tion would still remain; namely, whether they were for the most part formed at first under water, like sand-bars at the mouth of rivers; or were thrown up by the waves on the margins of ancient sheets of water, in the manner of beaches.

The section which I saw on the banks of the Rocky River appeared to me to favour the theory of the subaqueous origin of the ridges. This torrent, about a mile and a half above its mouth, flows in a narrow ravine, scarcely more than thirty yards wide, with perpendicular cliffs on each side, 110 feet high. When we arrive at the point where the ravine intersects the second of the Rockport ridges before alluded to (*d*, *fig.* 10), we see the river-cliff suddenly heightened by the addition, for a short space, of a bank of sand and gravel, about 30 feet high, the pebbles in the ridge being rounded like those on the lake shore, and proving that the bank was never a mere dune of blown sand.

If we imagine bars or banks of sand and pebbles to have been formed in succession near the shore in shallow water, and then cut through by torrents when the land was elevated, we can explain the abrupt manner in which the ridge determinates on each side of a ravine evidently excavated by the torrent in soft shale since the emergence of the strata. But it is difficult to imagine how an ancient beach, formed where a stream entered a lake or sea, could have been so straight and continuous, and so little modified and rounded off in its outline conforming to the shape of the small bay, which must have existed at the entrance of a stream. It will be unnecessary, however, to dwell longer on this question at present,