vein thrombosis, all of which responded to anticoagulant therapy. In six patients anteversion was corrected at the same time, and in one of these a second operation was required for malposition. After this incident a special plate was devised and used in all later cases. Pauwels specifically avoided correction of rotation, and in his hands a 10-centimetre intramedullary nail gave a satisfactory fixation. This series is not presented as a long term study; but immediate results in abolition of pain have so impressed the author that he advocates varus osteotomy for all cases of painful osteoarthritis with coxa valga or subluxation, provided that the head of the femur can be accommodated within the acetabulum. He also advises varus cuneiform osteotomy, as a prophylactic measure, for adolescents and young adults presenting coxa valga and subluxation without pain. This monograph gives in simple language a good idea of Pauwel's theories and practice, and one must hope that the author's optimistic outlook will be justified by longer observation of these patients.—Charles MANNING.

SKIN ARTHROPLASTY IN THE LIGHT OF ANIMAL EXPERIMENTS WITH SPECIAL REFERENCE TO FUNCTIONAL METAPLASIA OF CONNECTIVE TISSUE. By Kauko O. KETTUNEN. *Acta Orthopaedica Scandinavica*, Supplement 29. $9\frac{1}{4} \times 6\frac{1}{2}$ in. Pp. 75, with 41 figures (some in colour) and 3 tables. 1958. Copenhagen: Ejnar Munksgaard Limited. Price Da. kr. 25.

This experimental study has been inspired by the work of Dr E. Kallio on skin arthroplasty of the hip. It gives convincing evidence that metaplastic cartilage is formed at the site of interposition of the skin. Experiments were carried out on the hips of thirty-seven cats. In thirty, a skin arthroplasty was performed after the removal of cartilage from the acetabulum. In seven a control operation was performed without interposition of skin. In the control series it was found that no fibrous tissue protection formed over the bare bone of the acetabulum, and that the joint space gradually disappeared. In the weight-bearing areas of the joint it seemed that granulation tissue had been destroyed. Where skin interposition had been used remnants of the graft could be seen for two months. During this time the skin was gradually replaced by granulation tissue which became organised into fibrous tissue. After two months the latter showed signs of changing into cartilage. This metaplasia was found to be greatest at the weight-bearing sites, and did not occur if there was no loading by weight bearing, for instance if dislocation occurred.

These findings confirm the clinical observations made by many workers in the field of Vitallium Mould Arthroplasty and support the findings of a recent comparative study of the latter operation with skin arthroplasty (Kallio 1958). It would appear, therefore, that this operation can do everything expected from its Vitallium counterpart, and has the added advantage that when the "mould" has done its job it is removed by the body. It is possible that this procedure may have its most useful application in hip arthroplasty in the young, such as in the treatment of the missed congenital dislocation. It will be interesting and instructive to hear more about this operation when the long term results are available.—J. N. WILSON.

REFERENCE

KALLIO, E. (1958): Skin Arthroplasty of the Hip Joint and Corresponding Alloplastic Methods in the Light of a Clinical Study. *Acta Orthopaedica Scandinavica*, Supplementum No. xxx. (Reviewed in this journal, 1958, 40-B, 851.)

STUDIES ON WEIGHT-DISTRIBUTION UPON THE LOWER EXTREMITIES IN INDIVIDUALS WORKING IN A STANDING POSITION. Assessing the Results of the Measurements of Load-pressure Differences Against the Background of Handedness and Some Clinical Observations. By Axel MARSK. *Acta Orthopaedica Scandinavica*, Supplement 31. $9 \times 6\frac{1}{4}$ in. Pp. 64, with 27 figures and 13 tables. 1958. Copenhagen: Ejnar Munksgaard Limited. Price Da. kr. 20.

This is an exhaustive work in biomechanics on the distribution of body weight between the right and left legs in relation to whether the patient is right- or left-handed. During the course of their employment, workmen carried a radio transmitter in a rucksack on their shoulders connected with pressure-sensitive elements in sandals attached over their boots. Signals from this apparatus were recorded and interpreted by a receiving station. It was found that right-handed persons very consistently weighted the left foot more than the right. On the other hand, left-handed persons did not weight the right foot with the same dominance, though this contralateral foot did take most of the weight.—John CHARNLEY.