Genus Physaloptera.—Body round, elastic, attenuated at both extremities ; mouth circular ; tail of the male deflexed, wing­ed on each side, ending in an inferior vesicle ; penis protruded from a tubercle. The species are few and intestinal.

Genus Spiboptera.—Body round, elastic, attenuated at both extremities; mouth circular; penis emerging from between the wings of the spirally involute tail. The species are numerous. One has been said to occur in the urinary bladder of man.

Genus Cucullanus.—Body round, elastic, attenuated behind ;

mouth circular, placed under a striated hood ; the male organ a double spiculum. The species infest the stomach and intestines of various fish.

Genus Oxyuris.—Body round, elastic, the posterior part of the female subulate ; mouth circular ; penis sheathed. The species are few, and confined to quadrupeds. One is very troublesome to the horse; and the worm which perhaps annoys man more than any other *(Ascaris vermicularis)* has lately been removed to this genus.

Genus Tricocephalus.—Body round, elastic, the anterior

capillary extremity suddenly succeeded by a thicker portion ; mouth circular ; male organ simple and sheathed. “ The species inhabit the large intestines, particularly the cæcum of the mam­malia ; they do not occur in either birds or fish.’’—Bellingham. The *T. dispar* (Plate DII. fig. 2) is said by Rudolphi to be very common in the large intestines of man. “ It is about two inches in length, only one third of which is taken up by the thick part of the animal. This portion has a spiral form in the male, which is furnished with a small penis, protruding from near the tail. In the female, which is oviparous, the thick portion is straighter, and is simply pierced at the extremity. On the con­tinent it would seem that this is the worm which is met with the most frequently in the human intestines. Indeed some of the most distinguished helminthologists state that they scarcely ever fail to find them. The large intestines are their principal seat, but more especially the appendix vermiformis of the cæcum. Though I have frequently and carefully sought for this worm, I have only once been able to find it. In this instance it was lodged in the mucus filling the appendix of an emaciated and cachetic girl, who had been much exposed to want and hardship.” Dr Hodgkin’s *Lecture·,* &c. vol. i. p. 207. Dr Bellingham's experience is very different ; he finds it very commonly in the Irish. See his Cata­logue of the Entozoa indigenous to Ireland, in the *Mag. of Nat. Hitt.* n. s. vol. iv. p 343, &c.

Genus Tbichosoma.—Body round, elastic, very slender, grow­ing insensibly larger to the posterior extremity ; mouth a mere point ; male organ a simple sheathed thread. Named *Caρillaria* by Zeder. The species are found principally in birds, next in the mammalia, and very rarely in reptiles and fish.

Genus Filaria.—Body round, elastic, linear, elongate ; mouth circular ; male organ a simple spiculum. The species are nume­rous, and infest many avertebrated@@1 as well as vertebrated animals. They are principally intestinal, but a species has been found in the eye of the horse, another in the eye of man. and another in the bronchial glands. The most celebrated species (F. *medinensis, oτ Guinea-worm,* Plate DII. fig. 1) burrows in the cellular tissue under the skin. It was well known to the ancients ; and a portion of the his­tory of it given by Paulus Ægineta may be quoted : “ In India and the countries above Egypt, there are bred little dragons, animals like worms, in the muscular parts, as the arms, thighs, and legs, and in children they are in the sides, and plainly move under the skin. But after some time a place nigh the end of the worm suppurates, the skin breaks, and the head of the little dragon comes out. While it is drawn out it causes pains, and especially when it is broke. Wherefore some say that a leaden weight should be hung to the dragon, that the falling out should not be in heaps, but in pieces. Others condemning these, because by the weight of the lead the worm is broken, and causes cruel pains, order the part to be put in warm water, by the fomentation of which the worm comes out, and is drawn out piecemeal by the fingers.” I.e Clerc's *Hist, of Wormt,* p. 242. Freind’s *Hist. of Physick,* vol. i. p. 49, &c. Mr Hutcheson gives an account of his having extracted one that mea­sured three yards and a half in length. Good's *Study of Medicine,* vol. vi. p. 653.@@i

