

could be made out but it gave him great pain. The elbow joints were all right but the wrists and all the joints of the hands were perfectly solid with the exception of the articulation where the metacarpal bones of the thumbs join the trapezii. These were moderately free. The inferior radio-ulnar articulations were ankylosed in semi-pronation.

The deltoid muscles were very much atrophied, the arms quite thin, the muscles of the forearm atrophied but from the middle of the forearms to the finger tips the subcutaneous tissues were greatly swollen so that the fingers were nearly three times their natural size; the circulation was very poor, the skin tense, blue, and cold. There was no sphincter paralysis at any time; the heart and lungs were in good condition, the bowels very much constipated, the appetite good.

I tried to get him admitted to the Hospital as a city patient but failed on account of the accident taking place when he was working in another municipality, so I hardly knew what to do with him. Just about that time a professional masseur came to me looking for work, so I sent him this patient and instructed him to perform passive movements to the affected joints and massage to the hands, arms and shoulders. True to the nature of his kind, he promptly took full charge of the case, located the *precise seat* of the trouble, high up between the shoulders (having made the remarkable discovery that in this man the seventh cervical vertebra makes a greater prominence than the others), and proceeded to cure him with electricity, leaving out the massage and passive movements as unnecessary. After three months of that treatment he came back to me with the ankylosis a little firmer, although there was more scapular movement on account of the tenderness gradually wearing away, and the hips were considerably freer which I attributed to the fact that he had unknowingly practised the necessary passive movements in walking daily a mile to and from the professor's office for his electricity. This time I succeeded in getting him admitted to Grace Hospital where consultation was had with Dr. McKenzie, Dr. McPherson and Dr. J. M. Cotton, and operated on May 29th, 1899, about five months after the accident. Both Dr. McKenzie and Dr. Galloway were present at the operation and gave me valuable assistance and advice. Chloroform was given and the adhesions forcibly broken down, making reports loud enough to be heard several rods away. Cold packs were applied to the parts for twelve hours after operation, and massage and passive movements were begun on the third day, and continued vigorously for an hour each day. He was also encouraged to work the joints all he could himself.

This gave very encouraging results, so one week later he was etherized and the process repeated. After this the use of the shoulder was soon entirely recovered, the muscles started to grow, and as the massage improved the circulation in the hands and forearms, the oedema gradually subsided and the joints of the hands and wrists steadily improved, but continued so far from perfect that on July 20th, (about two months after the first operation) he was again anaesthetized and these joints again broken down, followed by the same after treatment as before. The result is as you see—not perfect to be sure—but he has two quite useful hands, capable of handling any rough tools. I sincerely hope to hear an