to all who are concerned in the scientific development of the field. The appendixes will be appreciated by the many workers who are beginning to make empirical use of histochemical methods.

The discussion in this book is most valuable when it is concerned with problems in organic chemistry and biochemistry, and is notably weak on the physical side. Since the main intention of the author is to facilitate qualitative and diagnostic studies, which depend on chemistry rather than physics, the weakness on the physical side is not of major importance.

The chapter on freeze drying is the best of the physical sections. For the most part it wisely follows the recent publications of L. G. E. Bell, and where it deviates is liable to error: for example, on p. 36 the dryer manufactured by Edwards and Co. is classified among the outmoded vapour-trap dryers, whereas it is an approximation to a mean free path dryer. The discussion of diffusion errors is very limited in its scope. The chapter on physical methods devotes less than two pages to the techniques of visible and X-ray spectrophotometry, doing quite inadequate justice to the work of Caspersson, and not mentioning the valuable contributions of Wilkins and other members of the King's College biophysics group. There is also a tendency to underestimate the importance of the work of a number of authors, for example, Brachet, Bourne, Caspersson, Chèvremont and Verne, and perhaps to be overkind to the present reviewer. These faults, however, are minor in relation to the author's purpose.

This work has a double interest, being of value both to those who wish to develop histochemistry as a precise scientific tool and also to those who wish to use histochemical methods in a manner analogous to histological procedures. The usefulness of the latter point of view is sometimes under-estimated. It does not matter, for example, that a histologist does not know exactly why a section stains with hæmatoxylin and eosin, provided the results he obtains are repeatable and assist diagnosis in a reliable way. Similarly, a histologist may use histochemical techniques for staining sections and will be justified if he is thereby assisted in diagnosis. Whether the method is a precise one on the chemical and cytological level may be irrelevant.

J. F. DANIELLI

MALE STERILITY

La Sterilità nel Maschio

Fisiopatologia degli Organi della Riproduzione. Diagnostica e Terapia dell'Infertilità Maschile. Da Guglielmo Longo. Pp. xix+520. (Salerno: Diffusion Scientifique Internationale, 1953.) 4000 Lire.

GYNÆCOLOGY is a branch of some antiquity in medical science: its counterpart, andrology, has been practically non-existent as such until relatively recently; in fact, it is only beginning to emerge in emancipation from general medicine, endocrinology and urology. The reason for this may be sought, partly at least, in the circumstance that in the not so distant past the blame for involuntary conjugal sterility has been conventionally apportioned to women, nearly all earlier attempts at clinical investigation having been resisted and scornfully rejected by the 'stronger' sex. However, for some time now, it has been dawning upon clinicians and scientific observers alike that, in a hitherto unsuspected proportion of cases—at least 25 per cent of the total number of sterile marriages—it is the male partner whose sterility or subfertility lies at the root of the trouble.

Quite apart from these considerations, recent years have witnessed an upsurge in scientific, socio-economic and medical interest throughout the entire field of human reproduction; this being amply reflected in the formation in most countries of the world of learned societies concerned with the study of fertility and sterility in the human race. Thus, in Great Britain there exists the Society for the Study of Fertility, which publishes annually its Proceedings; and in the United States, the American Society for the Study of Sterility, which publishes the periodical *Fertility and Sterility*, occupies a similar position.

The aim of Dr. Longo's treatise on sterility in the male is twofold: (1) to co-ordinate and disseminate modern knowledge in the field of human reproduction; (2) to focus the attention of his medical colleagues upon the responsibility of the male partner in marital sterility. The book is composed of four parts, of which the first deals at length with the anatomy of the male reproductive tract, physiology of reproduction, including its sex–psychological aspects, semen morphology, and endogenous and exogenous factors which influence semen characteristics; the next part is concerned with more specifically clinical aspects of male infertility due to anatomical or endocrinological causes; Part 3 is a survey of clinical and laboratory methods of semen evaluation, pp. 397–441 offering a detailed account of current methods of semen analysis; the last part of the book is devoted to preventive and therapeutic measures to be adopted in cases of male subfertility; a brief outline of the technique of testicular biopsy and vasopuncture is included.

The literature is conscientiously quoted and the author is equally appreciative of European and American scientific work. The text is lucidly written so that it is possible to follow without difficulty the gist of each section even if, like the reviewer herself, one can claim but limited knowledge of Italian. Some of the illustrations would doubtlessly benefit from the use (in a future edition) of higher quality paper. Coming from the home of some of the most illustrious pioneers in the field of reproduction, to name only Malpighi, Spallanzani, Mantegazza, Sertoli, Dr. Longo's is an effort thoroughly worthy of the tradition established in Italy by those early investigators and actively maintained by the present generation of scientific and medical research workers.

C. LUTWAK-MANN

COMPARATIVE PHYSIOLOGY OF ANIMAL PIGMENTS

Animal Biochromes and Structural Colours

Physical, Chemical, Distributional and Physiological Features of Coloured Bodies in the Animal World. By Dr. Denis L. Fox. Pp. xiv+379+3 plates. (Cambridge: At the University Press, 1953.) 60*s*. net.

IT is unusual indeed for a work on animal colours to be as comprehensive as this latest review by Prof. D. L. Fox. The compression of a vast amount of material into a limited space can so often result