reckoned on which has been actually blocked out. In this connection diamond drilling can be resorted to with advantage.

"Prospecting by means of magnetic surveys might sometimes be successful, so far as the magnetitic and pyrrhotitic ore bodies are concerned. Since much of the surface is drift-covered, and the ore bodies do not as a rule have any oxydizing effect on the soil above, this is often the only way in which any indication of the spot where a test pit should be sunk can be obtained. It might also be applied in searching for ore bodies in the mines themselves. It has not yet been attempted in this district.

"Where the ore occurs at a limestone contact, the limestone wall may often be used for following the ore, it being kept in mind that the ore does not always follow strictly along the contact, and that the limestone may pinch out without causing the ore to likewise disappear. The dykes in some cases may be used in the same way.

"The pyrrhotite and magnetite should always be assayed, as barren-looking material may contain good values. The minerals in the ore and the conditions where pay values occur should be carefully studied with a view to ascertaining which minerals carry the values, and what were the causes which produced the concentration of values. The porphyry dykes themselves, while not mineralized in the same way as the country rock, may in places prove auriferous. In a specimen from a similar alkali-porphyry dyke, from the Valkyr mountains, east of Lower Arrow Lake, examined last winter, free gold as a primary constituent was plainly visible even with the naked eye.

"Since, with the exception of certain deposits in Copper Camp, there is no zone of oxydation and secondary enrichment in the large deposits, while the general conditions remain unchanged, no loss of values is to be expected in depth.

"Platinum should be tested for in the copper ores and in the quartz ores. Gravels of streams draining areas of serpentine should be panned for platinum. In places the nuggets are some times brown or lead-coloured, but become silvery-white when treated with nitric acid. The serpentines themselves, especially where containing chromite (a magnetite-like material), might be assayed for this metal.

"In the oxydized type of copper deposit a zone of enriched sulphides occurs between the oxydized minerals and the pyrites. Below this zone of enrichment the deposit may or may not have sufficient values to pay for working. Sufficient work has not been done to determine the lower limit of the zone of enrichment.

"The quartz veins merit more attention than has been given them.

"In prospecting it is to be remembered that float may have been carried a considerable distance, even across valleys, by former glaciers. The general course of the latter was about S. 30 degrees E., but it was influenced by the local topography."

THE MINERAL PRODUCTION OF CANADA IN 1903.

THE recently issued preliminary statement of the mineral production of Canada for the year 1903, prepared by the Section of Mines of the Geological Survey, under charge of Mr. Elfric Drew Ingall, is as follows:

SUMMARY OF THE MINERAL PRODUCTION OF CANADA.

Metallic		Quantity.	Value.
Copper	Lb.	43,281,158	$ 5,728,261
Gold		.....	18,834,490
Iron ore (exports)	Tons	368,233	922,571
Pig iron from Canadian ore	"	42,052	707,838
Lead	Lb.	18,000,000	762,660
Nickel	"	12,505,510	5,002,204
Silver	Oz.	3,182,000	1,700,779
Zinc	Lb.	900,000	48,600
Total Metallic		.....	$ 33,707,403
Non-metallic.			
Actinolite	Tons	550	3,108
Arsenic	"	257	15,420
Asbestos	"	31,780	891,033
Asbestic	"	10,548	13,819
Chromite	"	3,383	33,830
Coal	"	7,996,634	15,957,946
Coke	"	544,132	1,663,725
Corundum	"	no returns	.....
Feldsdar	"	13,228	18,066
Fire clay	"	2,317	2,505
Graphite	"	738	23,745
Grindstones	"	5,538	48,302
Gypsum	"	307,489	384,259
Limestone for flux	"	277,452	259,244
Manganese ore (exports)	"	135	1,889
Mica	"	.....	159,473
Mineral pigments—			
Baryta	Tons	1,163	3,931
Ochres	"	6,226	32,440
Mineral water		.....	100,000
Moulding sand	Tons	3,568	7,256
Natural gas		.....	168,900
Peat	Tons	1,100	3,300
Petroleum	Bbl	461,336	922,672
Phosphate	Tons	1,329	8,214
Pyrites	"	33,530	126,133
Salt	"	53,537	334,088
Talc	"	688	2,064
Tripolite	"	835	16,700
Total non-metallic		.....	$ 21,202,062
Structural Materials and Clay Products.			
Cement, natural rock	Bbl	92,252	$ 75,665
Cement, Portland	"	627,741	1,090,842
Granite		.....	150,000
Pottery		.....	200,000
Sands and gravels (exports)	Tons	355,792	124,006
Sewer pipe		.....	317,970
Slate		.....	22,040
Terra Cotta, pressed brick, etc		.....	386,532
Building material, includi'g bricks, building stone, lime, tiles, etc		.....	5,650,000
Total structural materials and clay products		.....	$ 8,017,045
Estimated value of mineral products not returned		.....	300,000
Total, 1903		.....	$63,226,510

The tons used in this statement are short tons, of 2,000 lbs. The average prices used in computing values of metals are: Silver, 53.45c.; copper, 13.235c.; nickel, 40c.; lead, 4.237c. The coke reported is all oven coke; gas coke is not included.

It is to be borne in mind that the only general and