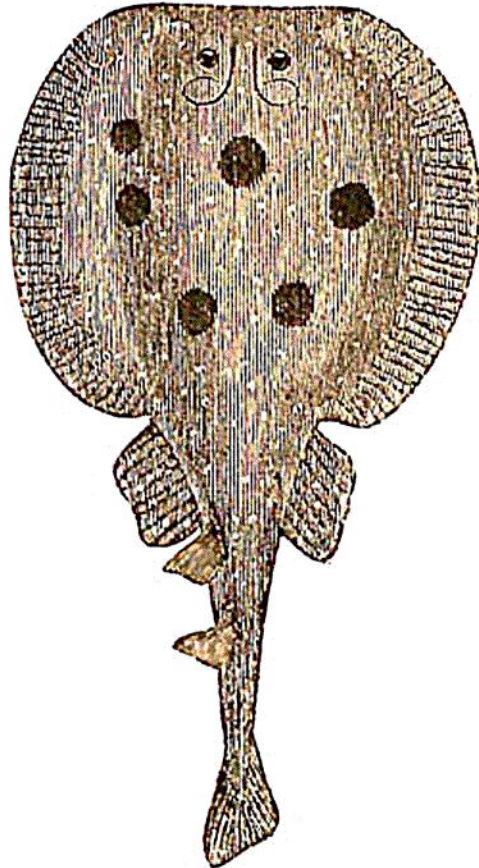


The electric organ in the *Malapterurus*\* extends all round the animal, immediately under the skin, and is formed of a mass of cellular tissue, so condensed and thick as, at first, to look like bacon; closely examined, it is found to consist of tendinous fibres, which are interlaced together, so as to form a net-work, the cells of which are filled with a gelatino-albuminous substance, the whole accompanied by a nervous system differing from that of the *Torpedo* and *Electric-eel*, and similar to that of other fishes.† This organ is divided into two portions by a longitudinal septum.

The *Torpedo* is the most celebrated of the electric fishes. In this the organ of its power extends, on each side, from the head and gills to the abdomen, in which space it fills all the interior of the body. Each organ is attached to the parts that surround it, by a cellular membrane and by tendinous fibres. Under the skin which covers the upper part of these organs, are two bands, one above the other, the upper one consisting of *longitudinal* fibres, and the lower of *transverse* ones. The latter continues itself in the organ by means of a great number of membranous elonga-

tions, which form many-sided vertical bodies, or hollow polygonal tubes, some hexagonal, others pentagonal, and others quadrangular; each of these tubes is divided, internally, by a fine membrane into several dissepiments, connected by blood-vessels. In each of the organs, from two hundred to

Fig. 105.



Raja torpedo.

\* Silurus. L.

† Geoff. St. Hil. Ann. du Mus. i. 402.