

form large receptacles, which are called *sinuses*, where the blood is allowed to accumulate, and where, by the muscularity of the expanded coats of the vessels, it receives an additional force of propulsion. From the branchiæ the blood is returned by another set of veins to the elongated heart formerly described, and propelled by that organ into the systemic arteries. Fig. 354 shows the relative situation of these vessels, when isolated and viewed from behind in the *Maia squinado*. *c, c*, are the venæ cavæ; *e, e*, the venous sinuses above mentioned; *f, f*, are the branchial arteries; *g*, the gills, or branchiæ; and *i, i*, the branchial veins terminating in the heart *L*.*

In the Mollusca, the heart acquires greater size, compared with the other organs, and exerts a proportionally greater influence as the prime mover in the circulation. A beautiful gradation may be perceived in the development of this organ in the several orders of this class; the *Branchiopoda* having two hearts, one placed upon each of the two lateral trunks of the branchial veins; the *Gasteropoda* having a single heart, furnished with an auricle; and the *Scaphala* being provided with a heart, which has a single ventricle, but two auricles, corresponding to the two trunks of the branchial veins.†

The most remarkable variety of structure is that exhibited by the Cephalopoda. We have already seen, in the Crustacea, dilatations of the venæ cavæ, at the origin of the branchial arteries; but in the *Nautilus* the dilatations of the branchial veins are of such a size, as to be almost entitled to the appellation of auricles. The *Sepia*, in whose highly organized system there is required great additional power to propel the blood with sufficient force through the gills, is provided with a large and complicated branchial apparatus; and

* A minute account of the organs of circulation in the crustacea is given by Audouin and Milne Edwards, in the *Annales des Sciences Naturelles*, xi. 283 and 352, from which work the above figure is taken.

† A great number of bivalve Mollusca exhibit the singular peculiarity of the lower portion of the intestinal tube traversing through the cavity of the heart.