

numerous small fish of various species occupy the ground and may leave marks of their fins and tails as they gambol or seek their food. Shell fishes, worms, and Crustaceans scramble over the same surface, or make burrows in it. As the tide recedes flocks of sandpipers and crows follow it down, and leave an infinity of footprints, and even quadrupeds like the domestic hog go far out at low water in search of food. It is said that in some parts of the Bay the hogs are so assiduous in this pursuit that they even awake and go out on the flats in the night tide, and that they have so learned to dread the dangers of the flood, that when in the darkness they hear the dull sound of the approaching bore, they squeal with fear and rush madly for the shore.

If we examine it minutely, we shall find that the tidal deposit is laminated. The tidal water is red and muddy, and holds in suspension sediment of various degrees of coarseness. This, undergoes a certain process of levigation. In the first run of the flood the coarser material falls to the bottom. As its force diminishes the finer material is deposited, and at full tide, when the current has ceased, the finest of all settles, forming a delicate coat of the purest and most tenacious clay. Thus, if a block of the material is taken up and allowed to dry, it tends to separate into thin laminæ, each of which represents a tide, and is somewhat sandy below, and passes into the finest moulding clay above. The tracks and impressions preserved are naturally made on the last or finest deposit, and filled in with the coarser or more sandy of the next tide. But this may take place in different ways. Impressions made under water at flood tide, or on the surface left bare by the ebb, may in favourable localities be sufficiently tenacious or firm to resist the abrading action of the flood, and may thus be covered and preserved by the next layer, and in this way they may be seen on splitting up a block of the dried mud. But in shallow places and near the shore, where the deposit