

floors are connected by tunnels through the walls and by means of adits and tunnels outside. There are altogether 26 floors. The vertical depth between the top and bottom is 1,430 feet. There are five veins running from a minimum of 30 feet in thickness to 300 feet. They are all worked. The normal output is 4,000 tons of slates per month. About 1,600 men are employed.

The plant for hauling and pumping is modern. Electrical power is used. Current is obtained from a water power generated from the waters of a lake on the side of Snowden. It is brought eight miles over the hills at 10,000 volts.

The manufacture of slates and slabs is as usual. Suitable pieces are sent to the slab-house, where they are sawn to shape and planed smooth. Everything except the splitting is done by machinery driven by electric motors.

Mining Science, January 16th.—Under the title "The Wisconsin Mining Trade School," R. B. Brinsmade outlines the courses and aim of a new institution at Platteville. The Wisconsin State Legislature is opening the doors of a new institution for secondary mining education. The minimum age limit is set at 15 1-2 years, and the course is only 2 years. The entrance requirements are mainly a knowledge of arithmetic and the use of the English language. Tuition is free and by a co-operative arrangement board and lodging may be obtained at the rate of \$3 per week. The expenses of laboratory materials and books are kept low. It is possible for a student to get through a school year on an outlay of \$170. Recognizing that mining is not only an art, but a science also, the marked traits of practical self-trained engineers, "curiosity, clear-sightedness, and ingenuity," will be cultivated in students. In addition they will be given an efficient knowledge of mathematics and of the formulated laws of natural science. The course of instruction will be a just compromise between the formal scholastic training and the practical "shop" apprenticeship. "The attempt will be made not to develop consulting engineers, but rather the executive man of action in a scientific occupation."

The subjects taught will include algebra, geometry and trigonometry; chemistry, physics, mineralogy and geology; shop work, drafting, surveying, mining machinery and metal—and coal—mining. The two years' course will cover 80 weeks and there will be extra summer work. The school year will begin in January in order to include two summers. Two months each summer will be spent in underground work—one summer in metal mining and one in coal mining.

No mining theory will be taught the students until after the first summer's underground experience. A shaft will be started on the school campus, as a large body of zinc ore has been proved to exist there.

Laboratory instructing will be given in drilling.

Trans. of the Mining Institute of Scotland, Vol. xxx., Part I.—This pamphlet contains an abstract by James Bain of the report on Rescue Apparatus of a committee appointed by the Fife and Clackmannan Coal-owners' Association. That committee adopted the following conclusions:—(1) That a central station, equipped with a certain number of sets (say, twenty) of apparatus ready for use in case of emergency, is necessary for

Fife, and that it should be in telephonic communication with every colliery. (2) That a certain number of sets of apparatus (say, not less than five) should be kept ready at every colliery. (3) That at every colliery at least twenty men, including all the officials who know the mine, should be instructed in the construction and use of the apparatus. (4) That an intelligent man should have care of the central station, and be capable of instructing the men in the use of the apparatus and keeping the apparatus in order. (5) That the apparatus designed by Mr. Garforth is the best suited for our mines, being lighter, smaller, and more flexible than any other inspected by the committee.

Developing each recommendation further, the committee estimates the cost of a central station, and experimental gallery, to be about £1,200, exclusive of apparatus, and that it would take from £250 to £300 per annum for upkeep. Each rescue party should consist of five persons, one to have charge of the other four, whose only duty would be to direct the operations. The committee further dwells upon a serious defect in all apparatus. Not one type provides for means of communication between the men forming the rescue party, except by signals.

PERSONAL AND GENERAL

Mr. Eugene Coste has returned from a visit to Ottawa and Montreal.

Mr. H. E. T. Haultain left Toronto on the 20th January for Craigmont.

Mr. J. J. Harpell has returned from a visit to Montreal, Ottawa and Kingston.

Mr. R. Anson-Cartwright has returned to Toronto after visiting Great Britain.

The Deputy Minister of Mines for Nova Scotia, Mr. Hiram Donkin, has been appointed Commissioner of Roads for the Province.

The task of presenting the petition for an extension of the bounty upon lead has been entrusted to Messrs. J. L. Retallack and L. Pratt.

Mr. S. H. Reynolds, C.E., assistant city engineer of Winnipeg, will remove to Victoria, B.C., and devote himself to mining engineering.

Mr. Howells Frechette, late of the Crow's Nest Pass Coal Company, passed through Toronto on the 20th of January on his way to Ottawa.

Mr. W. A. Carlyle, recently of the Rio Tinto, and now consulting engineer to Le Roi, passed through Toronto on his way to British Columbia on January 24th.

Mr. J. H. Plummer, president of the Dominion Iron and Steel Company, sailed recently from New York for England. He will be absent for about six months.

Mr. E. A. C. Pew, a prominent railroad and mining promoter, died in Toronto on January 16th, aged 73 years. He was largely interested in the iron mining industry.

Mr. E. J. Laschinger, M.E., B.A.Sc., formerly of Toronto, read a paper on the "Flow of Compressed Air in Pipes" before the Transvaal Institute of Mechanical Engineers, Johannesburg, on December 14th.