

*auricles*, and the two lower *ventricles*. Reptiles have two



Fig. 85.



Fig. 86.



Fig. 87.

auricles and one ventricle, (Fig. 86.) Fishes have one auricle and one ventricle only, (Fig. 87.)

238. The auricles do not communicate with each other, in adult animals, nor do the ventricles. The former receive the blood from the body and the respiratory organs, through veins, and each auricle sends it into the ventricle beneath, through an opening guarded by a valve, to prevent its reflux; while the ventricles, by their contractions, force the blood through arteries into the lungs, and through the body generally.

239. The two auricles dilate at the same instant, and also contract simultaneously; so also do the ventricles. These successive contractions and dilatations constitute the pulsations of the heart. The contraction is called *systole*, and the dilatation is called *diastole*. Each pulsation consists of two movements, the diastole or dilatation of the ventricles, during which the auricles contract, and the systole or contraction of the ventricles, while the auricles dilate. The frequency of the pulse varies in different animals, and even in the same animal, according to its age, sex, and the degree of health. In adult man, they are commonly about seventy beats per minute.

240. The course of the blood in those animals which have four cavities to the heart is as follows, beginning with the left ventricle (Fig. 85, *l. v.*) By the contraction of this