the exact shape of a spinous process. In front, the basilar bone is united to the sphenoid bone, which, with the vaulted roof that springs from the sides of both of these bones, like the leaves and spinous processes of the vertebræ, form together a long cranial cavity. This cavity is placed in a direct line with the spinal canal, and contains the nervous tubercles which constitute the brain. Yet the brain does not completely fill this cavity; for a space is still left, which is occupied by a pulpy substance. In like manner, the accordance of the other cranial bones with vertebræ, has been attempted to be traced; but in proportion as we recede from the central parts of the spine, this correspondence is less distinct, in consequence of the various degrees of development which these several elements have received, in order to adapt them to particular purposes relating to sensation, to the prehension and deglutition of food, and also to aquatic respiration. It is impossible, however, without exceeding the limits within which I must here confine myself, to enter into the details of structure which would be requisite in order to render this subject sufficiently intelligible.

The rest of the skeleton of fishes is extremely simple. In many, as in the *Ray* and *Tetrodon*, there are no ribs. When the bones exist, they are articulated with the extremities of the transverse processes of the vertebræ, of which they appear to be merely continuations, or appendices. There is generally no sternum to which they can be attached below: in a few fishes only, such as the *herring* and the *dory*, we find rudiments of this bone, consisting of a few pieces placed in a line on the lower part of the trunk.*

The parts of the skeleton of fishes, which correspond to the arms and legs of quadrupeds, are the pectoral and ventral fins (marked respectively by the letters P and V in Fig. 184.) The former are met with, with but few exceptions,

* The bony arches arising from the skull, which support the branchiæ, or gills, have been considered as the bones corresponding to the ribs of terrestrial quadrupeds; and if this view were taken of them, it would tend to confirm the analogy of the cranial bones to the spinal vertebræ.