

more abundant would be detected. And if the naturalist be allowed to assume, that in the existing creation, "within and beneath all that minuteness which the aided eye of man is able to explore, there may be a world of invisible beings; and that could we draw aside the mysterious curtain which shrouds them from our senses, we should behold a theatre of as many wonders as astronomy can unfold,—a universe within the compass of a point so small as to elude all the powers of the microscope,"—surely the geologist may be permitted to conclude, that a large proportion of the sedimentary strata, which at present appears to consist of amorphous particles of lime, of flint, and of iron, may be the aggregated skeletons of beings yet more infinitesimal than those which have formed the subject of the present communication.

19 Chester Square, Pimlico, May 1845.

VIII.—On the Occurrence of an Intestinal Worm in an Acaleph.

By M. Sars*.

[With a Plate.]

IN Wiegmann's Archiv,' vol. ii. p. 322, 1841 (Annals, vol. iii. p. 148), it is stated that a parasitical worm resembling a *Filaria* had been discovered by Prof. E. Forbes in a species of *Cydidippe*, and subsequently (vol. ii. p. 370, 1842), that this parasite, which attaches itself by means of four suckers to the walls of the stomach or vessels, had been described by Messrs. Forbes and Goodsir under the name of *Tetrastoma Playfairii*. The reporter adds, that further observation would be of interest, as hitherto no intestinal worms had been met with in the *Medusa*.

The reporter had forgotten that the discovery of an intestinal worm in an Acaleph had been published by me already in the year 1837. (See Ann. des Sci. Nat. 1837, vol. vii. p. 247.)

It is not to claim any priority as to this discovery, which is a matter of perfect indifference to science, that I return to this subject, but merely to communicate the following short notices written down in 1835, which I have hitherto kept back on account of their imperfect state, in the hope, unfortunately hitherto delusive, of completing them by further observations.

It was on a gigantic individual of my *Mnemia norwegica*, five inches in length, which I caught on the 4th of November 1835, near the island Florøe, that I observed, within the transparent clear body, from ten to twelve longish opaque white bodies of about a line in length, which proved, on closer examination, to be intes-

* Translated from Wiegmann's Archiv, 1845, part I.

tinal worms. They were affixed to the internal wall of the stomach of the *Acaleph* by one of their extremities, and moved but slightly and very slowly the rest of their bodies. Carefully detached from their place of adhesion they became more lively, and crept about a glass plate, alternately lengthening and shortening their body (Pl. IV. fig. 1'. of the natural size). The form of the body is consequently very variable, being sometimes much elongated, sometimes ribbon-shaped (fig. 1 to 3); sometimes shorter and broader anteriorly, or in the centre (fig. 4), but posteriorly (*b*) always acute; further somewhat flattened, so that the two sides (fig. 1) are broader than the other two (fig. 2). Not a trace of articulation is visible on the smooth, soft body, which even in the perfectly contracted state, in which it almost acquires the form of a pitcher, indicates no perceptible transverse folds.

The anterior extremity of the body (*a*) is circular, and surrounded by four suckers, (*cc*) of oval form, and whose longitudinal axis coincides with the axis of the animal: each of them is divided interiorly by a septum into two spaces or cavities, the hindmost of which is largest, the front one being a little smaller and narrower. By means of these organs the worm attaches itself to the walls of the ventral cavity of the *Acaleph*. From between these suckers projects the conical anterior extremity of the body, at the apex of which is observed a small circular aperture, which is probably the mouth. When the worm crawls, the anterior extremity is sometimes projected (figs. 1. and 4), sometimes retracted within the suckers (figs. 2, 3.); this always takes place alternately, the entire body expanding and contracting, in which manner the animal each time advances a little distance.

The worm observed by me may probably be identical with that which the British naturalists have described as a new genus with the name *Tetrastoma*. I have for the time placed it in the genus *Scolex*, O. F. Müller, with the specific name *Acalepharum*.

EXPLANATION OF PLATE IV. FIGS. 1 TO 6.

Fig. 1'. Two individuals, natural size; all the other figures are more or less magnified.

Fig. 1. An individual seen from the broad side, with the anterior extremity projected.

Fig. 2. The same from one of the narrow sides with retracted anterior extremity.

Fig. 3. The same slightly, and *fig. 4.* greatly contracted.

Fig. 5. The anterior portion of the body with the suckers highly magnified.

Fig. 6. An individual pressed flat under the compressorium.

In all these figures, *a* designates the anterior extremity of the body; *b*, the posterior; *cc*, the suckers.