

## Reviews

### EVOLUTION

*Evolution as a Process.* Edited by Julian Huxley, F.R.S., A. C. Hardy, F.R.S., E. B. Ford, F.R.S. Contents consisting of contributions by 19 people. (Pp. 367; illustrated. 25s.) London: George Allen and Unwin Ltd. 1954.

The question is sometimes asked whether first-year medical students need be exposed to courses in botany and zoology, and the question is sometimes answered by the assertion that these subjects are useful prerequisites for a medical degree. They may be, but there are much more important reasons than that for including them in the medical curriculum, and one of the reasons is evident from an inspection of this book. The idea of evolution is not a recondite concept like the divine right of kings, which no one but specialists need bother to understand. Nor is it a landmark of history like the Reform Bill, which was important a century ago but is now only of antiquarian interest. It is still the most fascinating problem of biology, and the most fruitful idea which has ever confronted biologists; and a man who does not understand the rudiments of it has no right to call himself civilized.

In five years we shall celebrate the centenary of the publication of Darwin's *Origin of Species*. In essentials his theory still stands, though it has not stood still. In this book nineteen distinguished biologists describe the present state of evolution in their special fields. Among the essays are the following: "Relation between the evolution of central nervous functions and the body size of animals" (Bernard Rensch), "Colour vision and its evolution in the vertebrates" (E. N. Willmer), "Memory, heredity and information" (J. Z. Young), "Correlation of change in the evolution of higher primates" (S. Zuckerman). The essays are written for biologists and it is perhaps too much to hope that many medical men recollect enough first-year biology to read the work without effort. But the effort is worth while. Here is Darwin's germinal idea applied to subjects as diverse as cuckoo's eggs, memory, courtship in birds, colour blindness in man, and the differences between the way men and gorillas wear out their teeth. The essays are all authoritative, though they inevitably differ in lucidity. They are an exciting summary of contemporary knowledge, and a gracious compliment to the sixty-fifth birthday of Julian Huxley, whose grandfather was "Darwin's bulldog" and who himself has made massive contributions to the study of evolution.

E. ASHBY.

### STERILITY AND FERTILITY

*Mammalian Germ Cells.* A Ciba Foundation symposium. Edited by G. E. W. Wolstenholme, O.B.E., M.A., M.B., B.Ch. (Pp. 302; illustrated. 30s.) London: J. and A. Churchill. 1953.

The Ciba Foundation Symposia comprise a small invited international gathering of experts who not only contribute a series of papers on recent original work but also participate freely in an informal discussion following each paper. These discussions often contain information as valuable as the papers themselves, and both are reported fully in the present volume.

The symposium is in two parts dealing respectively with spermatozoa and with ova. There are several papers on the significance and occurrence of various amino-acids and of fructose and other sugars in mammalian semen. It is shown that aspermia, induced in bulls by warming the scrotum, leads to an increased excretion of 17-ketosteroids and of other steroids. Even transport of a bull for 10 to 20 miles may cause adrenal cortical overaction and damage to spermatogenesis. The effect of streptomycin on bull semen is discussed and the proteolytic enzymes of human

semen are reviewed. An important section is concerned with sperm preservation at low temperature. Spermatozoal movement is extensively discussed and so is the effect of varying periods of continence on the quality of human sperm. Chicken-pox is reported to cause a temporary aspermia.

Later sections deal with controlled ovulation in farm animals and with the factors influencing the formation of first and second polar bodies; some excellent illustrations are presented here. Attempts to preserve rabbit ova at low temperature are described. Two final sections on the role of post-coital tests in human fertility clinics present very divergent views and should be of much interest to all concerned with such clinics.

This volume of collected papers should prove of the greatest interest both to those concerned with fertility and sterility clinics and to those who have to do with the breeding of farm animals.

C. L. COPE.

### DENTAL SURGERY

*Surgery for Dental Students.* By M. F. A. Woodruff, M.D., M.S.(Melb.), F.R.C.S.(Eng.). Foreword by S. H. Wass, M.S.(Lond.), F.R.C.S.(Eng.). (Pp. 326; 108 figures. 30s.) Oxford: Blackwell Scientific Publications. Springfield, Illinois: Charles C. Thomas. Canada: The Ryerson Press. 1954.

This is a clear and well-illustrated book, which should prove of considerable value to dental students. It is always difficult in writing a book of this type to avoid overlap when discussing conditions which are already adequately dealt with in the students' course in oral and dental surgery. The author, to a large extent, has avoided this pitfall, and, if anything, any criticism is concerned more with omissions. Thus it is surprising, after discussion of different forms of cysts, to find that odontomes are dismissed in a single paragraph as being relatively rare in man. There are also minor criticisms of statements, such as that the lining of the cysts in adamantinoma consists of either squamous or columnar epithelium, when it is held by the majority of dental pathologists that the presence of columnar epithelium sharply differentiates the adamantinoma from the dental cyst lined with squamous epithelium. All would not agree that lozenges containing penicillin should not be used in fusospirochaetal gingivitis, since they are a valuable treatment in the first 48 hours. The discussion on focal sepsis also does not fully accord with modern views. These criticisms mentioned, as well as some others, give a slight impression of lack of co-operation in writing the book, but they in no way detract from the value of the book in giving the student a sound insight into the main principles of general surgery.

ALEXANDER MACGREGOR.

### DIABETES

*Experimental Diabetes and its Relation to the Clinical Disease.* A Symposium organized by the Council for International Organizations of Medical Sciences, under the auspices of Unesco and W.H.O. Consulting editors, J. P. Hoet, F. G. Young. Editors for the Council, J. F. Delafresnaye, G. Howard Smith. Foreword by J. Maisin. (Pp. 352; illustrated. 35s.) Oxford: Blackwell Scientific Publications. 1954.

There has been urgent need for a comprehensive and critical review of the work which has been done on experimental diabetes in animals and its relation to clinical diabetes. No better account can be provided than that found in this book, which records the proceedings of a symposium sponsored by the Council for International Organizations of Medical Sciences in the summer of 1952. The detailed discussions which follow each paper provide more valuable criticism than would be possible in a volume written by a single worker or group of workers.

After a useful review of the histology of the islets of Langerhans by Best, papers on glucagon by de Duve and