager, who put Mr. Bell, a mine superintendent of an adjoining mine, in control until all the bodies should be recovered.

On Saturday evening, January 30, the inspectors met me in Pittsburgh and submitted a lengthy report of the accident. Their report, which is printed elsewhere, together with a synopsis of the testimony given before the coroner, covers, in my opinion, all the points in controversy as to the cause of the accident and the person or persons responsible for it. The inspectors are men of extensive experience, having prior to their appointment as inspectors been foremen and superintendents of mines, and were thoroughly competent to make an accurate and satisfactory investigation of this disaster, the greatest thus far recorded in the mining annals of Pennsylvania. It is gratifying to state that the report of the inspectors made to me on the 30th of January, agrees in its conclusions with the later report, dated February 13, of the commission of ten engineers, superintendents, mine foremen and miners, appointed by the Allegheny Coal Company to inquire into the cause of the explosion at the Harwick mine. The report of the commission is also published herewith.

Having full knowledge of all the facts in the case, I may be pardoned for saying that, in my opinion, Inspector Cunningham should not be censured for this accident. I think he had done everything that could reasonably be expected of him, and the fair-minded reader of the facts as stated by the witnesses to the jury will no doubt exonerate him, notwithstanding the fact that he was censured by the jury.

Mr. Cunningham was commissioned Inspector of Mines January 27, 1903, about one year before the date of the explosion. Under the law it is his duty to examine every mine in his district once in

every three months, or oftener if the exigencies of the case require it. He made his first inspection of the Harwick mine on March 11, the second on April 21, the third on July 17, the fourth on October 7. These were regular inspections under the law, at which the whole mine was inspected, the air measured, the number of employes noted, and the condition of the mine in general set forth. The reports of these inspections are on file in the Department of Mines at Harrisburg, and were submitted as evidence before the jury. They all show the mine to have been in comparatively safe and healthy condition, with only a trace of fire-damp found in a few places. The mine was known as a gaseous one, where locked safety lamps were used, but no standing gas was found at any time by the inspector.

On November 4, 1903, Mr. Cunningham was called to the Harwick mine to investigate the cause of a fatal accident. After completing the object of his visit, he, in company with the mine foreman, inspected the south main entries and butts, which he considered the most likely to contain gas, if any existed in the mine. He found no gas, but, on the contrary, everything was in safe condition. A report of this visit was also made to the Department of Mines. Had he inspected this mine on the 7th of January, 1904, three months subsequent to the October examination, and about three weeks before the explosion, he would have most likely found it in the usual comparatively safe condition. Such an examination would also have had a tendency to exonerate him in the eyes of the jury.

The evidence given before the jury showed that the ice was cut and removed at the inlet and in the overcast during December and the early part of January, but that for two or three weeks immediately preceding the explosion no ice was cut. It was also proved that on Saturday, January 23, two days before the explosion, the ice had accumulated to such an extent in the overcast that not more than half of the original area was available for the air current. During Saturday night and Sunday night of the 23rd and 24th of January, the thermometer registered below zero at Harwick, and the area in the overcast was likely much less on the morning of the 25th than on the morning of the 23rd. Of course this is only a conjecture.

The ventilation of the mine at each inspection was found ample, showing from 500 to 700 cubic feet of air per minute for each person employed. The Inspector did not consider the mine a very dusty one. He found, however, that they were watering the roadways as practiced in some other mines. In this connection I think it is proper to state that the law regarding the laying of dust in the mines should be amended, or we shall hear of more explosions from gas and dust, and possibly from dust alone in non-gaseous mines. I explained to the Treasurer of the Allegheny Coal Company the

method adopted in the anthracite mines to prevent the coal from taking fire from gas ignited by blasting. The method is as follows: A large pipe, say eight inches in diameter, is conducted through all the main entries, and a branch pipe is laid into each chamber with a hose attachment to each pipe. When they are ready to fire a blast, they are careful to note that the water attachments are in working condition. If a blast ignites the gas in the entry or room, they turn on the water and saturate the bottom, sides and roof of the room or entry, as the case may be. If some similar method to this were adopted in all dusty bituminous mines, the danger from explosions of gas or dust from blown-out shots would be greatly lessened. The mode of undercutting, and the placing and tamping of the holes, must have more attention on the part of the mine managers, superintendents, foremen and miners, in gaseous and dusty mines, if we are to prevent accidents of this nature. There are many mines in the bituminous counties of the State that are much more dangerous than the Harwick, and under conditions similar to those that existed at the Harwick on the 23th of January, 1904, a blown-out shot might cause another disaster of appalling magnitude.

The bituminous mine inspectors of Pennsylvania are doing all in their power to fulfil the requirements of the present law relating to gaseous and dusty mines, and they cannot be expected to do anything more. If a law were enacted requiring that the dust in all mines be taken out as far as practicable and the roof, bottom and sides of rooms and entries be thoroughly saturated with water, so that dust will not float in the air as a menace to human life, the danger from explosions would be practically eliminated. Wherever coal is mined by machines the atmosphere will be impregnated with dust, the finest particles floating in the air, and the danger to be apprehended from such a condition can only be averted by putting into practice the method herein suggested of saturating the mine with water. Under no circumstances should blasts be fired in a room or entry within an hour from the time a machine had been used or until the dust created by the machine had been allowed to settle on the floor, sides and roof, which then should be drenched with water. The mode and depth of undercutting by machines should be regulated by law, and more attention should be given by the foremen and assistants to the location and depth of holes for blasting. The kind of explosives and the amount needed for each hole should be regulated; the material for tamping the holes should be selected and taken into the mines from the surface, if suitable material is not available inside; the foreman should be the sole judge of the tamping material. Then if the holes

are properly placed, an adequate amount of explosive used, and the holes carefully tamped, the chances for blown-out shots would be greatly lessened. Without going into a discussion of the question as to whether or not coal dust can be exploded by a blown-out shot in the absence of fire-damp, I may be pardoned for saying that even in gaseous mines, if the air is circulated through the whole mine as provided by law, the dust taken out or thoroughly saturated, and the other provisions as stated carried out with care, disasters of a serious character could hardly occur.

A brief report is herewith given of the inquest held Tuesday, March 29, 1904, before Jesse M. McGeary, Coroner of Allegheny county, and the Coroner's jury, to inquire into the cause of the Harwick disaster. The testimony is not given verbatim, as it is too voluminous to be incorporated in this report; but the synopsis covers all the essential points of the witnesses, who include engineers, superintendents, inspectors and miners.

Adolph Gunia, the only survivor of the explosion, testified, in part, as follows:

He lived at Harwick and had been a coal miner for four years, and had worked at the Harwick mine ever since it was opened. He worked in the first right north entry, in rooms 5 and 6. He had seen the fire boss, the mine foreman, and the shooters open their lamps. About a week before the explosion he had seen a lamp opened. He had also seen water wagons used on the roads to sprinkle the dust, but it had been a good while before the explosion. The fifth left entry, in which he worked most of the time, he had often seen sprinkled. He had seen the gas take fire from shots, but it would go out again. He also said that Mr. Brown, the mine foreman, visited his working place every day, sometimes twice a day. At the time of the explosion Gunia was at the bottom of the shaft.

In describing the explosion he said: "Before the explosion the air just held me in place. I think it must have held everybody else, because it held me and I couldn't move. I was just like I was unconscious. It lasted about a second, and then the explosion came." It sounded to him like a big report and he saw a little flame, which he thought came from the south. When asked if the flame came along the roof, he said that he didn't have time to see that. He was knocked down and pushed for some distance. He did not think that he had been unconscious at any time except right after the explosion. His lamp was blown out and his eyes were burned. He was rescued about six o'clock, in the evening, and was therefore about ten hours in the mine. Mr. Gunia said that in his opinion the cause of the explosion was a blown-out shot and that he thought it came from the south side, but wasn't sure. He saw the light coming

from some direction and supposed it to be from the south. He said he had seen the mine foreman light shots with a naked lamp about a month or so before the explosion, but had never seen any of the shot lighters do it. Mr. Gunia said that he could hear a blower any place where there was water. He didn't know, however, "whether it was a blower or whether it was just kind of bubbling up all the time." He supposed that it was the gas bubbling up through the water. They generally tamped the holes with dust dampened with water, made the cartridges out of paper and filled them up with dust and tamped them. He said that they did not have water in the dry parts of the mine to dampen the tamping for their holes, but that they were tamped in any way. He had heard that it was dangerous to tamp a hole with dry dust. He had known of shots being fired in the gas on the south side in either the 3rd butt or the 5th left butt, in some of the rooms, towards the top of the butt. He knew that when a shot was fired the gas or dust was set on fire, and would burn, and sometimes explode. The shot firers had two Davy lamps to light the shots. He had seen them fire a shot. They had a wire that they put between the gauze and heated and then touched the fuse with it. On the north side of the mine in the first right, and on the south side up around the 5th left, he had seen the mine foreman fire a shot with an open light.

On the morning of the 25th of January, Mr. Gunia saw the fire boss coming out of the mine and heard him say to Tom Brown, the top man, that it was all right if the engineer was ready. Gunia then went into the mine to the first right butt on the north side, rooms 5 and 6. He didn't have time to see Mr. Gordon's mark that morning in his working place, as Gordon told him, as soon as he got in, that Mr. Brown wanted him at the foot of the shaft, to shift the empty cars away.

Mr. Gunia said it was dusty in the mine and that he had seen them sprinkling the entries, but not the working places. He was fully satisfied that the explosion occurred from a shot. He had no reason to believe it occurred from an open light at the bottom of the shaft. When the explosion occurred, men were working on the east side of the shaft from Mr. Gunia, but after the explosion he could hear no sound of any kind.

Mr. Sowden testified, in part, as follows:

He was superintendent of the Harwick mine and had been for eighteen months immediately preceding the explosion. Before that he had been superintendent in the Massillon, Ohio, district for eighteen months. He had had continuous experience in coal mining since 1869, and the Harwick mine, he said, was the second gaseous one in which he had worked. In the other gaseous mine, he had filled the positions of trapper and driver; that was about 34 or 35

years ago. Mr. Sowden's home is at Cheswick, where the Harwick mine is located.

The mine foreman at the mine was George Brown, and the fire boss was Joseph Gordon, both of whom were supposed to be dead in the mine. Mr. Sheetz, the manager, engaged Mr. Brown, and Mr. Sowden assisted Mr. Brown to engage the fire boss. Mr. Sowden said that the fire boss was supposed to make an entry on the record book every morning before the men were allowed to enter the mine, but was not certain that he did it on the day of the explosion. Mr. Sowden had glanced at the record book after the explosion, probably some time during the forenoon, but did not remember whether he had seen the fire boss' record in the book. He did not think, however, that an entry had been made. He examined the record book about twice a week and was sure that he had examined it about a week before the accident. He was supposed to know the condition of the mine every day to a certain extent, but he admitted that he did not. To have that knowledge it would be necessary to make daily examinations of the record book. No dangerous condition of the mine had ever been reported to him by the mine foreman or the fire boss. The company had no rules relative to the reporting of accidents or explosions to the superintendent, but Mr. Sowden said that the men would certainly report any that occurred.

He accompanied the mine foreman in his tours of inspection, which consisted of an examination of the roof, looking for bad slate and also for fire-damp. The last examination was made about two weeks before the accident. In the Harwick mine the Davy lamp was used by the shot firers, the Clanny lamp by the drivers and by some of the miners. The Wolf lamp was also used. Mr. Sowden said that he provided, as well as he knew how, all material for safety purposes as required by the mining laws of Pennsylvania. The company had never refused him anything. He said he did not interfere with the mine foreman or the fire boss in the discharge of their duties. When asked if the mine foreman had ever reported a greater quantity of dust than usual, he said "No." And in regard to sprinkling the dust, he said the mine foreman used his judgment. He (the foreman) had water carriers there and every once in a while he took them around in the mine. They baled the water into boxes, on which there was a sprinkler attachment for sprinkling the road. When asked if he knew that the road had actually been sprinkled under the direction of the mine foreman, he said he couldn't say that it had been done, but he had had sprinkling done to the main hauling road. Mr. Sowden, with the assistance of Mr. Brown, hired the miners; Mr. Brown hired the shot firers. The competency of the miners was determined to a great extent by the statements made to Mr. Sowden. The shooters employed were Bachman and

Beecham, who were considered competent by Mr. Brown. The duty of the shooters was to light the shots for the men after the miners got their powder right and their holes properly tamped. The miners drilled the holes and tamped them, and had them all ready for the shooters. The men furnished their own tamping. When asked whether the dust or slack in the Harwick mine would be considered a proper tamping material, Mr. Sowden said that dust and slack and dirt and refuse were all that he had ever used. Dynamite was the explosive used to blast the coal. He was of the opinion that the mine inspector had inspected the mine probably two or three weeks before the explosion, at which time he had posted the regular official notice of the condition of the mine, showing that the condition was good. The inspector at that time had recommended that "something (some attachment) be put on the fan." Mr. Sowden did not remember just what it was, but he had notified the mining boss to attend to it. The mining machines used in the Harwick mine were the Harrison puncher, the Ingersoll puncher, the Sullivan puncher, and the Champion machine, built in England. Compressed air was used to run the machines, of which there were sixteen.

Mr. Sowden said in regard to the mining laws of Pennsylvania, that he had read them partially, such portions as had been brought to his attention. He defined the duties of the mine superintendent to be as follows: "To see that all machinery is in safe condition, that good competent men are in all places of trust, that all supplies and such like are sent into the mine for the safety and welfare of the same and also of the employes." He admitted having signed the mine foreman's report book, but said he had not done so for seven or eight months, as there had been some little difficulty between him and the mine foreman in regard to it. "It had been insinuated to the mine foreman that I was bossing the mine on his papers, and when he reported the same to me I just gave up and told him I was signing nothing and was doing nothing with the inside men, and did not from that day to this." When asked why he did not sign the book in compliance with article 7, section 1, he replied that he never considered that he had any authority in the mine. He had signed the record book once a week up to May 7, 1903. After that he had refused to do it, for the reason stated. He had visited the foot of the air shaft probably three weeks before the explosion and found it in good condition. He said it was the mine foreman's duty to keep the ice from the foot of the air shaft. The fan in the mine was usually run at about 70 to 90 revolutions per minute. The rules governing the miners were posted on the outside in six languages, according to Mr. Sowden's belief. When the miners were unable to read the rules, it was the mine foreman's business to explain them.

Open lights were used at the foot of the shaft at the time Inspector Cunningham made his official visit. Mr. Cunningham had recommended that they be dispensed with, as in his judgment it would make the mine safer. The matter was left to Mr. Brown, but Mr. Sowden did not think that the open lights had been dispensed with. He said that he had looked at the fire boss' record book to see if there was any gas in the mine, but had never gone into the mine to make an examination. He had, however, cautioned the mine foreman about using open lights on the day that Mr. Cunningham visited the mine. He did not mention the matter after that. In answer to a question by Inspector Roby, he said that he had discovered gas three times in different parts of the mine.

On the Sunday before the explosion, Mr. Brown told him that if the cold weather continued, he would have to remove the ice at the bottom of the fan shaft, but said it wasn't doing any harm yet and wouldn't for a week or so if it didn't get worse. The ice was frozen at the bottom about 2 feet, which reduced the area of the shaft about 16 feet. The original area was about 48 to 50 feet. This would have a tendency to reduce the volume of air.

In regard to shot firing, Mr. Sowden said that the mine foreman's instructions were to see that the holes were located right and charged right. Sometimes they used compressed air, as a precautionary measure, he thought. The usual depth of the undercut was $4\frac{1}{2}$ feet, and the depth to which they bored their holes was about 4 feet. Mr. Sowden had heard of several blown-out shots. In tamping the holes they used slack and dirt and refuse from back along the roads. The mine foreman did not give any instructions regarding tamping; every miner used his own method. The firing was done with a fuse and the fuse was lighted with touch paper or wire. The wire was heated through the gauze of the Davy lamp. There was a certain amount of danger connected with this method. Mr. Sowden said, however, that he approved of the method of lighting the shots and also of the method of tamping with dust. He was in No. 1 butt entry south on the 15th of January and found the condition all right, that part of the mine not being any more dusty than any other part.

Ventilation was maintained at all times and was conducted through the cut-throughs and to the face. Section 1, article 4, of the act of 1893, reads as follows: "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 100 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." When asked if this section had been complied with by the mine foreman, Mr. Sowden said: "I am confident that it was." "Well, do you know whether it was?" "I don't know as a fact whether it was."

In regard to the use of safety lamps, Mr. Sowden said that the mine foreman required the men to understand the use of the lamps. In his opinion the explosion was caused by a blown-out shot. He did not think there was any gas in the mine, the principal part of the disaster having been caused by dust. Cleaning the dust and carrying the ventilation to keep the mine clearer from standing gas would, he thought, have prevented the explosion. He said that he was superintendent of the surface work and when he went into the mine to help Mr. Brown he did so as an assistant. He said that he had never examined the air measurements particularly, although he supposed it was his duty.

T. M. Jones testified, in part, as follows:

He lived at Hites, Allegheny county, had been a coal miner for 18 years, and had worked at the Harwick mine for about a year and a half. He was not in the mine when the explosion occurred, but was going on the night shift on the 25th, the day of the accident.

He had seen open lamps in the mine, which he said had been opened by the shot firers, the fire boss and the pit boss. He named Mr. Bachman, Mr. Beecham, Mr. Brown, Mr. North, Mr. Gordon and Mr. Bell. He said that they used to open their safety lamps to light their lamps with in the entries. The shooting in the mine was done at all hours of the day by Arthur Beecham, Thomas Bachman, Mr. Gordon and Mr. Brown. He considered some of the foreigners that worked in the Harwick mine as incompetent; others, he said, were all right. The rules, he said, were posted at the mine in foreign languages. He considered the mine pretty dusty, but said he had seen them sprinkle the roads once or twice in the heading, the third right to the north. He always thought the air was pretty good. When asked if he had ever seen any rooms turned off the entries ahead of the last cut-through, he said, "Yes, I saw them in the third right in the south, in the north, in the first right in the north, and in the entry I worked in, in the fourth right in the south, and in the one I work in now; but the entry men worked in these rooms." He said that he had seen the miners tamp and fire their own shots, that he had done so himself on authority from Mr. Brown and Mr. North.

On the 23d of January (which was Saturday before the explosion) he had seen ice close at the foot of the air shaft, but couldn't state how much. When asked if the ice would reduce the size of the

entry, he said it would. "The usual height of the overcast is about 6 to 7 feet, and I had to stoop down to walk under it." The ice, he said, was on a level with the overcast. On the morning of the accident he had spoken to a fellow-workman and told him that he didn't consider it a safe thing to have the ice left at the foot of the air shaft. He was afraid it might close the bottom of the shaft, which would be liable to stop the air traveling through the mine and cause an explosion. The mine was supposed to be generating gas, and by closing off the air and stopping the circulation, the gas would be allowed to accumulate and put the mine in a dangerous condition. He did not, however, report this to the mine foreman.

When asked if he had ever gone into his room to see the effect of a shot, and whether he had found any flame at the back of the shot, he said that he had not gone into the room but had gone into the entries, where he had seen flames and helped to extinguish them. His opinion was that this explosion was caused by a blown-out shot. The most gas he found was in the north part of the mine. In answer to the question as to what distance from the roof he caught indications on his safety lamp, he said, "I have caught it down pretty near the bony, in the second right in the north. I caught it down 2 or 3 feet from the roof, anyhow." He said that he didn't think a man could work in a place of that kind. He did not know of miners working where gas could be detected by a lamp; he said they generally removed the gas by compressed air. They had used compressed air to blow the gas out of the mine on the 23rd of January. He said he had seen the shot firer examine for gas, and when he found it he generally blew it out with compressed air.

The usual depth of the undercut was from 4 to 4½ feet and the depth of the hole was about 3½ feet to 4 feet. The seam ran from 6 to 7 and 8 feet. The holes were located pretty close to the roof. In the headings they used three sticks of dynamite, which would leave about 3 feet of room for tamping. For tamping, he said, they generally gathered up damp slack and made dummies and tamped the dummies. He said the top bench was the hardest coal and that the chances of a blown-out shot were therefore greater in the top than in the bottom. He did not think the best method of mining had been adopted at the Harwick mine. The coal was not mined deep enough for the height of the vein. In his opinion the coal ought to have been mined as deep as it was high.

Regarding dust in the mine, he said that they would scrape up a little, what they could, but it was impossible to load all the machine dust. Where the machine was at work, he said that they would "kind of strangle" from the dust floating in the air, but he had never seen any dust outside of the entry or room where the machine was at work. He had seen a blown-out shot in the mine,

and said the coal had caught fire. He did not know whether the dust had been fired, but it was pretty smoky. He supposed the coal caught on fire from the flame of the shot.

Edward Bell, mine superintendent of the Clark Coal and Coke Company, testified, in part, as follows:

He had been connected with coal mines for 45 years and had been a superintendent for about 3 years. For a year and a half previous to September 6, 1902, he had been superintendent of the Harwick mine. When interrogated as to the method of ventilating mines, he said that he did not consider the three entry system, as used at Harwick, the best system, but it was better than some others in use. Better ventilation would have been obtained by having four entries instead of three, which would have left a return on each side and also an intake on each side of the workings. This method, in his opinion, would have been an improvement. Mr. Bell examined the Harwick mine in February, after the explosion, and in giving the details of the conditions as he found them, he said: "There were pretty bad falls in the north main entries taking in the north side. In fact there were falls on the three north main entries and in quite a number of rooms in every entry in the mine. There had evidently been some falls in No. 3 left butt on the south, slight falls in No. 4, falls in the main south and the rooms, quite a number of them, in fact a majority of them. There were falls throughout the entire mine. The timbers had been blown out both in the rooms and entries, and at the shaft bottom. I believe the point of ignition was at No. 2 butt in the south entry, because from that point I find the coke on the posts. I think the gas was ignited from a blown-out shot. The cause of a blown-out shot is an overcharge of powder, not rightly tamped, that is one cause. Another cause is trying to break down the material which the powder is not able to do."

When asked if the superintendent had any right to go into a mine and assume any authority over either the fire boss or the mine foreman, he said: "Not unless it would be to enforce the law." He also said he did not believe that mine foremen and fire bosses ought to have certificates. He said the superintendent should have a mine foreman's certificate because he should have fully as much intelligence about mining in its various branches, as a mine foreman has. He said in regard to blasting in a gaseous mine when the men were at work, that it could not possibly be avoided if the output of coal was to be kept up. He did not approve of the practice of driving gas out of a place by compressed air, as was practiced in the Harwick mine.

Regarding the fire boss' report as to gas in the mine, Mr. Bell said that in the morning the mine foreman depended upon the fire boss' report and acted in accordance therewith; and that the super-

intendent depended upon the mine foreman's report as to the general conditions in the mine.

Upon being asked to show the jury on the map where he believed the blown-out shot occurred, he said "Right at the corner of the entry No. 2 left butt in the south. That is where I believe the point of ignition was. There was coke in these rooms and on the post here (indicating) and in this entry there was a division apparently. Part of the explosion came up and part went down, and that is what leads me to suppose where it started from. We found most of the coke there, but we found coke in all parts, which indicated that there was a great quantity of dust. I believe the dust had all to do with the explosion. At the time we made our inspection we had two splits of air in the mine and the total amount in both splits amounted to about 24,000 cubic feet, while according to their report before the explosion they were circulating 74,000 cubic feet. We found no evidence of gas whatever at that point. Wherever we could see a machine had been used at the time of the explosion, there we found the most coke." Mr. Bell stated that he believed that a blown-out shot had ignited the dust, that there was no gas there. He found four or five different places where there were blown-out shots.

