

the relative ventricular weights during the first three months of life, data not at all easy to obtain, and there on p. 22 was exactly the information I had been seeking. Delighted, I tried a few haemodynamic formulae, and these were quickly found, nicely set out together on pp. 355-6.

And so the lesson went on: the more basic the information required, the more likely was it to be found and the more accurate were the data. And that is both the secret and the value of this handbook. The amount of work that must have gone into its production is prodigious and there can be nothing quite like it in cardiovascular literature.

PAUL WOOD.

QUANTITATIVE BIOLOGY

Carcinogenesis by Ultraviolet Light. An Essay in Quantitative Biology. By Harold F. Blum. (Pp. 340+xv; illustrated. 52s.) Princeton, N.J.: University Press. London: Oxford University Press. 1959.

Radiation in the near ultra-violet region around 250 $m\mu$ to 320 $m\mu$ is carcinogenic, and it has provided the research worker with a particularly fine tool for the examination of the carcinogenic process. It has yielded data which are reasonably complete and analysable, and which merit very serious consideration compared with the more meagre data to be obtained by employing other carcinogenic agents. The experiments on the ultra-violet induction of cancer do not support some current concepts of the carcinogenic process but do lead to conclusions which can be used to challenge these concepts and to suggest further experimental work. These are the main contentions of this book, and they are well supported and clearly discussed.

Ultra-violet carcinogenesis is a fascinating topic, and this summary of the work in the field should interest a wide variety of readers. Realizing the need to carry physicists, chemists, and biologists with him in his discussion, the author, in the first half of his book, defines basic terms and describes the varied effects of ultra-violet and visible radiation on biological systems. The inactivation of enzymes and viruses, haemolysis, lysogenicity, photodynamic action, and examples of the photo-recovery which sometimes results from exposure to visible after ultra-violet radiation, are mentioned in sufficient detail to point probable differences between the mechanisms of these effects. This provides a useful background for the discussion of ultra-violet carcinogenesis. Much of the work in this field has been carried out by the author and his collaborators, and it is good to have the results collected and reviewed in one volume. The animal data are extensive, and gathered from experiments which are beautifully designed and executed. From these are drawn the conclusions about the process of cancer induction by ultra-violet radiation which are extended later to other carcinogens, and which make this book of quite general importance in the cancer field. Dr. Blum finds that carcinogenesis is a continuous process which cannot be separated into distinct periods; that it is cumulative; and that it is essentially irreversible. Evidence for some small degree of recovery is seen in the failure of reciprocity at very low dose-rates; but the threshold at which recovery just balances cancerization is very low and not directly measurable. So, in a practical sense, ultra-violet carcinogenesis is non-threshold. Further, comparison of tumour growth-rate curves with models indicates that, during regularly repeated dosage, the tumour grows

by the proliferation of an increasing number of clones, the proliferation rate of all these clones being constantly accelerated.

At this point speculation commences as to the basic replicating unit which governs the growth of a tumour. The "tem" is introduced. This is neither a virus, nor a mutated gene, nor an intermediate chemical formed by the ultra-violet radiation, but a high-molecular-weight template which is not readily diffusible; it could be a polynucleotide. The speculations are by no means far-fetched, and perhaps gain some support from recent work on the induction of animal tumours by injection of nucleic acids.

The section on sunlight and human skin cancer is brief, but this is not the author's own experimental field, and its data, in any event, are far less clear-cut. One of the merits of this book is that it should stimulate the collection and assist the analysis of more of these data. A final word on public attitudes to environmental cancer hazards arises quite naturally from the conclusions as to the carcinogenic process.

This book summarizes a complex problem clearly and logically, and its conversational style and lay-out make it easily read. It is, indeed, "an essay in quantitative biology," and as such it will repay study by all cancer workers.

E. M. F. ROE.

FOSTER CARE

In Place of Parents. A Study of Foster Care. By Gordon Trasler, Ph.D. (Pp. 248+viii. 25s.) London: Routledge and Kegan Paul. New York: Humanities Press. 1960.

There are 61,000 children in the care of local authorities and voluntary organizations in England and Wales of whom 47% are boarded out in foster homes. Between one-third and two-fifths of foster-home placements "fail" for one reason or another. In spite of (or perhaps because of) years of vigorous discussion about the factors associated with success or failure in this kind of care, little research has been carried out. Dr. Trasler's illuminating study of 57 children who were boarded out unsuccessfully at least once, in the County of Devon, and of a "contrast group" of 81 successful placements, does much to get us thinking about how such research can be done.

The book is in two parts: the first is a qualitative account, illustrated with much case-history material, of important determinants of failure of boarding out; the second part presents statistical findings. In his discussion of the dynamics of the foster-home situation Dr. Trasler shows himself aware of the many factors that contribute to its quality. "It is not easy," he says, "to be a good parent to one's own children, but it is much more difficult to be a good foster parent." He goes on to show why this should be so. The statistical findings are full of interest. Separation from the mother at an early age was not more common among the study sample of foster-home failures than among the contrast group of successful placements; but the total amount of institutional care during the first three years of life was very significantly related to subsequent failure. Aggressive children more commonly had a longer institutional history. Two-thirds of those children who were placed in foster homes before they were 4 years old achieved a good adjustment, whereas of children placed between 7 and 13 years only 30% did. Women over 40 years of age were more often successful as foster mothers than were younger women. There was evidence

that the presence in the home of a foster parent's child of the same sex and about the same age was associated with a higher failure rate. These and other findings are intelligently discussed and placed in their context.

