November 21, there were 17 lives lost by an explosion of fire-damp in the Ferguson mine. This is a disaster that has no equal in the records of mining, the explosion taking place where there was almost too much ventilation. The mining law requires that each person should have 150 cubic feet of air per minute, but in this case they had 1,379 cubic feet of air per minute, and no explosive gas, no short firing and all safety lamps, and every workman could see daylight from where he was working.

There was an old smouldering fire in the mine adjoining, but it had been sealed up for several years. We attributed the explosion to the getting of air from the falls in this mine, as they were taking out the stumps on the slope and manway on the retreat. The pitch of the measures in the mine is 12 degrees against the loads, and not sufficient pillars being left for support, in these two entries, slope and manway, what coal is left cannot all be extracted. The roof falls and the bottom heaves up, and this allows cavities on top of falls that we believe allowed the air to go to the old smouldering fire in the Hill Farm mine. We gave this as our opinion at the inquest, and it has since proved correct, because two months later the smoke came from the Hill Farm mine.

Although there were 17 lives lost, the force of the explosion was very light, as it did no harm to the mine, nor the clothes nor dinner pails and lamps of the workmen. The workmen who were saved, say that they saw the flame coming up the slope from the workedout part, and it was very small, but when it came to the air current where 39,000 cubit feet of air was passing, it became greater, and the men who were nearest the pit mouth suffered the most. The three persons who were saved were nearest to the flame, and were severely injured. These men were taking out the pillars on the slope and manway, and were not over 200 feet from the lowest pillar. They were working close to one another, and there were only 21 persons on each shift. This happened on the night shift, about 6 P. M. There is one man not accounted for, but we have reason to believe that he was not in the mine when the explosion occurred. One of the witnesses at the coroner's jury testified that he spoke to him in a bar room, at Dunbar, about 7 o'clock the same evening.

I called Mine Inspectors I. G. Roby, C. B. Ross and W. J. Mollison, and after making an inspection of the mine, we served a notice on the Superintendent, John W. Greaves, that we were of the opinion that the danger continued to exist, and directed that the operation of this mine be discontinued indefinitely.

November 27, Robert Somerville was instantly killed in Washington No. 1 by a fall of slate. This man had only been employed two days to clear falls in pillars that had been standing idle for some-

time. There was a piece of loose slate along the side of the pillar and he tried to take it down with a pick when it fell on him.

December 16, John Stefomaveck was instantly killed in his room by a fall of slate. He worked under the slate and knew it was unsafe.

## CONDITION OF MINES

## Mines on the P. and L. E. Railroad

Adelaide.—Is keeping up its good record in regard to ventilation and drainage.

Banning No. 1.—Has just the same record as last year.

Banning No. 2.—Is a new opening with a first class head frame outside, and an endless rope haulage system which gives good results, and plenty of ventilation and good drainage.

Clarissa.—Has still its natural conditions, and is keeping in good order.

Darr.—Is in fairly good condition, and is well looked after.

Fort Hill.—Has been greatly improved by clearing out the old opening that had fallen in from a squeeze on the hill front, and the building of a new coal bin.

Forest Hill.—Is in good condition in regard to ventilation and drainage. They have a long distance to haul the coal, but are doing very well with the electric motors.

Kendall.—Is a small mine, and has not done any work the last three months on account of the dullness of trade. The natural conditions of this mine are good.

Nellie.—Is on the retreat with its old workings at the shaft, but is advancing in the right way with their new workings. Ventilation needs some improvement, which they will soon have by removing the fan to the new opening. The drainage is good.

No. 3.—They are advancing to the proper system. Ventilation and drainage good.

Ocean No. 5.—Needs just one improvement, that is a fan instead of a furnace. It is extensive enough to give a large output of coal.

Paul.—Is a very extensive mine and is nearing its boundary line, but it still maintains its good qualities of ventilation and drainage.

Sarah.—There have been some improvements in this mine this year. They have raised the swamp on the main haulage road to allow the motor to go back, which makes it a shorter haul for the animal power. A little more ventilation would improve it still more.

Victoria.—Is good in all particulars.

Washington No. 1.—Is first on the record for extracting coal. Ventilation and drainage good.

Washington No. 2.—The same as No. 1.

West Newton Shaft.—Has a small hoisting shaft, and a poor ex-