When asked to state the duties of a mine superintendent, Mr. Bell said: "The first duty of a mine superintendent is to see that there is proper ventilation apparatus at the mine, to see that the mine is in a healthy and safe condition, to see that the appliances, whether it is a furnace or a fan, would be of sufficient capacity to keep the mine in a safe condition, to see that there are sufficient supplies on hand for the safe working of the places in the mine, and also to see if the fan, or the furnace, is stopped at any time, and before it is started to know that the mine is safe."

To make a mine such as the Harwick safe, Mr. Bell said that the work would have to be carried on with a view to the safety of the employes even if it affected the output of coal. "I believe there is something better than sprinkling for the removal of dust. In a mine where they use compressed air, you could take the jet and the hose on the machine and sweep the dust off the sides and the roof, and force it out into the current, when there is nobody in the mine. The currents could be diverted and the whole thing swept to the surface." In explanation of the proposed method, Mr. Bell said: "In each of the rooms and entries they had, I believe, an inch and a quarter air pipe. At the end of the pipes a 50 foot hose is attached from the pipe to the machine. They could reach a distance of almost 100 feet from the end of the pipe where the hose is attached, 50 feet forward and 50 feet back. By diverting the air currents and forcing them at a high velocity through certain sections,

they could take the dust from the face of the rooms and face of the entries to the surface. This could be done by a continuous air current, by throwing the current into one section at a time and closing off all the other sections." He said that he thought the Harwick mine was equipped with a fan of sufficient capacity to do the work he had outlined.

Mr. Taylor, he said, had planned the opening of the Harwick mine and had consulted with him, as the superintendent, in regard to it, but had not consulted with the Inspector that he knew of. The plan adopted was approved by Mr. Bell. The method was to undercut the coal in the bottom. "At my suggestion, we tried undercutting coal in the bone. As it was successful, Mr. Taylor told me to continue in that way. Our tests showed that we could make a cut in the bone in 35 minutes, which was less time than it required to cut in the bottom. In blasting the coal at the top and the bottom, we put one shot under each rib and in the top, one in the bottom, and it took a very small quantity of explosive to blow the top down and the bottom up. It took four charges for the cut. We used the lowest percentage of dynamite, and it required less than a stick in each hole when we undercut it in the bone. At the time of the explosion every place I visited, except one, the undercut was at the bottom. One place they were cutting in the vein, in No. 3 or No. 8 room, the first right entry to the north, I think." Mr. Bell said that he did not consider the present method of mining at the Harwick mine as safe as the one practiced while he was superintendent. When asked whether the dust from the bone would be as dangerous as the dust from the undercut of the coal, he said, that while not an expert, he thought there would be very little difference. He could not suggest a safer method than the one employed while he was connected with the mine. When asked if he thought the explosion might have been averted if his method had been continued, he said it might have been. He believed, anyway, that it would have reduced the chances of an explosion 75 per cent. He said he, as superintendent, had employed the inside workmen, and that all workmen should be selected with care as to their practical experience as miners, and should have some knowledge of fire-damp and the use of safety lamps. He further said that even if all the stoppings had been built of stone, he did not think it would have prevented the explosion.

The duty of shot firer, Mr. Bell said, was to go around when called upon by parties that were ready to shoot. The miners, of course, did their own drilling and tamping. The shot firer's first duty was to examine the place and find out if it was safe. He was positively instructed not to fire a shot if any explosive gas was present. They, the shot firers, were not to light any shot with a naked light.

"We used a touch paper and a wire, I think an 'A' fiddle string, which was inserted through the meshes of the gauze and made red hot, then applied to the touch paper and the fuse lighted. In a gaseous mine the battery is the safest method generally, but the touch paper is just as safe with good, competent shot firers. In a mine generating fire-damp, I believe the touch paper the safest, for the reason that a man would be right in at the face when he lighted the shot. With the battery he would be away 100 or 150 feet and be more apt to take chances of a slight quantity of gas being present." When asked the question, if the air in the inlet had been partly closed off by ice on the morning of the explosion, would it have reduced the quantity of air in circulation, with the same power being applied, he said it would. "It would reduce the pressure upon the face of the coal and by a reduction of pressure there would be a possibility of greater generation of fire damp. A reduction of pressure would have a tendency to increase the generation of gas, and this might have occurred to some extent the morning of the explosion." Mr. Bell said that while he was superintendent at Harwick some of the advance places generated fire-damp, and to get rid of it they would brattice up, and if fire-damp was found after that they would make a break-through between the entries. They would drive the entries 30, 40 or 50 feet, and then if they found fire-damp accumulating, they would sweep it out with compressed air until they could erect a brattice. He said that the projection of air from the mouth of the nozzle at high pressure stirred up the dust in the air and brought about to a certain extent a dangerous condition of the mine. If the dust could have been swept 100 feet from the face or from the shot, he didn't think there would have been an explosion, even with coal dust and a blown-out shot. He said the finest particles of coal dust were the most dangerous and that they always existed in a mine when a machine was being operated.

In regard to the fan at the Harwick mine, he said that the capacity depended upon the number of revolutions. The fan was guaranteed to circulate 150,000 feet through the mine. Mr. Bell said that in continuously extremely cold weather, such as they had had in January, there would be a greater accumulation of dust in the Harwick mine than there would have been in warm weather, for the reason that the strata being warmer in the mine than the atmosphere outside become dry. In summer time the strata become cooler and sweat, and sweating acts as a sprinkler. No mine, in Mr. Bell's opinion, can be rendered safe from an explosion of dust by sprinkling. The Harwick mine was dustier than most mines that he had seen. It was dustier than they expected to find it when they opened that territory, but he did not think it required

a circulation of 95,000 feet of air to keep the mine in safe condition as far as fire-damp, or marsh gas, was concerned.

F. W. Cunningham, State Mine Inspector of the Fourteenth District, in which the Harwick mine is situated, testified, in part as follows:

He lived at Wilkinsburg and had been Inspector since January 27, 1903. He had worked in the mines for about 16 years, during which time he had been mine foreman for ten months and miner for about five years. There were 73 mines in his district, 20 of which generated gas, and they all used safety lamps. He considered the Harwick mine the best in his district as regards safety. On the 11th of March, 1903, he made an official examination of the mine and found very slight traces of gas. The dust was not sufficient to be considered dangerous. Eight or ten machines were working in the mine at this time. Mr. Cunningham described, in detail, the air measurements and said that the fan used at this mine was a Capell fan, 13½ feet in diameter and 7 feet wide. A copy of the report made by Mr. Cunningham to the Department of Mines of his inspection on this date is given herewith.

MINE INSPECTION

Inspection No. 10 and date of March 11, 1903.

1. Name of operator, Allegheny Coal Co.
2. Name of mine, Cheswick.
3. Kind of opening, shaft.
4. Location of mine, P. R. R. at Cheswick.
5. County, Allegheny.
6. Are means of egress up to law's requirements? Yes.
7. Is the air measured by inside foreman according to law? Yes.
8. Cubic feet of air entering at inlet, 57,760.
9. Number of splits of air in mine, two.
10. Cubic feet of air in each split, 31,960-25,800.
11. Number of persons employed in each split, 50-25; total 75.
12. Number of animals in mine, 8.
13. Cubic feet of air near face of each heading, 9,350-2,280-4,000, 4,800-9,600-12,480.
14. Cubic feet of air at or near outlet, 55,560.
15. Are the air currents conducted according to law? Yes.
16. Does the mine generate explosive gases? Yes.

17. Is the hoisting machinery in good order? Yes.
18. Are the hoisting ropes in good condition? Yes.
19. Are the safety appliances in working order? Yes.
20. Was the mine in operation when inspected? Yes.

Remarks

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F. W. CUNNINGHAM, Mine Inspector,
 14th Bituminous District, Pa.

He said there was no recording instrument on the fan and that Mr. Sheetz promised to order one for the fan, but delayed getting it until after the explosion. Having promised to get the instrument, Mr. Cunningham said that he did not think it was his duty to have him arrested.

He said that the overcasts at the intake and at the return of the air were large enough. On his visit to the mine on April 21, 1903, he found 78 men employed and the mine in good condition. All the gas he found was "probably just a very small amount up right at the face of the south main entry." The mine wasn't found dusty on this visit. He generally looked at the fire boss' book of daily reports to see whether there was any gas in the mine.

MINE INSPECTION

Inspection No. 43 and date of April 21, 1903.

1. Name of operator, Allegheny Coal Co.
2. Name of mine, Cheswick.
3. Kind of opening, shaft.
4. Location of mine, 1 mile west of Cheswick Station.
5. County, Allegheny.
6. Are means of egress up to law's requirements? No.
7. Is the air measured by inside foreman according to law? Yes.
8. Cubic feet of air entering at inlet, 69,000.
9. Number of splits of air in mine, two.
10. Cubic feet of air in each split, 42,000-27,000.
11. Number of persons employed in each split, 66-12. Total, 78.

12. Number of animals in mine, 9.
13. Cubic feet of air near face of each heading, 6,480-3,240-8,400-9,000-6,600-6,100.
14. Cubic feet of air at or near outlet, 67,940.
15. Are the air currents conducted according to law? Yes.
16. Does the mine generate explosive gases? Yes.
17. Is the hoisting machinery in good order? Yes.
18. Are the hoisting ropes in good condition? Yes.
19. Are the safety appliances in working order? Yes.
20. Was the mine in operation when inspected? Yes.

Remarks

The 2nd opening was not in condition for egress; they promise to fulfill the law immediately by working night and day to get stairs in the air shaft.

F. W. CUNNINGHAM, Mine Inspector,
14th Bituminous District, Pa.

He visited the mine on the 17th of July, and he read to the jury a report of his examination at that time, which showed the general conditions satisfactory, except at the shaft bottom, where they were using open lights. He said that he didn't think the open lights were dangerous, but he advised their discontinuance as he thought it would look a little better. When asked to define what he considered a dangerous quantity of gas, he said that any quantity is dangerous where it is allowed to accumulate. If it is carried away in the air current as fast as it accumulates, he didn't consider it dangerous.

He said that the plan of the mine as to ventilation was better than that of most mines and was above the average. It could be made better by driving four main entries instead of three.

MINE INSPECTION

Inspection No. 100 and date of July 17, 1903.

1. Name of operator, Allegheny Coal Co.
2. Name of mine, Cheswick.
3. Kind of opening, shaft.
4. Location of mine, West Penn R. R., near Cheswick.
5. County, Allegheny.
6. Are means of egress up to law's requirements? Yes.

7. Is the air measured by inside foreman according to law? Yes.
8. Cubic feet of air entering at inlet, 60,200.
9. Number of splits of air in mine, 6.
10. Cubic feet of air in each split, 22,000-5,500-8,500-6,000-8,000-6,700.
11. Number of persons employed in each split, 16-9-10-10-20.
Total, 75.
12. Number of animals in mine, 10.
13. Cubic feet of air near face of each heading, 7,700-5,500-8,500-6,000-6,700.
14. Cubic feet of air at or near outlet, 59,360.
15. Are the air currents conducted according to law? Yes.
16. Does the mine generate explosive gases? Yes.
17. Is the hoisting machinery in good order? Yes.
18. Are the hoisting ropes in good condition? Yes.
19. Are the safety appliances in working order? Yes.
20. Was the mine in operation when inspected? Yes.

Remarks

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F. W. CUNNINGHAM, Mine Inspector,
 14th Bituminous District, Pa.

Mr. Cunningham visited the mine on October 7, and he read a copy of the official report as made to the Department of Mines. The report is as follows:

MINE INSPECTION

Inspection No. 145 and date of Oct. 7, 1903.

1. Name of Operator, Allegheny Coal Co.
2. Name of mine, Harwick.
3. Kind of opening, shaft.
4. Location of mine, near Cheswick, West Penn R. R.
5. County, Allegheny.
6. Are means of egress up to law's requirements? Yes.
7. Is the air measured by inside foreman according to law? Yes.
8. Cubic feet of air entering at inlet, 95,000.
9. Number of splits of air in mine, 6.
10. Cubic feet of air in each split, 35,000-12,500-11,500-6,000-7,000-9,000.

11. Number of persons employed in each split, 25-34-17-9-19-19; total, 123.
12. Number of animals in mine, 10.
13. Cubic feet of air near face of each heading, 8,000-21,000-6,000 11,500-9,000.
14. Cubic feet of air at or near outlet, 96,000.
15. Are the air currents conducted according to law? Yes.
16. Does the mine generate explosive gases? Yes.
17. Is the hoisting machinery in good order? Yes.
18. Are the hoisting ropes in good condition? Yes.
19. Are the safety appliances in working order? Yes.
20. Was the mine in operation when inspected? Yes.

Remarks

Slight trace of gas found in No. 1 south main and in 1 and 3 rooms of No. 3 right of 3rd south.

Mine in a safe condition.

F. W. CUNNINGHAM, Mine Inspector,
14th Bituminous District, Pa.

He did not find any dangerous condition existing in the mine at that time. His next visit to the mine was on the 4th of November, when he went to investigate the cause of a fatal accident. He tested for gas at this time, but did not take any air measurements, as he did not have his anemometer with him. He "knew and considered that there was enough air in the mine." He said that he inspected the south part of the mine, as he understood they were considering the stopping of one of the entries. After investigation he objected and insisted that they continue the three entry system. He inspected the mains for gas, but did not find any in Nos. 1, 2 and 3 south or in the bottom entries.

"Wilkinsburg, Pa., November 4, 1903.

Investigating accident; inspected part of mine; attended the inquest and attended to a law suit.

Investigating accident, 2 hours. Inspected Nos. 1, 2, 3, 4, 5, 6, 7 and 8 left and 1, 2, 3 right south and main entries. No air measurements taken. All places in good condition. (No gas.) 2 hours. Attending inquest, 1 hour. Allegheny Coal Co., Harwick shaft.

Attending law suit at New Kensington of two miners shooting coal off the solid, 2 hours; traveling on duty 3½ hours."

Mr. Cunningham was asked to define the specific duty of the mine inspector, and he read article 10, sections 11 and 12, as follows:

"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 examinations: 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 31st day of December of each and every year shall, on or before the 15th 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.

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 of 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."

Mr. Cunningham said that the law did not require that he should examine every working place in the mine, and that he had devoted the whole of his time to the duty of his office.

When asked if he had investigated the method of blasting coal in the Harwick mine, he said he didn't remember exactly if he had investigated it thoroughly, but he saw them undercut and he generally asked them what they tamped with. "I found out more about that than anything else. They told me they tamped with wet coal." He said that he had never heard of a blown-out shot in the Harwick mine until after the explosion, nor had the fire boss, whom he questioned in regard to the matter. Mr. Cunningham said that the explosive used in the mine was dynamite, but he did not know of what strength. Referring to the method of firing shots in the Harwick mine, he said he did not find any fault with the method as long as it was carried out.

Mr. Cunningham said that the ice at the foot of the shaft and near the overcasts would certainly be a great impediment to the ventilation of the mine, as it would reduce the area at the bottom of the shaft. He said that a week before the explosion the air in the mine, if reduced one-half, would have been sufficient for the 180 men employed. He said that he did not go to the foot of the air

shaft on his visit to the mine in November. A week after the explosion he had seen ice at the bottom of the shaft $3\frac{1}{2}$ feet thick.

His opinion was that the explosion was caused by a blown-out shot in No. 1 monkey entry on No. 3 room of No. 1 butt left south. He said that the Harwick mine might have been safe on October 7 and November 4, and yet be unsafe the next day.

REPORT OF THE MINE INSPECTORS TO THE CHIEF OF THE
DEPARTMENT OF MINES IN RELATION TO THE HARWICK
EXPLOSION. (In Adams' testimony.)

Pittsburgh, Pa., January 30, 1904.

Mr. James E. Roderick, Chief of Department of Mines, Harrisburg,
Pa.:

Dear Sir: In compliance with your instructions relative to the explosion in the Harwick mine, by which so many persons lost their lives, we beg leave to report that we have made a careful examination of all the workings of the mine. This mine is owned and operated by the Allegheny Coal Company, and is situated in Springdale township, Allegheny county, Pa., near Cheswick, on the coal company's branch road, west about 2 miles from the West Penn Railroad. The mine is under the supervision of the Inspector of the Fourteenth Bituminous Inspection District.

In our examination we endeavored to ascertain the cause of the explosion that occurred in this mine at about 8.15 A. M. on the 25th day of January, 1904. The mine is a shaft opening 216 feet in depth and is 21 by 9 feet in size, which is sunk to the Upper Freeport coal seam. The second opening was sunk to about the same depth as the hoisting shaft, which is 10 by 12 feet in size, and serves the purpose of a traveling way and a ventilating shaft. The outside structures, such as the tipples, hoisting machinery, etc., are all of the most modern design and of very substantial character.

The plan adopted by which the coal seam is extracted is known as the three entry system. The coal seam is about 7 feet in thickness, with a slate in the center of it, about 7 to 8 inches thick, which constitutes a double seam.

No part of the workings of this mine exceeds a distance of 1,700 feet from the bottom of the shaft, the mine being practically a new one. The company began shipping coal from the mine the latter part of the year 1902. The workings of the mine consist of three

south main entries and three north main entries. They are driven off the south main entries to the left in groups as follows: Nos. 1 and 2 butt entries, Nos. 3, 4 and 5 butt entries, and Nos. 6, 7 and 8 entries, and to the right of the south main entries there are Nos. 1, 2 and 3 butt entries, and Nos. 4, 5 and 6 butt entries. The distances and the number of working places of the butt entries to the left of the south main entries are as follows: Nos. 1 and 2 left butt entries are driven up about 450 feet and contain 8 working places. The monkey extensions of Nos. 1 and 2 entries are turned to the right off No. 3 room in No. 1 entry. No. 1 monkey entry or extension of No. 2 entry has been driven in about 120 feet, in which two rooms are turned to the right and a cross-cut to the left. Nos. 3, 4 and 5 left entries are driven up about 950 feet and there are in Nos. 3 and 5 entries about 23 rooms in each.

Nos. 6, 7 and 8 left entries are 400 feet long and containing in Nos. 6 and 8 about 8 rooms. In Nos. 1, 2 and 3 group of butt entries to the right of the south main entries are about 775 feet long with 16 rooms in each of Nos. 1 and 2 entries, and Nos. 4, 5 and 6 entries are only driven in about 200 feet, containing 3 rooms. They are just turning off the entries. Off the north main entries Nos. 1, 2 and 3 butt entries to the right are about 600 feet long, and in Nos. 1 and 3 entries there are about 12 rooms in each. Nos. 1, 2 and 3 butt entries to the left of these mains are only driven in about 100 feet. There are in the whole mine about 131 active working places. The large portion of these working places had two persons working in them at the time of the explosion.

The coal in this mine is all mined by compressed air machines of the Puncher type. The coal was blasted down by the use of dynamite and the shots were prepared and charged by the men who loaded the coal, and the shots were fired by authorized shot firers. Each shot firer carried with him a Davy lamp with a wire of small diameter attached thereto, and when he was ready to fire a blast he inserted this wire through the meshes of the gauze of the safety lamp and held it in the flame thereof until it was brought up to the proper temperature, and he would then withdraw it and apply it to the end of the fuse to light it. By this means the blasts were fired. The dynamite was exploded by the use of fuse and fulminated cap.

The shots were all located, so far as we could discover, near the roof in the upper bench of the coal seam, thus requiring an extremely heavy charge of the explosive to bring down the coal. This was rendered much more difficult owing to the center slate of the coal seam having a greater strength than the coal in the upper bench of it.

Nearly all of the advanced workings of the mine were very dry and dusty. Owing to the mine producing explosive gas, locked safety lamps were used exclusively in all the working places of it except at the bottom of the shaft where two open lights were used.

This mine was ventilated by a Capell fan 13½ feet in diameter and 7 feet wide, which was acting on the forcing principle prior to the explosion, and capable of producing 200,000 cubic feet of air per minute, but after the explosion the air currents were reversed and the fan made to act on the exhaust principle. The method used in ventilating this mine as exhibited on the map was by split air currents conveyed to the face of the workings by the three entry system. There were two principal air splits; one leading to the north side of the mine without sub-division and the other was conveyed to the south main entries which was sub-divided into four different air splits. These different air currents were supposed to be conducted up the center entries and split at the face of the butt entries allowing the different currents to return by the side entries off which the rooms were turned. This was accomplished in part by erecting overcasts at the group of entries along the line of the main current, but as only four of them had been erected in the mine the good effects to be secured by truly carrying out such a system were only partially realized. No overcast for splitting the air was erected beyond No. 4 left butt entry on the south side of the mine and none were constructed on the north side of the shaft, hence the air was conveyed in a single current on that side.

We make the above preliminary statements with a view to give all a better understanding of the actual conditions as we found them in and about the Harwick mine after this terrible catastrophe happened.

On arriving at the mine our first duty was to note the evidence of the great force produced by the explosion in the mine at the moment of its occurrence. We observed that both the heavy steel cages had been blown up into the head frame. This steel structure (head frame) was twisted out of place and suspended in the air. Also the head frame pulley wheels, which were about 65 feet above the surface, were destroyed. We were informed that one of the cages, at the time of the explosion was near the surface landing and one about 35 feet from the bottom, and that a mule was caught up from the bottom of the shaft and thrown out over the top of the head frame and landed about 25 feet to the north of the mouth of the mine, thus giving further evidence of the great force of the explosion.

We then went to the fan shaft where we observed that all of the brick and part of the steel structure of the fan were destroyed that were in the line of the force of the explosion. Before anyone could be lowered into the shaft it was necessary to temporarily

adjust the top of the fan shaft and to make such changes as to reverse the main air current in order to establish ventilation and to take the fresh air down the hoisting shaft, so as to allow us to proceed with our explorations by taking the fresh current with us.

While this was being done a temporary pulley wheel was erected about 25 feet above the top of the shaft and arrangements made for lowering persons into the mine by a steel bucket being attached to the hoisting rope.

We were also informed that Mr. Taylor and a rescuing party had descended in the bucket to the bottom of the shaft and found one person near there who was yet alive. They having sent him to the surface they continued on their exploration. When we went to the mine they had been gone two hours and only one of the three had yet returned to the shaft bottom.

Being carefully lowered down the shaft we observed that the buntings and guides remained intact, while steam, air and water pipes were broken and disconnected. Upon landing at the bottom of the shaft we found it almost entirely closed with mine cars and the timbers that had been blown down by the force of the explosion. Those large timbers had been put up to support the roof at the bottom of the shaft. All this rubbish had been hurled in there with great force and perhaps saved the entire destruction of the shaft buntings and guides, etc.

Before proceeding from the shaft bottom we carefully examined the course of the air current, and on examining the entrance to the north side we found smoke and the air very poisonous with the after damp. We then erected temporary stoppings to shut off the air in the entrance on this side of the shaft, fearing there might be fire. We next examined the air current on the south side of the shaft, and found it moving in No. 1 south main toward the fan shaft. The current was weak, due to the shaft bottom being nearly closed by the mine cars and timbers. This necessitated very careful action on the part of the explorers as the after-damp was very poisonous. Proceeding very cautiously we erected temporary stoppings in order to carry the fresh air with us.

