

third group of lines, lighter and more irregular than the last, and still more obviously affected by the contour of the surfaces over which they are spread. Such variations might naturally be looked for as likely to result from progressive diminution in the thickness of the ice e. p. as the maximum of density and volume gradually receded to the North.

As an instance of these variations, the striæ under No. 39 of the following table may be cited. This ledge has been uncovered in taking gravel for road-making, and the glacial markings are fresh and sharply cut. The oldest record on the ledge shows that the ice once moved directly, through Beaver Harbour, in a course nearly due South, scoring horizontally the slopes of the ridges by which it is bounded on either side. This southerly direction is that of the striæ on the highest ridges in the Southern counties. The course of the next set of lines shews a tendency in the ice to slide obliquely downward into the harbor; and finally it appears to have moved directly down off the hill into the basin in front. The bearings on this ledge exhibit a change in the course of the moving ice, from first to last, of fully a quarter of a circle. Similar influences may be traced in the striæ of Bocabee Bay, and in the converging lines which enter the upper basin of L'Étang River.

Perhaps the most remarkable locality for these markings is one observed by Prof. L. W. Bailey, last summer, on the west side of Chamcook Mountain, near Saint Andrews (No. 12). This eminence (637 feet high) has on its western side a buttress or lower hill, which overlooks the Sainte Croix valley. The rock is steep and high, and toward its base there is a deep recess cut in the face of the cliff, and extending for some distance along its foot. The ledge which covers the recess overhangs about *sixty degrees!* and upon its under-surface are strong, regular, and distinct striæ, parallel to the direction of the cliff. Below this overhanging rock there is a *talus* of loose blocks of felsite, extending to the base of the hill—about seventy feet lower—where the ground becomes nearly flat, and descends gradually to the Sainte Croix River. For a space of four miles to the west, and an indefinite distance to the south, there are no elevations or ridges which could have brought pressure upon the under-surface of this overhanging rock to groove it; and it was protected from the assaults of icebergs by an extension of the Chamcook range of hills for three miles to the north-west. Here, therefore, if anywhere, the glacier has left a witness of its former presence in New Brunswick.