

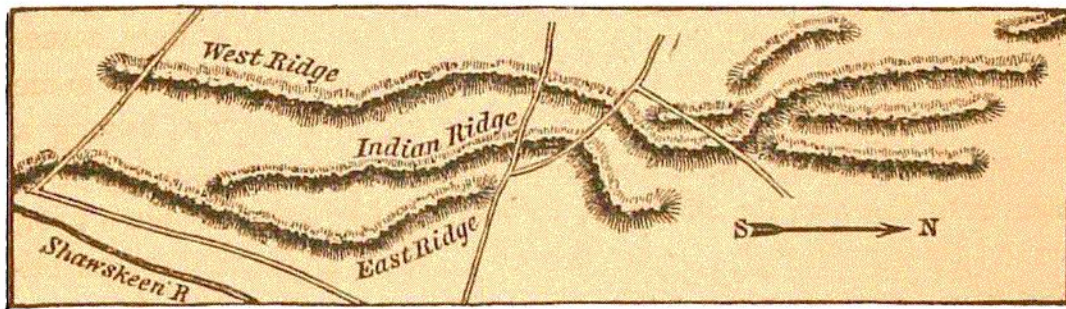
sand and gravel, and the upper part a train of blocks, which probably were derived from the melted floe.

Not many Osars have been pointed out in this country. Mons. Desor, however, who is familiar with such phenomena in Europe, speaks of Osars on the shores of Lake Superior. We incline, as stated on a previous page, to bring under the same designation those trains of angular blocks which we have described in Berkshire Co. and Vermont. (See Fig. 104).

*Escars or Scœurs.*—Those in Ireland consist chiefly of pebbles of carboniferous limestone heaped into narrow ridges forty to eighty feet high, and from one mile to twenty miles long, probably formed in the eddies along the margins of opposing and conflicting currents which piled up the materials from each side. There are ridges of this character in this country, though the pebbles are of all sorts of rock, yet we incline to regard them as Escars. They occur in many parts of the country.

Fig. 112 shows several of these ridges as they occur near the Shawsheen river, in Andover, Massachusetts. One is called the Indian Ridge, and is a mile and a half long. The west ridge is still longer. They are narrow, usually not more than four or five rods wide, and from fifteen to thirty feet high. Some of them are composed of sand and fine gravel, others of coarse gravel with large bowlders intermixed.

Fig. 112.



*Submarine Ridges, Andover.*

These escars are finely developed in Aroostook county, in Maine. They are called "Horsebacks;" and one of them, between Weston and Houlton, is thirty miles long, and nearly straight, running north and south.

*Subaqueous Ridges.*—These ridges are composed of sand and gravel, which differ from beaches and terraces, by having a double slope, which is usually gentle. They are found around lakes more especially, as lakes Erie and Ontario, and are there called "Ridge Roads." In a longitudinal direction they vary considerable in height, although their general elevation is the same. They form fringes around the lakes.

There are four of them on the south shore of Lake Erie, the lowest 100 and the highest 200 feet high. There are eight upon the north shore of Lake Ontario, from 108 to 762 feet in height. These ridges, however, were not necessarily *submarine*, as a large body of fresh water would produce ridges not at all different from the submarine ridges described by European Geolo-