Knowing that a rescuing party had entered the mine ahead of us, led by Mr. Taylor, and only one of them having returned, we examined carefully for evidence that would lead us in the direction they had taken. On erecting a stopping in the cross-cut between No. 1 and No. 3 south main entries, thus allowing us to advance, we observed a hat here near this point and proceeding through the cross-cut to No. 3 south main, then turning to the right toward the shaft for about 40 feet, we found the body of Mr. Taylor; then returning with it to No. 1 south main entry we heard moans from the other victim of Taylor's rescuing party, and from this point we proceeded

toward the face of the main entry and in walking about 40 feet further we found the other man, who was still living. We then took the two men with all haste to the bottom of the shaft and after arriving there we sent for a physician. After working with both men for some time in trying to restore them, we found that Mr. Taylor was dead, while the other person showed signs of life. Both men were sent to the surface, after which we proceeded with our explorations. We made slow progress, which was largely due to our not having sufficient force to work with, as volunteers were very scarce at this stage of the work. After having carried the air current near to the face of No. 1 south main entry we found the fire damp and other gases in such volume that we were compelled to retreat at this time and allow the air current to play on them while the bottom of the shaft was being partly cleared away to relieve the cramped condition of the air current so as to increase the quantity of air.

After establishing the air current in the north main entries we retreated to No. 1 left butt entry, off No. 1 south main entry, and erected a temporary stopping across No. 1 south main just in advance of No. 1 left butt. We then advanced with our explorations, carrying the air current with us by erecting temporary stoppings on the mouth of the rooms until we reached a point opposite No. 6 room, which was driven over from No. 3 butt entry to meet No. 3 room from No. 2 butt entry. After conducting the air as above stated we located one body in the last cross-cut between Nos. 1 and 2 rooms; one body was found in No. 3 room near the face of it and one near the entrance to No. 2 monkey entry; six bodies were found between the entrance to No. 3 room and the entrance to No. 1 monkey entry or No. 2 entry extension. The force of the explosion at this point had blown a car off the track and knocked out a post. One of the bodies was under the car and the other five were found lying immediately in front of it. In No. 1 monkey entry at the face of it on the right near the roof, we discovered a blown-out shot which had also shattered the roof. On the left side of this entry at the face of it, we also found another hole that was charged and ready to fire. Above this hole was an overdrilled hole from a previous cut. In this entry we found fire-damp three feet deep at the face tailing back to No. 3 room, a distance of about 130 feet. By the side of the victims here we found a Davy safety lamp with a wire about a foot long and of small diameter attached thereto. Also a Clanny lamp was picked up with the Davy lamp and from the location of the six bodies found here it is reasonable to suppose that these workmen had come to this point to wait until the shots were fired and from all the indications these two shots had just been fired at the time of the explosion. These two lamps being

found by the side of one of the victims, it is very evident that they were the equipment of one of the shot firers. Here we made a very careful observation as the indications were such as to warrant an opinion that the explosion had originated at this point. The car mentioned above had presumably been standing at the entrance to No. 1 monkey entry and had been forced back over the parting off the track, knocking the post out and on the body, and possibly knocking the other five men close together. This part of the mine was very dry and dusty and the heat had been very intense, coking the coal dust along the roof and side of the pillars, also blistering and spalling the coal in some places.

One body was located near the face of No. 1 butt entry. This body was badly charred and entirely nude, the clothing having been burnt off him. Two in No. 4 room off No. 2 butt entry. Two near the entrance to No. 2 room and one in No. 1 room. At the entrance to No. 2 room we found a mining machine with a wheel blown off and crushed into several pieces.

Retreating again to No. 1 south main entry we removed the stopping on No. 1 main and placed it in advance of No. 3 left butt entry, in order to direct the current up No. 3 butt end by the use of temporary stoppings between Nos. 3 and 4 butts, we directed the air current to the face of No. 3 entry, thence through last cut-through at the face of it to the face of No. 5 left butt off No. 1 south main and back through the room to No. 1 south main, and while exploring those three butt entries and rooms we found bodies as follows: Two bodies at face of No. 11 room off No. 3 butt, one on No. 3 butt between Nos. 16 and 17 rooms, one at the entrance and two at the face of No. 17 room, one at the face of No. 18 room, two in No. 19 room, one in No. 20 room, one in No. 23 room, two opposite last cut-through on the entry and one at the face of the entry, two in No. 4 butt at cross-cut opposite No. 17 room off No. 3 butt, also one body at face of No. 4 butt. While exploring No. 3 butt entry we observed that a number of the rooms had fallen in badly and at the entrance to No. 17 room three empty cars were wedged tightly in the entry and were badly broken by the force of the explosion. The driver had evidently been going up the entry with a three car trip as both he and the mule were lying just in front of the cars, the mule yet remaining hitched to them. In the rooms near the face of the entry we again found evidence of exceedingly great heat as the dust was coked on the roof and side, and the coal considerably charred. We also found that gas was being generated very freely, but there was no evidence of a blown out shot here. Going through to the face of No. 4 butt entry, the deposit of soot was very heavy. Crossing through to the face of No. 5 butt we located additional bodies in No. 5 entries as follows: One at the face

of No. 5 entry, one at No. 23 room, one at No. 22 room, two in No. 21 room, one in No. 20 room, two at the north of No. 10 room, and two at the face of it, two at the entrance to No. 17 room, two on entry at entrance to No. 12 room (one of these latter two persons had had his head blown off), two also at the face of No. 12 room, one at the face of No. 11 room and two bodies in No. 7 room. While passing through this entry we observed at the face of it in the innermost room that the dust was coked and adhering to the roof and sides of the ribs and that the coal was also considerably charred. At the face of No. 5 entry, gas was generating freely as there was a blower that could be heard some distance from the face of it. Passing on out and down this butt entry, we observed that the force of the explosion had gone from the face of the entry towards No. 1 south main through the room cross-cuts, blowing out posts and refuse to the lower side of the rooms. In Nos. 15, 14, 12 and 10 we found very heavy falls and other falls of less magnitude in various places. Coming back again to No. 1 south main entry we proceeded up this entry to No. 6 left butt off No. 1 south main. Then the air current was directed into No. 6 butt entry and conveyed towards the face of it to a cross-cut some distance back from the face, which also brought up the air current to No. 8 butt entry. This was accomplished by erecting temporary stoppings as we proceeded with the work. At this time we were unable to reach the face of the entries owing to a large accumulation of fire damp. While the ventilation was being established to the face of these entries we found the following bodies:

One in No. 1 room, three in No. 2 room off No. 6 butt, one in No. 3 room, two in No. 4 room (one near the face, the other near the entrance of the room), and one near the face of the entry. Passing through last cross-cut from No. 6 butt to No. 7 butt, the last cross-cut started from No. 7 to No. 8 butt, two bodies were located there. Three bodies were located at the face of No. 8 butt entry, one of these three bodies being the mine foreman's. Two bodies in No. 1 room. At the face of the aforesaid entry, again we found evidence of the intense heat, the dust and coal being considerably charred and coked. There were large volumes of fire damp in all three of the entries and also in Nos. 1 and 2 rooms off No. 8 butt.

After finishing our exploration here we retreated to the north main entries and there established the ventilation, carrying it up No. 1 north main to No. 1 right butt entry. We there erected a stopping in No. 1 north main in advance of No. 1 right butt, which directed the air current into No. 1 butt, there carrying it to the face leading it through the last cross-cut at the face to No. 3 butt, then back this entry to No. 1 north main, thence up this entry to the face, then through the last cross-cut to No. 3 north main, thence back this

entry to the fan shaft. The carrying forward of the air current in this section of the mine was accomplished by erecting temporary stoppings, etc. While we were restoring the ventilation on the north side we located the following bodies: Two in a room that projected mule stables, one at entrance of this room on No. 1 north main, three in No. 7 room off No. 1 right butt, two in No. 9 room, two in No. 10 room, two in No. 11 room, one in No. 12 room; bodies found and located in No. 3 right butt entry off No. 1 north main; two at the face of No. 3 entry, two in No. 11 room, two in No. 10 room, one on entry between Nos. 9 and 10 rooms, one at entrance of No. 9 room, two in No. 8 room, two in No. 6 room, one on entry between Nos. 3 and 4 rooms, one in No. 3 room, two in No. 2 room. In No. 1 left butt entry we found that some of the rooms had fallen in and at the face of this entry a considerable quantity of fire damp was found. In passing through the cross-cut near the face of this group of entries we found a sack of dynamite containing twenty-six and one-half sticks of this explosive. At the face of No. 3 butt entry, gas was found in large quantities. At this point again the heat had become very intense, as the coal dust was coked on roof and sides of pillars and the coal charred to some extent. No blown-out shot was located in this section of the mine. Coming back to No. 1 north main we found the timbers blown down and the roof badly fallen in from a short distance beyond No. 3 right butt to the face of this entry. The same condition prevailed in Nos. 2 and 3 north main entries. We explored these three north main entries and located the following bodies: Two were found about 60 feet up No. 1 north main from No. 3 right butt, two at the face of No. 2 north main, two in last cross-cut between Nos. 2 and 3 north main, one in entrance of cross-cut to No. 3 north main, two at face of No. 3 north main. While this exploration was going on, the timbers, wagons, etc., which were hurled in the bottom of the shaft, were being removed, and seven bodies were found underneath this rubbish. After finishing our explorations and removing the bodies from the north side of the shaft, we held a consultation to decide on the method to be pursued in exploring Nos. 1, 2 and 3 right butt entries off the south main entries. As this was known to be a gassy region and these entries being full of after damp and the liability that there might be some fire present in No. 3 entry, extreme caution was necessary on our part. After a short consultation it was decided to so adjust the stoppings as to direct the air current up No. 2 butt entry. The first order was to erect a permanent stopping of matched pine lumber on the mouth of No. 3 butt entry and cementing the sides of it to make it as near air tight as possible. When the air current was directed into No. 2 butt entry by a temporary stopping being placed on No. 3 south main between Nos. 2 and 3

right butts. Other temporary stoppings were being erected at the same time on cross-cut between Nos. 2 and 3 butt, also on No. 2 entry in advance of the cross-cut between Nos. 1 and 2 entries, and the air brought forward to the first cross-cut between Nos. 1 and 2 butts. This method of procedure was adopted for the purpose of giving us control of the air current. In moving forward temporary stoppings on the entry and on the cut-throughs on each side of No. 2 entry, permanent stoppings made of matched pine and cemented on the sides were erected in front of the temporary stoppings on the cross-cuts between Nos. 2 and 3 entries. In order to allow us to advance with this work the temporary stopping in advance of the cross-cut on the entry was partly pulled aside while two or three persons advanced to measure the width of the next cross-cut and also the entry again in advance of the cross-cut. Canvas was then cut and prepared and quickly erected in those places. This method of work was followed until we reached the face of the entries, thereby cleaning out the foul air from Nos. 1 and 2 butts.

After reaching the face of these two entries we were convinced that no fire existed in No. 3 butt entry. While preparations were being made to conduct the air into No. 2 butt right, preparatory to clearing out Nos. 1 and 2, a party of three advanced forward into the face of the south main. The volume of air having been increased, it had partially removed the large volume of fire damp encountered by the preceding parties who failed to reach the face of the entry, and while exploring those entries we located one body at the face of No. 1 south main, one at the face of No. 3 south main, two in the first room off of No. 6 right butt off No. 3 south main, and three on No. 4 entry. We found that fire damp was being generated very freely in all six of these entries (Nos. 1, 2 and 3 south mains and Nos. 4, 5 and 6 right butts off 3 south main). After the ventilation was thoroughly established to the face of Nos. 1 and 2 butts off No. 3 south main entry with the stoppings all up excepting at the last cross-cut at the face of these butts between Nos. 2 and 3, and after all arrangements had been made, the frame set between Nos. 2 and 3 on the south main preparatory to erecting the stopping to turn the air current into No. 3 butt entry, we all came to the surface for lunch. At this time three persons, led by Mr. Ed. Bell, the company's representative, went into the mine, no one else being allowed to enter it at this time, and they working under full instructions. At a set time the fan was stopped and after waiting a short time for the air current to slow down until it was hardly noticeable that there was any movement, then the permanent stopping was torn down in No. 3 butt and a stopping was erected on No. 3 south main between Nos. 2 and 3 butts to direct the air current into No. 3 butt entry. After this the three men were

hoisted to the surface and the fan again started. After an interval of two hours we again re-entered the mine; then our party divided into two divisions, one division exploring No. 1 butt entry, while the other explored No. 3 butt entry. Bodies were found and located in No. 1 butt entry: One at the face of No. 7 room, one on entry at entrance to No. 9 room, one on entry at entrance to No. 10 room, one at the face of No. 10 room, two at the face of No. 11 room, and one on the entry at entrance to No. 11 room, one about forty feet in No. 12 room, one at entrance to No. 14, three on entry between Nos. 15 and 16 rooms, one in No. 16 room and one on entry in advance of No. 16 room. Bodies found in No. 3 right butt entry off No. 3 south main: Two were located at the face of No. 6 room, three in No. 8 room, three in No. 11 room, one in No. 13 room, two in No. 15 room, one at the entrance to No. 16 room, and three in last cross-cut between Nos. 2 and 3 butt entries. While locating bodies in Nos. 1 and 3 right off No. 3 south main, we observed that the concussion had been very violent in this section. Rooms on both entries had fallen in considerably, also the entries had fallen in at several places, while great destruction had followed in its wake. The direction of the force of the explosion being up No. 3 butt and crossing at the face and then down No. 1 butt. At the face of both Nos. 1 and 3 entries we again encountered evidence of very great heat, as the dust was coked and coal charred in several rooms and at the face of both entries. We also found fire-damp in the rooms that had given evidence of greatest heat, thus finishing our explorations and the removal of all the visible bodies. We again came to the surface preparatory to making our final inspection of the mine.

After completing the work necessary in recovering the bodies as far as possible and having enumerated somewhat in detail the conditions as we found them in the mine during our frequent explorations of it, in the foregoing part of the report, we had arrived at very positive conclusions as to the primary cause of this disaster, but in order to strengthen these conclusions, at your special request, after all rescuing parties were out of the mine, we again traversed its entire workings to make a more critical examination, so as to establish beyond a reasonable doubt the true cause of it.

Having previously examined very critically the monkey entries, or Nos. 1 and 2 entries or extensions,—or extension off No. 3 room off No. 1 left butt entry, off No. 1 south main, which we believed to be the place of the initial explosion, we began our investigation from this point. The fact of our finding fire-damp standing three feet deep at the face of No. 1 monkey entry tailing back to No. 3 room, a distance of 130 feet, and that there were also three places being turned off it, two rooms to the right and a cross-cut to the left and with no way of circulating the air to the face, would

naturally lead us to believe that fire-damp was present when the blown-out shot was fired. We are of the opinion that this blown-out shot was the cause of the explosion. We also observed that a shot had just been fired in the second room to the right of this entry and also one each in the faces of Nos. 4 and 5 rooms of No. 2 butt from No. 1 monkey butt. The firing of those shots had doubtless liberated some gas and stirred the dust, suspending it in the atmosphere. This part of the mine was dry and dusty. This rendered the atmosphere in a very dangerous condition and when the blown-out shot occurred projecting part of the flaming explosive from the face of the entry into the vitiated atmosphere and further stirring the dust, the energy being expended in open entry raising the temperature to a very intense heat; thus all the elements were present to create a tremendous explosion. Also judging from the position of the six bodies found between the entrance to No. 3 room and the entrance to No. 1 monkey entry and the fact of the shot firers' lamps being found alongside of one of those bodies, strengthens the belief that the miners had come to this point while the shots were being fired, and to further strengthen our opinion a car that had possibly been standing in the entrance to No. 1 monkey entry had been blown out over the parting, knocking a post out, also knocking one of the workmen down where he was found tightly wedged between the foot of the post and under the front wheel of the car. In the face of No. 1 butt we found one body with the clothing entirely burnt off and it was badly charred and burned, as was the dust and coal. The heat was so intense at this point that the coal was blistered and spalled. From this point the force of the explosion took a southerly course, blowing out posts, scattering everything in its path. In No. 2 entry at the entrance to No. 3 room the force had blown a wheel out from one of the mining machines and crushed it into several pieces against a car. Crossing through from No. 3 room of No. 2 butt to No. 6 room of No. 3 butt entry left, it apparently took an upward course toward the face of No. 3 butt entry, blowing posts out in the room and also blowing the slate and refuse that had been thrown along the lower side of the track on the upper side of the room, near the face of the entry where we again encountered fire-damp. The violence of the force did not apparently increase, but the heat was very much more intense, charring the coal and coking the dust very much. All the stoppings were blown through from No. 3 to No. 4 butt. Crossing over to the face of No. 5 butt entry here we found similar conditions. Fire-damp was transpiring rapidly at the face of the entry and in some of the rooms. There was a blower throwing off gas very freely, which could be heard at some distance back from the face of this entry. Following the direction of the force down to No. 5 butt

we find again the posts blown out and several of the rooms fallen in almost from the entrance to the face. While the refuse was blown to the lower side of the room, or in the direction of No. 1 south main. Returning to the south mains the force had gone towards the face of No. 1 south main, blowing cross timbers out and disconnecting the entry roads. Coming to Nos. 6, 7 and 8 left butt entries the course of the explosion was up No. 6 entry to cross-cuts near face of Nos. 7 and 8 and down No. 8 again. We found large volumes of fire-damp and also evidence of much force and heat. The coal was charred and the dust coked considerably in these entries. All the permanent stoppings were blown out in the south mains with one exception. At the face of the south mains we again encountered large volumes of fire-damp and also in Nos. 4, 5 and 6 right butt entries off No. 3 south main. In No. 3 south main we observed a T iron rail much bent. Returning to No. 3 right butt we found that the force went in this entry and through the cross-cuts in the rooms towards the face of the entry. What was true of the other places was also true of this entry, the posts had been blown out and the rooms had fallen in considerably. The entry had also fallen in at several places. At the face of the entry we again found that the heat had been very great and we found considerable fire-damp there. Crossing through to the face of No. 1 right butt entry, we found the conditions similar to those of No. 3 with the exception that the entry had not fallen in so badly. The stoppings were all blown from No. 3. to No. 1 entry. Returning towards the shaft bottom we found two main brick over-casts entirely destroyed; the arches were a 13 inch wall laid in cement.

Going to the north side of the shaft we found that the direction of the force was up Nos. 1, 2 and 3 north main, then down No. 1 north main forcing out the entry timbers along its path and causing the roof to fall very heavy in several places on No. 1 main; also very heavy falls in both Nos. 2 and 3 main entries. Considerable fire-damp was encountered at the face of north main. Returning to Nos. 1, 2 and 3 right butts off north main we again found evidence of great force, posts being blown out and very heavy falls in some of the rooms. At the face of the butt entries the coal and dust were coked and charred, the greatest heat being in No. 3 butt entry, as was also the greater quantity of fire damp there. About 200 feet from the entrance to No 1 butt in the direction of the shaft the force divided, part going through a cross-cut, the other going out No. 1 main to the bottom of shaft.

In summing up the facts, as given in the former part of this report, we are agreed in the opinion that the cause of this explosion was the result of a blown-out shot in the face of No. 1 monkey entry off No. 3 room, off No. 1 butt entry on the south side of the mine.

We hold to the opinion that part of the mine was not ventilated as required by law. We further believe that the sprinkling and the laying of the dust according to Rule 60 had been neglected; we further agree in the opinion that fire-damp existed in a large portion of the advanced workings at the time of the explosion. Our reasons for so believing are due to the fact of our having found that in several parts of the mine the heat had been very intense, coking the coal and dust, and that fire-damp was also found at the point where heat had been the greatest. In our searching examination we failed to find any evidence that would lead us to believe that this explosion took place at any other part of the mine. This being true we can readily see that the explosion could be transmitted from one point to another by the carbonic oxide being produced and other gasses distilled from the coal dust which had been suspended in the atmosphere of the mine by the concussion from the initial explosion and other means, and carbonic oxide being an inflammable gas the flame from which was made to reach every nook and corner of the mine thus exploding the accumulations of fire-damp and dust along the path of the explosion, carrying death and destruction into every region of its workings.

We found no evidence whatever, either inside of the mine or in the fire boss report book, that the mine had been examined on the morning of the explosion according to the requirements of the mining law.

We have a foot note in which we have made some correction on this since we have had some more time to explore the mine. Since the report was written we have found some evidences of the fact that the fire boss did examine part of the Harwick mine on the morning of the explosion.

His last report having been made on January 23, 1904, and by it gas was found in the following places: In room No. 17 on No. 3 right, gas in entries No. 6 left 3 south and 1 north. On the 22nd of January, the report was practically the same as on the 23rd. But on the 21st of January gas was found in No. 1 room of No. 1 left, No. 1 room of No. 8 left, No. 17 room of 3 right and in No. 4 room of No. 3 right north. In entries No. 6 left, 1 south main, 1 north main and No. 1 right north butt. Signed J. A. Gordon, Fire Boss.

From an analysis of this coal we find that it contains as high as 37.4 per cent. of volatile matter, which renders the coal dust very inflammable and exceedingly dangerous under certain conditions, therefore necessitating very great caution on the part of the management in seeing that every known precaution and every legal requirement is enforced.

From our observation we are of the opinion that the best method of blasting this seam of coal was not practiced. We believe for a

seam of this height having such a strong slate or bony in the center of it that the holes should be placed under the center bony and elevated sufficiently so as to lodge part of the explosive into the bone, which would be broken by the blast; then should it become necessary the top coal should be blasted down afterwards. This method would not necessitate such heavy charges and would lessen the danger from blown-out shots.

We would further recommend that blasting be discontinued in this mine and in all other gaseous mines where safety lamps are used, except when all the men are out of the mines except it is necessary to perform the work; and that they should not be fired in rapid succession, as such shot may liberate some marsh gas along with carbonic oxide and by the concussion stirring the dust charging the mine atmosphere to a very dangerous condition. And we would also recommend that the shot-firer begin blasting on the return side firing towards the incoming current, so that the gas which is liberated would be always going away from the next blast. And also that the safest known explosive be used. We would recommend that the use of compressed air for the removal of gas from the working places be discontinued. And in all cases the current should be conducted to the face of the working places so as to render said places entirely free from any accumulation of fire-damp. The use of compressed air does not remove the gas, but simply diffuses it with the air in close places, and the air issuing from the pipes under high pressure stirs up the dust and sends it floating through the air, thus increasing the danger rather than diminishing it in the vicinity where shots are to be fired.

We would further recommend the following: The rigid enforcement of Rule 57 of the Bituminous Mining Law, which requires that no safety lamp be entrusted to any person for use in the mines until he has given satisfactory evidence to the mine foreman that he understands the proper use thereof and the danger of tampering with the same; that the methods of shot firing employed at the Harwick mine, by igniting the fuse by the use of hot wire be discontinued and instead thereof the use of the electric battery should be employed, and that the stemming or tamping of shots should be of a non-inflammable character; that the exhaust system of ventilation be adopted in this mine, and in all mines generating fire damp, for the reason that this would allow all haulage ways and traveling ways to be in the ingoing air currents and which would prevent ice from accumulating at the bottom and in the air shaft, which may have been the case at the Harwick mine at the time of the explosion, and should a sudden stoppage of the fan occur the dangerous gases would not rush out on the haulage roads and traveling ways as would be the case with the forcing principle.

We also believe that if the volume of air that the fan is capable of producing, running at a reasonable speed, had been properly carried up to the face of the workings and if the dust had been laid by sprinkling it with water on January 25th, 1904, such a disaster could not have happened.

In the beginning of this report relative to the explorations, only Inspectors Cunningham and McCanch participated in it until Tuesday afternoon of the 26th of January, 1904.

All of which is respectfully submitted.

F. W. CUNNINGHAM, Inspector of 14th Bituminous District.
ALEXANDER McCANCH, Inspector of 13th Bituminous District.
ROGER HAMPSON, Inspector of 12th Bituminous District.
W. J. MOLLISON, Inspector of 11th Bituminous District.
BERNARD CALLAGHAN, Inspector of 9th Bituminous District.
ISAAC G. ROBY, Inspector of 5th Bituminous District.
ELIAS PHILLIPS, Inspector of 4th Bituminous District.
THOMAS K. ADAMS, Inspector of 3rd Bituminous District.
HENRY P. LOUETTIT, Inspector of 1st Bituminous District.

