

NOTES on some RECENT DISCOVERIES of COPPER-ORE in NOVA SCOTIA.

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ALTHOUGH for many years the presence of various ores of copper was known in this province it is but recently that discoveries have been made of economic value.

In the early French expeditions to Canada and Acadie (now Nova Scotia) were men similar to those styled by Sir Humphrey Gilbert "rare refiners of mines;" and their reports on the supposed mineral wealth of Nova Scotia and Cape Breton excited much interest in Paris, and formed one of the reasons that France struggled so strongly to retain her supremacy in British America.

Lescharbot, writing in 1609, speaks of the native copper of the Bay of Fundy as being "very pure in the stone," and adds, "many goldsmiths have seen it in France, which do say that under the copper-mine there might be a golden mine, which is very probable."

The stone he alludes to is the trap associated with the Triassic sandstones of the Bay of Fundy; copper is found scattered through it in small grains and lumps, but has not yet been found in workable quantity. Although this trap resembles that from the famous Lake-Superior copper-district, the zeolites and other minerals characteristic of the Nova-Scotia trap are wanting in the Lake-Superior trap; and on no ground, so far I am aware, can any equivalence of age be established.

Passing over without notice the numerous unsuccessful attempts that have been made to open productive copper-mines in Upper and Lower Carboniferous strata, we find that the eastern part of the province gives the best indications of permanent deposits.

On reference to the accompanying geological map of part of the province (p. 750), based on the map prefixed to the second edition of Dr. Dawson's 'Acadian Geology,' it will be seen that the northern part of Nova Scotia is traversed longitudinally by a band of strata of Upper and Lower Silurian age, higher in geological sequence than the auriferous measures of the Atlantic coast, and covered at one point by a narrow band of Lower-Carboniferous age.

In this Silurian series, and pursuing a general east-and-west course, are numerous large bands of granites, reddish syenites, in places composed of red felspar, hornblende, porphyry, compact felspar, and diorites, with ash, &c.

Pursuing a course roughly parallel to these bands is a tolerably well-defined series of large fractures, extending from Parrsboro to the East River of Pictou, and thence to Guysboro. The course of this line of disturbance is marked by metamorphic action, ores of iron and copper, and by dykes and masses of diorite, &c.

From Parrsboro to Londonderry valuable brown hæmatite deposits are found, with micaceous and specular ores, goethite, &c., running