

appears in the plagioclase in little spots. It has the optical character of a bastite or pseudophite and the decomposed feldspar resembles therefore to a certain extent that of Waldheim in Saxony described as pyknitrope by Breithaupt. In another handspecimen of the same rock from New Glasgow the feldspar is changed into a colourless mineral which forms small feather-like clusters. It shows magnificent polarisation colours and has a distinct cleavage to which the extinction is parallel. So far as this rock could be investigated in thin sections, the mineral showed all the optical properties of muscovite. It may possibly be paragonite which cannot be distinguished from muscovite under the microscope, for one would expect a soda mica rather than a muscovite as a product of the alteration of plagioclase.

AUGITE.—This constituent is with a few exceptions, generally present in much smaller quantity than the plagioclase, but is next to it the most abundant constituent. The rhombic pyroxene is present however in nearly if not quite equal amount. It occurs in irregularly shaped grains of a light green color which are either non-pleochroic or exhibit a scarcely perceptible pleochroism in greenish tints. In sections which are nearly parallel to the base, we see typical cleavages which cut each other almost at right angles and are characteristic of pyroxene. They are often intersected by a third more perfect cleavage which is parallel to $\infty P \bar{\infty} (100)$ as shown by its position relative to the plane of the optical axis. In the prismatic zone the mineral shows an extinction angle from 0° to 45° .

In many sections of the pyroxene there are brownish black tables or small black rods which resemble very much the inclusions of the plagioclase above described. Where these occur they are frequently parallel to $\infty P \bar{\infty} (100)$; in other cases instead of being scattered throughout the whole individual they are confined to certain spots. The augite can often be observed to have grown around grains of iron ore. It is generally quite fresh, but in many hand-