The outstanding sections of the book are those on clinical examination and manipulation, which are made particularly helpful by the two-colour line drawings. Together they represent less than half the book, but are presented excellently for study and adoption. They represent a record of part of the life's work of a great thinker. Some remarks on spina bifida, unusual lumbo-sacral joints, spondylolisthesis and coccydinia may be controversial, but it would be difficult to criticise the account of sacro-iliac lesions, which is the record of forty years' experience. Interest in the intervertebral disc is now international, and it is puzzling that the author has given us little information. One looked in vain when manipulation was likely to help if there was nerve root irritation, and when it was liable to aggravate the symptoms, and what could be learnt by the

FIG. 112

onset of aggravation. Attention is given to "fibrositic deposits," but in the author's experience they do not appear to be of particular interest or importance, nor does he record how frequently they are found in routine examination of the back. He does not draw attention to work on them and he offers no explanation of their cause, which might be more convincing than the popular ones of the day.

Everyone engaged in physical medicine and orthopaedic surgery should study this book. It will interest many others, particularly those impressed by Dr Mennell's demonstrations. He teaches nothing dramatic, but the subject is a difficult one to describe by writing and difficult to learn from a book. The illustrations enable readers to understand the context easily. Readers of English are the richer for this excellent publication by J. & A. Churchill.—St J. D. BUXTON.

PROGRESSIVE RESISTANCE EXERCISE. *Technic and Medical Application.* By Thomas L. DELORME, M.D. Assistant in Physical Medicine, Massachusetts General Hospital, and Arthur L. WATKINS, M.D., Assistant Clinical Professor of Medicine, Harvard Medical School. 9½ × 6 in. Pp. xi + 245, with 89 figures and 13 tables. Index. 1951. New York: Appleton-Century-Crofts Inc. Price \$5.00.

It is a well established clinical observation that muscle tissue hypertrophies in response to repeated exercise against a gradually increasing load. The most striking examples of this are seen in unstripped muscle, for instance the colon in chronic intestinal obstruction, the bladder in prostatic enlargement, or the left ventricle in hypertension. But the same principle holds good in skeletal muscle, provided the resistance increases gradually enough and the muscle exercises against it often enough, a fact that professional weight lifters have used for a long time as the basis of their training. The authors of this small book have applied it to the redevelopment of power in muscles weakened by injury or disease and they describe the apparatus and technique

elaborated for this purpose in their clinics. There have been misgivings on the part of many competent observers because it has been found that resistance exercises can be harmful as well as beneficial. The authors are aware of the danger of producing sprains and joint effusions by faulty technique and have devised their methods accordingly.

In the past, orthopaedic surgeons have perhaps thought too much in terms of *range* of movement, particularly after fractures, and not enough in terms of power. (It is worth while remembering that the extreme example of range without power is a flail joint.) Nowadays there is a welcome tendency to recognise the importance of power in muscle, and any system of exercises that aims at developing this deserves the careful study of the orthopaedic surgeon. This book will also be of interest to physical medicine specialists, physiotherapists and remedial gymnasts.—E. A. NICOLL.

BONE LESIONS OF YAWS IN UGANDA. By C. J. HACKETT, M.D., F.R.C.P. Director, Wellcome Museum of Medical Science, London. $10 \times 7\frac{1}{2}$ in. Pp. 194, with 133 figures. Index. 1951. Oxford: Blackwell Scientific Publications. Price 45s.

Like syphilis, yaws is caused by a spirochete and has primary, secondary and tertiary manifestations. The Kahn test is positive, the lesions respond to neoarsphenamine and the bone lesions mimic those of syphilis. Is it then a separate disease? Probably yes, for in the Lango district of Uganda syphilis is an uncommon disease, accounting for only 1 per cent of out-patients, whereas yaws accounts for 20 per cent of out-patients.

Hackett in the course of two six-month visits to Lango saw 362 cases of yaws with bone lesions. In the secondary stage the characteristic changes were periosteal new bone and cortical rarefactions. All these tended to disappear spontaneously, leaving perhaps some thickening of bone. In the tertiary stage the common appearance was a number of rarefied areas in the medulla and thickening of the cortex. Similar lesions are seen in syphilis, and it is difficult or impossible on radiological evidence to distinguish the two diseases. This authoritative monograph is welcome, not least for the clarity of its illustrations. The numerous radiographs give a clear picture of the bone lesions found in yaws.—George PERKINS.

SCOLIOSIS, PATHOLOGY, ETIOLOGY AND TREATMENT. By Samuel KLEINBERG, M.D. Attending Orthopaedic Surgeon, Hospital for Joint Diseases; Consulting Orthopaedic Surgeon, Lebanon Hospital, Maimonides Hospital, Hospital for Special Surgery, New York City. $9 \times 6\frac{1}{2}$ in. Pp. xv+286, with 163 figures. Index. 1951. London: Baillière, Tindall & Cox. Price 57s. 6d.

Some twenty-five years ago Dr Kleinberg wrote an excellent monograph on scoliosis. It has now been revised, or, it would be more accurate to say, rewritten. He has even managed to reduce its size considerably, a most meritorious and unusual feat. A comparison of the two editions suggests that little has changed in the surgery of scoliosis, whereas the last twenty-five years have seen some notable advances. Dr Kleinberg does not believe that measurement of curves is of value, yet it is this objective method which has enabled us to discard many of the older ideas which still find a place in this book. It is indeed an excellent review of scoliosis but some modern concepts are not expounded. Dr Kleinberg may not agree with them but it would have been an advantage to have discussed them more fully. Despite this criticism the orthopaedic surgeon interested in scoliosis should not fail to read this small volume.—J. I. P. JAMES.

ARCHITECTURAL PRINCIPLES IN ARTHRODESIS. By H. A. BRITTAİN, O.B.E., M.A., M.Ch., F.R.C.S. Director of Orthopaedic Services, Norfolk and Norwich Group of Hospitals. With a Foreword by Sir Harry PLATT, M.D., M.S., F.R.C.S., F.A.C.S. (Hon.). Second edition. $9\frac{1}{2} \times 7$ in. Pp. xi+196, with 257 figures, 9 in colour. Index. 1952. Edinburgh and London: E. & S. Livingstone Ltd. Price 42s.

Mr Brittain's second edition has appeared ten years after his first, and the experience of those years has reinforced his original views about arthrodesis and about its underlying principles. It is not for a reviewer of his second edition to question whether or not these principles are truly "architectural," and the point is surely one of little importance for the soundness of their biological physics is, after all, what really matters. The temptation to make this book into an encyclopaedia