when they actually possessed five, while in other circumstances all may have left marks; and that, when wading in deep mud, their footprints were altogether different from those made on hard sand or clay. In some instances the impressions may have been made by animals wading or swimming in water, while in others the rain marks and sun cracks afford evidence that the surface was a subaërial one. They are chiefly interesting as indicating the wide diffusion and abundance of the creatures producing them, and that they haunted tidal flats and muddy shores, perhaps emerging from the water that they might bask in the sun, or possibly searching for food among the rejectamenta of the sea, or of lagunes and estuaries.

## THE LABYRINTHODONTS OF THE COAL PERIOD, BAPHETES PLANICEPS AND DENDRERPETON ACADIANUM.

In the summer of 1851 I had occasion to spend a day at the Albion Mines in the eastern part of Nova Scotia, and on arriving at the railway station in the afternoon, found myself somewhat too early for the train. By way of improving the time thus left on my hands, I betook myself to the examination of a large pile of rubbish, consisting of shale and ironstone from one of the pits, and in which I had previously found scales and teeth of fishes. In the blocks of hard carbonaceous shale and earthy coal, of which the pile chiefly consisted, scales, teeth and coprolites often appeared on the weathered ends and surfaces as whitish spots. In looking for these, I observed one of much greater size than usual on the edge of a block, and on splitting it open, found a large flattened skull, about six inches broad, the cranial bones of which remained entire on one side of the mass, while the palate and teeth, in several fragments, came away with the other half. Carefully trimming the larger specimen, and gathering all the smaller fragments, I packed them up as safely as possible, and