Animal. In making our selection, however, it will be desirable to choose a form which shall be so far typical, that a knowledge of the structure of its various organs will enable us to interpret the nature and significance of the comparable or **homologous** parts in other Vertebrates. No cne animal is best in every respect for this purpose, because there is no animal which unites in itself all the characters which we regard as **primitive** or **general.** An example will render the meaning of these terms plain. Most Vertebrates have five fingers on the hand, and we regard that as a primitive or general arrangement in comparison with that in a cow where there are two, or in a horse where there is only one. Such a reduction in number we regard as a **specialization** associated with the function which the hand performs, and it is very much easier to interpret correctly the specialized condition if we have in the first place familiarized ourselves with the more primitive one. Our object must then be to find some fairly primitive form, which is common, easily obtained, and easily studied : our demands in all these respects are pretty well met by the common catfish, the angling for which is attended by no great difficulties, which is tenacious of life and easily kept in captivity, and which finally occupies such a place in the class of the Fishes that we can, after acquainting ourselves with its structure, survey the other members of the class, and proceed to the study of the higher Vertebrates.

3. **General Form.**—All Vertebrates, like most Invertebrates, are **bilaterally symmetrical** animals, *i. e.*, the body is divisible into right and left symmetrical halves by a plane passing from head to tail through the middle line of the back (or **dorsal** surface) as well as through the middle of the lower (or **ventral**) surface. This is the median **sagittal** plane ; planes at right angles to it, which are parallel to the dorsal and ventral surfaces, are called **horizontal,** while those which **transect** the body at right angles to both are **fronial.**