

contact between two members of the Quebec group; the Sillery the east is older than the Farnham on the west. It has been thoroughly studied by G. A. Young, who is inclined to believe that the mountain is situated on the axis of an overturned anticline and on a fault.<sup>1</sup> Yamaska is elliptical in outline with the long axis running northwest and southeast, and is bounded by two main ridges running lengthwise. The general elevation of these ridges is about 1400 feet, and the highest peak is 1470 feet above the sea. The divide in the interior basin is 950 feet above sea-level.

The sedimentary collar is widest on the north and south flanks where it reaches nearly to the summit; on the east and west flanks the contact is near the base of the mountain. The igneous complex has an area of 3.1 square miles, and is very irregular in outline. It includes three main types of rock—akerite, essexite, and yamaskite, with abrupt transitions, although there has been but one main intrusion. Owing to lack of exposures the complete relationships could not be established. The akerite is a medium-grained, coarse-grained, light grey rock, in which labradorite and albite-feldspar greatly predominate over the diopside, biotite, and mica constituents among which there is a small amount of quartz. The akerite appears to be a border facies. Essexite is present in three varieties, divided on the basis of textural differences, and grades into the most highly ferromagnesian rock type present, which has been called yamaskite. This rock is characterized by the great preponderance of pyroxene, basaltic hornblende, and ilmenite, with about 2 per cent of anorthite (at 15 per cent albite-feldspar, the rock passes into essexite). The dyke rocks include bostonite, camptonite, syenite-aplite, nephelite-syenite, and yamaskite, and are relatively abundant close to the margins of the main intrusive. The total weight of evidence points to the conclusion that this mountain is the remains of a volcanic neck.

#### SHEFFORD MOUNTAIN.

John A. Dresser<sup>2</sup> describes Shefford mountain as a laccolite intrusion, having an area of less than 8 square miles, and a maximum altitude of from 1,500 to 1,700 feet above the sea.

<sup>1</sup> Geology and Petrography of Mount Yamaska: Ann. Rept., Can. Geol. Surv., Vol. XVI, Pt. II, 1906, p. 31.

<sup>2</sup> Report on the Geology and Petrography of Shefford Mountain (Quebec): Ann. Rept., Can. Geol. Surv., Vol. XIII, 1902, Pt. I.