The eggs of the Nematoidea, with a very few exceptions, are of an oval shape when mature. The changes which they undergo in the process of hatching have been minutely described by Siebold, but we can only mention one or two particulars. The covering or shell is colourless and single, but frequently double. The vitelline mass is whitish, and contains, in unripened eggs, a well-marked proligerous vesicle with a proligerous spot. When these immature eggs have passed into the uterus, remarkable changes begin in the yolk, which at this period is a mass of delicate granu­lations, set in a uniform manner, and completely filling the envelope of the egg. The proligerous vesicle, deeply hid­den in the vitelline mass, is obscurely seen, and soon after­wards disappears. On its disappearance, the physiologist is surprised to observe on the vitelline mass those remark­able grooves, the existence of which he had never suspected in any invertebrated animal, and least of all in the Entozoa, and which had been seen only in the eggs of the Frogs *(Bactracians)* by Prevost and Dumas, and some other observers.@@3

The *Intestinaux* constitute the second class of zoophytes in Cuvier's arrangement.@@4 He divides them into two orders, so dif­ferent in their organization, that they seem rather to deserve the rank of classes. The first order, the *Intestinaux cavitaires,* have an alimentary canal floating in a distinct abdominal cavity, with a mouth and an anus ; but the body of the constituents of the second order, the *Lit. parenchymateux,* contains within its parenchyma only ill-defined viscera, having the resemblance mostly of vascular ramifications; and sometimes even these traces of organism are imperceptible. We shall here present a brief sketch of Baron Cu­vier’s system.

ORDER I.—THE CAVITAIRES, *Cuv.*

This nearly corresponds with the order Nematoidea of Rudol­phi, embracing also the genus Linguatula or Pentastoma, and the Prionoderma, which Rudolphi has placed among his fictitious or obscure species. Cuvier believes that at the end of this order we ought to classify, as a distinct family, the Lernææ of Linnæus, or Epizoaires of Lamarck ; but it is now proved that these are really crustaceans, which, in their infancy, do not differ from the new-born Cyclopes, and are equally capable of swimming about; but assuming the character of adhesive parasites, they suffer a deformity that increases with their growth, and conceals their nobler alliances,@@5 for they never acquire all the members with which the more normal crustaceans are provided. Of all the para- doxical creatures which the naturalist meets with in his researches, there is none that surpasses or equals these in eccentricity, none more at variance with our notions of animal conformation, and exhi­biting less of that decent proportion between a body and its mem­bers, which constitutes what we choose to call symmetry or beauty. Of these monsters we shall attempt no description ; but the figures of a few of them, given in Plate DII. figs. 13-17, will convey some idea of their shapes and variety. They are all external parasites, living on the skin and on the gills of fish, to which they adhere by hooked grasps or claws ; and it is presumed that they injure the fish by sucking out their blood. Burmeister, who places them among the Siphonostomous Crustacea of Latreille, gives the fol­lowing synopsis of their genera.

I. Family Penellina.

body without tentacula or articulated members.

•Body more or less twisted in an angular manner, unequally thick, and furnished anteriorly with bifurcated arms.

† Three long corneous arms placed around the mouth ; the two anterior, or all the three, forked : the oviferous sac resembling a spirally twisted cord. Leb- næa, *Oken.*

†† Four soft and fleshy appendages placed around the mouth ; the anterior forked ; oviferous sac cylindri­cal. Lerneocera, *Blainv.*

@@@1 On the Entozoa of insects consult Léon Dufour, in *Ann. des Sc. Nat.* n. s. tom. vii. p. 5.

@@@\* Its exterior figure might induce us to place after Filaria the genus Trichina of Owen, found in myriads in the voluntary muscles of man, but its simplicity of structure scarcely raises it from among the Infusoria, more especially from above the eels of vinegar and paste. On this interesting worm, see the elaborate essay of Owen in *Trans. of the Zoological Society,* vol. i. p. 315 ; and in *Cyclop, of Anal, and Phynologg,* ii. p. 114 ; Hodgkin’s *Lectures,* vol. i. p. 211 ; and several essays in recent volumes of the *Lancet* and *Medical Gazette.*

@@@• See Burdach’s *Traité de Physiologie,* vol. iii. p. 59-64.

@@@*4 Règne Animal,* iii. p. 245-274.

@@@5 The males however retain their freedom and powers of locomotion at all ages. See Cuvier, *Règ*. *Anim.* iii. p. 255, note 2; and Burdach's *Traité de Physiologie,* tom. iii. p. 130.