

WHITMAN (R.)

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THE PREVENTION OF UNNECESSARY DEFORMITY
IN POTT'S DISEASE.

By ROYAL WHITMAN, M.D.,
NEW YORK.

THE necessary deformity of Pott's disease is that which cannot be prevented by the most efficient treatment, applied before the stage of deformity and continued until an absolute cure is established.

It is my impression that not more than five per cent. of all cases are seen by us before the deformity stage, and in out-patient practice, at least, even these are usually brought directly by the mothers, not on the advice of a physician. What the unavoidable and what the unnecessary deformity of Pott's disease may be, we cannot therefore at present determine.

Believing, as I do, that in most instances we are able by efficient treatment to prevent an increase of the already existing deformity, which untreated would become more and more pronounced, it seems fair to assume that much of the almost universal deformity seen in our clinics is unnecessary.

I do not propose, however, to attempt to justify the title of this paper, as was my original intention, but shall simply present a suggestion for treatment in a limited class of cases, by which possibly a certain amount of unnecessary deformity may be prevented. In this class the site of the disease, often



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subacute in character, is the middle dorsal region. Head-supports are not indicated, by the symptoms at least, yet there is a tendency to increase of the deformity. The chest flattens, the shoulders droop, and the scapulæ become more and more prominent.

As the shoulders droop forward and the ribs sink downward, the geater becomes the weight and forward leverage on the weakened spine. It has seemed to me that the importance of elevating and holding the shoulders and of restraining the reaching movements of the arms is not appreciated. Such movements are always accompanied by forward flexion of the

FIG. 1.

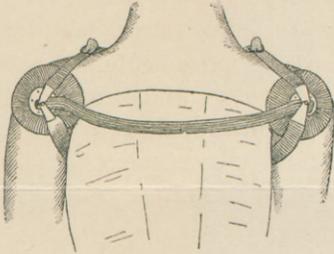
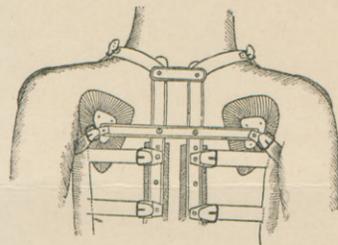


FIG. 2.



upper spine, which cannot be prevented by the ordinary appliances. If, however, the shoulders are pressed back to their full limit, the ribs are elevated, the chest cavity increased, and the spine so fixed that flexion is almost entirely restricted to the neck, far away from the seat of disease. To accomplish this object I have made an addition to the ordinary Taylor back-brace as follows: Two saucer-shaped pads of hard rubber are moulded on plaster casts to entirely cover the prominence of the shoulders, resting on the deltoid muscle as it arches over the head of the humerus. These are connected by an unyielding steel bar which crosses but does not press upon the chest.

A cross-bar is attached to the upper part of the back-brace, terminating in two triangular hard rubber pads, which cover

and hold the scapulæ against the thoracic wall. The brace is then applied as ordinarily, providing efficient pressure by its pads at the point of disease. The shoulders are then brought back to their full limit; the shoulder-pads are placed in position and firmly attached to the brace by a band passing above the clavicle to the neck-piece, while another, thickly padded, is carried through the axilla to a buckle on the scapula-pad, so that the shoulders are firmly held in the desired position.

The backward traction on the shoulders tends to produce lordosis in the lumbar region, but as this is prevented by the abdominal apron of the brace, we are able to provide an increased leverage and fixation at the point of disease. While the ordinary and necessary movements of the arms are not, to any extent, restricted, the direct forward reaching movements are entirely prevented. The desirability of this restraint is a point that seems worthy of attention in cases of more acute disease, where elevation and fixation of the shoulders and ribs would seem to be indicated. In such cases a chin-support adds to the efficacy of the appliance.

