

## THE RIDDLE OF THE UNIVERSE

great system of Galen was for thirteen centuries the *Codex aureus*, the inviolable source of all knowledge. The influence of Christianity, so fatal to scientific culture, raised the same insuperable obstacles in this as in every other branch of secular knowledge. Not a single scientist appeared from the third to the sixteenth century who dared to make independent research into man's vital activity, and transcend the limits of the Galenic system. It was not until the sixteenth century that experiments were made in that direction by a number of distinguished physicians and anatomists (Paracelsus, Servetus, Vesalius, and others). In 1628 Harvey published his great discovery of the circulation of the blood, and showed that the heart is a pump, which drives the red stream unceasingly through the connected system of arteries and veins by a rhythmic, unconscious contraction of its muscles. Not less important were Harvey's researches into the procreation of animals, as a result of which he formulated the well-known law: "Every living thing comes from an egg" (*omne vivum ex ovo*).

The powerful impetus which Harvey gave to physiological observation and experiment led to a great number of discoveries in the sixteenth and seventeenth centuries. These were co-ordinated for the first time by the learned Albrecht Haller about the middle of the last century; in his great work, *Elementa Physiologiae*, he established the inherent importance of the science, independently of its relation to practical medicine. In postulating, however, a special "sensitive force or sensibility" for neural action, and a special "irritability" for muscular movement, Haller gave strong support to the erroneous idea of a specific "vital force" (*vis vitalis*).