(The Coroner.) These recommendations that you have read, were they intended for the jury or Mr. Roderick?

A. In the first place they were intended for the Chief of the Mining Bureau, but now they are evidence for both him and the jury. They are intended for the jury and Mr. Roderick.

Personally appeared before me, the subscriber, a Notary Public, in and for said county and state, F. W. Cunningham, Alexander McCanch, Roger Hampson, W. J. Mollison, Bernard Callaghan, Isaac G. Roby, Elias Phillips, Thomas K. Adams, and Henry P. Louttit, inspectors aforesaid, who being duly sworn according to law, depose and say, that the above report of the explosion of the Harwick mine, in Allegheny county, Pa., is true and correct to the best of affiants' knowledge, information and belief.

Subscribed and sworn to before me this 8th day of April, A. D. 1904.

W. W. WITSELL,

Notary Public.

My commission expires January 19, 1907.

F. W. CUNNINGHAM.
ALEXANDER McCANCH.
ROGER HAMPSON.
W. J. MOLLISON.
BERNARD CALLAGHAN.
ISAAC G. ROBY.
ELIAS PHILLIPS.
THOMAS K. ADAMS.
HENRY P. LOUETTIT.

John M. Rayburn testified, in part, as follows:

He lived at Ingram, Allegheny county, was a mining engineer, and had charge of the engineer's work in the Harwick mine at the time of the explosion. He had charge of the designing of the lay-out of the mine, the shaft bottom or lay-out of the field, the timbering of the shaft, and, in fact, of all the work done at that time.

Mr. Rayburn, in company with the other members of the commission appointed at the solicitation of the Allegheny Coal Company, made an examination of the Harwick mine soon after the explosion. The report of the examination, after general consultation, was read by him to the jury.

Report:

"Pittsburgh, Pa., February 12, 1904.

The Allegheny Coal Company, Citizens' Building, Cleveland, Ohio:

Gentlemen: We submit this as the report of the Commission appointed by you to report on the explosion which occurred on January 25, 1904, at your mine near Cheswick, Allegheny county, Pennsylvania:

The commission assembled at the mine on the morning of February 12, 1904, and at once proceeded to make a thorough examination of the mine on that and the following day. We began our investigation with numbers one and two left butt entries off No. 1 main south entry, and proceeded from that point through the entire south side of the mine, completing our investigation of that side of the mine on that day. On the following day we examined the north side of the mine, and in each place that we visited throughout the mine, we searched carefully for evidence which might show the place where the explosion originated; the cause of the explosion; the direction of the forces exerted and the effects produced. Of these different items we kept a record as we found them, and, after completing our examination, we put this information on a map of the mine, which is hereto attached, and came to our conclusions at a meeting held by us immediately after completing our examination.

We found numbers one and two left butt entries off number one main south entry practically undamaged and the rooms off these entries in fair condition. At the face of new number two entry (see plan) we found a small amount of gas, and a blown out shot; also, evidence that the forces caused by the explosion had traveled in a direction away from this part of the mine. The coal in these entries and rooms is not coked to any great extent, and this part of the mine does not show the evidence of the intense heat which is found in other parts. From these entries we proceeded to numbers three, four and five left butt entries off number one main south entry, where we found that the forces exerted had increased, and that the heat had been much more intense. In the entries we found no stratified gas, but we found a small gas feeder at the face of number three entry. There is, also, a blown-out shot in an unfinished break through on the left, and near the face of number five entry. These entries have slight falls in them, but are in a fair condition, while nearly all of the rooms have very heavy falls and are practically lost.

Numbers six, seven and eight butt entries off number one main south entry are undamaged, and the rooms in these entries are in fair condition. In these entries the dust is coked in the rooms and entries,

and the conditions are about the same as in the previous entries, except that this entry is coated with soot, which we concluded was deposited by the smoke resulting from the explosion; there being at that time no circulation of air to carry off the products of the combustion.

Numbers one, two and three main south entries, except for a few slight falls are in good condition. At the face of these entries we found evidence of the most intense heat seen in the mine. The face of the coal is coked and there is coke deposited on the roof, bottom and sides of the entries. The face of number three entry is partly cut and a machine is standing in the place. Evidently the machine was being worked at the time of the explosion, and the dust resulting from the machine, in conjunction with the current of fresh air from the fan, accounts for the extreme heat shown at this point. We found a small amount of gas at the face of number one main south entry.

Numbers four, five and six right butt entries off number three main south entry are undamaged and the rooms are in good condition. In these entries there is evidence of intense heat, shown by the coking of dust and the face of the coal.

Numbers one, two and three, right butt entries off number three main south entry are damaged to some extent by falls, and there are very heavy falls in nearly all of the rooms. The force of the explosion and the effects of the heat in these entries were terrific. The dust is thoroughly coked in both the entries and rooms, and everything is wrecked that was breakable. We found a small quantity of gas above a fall in number twelve room in number one entry.

On the north side of the mine we did not find evidence of so much heat, except in number one, two and three right butt entries off number one main north entry. In these entries the conditions are about the same as in the entries on the north side, the dust being coked in all entries and rooms.

In number seven room on number one entry we found a new machine with which the company had been experimenting. The machine had evidently been working as a part completed cut was found and this room is covered with the coke formed from the dust made by this machine.

In number one, two and three, main north entries the destruction is very great and seemed to result from the force of the explosion in other parts of the mine rather than from an explosion in the entries themselves. These entries have great falls in them for a greater part of their length and the original timbers are broken down. This may be partly accounted for by the fact that the roof was more pliable in these entries than in any other part of the mine, which is shown by the fact that they were timbered at the time they were driven.

We found that throughout the mine the stoppings in the breakthroughs between the entries were demolished, there being but one left intact. There were four three-ring brick arched over-casts; of these two are intact and two are demolished. In the air shaft the stairway is completely demolished and the timbering at the bottom of the shaft is wrecked.

At the hoisting shaft the timbering on the loaded or east side of the shaft was thrown down with the exception of the bent adjoining the shaft. On the empty or west side of the shaft the timbering is intact.

At the meeting which was held after finishing the examination of the mine, Messrs. Bell, McCanch, North, McGregor, Hanlon, McDade, Watters, Cole and Rayburn agreed that the explosion originated at the face of new number two left butt entry off number one

main south entry, and with the exception of McDade, concluded that it was caused primarily by a blown-out shot, which ignited a small quantity of gas in the entry. The concussion resulting from this ignition of the gas by the shot raised the dust in the entry, which, igniting in turn, and with the constant addition of dust, caused the complete explosion of the entire mine. Mr. McDade agrees with these conclusions, with the exception of the primary cause, which he claims is unknown.

Respectfully submitted,

Signed, Edward Bell, Robert North, Alexander McCanch, John Hanlon, William J. McGregor, E. A. Watters, W. N. North and John M. Rayburn."

After the reading of the report, which agreed with the report of the mine inspectors as to the cause of the explosion and the place at which it occurred, Mr. Rayburn's examination was continued.

In answer to Mr. Roby's question as to whether he had had experience in gaseous and dusty mines, he said that he had, mostly in the vicinity of Pittsburg and on the Paul Handle road about McDonald. He had had experience in gaseous mines in the coke regions in the new Klondike field. He had been the engineer in charge of the Buffington mine, which had a shaft opening of 400 feet in depth and generated gas to a very dangerous extent. His experience covered a period of about fifteen years in gaseous mines. He considered a mine gaseous that had gas in some of the entries. Mr. Rayburn said that he had charge of a new shaft that was put down by the Indianola Coal Company on Deer Creek, in the Freeport field, last summer. The mine, he said, generated gas, but was not dusty. He did not consider the Harwick mine a gaseous one, although it was gaseous to the extent that they should employ a fire boss. At the time he made his examination of the Harwick mine he did not think it was generating gas in dangerous quantities. His definition of a "dangerous quantity" was that it meant a quantity that would be dangerous to a person working in a certain part of the mine if it accumulated in an entry or in a room, but it would not be dangerous to the extent of causing an explosion of the entire mine from gas alone. Mr. Rayburn said that he did not know how many cubic feet of air were required to complete the combustion of one pound of coal dust, nor how much dust was required in the atmosphere free from fire-damp to create a dust explosion. He said that there might have been fire-damp in sufficient volume in the air currents, mixed with coal dust, to create the explosion in the Harwick mine, and the fire boss been unable to detect its presence. He believed that an explosion of dust occurred without any fire-damp in the air. From the evidence he had seen after the explosion, he said that dust had existed in the mine previous to the explosion and it was evident that an explosion or blown-out shot would stir up dust, and the evidence he thought showed that a blown-out shot

probably with the addition of some gas at the point of the blown-out shot, had stirred up enough dust to cause the explosion. He presumed that there was some gas in different places of the mine that probably added to the explosion. He said the object of sprinkling the mine was to lay the dust by wetting the mine floor. When asked what he would recommend in a mine like the Harwick to lay the dust, he said that the fan was $13\frac{1}{2}$ feet by 7, that the capacity was something like 250,000 or 300,000 cubic feet of air per minute, he didn't remember the exact figures; but if that amount was sent through the mine, that is, through the different short circuits, through the different entries, one set of entries at a time, it would probably make the air travel at the rate of 30 or 35 miles an hour, which current would clear the mine of the lighter particles of coal dust; and the experiments that had been made proved that it was the lighter particles of dust that caused the trouble, that is, the particles that would be suspended in the air. When asked if a 35 or 40 mile gale would sweep the faces of the working places where danger really exists, due to blown-out shots, he said that that point had been the stumbling block of the whole theory, but if the fan were used to take the dust off the entries, any dust explosion that might occur in a working place would not have the same tendency to spread over the entire mine.

"I don't believe that an overcast within any reasonable limits of economy could be built to withstand that explosion going under it, but I believe the overcast did withstand the force of the explosion where it went over the arch, over the top. An overcast cut through the solid strata would be strong enough provided it was cut high enough. I don't think I ever saw an overcast cut through the solid strata." Mr. Rayburn said that he believed the solid strata at the Harwick mine were sufficiently strong to have the overcasts cut through. He had, however, found two of the overcasts destroyed by the concussion, which he said had not been built sufficiently strong. He said that previous to the explosion he had not realized how much force might be exerted by an explosion in the mine. He said that if the mine inlet was one-half lessened by being closed off with ice at the bottom of the inlet, it would have the effect of reducing the volume of air very considerably, about one-third. If the amount of air circulating previous to the 25th of January had not been in excess of the amount needed to move the gas out, he said that the effect of the ice would be very bad, allowing the gas to accumulate that was generated in the mine. Even if the mine law had been fully complied with in regard to the ventilation and the dusty condition of the mine, the explosion, he believed, could have occurred. He did not believe the provisions of the mining law, as carried out, provided for the removal of the dust. His recollection of the law

was that it required that the dust shall be kept from floating in the air by water or other methods. Article 4, section 1, was read to Mr. Rayburn, but he said that he believed the explosion could have occurred even if that part of the law had been complied with in conjunction with rule 60. He did not think that the dust in the mine was made harmless under the provisions of the law as they are carried out, and as far as the ventilation was concerned the explosion from dust, in his opinion, could have occurred without any accumulation of fire-damp. The ventilating appliances provided at the Harwick mine were ample, but he did not know anything about the condition of the mine on the morning of the 25th of January.

VERDICT OF CORONER'S JURY IN HARWICK MINE INQUEST, PITTSBURGH, APRIL 16, 1904

First—The explosion was caused by blown-out shot, igniting gas and coal dust.

Second—Insufficiency of ventilation, due to accumulation of ice at the bottom of air shaft.

Third—It is the duty of mine foremen to have ice removed and have air shaft in proper condition for the safety of the men and property.

Fourth—We find that Mine Foreman Brown and Fire Boss Gordon, of the Harwick mine, at the time of the explosion, were negligent, and did not comply with the mining law of Pennsylvania.

Fifth—We find Superintendent Sowden violated the mining law of Pennsylvania in not signing mine foremen and fire boss report books, as required by law.

Sixth—We find by the testimony of Mine Inspector Cunningham that he violated the mining law by not enforcing the requirements of the law, by not having an indicator placed on the fan and for allowing longer time to elapse than the law required in making his official inspection.

Seventh—We, as jurors, do not consider the November 4, 1903, visit by Inspector Cunningham an official inspection, as required by law.

Eighth—We, as jurors, recommend that the Allegheny Coal Company see that no friction exists between the officers of the Harwick mine for the safety of life and property.

Ninth—We find from the evidence that Inspector Cunningham and Superintendent Sowden be held for the action of the grand jury on the charge of murder.

Tenth—And we further censure the Allegheny Coal Company for not attending to the said Harwick mine according to law.

Eleventh—And we further recommend that the Legislature of the State of Pennsylvania enact laws that are more specific in governing mines.

MINE INSPECTION.

The inspection of the mines in the bituminous region during the past year was conducted with unusual regularity, but the results, so far as a decrease in fatalities is concerned, have not been very satisfactory. The percentage is not any less than when there were only ten inspectors. The inspectors devoted practically the whole of their time to the performance of their various duties. 2,441 days were spent in inspecting mines, 166 days investigating accidents, 149 days attending inquests, 141 days consulting on mining matters, 33 days consulting on legal matters, 56 days attending court, 176 days examining mine foremen and fire bosses, 79 days investigating the Harwick explosion, 148 days traveling on duty. This record will show that the inspectors attended very faithfully to their duties. It is gratifying to state that in no case are the miners suffering from insufficient ventilation. In the matter of the efficiency of mine inspection preventing accidents from "falls," I may say that the inspectors while on their regular inspections are making the matter one of the chief points, but unless they are called to investigate an accident they do not visit a mine oftener than once in three months. They are, therefore, unable to do very much towards preventing accidents from this cause. We have had no fatalities or severe accidents reported through the failure of the foremen to provide timbers to sustain the roof.

MINE VENTILATION.

The tables herewith will show the condition of the ventilation in the bituminous mines. It will be seen by reference to the first table that much more air enters the mines than is required by the law, and that on an average more air is circulated in the splits than is required by law. This is not positive evidence, however, that each split in every mine is properly ventilated, as the requirements are not adequate. The minimum amount of air under existing laws, now 100 and 150 cubic feet per minute in non-gaseous and gaseous mines, should be increased to at least 200 and 300 cubic feet in non-gaseous and gaseous mines respectively. In several districts



Correspondence

Dated

01/1904 - 11/1929

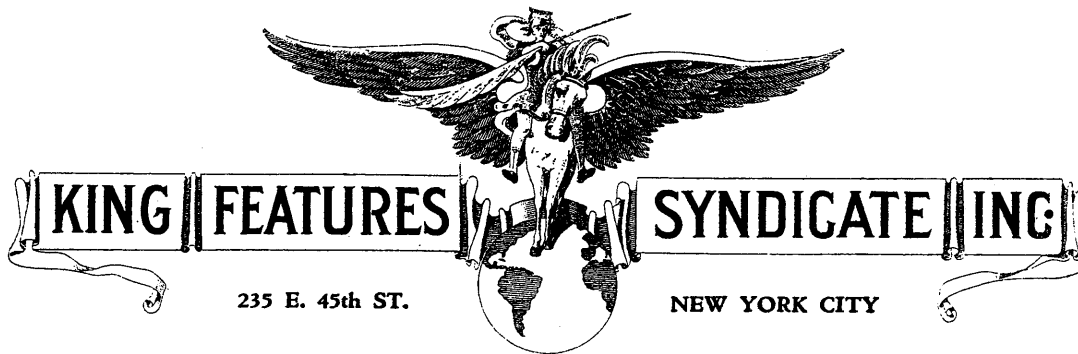
Harwick Mine

U. S. DEPARTMENT OF COMMERCE, WEATHER BUREAU

Station, Pittsburgh, Pa.Data, Temperature and weather data week of January 25th, 1904.

19	January	February	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	
1													
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25	23	5											
26	38	12											
27	19	8											
28	28	10											
29	31	23											
30	35	17											
31	44	32											
Sums													
Means													

W. A. Brozman



BELIEVE IT OR NOT
Robert L. Ripley

Nov. 16, 1929

Albany, N. Y., Times Union
Atlanta, Ga., Georgian
Chicago, Ill., Herald Examiner
Detroit, Mich., Times
Baltimore, Md., News
Los Angeles, Cal., Examiner
Milwaukee, Wis., Sentinel
New York, N. Y., American
Omaha, Neb., Bee News
Pittsburgh, Pa., Sun Telegraph
Rochester, N. Y., Journal
San Antonio, Texas, Light
San Francisco, Cal., Examiner
Seattle, Wash., Post Intelligencer
Syracuse, N. Y., Journal
Washington, D. C., Herald
Boston, Mass., Daily Record
Akron, Ohio, Beacon Journal
Amarillo, Texas, News Globe
Bridgeport, Conn., Post
Buffalo, N. Y., Evening News
Cleveland, Ohio, News
Canton, Ohio, Repository
Chattanooga, Tenn., Times
Cincinnati, Ohio, Times Star
Dallas, Texas, Times Herald
Dayton, Ohio, News
Edmonton, Alta., Canada, Bulletin
Erie, Pa., Times
Enid, Okla., News
Grand Junction, Colo., Sentinel
Havana, Cuba, El Mundo
Hamilton, Ohio, News
Hamilton, Ont., Canada, Spectator
Halifax, N. S., Canada, Chronicle
Honolulu, Hawaii, Star Bulletin
Iowa City, Iowa, Daily Iowan
Jacksonville, Fla., Times Union
Jamestown, N. Y., Journal
Kansas City, Mo., Star
Kewanee, Ill., Star Courier
Lokomo, Ind., Dispatch
Louisville, Ky., Times
Little Rock, Ark., Gazette
Lincoln, Neb., State Journal
Lexington, Ky., Herald
Missoula, Mont., Missoulian
Montgomery, Ala., Advertiser
Muskogee, Okla., Phoenix Times Democrat
Meridian, Miss., Star
Miami, Fla., News
New Britain, Conn., Daily Herald
New Orleans, La., States
Oklahoma City, Okla., Oklahoman Times
Ottawa, Ont., Canada, Journal
Oslo, Norway, Morgenposten
Pittston, Pa., Gazette
Portland, Ore., Oregonian
Philadelphia, Pa., Bulletin
Port Arthur, Texas, News
Rockford, Ill., Register Gazette
Regina, Sask., Canada, Leader Post
Richmond, Va., News Leader
Roswell, N. Mex., Dispatch
Rio de Janeiro, Brazil, Journal de Brazil
San Diego, Cal., Union Tribune
Salt Lake City, Utah, Tribune
Scranton, Pa., Republican
St. Louis, Mo., Star
St. Paul, Minn., Dispatch and Pioneer Press
Sioux City, Iowa, Journal
Springfield, Mo., News Leader
Shreveport, La., Times
Springfield, Ill., State Journal
Springfield, Ohio, News
Tampa, Fla., Times
Tulsa, Okla., World
Toledo, Ohio, Times
Urbana, Ohio, Citizen
Victoria, B. C., Canada, Colonist
Waterbury, Conn., Republican
Watertown, N. Y., Daily Times
Williamsport, Pa., Sun
Wichita, Kan., Beacon
Winnipeg, Man., Canada, Tribune
Wilkes-Barre, Pa., Record

Chief of Department of Mines,
Pittsburgh, Pa.

Dear Sir:

Would you kindly give me a narrative of the Harwick mine explosion of 1902? A reader of my articles has advised me of an unusual incident of how one man was saved in the disaster, and I would like very much to have it verified.

If there is any cost to be paid in having you send me the article I will be glad to pay it.

BELIEVE IT OR NOT

Ripley

Nothing in general files on this.

Morris

Explosion in July 25, 1902

179 lines lost

Ans.

November 19, 1929. JWP/MCN

Mr. Robert L. Ripley,
King Features Syndicate, Inc.,
235 E. 45th Street,
New York City.

SUBJECT: Harwick mine explosion.

Dear Sir:

In reply to your letter of November 16, addressed
Chief of Department of Mines, which has been handed me for
reply and in which you ask for a narrative of the Harwick
mine explosion of 1902:

The records of mine explosions do not disclose any
explosion having occurred in this mine in 1902; but, on
January 25, 1904, an explosion occurred in which 179 lives
were lost. The writer visited this mine a couple of days
after the occurrence of the explosion and does not recall
any incident of any person having been saved who was in the
mine at the time of the explosion.


Very truly yours,



J. W. PAUL,
Senior Mining Engineer.

cc: Mr. Fieldner

Mine located at Harwick, Allegheny County, Pa.
Name of operator in 1904: Allegheny Coal Co.
Present name of company: Harwick Coal & Coke Co.
Gas and dust explosion





Newspaper Accounts

Dated

01/1904 - 02/1926

Assemblyman DeCou Lines Up in Favor of Song-Bird Slaughter Senator McKee Introduces Bill for the Immediate Abolishment of State Board of Arbitration.

[illegible]

ing in and out of the country, regularly only before January 1, 1936, and thereafter by daily registration.

By daily registration changing the rules of the House was passed to-day. By the adoption of this measure, the House will be able to print in brackets those parts of new bills offered as amendments and in full.

Governor Murphy sent to the Senate this morning the appointments for full and part-time members of the Board of Education, President Judge of the Court of Common Pleas of Atlantic county, and the members of the State's First District Court of Jersey City.

THE RURAL TAX

Several railroad taxation bills were introduced in the House. One was by Missouri senator Hiram Bland providing for the assessment at its true value of all land and structures owned by railroads for property, including rights of way, bridges, waterways. The rate of taxation upon such valuation is 1 of 1 per cent. In addition to the local tax rate in each legislative district in which the lands lie and the stems run least 100 feet in length, a rural district rate is provided.

Another bill was introduced by Missouri congressman H. C. Smith in which the price in Hudson county is set in H. C. On the back of this comes a list of names of the persons who provide for the appointment of inspectors for the killing of the birds.

Mr. DeLoach's bill, like the others, is a vote to the fruit growers and is in line with the recent suggestion of the State Board of Agriculture, to the effect that farmers be allowed to sell their own produce in any way competent. They are to be apportioned by the major and their salary is to be \$1,500. This amount must be contributed by the state and electric companies in proportion to the amount of stock they own.

their feet, fruit or plants.

Mr. DeWitt said that he would like to see the law amended so that the farmer should be allowed to do the killing. And there is the further provision that this killing should be done except after special permit from the regular authorized game warden of the locality in which the killing is made. The bill was referred to the committee on game and fisheries.

OTHER BILLS.

Mr. MURPHY of Kentucky introduced the bill entitled a bill empowering the governor to create by appointment the proposed State Board of Charities and Public Welfare, and to have official supervision over all

Assemblyman Colough's bill providing for the certification of the budget and last year and lost in the House will again be presented this year. He attempted to introduce it last night, but it will still be necessary to amend the bill. It will now be fixed and may be introduced this morning.

During the session at the morning session of sitting with the Senate extended in former Assemblyman Herbrand L. Gulick of Princeton.

The Assembly will take up the bill to prevent the use of the American flag for advertising purposes was advanced for second reading today and is expected to be among the first bills passed.

ANN SEVERAL

THE GOVERNOR'S RECOMMENDATION

THE GOVERNOR IS ALSO AUTHORIZED TO EXAMINE THE RECORDS OF THE COMMISSIONERS OF THE LAND OFFICE AND TO MAKE SUCH RECOMMENDATIONS AS HE MAY DEEM ADVISABLE TO THE SENATE IN CONNECTION WITH THE MATTER.

