and their healing. The distinguished author of one of the most important methods of orthopaedic surgery developed in the second half of the twentieth century presents his surgical philosophy within the ambit of this small volume. No orthopaedic surgeon or scientist studying bone can afford to leave it unread, even if not in full agreement with every part of the dogma.

To Küntscher the understanding of callus formation is the basis of correct treatment of fractures and proper employment of osteotomy. He arrives at this understanding by dividing his problem into two questions. How does callus arise? And what is its later fate? He regards osteogenesis as an inflammatory process in which marrow, endosteum, bone itself, vessels and even the surrounding soft tissues can produce bone, but the periosteum plays the greatest role. The later fate of the new reparative tissue is regarded as determined by mechanical factors. Bending, torsion and indeed compression destroy callus. Any fixation device must be synergistic to the sum total of the muscle forces acting upon the fracture. Due respect is given to Julius Wolff's concept of the influence of function upon callus and bone structure as formulated in *The Law of Transformation of Bone* (1892). Küntscher advocates of course closed methods of intramedullary nailing because these respect the integrity of the soft tissues surrounding fracture or osteotomy. Absolute mechanical rest gives the best prospects for callus to become healed bone and non-union to be prevented.

No less than thirty-seven pages of bibliography are in themselves worthwhile features of the book, which deserves to be translated into English.—H. J. HAMBURY.

FIG. 43

FIG. 44

In Figure 43 the bone is compressed together under a pressure of 30 kilograms per square centimetre. In Figure 44 resorption of bone at the fracture site reduces the pressure to nil. (This is perhaps the most important criticism of the theory of compression osteosynthesis.)

Idiopathic Ischemic Necrosis of the Femoral Head in Adults. Edited by Wilhelm M. ZINN, with forty-three other contributors. 24 × 17 cm. Pp. xii + 220, with 257 figures and 28 tables. Index. 1971. Stuttgart: Georg Thieme Verlag. Price DM 78.

This slender volume records the experience of a multicentre study group, established by Swiss doctors in 1966 to investigate idiopathic ischaemic necrosis of the femoral head (IINFH). The clinical features, pathology, laboratory findings, x-ray appearances and results of treatment are clearly described. The extensive references reveal the greater interest which this disease has aroused in the continent of Europe than in English-speaking countries.

Each paper is written by a different author, which has led to some repetition and a variable standard of content, but collectively they represent a complete and up-to-date appraisal of IINFH which orthopaedic surgeons will find a useful work of reference. The chapters on the pathology are of particular interest and suggest that in some cases the ischaemia develops gradually rather than suddenly. Total hip replacement emerges the treatment of choice.

Unfortunately, despite this commendable collaboration by many centres, IINFH remains as idiopathic at the end of the book as it was in the beginning.—John CHALMERS.

Clinical Electromyography. By J. A. R. LENMAN, M.B., Ch.B., F.R.C.P.Ed., Reader in Neurology, University of Dundee; and A. E. RITCHIE, M.A., B.Sc., M.D., F.R.S.E., Secretary to the Carnegie Trust for the Universities of Scotland, Edinburgh. Foreword by J. A. SIMPSON. 22 × 14.6 cm. Pp. xvi + 175, with 20 plates, some figures and 1 table. Index. 1970. London: Pitman Medical and Scientific Publishing Company Limited. Price £2.75.

This slender volume is another example of the value of combination in authorship of the basic scientist and the clinician in expounding the developing techniques in diagnosis. Dr Lenman and Professor Ritchie both have a great interest in and knowledge of clinical electromyography. This term