Book Reviews


At a time when his influence might have been greatest Professor Pauwels was largely cut off from communication with the rest of Western medicine by the isolation of Nazi-controlled Germany, the war, and the reaction by most of the occupied countries to Germans (Professor Pauwels was half Belgian) immediately after the war. Soon, however, the value of his work was recognised—perhaps more so in France than in England and America. This monograph incorporating his professional life interest in high femoral osteotomy is written in German and illustrated by clear diagrams and excellently reproduced radiographs. I will try to translate his summary freely.

"From biomechanical analysis it can be shown that three conditions arising in the region of the neck of the femur—congenital coxa vara, pseudarthrosis of the neck of the femur, and coxarthrosis—are caused and maintained by different types of mechanical stress. In congenital coxa vara the deformity occurs because of the inherent inability of the neck of the femur to stand up to the mechanical stress to which it is subjected. Because of the bending which occurs the epiphysial cartilage, which physiologically is designed to be stressed by direct pressure only, becomes increasingly deformed by the resulting abnormal strain, and growth in length is also inhibited.

"Pseudarthrosis of the neck of the femur is caused and maintained by shearing stress, and the coxarthrosis by the greatly increased and abnormally directed longitudinal forces.

"Effective treatment of each of these conditions must, therefore, try to work on the mechanical stress forces: 1) in congenital coxa vara—to reduce the tendency to bending of the neck of the femur, and to reduce the forces increasing curvature and shear of the epiphysial cartilage; 2) in pseudarthrosis of the neck of the femur—to change the shearing stress to pure pressure stress; 3) in coxarthrosis—to reduce the abnormally localised pressures within the joint and incongruity of joint surfaces by increasing the weight-bearing area of the articulating surfaces.

"In all three conditions the completely different stress on the femoral neck can be treated by altering the angle of the neck of the femur. In congenital coxa vara and pseudarthrosis of the neck of the femur by an increase in shaft-neck angle and in coxarthrosis by an increase or reduction in the shaft-neck angle—depending which best relieves the pressures most effectively, and this may include also external or internal rotational change.

"In all three conditions successful operation depends upon choosing exactly the right amount of change in the angle of the femoral neck, and it is not possible to produce a blueprint for operation; the mechanical basis must be worked out in each individual patient. One must make a pre-operative sketch drawn from the radiographs calculating the angles of osteotomy required. If this is not done one cannot blame the mechanical theory or the basic methods for eventual failure."

This book should prove an orthopaedic classic.—C. W. MANNING.


A work which runs into two volumes of over seventeen hundred pages with five hundred to a thousand references or more for each chapter represents a major contribution to orthopaedic literature and an enormous labour for a single author. For one man to attempt to deal authoritatively with this subject on such a scale is a herculean task. Inevitably there are sections where one feels the author is more at home with his subject, as in the treatment of cerebral palsy and club foot, than in others, where perhaps his personal experience is less. However, as stated in his preface, he has cited for each important statement significant findings from the vast literature of paediatric orthopaedics and also has clearly stated his own personal preference and experience with many of the procedures discussed.

Throughout the two volumes the standard of illustration is outstanding. There are innumerable figures, tables, operative drawings, photographs and radiographs profusely illustrating the text. These are largely the work of Mr Ernest Beck, to whom the author pays tribute in his preface. The operative