

WHAT SHALL WE DO FOR HIP-JOINT DISEASE?

BY A. M. PHELPS, M.D.,

New York,

Professor of Orthopedic Surgery in the University of New York, the New York Post-Graduate School and Hospital; Professor of Surgery in the University of Vermont; President of the American Orthopedic Association, etc.

It is not a difficult thing to say what should be done in any given case, provided we decide on general and valid principles. Usually the cases which come to the clinic at the Post-Graduate and the University Dispensary are managed in the following manner: (1) We aim to overcome the existing deformity, and (2) *we open abscesses*; and, when this has been done, *the finger is used to carefully explore the joint*. If dead bone is found, it is removed; if the head and neck of the bone have been destroyed, a complete excision is performed. Patients coming to us with a marked degree of angular deformity are placed in bed with the body and "well" leg fixed in plaster of Paris, and with traction in the *line of the deformity, and at right angles to that line, or, in other words, traction in the line of the axis of the neck*; and day by day the limb is dropped until it is parallel to its fellow, or the deformity is entirely overcome. After this, suitable splints are adjusted, and the patient allowed to go on crutches and exercise in the open air.

The splints which we use in the care of this class of cases are known as Phelps's lateral traction splints. They are so constructed as *to fix the patient exactly as he was fixed in bed, and to apply traction in the same manner; that is, in the line of the axis of the neck*.

Fig. 1 conveys a correct idea of the splint. The steel ring catching the tuberosity acts as a point for counter-extension. The limb is well buckled down into the splint by means of straps on the foot-piece, which are buckled into adhesive plasters attached to the limb. Lateral traction is made by buckling the limb firmly to the lateral traction-bar *a*. A cheaper splint is illustrated in Figs. 2 and 3, which answers the same purpose, lateral traction being made by lashing the limb firmly



to the bar *a*. It is much cheaper than the splint shown in Fig. 1, and is used almost exclusively in our dispensary work.

The patients are now placed upon crutches, and are never allowed to step upon the splint until they are cured. (See Fig. 4.) This varies in time from one year to three or four. It will be observed that these splints, extending from below the heel to the axilla, prevent the limb from assuming an angle with the body. *This is the reason why none of our cases recover with angular deformity. It will also be seen that, seizing the pelvis, as it does, with the pelvic band and steel ring, it fixes the joint, and this fixation is continued without motion from the commencement of the treatment until the patient is cured. This is the reason*

FIG. 1.

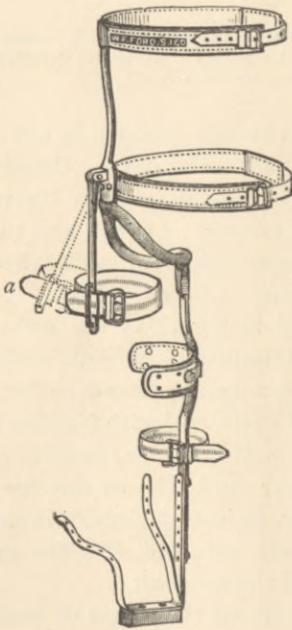
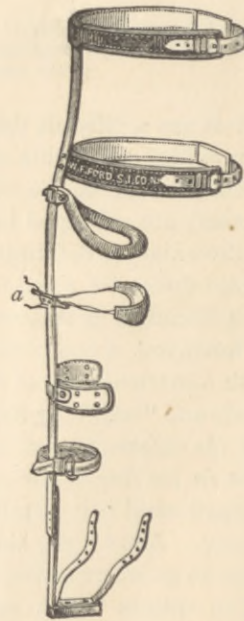


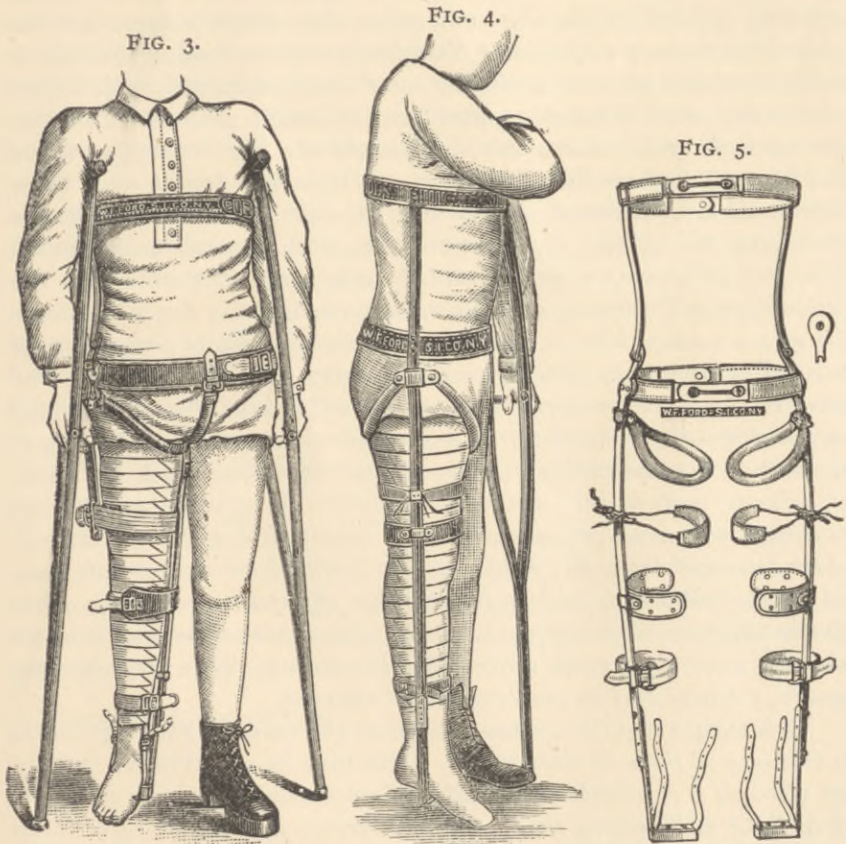
FIG. 2.



