

With regard to the self-feeding feature of the machine, it is acknowledged that the efficiency of a plant is seriously impaired if an even flow of ore from the storage bin is not maintained. A simple slide gate is not satisfactory unless constantly attended. If it is raised high enough to allow a large lump to pass, there usually results a rush of fines which flood the machine before the gate can be closed. A hanging gate, such as is shown in the accompanying cuts, works very successfully. When a large piece comes along, the gate will swing outwards temporarily to allow it to pass, returning afterwards to its normal position. In conjunction with the hanging gate, a forward motion of the feeder bars will automatically maintain a uniform flow of ore.

When the ore reaches the grizzly, the object is to, as quickly as possible, provide an escape for the fines. This is accomplished in the Ross machines—as will be clearly understood from the cuts—by applying a continuous feed of clear grizzly bars under the oncoming ore. Having passed the top screening bars, there is no possibility of the fines being trapped in the interior of the machine, because the spacing of the bars on the returning side has been doubled, and the distance between the bars has been increased three or four times. The coarse discharge from these machines will be uniform over the width of the apron, a special advantage where rolls, jaw crushers, etc., are being fed.

Over a dozen machines are already installed with screen spaces of from one-half inch to three inches, and negotiations are at present being completed for the installation of heavier machines, notably one with eight-inch screen spaces. This machine will handle very large run-of-mine ore at the rate of 350 tons per hour when the bars are moving at a speed of thirty feet per minute. The bars are three and one-half inch diameter, and the calculations show that twenty-five feet of grizzly surface will be presented to each ton of ore.

The mining world has responded promptly to the unique advantages offered by these machines, and manufacturing facilities are in full working order to meet the demand for quick shipment.

CROW'S NEST PASS COAL CO.

Toronto, April 13.—Through the combined influence of a five months' strike and the shortage of labor, 1917 was anything but a satisfactory year for the Crow's Nest Pass Coal Company, the report submitted to the annual meeting at the head office in Toronto yesterday showing the quantity of coal mined to be 504,768 tons, against 910,839 for 1916. The coke produced was 146,533 tons, compared with 268,980. In spite, however, of the marked decrease in production, the company was able to carry forward to the credit of profit and loss account the sum of \$381,103, compared with \$322,480 at the close of 1916. During the year the company spent on improvements and developments \$125,102, which included payment for the Coal Creek branch railway purchased from the Canadian Pacific Railway.

A press despatch from Whitehorse, Southern Yukon, follows: Recently fire destroyed the plant of the Copper King Company, while in operation in Whitehorse copper camp. The power-house, boiler-room, with power plant and compressor, were ruined. The Copper King property is being worked by Mr. J. P. Whitney and associates. The mine has been shipping ore steadily. Rebuilding will be commenced at once, and new equipment be obtained as soon as can be.

SPECIAL CORRESPONDENCE

NOVA SCOTIA.

Decrease in Nova Scotia Coal Output.

The coal output of the Nova Scotian mines for the first quarter of the year is probably the lowest for a decade. The outputs of the Dominion Coal Company show a decline below last year to the end of March of 130,000 tons. The Allan Shaft mine of the Acadia Coal Co. is still idle, not having resumed operations since the explosion in January. The Nova Scotia Steel and Coal Co. have had interruptions to production through weather and labor troubles, as have the Inverness mines also. Generally speaking, production is at the lowest point since the early part of the war period. The best that can be hoped for during the remainder of the year is that production may be maintained. No possibility of increasing production is in sight; but there are a good many reasons to expect still further declines in outputs.

A New Coal Mines Act for Nova Scotia.

A new Coal Mines Regulation Act is before the House of Assembly. It contains a good deal of new matter, principally in relation to the use of explosives and the duties of examiners and shotfirers, no doubt suggested by the recent colliery explosions. All who work under the C. M. R. A. will welcome a consolidation and a more logical arrangement of its provisions, as from year to year amendments have been introduced, and repealed, and re-introduced, until the Act has become rather mixed up.

Some of the legislation introduced into the Nova Scotia House bears evidence of hurried and superficial preparation. A striking example was the Nova Scotia Stationary Engineers Act, recently brought down, and given what is vulgarly termed the "three months' hoist." As drafted, this Act was full of grammatical and typographical errors, and the textual contents were full of indefiniteness. The principle of the Act was praiseworthy, as similar legislation—but more carefully thought out—has been in existence in other provinces for many years.

Before legislators introduce bills, why should they not consult those men who have spent their lives in practical experience of the conditions which the draft legislation is intended to regulate? A process of consideration and re-drafting, of consultation of those interested, of comparison with similar legislation in other countries, of enquiry as to the success or non-success of similar legislation abroad, may very well, and very profitably consume two or three years, but after such a process, there would emerge legislation that would stand criticism and the test of actual application. A classical example is the Coal Mines Regulation Act of Great Britain. Passed in 1870, it was not consolidated and revised until a few years ago. Before it was issued in the new form, most exhaustive enquiries were instituted through the medium of technical societies, trades unions, coal-owners' associations, etc. The preliminary process was most exhaustive and possibly just as tiresome, but while the resulting Act probably did not please the extremists on either side, it is a workable, coherent, comprehensive piece of legislation, thoroughly well understood by all who assisted in compiling it. In its final form such an enactment represents not the opinion of legislators—which in technical matters must necessarily be faulty—but the unified embodiment of men