

the veins, and varying in color from white to yellowish and flesh-red. The mineral has the chemical characters of flint or buhrstone, and like the latter presents numerous irregular cells, the walls of which are sometimes incrustated with crystals of quartz, and in other cases bear the impression of small cubes, perhaps of crystals of fluor-spar, which have themselves disappeared. The relations of these singular veins of silex show that it cannot be of sedimentary origin, and it can scarcely be doubted that it is an aqueous deposit, and results from a similar process to that which on a lesser scale gives rise to agate and chalcedony in various rocks. (Geology of Canada, page 41.)

### TRACHYTES.

Under this head we shall describe a class of rocks which are very abundant in Eastern Canada, and present a great variety of aspects. There are many dykes in the vicinity of Montreal which resemble some of the typical trachytic rocks of Auvergne and of the Rhine, while the rocks of the mountains of Brome and Shefford consist almost entirely of distinctly crystalline feldspar. These will be described as granitoid trachytes, under which head may also be included a somewhat similar rock from Yamaska Mountain.

**BROME AND SHEFFORD MOUNTAINS.**—The trachytes of Brome and Shefford occupy two considerable areas near to each other, and, as already stated, are the easternmost of the eruptive masses now under description. The larger area covers about twenty square miles in Brome and the western part of the township of Shefford. It consists of several rounded hills, of which the principal are named Brome and Shefford Mountains, and rise boldly about 1,000 feet above the surrounding plain. The rock shows divisional planes, giving it an aspect of stratification, and separates by other joints into rectangular blocks. The second area includes about nine square miles in the township of Shefford, to the northwest of the last, and at the nearest point is only about two miles removed from it. This is known as Shefford Mountain.

The rocks of these two mountainous areas present but very slight differences; being, so far as examined, everywhere made up in great part of a crystalline feldspar, with small portions of brownish-black mica, or of black hornblende, which are sometimes associated. The proportion of these two minerals is never above a few hundredths, and is often less than one hundredth. The other min-