

ORGANIZATION OF MINES DEPARTMENTS.

In Victoria the Secretary for Mines and Water Supply is also Chief Mining Surveyor and Chief Inspector of Mines, having under him Geological and Mining Surveyors, Inspectors of Mines and Water Supply, Mining Registrars, and a Superintendent of Drills. At every Mining Surveyor's office there is a book in which is entered every survey made, with the date that he first received instructions, the date of survey made, as well as all the dates at each stage the survey goes through, until the plans are made and copies forwarded to the head-office in Melbourne.

In the head-office there is a chief clerk, an accountant, with several assistants and draftsmen. Complete records are kept here of everything that transpires relating to the Mines Department.

When the Crown Lands Department desires to dispose of lands for sale within goldfields boundaries, it sends notice of its intention to the Secretary for Mines and Water Supply, with plan showing the lands proposed to be sold; and if he, after making inquiries, finds that the sale of such lands would be prejudicial to the interests of the mining community, the land is not offered for sale.

The Government assist in making roads on goldfields, something in the same manner as in New Zealand. They sometimes give grants, but in most cases subsidize Shire Councils, on approved works, from one-half to two-thirds the cost. The work in almost all cases is done by the Shire Councils, who employ certificated engineers, and the Government pay the money as the work progresses on the certificates of those engineers, the Government having officers of its own who occasionally visit the localities to see that the works are properly carried out.

The Diamond Drill Branch incurs a considerable expenditure every year, inasmuch that it subsidizes boring to prospect for gold to the extent of one-half the cost, and in prospecting for coal to the extent of two-thirds the cost, as they employ a number of those drills. It has always on hand a large supply of tubing, duplicate parts of drills, with all necessary appliances to work them; and it likewise keeps a considerable stock always on hand of boarts and carbons.

In New South Wales the official head of the Mines Department is the Under-Secretary, who has under his control the Geological Survey Branch, Mining Surveyors, the Examiner of Coal-fields, who occupies the position of Chief Inspector of Mines, Inspectors of Mines, Mining Registrars, and a Superintendent of Drills.

In the head-office in Sydney there is a chief clerk, an accountant, with assistants, Chief Mining Surveyor, Geological Surveyor in Charge, and draughtsman. The Chief Mining Surveyor issues all instructions with regard to mining surveys, and has the field-notes of the Mining Surveyors all forwarded to him at the head-office, where all the plans are drawn: the Mining Surveyors only have to do the field-work, and each branch of the department keeps complete records of all plans and anything that transpires connected with its functions. The Diamond Drill Branch conducts the boring operations, and puts down bores in various places, approved by the Geological Surveyor in Charge, entirely at the Government expense; but if any company or person requires these drills to prospect with, or to bore for water, they have to pay the whole cost of working, repairs, and shifting. In cases where the drills are used in boring for water or for prospecting they are made self-supporting.

All roads and other works required throughout the country are constructed by Government. There is a Chief Engineer of Roads, another in charge of railways, and another in charge of harbours, water-works, and river improvements; and all the different works are carried on by the officers belonging to the branch which each class of work comes under. But, as far as roads are concerned, in the interior of the country they mean only the bush and scrub being cleared for one chain wide. There are very few macadamized roads. As an illustration, during the last three weeks I was in New South Wales I travelled about 1,200 miles in coaches, and through the whole of this distance the coach-horses had no shoes.

SCHOOL OF MINES.

This is a subject which deserves considerable attention. In New Zealand a variety of minerals is known to exist. Nature has so formed her that, whilst having valleys, plains, and low undulating country suitable for agricultural and pastoral pursuits, the mountain lands contain the mineral wealth, and are at present looked upon as of very little value. But these may in reality become the most valuable lands in the colony, as the minerals are only commencing to be developed.

Our mining has hitherto been confined almost exclusively to gold and coal. Of late years manganese, antimony, copper, silver, and scheelite have been found; but very little has yet been done to prove their extent. Apart from the rugged nature of the mining districts in New Zealand, the chief reason of the delay is, that the mining community is not sufficiently educated in metallurgy to be able to distinguish the minerals in the various forms in which they occur. For instance, in New South Wales, where rich lodes of silver ore have recently been found, no one unacquainted with ores would suspect the existence of silver in the lode. It would be well, therefore, that the means should be placed within the reach of our miners of attaining such a knowledge of ores, their appearance and tests, as would enable them to prospect intelligently.

The establishment of a school of mines at Ballarat, Victoria, was first suggested by Mr. Harrie Wood in 1869, and in 1870 a lease of the buildings formerly used as the Circuit Courthouse was obtained at a nominal rental for a term of fifteen years, and lecturers were appointed to impart information to students on the various subjects, which from time to time have since been augmented. Classes were held last year in elementary, inorganic, organic, and pharmaceutical chemistry, natural philosophy, metallurgy and assaying, mineralogy, geology, mining, land, and engineering surveying, mathematics, mechanical engineering, electricity and magnetism applied, telegraphy, materia medica, pharmacy and physiology, general botany, and astronomy. To suit the special requirements, an evening class has been established for training mining managers, miners, and others in the art of surveying mines and drawing mine-plans.