A HEARING BEFORE THE SENATE WILL BE HELD AT THE CAPITAL BUILDING ON MONDAY NEXT AT TWO O'CLOCK P.M.

Supreme Court Justice Bennett Van Rykel was reappointed by Governor Murphy last night for a sixth term of seven years.

The nomination will be confirmed at the next executive session of the Senate.

In executive session the Senate con-

[illegible]

WOULD AFFECT TRENTON.
Two bills that will affect the city of Trenton, if passed, were last night introduced by Senator Dudley of Camden. One authorizes the Judges of the district courts in second class cities to name a stenographer at an annual salary of \$1,000, and the other amends an act of last winter by authorizing the publication of the names of persons arrested for crimes, and of persons authorized to issue warrants for their arrest.

BOODLER ON TRIAL

MISS NADA O DORE.

Berlin, Feb. 13.—Nadage Dore, whose courageous attitude against anti-semitic laws is attracting attention in Europe is a native of New Orleans. She is a Jewess and is proud of it. She will devote her life to alleviating the sufferings of her people in the old world. Her wealthy relatives in the United States are opposed to this resolve and Miss Dore added this note to her letter to the editor of the *Standard*:

"I am a Jewess and I have conducted her campaign with originality. After writing her book, 'Geltz', for the purpose of combating anti-semitic prejudices, she has written a second, 'The Jewess of Budapest', in which she has shown the Kaiser and others accepted it and expressed their appreciation of her mission."

The czar and the Austrian emperor tried to receive the book. The czar has tried many methods to bring the book to the attention of the public. The czar has ordered that the book be distributed in all the libraries of the empire. The czar has ordered that the book be distributed in all the libraries of the empire. The czar has ordered that the book be distributed in all the libraries of the empire.

Safety in Mines:—

1904 Blast Cost 182 Lives; Led to Prevention Drive

Thirty-four years ago tomorrow was "Black Monday" for miners' families in the newly built hamlet of Harwick.

Two terrific explosions, seconds apart, ripped the pit of the Allegheny Coal Company, taking a toll of 182 lives in Allegheny County's greatest disaster.

Then, as in more recent years, Harwick had been looked upon as an exceptionally safe mine. Until the recent blast that cost 10 lives, the mine had never known a major accident since the catastrophe of January 25, 1904.

Harwick was the first of a series of coal mine disasters over a three-year period that shocked the nation and led to the setting up of a far-flung prevention agency, the United States Bureau of Mines.

USED SAFETY LAMPS

The Harwick mine was opened in May, 1902, by Cleveland capitalists, who had purchased 6,000 acres of coal land north of the Allegheny River near Cheswick.

The mine was equipped with the most modern safety devices. The men wore safety lamps that could be opened only by insertion of a magnet. Frequently they asked that they be permitted to use open lights as the mine seemed clear of gas because of excellent ventilation. Their request was refused.

Children of the village were on their way to school about 8:30 a. m. on the fateful day when the explosion occurred. When the pupils reached school word of the blast had preceded them. All were sent back home except eight older girls who were kept as nurses.

TURNED INTO HOSPITAL

In a few hours the frame schoolhouse had been turned into a hospital and improvised morgue.

The first signal of tragedy was a rumble. Then a tongue of flame shot out of the main shaft and leaped several hundred feet into the air.

Only 45 minutes before, the day shift of 183 men had descended the shaft 224 feet to the bottom and had begun digging.

A second blast hurled timbers out of the mouth of the air shaft. Smoke poured from the shaft and settled over the district, like a pall of doom.

MEN ON TIPPLE KILLED

The force of the explosion wrecked the steel tippie and weigh house. Of three men at work on the tippie one was killed instantly and the other two died later of injuries.

Women and children rushed to the mouth of the pit, praying that the men imprisoned might be rescued.

Rescue crews hurried in from the surrounding district and mine inspectors sped to the scene.

Without safety apparatus now in use by safety crews, men risked their lives in entering the blast-wrecked corridors, and at least one met death.

REJECTS WARNING

He was Selwyn M. Taylor, prominent mining engineer who had located the Harwick mine and designed all plans for the underground work and power equipment. He led a band of rescuers



WALTER C. KIPP

into the fumed-filled pit. They found their way blocked by dead mules and fallen timbers.

Warned to turn back, Taylor insisted on pushing ahead. He was overcome by the poisonous after-damp and was dead when taken from the bottom of the shaft.

For several days after the explosion, thousands visited the scene. Bodies were brought out one by one. They were placed in the blacksmith shop for identification.

RELIEF FUND STARTED

Coroner Jesse M. Geary swore in the inquest jury over the bodies of two victims in Cheswick.

Many of the victims were buried in a plot donated by the coal company.

The disaster stirred the sympathy of the nation. Pittsburgh's Mayor William B. Hays started a relief fund to which individuals, lodges, churches and other organizations contributed. J. P. Morgan & Co., the New York financial house, sent a check for \$1,000.

Duquesne Club associates of the heroic Engineer Taylor collected \$50 for flowers for his funeral, but at the family's request gave the money to the relief of miners' families.

CLASH AT INQUEST

In the wake of the catastrophe came charges of negligence and inefficiency. The United Mine Workers called for an investiga-

tion by the Governor.

The Coroner's jury labored for weeks to ascertain the cause of the disaster. State and company counsel clashed bitterly at the inquest hearings.

After a three months' probe the jury returned a verdict blaming the blast on an ice-choked air shaft and poor inspection and censuring the company for failure to use proper care in operation of the mine.

INSUFFICIENT AIR FLOW

The jury held that the condition of the air shaft did not permit a sufficient flow of air into the workings with the result that a blowout shot ignited accumulated methane gas (firedamp).

Frederick W. Cunningham, a state mine inspector, and Wilfred Snowden, mine superintendent, were held for the grand jury on a charge of murder.

The grand jury ignored the murder charge and indicted the two men on charges of involuntary manslaughter. More than a year later Cunningham was tried and acquitted and costs placed on the county. The case against Snowden was quashed.

ROCK DUSTING UNKNOWN

The Harwick explosion was 99.4 per cent fatal. This compares with a fatality of 22 per cent in the blast of two weeks ago, when 36 of 46 men in the pit escaped with their lives. Rockdusting is said by experts to have localized the second explosion. Rockdusting was unknown at the time of the first disaster.

The only person to survive the first Harwick blast was 17-year-old Adolph Gunia.

On his first job he had been sent out on an errand and was returning to his place of work when he was felled by a sheet of flame near the foot of the shaft. For 10 hours he was held prisoner by a protecting barrier of fallen beams, before he was rescued. Gunia never again set foot in a mine. He died in Russellton in 1935.

AT BOTH DISASTERS

Walter C. Kipp, of Harmarville, 58-year-old father of seven, is probably the only man alive who descended into the blast-wrecked shaft at the first Harwick explosion and was on hand for rescue duty at the second.

He recalled the first disaster thus:

"The weather was below zero and everything was covered with ice. Some of us had gone down to Harwick from the No. 8 mine at Freeport, when Harwick sent out a call for help.

"They were pleading for volunteers to enter the mine and I took a chance. The cage had been blown out of the shaft and we had to be let down in a big bucket. When we got to the bottom we found timbers, pit cars, mules and men all blown in together. It was a terrible sight."

PILED LIKE CORDWOOD

Kipp related that bodies of the victims were piled up like cordwood in the little schoolhouse. He added:

"I believe many of the women buried other men than their own. They were so badly burned they all looked alike."

Kipp, now employed at the Harmarville mine of the Consumers Mining Company, a subsidiary of the Wheeling Steel Corporation, responded to a call for help at the second Harwick blast 10 days ago, but his services were not required and he did not enter the pit. In his nearly half century of mining he was slightly scorched once.

DISCREPANCY IN TOLL

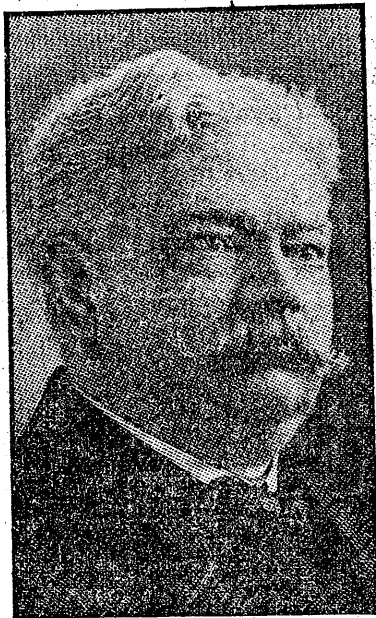
Discussing the apparent discrepancy in the total number of dead at the 1904 Harwick disaster, Kipp said he thought several of the bodies never had been found and possibly were not included in the official records. The Coroner's records show 178 were dead at the time of the inquest, but other sources place the final figure at 182.

(How the United States Bureau of Mines in the role of Big Brother to the coal diggers has saved hundreds of lives through preventive and rescue activities is told in the last story of this series in tomorrow's Sun Telegraph. The series started Sunday.)

ties.

The miners say that this work must necessarily be slow and nothing can be done with any safety toward taking the bodies out until the entries are fixed so that there will be a free current of air to all parts of the mine.

This, it is said, may require three or four days, although the mine officials say that they will be able to get bodies out before that time. It is now known that there are 180 men in the mines. This, with the two men who died in Pittsburgh yesterday and S. M. Taylor, brings the total number of casualties up to 183 with two others injured.



SELWYN M. TAYLOR,

Who Lost His Life Leading a Rescue Party.

At 1 o'clock no bodies had been recovered, but one was expected, as word was sent up from the mine that signs of bodies were discovered in the debris. At that hour the rescuing party of more than a dozen former miners came to the surface dripping with water and nearly frozen. They reported terrible effects of the explosion. Harry Pitman, of Har-marville, and formerly a miner, said he saw part of the body of a man under a pile of debris near the shaft and the head had been blown from the body by the force of the explosion.

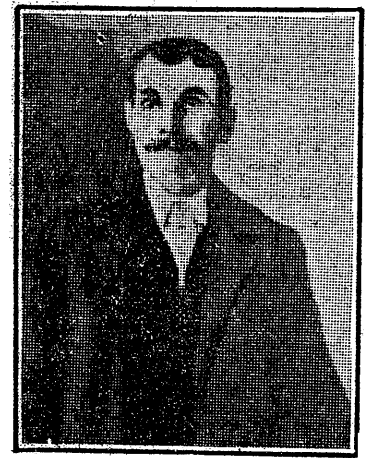
TAYLOR ESTATE IS DISTRIBUTED

**Valuation of About \$2,000,000
Divided Among Widow, Daugh-
ters and Sons-in-Law.**

An order for the distribution of the estate of Selwyn M. Taylor, deceased, the well-known mining engineer, who was killed while aiding in rescue work after the Hardwick mine disaster, eight years ago, was made yesterday by Judge William G. Hawkins, of the Orphans' Court.

At the time of Mr. Taylor's death the estate is estimated to have been worth about \$2,000,000, with debts aggregating \$400,000. It is alleged by A. C. Munhall and William E. Fohl, sons-in-law of the decedent and executors of his will, that the property was in bad shape when they took hold of it and that it has taken their united efforts for several years to straighten it out again. For this reason they excepted to the claim of the widow that they should be charged with the interest on \$60,000 drawn by them during the period of their services, for which they received no compensation, and the court sustained their views. Mrs. Taylor's claim for the division of an item of \$6,100 expended in charitable work was not allowed. The estate is divided as follows:

Mrs. Mary Z. Taylor, the widow, is given \$300,000, with a life possession of Mr. Taylor's library, valued at \$14,023.75. Mrs. Lulu Munhall, wife of A. C. Munhall, one of the executors, and a sister of the testator, receives \$133,529.79. Mr. Munhall receives a legacy of \$7,800. Mrs. Laura T. Fohl, the wife of William E. Fohl, another executor, and sister of the deceased, is given \$130,903.63. Mr. Fohl is given a legacy of \$7,800.



**George Horwarth, Who Went Into
the Harwick Mine With Selwyn
Taylor.**

DESCRIBES MANNER IN WHICH TAYLOR MET DEATH

**Man Who Was With Him When He
Led Rescue Party Relates**

Graphic Story.

The way in which Selwyn M. Taylor met his death in the Harwick mine was described in a graphic manner by Thomas W. Wood, aged 21 years, of Evanston, Ind., who was one of the first volunteers to enter the mine under the leadership of Taylor. He was overcome by gas while with Taylor, but managed to reach the foot of the shaft and later returned to guide the rescuing party to where Taylor was lying. In company with Mr. Taylor, James McCann, North and George Horwat, Wood entered the mine Monday afternoon. They found Gonla at the foot of the shaft, alive but terribly burned. Leaving McCann to take him to the surface, Taylor and the other three started toward the southern air shaft.

Taylor lighted a cigar, and, by blowing the smoke into the air, determined in which way the air was going. When the party had gone some distance, North was sent back for some plans which had been left at the foot of the shaft, and the other three went on. After passing a caved-in overcast, the firedamp was found to be worse, and Wood and Horwat suggested that the party retrace their steps. Taylor wished to go as far as possible, however, and went on until he began to stagger. Wood caught him and tried to lead him, but he fell three times and Wood dragged him toward the heading, where he was forced to leave him, as he was becoming affected by the firedamp. He assisted Horwat back to the overcast, where he was forced to leave him and started for the foot of the shaft to get assistance.

He turned the wrong way and found himself in another part of the mine and discovered two men lying in some water. He said they were "Chris" Bowser and Harvey Rutter, and they were still living. Wood fell from exhaustion before reaching the foot of the shaft, but his cries had been heard by McCann and North, who rescued him and sent him to the top.

Bachman, a miner in the main entry, caused the explosion. It was not Bachman's fault. He tapped a big pocket of fire damp in the rock and set fire to it by his first blast Monday morning. How do I know? I'll tell you. Bachman called me into the place where he was working last Saturday. He wanted two pails of water to put out a fire that was running all over the roof. That was the beginning of the flow of fire damp. I told him then I was afraid, but he laughed at me. It was at Bachman's place that most damage was done."

ONLY DEAD COULD TELL

Upon hearing Howarth's theory, Inspector Cunningham expressed the opinion that it was the most plausible he had heard. It was significant that J. A. Gordon, who came from the mine last Monday morning and was with the men, had seen the condition of the mine after the explosion. Mr. Cunningham said it was not investigated as yet. The fan was stopped for a short time last night. This was the most powerful and destructive mine explosion the world has ever known."

The explosion in the mine occurred at 8:20 o'clock Monday morning. At 6 o'clock the mine was blackened, burned man, and the pit side

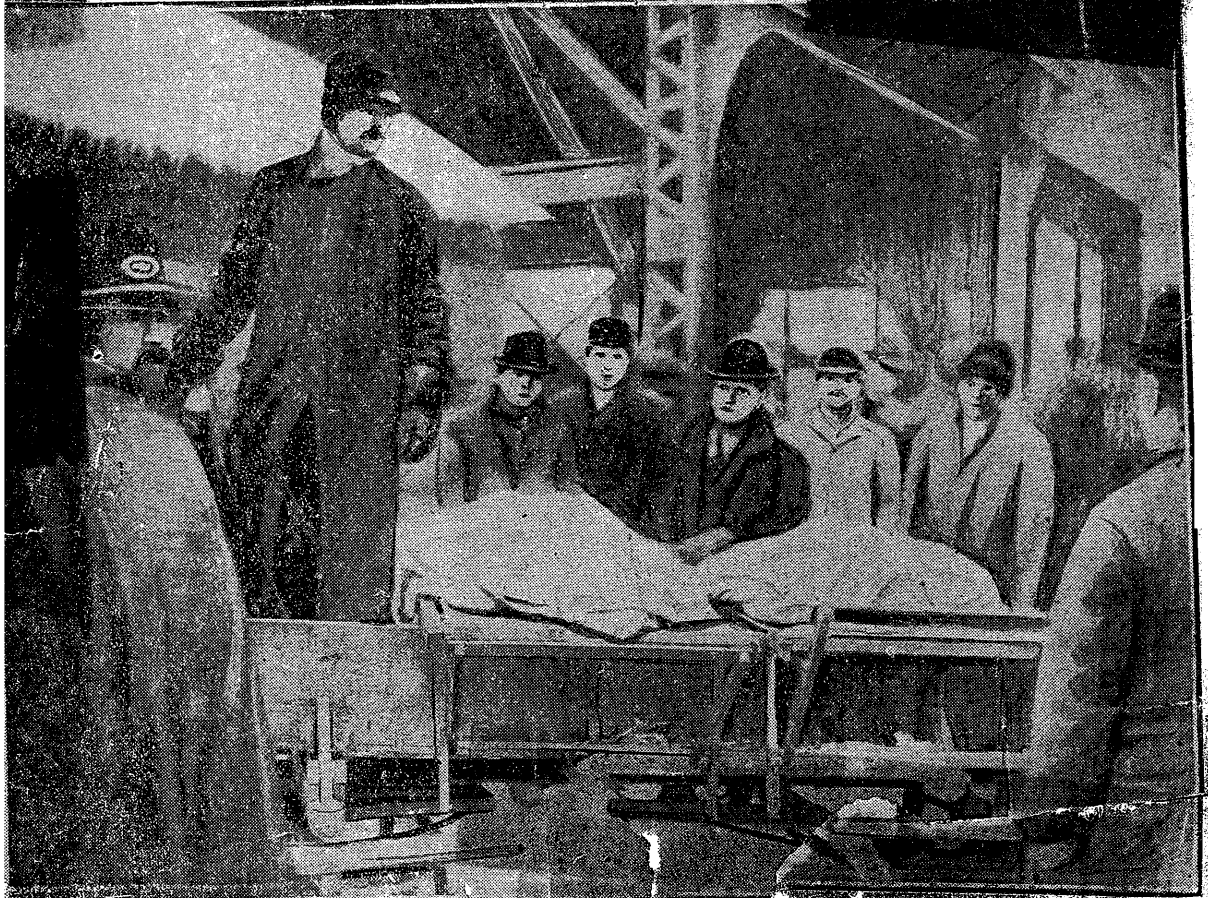
DEAD NUMBER 187.

of the Victims Are Left Nearly Destitute.

tion to Determine Who Was Responsible For Disaster Is Unlikely—Pathetic Incidents.

Pa., Jan. 29.—One hundred seven men and boys went down the Harwick mine last Monday morn-

no correct record was kept daily risked their lives in the mine. The lantern boss, the only man connected with the company who can give even an estimate, and he admits that his system was woefully lax. "We haven't the lanterns numbered," said he, "and the men ain't checked off. We did check them up to a few months ago, but we had a lot of changes since then. We can't give any list but these lamp slips that come to me when the men first went to work. We gave out



SLEIGH LOADED WITH BODIES COMING OUT OF HARWICK SHAFT.

BODIES TAKEN FROM HARWICK MINE

Continued From Page One.

ning. It was reported that about 100 bodies collected in Pittsburgh would be placed in the hands of the committee to be formed.

A. Armstrong reported that after a trip to the camp to-day he found there were about two families in the camp that had lost some member in the explosion. Thomas Brown, of the United Mine Workers Association, said that a big sum of money was on its way to help the committee in its work. B. F. Hadley, secretary of the relief committee, reported that a number of the families in the camp were in extreme destitution and needed help at once.

The following harsh condemnation of the extortion being practiced by the team owners carrying people between Cheswick and the mine, a distance of about 10 miles, was registered. Rates varied from 10 cents each way, and the owners of the teams have a complete understanding that nothing shall go below the \$1.00. Scores of relatives and friends of the victims, whose circumstances will not permit them to enjoy the luxury of riding out to the mine from the railroad station at Cheswick at that rate, are feeling the necessity of relieving themselves. Acting Burgess Tigeley stated that he would knock out these rates.

Identification Work Stops.

The work of identification came to a standstill at 8 o'clock last night and the police were left in charge of the morgue in the blacksmith shop, while the school house was deserted. Mine inspectors L. G. Roby, Bernard Callahan and Henry D. Louttit came up the shaft about 10 o'clock. After lunch Callahan returned to the mine, while Roby and Louttit lay down on a cot for a few hours. Conditions on the south headings of the mine are reported to be dangerous.

The first three headings on the south left were searched first. Dr. Swanton, of Pittsburgh, who relieved Dr. Baer in the mines last night, became ill before he had been there two hours. He remained at his post and was still assisting the rescuers at midnight. For 24 hours Dr. Baer had attended to the men engaged in recovering bodies. Dr. W. P. McGullough has not been in his bed since Monday morning.

Funeral Services Impressive.

Touching and remarkable funeral services were held late yesterday afternoon over the first of the bodies to receive burial. By 4 o'clock there had been 40 bodies identified, either through relatives or brass checks and other effects.

representatives of the coal
the front line of the ch
ly impressed by what th
Snowclad hills stretch
sides. A high wind sh
the air on one side r

crowds waiting for the bring-
more bodies from the mine. On
the straggling cluster of
form the mining settlement
The sight was one never to
It left a deep impression on
sent.

Services for the Dead.

and even unexpectedly out of
prevailed broke the clear
of Rev. Alexander Harsangi,
the Reformed Hungarian
homestead. The minister wore a
trailing black silk robe. At his back was
grouped a score of worshipers of his own
faith. They were there to lead the sing-
ing. The minister read a passage from
scriptures and then made a prayer in
the Hungarian tongue. At the conclusion
there broke upon the air a chorus of vo-
cal music which struck all except those
of Hungarian birth and tongue as strange-
ly musical and even weird.

The male voices were finely blended and
rose and fell in cadences that made the
singing most striking. It was a swan song
by proxy by the lips that could never
more pronounce it. Any Saga, a miner
with impressive bearing, recited in a
foreign tongue the first line of the
ninetieth psalm of David. The other sing-
ers followed in chorus. A brief blessing
from the minister followed. This ended
the service for those of foreign birth.

On the left of the circle stood a group
of English-speaking servants of the Prot-
estant church. A choir of female voices
which had been hurriedly collected from
among the numerous visitors at the mine
broke forth with the strains of "Nearer
My God to Thee."

Addresses Are Brief.

Rev. E. O. Graham, of the Springdale
Lutheran Church, read the one hundred
and thirtieth Psalm: "Out of the depths
have I cried unto thee. Lord hear my
voice. Let thine ear be attentive to the
voice of my supplication." Rev. Mr.
Carl, of the Tarentum Baptist Church,
prayed, and Rev. T. C. Anderson, of Tar-
entum, made a brief address. Rev. Vin-
cent Billour, of the French Presbyterian
Church, of Tarentum, pronounced the
benediction.

During the entire service in the raw
air a foreign woman in gingham, with a
large shawl tied about her shoulders and
head, kept sobbing, and turned away one
who attempted to offer her any consol-
ation. There was hardly a dry eye in the
whole crowd at the close of the service.
Soon after that the belated train was
brought up and the confined bodies trans-
ferred to the baggage car. Workmen,
mine officials and a few mourners piled
into three coaches and rode to the scene
of the temporary burial.

Two long trenches, about five feet in
depth and six or seven wide, had been
dug. In these the bodies were placed in
rows, the coffins being placed side by
side. First four bodies of four Catholics
were placed at the end of one of the
trenches. Rev. Father Hamilton conse-

Church, were industriously at work all
through the day. Through their efforts
the suffering has been reduced to a mini-
mum, although the relief rendered was
only temporary, and will have to be con-
stantly repeated from day to day for some
time.

Such work as is being performed by
George E. Alter, attorney for the coal
company, stands out conspicuously. He
yesterday afternoon Mr. Alter was found
trying to push a heavy wheelbarrow load
of coal up to the rear of a hillside camp.
He deposited the coal and then found that
a cleft family next door was also with-
out fuel. He called for the services of
several foreigners in the house where he
had delivered the first load, and they la-
bored with him to see that the people
needing coal in neighboring houses were
supplied.

