## HIP-JOINT DISEASE---THE MECHANI-CAL TREATMENT BEFORE AND AFTER OPERATION.\*

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As it is not a part of my duty to discuss the merits or demerits of the purely mechanical as opposed to the immediate and heroic measure of removing all diseased tissues infected by tubercular deposit, but to confine my remarks only to some of the appliances in use at the present time, this paper will claim one essential merit, viz., that of brevity.

In looking over recent literature on the subject, one cannot help admiring the inventive faculties of some of our surgeons, as well as the admirable skill displayed in securing modifications to meet their own ideas on the subject. Fortunately for the general practitioner, however, we now have a considerable number of appliances to select from, and it should not be forgotten that the successful treatment will often depend on a proper selection of an instrument. As it is now admitted that the amount of force to be applied will vary with the circumstances, it should at least meet the following requirements, viz., relieve muscular tension, secure immobility of the joint, allow of extenson and counter-extension if required, and permit the patient to have plenty of sunlight and out-of-door exercise. During the first stage of the disease, should the symptoms be acute, extension by means of a weight and, pulley will secure (by giving complete rest to the body) a more rapid control of the inflammation in the joint, and prepare the limb for the apparatus to be applied later on.

The most convenient method is by a single strip of plaster, commencing at the internal and upper portion of the thigh, passing under the sole of the foot and up the outside of the leg to the great trochanter to be covered by a bandage. Where the little patients are very restless, sand bags will often answer better than the long body splint for the purpose of keeping them quiet.

Flament, of Lille, reports the successful treatment of cases by means of continuous extension with an immobilization apparatus attached to a portable bed, so as to allow sunlight and

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fresh air. About the only essential difference between the various instruments is in the matter of extension.

Mr. Thomas, of Liverpool, desiring complete immobility of the hip joint, uses a posterior splint composed of an upright strip of soft iron reaching from the level of the angle of the scapula to bolow the middle of the calf, and bent so as to fit the incurvature of the loins. To this is attached three bands, the first at the top, the second above the knee, and the third embraces the leg. A thick sole is worn on the shoe of the sound foot, so as to allow of extension by the weight of the limb. The objections to this splint would appear to be insufficient extension, and the difficulty in managing the patients owing to the absence of a joint at the knee.

The results, according to Dr. Huddlestone, of Boston, are not very encouraging. Of 14 cases treated with the Thomas splint in the Children's Hospital 9 had abscesses; 9 had clevation of trochanter above Nelaton's line; 11 had atrophy of the thigh of over two inches; 9 had five degrees of adduction; 8 had some flexion; 6 had no motion at joint; 4 had motion of only a few degrees; 3 had good motion; 1 had perfect motion; and 6 were brought into the hospital for correction of deformity or relief of pain. Results: Good position, little flexion and adduction, great shortening, great atrophy, large number of abscesses.

The Sayer splint may be taken as an example of the other variety, allowing of extension by means of adhesive plaster attached to the lower band of the instrument and thigh, and counter extension by means of a perineal band attached to the other end. An extension bar at the side adjusts the amount of pressure.

I have had good results in three cases treated by a modified Sayer splint, having, instead of a ball and socket joint, a flat, stiff joint and an iron band around the hips. The side bar has a screw extension instead of the ratchet.

The mechanical treatment after operation, for from three to nine weeks, will be the same as for fractured thigh, with a certain amount of abduction, so as to prevent the end of the bone pressing on the wound, and extension by means of weights and pulley. After the wound has healed sufficiently, either of the splints referred to can be employed.