of the fibrous and fibro-elastic tissues which accounts for so many contractures. The last day of the conference was devoted to a symposium on immunity and resistance in poliomyelitis and a review of the ecology of poliomyelitis. The proceedings closed with a thoughtful and wise summary by John Paul entitled "Knowledge and Trends in Poliomyelitis." In the section on scientific exhibits the book contains much of practical help to those concerned with the management of this disease.

This book is strongly recommended to everybody interested in poliomyelitis because of the value of the individual papers mentioned and because some information on every conceivable angle of the problem of poliomyelitis is accessible somewhere in this large but not cumbersome volume.—John M. P. Clark.

SYMPATHETIC CONTROL OF HUMAN BLOOD VESSELS. By H. Barcroft, M.A., M.D., M.R.C.P., Professor of Physiology, St Thomas's Hospital Medical School, London; and H. J. C. Swan, Ph.D., M.B., M.R.C.P., Research Associate, Mayo Clinic, Rochester, Minnesota. Monographs of the Physiological Society, Number 1. 8\(\frac{1}{2}\) x 5\(\frac{1}{4}\) in. Pp. vii+165, with 67 figures. Index. 1953. London: Edward Arnold & Co. Price 18s.

This is the first of a series of monographs sponsored by the Physiological Society. It will be welcomed by clinicians as affording them an opportunity, without the labour of wading through the numerous journals, of keeping abreast of knowledge in a fundamental science. The orthopaedic surgeon at times performs a sympathectomy to improve the condition of the skin. Is the operation based on sound theory? The answer to this and other questions is to be sought for in a monograph such as this. It is refreshing to find that the experimental physiologist does not know all the answers, any more than the clinician does.—George Perkins.

ACUTE PERIPHERAL ARTERIAL OCCLUSION. By William D. Holden, M.D., Oliver H. Payne Professor of Surgery, Western Reserve University School of Medicine; Director of Surgery, University Hospitals of Cleveland, Ohio. 8\(\frac{1}{2}\) x 5\(\frac{1}{4}\) in. Pp. vii+66, with 2 figures. Index. 1952. Springfield, Illinois: Charles C. Thomas, Publisher. Oxford: Blackwell Scientific Publications. Price 17s. 6d.

This short monograph is No. 141 in the American Lecture Series being published for the Cleveland School. It deals briefly with arterial obstruction by injury, by embolism and by thrombosis, and the author relies more upon his own experience than upon the literature when he draws his conclusions. He gives a vigorous defence of embolectomy in the peripheral arteries, and he accepts the possibility of neurogenic arterial spasm. He describes one case of carotid embolism, alas without post-mortem or operation. He writes interestingly, and has added another creditable booklet to this valuable series.—D. Ll. Griffiths