Cheswick Woman's Noble Work.

One of the most indefatigable workers
among the women was Mrs. Clarence Hill,
of Cheswick. Her mercies were extended
to the women and children of the set-
tlement. She made a house-to-house visit
during her visit and found the women and
infants sick and promptly saw that phy-
sicians were summoned to attend their
needs. Among others engaged in the mis-
sions were Mrs. M. McGraw and Mrs.
J. A. Wheeler, both of Cheswick. Miss
Chase, probation officer of the juvenile
court of Allegheny county, was at the
mine during the day and spent many
hours among the homes of the victims.
Just what was required to be done for
the proper care of the children of the
children of the victims. Miss Chase arrived
to Pittsburgh last evening and was
she boarded the train at once and
said the exact needs of the women were
hard to find during her stay, but that she
would return later and do all in her power
for their relief. Anxiety of the mothers
over first locating the bodies of their de-
parted ones made them averse to separating
their children to protecting homes, but
now believed they will soon take advan-
tage of the offers to care for the 11
children, temporarily at least.

Directs Hindrance and so on

NCII WILL GIVE \$100,000 FOR A NEW MUNICIPAL HOSPITAL

**Building to Be Erected to
in Fight Against Smallpox
and Other Diseases.**

HEALTH BOARD WANTS FUND

purposes of building a new
Hospital is likely to be
discussed at the next regular meeting
of the fathers.

and at the suggestion of Chairman Rittel, of the finance committee, the ordinance is being framed. According to the terms of the resolution of the Board of Health, for the appropriation will afford a sufficient for the establishment.

to present day requirements the old institution is, or can be made to be.

PLANS OF BOARD.

The old building may not be abandoned altogether, but this has not definitely determined by the au-

is not calculated to afford accommodations for a large number of men without the expenditure of more money than a new property would cost. But the old building may be repaired and used for service as an auxiliary hospital.

will use the money will prob-
ably be finally settled until Com-
munity allows the appropriation.

GET VACCINATED

**es at City Hospital Bates
not Vaccinated Successfully.**

There has been a notable fact this year smallpox has been confined largely to families, those of Harry Combs, Arthur Capewell. In those families have been seven cases, and three

des these there have been nine cases widely scattered over the Two deaths have resulted from Jesse, William Bailey and Charles

are doing nicely. Five of them in a critical condition Sunday but has been a rapid change for the and recoveries are looked for in instances.

communication has been, weekly, The Times enquiring into the

AS TO VACCINATION,
The Editor of the Times:
In your columns of yesterday it was stated that Mr. Baile had been vaccinated two years ago yet he died of smallpox in the

was vaccinated two years before the operation was not a success.

Dr. Fell this morning said: "Vaccination depends upon individual susceptibility. In one person a single vaccination may not be effective. In another it may be effective in a year or two. Whenever there is an outbreak of the disease, although the vaccine is available, it is not used."

whether a previous operation - if
useful or not.
If a person has been vaccinated and
operation has not been a success
that person should continue - and
she is successfully vaccinated.
The cases of smallpox we have

never been vaccinated. The ...
not been vaccinated for ...
from ten to thirty years."

McKinley school on Mar-
will be closed one day this w-
migration. Employees of the har-
ment are making tours of
is of the city for the purpose
the principals co-operate with

OMPLISHED READER FOR
STATE ST. CHURCH EVENT

Young Ladies' Foreign
Society of the State Street
Ch., has secured the S. A. A.
Mary Miller Jones, Sec. of the
S. A. A. of a school of 150
Philadelphia, to give an anti-
auditorium of the Ch. & S. A. A.
meeting at 2 o'clock.

IDENT WAKELIN DODGE
HIS FELLOW
Ident 26 and 27

SALES

SIXTH YEAR

SANDUSKY OHIO THURSDAY, JANUARY 28 1904

NUMBER

HARWICK AT LAST GIVES UP ITS DEAD.

**Eighty-Four Mangled
Bodies Brought Up Out
of the Mine.**

**Then Work Canceled Until Ice Could
Be Removed From Shaft—Many
of the Bodies Mutilated Be-
cause of Breakdown of
Hoists.**

Cheswick, Pa., Jan. 28.—At 9:30 this morning the work of removing bodies from the Harwick mine resumed with the accumulation of 700 in the shaft could be removed. So far 84 of the 374 dead have been brought to the surface. One hundred and twenty volunteer miners of experience are coming today to help take out the dead.

BODIES

Brought up from the Mine Were Nearly
Torn to Pieces

Cheswick, Jan. 28.—After three days of terrible suspense, and the hardest kind of work on the part of the rescuers, the taking out of the bodies from the Harwick mine commenced yesterday evening. About the mouth of the shaft waited a grim-featured group of women and children, whose heads and fathers were in the mine and of whose bodies they hoped to get a last look. Many of these people were doomed to disappointment, for the most of the bodies brought up were unrecognizable. The explosion had torn the men limb from limb and the features of the majority of the corpses were so torn and mangled that there is no hope that they will ever be identified.

Thirty-three bodies were brought to the surface Wednesday night and of these only 18 could be identified, some of them only by clothing.

It is now known that there were 374 men in the mine. All of them are dead. Two outside, who were killed at the time of the explosion and Mining Engineer, Selwyn Taylor was killed later, making the total death list 376.

As rapidly as bodies were brought up from the mine, they were taken on sleds to a school house on the hill above and turned over to the undertakers. The most of them are in such condition that they must be buried at once.

Around the school house as well as the shaft of the mine is a crowd of weeping women and children. Newspaper correspondents and members of the rescuing parties are almost unharmed by the grief of these people.

It is believed that some boys may have gone into the mine with their fathers, who have not been included in the list of the company.

Rescuers working in the shaft say that the miners must have had some warning of their impending doom but were powerless to escape. They state this conclusion on the condition of the tunnels and of the bodies.

SAVE

Up the Life Trying to Save Others in
the Mine He Perished.



SELWYN M. TAYLOR.
Taylor was killed while leading a rescue party that entered the Harwick mine. He was a mine expert and planned the mine in which he met his death.

BUNGLED THE WRONG PEOPLE.
Washington, Jan. 28.—Capt. Detective P. N. Weber yesterday arrested M. F. McKesson, charged with "no holding with intent to fraud," in the capital. McKesson was soliciting contracts for electrical "wiring" in a proposed publication entitled "Personal Reminiscences of the Fifty-Fifth Congress."

DICK

Asked to Help Outfit the Ohio
Gordon Boat.

Washington, Jan. 28.—President Roosevelt, in his desire to get things straightened out in Ohio, has sent for Gen. Charles W. Dick with a view to consulting with him. Gen. Dick heard the invitation was coming and "ducked" it as long as he could, but was finally overruled by a White House messenger. Dick did not want to get into the Ohio muds. The chances are that his advice to the president will be to stand by Hamlin and take his chances of getting the support of that gentleman for his presidential aspirations. Dick visited the White House this afternoon, but the result of his conference is not known.

A PLUCKY DRUGGIST

Gave Battle to Gang of
Burglars

ENDED CAREER OF ONE

And Put the Other Two to Flight—
Alarm Was Given by a Pet
Dog.

St. Louis, Mo., Jan. 28.—Paul W. Decker, a druggist, ended the career of one robber and put to flight two others early this morning. Decker, who is 35 years old and single, sleeps in the rear of his store. Awakened by his pet dog, he seized a pistol and entered the store where he was confronted by the robbers with drawn revolvers. Decker opened fire and a fierce battle ensued. The dead robber who was shot through the head, had not been identified. Considerable damage was done by flying bullets in the store, but the plucky druggist was uninjured.

CHILDREN

In Tenement Were Burn-
ed to Death

Had Been Left Alone by Their
Parents When an Overheated Fire
Started a Fire.

New York, Jan. 28.—Three children were burned to death in a tenement which broke out at 9 o'clock this morning in the basement of the tenement at No. 111 Madison street. The boys were shot through the head, had not been identified. Considerable damage was done by flying bullets in the store, but the plucky druggist was uninjured.

ITALIAN

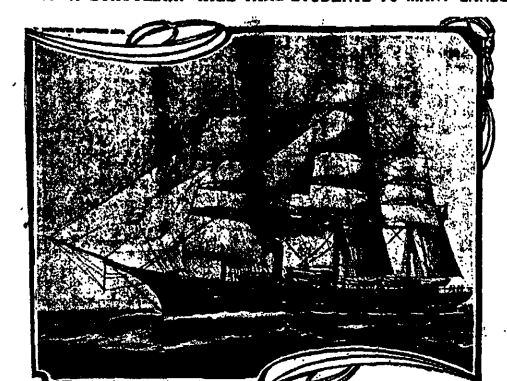
Laborers Killed in a Po-
tential Mine Accident

A Pilot Weight Hanging Above An
Air Shaft Dropped and Fell
Upon Them.

Brownsville, Pa., Jan. 28.—Four Italian laborers were killed instantly this morning through being crushed under a 600 pound weight following a terrible fall down an air shaft at a distance of 550 feet. The dead men belonged to the day shift of laborers employed in sinking air shafts for the Briar Hill Coal company along the National pike four miles from here. At 7 o'clock the four Italians got into a bucket to be taken down the shaft. When they were down about 135 feet the bucket was hoisted and the pilot weight still hanging above and at once made efforts to stop the bucket and bring it back. This reversal of the machinery resulted in causing the weight to fall upon the shaft. It smashed the bucket and men fat.

The public education in England as a rule receives \$60 every year, but since his resignation and in case of a re-employment he is given \$25 per year he has been retained.

FLOATING SCHOOLSHIP WILL TAKE STUDENTS TO MANY LANDS.



"YOUNG AMERICA."

To the regular curriculum of a first class preparatory school, the arts and sciences which go to the making of an efficient naval officer, will be taught. The object of the school is to prepare boys and young men for business or professional life. At the same time routine life on the ship will be almost identical to that on board a training ship and the boys will have the benefit of strict discipline. In addition they will have the benefit to be derived from touring the world, thus giving breadth to their education.

The course will consist of four years and each year the ship will cruise from country to country making in the four years 100,000 miles. "Young America" is constructed of steel and will accommodate 250 scholars in addition to the 15 instructors and working ship's crew.

She is 282 feet over all and 220 feet on the water line with a beam of 44 feet and draft of 18 feet six inches, giving her a displacement of 2000 tons.

COMMITTEE

To Make Fund for Silver Service for
Ohio Gilt.

Columbus, Jan. 28.—The bankers' committee which undertook to raise \$25,000 for a silver service for the battleship Ohio, called on Gov. Herrick today, threw up its hands and turned in a pretty strong, Gov. Herrick said he would relieve the committee from further effort and would see himself that the fund was completed for the silver service.

ANDERSON

PETITIONS

General Assembly For a
New Roster

LISTS OF SOLDIERS

Of War of 1812, Regular Army in
Civil War and Later Centuries,
is Desired.

Special to The Star:
Columbus, O., Jan. 28.—Gen. Thomas M. Anderson, commander of the Sandusky Soldiers' home, has sent a petition which was presented to the session this afternoon by Senator Jochen, asking that an appropriation be made to print rosters of Ohio soldiers of the war of 1812, Ohio soldiers enlisted in organizations of the regular establishment in the civil war, Ohio volunteers of the Spanish-American war and of the provisional regiments raised in Ohio for service in the Philippine insurrection. It is estimated that these rosters will include 35,000 names.

TRIED TO KILL HERSELF.
Youngstown, O., Jan. 28.—Miss Jennie Davis of Massillon who has been detained in the county jail waiting transfer to Stark county on a charge of insanity, attempted to commit suicide this afternoon by jumping from the jail by using a shoe lace about her neck. For seventeen years the girl has been an inmate of various insane asylums.

INDIANS ARE GATHERING.
St. Olton, T. T., Jan. 28.—Last night John West, captain of Indian police, with a squad of ten picked men, passed through on his way to Grand Rapids, where the Kickapoos are said to be concentrating. Parties on the trail from Grand Rapids may induce gathering there. A party of seven hunters from this place is enamped in the Grand Rapids mountains.

ATTORNEY

For Tibury Threw Up
the Case

Coachman Charged With Blackmail
Failed to Produce Sensational
Letters He Said He Had.

Chicago, Jan. 28.—The alleged blackmail case of coachman Tibury, accused by Mrs. Thurston of trying to extort \$12,500 from her had a sensational turn this morning. Tibury's attorney, Elmer Clark, has dropped out of the case because Tibury has been unable to produce the letters said to have been written by Mrs. Thurston. Clark said he had no case to defend. The judge then appointed Morris Rosenthal to be attorney for Tibury and adjourned the case until tomorrow morning.

(The history of this sensational case is told in an article which appears on Page 3 of this issue.—Ed Star.)

A summary of the Chicago case is given more fully than in the article of the living people case, and is probably amounted to little or nothing in his day.

ACTIVE MILITARY WORK IN CHINA

RAID

On the Canal System Operated by
This Bill.

Columbus, Jan. 28.—Speaker Pro Tem Hollis Johnson last evening introduced the bill to turn one bank of the Miami and Erie canal over to a railroad company in which George B. Cox and other Cincinnati politicians are interested. The bill on its face gives the owners of the "electric mile" line, constructed some years ago, the right to operate a steam railroad upon its property. It provides for the payment of such rental as may be determined upon, from time to time by a commission. This is the first of the bills designed to accomplish the abandonment of the canal system of the state and turn the property over to railroad companies.

INDICATES THAT SOME- THING IS APT TO DROP BEFORE VERY LONG

Official St. Petersburg Conference
is Talked Hoped, But Paris has
Hopes the War is Nearly
Spurring for War—War
Appears Inevitable

St. Petersburg, Jan. 28.—Dispatches to the newspaper from St. Petersburg, say that 50,000 Chinese are held in readiness to protect the frontier in the event of a war between Russia and Japan. St. Petersburg also asserts that Japan already has an armored train manned with quick-firing guns on the railway between Seoul and Chinnampo, Korea.

MACHEN'S DEFENSE

Is That—Lorenz—Paid
Up an Old Debt

LORENZ A PARTNER

In the Letter Box Fastener Business
Is What the Defense Will Try to
Prove.

Washington, Jan. 28.—The case of the defense in the Mochen-Groff conspiracy trial was opened this morning. In his opening statement to the jury, ex-judge Samuel Madox, attorney for the Groffs, made clear the line of defense, which is that Dr. Lorenz was partner with the Groffs in the manufacture of a patent letter box fastener, and as such, received 50 percent of the profits thereon. The payments to Mochen by the Lorenz was in the discharge of an old obligation it is alleged and had nothing to do with the sale of the Groff fastener to the government. Incidentally, Judge Madox mentioned the fact that it was Mochen who reduced the price of the fasteners from \$1.50 to \$1.25.

GOVERNOR

Herrick Makes Informal
Request of People

It is That They Suitably Observe
Friday as the Birthday An-
niversary of McKinley.

Columbus, O., Jan. 28.—Representative F. A. Russell of Meigs county, today introduced a bill providing for the observance of all county independent days.

Management of these institutions will be placed in the hands of a superintendent, who will make monthly reports to the county commission. Russell estimates the plan will save an annual expense of \$137,000.

There are those who write so-called history, for the sole purpose of covering up unpleasant facts.

MARKET REPORTS

Chicago, Jan. 28.—Cattle 2,000, 20
and 20 cents lower; hogs 20,000, 15
cents lower; sheep 20,000, 15 and 20
cents lower.

Chicago, Jan. 28.—Clothing May wheat
48 1/2; Corn 45 1/2; Oats 43 1/2; Pork 23 1/2.

HANDSOME INTERIOR DECORATION OF THE PALACE OF MACHINERY

St. Louis, Jan. 28.—Herewith is presented an interior view of the machinery of the most magnificent buildings on the grounds of the Louisiana Purchase exposition. The ceilings and walls are fabulously decorated. Unlike the buildings erected during the war, many of the structures used during the exposition are intended to be permanent and not to be in their construction.

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RAID

On the Canal System Operated by
This Bill.

Columbus, Jan. 28.—Speaker Pro Tem Hollis Johnson last evening introduced the bill to turn one bank of the Miami and Erie canal over to a railroad company in which George B. Cox and other Cincinnati politicians are interested. The bill on its face gives the owners of the "electric mile" line, constructed some years ago, the right to operate a steam railroad upon its property. It provides for the payment of such rental as may be determined upon, from time to time by a commission. This is the first of the bills designed to accomplish the abandonment of the canal system of the state and turn the property over to railroad companies.

INDICATES THAT SOME- THING IS APT TO DROP BEFORE VERY LONG

Official St. Petersburg Conference
is Talked Hoped, But Paris has
Hopes the War is Nearly
Spurring for War—War
Appears Inevitable

St. Petersburg, Jan. 28.—Dispatches to the newspaper from St. Petersburg, say that 50,000 Chinese are held in readiness to protect the frontier in the event of a war between Russia and Japan. St. Petersburg also asserts that Japan already has an armored train manned with quick-firing guns on the railway between Seoul and Chinnampo, Korea.

MACHEN'S DEFENSE

Is That—Lorenz—Paid
Up an Old Debt

LORENZ A PARTNER

In the Letter Box Fastener Business
Is What the Defense Will Try to
Prove.

Washington, Jan. 28.—The case of the defense in the Mochen-Groff conspiracy trial was opened this morning. In his opening statement to the jury, ex-judge Samuel Madox, attorney for the Groffs, made clear the line of defense, which is that Dr. Lorenz was partner with the Groffs in the manufacture of a patent letter box fastener, and as such, received 50 percent of the profits thereon. The payments to Mochen by the Lorenz was in the discharge of an old obligation it is alleged and had nothing to do with the sale of the Groff fastener to the government. Incidentally, Judge Madox mentioned the fact that it was Mochen who reduced the price of the fasteners from \$1.50 to \$1.25.

GOVERNOR

Herrick Makes Informal
Request of People

It is That They Suitably Observe
Friday as the Birthday An-
niversary of McKinley.

Columbus, O., Jan. 28.—Representative F. A. Russell of Meigs county, today introduced a bill providing for the observance of all county independent days.

Management of these institutions will be placed in the hands of a superintendent, who will make monthly reports to the county commission. Russell estimates the plan will save an annual expense of \$137,000.

There are those who write so-called history, for the sole purpose of covering up unpleasant facts.

MARKET REPORTS

Chicago, Jan. 28.—Cattle 2,000, 20
and 20 cents lower; hogs 20,000, 15
cents lower; sheep 20,000, 15 and 20
cents lower.

Chicago, Jan. 28.—Clothing May wheat
48 1/2; Corn 45 1/2; Oats 43 1/2; Pork 23 1/2.

HANDSOME INTERIOR DECORATION OF THE PALACE OF MACHINERY

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WEATHER

OHIO: Generally fair tonight and Friday, slightly colder tonight in west and south portions.

FULL LEASED "UNITED PRESS" WIRE AND FULL LEASED DAILY "N. E. A." FEATURE SERVICE

FAIRFIELD COUNTY'S LEADING NEWSPAPER

THE only paper in Fairfield County carrying a full page of top-notch comics daily.

Vol. XCIV, No. 250

LANCASTER, OHIO, THURSDAY, FEBRUARY 4, 1926

Price Two Cents A Copy; 12 Cents A Week.

Nineteen Men Die In Coal Mine Explosion

Three Bodies Recovered Fire Prevents Bringing Out Of Remaining 16

PITTSBURGH, Pa., Feb. 4.—Important mine disasters in the bituminous fields of Western Pennsylvania, during the last 25 years:

Shenksstown, Jan. 28, 1924—33 killed.
Brownville, Feb. 2, 1922—25 killed.
Lilltown, March 20, 1922—5 killed.
Sangler, Nov. 6, 1922—77 killed.
Roston, July 19, 1920—8 killed.
Harmarville, Aug. 7, 1916—8 killed.
Marianna, Washington County, Nov. 28, 1908—184 killed.
Jacks Creek, between Fayette and Westmoreland counties, Dec. 18, 1907—429 killed.
Hawthorn, Chester County, Jan. 28, 1904—179 killed.
Johnstown, July 19, 1902—112 killed.

PITTSBURGH, Pa., Feb. 4.—Death has again claimed his grim toll in a mine disaster and today 19 men were dead following an explosion that wrecked Right Butte No. 15 of the Pittsburgh Terminal Company's Mine No. 4, at Homing near here.

Trapped in a passageway 4,000 feet from the mine entrance, only two of 21 men at work fighting a blaze in the mine escaped alive. The explosion which occurred late yesterday, was the aftermath of a fire in the mine which broke out when a cutting machine burned through a clay vein into a gas pocket.

The 21 men went into Butte No. 15 to fight the blaze at 10 a. m. A. 3:30 p. m. George Oster, vice president of the company in charge of operations came out of the pit announcing his belief that the fire had been brought under control.

Within half an hour, a large explosion was felt, and the ground was trapped, while between 400 and 600 others emerged from other sections of the mine, some of them not knowing that any trouble was around them.

After three charred bodies were brought out of the mine last night, about 180 rescue workers continued efforts to save the 16 other men trapped, but when these were reached early today all were dead. At 1:00 a. m. another blast of gas in the mine was reported. About 1,000 persons—many of them relatives of the trapped men—were gathered outside the mine.

Open Campaign Next Week For Maywood Mission

A campaign to secure funds for the erection of a \$4,000 building at the Maywood Mission will start next week according to the announcement made today by members of the board.

More room is needed at the Mission which is in charge of Rev. Mrs. W. H. Ede. The new building will provide ample room for church and Sunday school services.

The Mission besides being a haven for the poor and needy of the county is also as a detention home by the county. All boys and girls of juvenile age who get into trouble and are taken into court are placed in the detention home instead of being sent to the city prison or county jail.

President Of L. & N. Ry Dies Abroad

BALBOA, C. Z., Feb. 4.—The body of President William Lawrence Macpherson of the Louisville and Nashville Railroad was being shipped from here today aboard the steamer Abanquer for the U. S.

Macpherson, who rose from office boy to head of the great railroad, died suddenly of heart failure yesterday afternoon in a hotel in London.

WORST STORM OF WINTER SWEEPS THE EAST

THE MODERN GIRL'S CHALLENGE

THE GAZETTE next Monday starts publication of a new and startling story—the story of a typical modern girl who goes out into the world, just as her brother does, to make her own way to future success and happiness.

"Her Own Way" (for that is its name) probably will cause more controversy and comment than any story The Gazette has ever published. But that is because it is so true to life.

It will interest mothers, as they will see how far away they are in thought and judgment from their daughters. It will interest their daughters, for in the dramatic episodes through which Julia Dean and her

girl friends move they will find a repetition of their own problems.

The story as far as these experiences are concerned is true, having been told to the author (whom the reader readily will see cannot reveal her identity) by girls in all walks of life, from the sheltered young woman of the drawing room and limousine to the wide-awake girl of the street car and the telephone exchange of a smart hotel.

The soul of the young woman of today will be brought into the bright light of every day contact with the readers of The Gazette. Don't fail to start this remarkable story—in next Monday's Gazette.

Ohio Newspapers Oppose Unjust Legislation

COLUMBUS, O., Feb. 4.—Organization of a central office to protect Ohio newspapers against injurious legislation, may result from the final session of the annual convention of the Associated Ohio Dailies here.

An executive committee to consider the projected organization probably will be appointed within a month by R. C. Snyder, Norwalk Reflector-Herald, who was re-elected president.

If the proposal is approved, the group would be organized as the Ohio Newspaper Association, with a paid secretary in charge, to protect newspaper interests in the legislature.

