

Workers of America claiming to act on behalf of the colliers of the Scotia Company, made a demand for recognition coupled with a demand for increases in wages for several classes of labor. This was refused on the ground that one of the demands made had been the subject of discussion and had been settled on a mutually satisfactory basis. The committee of the United Mine Workers applied to the Minister of Labor for Conciliation Board under the provisions of the Lemieux Act. Considerable correspondence covering a period of some weeks passed between the Minister of Labor and the company. The Deputy Minister of Labor visited Sydney Mines and personally looked into the situation and meetings were arranged between him, the committee of the United Mine Workers, and later a committee of the P.W.A., the outcome of which was that the Department of Labor declined to grant a Conciliation Board and the difficulty gradually blew over.

The advance made in wages to common laborers was seven cents per day, and resulted in increased labor cost which will amount to about \$13,000 per year. The strike virtually reached an end at the Dominion Coal Company's territory in May last; while that at Springhill still continues. There is also considerable unrest among the operators at other sections of Cape Breton, as at Port Morien, Port Hood, and probably elsewhere.

WABANA: Further sinking of submarine slopes at Wabana was continued during the year, these being extended a further distance of 1,456 feet, and the face of the slope in our submarine territory now extends 2,773 feet (January 23rd) beyond our southern boundary. No serious difficulties were encountered during the past year in the progress of this work. Five additional Diamond drill bore holes, six in all, have been driven, the cores extracted, proving the underlying seam from the southern boundary to within a few hundred feet of the present face of the slopes. These show that the lower seam has increased very considerably in thickness and also improved in quality.

During the early part of the year, it was determined to drive a slope at an angle of about thirty degrees from the Scotia, or Upper, to the Lower, or Dominion, bed. This cut through a vertical depth of about 280 feet of intervening strata, a length of 750 feet, and reached the Lower (or Dominion) bed about the end of the year, and a level is now being driven off to the eastward, which is now in a distance of 40 feet, all in solid ore of very satisfactory analysis. Exploratory and development work done on the submarine areas during the past year, has greatly increased the quantity of proven ore in our submarine territory.

Levels and working places are being driven off on both sides of the slope; a large portion of the haulage slope is railed and equipped for permanent haulage. A new low-level pier near the shipping docks on the southern side of the Island was built, and on it was installed an electric power installation; also a coal-handling plant. Practically all the pumping, lighting, a considerable portion of the haulage, and ventilation in the underground and submarine territory is now being done by electric power generated in the new power house on the south side of the Island, and conveyed to the mine by high-tension alternating current.

Work in connection with submarine mining, general extensions and betterments of new plant, was all carried out without serious accident of any kind, which speaks well for the management and organization which carried out the work, under the direction of the Ore Mines Manager, Mr. R. E. Chambers, M.E.

EXTENSIONS AND BETTERMENTS:

BLAST FURNACE: This furnace, after being in blast for a period of 3½ years, which we believe exceeds all previous records held by blast furnaces in Nova Scotia, was blown out on May 1st, when a new crucible jacket of 2¼" plate, steel reinforced with cast-iron water-cooled slabs 4¼" thick, dovetailed into each other, new bosh jacket and mantel were installed; the furnace lined throughout, hot blast stoves, downcomers, gas-mains, boilers, blowing engines, and pumps were all overhauled and renewed where necessary. The furnace again went into blast June 24th, from which date to December 31st, she made 46,269 tons, or an average daily output of 243 tons. For the same period previous to relining, the average daily output was 166 tons. The great improvement is due mainly to the increase in the bosh diameter, giving as it does increase in cubic capacity, and lowering of the reduction zone. In addition to increased capacity, which of itself would have given some reduction in cost of production, there also was a material reduction in the quantity of coke required per ton of iron, and for the last half of the year we produced pig iron for a lower figure than ever before in the history of the company.

