

1904.

NEW ZEALAND.

# SANITARY ARRANGEMENTS IN QUARTZ-MINES AT REEFTON

(REPORT ON).

*Presented to both Houses of the General Assembly by Command of His Excellency.*

Dr. R. H. MAKGILL, M.D. Edin., D.P.H. Camb., District Health Officer, to Dr. J. MALCOLM MASON, M.D., D.P.H., &c., Chief Health Officer.

Dr. Mason, Chief Health Officer.

Department of Public Health, Head Office, Wellington, 22nd August, 1904.

I BEG to present the following report on the sanitary conditions of the quartz-mines at Reefton:—

As directed by you, I proceeded to Reefton, arriving on the 20th June, and was there met by Captain Richards (Assistant Inspector of Mines) and Mr. Betts (on behalf of the Miners' Union). I got from Mr. Betts a statement as to the complaints which the union preferred against the sanitary condition of the mines, and arranged to visit those which he considered most in need of attention.

Accompanied by Captain Richards and Mr. Betts I visited the following mines: Golden Fleece, Progress, Wealth of Nations, Energetic, Keep-it-Dark, New Inkerman. We went to those parts of the workings considered by the miners' representative as being most insanitary, saw the privy accommodation provided in each, examined the atmosphere in drives immediately after explosives had been used, and paid special attention to those places where the rock-drills were at work. I also made inquiries into an accident which occurred some months ago at the Energetic Mine, in which two miners were overcome by noxious gases. I interviewed Mr. Tennent, Chief Inspector of Mines at Westport, and got much helpful information from him. After my return to Wellington I received a series of suggestions from the Inangahua Miners' Union as to the sanitary precautions which they considered should be adopted.

I propose to divide my report under the headings of the matters complained of by Mr. Betts, and give the remedies suggested by the union, and the evidence of the Inspector of Mines, with my own comments on each subject, and conclude with a general summary of my recommendations.

## 1. PRIVY ACCOMMODATION.

Mr. Betts complained that the men have to go too far to the privies, that the privies were not, in many cases, kept in good condition, and that in some cases the nightsoil was buried underground in the levels. The suggestions of the union on the subject are—(1.) "That no human excrement should be permitted to be buried underground in a mine." (2.) "That proper pans should be provided at each level in the mine." (3.) "The pans to be used to be prescribed by regulation, and disinfectants and earth to be kept close to the pans in suitable quantities." (4.) "The pans to be emptied at least once in each week." (5.) "That no wooden boxes be permitted to be used, but that iron pans be provided with proper covers, as, in our opinion, iron pans can be more effectively cleaned than wooden boxes." (6.) "Regulations should be made for the punishment of any mine-owner who does not provide suitable privy accommodation as may be prescribed, and also for the punishment of any workman who defecates at any other place than at the pans, and who is guilty of dirtying the pans or the place adjacent to the pans."

In all but the Progress Mine I found privy accommodation provided below ground. These privies generally had a perforated seat placed over an oil-drum. In the New Inkerman the privy was on the long level, was a movable affair on wheels, and was drawn to the surface by a horse when it required emptying. In the Wealth of Nations wooden boxes were used. At the Progress Mine two privies were at the pit-head, and the cages were running so constantly that the management did not think it too much to expect the men to come to the surface when necessary. In two—the Wealth of Nations and Keep-it-Dark—privies were placed near the shaft on each level. In the latter the pans were in the shaft-chamber, and here some slight smell was noticeable. In all others they were placed in unused "dead-ends," which appeared to me the preferable arrangement. In no mine was there any evidence that the nightsoil was being buried below ground.

Captain Richards informed me, as also the various mine-managers, that (as has been found in other countries) the great difficulty was to get the men to make a proper use of the privies and to clean them regularly, and where a man was detected defecating elsewhere than in the privy he was often discharged; but the management rather shrank from such a course, and, of course, the offender was often undetected. In one or two instances the pans, &c., had been deliberately destroyed. On account of this difficulty of having them properly attended to the manager objected to a privy on each level. In the two mines mentioned where each level was so provided the miners employed were mostly family men permanently residing in the district, who took an interest in the sanitation of the mines. The difficulty was with the young hands and casual employees.