All officers of the Associated Ohio Dailies were re-elected last night. With Snyder again president, others elected were:

E. E. Cook, Columbus, of the Scripps-Howard papers, and Geo. W. Taylor, of the Portsmouth Times, Vice President; Alfred Haswell, Bowling Green, Sentinel-Tribune, Treasurer; and Omer Hooper, of the Ohio State University College of Journalism, Secretary.

Speakers at the banquet which climaxed the convention last night included Mr. Bishop Warren L. Rogers of the Volstead Act to permit the sale of light wines and beer.

This decision as announced by Dr. James Empringham, national secretary, is the result of questions answers received during the past year from 20,000 members of the society, including both clergy and laity.

Among the reasons given for the desired modification of prohibition were the complaints that the Volstead Act has "resulted in the increased drinking among young people" "is a class legislation discriminating in favor of the rich" and "has brought about disrespect for all laws."

Dr. Empringham said considerable pressure had been exerted in an effort to prevent publication of the result of the questionnaire, but it dealt "irreparable injury" to the cause of prohibition.

Wayne P. Wheeler, general counsel for the Anti-Saloon league, communicated with him by telegraph, telephone and letter. Dr. Empringham said.

Persons attracted by the smoke from the burning wreckage, Mrs. Wilkinson had been blind for years.

Evangelistic Services At Pleasantville

A series of evangelistic meetings will begin in the Methodist Protestant Church at Pleasantville on Sunday, Feb. 7th. Sunday School at 9:30 a. m., followed by the Communion service.

At 2 p. m. Rev. Frank Lawrence Brown of Columbus, President of the Ohio Conference of the Methodist Protestant Church will bring the message and the music will be in charge of Mr. Lawrence Thomas of Lancaster.

Mr. Thomas has kindly consented to assist in these meetings as Evangelistic Singer. There will be no service Sunday evening Feb. 7th, but on each of the following evenings, except Saturday, the meetings will be held at 7:30 p. m. in the hour. Come and bring your friends and neighbors.

Native Of India Speaks At St. Peter's Tonight

Mr. G. Manikam, a native of India, will speak at St. Peter's Church this evening at 7:30. Mr. Manikam has a very interesting personality and is a first speaker. The public is cordially invited to hear him this evening.

Mr. Manikam is a student of Columbia University where he will receive his Ph. D. degree this summer.

Sample Traffic Light Here For Inspection Fri.

The type of traffic light being used in Columbus will be placed on exhibition in the city hall tomorrow, for public inspection, Mayor Albaugh stated today.

Albaugh declared today, regarding the light situation, that he would not go before the Council again to urge the installation of the lights. According to his Honor or if any action is taken it will have to come from members of the Council.

Sugar Grove Store Robbed By B. I. S. Boys

The Johnson-Beveridge general store in Sugar Grove was broken into last night by three B. I. S. boys who are said to have escaped from the institution Sunday night.

The loot taken consisted of a number of change, three cents, five cents, of a stubbing from underwear to suits of clothes. The boys left their old clothing in the store and made a safe getaway.

45 Autos Burn In Garage Blaze At Zanesville

ZANESVILLE, O., Feb. 4.—Forty-five automobiles were destroyed by fire which swept the building occupied by the Zane Motor Sales Company here today. The loss was estimated at \$250,000.

Origin of the blaze has not been determined. All available fire apparatus was called out and it was very hot before the flames were under control. The automobiles included forty private machines and five new display room.

Trux Blames Government For Farmers' Ills

COLUMBUS, O., Feb. 4.—Ohio Farm Week entered its fourth day at Ohio State University today, with lectures on co-operative farming and practical agricultural production methods for health.

Joining the nine organizations already in session, the Ohio Beekeepers' Association and the Ohio Hosiery-Frisian Association continued. The latter organization will elect officers this afternoon.

The Farmers and Grain Dealers Association, in session two days, was scheduled to adjourn this afternoon after selecting officers.

The farmers last night were addressed by State Director of Agriculture Trux who blamed the government for many of agriculture's ills.

Governor May Appoint Duffy's Successor Today

COLUMBUS, O., Feb. 4.—Governor Donahay today was expected to announce formally his acceptance of the resignation of Thomas J. Duffy, chairman of the State Industrial Commission.

Bearing out statements carried by the United Press recently, Duffy late yesterday, again tendered his resignation, effective Feb. 15, and indicated it be accepted.

The Governor indicated the resignation would be accepted this afternoon, simultaneous with the appointment of Duffy's successor.

The Governor was known to be considering the qualifications of four prospective appointees. These included Patrick F. Casey, Cleveland, former inspector and head of the actuarial division of the commission; George W. Savage, secretary of the United Mine Workers of Ohio, and Thomas P. Kearns, chief of the State Division of Safety and Hygiene.

United Press Head Lauds Newspapers

COLUMBUS, O., Feb. 4.—"No business in America is growing with greater rapidity and strength than the newspaper industry," said Karl A. Bickel, President of the United Press, in a speech last night before the annual banquet of the Associated Ohio Dailies.

This trend applied throughout the world, Bickel said, and added that newspapers of every kind were turning away from the "old, vicious theory" that newspapers must be supported by government or political subsidy and were campaigning for independence and financial independence.

The fact that this change took place first in this country Bickel pointed out, was one reason why the American Press led the world in honesty, high ethical standards, influence and wealth.

The same influence is most marked in the Press Association business he continued. "The fact that newspaper publishers of the world are demanding honesty and absolute independence from governmental propaganda in their Press Association service, has been one of the fundamental factors in the success of the United States."

"The United Press has no affiliations of any character with any governmentally subsidized news agencies or agency which in any way is termed official or semi official."

"It is the attitude of the United Press that there is no difference between a reporter taking money to protect a government official and a Press Association accepting a subsidy to protect a government, or distribute propaganda for that government."

Basil Farmer Falls From Barn - Hip Broken

Henry Taylor, aged 77, farmer residing near Basil had his right hip bone broken in three places when he fell from the hay mow of the barn on the Frank Koonits farm yesterday afternoon about three o'clock.

Taylor was helping Koonits fix up around the barn he lost his balance and fell to the ground. He was knocked unconscious for several minutes but was revived when given medical attention. Examination made by Dr. Watkins showed that the bone in his right hip was broken in three places.

The injured man was taken to St. Carmel Hospital in Columbus.

Liquor Offender Released

Orall Holloway was released from the county jail this afternoon when he paid \$100 fine and costs for illegal possession.

P. T. A. MEETING
The Factory P. T. A. will meet at the school which is located just this side of Rock Hill on Friday evening at 8 o'clock.

Three Are Dead -- Nine Hurt And Fifty Buried Alive When Snow Caves in Roof

NEW BRITAIN, CONN., Feb. 4.—Weight of snow which for almost 24 hours had been falling here, caused the roof of the foundry of the North and Judd manufacturing company to collapse today.

Fifty workmen were reported buried. Three bodies were taken out and nine persons seriously injured, were carried away soon after the accident.

The roof gave way suddenly with a crash like an earthquake. None of the men employed in the building had a chance to escape.

DOES IT PAY TO ADVERTISE?

An advertisement inserted in the classified columns of the Gazette, Tuesday evening, brought to this office over 60 letters of inquiry addressed to "Box J" within 24 hours following its publication.

All of which prove the truth of the old slogan "It pays to advertise"—providing you use the proper advertising medium.

Woman's Body Is Found in Furnace - Husband Held

SHIOUX CITY, IOWA, Feb. 4.—A furnace death mystery confronted police here today in the case of Mrs. George Solomon, 47, mother of nine children, whose body was found in the basement of the Solomon home here.

Solomon was taken into custody at the suggestion of two of his sons, who said they believed he could clear up the mystery.

When the younger children returned from school late yesterday, Solomon told them their mother was visiting friends. A little later, three of the children discovered the body. The body was some distance from the large furnace.

It was covered with coal ashes. The head and arms were badly burned. There were no burns on the lower part of the body. Police said indications were that the body had been dragged from the furnace to the spot where it was found.

The family came here from Albert Lea, Minn., six years ago.

Woodgeard To Stand Trial On Liquor Charge

Danny Woodgeard, who was arrested in a raid made in South Lancaster three nights ago pleaded not guilty before Mayor Albaugh today to charge of illegal possession.

The trial was set for Feb. 10th at nine thirty. The defendant is confined in the county jail.

It is stated that this is the third time he has been up for liquor offense.

Liquor Charges Denied By The Taxi Drivers

Don Nutter and "Red" Russell, two taxi drivers assigned before Mayor Albaugh yesterday afternoon, pleaded not guilty before Mayor Albaugh today to charge of illegal possession.

All the employees of the company were called out to assist firemen as they dug feverishly to reach the others.

The six injured were discovered near what had been the main entrance of the building. Police feared the death list might run to a score. The roof of the building was flat and the increasing weight of the snow as the storm continued unabated for more than 20 hours weakened the supports, it was believed.

NEW YORK, Feb. 4.—The worst blizzard of the winter descended upon the North Atlantic Coast States today, the area extending as far west as the Ohio valley.

Several inches of snow fell since 8 o'clock yesterday, afternoon and had reached the depth of six inches at 10 a. m. today. A temperature of 25 degrees, and a 25 mile wind added to the discomfort.

Interior New York and Pennsylvania reported snowfalls of more than a foot. In Binghamton, N. Y., a depth of 18 inches was reached.

Eight inches of snow have fallen in New Haven with piles shipping the drifts to fantastic heights. Many Connecticut roads are impassable with state employees experiencing difficulty in keeping open the main arteries of transportation.

The local weather bureau issued storm warnings covering the entire coast from Delaware Breakwater to Boston.

Six men lost their lives in a storm off New Jersey last night when a terrific gale tore two barges from their tow line.

The barges Phoenix and Vapor of the Howard Towing Co., slipped their tow line in a 70 mile gale off Scotch Lightship. The two vessels sank immediately.

The other was found grounded near Sandy Hook with no sign of her crew.

SAN FRANCISCO, Feb. 4.—The Pacific Coast was lashed by severe storms during the night. Storm warnings were issued for all ports between Port Reyes and Puget Sound.

An oiler was swept from the deck of a Norwegian motorship, said a radio gram received at Marshfield, Ore.

Heavy seas battered beach structures all along the coast. The million dollar amusement pier at Santa Monica has sagged three inches.

WARM IN ALASKA
Alaska tied with Texas and Florida today as the "Pleasant place to spend the winter."

With the North Atlantic region gripped by the seasons worst storm since Alaska, Alaska was back today in a temperature of 40 degrees and the lowest in the super-saturated frozen territory was 12 above in the Nomeville, Ky. weather was described as twister.

...with the fact that...

After a consultation of the many different authorities there Coroner J. M. McGeary posted an order on the school house stating that permission was given to inter all the identified dead as soon thereafter as it was possible to do so.

There was a consultation then among the many ministers who congregated at the mine to tender services of mercy. The Allegheny Coal Company had in the meantime prepared long trenches on its own property in Springdale township, adjoining the burial plot of St. Mark's Lutheran Church. U. C. Hatch, a director of the company, and the treasurer, Sheldon Parks, provided all things necessary for the interment of the bodies. The bodies, including one unknown whose headless body defied identification, are to be buried by the company. Many more were in charge by relatives and friends of the distressed homes of the survivors.

Mourners Await Train

The bodies the company assumed charge of for burial were taken from the blacksmith shop, about 100 feet away, to the railroad track and laid out in rows, where a crowd of weeping relatives stood about waiting for the funeral train, the company had ordered to convey the remains to the new made cemetery, a couple of miles away.

Shortly before darkness fell, and when the company had word that the train was soon due a number of ministers, accompanied by choir singers, filed out of the company's offices on the side of the hill and down to the railroad. Several hundred people gathered about in a circle. In the middle of the circle, leaning against the coffins, women of foreign and American birth sobbed, while the short services proceeded. Mr. Parks, Mr. Hatch, Manager Scheetz and other representatives, stood in the circle, and were deeply moved and heard. The crowd was upward on all sides into the very heart of the shattered

crated the ground. The ceremony was very brief.

Bury Victims in Darkness.

The work had to be done in the darkness, and the few lanterns that had been brought made the work somewhat difficult and confusing. It took nearly two hours to fit the coffins to the rough boxes that had been kept outside the trenches until the coffins arrived. A correct record was kept of the position of every body. Many of the bodies will be placed in the coffins.

The list of the names of the victims last evening is: Frank Hiji, Philip Monagrel, unknown, Salvator Guron, J. Cochran, Francisco Gallelli, George, Daniel Namat, Joseph Craw, S. Hackney, John, Steve O'Connell, Pulunzi, Roberto Mutarise, Jack Kovack. There will be another large funeral this morning.

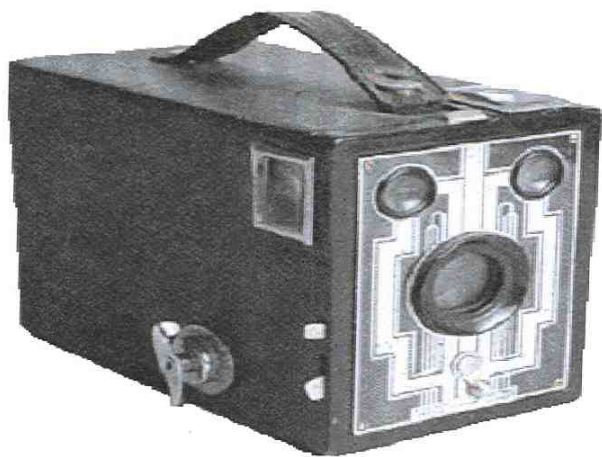
Leave No One Behind.

Rev. Alexander, pastor of the Reformed Hungarian Church of Homestead, said yesterday that the Hungarians left wives. These were the children. Some of the victims were members of his church in Homestead. He is staying at Harwick to see that the distress of the survivors is alleviated promptly.

Rev. F. A. Billour, of the French Presbyterian Church, Tarentum, said there were 30 Italians killed in the explosion. Rev. Vincent Meselli, of New Kensington, was also at the mine to look after the funerals of the Italian victims.

Relief Committee at Work.

In and out among the homes of the victims yesterday men and women engaged in the work of relief wended their way, gaining information of the needs of the surviving relatives and supplying all urgent needs as they were revealed. E. W. Arthur, W. J. Bigeley, W. A. Armstrong, W. C. McGraw and Rev. Father Richard Hamilton, of St. Albans's Catholic



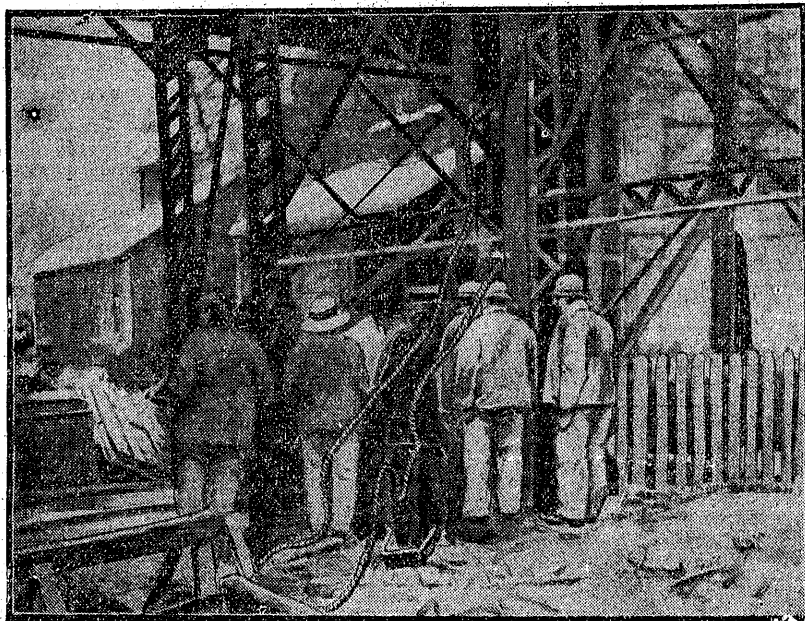
Photographs



One of the few hearses in Harwick used to convey the identified dead.



VIEW OF THE VILLAGE OF CHESWICK.



WAITING AT MOUTH OF SHAFT FOR LOAD OF DEAD.

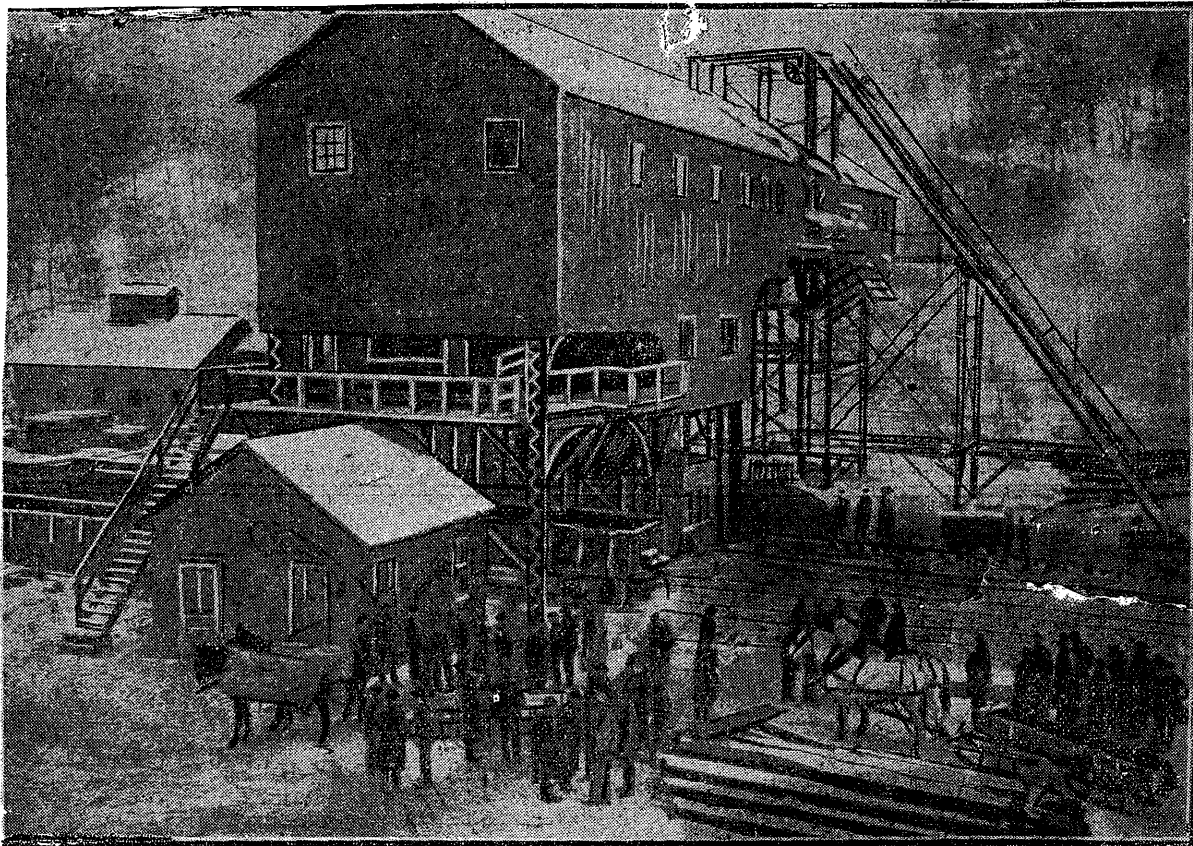
THE DEAD MINE FOREMAN AND HIS WIFE



GEORGE BROWN,
Aged 46, Married, Leaves Seven Children. Son
Robert, Aged 17, a Cager, Dead Also.



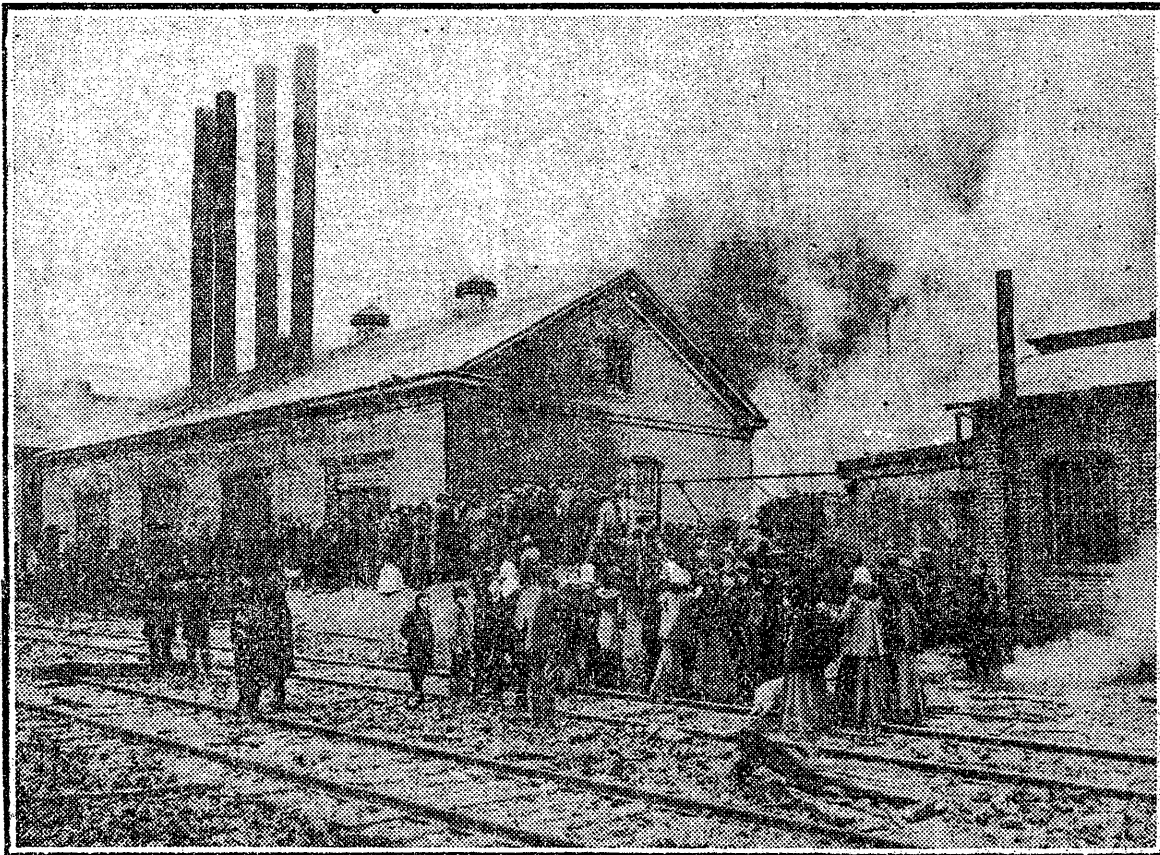
MRS. MARGARET A. BROWN,
Wife of the Dead Mine Foreman.



