Reviews

He has done this by placing it in relation to the past, recalling first the growth, somewhat haphazard, of factual knowledge about nervous system and muscle. This was the background to Sherrington's own thinking and occupies the first three chapters. The story here brings out once more the strong opinions and antagonisms of the nineteenth century, as they developed out of the work of the seventeenth and eighteenth century. The final fourth chapter is an illuminating account of the development of the ideas which were summarized in the *Integrative Action of the Nervous System*, in 1906.

On reading this book one appreciates better the uncertainty about c.n.s. structure and function which prevailed at the time when Sherrington's work began. Although to-day such terms as the diastaltic nervous system are no longer in use, Prof. Liddell succeeds in reconstructing some of the old arguments, and in so doing he clarifies the meaning of these older terminologies and the points of view they reflected. The title of the book itself is an arresting reminder that an apparently simple act had slowly to be analysed piece by piece. The detailed account of how ideas on structure are dependent upon the tools available points its moral for the present day. The slow progress in the use of fixing and staining agents was ultimately the cause of many delays to progress. Stillings' accidental freezing of a piece of spinal cord exemplifies the occasional role of the casual in science. It is a measure of Prof. Liddell's patient scholarship that he can quote this as a re-discovery antedated by 200 years.

In this book of only 173 pages, some 316 names of the past are quoted and their contribution related. In an appendix there are set out the dates and some brief notes on the lives of some of the often forgotten personalities. This book is to be recommended to all students of the nervous system. Himself a student and friend of Sherrington, entering into physiology in the golden days of global spinal physiology, Prof. Liddell writes with knowledge and feeling and a dry humour which are not easily surpassed.

C. B. B. DOWMAN


Prof. Balinsky has set out to provide a book that will lay the shadow that he considers bedevils the teaching of embryology, namely the difficulty of co-ordinating the older data of descriptive embryology with the new discoveries resulting from the newer experimental outlook. He therefore presents embryology as a single science integrating the morphological with the physiological aspects. Embryology is interpreted in a very broad sense, presenting human as well as comparative developmental features. In addition to dealing with such topics as the origin of ova, fertilization, gastrulation, the determination of primary organ rudiments and organogenesis, it deals with embryonic adaptations including placentaion, has a section on genetic control of the various processes, and considers the subjects of metamorphosis, regeneration and asexual reproduction.

Because of its scope the book is meant, and can only be considered, as a general introduction to Embryology. It is easy to read, and is not only ideally suited to students working for an honours degree in Anatomy or Zoology, but many sections could also be read with profit by medical students in general. All interested in the experimental approach to the medical and biological sciences will welcome this well-produced work.

T. W. GLENISTER

*Missbildungen des Menschlichen Herzens: Entwicklungsgeschichte und Pathologie.*


The author is a senior surgeon at the Städt. Krankenhaus of Osterode (Harz). His book is in three parts. The first is an account of the parts played by growth and by haemodynamic factors in causing the formation of a divided heart with spirally disposed blood streams.