

He found, mostly on every occasion, these areas, with only a few exceptions, free from gas, which was due to their being ventilated, which is a good and safe method.

The Company no doubt improved matters through the vigilance of the Government Inspector. Two of these were marked, viz.: Installations of new Capell Ventilating Fan with new engine complete, and compressing plant for the substituting of air for steam underground.

On behalf of the Company, I cannot do better than quote Inspector Dick, from his report of November 15th, 1901: "With the usual good management which is now being carried out, as well as the great care being used by the workmen, I think we should be free from any serious calamity."

Sub-section (2) of section 69 of the "Coal Mines Regulation Act," and section 3 of chapter 47, 1899, the Act amending the same, gives the Inspector full power to deal with any person who, in his opinion, is not able to read or does not understand the Special Rules made under authority of the "Coal Mines Regulation Act." I have not dealt with this provision, as the cause of the accident was not contributed to by it in any way.

This is a provision of the Act which requires attention generally throughout the mines, and might be met by posting up Act, General and Special Rules, in the language of one or more nationalities.

This is now to some extent covered by Part IV. of the "Coal Mines Regulation Act," in Examination (*see* page 1,518, "Examination of Coal Miners, Firebosses, Overmen and Shot-lighters").

Explosive Condition of Mines.—This was contributed to in a marked degree by the ventilation in District No. 2 traversing from Main Entry through old workings to the working places in McDonald's Level, Beaver's Slope and Beaver's Level, in place of going direct from Main Entry down Beaver's Slope, splitting to north side Beaver's Level, east and south to Beaver's Slope and McDonald's Level, returning in both cases through old workings to fan.

The impalpable dust at working faces, and not so much on haulage roads as the return airways, also contributed to this condition to a more moderate degree than the ventilation.

All return air from old workings should not pass working faces.

The sudden cause of explosive condition would be chiefly contributed by striking or exposing blower of gas near face of McDonald's Level.

Course and Direction of Explosive Blasts.—The direction and course of blasts were followed by the evidences of coke and dust deposits, displacement of bratticing and timber, shattering and blowing out doors, stoppings and air crossings, derailling and overturning cars, mining machines, position of bodies, etc., and very distinctly in locations where the respective recoils occurred. The course and direction of these blasts were very carefully examined.

Location and Cause of Explosion.—The local indications in McDonald's Level in District No. 2 were distinctly clear from the evidences of force from, at or near the face of that level; and the cause through a flame firing or exploding the explosive mixture in that location, formed, no doubt, by the presence of the blower of gas near face, the flame causing the explosion being either from miner James Muir's safety lamp in some way, or more probable from another miner who had matches in his possession, by his either striking a match or drawing the flame of his safety lamp through the gauze for a smoke.

CONCLUDING REMARKS WITH SUGGESTIONS.

No. 1 Mine.—In concluding, permit me to say that in visiting No. 1 Mine, while the explorers or rescue parties were clearing gas out of High Level or Line in No. 1 District, and part of No. 2 District, I took very careful observations as to mode of working and haulage in the Company's new Slope, named Williams' Slope, marked "A" on No. 1 Map.

While in this Slope a flash of flame occurred on face of upper portion of coal near roof, which, at a distance, resembled a shot, but there was no powder used in this section. I found one man at face with the light of lamp burning, but his partner had his light out. His partner's lamp was the lamp probably that caused the explosion. On coming back to cross-cut off Slope, which was distant from Slope face about 200 feet, I could not get into cross-cut for gas, and the two men who worked in cross-cut, along with man from Slope, had all their lights out. They were foreigners, and appeared to be attempting to open their lamps, particularly the man from Slope. Probably they re-lighted their lamps at cross-cut, but surely they would never risk such a thing here in face of Slope, being down from Motor Level about 400 feet without a pillar being turned for a return airway, in such a section as this, which gives off gas