

given to discussion of the manner of its formation through the agency of the ice-sheet and the streams produced by its melting. Before stating some of the opinions brought out in that discussion, and attempting a full inquiry concerning the processes of accumulation of this and other eskers and kames, we will first go again, as I did on following days, over the Pinnacle hills and describe their contour and numerous sections exposed by excavations for road material and for the passage of streets. The other drift deposits and contour of their vicinity will be noted, and a second series of eskers lying several miles farther southeast in Pittsford, which I also examined, will be described, with their relationship to prominent drumlins near, and to terminal moraines more remote, on the south.

#### DESCRIPTION OF THE PINNACLE HILLS.

From Brighton village and station on the New York Central railroad, three miles southeast from the station in Rochester, this prominent range of hills extends in an almost straight course about four and a half miles west-southwesterly to the Genesee river close south of the State dam. In passing the east end of this esker, the Erie canal turns from a due east to a due south course. Along its first mile from Brighton the esker rises 75 to 150 feet above the country on each side, and declines in height from 125 to 75 feet near the western end of this portion, where it is known as Cobb's hill. Immediately to the west, near the residence of Mrs. W. H. Cobb, a sag in the esker, as it was originally, before being cut down for the extension of Monroe avenue, had a height of only about 50 feet. Next westward the esker rises in the distance of a half mile to its highest point, called the Pinnacle, 200 feet above the nearly plain region on the north and south. Thence the continuation of the esker along its next two miles, varying in altitude mainly from 150 to 100 feet above the general level, is occupied, in order from east to west, by the St. Patrick Cemetery, the Highland Park, which includes the Mt. Hope reservoir in its western part, and the extensive Mt. Hope Cemetery. In its next mile west to the river, the ridge is lower, having a height of only 80 to 50 feet above the State dam. The northeastern end of this hill range at Brighton is very definite, overlooking a wide expanse of the low land; but its western end is indefinite, for in the line of its continuation west of the Genesee it is represented along a distance of at least two miles (which is as far as my examination extended) by a low ridge, mostly 30 to 40 feet above the general level. Between

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