

COAL STORAGE IN CANADA.

A boat trip up or down the St. Lawrence River will show large accumulations of soft coal at every point which the Canadian railroads can use to advantage for storage purposes. Considered all together, this accumulation was remarked by parties with whom we talked to be unprecedented. Brockville, Ont., one of the few harbors where both the Grand Trunk and the Canadian Pacific have facilities, was noticed to be especially alive with activity. This is not only a strategic point for the Grand Trunk, but it is also a direct source of supply for the Brockville-Ottawa line of the Canadian Pacific, with numerous connections above with the latter system. When the present season closes it will have been a remarkably prosperous one for the coal handlers along this important waterway, as they have lost very little time and their pay ranges from 30 cents per hour for regular day labor to 50 cents per hour for Sunday work. Of the latter there has been considerable this summer to accomplish the prompt unloading and quick return of vessels for other cargoes. One shoveller at Brockville told us that he had several times worked from 30 to 34 hours without rest or sleep, and that twelve men in the Canadian Pacific road plant at that place had handled as much as 715 tons of coal per day, the respectable average of 59.7-12 tons apiece. Up to this time most of the coal along the St. Lawrence is handled in old-fashioned ways, but there are signs of a new interest in coal handling and storage facilities. Ogdensburg, N.Y., has long had modern plants on a large scale, and there are a few labor-saving devices on the Canadian side. At Alexandria Bay, N.Y., a start has been made in the way of quick fueling of pleasure yachts on the pocket principle, while a number of projects are being considered by the progressive retailers on both sides of the river. Farther up in Canada, also, the same heaven is working, and it seems likely that five or ten years more will witness a revolution in coal-handling methods throughout this section.

THE COLEMAN, N.W.T., COAL FIELDS.

A correspondent of the Nelson, B.C., Daily News, writing of the International Coal & Coke Co. at Coleman, N.W.T., says:

Up here near the portal of the Crow's Nest Pass, nature with a lavish hand deposited bituminous coal measures, which for thickness and quality are not rivalled elsewhere. The development of this potential wealth, so essential to the economic progress of a young nation like the Dominion, dates back only yesterday. Coleman, where the Dennison colliery of the International Coal & Coke Co. is located, had no existence a year ago; to-day it is pulsating with life, and gives promise of soon becoming an important factor in the coal industry of the entire district. The transformation has been simply short of marvelous. The coal company is rapidly completing the installation of a plant with a capacity to handle an output of 2,000 tons of bituminous coal daily. Since last October no less than 30,000 tons of coal have been extracted in the course of development work. A fortnight hence, even before the most essential equipment shall have been installed, the colliery will be maintaining an output of 500 tons daily.

It is conservatively estimated that the production will reach 1,000 tons daily by January 1 next, and 2,000 tons per day, the limit of the plant, by May or June next. Thus far the entire output has been sold in advance. To accommodate the growing traffic, the Canadian Pacific Railway have already built two and three-quarter miles of track and sidings on the coal company's property at Coleman. A double battery of 104 ovens, capable of producing 140 tons of coke daily, were completed recently, and provision has been made for the erection of 300 additional ovens at an early date. A portion of the coking plant is now in operation. It is producing a superior quality of coke, which finds a ready market in British Columbia smelting centres, where it is utilized in the reduction of metalliferous ores.

This, in outline is the story of the result accomplished at Coleman in less than 12 months. The company employs about 300 men, including mechanics engaged in construction work. A noteworthy feature is the fact that the coal extracted in the course of development has thus far actually paid all costs of development of the mine.

The bituminous coal lands of the company extend about seven miles north and south on the strike of the coal measures, and have a width of one mile. The greater length of these lands is south of the railway. So advantageously are they situated that the main line of the Crow's Nest branch of the Canadian Pacific Railway passes within 200 yards of the main entry of the mine. The seams, seven in number, run parallel, north and south, and are embraced in an area of less than 700 feet wide. The croppings can easily be traced at intervals on the surface for two miles north and five miles south of the track, all within the limits of the property of the company. The seams have a westerly dip of about 45 degrees, and are regular and consistent, and in good condition wherever tested. With one exception they are all east of and under that now known as No. 2, and on which for the present most of the development has been done. No. 1, the most westerly seam, is about five feet in thickness; No. 2 is 14 feet; No. 3 which is opened two miles away to the southward, is 17 feet; No. 4 is eight feet, and No. 5 about seven feet. A Pittsburg consulting coal mining engineer last year estimated the coal in sight above the level of the Old Man River at 64,000,000 tons. The coal taken out in development is excellent for steaming purposes, being absolutely free from impurities. It runs from 60 to 65 per cent. in fixed carbon, and makes a firm coke of exceptional quality.

