terior resemblance to the sipunculidous genera of the radi­ated animals ; the Nematoids a nearer one to the Annelides ; and the Trematoda have, with a very general yet erroneous assent, been made members of a family that embraces the Planariæ—leech-like natives of fresh and salt waters—which Mr Swainson errs no less in arranging with the mollusca. Their affinities being thus so remote and uncertain, we are not surprised to find the classification of the intestina un­settled ; but from among the many that have been pro­posed, we only select two for exposition here ; that, name­ly, of Rudolphi, which has been most generally approved; and that of Cuvier, for this, from its wider scope, will afford us an opportunity of noticing some tribes, remotely perhaps allied to the true worms, but which only now come within the plan originally laid down for our guidance.

Rudolphi confines himself to the proper parasites of ani­mal bodies (*Entozoa),* which, following Zecler and Goeze, he divides into five orders:@@1 1. *Nematοidea ;* 2. *Acαntho- cephala ;* 3. *Trematoda ;* 4. *Cestoidea ;* and, 5. *Cystica.* In our exposition of their characters and genera, we shall re­verse Rudolphi’s plan, and begin with those of simplest or­ganization.

ORDER I.—CYSTICA.

*Character*.—Body flattened or roundish, continued posteriorly into a vesicle peculiar to one or common to several individuals. Head furnished with two or four bothria,@@j or with four suckers, and a circle of hooked prickles, or with four prickly proboscides.@@3

Genus Echinococcus.—An external simple or double vesicle, to the inner surface of which many entozoa adhere, like grains of sand. Of these the body is obovate, and the head armed with a circle of hooked prickles and suckers. The species infest the vis- cera of man, of apes, and of domestic cattle.

Genus Cænorus.—Vesicle simple, containing many adherent entozoa. Of these the body is elongate and flattish. rugose ; the head armed with a prickly beak and with four suckers. The only known species (C. *cerebralis,* Plate DII. fig. 8) is found in the brain of domestic animals, especially of sheep, and it is the cause of a dis­ease in them known by the name of the *sturdy.* It is curable by the judicious use of the trephine.

Genus Cysticercus.—Plate DH. fig. 7—External vesicle simple, containing a solitary entozoon, whose roundish or depress, ed body passes insensibly into a caudal vesicle. Head furnished with four suckers and a prickly beak. The species are found in quadrupeds, principally in their abdominal viscera. One occa­sionally makes good its habitat in the cellular substance between the muscles, and even in the eye and brain, of man ; and the same is very common in the muscles of swine, whose flesh is then said to be *measled.* Blumenbach, as we have before mentioned, asserts that the wild swine are not subject to this disease; but the assertion seems unfounded. “ In suis domestici cerebro et omnibus partibus musculosis vulgatissimus occurrit, neque *fero* deest.” Rud. *Ent. Syn.* p. 180, c. p. 547.

Genus Anthocephalus.—External vesicle hard and elastic,

containing a more delicate one, within which there is a solitary entozoon. Body elongate, depressed, passing into a large caudal vesicle. Head armed with two or four bothria and four prickled rostella. This genus was previously named *Floriceps* by Cuvier, and naturalists in general have preferred that designation. The species seem to be almost peculiar to the fishes of southern cli­mates, nestling in the abdominal membranes and viscera.@@4

The Cystica are all gemmiparous. In the *Coenurus,* the gemmæ pullulate from every part of the inner surface of the vesicle, where heads and their necks have been found at different stages of development, and always united together in groups. They appear at first like minute tu­bercles, having the limpidness of glass, and gradually evolve from this formless condition into their perfect state. Sie­bold has also traced the evolution of the young in the *Echinococcus.* The primary or maternal vesicle is lined with an extremely delicate epithelium, to which there ad­here some limpid, mostly oblong, corpuscules, analogous to those primary buds met with in the neck of the Cænuri. The liquid of the vesicle contains some free Echinococci, within whose bodies, when their coronet of hooks and suckers is everted, nothing more is to be distinguished than some scattered limpid corpuscules. These Echinococci evident­ly derive their origin from the primary vesicle. On ex­amining the inner surface of it, we notice here and there some minute vesicles, enclosing a mass of delicate granula­tions, whence the heads of the Echinococci pullulate, either solitary or in groups of from two to seven or more. In fact one portion of the granulous mass forms a small round­ish body, which is manifestly continuous with the rest of the mass by one of its extremities. This rounded mass soon acquires insensibly a pear-shape, whence it passes to an oval, while at the same time its attachment to the mass whence it issued becomes more slender and frail. We now begin to discern, in the interior of this body, the circlet of hooked prickles and the limpid corpuscules ; and now also the heads of the Echinococci commence to protrude and retract these parts, in doing which the entire body is alternately elongated and shortened. Arrived at this stage of development, the thin envelope that enclosed them is torn, but the young Echinococci do not immediately escape, for they are held to its inner surface by a slender cord pro­ceeding from the envelope, and penetrating within their own bodies at a dimple indented in the posterior extre­mity. This dimple has nearly the appearance of a sphincter muscle grasping this cord of the envelope. After a short period the cords and the Echinococci separate. On being torn up, the envelope of the young Echinococci shrivels upon itself, the Echinococci are ejected, and in this manner they form a rounded mass, in the centre of which the shrivelled envelope is hidden, and upon which the worms repose, as the polypes do upon their stem. These masses sometimes remain for a space hanging from the inner sur­face of the maternal vesicle, and sometimes they are detached even before the Echinococci have themselves sepa­rated. The granulous mass contained in the vesicle is of the nature of a yolk, whence the heads derive the nourish­ment necessary for their development by means of the slender cords already mentioned. Siebold thinks it doubt­ful whether all the vesicles, large and small, that contain heads of Echinococci, and which float at freedom in the maternal vesicle among the freed heads, are detached from the inner surface of the vesicle, or whether some of them do not come direct from the freed heads, these having pro­duced germs of Echinococci in their interior, and become distended by them into vesicles. Hanging from the free vesicles containing heads of Echinococci, he has often seen hooked spinules, which were perhaps the remains of a former circle of them ; nay, he believes that he has even seen the remains of suckers in these vesicles. Still how­ever there remains much obscurity on this strange trans­mutation ; and even a greater darkness covers the origin and the propagation of the maternal vesicle. Since the *Echinococcus hominis* frequently presents us with small hydatids enclosed within each other after the manner of a nest of pill-boxes, we are forced to believe that the exte­rior hydatid is the primordial vesicle, within which the others have been successively evolved; but how? “ I can no more answer this question,” says Siebold, “ than I can account for the existence of the primordial vesicle itself."@@4

*@@@, Entozoorum Synopsis,* &c*.* Berolini, 1819, 8νο.

@@@2 Bothria are small pits or excavations, with a thickened rim, placed round or near the mouth.

@@@3 On this order the reader will consult with advantage Dr Hodgkin’s *Lectures on Morbid Anatomy,* vol. i. p. 184-197.

@@@4 On this genus see some interesting observations by Dr Drummond in the *Magazine of Natural History,* n. s. vol. ii. p. 655, &c. and vol.

@@@1 See Burdach’s *Traité de Physiologie,* vol. iii. p. 32-4. Paris, 1838.