## THE MONTEREGIAN IIII.I.S

DYKES.- A feature in connection with Mount Johnson, and one possibly connected with its somewhat peculiar structure, is the almost entire absence of dykes. These were found only in two places, and in both cases the dykes were small in size. The first of these localities is on the northeastern margin of the intrusion, where the dyke occurs in association with and probably cutting the hornstone. It was found as large angular blocks in the heavy maple bush which here covers the slope of the mountain, but is undoubtedly in place in the immediate vicinity. The rock is very dark gray in color and very fine in grain, and belongs to the camptonites. It has a porphyritic structure, the very numerous phenocrysts consisting of hornblende and pyroxene. The hornblende phenocrysts are deepbrown in color and strongly pleochroic, the mineral being the same basaltic hornblende described in the essexite. The pyroxene of the phenocrysts is pale purplish in color and shows a marked dispersion of the bisectrices. Both minerals have very perfect crystalline forms. The plagioclase of the rock is very basic in character, as shown by its high extension. The rock resembles very closely certain occurrences found on Mount Royal. The size of this dyke is not known, but it probably has not a width of more than a foot or two. The other dykes occur on the southeastern slope of the mountain by the side of the road leading down from the quarries here. At this locality there are four small dykes, the largest only a foot in width, cutting the essexite. These are all very fine in grain and much decomposed, but represent two varieties of rock. Two of the smallest are composed of a camptonite consisting of a groundmass of brownish hornblende and plagioclase, with lath-shaped plagioclase phenocrysts. The other two dykes consist of a rusty weathering rock, made up of feldspar laths and a mass of pseudomorphs of limonite after some prismatic mineral, probably either ægerin or arfvedsonite. Professor Rosenbusch considers it to be a highly altered tinguaite or sölvsbergite, probably the latter.

The several dykes, while small and unimportant in themselves, are of interest in that they present the petrographical types regularly associated with the alkaline rich intrusions of the class represented in Mount Johnson.

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