A number of factors contribute to the present interest in basic studies on bone grafting. Amongst these are the frequent clinical use of bone grafts, the stimulus provided by studies on the transplantation of a variety of other tissues, such as skin, cornea, blood vessels, endocrine glands, and even kidney, and the development of synthetic materials such as plastics as possible alternatives to bone as a grafting material. Despite the numerous papers appearing on clinical and experimental aspects of bone transplantation and related topics, there is as yet no comprehensive general review of the subject, and those wishing to gain general knowledge of the field must find their way through a maze of unco-ordinated and often conflicting contributions. To those familiar with German, the present volume, written by a surgeon of the University clinic at Basle, provides at least a partial answer to this very real need. Not only does it discuss methods for the preservation of bone tissue for transplantation, but it gives a good general account of the behaviour of bone transplants as seen in clinical and experimental studies. The author summarises most of the important work in this field, and describes, in addition, experimental work of his own. He also recounts his extensive clinical experience with bone grafts, and with the organisation of a "bone bank" for the preservation and storage of the necessary grafting material.
Dr Roth's own experimental data, as well as his summary of the work of others, serves as a reminder that the function of a bone graft is quite different from that of most other tissue transplants. The ultimate fate of a satisfactory bone graft is to be completely replaced by living bone derived from the host tissue surrounding it. With most other transplants, the actual survival of the grafted material itself is necessary for success. It is because of this difference, of course, that bone grafts transplanted from one individual to another of the same species (a "homograft"), or even from one species to another (a "heterograft"), can be effective, although in these circumstances no survival of the transplanted cells is possible. Indeed, even with bone transplanted from one part to another of the same individual (an "autograft"), it is found that virtually all the cells die because of interference with the vascular supply of the transplanted tissues, and in this case, too, the graft "heals in" by invasion from host tissues. In fact the success or failure of a bone transplant is not dependent on the survival of its cells, but on its effectiveness as a temporary "scaffolding," and on any influence it may have as a chemical stimulus to the development of new bone by the metaplasia of the host tissue in contact with it. For this reason, Roth points out, the effectiveness of a particular type of bone graft, or that of a particular method of bone preservation, should be judged, not by the survival of bone cells in the graft, but by evidence relating to the "biological specificity" of the graft, and—particularly—to the stimulus to bone formation that it provides. He comments that the final assessment of various types of bone graft, and of various methods of bone preservation, either in experimental or clinical studies, has yet to be made. General clinical opinion, however, favours autografts as superior to homografts, and still more so to heterografts. Roth's own opinion on this point is that present day ability to counteract infection with antibiotics and other therapeutic agents, together with knowledge of favourable mechanical conditions for grafting, make it possible for properly preserved homograft bone to be employed with just as good final results as autografts, even if the "healing" of the grafted bone occurs somewhat more slowly. At the same time, he stresses that the actual decision regarding the type of transplant to be used in any particular case must be an individual one influenced by all the factors concerned.

Dr Roth reviews the various techniques that have been developed for the operation of a "bone bank," and describes fully the procedures he himself employs for obtaining and storing bone for grafting. He uses corpse bone, removed with aseptic precautions, and—on the basis of the experimental studies described elsewhere in the book—preserved by refrigeration in liquid paraffin at a temperature of about —15 degrees Centigrade. He has used such material on more than 100 occasions, in a wide variety of operations, particularly arthrodeses, spinal fusions and the repair of ununited fractures. The results of this clinical work are presented in detail.

The book is written from the very personal viewpoint of the author's experience, and does not profess to be a complete account of all aspects of bone transplantation. But it presents this subject in a lively fashion as a technique awaiting further development through systematic experimental and clinical work, and not as a procedure whose uses and methods have been established finally. It is of particular interest to find that Dr Roth considers the clinical use of preserved bone as something which should be employed "only by those who are prepared at the same time to work in collaboration experimentally and clinically for the further development of the method." He is thus opposed to the operation of centralised "bone donor centres," and considers that the dual responsibilities involved, i.e., the removal and preservation of bone, on the one hand, and the clinical use of such material, on the other, should not be divided. The book is accurately written and excellently produced, with an index and a good bibliography. It will be welcomed, not only by orthopaedic surgeons, but by all those concerned with clinical and experimental aspects of bone transplantation. —H. A. Sissons.

POSTURE AND PAIN. By Henry O. Kendall, Director; Florence P. Kendall, Assistant Director; and Dorothy A. Boynton, Physical Therapist, Physical Therapy Department, Children's Hospital School, Baltimore, Maryland. 11 x 84 in. Pp. viii + 204, with 159 figures. Index. 1952. London: Ballière, Tindall & Cox Ltd. Price 54s.

There is much of value in this book, the fruit of a unique experience of problems connected with posture. It is profusely illustrated with excellent photographs and line drawings, which not only make the text clear but also show the care with which the authors study each patient. The section about the various types of postural defect contains a mechanical analysis that will be specially helpful to therapists. The physiological basis is, however, very much that of the old school, and one cannot help wondering whether the undoubted practical success achieved by the Kendalls is not due as much to their personalities as to the particular methods of treatment advocated. —Philip Wiles.