As the author points out, the book is something of a pilot study. As such it fulfils its purpose excellently. It is to be hoped that other studies, replicating and extending his findings, will be carried out in other parts of the country, and that the merits and drawbacks not only of fostering but of other forms of care will be more widely scrutinized.

J. TIZARD.

EXPLAINING TO THE PATIENT

That the Patient May Know. An Atlas For Use by the Physician in Explaining to the Patient. By Harry F. Dowling, M.D., Sc.D., Tom Jones, B.F.A., assisted by Virginia Samter. (Pp. 139+xiii; illustrated. 52s. 6d.) London, Philadelphia: W. B. Saunders Company. 1959.

This is a book of large-scale diagrams, boldly done in black and red and interspersed with textual explanation in the same style, intended to help the doctor to explain to the patient what is wrong, mechanically or physiologically, and, sometimes, the rationale of treatment. Some pages are given to food values, their fat and salt contents and exchange quantities; there are diagrammatic accounts of the anatomy and physiology of the main systems, illustrations of the main changes in some common diseases and of the anatomy of pregnancy and childbirth. Self-administration of insulin is illustrated and so is the relative expenditure of energy in various common activities. The preface emphasizes that the book is meant to be in the hands of the doctor for exposition to the patient and is not intended for lay reading.

Probably every doctor accustomed to explain things to patients would be glad of one or other of these diagrams from time to time—to explain, for example, a "slipped disk" or a fracture—but for the most part only a patient familiar with medical diagrams and not easily perplexed or scared would seem likely to receive precisely the impression the doctor wished to convey, and it would be hard to be sure he *had* received it. The aim of the book is commendable, but it might have been better to limit its range to subjects which lend themselves to explanation by diagram. Some of those here illustrated do not.

L. W. BATTEN.

PHOTOGRAPHY IN MEDICINE

Photography in Medicine. By Arthur Smialowski and Donald J. Currie M.D., M.Sc., F.R.C.S.E., F.R.C.S.(C.), D.S., F.A.C.S. (Pp. 330+xviii; illustrated. £5 16s.) Springfield, Illinois: Charles C. Thomas. Oxford: Blackwell Scientific Publications. 1960.

This is a refreshingly new book from Canada and should undoubtedly be included in the top five titles on the subject: this is not to imply that other literature is abundant. Twin authorship by the head of a hospital photographic department and an enthusiastic clinician seems in this instance to be a successful formula and has resulted in a well-balanced view. Above all else this is a comprehensive work and deals in adequate detail with all aspects of medical photography from the department itself, through special techniques and requirements in the various branches of medicine, to filing and indexing of finished material. This latter section at least might be criticized for being unrealistically cumbersome in relation to a 10 or 20% recall

requirement. There is also a brief section on photography in the consulting-room which, though ambitious in its concept, overlooks many of the simple kits which are available to the doctor-photographer.

Some of the good ideas contained in this book may be a little immature and divorced from practice—for example, scaffolding over the operating-theatre table, though considered utopian by many of us, has obvious practical limitations. In a similar way it is difficult to see some of the "custom built" endoscopic cameras being developed for general use. To these and a few other notions the term "imagineering" might be applicable. The brief entry on retinal photography—admittedly a specialist subject—does not incorporate the most recent advances in this sphere. Happily we no longer have to depend on the stalwart Zeiss-Nordenson camera or the Bausch and Lomb copy. The number of new models now being distributed in Europe makes it probable that there are more retinal cameras outside medical photographic departments than inside; hence more comprehensive technical guidance would be welcomed by many non-specialists.

From the publishing standpoint this is an expensive and unnecessarily lavish production. This criticism is based first on the large number of full-page illustrations which would have suffered nothing by reduction in size, and secondly on the choice of such a large type-face generously leaded. This aspect is not the concern of the authors beyond the undeniable fact that the market is small and the production cost has put the book outside the individual purchasing power of technical staff who would really benefit from this otherwise excellent treatise.

PETER HANSELL.

MANIPULATIVE TECHNIQUE

Les Manipulations Vertébrales. By Robert Maigne. Preface by Professor de Sèze. (Pp. 246; illustrated. NF. 28.) Paris: Expansion Scientifique Française. 1960.

A minor disk-lesion with displacement susceptible of manipulative reduction is a commonplace. Unhappily, as we all know, nearly all spinal manipulation is to-day carried out by laymen, styling themselves bonesetters, osteopaths, or chiropractors. However, doctors are beginning to deplore the hiatus in medical education that forces patients to go outside the medical profession for what is clearly medical treatment. It is a welcome sign of awareness of this problem that two books have recently appeared describing osteopathic method: Stoddard's in England and Maigne's in France. Both these authors are medical men practising osteopathy, and all doctors should be grateful to them for putting their knowledge at our disposal.

Maigne's book largely restricts itself to the spinal joints, with small sub-sections on coccygodynia, tennis-elbow (most misleading), and strain of the costovertebral joints. There is also a chapter on exercises by Waghemacker with 32 photographs. Many of these exercises are intended to increase spinal mobility towards flexion, and would not often be used after spinal manipulation in this country. The main part of the book is devoted to manipulative technique at the joints from atlas to sacro-iliac. The text is explanatory, aided by diagrams and 200 clear photographs. As a manual for those medical men who wish to manipulate in the same way as osteopaths do, this account could hardly be bettered.