

pain. At the end of three months there was no pain nor limitation of motion, but it was thought safe to use a Taylor brace for three months more. At the present time, three months after ceasing all treatment, the child runs about without pain or limp of any kind, apparently in perfect health. But such favorable results must not be looked for in the majority of cases. The plaster spica, while it gives very good fixation, does not provide for traction and in the majority of cases traction as well as fixation will be found necessary. Two methods of obtaining traction with fixation will be here described: first, by weight and pulley, with the patient recumbent; second, by means of a modified Taylor brace, with the patient walking about. To apply a weight and pulley in a satisfactory manner it is necessary to place the patient on a frame made of either iron or hardwood, covered with canvass, just wide enough to accommodate him and long enough to permit of the necessary straps, etc., being used; the bottom of the frame should have two uprights, through which a rod is introduced to carry the pulley over which the cord passes to carry the weight. A round hole is made in the canvass to permit the use of the bed-pan. A circular band of iron goes over the pelvis, to which are attached the padded straps which go between the legs for making counter-extension. The patient is placed on this frame and kept in position by an apron which buckles over the body: straps pass over each shoulder as well. Adhesive plaster straps, ending in buckles, are bandaged on to the affected leg, and five to twenty pounds of weight applied. It is very important to make the traction in the line of deformity, otherwise acute pain will certainly be caused. The limb can be gradually straightened as the traction overcomes the muscular spasm, which is the original cause of deformity. This method of treatment is necessary for a time when pain is acute or much deformity exists, and is very successful when properly applied, promptly relieving the pain and gradually correcting the deformity. I have had these frames mounted on light wheels, and at present have two patients being treated in this way, with very good results so far. If they prove quite satisfactory I will describe them fully in some future article and give a photograph. The wheels are of great advantage, as the patient is enabled to go out in the open air freely, a very

important factor in this disease, which is so much benefited by plenty of fresh air. At night the foot of the carriage is elevated to give counter extension without pressure on the perineum. The other method of fixation and traction described will be that obtained by the long traction splint. This long traction splint is a modification of the original Davis splint, and is practically the same as the Taylor or Sayre long splints. It combines a considerable amount of fixation with as much traction as the patient can bear. It consists of a stiff stem capable of extension, with a pelvic band, from which the weight of the body is suspended by two padded straps, while traction is made by adhesive plasters from the foot-piece, which extends at right angles from the stem. In addition to these three methods of mechanical treatment which I have described, there are very many others, each with their advocates, and each, no doubt, more or less satisfactory in the hands of experts, but the three I have mentioned are comparatively simple, and some one of them is suited to the wants of any case or any stage of the disease. To recapitulate: In the very early stage try the plaster of Paris spica for a few months; if this removes all pain, then apply an extension Taylor brace, and wear it for several months after all symptoms have disappeared. At a later stage with acute pain, and perhaps suppuration, or if deformity exists, use a frame with fixation of the body, and weight and pulley traction to be followed as soon as the symptoms subside by the Taylor brace. The treatment of abscess must be on general surgical principles, remembering that these abscesses often disappear without incision; in some cases aspiration of the contents, followed by injection of an emulsion of iodoform in glycerine is followed by most satisfactory results. It is generally necessary to repeat the process several times. A 10 per cent. emulsion is used. Excision as a method of treatment is praised by many surgeons, but these are chiefly men who do general work, and have neither the time nor training necessary to carry out successful mechanical treatment. Nearly every surgeon who has devoted himself to orthopedic work is unavailable to excision, except as a last resort. It seems very unwise, when the results of the two methods are compared, to subject a patient to the risk of such a serious operation when mechanical treatment gives so much better results. (See Bradford