

lamps for a certain period until reported free; that was not done here, and there is no regulation to that effect. Men go in with unlocked lamps in their hands to examine places and open lights on their heads. The Mines Regulation Act defined a gaseous mine as one where gas is discovered at any time. He would say that any mine that gave off gas to the extent of having accumulation of fire-damp explosive in a safety lamp was a gaseous mine. One of the reasons of the large percentage of accidents here compared with other countries was the large percentage of inexperienced miners permitted to operate places. In Great Britain the miners are brought up in the mines thoroughly trained from boys; there it is a trade. Here men by hundreds are taken who never saw a coal mine. In Fernie he understood they had directly imported aliens for the mines. The late amendment as to certificates did not go far enough. Every man in a mine was a source of danger to every other man in that mine and every law should apply to all. Educational tests should apply to everyone employed. The witness favoured an amendment of the present act to that effect. The organization of coal miners was the strongest point of safety. The Coal Mines Regulation Act in England was brought into existence by bodies of organized miners and the influence of trades unions. It is not possible to get the factor of safety where the men were not or could not be organized. It was highly important the men should take advantage of the privilege of examination of the mine.

The witness believed the intention of the Coal Mines Regulation Act was that every man employed in a mine should be able to read the regulations which are posted to instruct the miners. Every man who cannot read the rules is a serious danger. He did not see the reason for translating them—the managers could not read Chinese or the other languages of the different foreigners employed. If a man could not read the rules he was unlikely to understand the instructions in a way he should. He considered dust a very dangerous element in coal mines and opposed the use of black powder and the use of electric appliances in gaseous mines. All sorts of things were dumped into air courses here—a source of danger. The law should prevent a mine being worked three shifts. Had never studied any particular system of watering, but some good system was an absolute necessity. Did not consider the shot-lighters had any power of judgment under the act as to examining the holes of some and not of others before firing—there was an ambiguity in respect of that—it simply says examine the place. His interpretation was that the act also provided for an examination after the shot, and it was so interpreted in the mines of the New Vancouver Coal Company. Under certain conditions a blown-out shot was very dangerous; some importance in that respect might be attached to the tamping. Clay was supplied in some mines in Great Britain to prevent tamping with coal dust; would favour a law compelling owners to supply clay where proper tamping could not be procured by the men.

Had always found practical miners very careful in

tamping. Black powder should be subject to government inspection. Had a long experience in safety lamps; would consider the open Clanny a dangerous lamp. Had never had the Wolf in his hands. The clad Clanny is as good as a miner could have, but not for a fire-boss. Guessed every fire-boss carried matches now—a very grave source of danger. Would suggest two men being sent to examine the mine. Lamps should be tested in a gaseous mixture before the men got them. A near-sighted man would be dangerous as a fire-boss; would favour examination for sight. Seventy men was a good proportion for an air split. Was in favour of stopping off old workings—dirt and rock faced by a strong wall. Favoured as much air in a mine as possible—a reasonable moderate circulation without reducing the volume. There should be more discipline in mines; had never known of a conviction under the Coal Mines Regulation Act.

Considered it impossible to calculate the strength of powder for a second use of a hole; it was dangerous to fire a hole a second time, and would prohibit it absolutely. The division of a mine by such a system as the panel was absolutely indispensable. One year's experience was too little as a fire-boss or shot-lighter. The English act prohibits a man going to the coal face without two years' experience; an official should have five years' experience. A manager was not safe in a mine who was a theorist merely—was just as dangerous as a Chinaman. A man should lose his certificate, or it be suspended for breaches of the act.

Suggestions by the witness to the management of mines has met due consideration in many instances and been carried out. The witness went at length in subjects of management, such as dividing mines into sections and making a shot-lighter responsible for a given area.

Witness considered it would be a check on the officials if the inspector posted the results of his examination. While he did not desire to reflect on anybody, did not think the inspectors examined thoroughly—going through the old workings, travelling the air courses, in the sense the act is supposed to mean. His experience was, of course, confined to one mine. Advocated making the men acquainted with the plan of the mine to enable escape if necessary and as to intake and air courses, and question them on it. In this the Union and management might work together. Believed such knowledge would have saved lives at Extension and other places.

In reply to Mr. Hawthornthwaite, the witness had no reason to know an inspector dare not do his duty in British Columbia, and had no personal experience that would not prove to him he would dare not do it; but was prepared to say that where political influences were strongly connected with government administration that are generally interested in coal mining operations, there is a tendency in that direction.

Mr. T. J. Shenton also criticized the inspection of mines, but later in the enquiry voluntarily withdrew any imputation on any particular inspector and desired to speak generally as to inspections.