

of Scotland or the North of Europe, generally accord well with the theory which attributes the pressure to the stranding of ice islands, which, when they run aground, are known to push before them large mounds of shingle and sand, and must often alter greatly the arrangement of strata forming the upper part of shoals, or mud-banks and sand-banks in the sea, while the inferior portions of the same remain unmoved.

Mr. Mather, in his Report on the geology of this portion of New York,* states an interesting fact in regard to the arrangement of the boulder formation on Long Island, which, as before mentioned, extends for about 130 miles east and west. At its eastern extremity the boulders are of such kinds of granite, gneiss, mica, slate, greenstone, and syenite, as may have come across the Sound from parts of Rhode Island, immediately to the north. Farther westward, opposite the mouth of the Connecticut River, they are of such varieties of gneiss and hornblende slate as correspond with the rocks of the region through which that river passes. Still farther west, or opposite New Haven, they consist of red sandstone and conglomerate, and the trap of that country; and lastly, at the western end, adjoining the city of New York, we find serpentine, red sandstone, and various granitic and crystalline rocks, which have come from the district lying immediately to the north. This distribution of the travelled fragments will remind every geologist of the manner in which distinct sets of erratics are lodged on the Swiss Jura, each set, whether of granite, marble, or gneiss, answering in composition to those parts of the Alps which are nearest and immediately opposite, as if

* Report for 1837, p. 88.