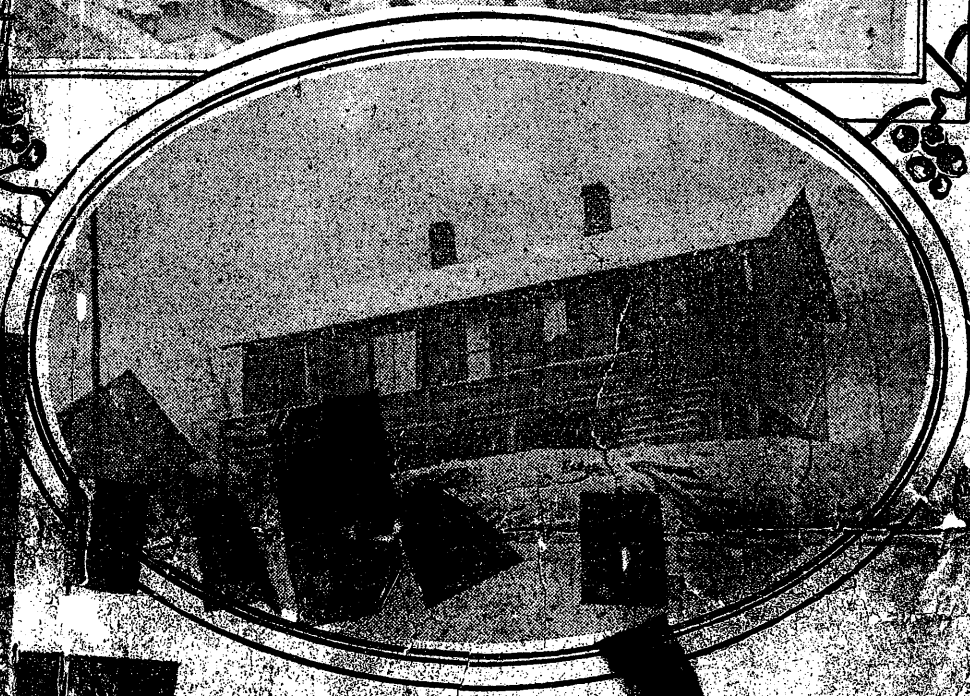
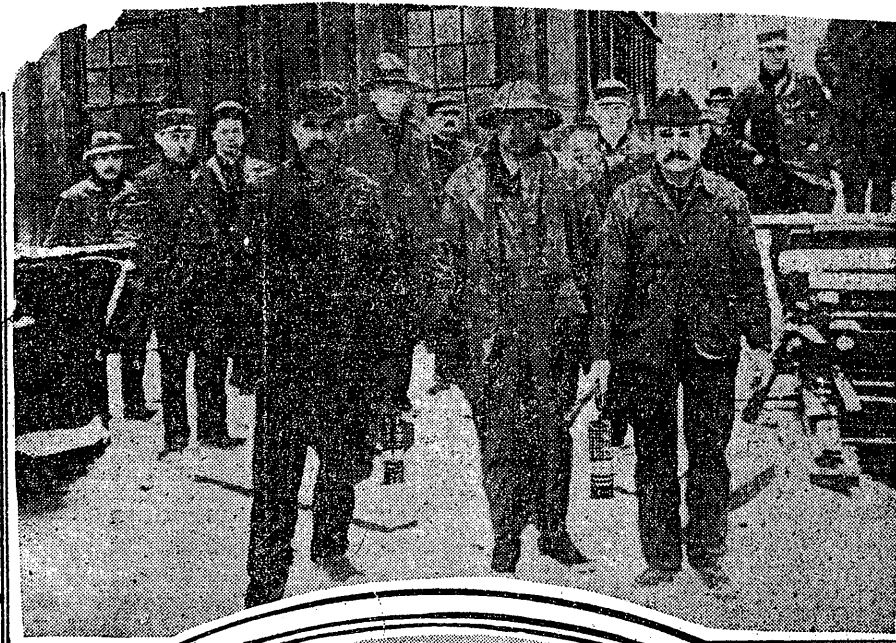
VIEW OF THE HARWICK MINE

[The shaft is under the rear of the tipple. The photograph shows how the explosion was felt directly over the shaft.]

EAGER CROWDS AT MOUTH OF THE DEATH TRAP



round Air Shaft--Many Women Anxiously Waiting for News of Husbands, Sons and Brothe



SCENES AT THE HARWICK MINE WHERE BETWEEN

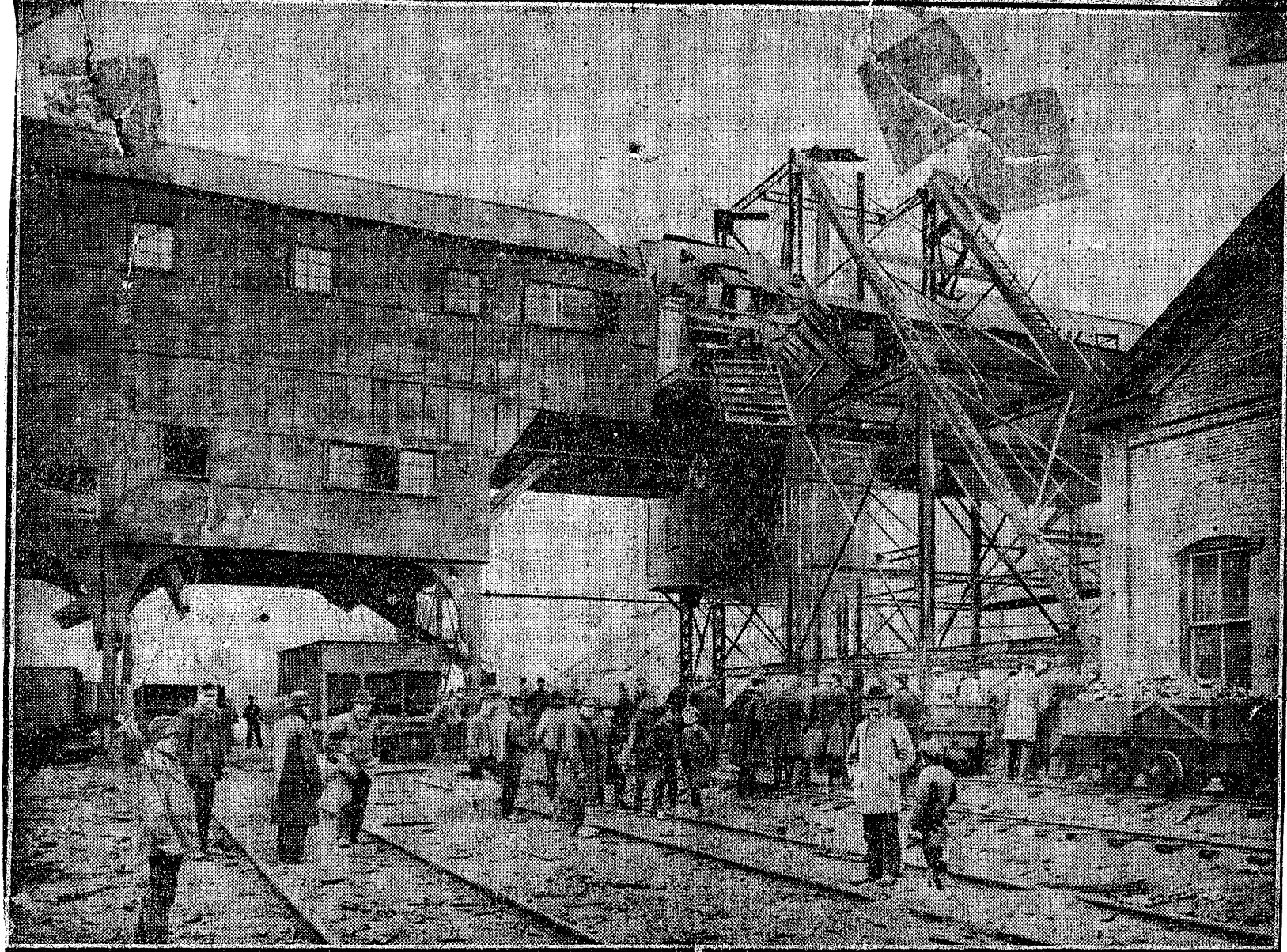
Lamp Inspector and Lamp Trimmer, who Say the Lamps Taken Into the Mine Were

Reading from left to right—Mr. E. Hutchinson, Inspector R. F. Smith, J. C. Proley.

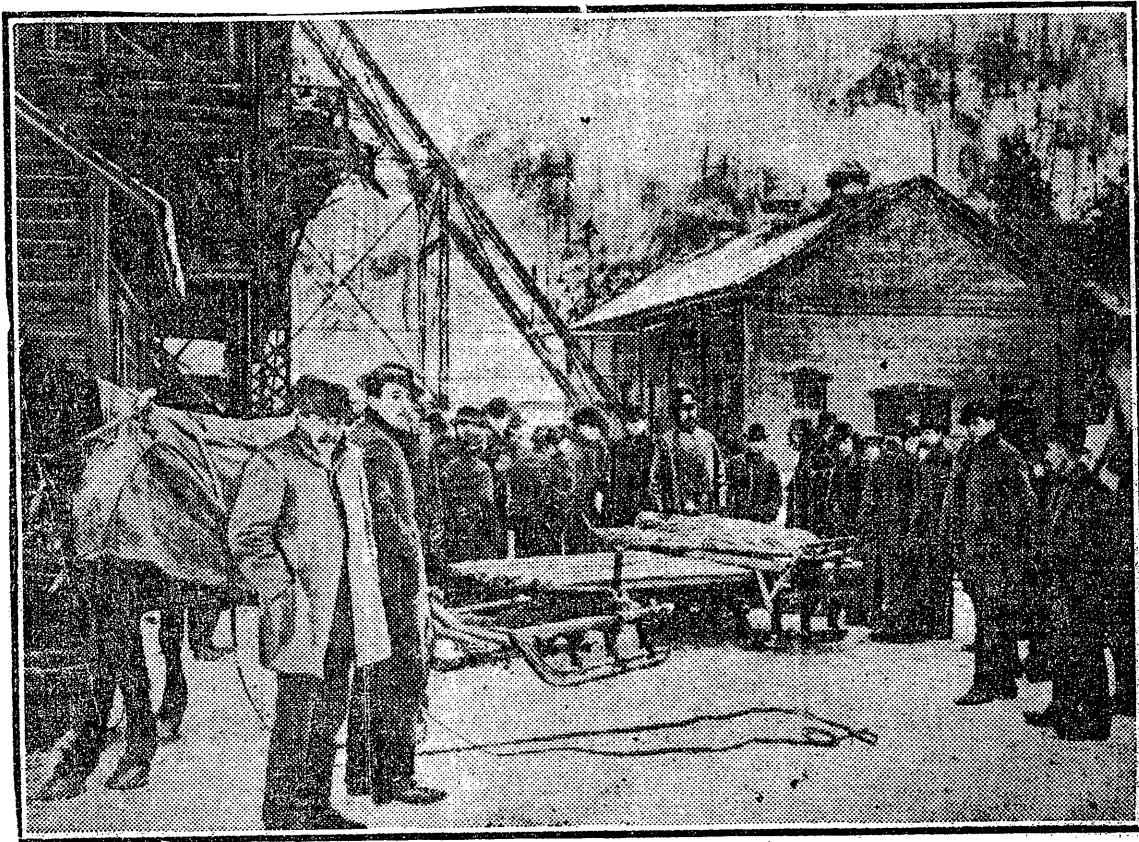
WERE ENTOMBED BY AN EXPLOSION OF GAS
THE WRECK AROUND THE TIPPLE.

Company Office That Was Being Used as a Temporary Mine

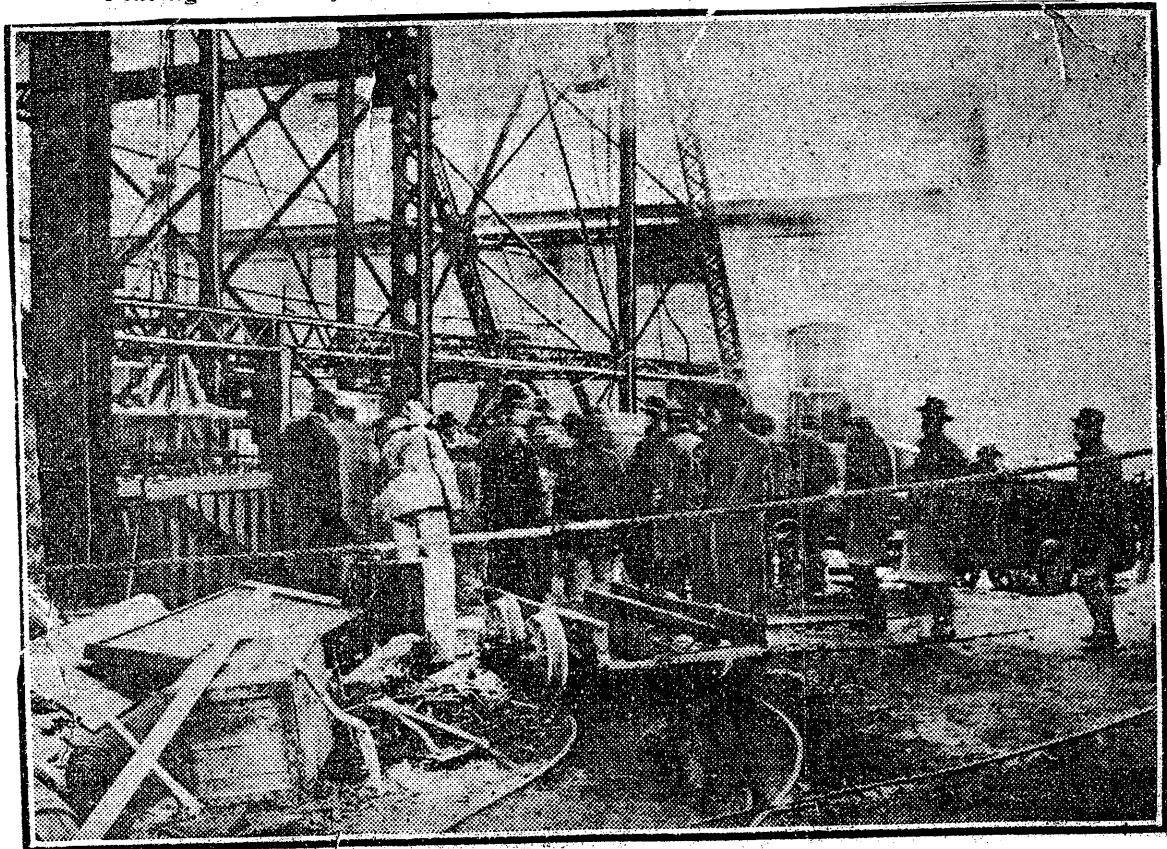
WAITING FOR NEWS FROM RESCUERS WHO ENTERED HARWICK MINE



THE TIPPLE WHERE FOUR MEN WERE INJURED WHEN THE EXPLOSION OCCURED



Placing First Body Raised From Harwick Mine on Sleigh to Go to Morgue



Rescuing Party Carrying Out First Victim of Disaster

WIVES AND CHILDREN OF THOSE KILLED IN MINE EXPLOSION



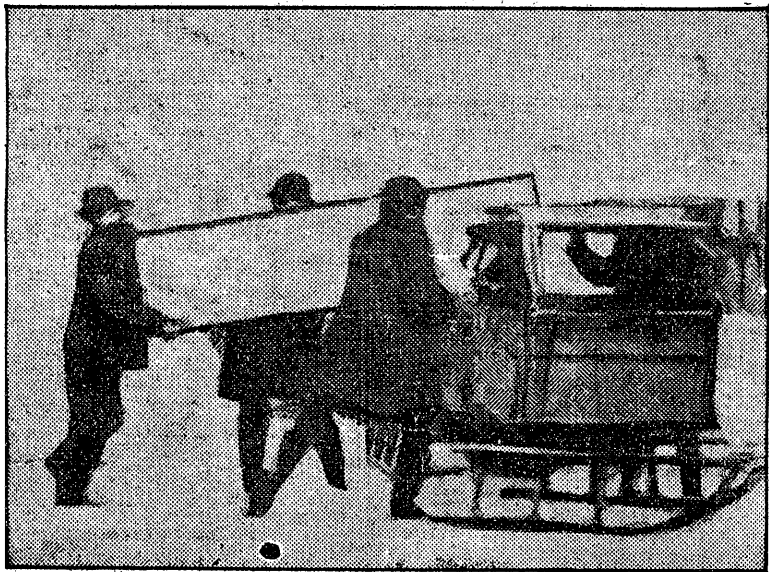
MINERS ARE BADLY NEEDED AT ONCE AT HARWICK

The Miners' Executive Board
Sends Out a Call for
Volunteers.

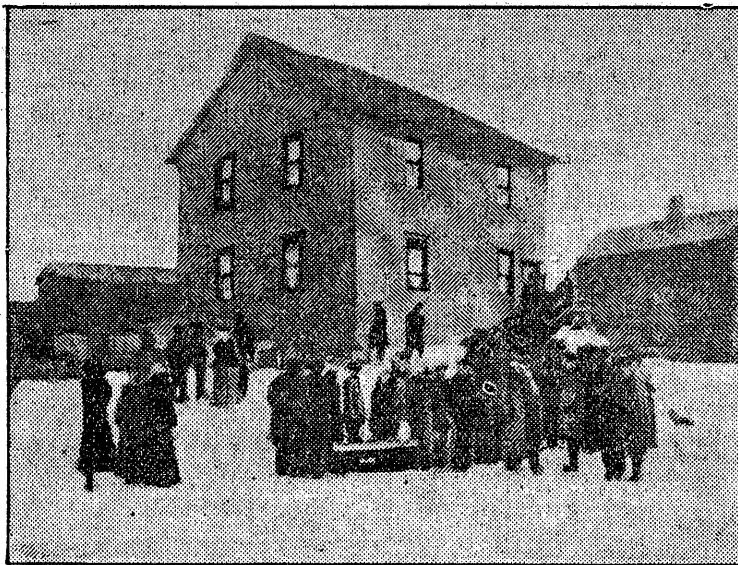
1. Joseph Gordon, 34, fire boss, wife and children.
2. Mrs. Clara Flenner, wife of Dorner Flenner, with her children and relatives.
3. Roxie, aged 4, and Baby Vera, aged 1, children of Dorner Flenner.
4. Figure to right that of James Donnelly, aged 27, married only ten weeks ago. Figure to left that of Robert North, active in rescue work.
5. Katherine, Margaret, George and Willie, children of Mine Foreman George Brown, who perished.

FOR ADDITIONAL NEWS OF
THE HARWICK HORROR
SEE PAGES 2, 3 AND 13.

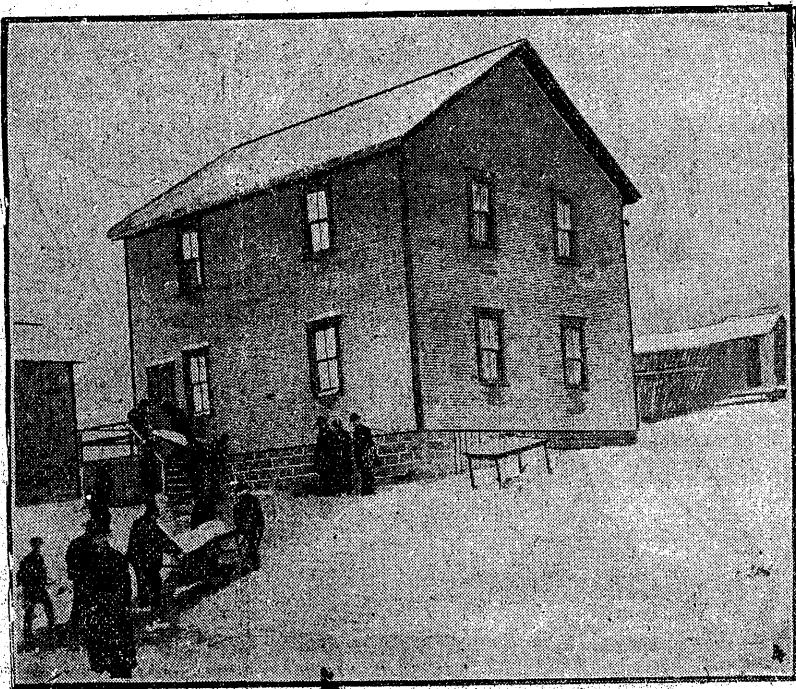




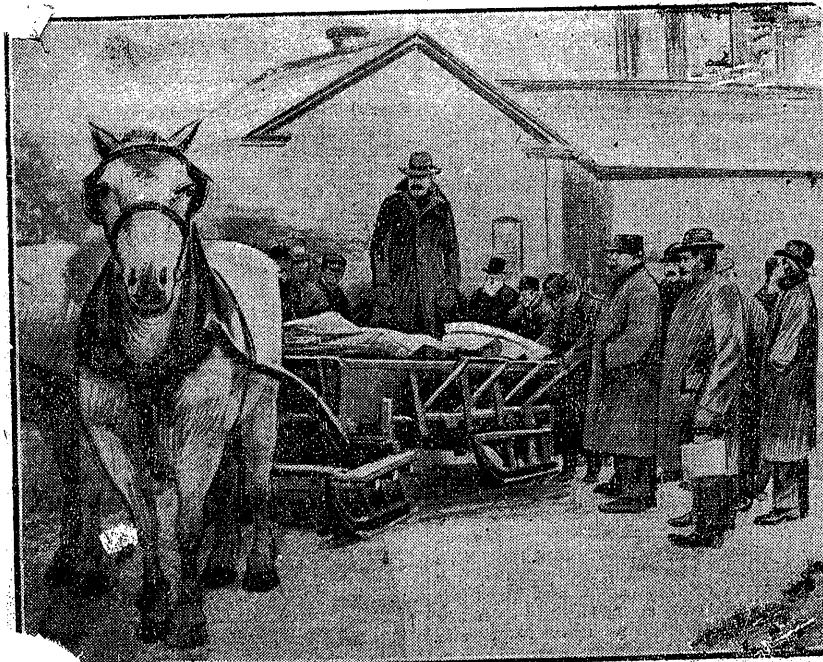
Loading coffins onto sled at Cheswick station preparatory to shipment.



The school house at Harwick where the bodies of the miners are being prepared for burial.

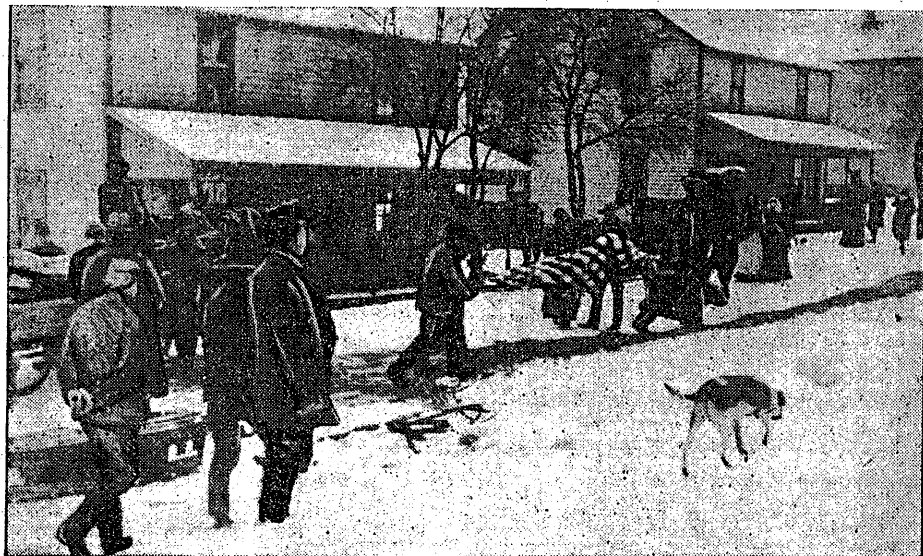


CARRYING BODIES INTO THE SCHOOLHOUSE.



CARRYING DEAD IN SLEIGHLOADS FROM THE SHAFT.

Common Scenes That Make Little Harwick a Hamlet of Deepest Woe



One More Body for the Workers in the School House.



Little Groups of Mourners Followed Each Sled to the Morgue.

Harwick 1



Harwick 2



Harwick 3



Harwick 4



Harwick 9



Harwick 10



Harwick 12



Harwick 11