A PRELIMINARY NOTE ON AN AMYGDALOIDAL TRAP ROCK IN THE EASTERN TOWNSHIPS OF THE PROVINCE OF QUEBEC.

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A few years ago Mr. J. C. Sutherland called the writer's attention to an apparently peculiar occurrence of feldspar in sedimentary slates in the vicinity of the old St. Francis copper mine, near Richmond, and on subsequent reference to the following description of the occurrence by Sir William Logan (Geology of Canada, 1863, pp. 606-607), suggested a microscopic examination which it has not yet been found possible to carry out. But from several observations made at various times, it is evident that the rock is one of considerable scientific interest and economic importance.

It was thus described by Logan, "Orthoclase . . . . . is found under remarkable conditions among the argillaceous rocks at the St. Francis copper mine in Cleveland. Here beds of a soft, fine-grained, somewhat schistose dark bluish-gray argillite enclose small ovoidal or elongated masses of crystalline feldspar, which have a general parallelism, and are oblique to the divisional planes of the rock. The laminae of this conform to the feldspathic masses which give a knotted surface to the exterior of the rock. These are in some portions from one eighth to one-tenth of an inch in diameter, and are nearly spherical, or elongated two or three diameters. In other portions of the rock they are an inch or more in length, and more irregular, though always rounded in outline. The exterior of the nodules is a white or pinkish feldspar. In some parts the feldspar is seen to extend from the nodules, in thin layers among the laminae of the slate, giving to such portions a gneissoid aspect. In most cases, however, the rock has completely the aspect of an amygdaloid ; especially in sections which exhibit the feldspar surrounding the quartz in the ovoidal masses."

Epidote also forms the cores of some of these masses, while the material of others, though not certainly distinguished from orthoclase by its physical properties, yields much water when heated in the closed tube, and hence is probably a zeolite in part at least. Veins of calcite as well as masses of chlorite, specular