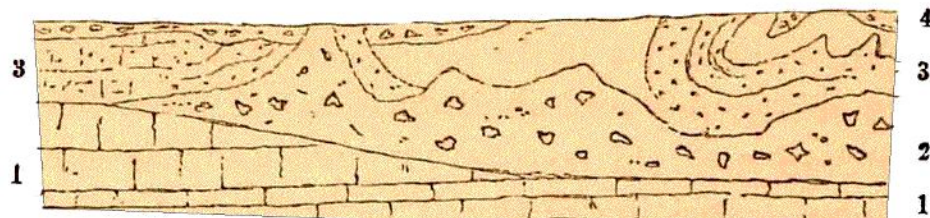


At Seaham ironworks and elsewhere, such sands and gravels in the middle of the Till frequently thin away in wedge-shaped ends.

FIG. 83.



1. Magnesian Limestone.
3. Sand and gravel.

2. Lower Boulder-clay.
4. Upper Boulder-clay.

It is unnecessary and would be wearisome to the reader, were I to describe all the details of the sections I have examined between Hartlepool near the mouth of the Tees, and Spurn Point at the mouth of the Humber. Suffice it to say that, in the Liassic and Oolitic region of Yorkshire, the valleys that open upon the sea are apt to be more or less filled with boulder-clays, sands, and gravels, and the same phenomena occur in many parts of the high sea-cliffs. Thus at Cromer Point, about  $2\frac{1}{2}$  miles north of Scarborough, there are beds of sand and gravel in places about 120 feet thick, which lie on an undulating surface of shales, &c., of the Oolitic series. The embedded pebbles largely consist of sandstones (Oolitic in part), grits, porphyry, &c., and at the top, about 130 feet above the sea, there are beds of clayey gravel with small stones and *fragments of sea-shells*.

In Cayton Bay, about three miles south of Scarborough, lying upon Oxford Clay, there is Boulder-clay, with a great variety of boulders of Carboniferous Limestone, Lammermuir grit, basalts, greenstones, and other rocks that lie nearer the spot. Many of these are sub-angular and many are well rounded, and both kinds are