

## PREFACE TO THE FIRST EDITION

**T**HIS book is written primarily for the resident casualty surgeon. In Britain this resident appointment is usually held by young men whose practical experience, for obvious reasons, cannot match their theoretical knowledge. It is possible for such casualty officers to be fully conversant with modern textbooks of fracture treatment and yet be unable with any degree of certainty to reduce many of the simple fractures. I believe that this follows from the fact that in many large textbooks the space devoted to the detailed description of technique in the treatment of the common fractures is disproportionately small. An important step, on which might depend the whole success of a reduction, can be overlooked if it is concealed within one sentence. The full significance of many sentences in standard textbooks is often only realised on reading them again at a later date, when one has learned to reduce fractures by practical experience.

I have therefore in this small volume endeavoured to describe in detail what I consider to be the essential steps in the closed reduction of the common fractures, and at a length proportionate to the importance of the matter. No attempt has been made to write a comprehensive textbook but, by emphasising various mechanical features common to the reduction of certain fractures (which might almost be regarded as principles) it is hoped that the student may learn to apply these to the successful reduction of rare fractures whenever he encounters them.

The ease with which perfect reductions can be obtained by closed methods *when the injury is fresh* makes it especially important that the casualty officer should be skilful enough to take full advantage of being on the spot when the patient is first admitted to hospital.

It is possible that some persons are more naturally equipped for acquiring manipulative skill than others, but it is unlikely that there is any special gift which cannot be conscientiously acquired by everyone. The essential difficulty in performing a closed reduction can usually be traced to the surgeon not having a clear mental picture of what he is attempting to do. In these circumstances a series of manipulative movements is carried out as a ritual and an X-ray is then taken 'to see if it is reduced.' If, then, the fracture is not reduced the operator is nonplussed; *he does not know what to do, having learned nothing from his previous attempt*. In the following chapters I have tried to create pictures for the surgeon to visualise in his mind's eye; it must be confessed that some of these mental pictures may be more symbolic than true representations of the facts, but this approach has helped me to improve my own results, and those who attempt to follow can make their own images starting from this groundwork.

It should be the aim of a good manipulative surgeon *to know that a fracture has been reduced by his sense of touch without utter dependence on X-ray*; it is possible to acquire this faculty for the Pott's, Colles', supracondylar fracture of the humerus, and the Bennett's fracture with some degree of certainty.

## THE CLOSED TREATMENT OF COMMON FRACTURES

Contrary to popular ideas, the operative treatment of fractures is much simpler than is the non-operative. At operation the fracture lies open for all to see, and the mechanical procedures which may be needed are obvious in the extreme; yet modern textbooks often devote many chapters to minute descriptions of these self-evident facts.

In addition to its aim of guiding the young fracture surgeon, another motive for writing this book arose out of a recent visit to the United States of America. It became apparent to a British visitor that interest in the operative treatment of fractures was there tending to supersede interest in non-operative treatment, except, of course, where open methods were manifestly impossible. One obvious reason for this different viewpoint was economic; any method was likely to be favoured which enables the duration of hospital in-patient stay to be shortened. But it seemed that another reason for the trend towards open reduction in the United States of America and Canada might be that good operative techniques were being unfairly contrasted with poor manipulative techniques. But the appearance of scientific precision which is always associated with operative methods is often only superficial; this apparent precision will not alter the convictions of the manipulative surgeon and will not blind him to the ill-effects of many operative interventions on the blood supply of bone fragments and the process of normal callus formation. For this reason **an attempt is here made to re-emphasise the non-operative method, and to show that far from being a crude and uncertain art, the manipulative treatment of fractures can be resolved into something of a science.**

In order to carry out the conservative method adequately it is first necessary to revive interest in the perfection of plaster-of-Paris technique. For this the surgeon must discipline himself to a period of apprenticeship.

In the chapter devoted to the fractured femur I have set down an exposition of the Thomas method as I have used it in the last seven years. For many people this chapter may be of no more than historical interest as showing the degree to which a method used by H. O. Thomas in 1860 can be developed by the year 1949; but to my mind the method is one of extreme importance because, even if not practised, it illustrates certain principles in the mechanics of fracture treatment which are valid, though not so obviously, in other parts of the body and for this reason it is important that the method should be included in any training curriculum.

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*Manchester, 1950.*