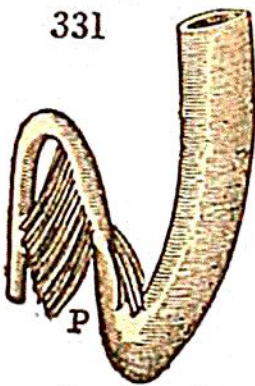


buting to the assimilation of the food. This organ becomes more and more developed as we ascend in the scale of animals, assuming a glandular character, and secreting a watery fluid, which resembles the saliva, both in its sensible and chemical properties. It has been conjectured that many of the vessels which are attached to the upper portion of the alimentary canal of insects, and have been termed hepatic, may, in fact, prepare a fluid having more of the qualities of the pancreatic than of the biliary secretion.

The alimentary canal of fishes is in general characterized by being short; and the continuity of the stomach with the intestines is often such as to offer no well marked line of distinction between them. The cæca are generally large and numerous; and a number of tubular organs, connected more especially with the pylorus, and called therefore the *pyloric appendices*, are frequently met with, resembling a cluster of worms, and having some analogy, in situation at least, to the hepatic or pancreatic vessels of insects. Their appear-



ance in the *Salmon* is represented at *p*, in Fig. 331. The pancreas itself is only met with, in this class of animals, in the order of cartilaginous fishes, and more especially in the Ray and the Shark tribes. A distinct gall-bladder, or reservoir, is also met with in some kinds of fish, but is by no means general in that class.

In the classes both of Fishes and of Reptiles, which are cold-blooded animals, the processes of digestion are conducted more slowly than in the more energetic systems of Birds and of Mammalia; and the comparative length of the canal is, on the whole, greater in the former than in the latter: but the chief differences in this respect depend on the kind of food which is consumed, the canal being always shortest in those tribes that are most carnivorous.* As the Frog, in the different stages of its growth,

* See Home, Lectures, &c. I. 401.