

along the ice front at the time it crossed the river. The general form of the river bottom in this vicinity is shown in the sketch map, figure 13, in which contour lines have been introduced from the soundings given by the coast survey.

From this point northward, it seems best to trace out the ice front thus indicated on the east bank of the Hudson since it presents a series of glacial deposits essentially contemporaneous, after doing which the features of the Hudson gorge may be resumed from the same point of departure.

Ice edge of the Newburg stage north and east of New Hamburg. The reconnaissance made of the Hudson valley has sufficed to trace the eastern border of the ice mass which lay in the valley north and west of the Highlands nearly to Troy, though it is probable that the facts relied on for evidence on the north pertain to somewhat earlier and later positions of the ice than that shown at New Hamburg.

Lateral kame terraces. Between New Hamburg and Poughkeepsie [see pl. 6] there are terraces with kame kettles showing the site of remnant blocks of ice, and having steep ice contact slopes facing the Hudson river, the assemblage of structural and topographic features indicating that the ice overlay at this stage the eastern bank of the Hudson for distances varying from $\frac{1}{2}$ a mile to about a mile as far north at least as Staatsburg. The kettle plains of this stage are well developed along Fallkill creek north of Poughkeepsie. Further traces of the ice border are found in the southeast corner of Red Hook township 1 mile northwest of Rock City at an elevation of about 320 feet. Further north in the southern corner of Livingston township the topographic map shows clearly the existence of another deposit along this line of ice front at an elevation of from 280 to 300 feet in the course of Roeliff Jansen kill. Going still further north, and at an increasing distance from the river, these kettle plains take on their most distinct and continuous development [see pl. 7] from near Bluestone to and beyond Livingston. A typical view of the belt may be had near the railway station at Elizaville. The ice contact slope has been locally cut back by the stream at this point. The terrace lies at a distance of from 5 to 6 miles east of the river, with its base ap-