why our patients never recover with bony ankylosis. All degrees of limit of motion are seen in these cases,—varying from never less than 10° up to perfect motion. *The reason for this is that, holding the joint at perfect rest, Nature goes on in her effort at cure uninterrupted by the trauma of motion.* The constant stepping on a splint, as is allowed in the splints used by Sayre, Taylor, and others, produces a constant trauma of the joint; new material is thrown out, and, when finally the patient is cured, the contraction of this new material produces the limit of motion and ankylosis seen almost always in cases treated by the long traction splint. *The splint extending below the foot has a decided*

advantage over Thomas's splint, because that splint stops at the calf of the leg. If the patient gets a slip, he must necessarily step on the foot, and this drives the head of the bone into the socket, producing a trauma; and, then, small children will step on their limb. The splint stopping at the calf does not protect the joint. Traction is not employed in the Thomas splint.

Lateral traction is absolutely necessary to overcome the traction of the glutei muscles and the adductor groups. These muscles act in a line corresponding to the axis of the neck of the bone, and not of the shaft;



and to relieve intra-articular pressure, it is necessary that lateral traction should be applied, or traction in the line of the axis of the neck, as is done in the splint illustrated.

Fig. 5 is my double hip-joint splint: it is simply two splints, like those shown in Fig. 2, joined together in the centre.

Now, in the use of these splints, as I have already said, I never see bony ankylosis; no case recovers with angular deformity; and it is the

exception to see a case with less than 10° of motion. That shortening of half an inch, which is almost always seen in cases treated by other splints, which shortening is due to intra-articular pressure, the result of muscular action, I do not see in my cases. The shortening in my cases is only produced by extensive disease of the bone,—the result of pathological changes, and not of pressure.

If abscesses develop, they are immediately operated upon, and certainly no diagnostician can determine exactly the extent and location of the disease in the suppurating joint *without intelligently exploring it with his finger*; hence, when these abscesses have been once opened, the finger is introduced. Very frequently the head of the bone is found separated from the neck, the acetabulum perforated, with masses of diseased bone lying as sequestra in the cavity. These, of course, are removed, or a complete excision performed. The wound is packed and allowed to heal by granulation. Within four weeks after these operations are performed, and frequently much sooner, the patient is allowed to be up and about, on crutches, with the splint illustrated. *The fear of opening abscesses, and the exaggerated reports of the unfavorable results from so doing, are all mythological. I would as soon cut open a healthy joint as I would look at one's tonsils, so far as danger to either is concerned. If suppuration is going on within the joint, and there is also an open sinus, it is no longer a joint, but a compound suppurating fracture. It is, in my opinion, extremely bad practice to allow these abscesses to burrow through the tissues and find their exit on different parts of the surface of the body. It is just as bad practice to curette and scrape sinuses with dead bone which cannot be removed, at the bottom of them, for, unless you can remove the bone, you only leave an abraded surface, which simply facilitates absorption. By early operation on abscesses, life is frequently saved, and, inasmuch as cases in which abscesses occur do so much better after the abscesses have been properly treated, I believe that we should incise all abscesses.*

It is taught that the treatment of these abscesses, *by allowing nature to take care of them, is conservative.* This may be conservative, but, to my mind, *it is extremely unscientific. Conservative surgery is doing the right thing at the wrong time; scientific surgery is doing the right thing at the right time. The terms conservative surgery, alteratives in medicine, or scrofula are the breast-work behind which ignorance skulks.* To illustrate: A patient, fourteen years of age, came to the clinic from the New York Orthopedic Dispensary. She had been growing rapidly worse, notwithstanding she had been wearing the long-traction splint for a long time. When first seen, she had an abscess; the leg was flexed 45° or more; there was the characteristic deformity of the third stage of hip-joint disease, with one and a half inches of shorten-

ing. We adopted our almost invariable plan, and operated upon the abscess. On opening into the joint, we found extensive destruction of the bone, and the joint filled with pus, which was burrowing in all directions about the thigh. There were also pieces of bone loose in the acetabulum. These fragments and all disease were removed, and the wound packed daily during the healing process. She has worn the lateral-traction fixation splint, extending from below the foot to the axilla. This splint was worn for four years, or until about four weeks ago, when the thoracic band was cut off. There is one and one-half inches shortening; in other words, exactly the same as when she came to us. Abduction and flexion have disappeared, and, although the joint was not moved for four years, she has good motion in it. The limb can be flexed to 15° , abducted and adducted 8° or 10° , and these last motions are increasing. Hence, the fallacy of prolonged rest of a joint producing ankylosis, as taught by Sayre and others, should be a thing of the past. Fixation does not cause ankylosis, as they teach. Fixation has no more to do with ankylosis as a cause, than plug-hats and suspenders have to do with civilization. I am sure this patient is cured, and I will tell you why, because, after removing all apparatus, the limit of motion has been steadily increasing.

It is urged that the patients wearing the lateral-traction fixation splint cannot sit down. They sit on chairs as comfortably as with the long-traction or any other hip splint. It is further stated that the lateral traction applied produces intra-articular pressure by pressing upon the adductor group of muscles.

Ridlon¹ offers this criticism, and exhibits diagrams showing pressure made in the "upper third" of the thigh: *Lateral traction is made in the lower third of the thigh below the attachment of the adductor group; hence no pressure is made on that group, and the argument must come to naught, being based on a false assumption.*

¹ International Medical Clinic, 1893.

