

wonder that the researches of some of our most eminent physiologists have been directed towards the elucidation of this obscure but all important subject, and whilst we are prepared to extend the highest meed of praise to the memory of the late Adolph Wilhelm Otto, the pre-eminent great Silesian Human and Comparative Anatomist, and Pathologist for his researches in this peculiar branch of science, and for the records of very many cases and facts connected with *Ento parasites*, (and especially amongst others, of the fact that the Entozoa known in the Cystic form as the *Cysticercus cellulose*, was peculiar to the Pig, whilst at the same time that animal constituted an exception to the presence of the parasite in its perfect form as a Tape-worm) it is a curious fact in connection with our subject that, up to the year 1856, and even for some years later nothing definite was known respecting the cause of *Trichina* disease.

"The symptoms caused by the sausage poison are very slow in appearing. They partake of the narcotico-irritant character. In the *Medical Gazette* for November, 1842, there is an account of the cases of three persons who had died from the effects of liver sausages which had been made from an apparently healthy pig, slaughtered only a week before. The inspection of the bodies after death threw no light on the cause of death. "The poisonous effect is supposed to depend on a partial decomposition of the fatty parts of the sausages! What the nature of the poison was we are quite unable to determine." (*Vide* Taylor's Jurisprudence, by Edward Hartshorne, Philadelphia, 1856.")

Supposing always as we proceed that the animal known as the *Cysticercus Cellulose* is only the humble progenitor either of an Entozoon known as the *Trichina Spiralis* of Owen, or subsequently (but now has not been clearly and satisfactorily explained) to develop itself in its entirety as a Tape-worm

The word *Entozoa* derived from two Greek words *entos* within, and *zoas* an animal, was first applied by Rudolphi to those ento-parasites which inhabit permanently the internal parts of other animals, and exclude, inter-alias, the larvae of insects, which not unfrequently take up a temporary abode in various parts of the bodies of sundry animals, and where they undergo a portion only of their metamorphosis. The different sorts of *Bot* known in the horse, in cattle, and in the frontal sinuses of sheep and deer, are familiar instances, and from which they are either voided, per anum, or escape otherwise from their temporary abodes, in due season to perfect their existence under different circumstances and in different situations.

In their cases the eggs or ova are either deposited where they undergo their first change, or, as in the *Astrum equi*, the horse-bot, are licked off the legs by the tongue of the animal and conveyed into the stomach, where they undergo their larva transformation, and are ultimately passed by the bowels, completing their metamorphosis in the ground.

Although the Vermes or worms have acquired the highest position amongst the *Entozoons*, withal it is a curious fact that some of the higher animals, even sundry of the Vertebrata, assume the positions and characters commonly allotted to the true Entozoa. Thus a fish of the genus *Fierasur* is often found occupying the respiratory apparatus of the *Holothuria* or sea cucumbers, and others have been found taking undisputed possession of the central cavity of the *Asterias discoides*. *Crustaceans* are also sometimes found enjoying a parasitic existence, as many of us must have seen in the crab occupying the mussel and oyster. Amongst the *Entomotrachians* many of the *Larvæ* are constantly found fixed to the gills, mouths and throats of various fishes, whether natives of salt or of fresh water, sundry of them moreover being peculiar to our own inland fresh water seas, whilst some of the *Linguatula* frequently occupy the nasal and frontal sinuses, as well as the lungs larynx, together with the peritoneal cavities of mammals, reptiles and fishes. Although *Mollusca* are more rarely met with in such unnatural positions, yet sundry of the *Gasteropoda* inhabit the bodies of *Echinoderms*, *Holothuria* and *Comatulas*; and in fossil Zoology are to be met with in the siphuncles of *Orthocerotites* and imbedded in *Receptaculites*, whilst the *Mytilus* and *Modiolaria*, amongst the *Lamellibranchia* infest the bodies of *Ascidians*. With the *Polyps* and *Protozoa* which are sometimes met with in animal fluids and the morbid evacuations of man, which belong to the family of *Homatozoa* and whose structure is so extremely minute that no internal organization can be detected we have nothing to do here.

As might readily be supposed aquatic animals are, as a class, most infested with Entozoa. A low degree of organization and a tardy digestion favors their production; whilst the external coverings, in the form of hair feathers, &c., which characterize terrestrial animals, renders them most liable to the visitations of *ecto*, or outside parasites.

The *Entozoons* again are much more frequently met with amongst herbivorous than carnivorous animals, at the same time that some of the latter have their own peculiar attendants, as the dog, fox and wolf, and which in their case is a very small tape-worm