

ammonia, 3,351 tons. The Nova Scotia Steel and Coal Company has 30 ovens of the Bauer type and 120 Bernard ovens; the latter are situated near the blast furnace and the surplus gas is used for the production of steam for the electric power plant. The surplus gas from the Bauer ovens is used in generating steam for general colliery use. The other ovens in this Province number 178 and are all of the beehive type. The Atikokan Iron Co., Ltd., has 100 beehive ovens at Port Arthur, Ontario, and the Algoma Steel Company 110 Koppers by-product regenerative ovens at Sault Ste. Marie.

In Alberta the West Canadian Collieries, Ltd., at Lille, has 50 ovens of the Bernard or Belgian type. The ovens of the International Coal and Coke Company at Coleman, 216 in number, are the ordinary beehive as are also the ovens in British Columbia, comprising 1,420 in the Crowsnest district and 150 on Vancouver island. In Alberta, also, the Leitch Collieries, Ltd., are erecting at Passburg 101 Mitchell rectangular ovens.

The following description of these ovens has been furnished by Mr. W. L. Hamilton, Manager of the Leitch Collieries, Ltd.:—

‘This type of oven is similar to the beehive oven in the method of burning and quality of coke produced. They are rectangular in shape, being 30 feet long; 4 feet 10 inches wide; 4 feet 6 inches high at the doors, and 8 feet high at the middle. About 10,000 nine inch bricks are necessary to build one oven. The ovens are spaced 7 feet  $7\frac{1}{2}$  inches centre to centre. The side walls and piers are built of stone—as in other ovens, the tops are covered with clay.’

‘The ovens are operated altogether by machinery, electric power being used. The charge of coal is delivered to the oven through a port at the top of the oven, an electric larry of 10 tons capacity being used. The charge is then levelled by a levelling machine, after which the drafts are set, and the coke is burnt much the same as a beehive oven, except that the oven has two doors and drafts must be set on each of them. When the charge is coked the doors are removed and the coke is quenched in the oven, after which the entire oven is pushed at once into the yard; it is then loaded into the railway cars by hand. The larries, leveller, and pusher, are all manufactured by the Scottdale Foundry & Machine Co., of Scottdale, Pa., who have acquired quite a reputation in designing and building this class of machinery. This equipment is sufficient for a plant of 300 ovens if necessary.’

‘There is a vast saving of time in this type of oven. It requires but two minutes to push out one oven and move to the next, while one man can scarcely draw a beehive oven by hand in less than one hour. As soon as an oven is pushed out it is immediately charged and levelled. The doors are then closed and a great deal of the heat which is lost in a beehive oven is retained, allowing a much larger charge of coal to be coked than in the case of a hand drawn oven.’

‘There is also a large saving in the cost of operation as this machinery does the work of a large number of men. To operate this block of 101 ovens, the following men will be required. One man to charge ovens; one man to operate