## GEOLOGICAL SURVEY OF CANADA

Microscopic Examinations of rocks. is more abundant than the biotite. Apatite is rather plentiful and a little calcite is noticed which has evidently not been derived from the decomposition of any of the other constituents. Occasional areas of a yellowish green serpentineous product occur evidently derived mainly from the decomposition of the hornblende.

## No. 7.-Culhane Mine.-North half Lot. 21, Concession VII., Township of Bagot, Renfrew County.

The hand specimen shows a very dark greenish-gray distinctly foliated though somewhat massive basic rock with occasional small patches of light coloured and decidedly more acidic material.

Under the microscope the rock is seen to be a rather typical diorite. Hornblende, which is the most abundant constituent is the compact variety in irregular individuals the interspaces between which are occupied by the allotriouorphic plagioclase. Some of the felspar is striated but a large proportion at least of the unstriated grains are also probably plagioclase. Apatite is present and a little quartz. Very occasional small scales of biotite also occur. Magnetite in small irregular grains and pyrite sometimes altering to limonite are also present. One side of the thin section evidently represents a portion of a decomposed band and is made up of pale greenish chlorite and calcite.

## No. 8.—Fournier Minc.—Lot 14, Concession I., Tow South Sherbrooke, Lanark County.

This mine is represented by three thin sections (8, 9, 10) and all are typical of the rock which the late Prof. G. H. Williams called "cabbrodiorite." They present different phases of the rock and a detailed description of each slide will be given.

The hand specimen from which section No. 8 was taken is a very massive, coarsely crystalline basic igneous rock, the principal constituents being easily capable of determination with  $\cdot$  raked eye. Under the microscope the rock is seen to be composed of comparatively large individuals or areas of a basic plagioclase, and a pale-green pyroxene. Some of the plagioclase is quite fresh and glor  $\cdot$  but the interior of nearly every individual is very turbid and none or less opaque owing to the development of saussurite. The products of decomposition seem mainly to be kaolin or sericite and calcite. The fresh periphery often shows more or less advanced alteration to scapolite, and a few of the smaller individuals are wholly converted

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