

297,885 tons of which 19,614 tons were made with charcoal as fuel and 278,271 tons with coke.

Arsenic.—The arsenic plant at Deloro, Ont., was worked for three months only producing 257 tons of white arsenic valued at \$15,420. Exports of arsenic were 198 tons valued at \$10,583.

Coal and Coke.—An increased production is reported from all the provinces in which coal mining is being carried on.

The Dominion Coal Company, the largest producing company in Nova Scotia, increased its output notwithstanding the serious check caused by the fire in Dominion No. 1 colliery in March. The Nova Scotia Steel and Coal Company also shows a very largely increased output from their Sydney mines. Considerable activity has been displayed in the operation of the mines in the North-West Territories, especially on the eastern slope of the Rocky Mountains in the district about Blairmore. In British Columbia the output of the Crow's Nest Pass Coal Company exceeded that of 1902 by 49.8 per cent. and the company has made substantial progress in the development of their properties. On the coast the Western Fuel Company are actively operating and developing the properties formerly worked by the New Vancouver Coal, Mining and Land Co. The Wellington Colliery Company have been opening up a seam of anthracite coal from which it is expected shipments will soon be made.

Corundum.—Returns have not yet been received of production of corundum, but railway shipments at Barry's Bay are reported at 1,090 tons, which may, however, include corundum ore as well as grain corundum.

Asbestos.—The production of asbestos divided into crude and mill stock was as follows:

	Tons.	
Crude .....	3,134	\$361,867
Mill stock .....	27,995	554,021
<b>Total .....</b>	<b>31,129</b>	<b>\$915,888</b>

Exports of asbestos according to customs returns were 31,780 tons valued at \$891,033. The product was all obtained from the Eastern Townships, Quebec.

Cement.—The production of natural rock cement is at present small in comparison with the output of Portland, and the sales in 1903 were less by 35,679 barrels than in 1902. Detailed statistics for 1903 were as follows:

Cement sold during the year ....	92,252	brls. valued at \$75,655.
Cement manufactured .....	96,152	"
Stock on hand, January 1st, 1903	23,000	"
Stock on hand, Dec. 30th, 1903..	26,000	"
Wages paid .....	\$29,550	

Portland cement statistics have been partially estimated in the absence of complete returns. The following is probably a close approximation:

Portland cement sold .....	627,741	brls. valued at \$1,090,842.
Portland cement manufactured	714,136	"
Stock on hand, Jan. 1st, 1903..	41,991	"
Stock on hand, Dec. 31st, 1903	128,386	"
Wages paid about .....	\$400,000	

The imports of Portland cement in 1903 were:

	Cwt.	
Six months ending June .....	1,061,358	\$385,216
Six months ending December .....	1,646,516	674,880
<b>Total .....</b>	<b>2,707,874</b>	<b>\$1,060,096</b>

This importation is equivalent to about 773,678 barrels of 350 pounds each.

EXPORTS OF PRODUCTS OF THE MINE, CALENDAR YEAR, 1903.

Product.	Quantity.	Value.
		\$
Arsenic, lbs. ....	395,573	10,583
Asbestos, tons .....	31,780	891,033
Barytes, cwt. ....	406	368

Coal, tons .....	1,954,629	5,219,860
Chromite, tons .....	1,013	20,524
Felspar, tons .....	13,760	23,319
Gold-bearing quartz, dust, nuggets, etc., dollars .....	.....	17,566,540
Gypsum, crude, tons.....	.....	.....
Copper, fine, in ore, etc., lbs. ....	37,039,175	3,702,368
Copper, black or coarse, cement copper and copper in pigs, lbs. ....	203,701	25,226
Lead in ore, etc., lbs. ....	18,624,303	426,466
Nickel in ore matte, etc., lbs. ....	12,699,227	1,116,099
Platinum in ore, concentrates, etc., oz..	283	304
Silver in ore, etc., oz. ....	3,360,192	1,989,474
Mica, lbs. ....	956,244	196,020
Mineral pigments, lbs. ....	1,351,475	12,770
Mineral water, gals. ....	5,709	3,585
<b>Oil—</b>		
Crude, gals. ....	350	15
Refined, gals. ....	1,013	190
<b>Ores—</b>		
Antimony, tons .....	33	4,332
Iron, tons .....	368,233	922,571
Manganese, tons .....	135	1,889
Other, tons .....	4,942	143,470
Phosphate, tons .....	1	20
Plumbago, crude, cwt. ....	8,235	26,230
Pyrites, tons .....	2,067	59,604
Salt, lbs. ....	11,915,648	5,927
Sand and gravel, tons .....	355,792	124,006
Stone, building, tons .....	140,476	45,512
Stone, ornamental, tons .....	129	783
Stone, for manufacturing of grindstones, tons .....	2,019	16,925
Other products of the mine.....	.....	157,568
<b>Manufactures—</b>		
Bricks, m. ....	801	5,699
Cement, dollars .....	.....	2,851
Coke, tons .....	32,608	135,957
Grindstones, mfd., dollars .....	.....	10,734
Gypsum, ground, dollars .....	.....	12,457
<b>Iron and Steel—</b>		
Stoves, No. ....	960	11,718
Castings, dollars .....	.....	138,352
Pig iron, tons .....	4,400	78,382
Machinery, N.E.S., dollars .....	.....	416,397
Scrap iron or steel, cwt. ....	131,263	88,839
Hardware, N.E.S., dollars .....	.....	88,285
Steel and manufactures of, dollars .....	.....	2,078,328
Lime, dollars .....	.....	131,412
Metals, N.O.P., dollars .....	.....	554,900
Plumbago, manufactures of, dollars....	.....	17,412
Stone, ornamental, dollars .....	.....	7,097
Stone, building, dollars .....	.....	587



CANADIAN COPPER COMPANY'S PLANT, COPPER CLIFF.

The drawings shown herewith are plan and sectional elevations of a 1,000-ton smelter designed by the Engineering Company of America, New York, and erected at Copper Cliff, Ontario, for the Canadian Copper Company, a subsidiary corporation of the International Nickel Company of New York.

There were several objects that had to be borne in mind, among them the cheap handling of a large tonnage of ore, the storage during the winter months of materials such as coke and coal, which can be received by boat during summer; the elimination of all needless manual labor, and the thorough efficiency of the power department. The plant was designed to be erected on two levels; the large amount of slag produced had to be taken into consideration and the disposition of this slag was an important factor in determining the site. The plant, as it now stands, was built along the face of a cliff on the northern side of the deep valley in which the town of Copper Cliff stands.