

boulder-clay, or crystalline boulders were observed. Reaching the north-west and west brow of the mountain summit we found the rock surface broken, jagged and angular, instead of worn and rounded as it should be if ice had passed over it. Continuing thence to the highest point on which the flag-staff stands, parts of it were found to be bare rock, while bushes and stunted trees grew in the hollows and crevices. Striking evidences of decay are apparent on every hand, the rock being everywhere rent and fractured. A broad weathered chasm with angular blocks in it which have fallen from the sides, crosses the summit in the direction of S.  $40^{\circ}$  E. and N.  $40^{\circ}$  W. mag. ; but there was no sign of glaciation here. The rents and cracks in the rock surface referred to are sometimes parallel to the chasm and sometimes not, and when the sharp edges of the smaller and finer cracks become weathered they resemble glacial grooves. In other places however, the surface of the rock is uneven, lumpy and without any appearance of planation. No boulders of gneiss or granite were observed on this part of the summit. The whole aspect of the mountain is that of one rapidly crumbling to ruins, the nature of the rock, an altered diabase, being such that in an exposed position, it could not have retained glacial marks for the length of time which has elapsed since the glacial period, even if it had once been overridden by ice.

Prof. Hitchcock reports that in October, 1897, he ascended this mountain, and at the Boston meeting of the *American Association for the Advancement of Science* in 1898,\* he gave the results of his examination, making the altitude 5,000 feet, and stating, as already mentioned, that ice had passed entirely over it striating the summit and distributing boulders of Laurentian gneiss upon it, etc. But any one, understanding glacial geology, who has been on the higher part and around the mountain cannot avoid seeing that if he were there at all his examination must have been very imperfect. I am constrained to believe that Prof. H. never was on the highest part of this mountain, but only reached its upper slopes.

In regard to Owl's Head, a mountain 16 miles to the south of Mount Orford, and 2,400 feet high, Prof. Hitchcock remarks, "I may say that I have examined the summit of this mountain and

\* Proc. of the A. A. A. of Science, 1898, p. 292.