land in those regions of the ocean affected by floating icebergs. The dust from deserts, like volcanic dusts, may be carried by wind to great distances from land, and can be detected in deep-sea deposits, for instance, off the west coast of Africa.

Extra-terrestrial materials.

The materials of extra-terrestrial origin, though extremely interesting, do not bulk largely in marine deposits; indeed they are rather of the nature of rarities, and are noticed most abundantly in Red clay areas where, for many reasons, it is believed the rate of deposition is at a minimum.

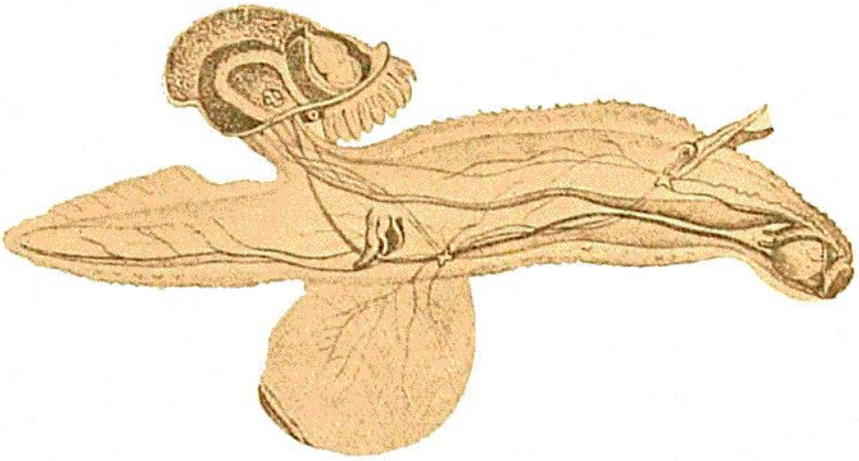

FIG. 122.

Carinaria lamarckii, Pèr. and Les. (From Steuer.) The fragile shells of this species are occasionally met with in deep-sea deposits.

Cosmic spherules.

They consist of minute black metallic spherules and brown chondritic spherules, which may be extracted by the aid of a magnet when the Red clay deposit is reduced to a fluid condition by admixture of water. The black spherules (see Figs. 130 and 131) sometimes have a shining metallic

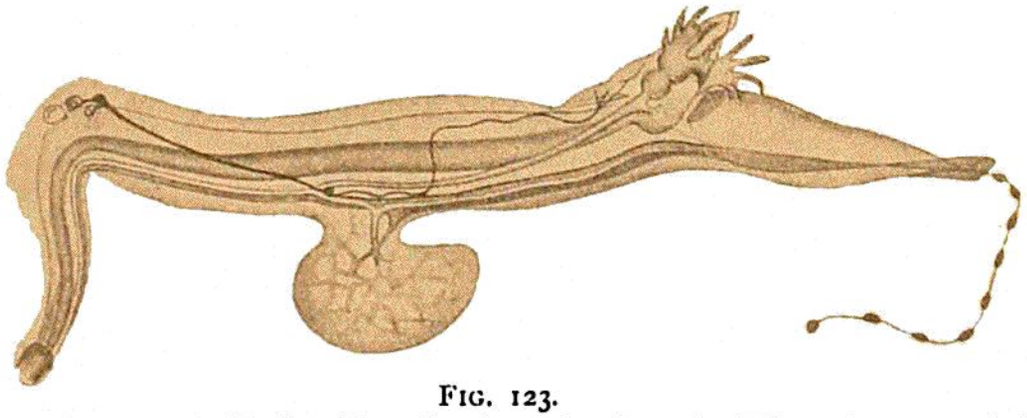

FIG. 123.

Pterotrachea coronata, Forsk. (From Leuckart, after Steuer.) This species has no shell, and therefore does not enter into the composition of deep-sea deposits.

nucleus of native iron (or an alloy of iron, cobalt, and nickel), surrounded by a shell of brilliant magnetic oxide of iron, to which the magnetic properties of the spherules are due. The brown spherules (see Figs. 132 and 133) have the lustre of bronze externally, and have a finely lamellated crystalline structure, with blackish-brown inclusions of magnetic iron, which account for their extraction by the magnet. A cosmic