OPEN HEARTH PLANT: The only changes made or additions to the plant during the year, beyond ordinary replacements and repairs which have been well attended to, have been to install water-cooled ports in one of the furnaces during the early summer. These gave such satisfactory

results that it was determined to similarly equip two other furnaces as opportunity offered, and the second one was so equipped in December. The third will be similarly equipped as soon as the work can be overtaken.

AT THE COLLIERIES: At No. 1 Colliery, with the exception of an additional B. & W. Boiler and a more economical arrangement for handling fuel and ashes, there have been no improvements or additions to the plant during the year.

Operations were somewhat handicapped at this and No. 2 Colliery in the latter part of the year by a fire in the Air Compressor House, which threatened to be a very serious one, but was confined to that building and the machinery therein. The estimated loss was about \$12,000, of which we had \$8,000 insurance which we recovered.

No. 2 Colliery: The deeps were further extended some 200 feet, their total length being now 5,000 feet. No additions were made to the machinery or equipment at this Colliery.

Operations at this Colliery were somewhat affected by the burning down of the compressor building at No. 1, as this mine is operated from the same plant. Earlier in the season a feeder of water from the ocean bed affected the output for a few months, until a dam was erected and the water kept back. The cost of permanent dam and pumping while dam was being built, which was considerable, was all charged to Revenue.

No. 3 Colliery: Here the deeps were not extended during the year. At December 31st, they were down a distance of 8,800 feet.

No additions were made to the plant during the season.

No. 4 Colliery: The slopes were driven a further distance of 620 feet, and advanced workings were prosecuted with all diligence during the year; the slopes are now down 1,580 feet. Additional electric generator and electric automatic coal cutters were the principal additions to the plant during the year.

No. 5 Colliery: On the south side of this mine we installed an electric haulage equipment and here, as at all the other collieries, we added to our number of mine cars and mining equipment, the necessary additions to keep up their general efficiency and provide for the increased output.

RAILWAY AND SHIPPING PIERS: The railway has been efficiently maintained, a large number of new sleepers and considerable amount of betterments of various descriptions have been made. Considerable extension has been made to the standage and siding accommodation at No. 4 Colliery, and also on that portion of the harbor end of the railway, extending from the weigh scales to the piers, which has been double-tracked for the purpose of facilitating the more expeditious handling of coal on the shipping piers.

NEW GLASGOW PLANT.

The No. 2 Mill and new 9" guide mill referred to in last year's report have been completed, including construction of a very efficient cooling bed for the 9" mill and the necessary changes in connection with the handling of output of the No. 2 mill. In connection with the latter, a new 25-ton electric overhead hoist has been installed and a runway erected for same.

In the early spring it was decided to erect two large buildings of steel and brick construction. The larger is 800 feet in length by 75 feet wide, in which it is intended to concentrate all our subsidiary plant, dealing with the manufacture of tie-plates, spikes, bolts, rivets, polished bars and compressed shafting, also the straightening plant, etc. The second building is 550 feet in length and 75 feet wide, and will be used for the storage of merchant bar material and shipping. For the purpose of facilitating the cheaper handling of material from the subsidiary plants and to railway cars, this building will be equipped with two electric travelling cranes, which will command the entire structure.

The contract for these buildings called for completion on November 15th. The contractors, however, were not able to complete within the date called for and, in consequence, we will not be able to transfer the plant to these buildings until the spring.

Contracts have been placed in Great Britain for an exhaust surface condensing plant in two units 750 H.P. each, coupled direct to electric generators to supply power for the new shops and other purposes. The buildings and foundations to receive same are already completed. The generating plant is now about ready and will be on the ground soon, and we expect to be able to have same in operation in the early spring.

A new spare heating furnace situate so as to serve mills Nos. 1, 2, and 3, with the usual boiler equipment is being installed.

The cogging mill has, during the past year, been driven to its utmost capacity, having on several occasions rolled over 425 tons of ingots per day, this being an output about three times as great as this mill was originally intended to supply. Having reached the point where the present engines