of which the intestine passes. This latter has first a glandular greenish yellow layer, which above is laterally produced into the lobes of the liver, and which are separated by the dorsal canal of the water vascular system. Inside the greenish yellow layer come successively a longitudinal and circular layer of muscles, and then inside these another glandular layer covered internally by thin cells. This has brought us to the cavity of the intestine, which is simply a tube running from the mouth to the end of the body, but it is peculiarly formed, having almost the appearance of a tube within a tube. This arises from the fact that the tube of the intestine is much larger than the space it has to occupy. The only way then it can be contained is by having the upper wall folded into a sort of loop inside the canal. This is hard to explain, but can be easily understood if the two ends of a piece of string about a yard long are tied together so as to make a large ring. Now let anyone take hold of this ring with the hands about a foot apart, and then bring their hands together so as almost to meet, when a small ring will drop down inside the larger ring. This will give just the shape of a worm's intestine. This curious fold is called the *typhlosole*. I have mentioned that between the two lobes of the liver and directly beneath the middle of the back and above the intestine is the dorsal canal of the water vascular system. Just beneath the intestine in one section will be seen four circular marks, ∘∘∘; the top and bottom ones of these are the canals of the water vascular system, and the pair in the middle are the double chained nervous cord.

The simple digestive system or intestinal canal, which is in the form of a more or less muscular tube, is divided into a strong pharynx, which is pushed forward when the animal is forcing its head like an awl between the particles of loose soil, or drawn back either when it is used as a sucker to draw in food or when the mouth is used to draw heavy or smooth objects towards the burrow. This pharynx is analogous to the protrusible proboscis which is found among some Annelids (Eunicidæ, Lycidicæ, Nereidæ). The pharynx leads into the œsophagus, which bears on each side of the lower part three large calciferous glands. In most species there is a crop in front of the gizzard. This latter organ is surrounded by a double set of very powerful muscles. Grains of sand and small stones from one-twentieth to a little more than one-tenth of an inch in diameter may be found in the gizzard and intestines, and are supposed to serve like millstones to triturate the food. The gizzard opens into the intestine. The calciferous glands are very remarkable, for nothing like them is known in any other animal. Their use is largely a matter of speculation, and Darwin in his recent work, "The Formation of Vegetable Mould through the action of Earthworms," says of them; "Almost as many theories have been advanced on their use as there have been observers." The author of the above-mentioned work has, in it, collected together and himself verified almost all the facts which have been recorded concerning earthworms by previous observers. The results of his studies, too, are most reliable, from his character of scientific candour. He never neglected, in the discussion of any subject, to examine all sides of the question, and to weigh carefully all opinions, whether adverse to his own views or not. This work is the result of continued and persevering study for a space of nearly fifty years. I shall to a large extent use his words in this history of the work worms perform.

With regard to the calciferous glands, he thinks that they serve primarily as organs of excretion; and secondarily as aids to digestion. The food of worms consists of organic matter in a state of decay. This they either obtain from the soil, which they swallow in large quantities, both when they are excavating their burrows, but also for food, or else direct from the leaves of plants, which they drag into their holes.

He says, p. 49, "Worms consume many fallen leaves; and it is known that lime goes on accumulating in leaves until they drop off the parent plant, instead of being reabsorbed into the stem or roots, like various other organic and inorganic substances. The ashes of a leaf of an acacia have been known to contain as much as seventy-two per cent. of lime, worms therefore would be liable to become charged with this earth unless there were some special means for its excretion; and the calciferous glands are well adapted for this purpose." When these glands have excreted, a certain amount of lime it is expelled into the alimentary canal; from the four posterior glands in the shape of minute cells, and from the two anterior in the shape of large concretions. It is supposed that the carbonate of lime so formed aids materially the process of digestion by neutralizing