spine, traction by skull tongs should be continued for six weeks to allow time for "firm fibrous union between the injured vertebrae," and that the patient may then be got out of bed and be fitted with an adjustable brace for about three months. Most orthopaedic surgeons have seen redislocation with external fixation continued twice as long as this. The problems of bedsores, bladder and bowel are dismissed in two pages. The monograph would have been better with these omitted.

The importance of this monograph lies in the first section. Further knowledge of the effects of compression of the cord and cauda equina is badly needed, and Dr Tarlov's book is a step in the right direction. The book is beautifully produced and the illustrations are excellent. The publishers are to be congratulated.—F. W. HOLDSWORTH.

PERIPHERAL NERVE INJURIES. By Ruth E. M. BOWDEN, D.Sc., M.B., Professor of Anatomy, Royal Free Hospital School of Medicine, University of London. With a foreword by H. J. SEDDON, C.M.G., D.M., F.R.C.S. 7½ × 5 in. Pp. viii + 62, with 30 figures. Index. 1958. London: H. K. Lewis & Co. Ltd. Price 8s. 6d.

This admirable little book is intended for "physiotherapists, medical students and housemen, and to be an aide-mémoire to their seniors." It gives the first three groups all they need to know of the subject, and it gives it to them clearly, readably, in commendably few pages, and for a remarkably small price. It is, indeed, a model of what could and should be done about other orthopaedic subjects that lend themselves to this type of presentation. A concise handbook intended for junior people may fairly be criticised on points of detail. Is Professor Bowden convinced that either causalgia or tardy ulnar palsy should be called an "irritative lesion" or that nerves divided in amputations should be injected with gentian violet or "inserted into a hole drilled in the neighbouring bone"? Is she happy in accepting the theory that the intermuscular septum may cause "secondary lesions" after anterior transposition of the ulnar nerve? Ought she to teach the young that causalgia "may be relieved by removal of neighbouring foreign bodies"? These are minor criticisms but, I hope, neither unimportant nor pedantic in a book whose admirable brevity means that it will be read. The author's account of conservative treatment is excellent, and her views on the principles of operative treatment are fairly presented. I enjoyed this little book, and I am recommending it to my students.—D. LI. GRIFFITHS.

REACTIONS OF RABBIT PATELLARY CARTILAGE FOLLOWING OPERATIVE DEFECTS. A Morphological and Autoradiographic Study. By Hakan CARLSON. 9½ × 6½ in. Pp. 124, with 37 figures and 25 tables. 1957. Acta Orthopaedica Scandinavica, Supplement 28. Copenhagen: Ejnar Munksgaard. Price Da. kr. 32.00.

This useful monograph does much to advance and clarify our knowledge of the reactions of articular cartilage to injury. These were studied by inflicting damage on the patellar articular cartilage in rabbits. The depth of injury, which was confirmed by histological section, never extended beyond the radiate stratum. Avoidance of damage to the subchondral bone ensured the pure reaction of cartilage to injury. The subsequent changes were observed during several months by morphological, histological and autoradiographic techniques.

Because of the absence of mitoses, evidence of regeneration was sought by observing morphological abnormalities in the chondrocytes. Some were regenerative, others degenerative, and the correctness of the conclusions was tested by ³⁵S uptake and by metachromatic staining with toluidine blue. There was reasonably good correlation between the two methods, ³⁵S uptake being assumed to represent active chondroitin sulphate synthesis and metachromasia the actual presence of the substance. It was considered that uptake of ³⁵S (administered as sodium sulphate) was the more accurate method, and the results confirmed the current views that the chondrocytes synthesise chondroitin sulphate and subsequently pass it on to the intercellular substance.

It was apparent that no extensive regeneration took place, because the site of damage was still visible to the naked eye as long as even one year after the operation. As compared with repair in vascular tissues, the whole process is much slower. It is well known that damage to the subjacent bone often produces granulation tissue, and mesenchymal cells from the bone marrow cause considerable regenerative change by undergoing metaplasia into chondrocytes and fibrocartilage. In damage confined to cartilage there was no such change. Degeneration appeared in relation to the damaged area as expected, but regeneration was visible throughout the cartilage, and particularly at the periphery. This peculiarity was ascribed to the better nutrition of the periphery of the articular cartilage, which lies near to the vascular supply of the adjacent synovial membrane. The autoradiographic studies