

the fibrous tissues plays the important role of a perpetual splint shielding the enfeebled synovial membrane from further shock and distress. On no account, therefore, will these adhesions be broken down or stretched by manipulation; such a treatment is contra-indicated by the pain which closely attends any attempt at more than the accustomed movements of the joint. The very audible crackling, which even a bystander may sometimes hear, on working the joint is the result of the altered synovial fluid being quickly driven by the movements of the joint between the vascular fringes.

Occasionally, when a joint has been wrenched by a recent accident, and is in consequence painful and useless, the manipulative examination which it receives from the surgeon is the means of removing much of the pain, as well as restoring a good deal of the lost function. I am satisfied that such improvement is real, and not merely subjective. Yet because in the weakly and ailing such a therapeutic measure might probably be attended, either, immediately or remotely, by disastrous results, and because of its utterly speculative nature, it is not to be recommended as routine practice, though it may well be kept in reserve for rare and special occasions. It certainly has a close and important bearing upon bone-setting. A man sprained his ankle, the surgeon examines and reports accordingly; but, because no bone is broken, he perhaps speaks of the lesion in a careless or off-handed manner, and does not insist on the necessity of rest and of other appropriate treatment. So the ankle does not get sound, and the faithless patient resorts to a quack, who at once finds "a small bone out of place." Then come a sudden twist and a crack, and lo! "the bone is in again." The patient believes that a bone has there and then been restored to its place, because he is at once absolutely more comfortable, and can not only move the joint freely, but can even accept the advice to throw away his crutch or his stick, and walk on his damaged foot without further help. Perhaps he is told to go home and apply ice; at any rate from that time he considers himself to be—and indeed is—cured. Forcible manipulation is, of course, the bone-setter's panacea. I have known him to employ it in the case of fracture of the surgical neck of the humerus, and, as may be excepted, with very serious results. In the case of recent sprain, however, the patient cannot but believe that the bone-setter's statement is true, because, beyond a doubt, his manipulation has proved effectual.

The following report illustrates the point:—A gentleman of highly nervous temperament came to me with considerable bruising of the deltoid, the day after receiving a fall, which might have been attended with much more serious consequences. The arm was so stiff at the shoulder-joint that he could not raise it to dress himself, nor could he touch the ear of the opposite side whilst his elbow was brought toward the front of the

chest,—it remained permanently though slightly abducted. Any movement of the arm was attended with pain and distress. There was no definite hollow beneath the acromion process, nor any other unequivocal sign of dislocation. There was a great element of obscurity in the case; the patient was in pain and apprehension, and expressed his fear that the shoulder-bone was "out." A consultation on the case was not attainable, and the course of action had to be decided. So, to err upon the safe—if error there might be—and in order to make a thorough and practical examination of the joint, I agreed with him that there was "displacement of the shoulder-bone," and laying him upon the floor, with my heel in the axilla, I flexed the fore-arm to slacken the biceps, rotated and pulled down the arm, and then adducted it *vi et arte* and in a most determined manner. There was no click, or the sign of a re-adjustment having taken place, but immediately on the patient rising from the ground he said that he was much more comfortable; he had lost most of the pain; he could move his arm with comparative freedom; and to his delight and my satisfaction he dressed himself without assistance. He was convinced that I had reduced a dislocation. In my own mind I was sure that I had not, but for obvious reasons I did not tell him that the success attending my treatment was worthy of a more exact diagnosis. It is with no sense of pride that I record the case; nevertheless, it might be expedient to adopt this treatment on another similar occasion. With a hyper-sensitive and nervous patient, and a fat or swollen shoulder, it is occasionally impossible to affirm without the aid of an anæsthetic that there is no displacement. Traction on the bent elbow with the heel in axilla enables the surgeon to make the necessary examination. Certain am I of this,—that my nervous patient would not have examined him if I had first said that I thought there was no displacement.

I have observed the same course of events in other cases. For instance, a man has just damaged his ankle, which is now painful, swelled, and stiff; a thorough manipulative examination reveals no definite lesion. But immediately after the handling the patient finds the foot so much better in every respect that he talks too lightly of his injury and wishes at once to walk about. Or an elbow, knee, or wrist, is stiffened by a recent wrench. On being thoroughly overhauled, nothing is found absolutely wrong with it; but the patient, though a sufferer during the examination, finds the joint greatly improved by it. The surgeon will rightly refuse to include such a speculative therapeutic measure in his routine practice; but its blind employment by the charlatan is the means of securing many a triumphant success.

Where a limb is stiff from chronic muscular rheumatism, much good may often be done by *massage*, and by sudden movements imparted to