

CHAPTER IV

OUR EMBRYONIC DEVELOPMENT

The Older Embryology—The Theory of Preformation—The Theory of Scatulation : Haller and Leibnitz—The Theory of Epigenesis : C. F. Wolff—The Theory of Germinal Layers : Carl Ernst Baer—Discovery of the Human Ovum : Remak, Kölliker—The Egg-Cell and the Sperm-Cell—The Theory of the Gastræa—Protozoa and Metazoa—The Ova and the Spermatozoa : Oscar Hertwig — Conception — Embryonic Development in Man—Uniformity of the Vertebrate Embryo—The Germinal Membranes in Man—The Amnion, the Serolemma, and the Allantois—The Formation of the Placenta and the "After-Birth"—The *Decidua* and the *Funiculus Umbilicalis*—The Discoid Placenta of Man and the Ape.

COMPARATIVE ontogeny, or the science of the development of the individual animal, is a child of the nineteenth century in even a truer sense than comparative anatomy and physiology. How is the child formed in the mother's womb? How do animals evolve from ova? How does the plant come forth from the seed? These pregnant questions have occupied the thoughtful mind for thousands of years. Yet it is only seventy years since the embryologist Baer pointed out the correct means and methods for penetrating into the mysteries of embryonic life; it is only forty years since Darwin, by his reform of the theory of descent, gave us the key which should open the long-closed door, and lead to a knowledge of em-