

All the percentages for Reefton are, no doubt, unduly high, owing to the small numbers dealt with; but we see that at Reefton there is after the age of thirty an increase in the number of cases of consumption among males, whereas among the females in Reefton and among both sexes over the whole of New Zealand there is a marked drop after that age. The unusually high proportion of male to female cases of phthisis during the period of thirty to fifty also suggests the influence of the mines, as the results of the work would show chiefly at that age.

I visited a good many of the places where the drills were at work. It appeared that it was only when specially hard rock was being worked that the dust was very marked, and then only if the bore were directed upward. When the hole sloped down it was possible to keep a little water in it to prevent the dust flying out; but it seemed to me that the dust produced by the actual boring was not nearly so serious as that stirred up during the process of loading the trucks with the dirt loosened after a blast.

As regards a remedy for this serious danger to which the men are exposed, a spray (as suggested by the Miners' Union) was brought into use some years ago in the New Inkerman Mine, the management going to considerable expense to make a reservoir and lay water on to all the working-faces. It was found, as is often the case in dealing with dangerous work, that the principal obstacle came from the men themselves, who neglected to make use of the spray on the ground that it made everything wet and muddy. Any regulations enforcing the provision of sprays would therefore have to be supplemented by a penalty on the miners who neglected to make use of the apparatus provided.

This matter of dust from rock-drills is engaging the attention of the Home Office at present as regards the mineral-mines in Cornwall. A report of the Commission thereon will be published shortly, and meanwhile I do not propose to make any recommendation until I have seen this report; but this question of dust-prevention is, to my mind, the only sanitary matter on which any great improvement is required in the Reefton mines. One valuable suggestion has been made by Captain Richards—*i.e.*, that dressing-rooms be provided at the mine-head where the men may wash and change to dry clothing on leaving their work. This proposal, curiously enough, met with some opposition from the men, who thought it might be taken as a reflection on their honesty—in other words, that it meant a system of preventing the possibility of "specimen stone" being taken from the mine. This is, of course, absurd. The men should have lockers for their things, and advantage could be taken of the proximity of the engine to furnish means of drying the wet clothing and supplying hot water for washing. Such places are provided at many mines in England, where they are technically known as "dries." I believe, with Captain Richards, that such conveniences would go far to lessen the amount of lung-trouble among the men.

My recommendations generally are as follows:—

1. That no nightsoil be buried in the mines (already enforced).
2. That watertight iron pans be used in the privies, to be emptied at least once each week, and the use of dry earth or sawdust as a deodorant be enforced.
3. That the privies be placed on any level on which the Inspector of Mines may, on considering the number of hands there employed, deem such a convenience necessary.
4. That the mine-manager may be given power to prosecute any miner found misusing privies, or found defecating elsewhere in the mine than in such a privy.
5. That receptacles be provided in which the men are compelled to place waste scraps from their meals.
6. That mine-managers be warned as to the danger which sometimes arises from the evolution of gas when underground accumulations of water are disturbed.
7. That the matter of dealing with dust from rock-drills be left in abeyance till the action of the Home Office in the matter be learned.
8. That dressing-sheds with bathing facilities be provided at each mine-head.

Before concluding I should put on record the fact that the mine-managers in general readily gave me every facility in making my investigations, and appeared willing to adopt any suggestions towards improving the conditions under which their employees worked. So long as the safety and comfort of the workers are in the hands of one with so extensive a grasp of his subject, both in theory and practice, as Mr. Tennent, the Chief Inspector, and of so experienced a man as Captain Richards, Sub-Inspector, I do not think any very serious sanitary defects will be permitted in the mines.

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