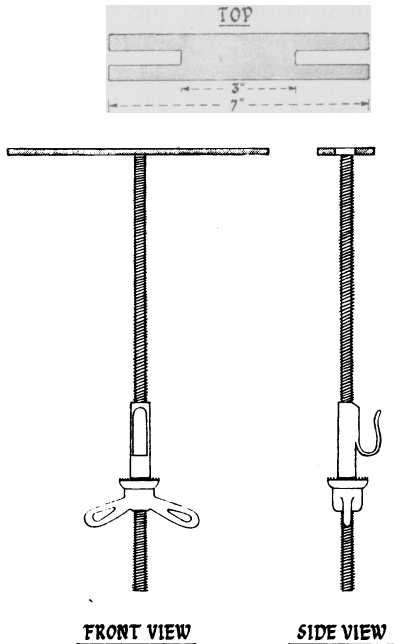


# SCREW ADJUSTMENT FOR FIXED TRACTION WITH THOMAS SPLINT

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FRACTURE of the shaft of the femur, admitted to the traumatic wards of the Royal Victoria Hospital, Belfast, under the care of Mr. R. J. W. Withers and Mr. R. I. Wilson, are usually treated by closed reduction and fixed traction in a Thomas splint. As the Thomas splint acts as an exoskeleton the traction from the leg must, therefore, be fastened to the splint. The right degree of tension must be used to prevent overlapping of the ends and shortening of the limb, yet not produce distraction with the risk of either slow or non-union.

The conventional method of tying the tapes from the skin traction to the end of the splint and then tightening with a "Spanish windlass" is rather crude and not very effective, particularly if, as is common, the Thomas splint is only 4"-6" longer than the limb. We, therefore, decided to try to improve traction control and the screw traction apparatus was made.



### DESCRIPTION.

The apparatus consists of a 7" x 1 $\frac{1}{4}$ " x 3-16" spreader bar with slots  $\frac{1}{2}$ " x 2" cut from either end. An 11" x 5-16" threaded steel bar is riveted in the middle but placed  $\frac{3}{8}$ " above dead centre. A  $\frac{1}{2}$ " x 2" steel tube with  $\frac{1}{2}$ " x 1-16" steel clip is then slipped over the threaded bar and finally a standard wing-nut.

### METHOD OF USE.

The slots in the spreader are slipped over the side bars at the lower end of the Thomas splint and the clip in the steel tube over the V in the transverse bar. The tapes from the skin traction are then passed into the slots in the spreader bar and tied. As the central portion between the slots is 3" in width pressure on the heel is avoided. The exact degree of tension required is easily obtained by tightening the wing-nut.

### RESULTS.

This apparatus has now been in use for six months and has proved itself to be extremely accurate and effective in both fractures of the shaft of femur,

treated in routine manner with skin traction, and also in cases of supracondylar fractures, when traction has been applied by a Steinmann pin through the tibial tuberosity and Pearson's knee flexion irons applied to the Thomas splint. In the latter case, a loop of cord has been passed from the stirrup to the screw traction apparatus. We have found no tendency for the screw to loosen spontaneously.

#### CONCLUSION.

This apparatus is simple, cheap, and effective, and enables the exact tension of traction required to be maintained until union of the fracture has occurred.

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### REVIEWS

**SCIENTIFIC ASPECTS OF NEUROLOGY.** Edited by Hugh Garland, T.D., M.D., F.R.C.P. (Pp. xi + 264, illustrated. 50s.) Edinburgh and London: E. & S. Livingstone, 1961.

THIS book comprises a series of lectures given in the Leeds Medical School by various neurologists, mostly British. The book is compiled, as the editor says, to show how neurologists are thinking in the mid-twentieth century.

Most aspects of neurology have been included—*anatomy, physiology, pharmacology, psychology*, in addition to the clinical aspects.

Clinical chapters include the up-to-date thinking on vascular accidents, such as "Basilar Insufficiency," "Treatment of Posterior Communicating Aneurysms," and "The Radiology of Strokes." "Facilitation or Arrest of Epileptic Seizures" is an interesting chapter, and "The Pathology and Pathogenesis of Multiple Sclerosis" is a stimulating contribution. Physiological contributions include "Sleep" and "Calcarine Cortex and Cerebral Organization." There is a fascinating chapter by Dr. Denis Harriman on "The Diagnostic Value of Motor-Point Muscle Biopsy." The method described shows the care and patience required, both in the taking of the specimens and in the interpretation. The coloured illustrations are excellent.

The book is an excellent production, and Dr. Garland is to be congratulated on his choice of lecturers.

The book can be recommended to both neurologists and general physicians. H. H. S.

**ESSENTIALS OF MEDICINE FOR DENTAL STUDENTS.** By A. C. Kennedy, M.D., M.R.C.P.E., F.R.F.P.S. (Pp. vii + 272; figs. 38; pls. 27. 25s.) Edinburgh and London: E. & S. Livingstone, 1960.

THIS volume is aimed to present to dental students and practitioners the basic principles of medicine, with special emphasis on those disorders that relate particularly to their practice. It is clearly desirable that the dentist should be able to recognise an epileptic fit from a simple "faint"; that he should be familiar with the clinical appearance of patients in respiratory or cardiac failure and that he be familiar with the modern anticoagulant treatment for myocardial infarction. These subjects, together with the other important medical aspects of dentistry, are well displayed in this book. The text is clear and the English concise. There are tables and diagrams summarising and illustrating important subjects, and the photographic presentations of various clinical features of disease are good.

R. W.