Development work is now being concentrated on No. 2 and No. 4 seams. The main entry and airway driven on No. 2 seam are now in about 2,200 feet. This seam is very uniform throughout, averaging 14 feet in thickness. Coal has been extracted from this working daily since the commencement of operations. At a point 1,000 feet distant from the pit mouth of the main entry and airway, a crosscut tunnel has been driven at the 45 degree angle through the rock, intersecting No. 3 seam 150 feet distant, and encountering No. 4 seam 80 feet farther east. The development of No. 3 seam has not yet been undertaken. An entry and airway have been driven south from the crosscut tunnel along No. 4 seam for a distance of about 500 feet. This seam is eight

feet in thickness, possesses a good roof and bottom and in the matter of dip presents the same uniform characteristics of No. 2 seam. The entries on the coal have already opened up a large area of ground. The mine is being developed on the stall and pillar system, with barrier pillars. Later on the crosscut tunnel from No. 2 to No. 4 seams will be extended farther east to intersect three other seams. The face, 2,000 feet from the portal of No. 2 seam, owing to the gradual rise of the mountain, gives a depth of 400 feet on the pitch of the seam. Lifts will be made every 300 feet. This will provide rooms 300 feet in length, thus affording a rapid and economical method of development and extraction, combined with the utmost safety. Every device known to modern coal mining is being utilized. The main system of car haulage will be compressed air. The workings will be ventilated by a Capell reversible fan, 16 feet in diameter, driven by a two speed 150 h.p. motor, and will furnish 150,000 cubic feet of air per minute. This fan is now being installed on No. 2 seam at the surface, and will be in operation shortly, enabling the mine forthwith to maintain an output of 500 tons of coal per day.

The broad and comprehensive policy of the company is evidenced by the large expenditure incurred in the erection of surface works, including the power house and tippie, all of which are in an advanced stage of completion. These works are situated north of the Old Man River and alongside the railway. The power house, 28x85 feet, is a fireproof stone structure. It contains six boilers, each of 125 h.p. capacity, furnished by the Erie City Iron Works, Erie Pa. The engines, two in number, are each of 400 h.p. capacity. They were built by the Phoenix Iron Co., Meadville, Pa. The engines are directly connected with two 250 kilowatt electric generators (equal to 335 h.p. each) supplied by the Westinghouse Electric Co., Pittsburg, Pa. These generators will furnish the electrical current for the various motors to operate the fan, tippie, larries, machine shop and for lighting the town of Coleman. Other machinery equipment comprises a Canadian Rand Drill compressor of 1,000 pounds pressure for the purpose of furnishing air for the car haulage throughout the mines. The machine compresses air at the rate of 750 cubic feet per minute.

The tippie, situated alongside the railway track, and 200 yards distant from the colliery, is the largest affair of its kind in the Crow's Nest district. It has a handling and storage capacity of 4,000 tons of coal daily. A steam hoist of 100 h.p. capacity, built by the Jenckes Machine Co., Sherbrooke, Que., will hoist the cars from the yard in a self-dumping cage of 80 feet to the top of the tippie. The coal, after passing over a number of screens, falls upon two picking tables with a capacity of 100 tons per hour, and driven by a 25 h.p. electric motor. Falling by gravity it is automatically screened and delivered in bins in the lower floor of the tippie, ready for shipment by rail. The slack coal previously separated, is delivered into other bins, whence it falls into the larries (cars) which in turn convey it and automatically dump it into the coke ovens a short distance away. The tippie has a capacity of 2,000 tons every ten hours. If worked full time it will be