

it shows a more or less banded structure. As observed above, an enstatite-like mineral may occasionally be seen in the hand specimen, but none of it happened to occur in the portion sliced.

FIG. 1.



Fig. 1 *b* is drawn from a section of one of the so-called serpentines occurring near the dunite. Its relation to the latter is evident, for it still contains numerous grains of unaltered olivine. In some specimens the change has not advanced so far as here, but in other cases the olivine has almost, if not entirely, disappeared. The chromite, however, always remains.

Another example of the occurrence of olivine is to be found in the case of a dark grey dolerite occurring near South Lake, in Antigonish County, Nova Scotia. When a section of the rock is examined with the microscope, it is seen to consist of a beautifully banded triclinic feldspar, brownish augite, magnetite, and very numerous irregular grains, or occasionally rude crystals, of olivine. The olivine resembles that sometimes seen in gabbro. It is traversed by the usual cracks or rifts, which in this case appear very broad and black, and also contains great quantities of black and opaque microlites, which are probably magnetite, and which are sometimes so abundant as to render the mineral almost opaque. Some of them are arranged in parallel rod-like shapes, while others occasionally assume star-like or other more or less symmetrical forms.

Olivine has also been detected in several of the eruptive rocks of British Columbia. One of these, of Tertiary age, from Kamloops, affords most beautiful examples of the alteration of olivine to serpentine. It is massive, rather fine-grained, and of a very dark olive-green colour. The examination of a slide with the microscope shows that originally the rock must have consisted of