remove them, which is done by seizing the knot with forceps and snipping the hair to one side, when its smoothness and elasticity greatly facilitates its removal.

Horse-hair has all the advantage of the metallic suture, save that of strength, and is much more desirable to use where the tissues are lax and delicate, as of the eyelids, scrotum, penis and mucous membranes. It is equally unirritating, and so flexible as to readily accommodate itself to the folds of the integuments. Its pliability permits it to be easily passed through the tissues, and by its expansion it almost relieves itself from the tissues in which it is placed.

Its removal is accompanied with no pain or liability of injuring the parts. The hair suture produces so little irritation in the tissues that it can be allowed to remain for some time. I have removed these stitches that had been in the scalp from fifteen to eighteen days, and had apparently produced no disturbance. The fact of their being tolerated by the tissues for so long a period, makes it specially applicable to plastic surgery.

I have used this material for drainage, a small bundle being passed through the eye of a probe, and then the probe passed through the closed linear wound, drawing in the hair; or, if the wound be deep with narrow outlet, a bundle folded upon itself can be forced into the wound, and it certainly answers the purpose well. As the wound heals, the drainage can be gradually removed a few hairs at a time. It is not, of course, suited for draining large wounds.

My experience with horse-hair has been considerable, having employed it in the treatment of 296 incised and lacerated wounds during the past year. These have included nearly every part of the external body and its orifices, but principally of the face and scalp. The results in these cases have been so gratifying that I am convinced that the value of horse-hair renders it deserving of more general use.

I venture to call attention to the following cases:

CASE I, January 11, 1892. Mr. C. D., age thirty-one years.

He came to office with incised wounds caused by broken glass. First wound on right eyelid three-fourths of an inch in length. Second, beginning at right eye-brow, extending upward and to the left, across the forehead, about two inches in length. Third, horizontally above left eye-brow, one inch long. The fourth, horizontally across the upper part of forehead, two inches long. First was closed with five single horse-hair sutures, second with eight, third with three, and fourth with seven, making in all twenty-three stitches in the face. Bichloride dressings were applied, the wounds healing promptly. In three days half of the sutures were removed, and the remainder on the fifth day.

CASE II, October 2, 1892. Mr. C. L., age twenty-six years. Congenital phymosis; circumcision.

Elastic band placed about the penis. Forty minims of four-per-cent. solution of cocaine injected. About one inch of prepuce was removed, and frenum (which was short) was snipped. Elastic band removed. Small vessels seized and twisted. Fourteen interrupted sutures used to bring together edges of skin and mucous membrane. Dressed with sublimate gauze. Seven stitches removed on the sixth day and remainder on the eighth. Union by first intention. This is the tenth adult circumcision in which I have used horse-hair.

CASE III, Mrs. C. R., age twenty-seven, primipara. Lacerated perineum.

Saw her on September 28, 1892. Had been in labor about six hours. Examination showed breech to be the presenting part. Labor was allowed to proceed without interference until breech was delivered. Patient was then anesthetized, and feet and hands of child brought down. In haste to deliver the head I applied the forceps, and head was rapidly delivered. Child was resuscitated, and labor was concluded by expressing placenta. Upon examination, perineum was found to be lacerated for about three-fourths of its depth. This I determined to close immediately. Vagina was loosely packed with sublimate cotton, edges of laceration thoroughly cleansed, and wound closed with nine double horse-hair sutures. Packing was removed and no dressing was applied, and owing to circumstances and surroundings of patient, no special care was taken of wound. Patient made a good recovery. On the tenth day stitches were removed, the wound having closed by first intention.

The above is one of several perineal cases, in all of which I have closed laceration with horse-hair sutures with pleasing results.

CASE IV, February 2, 1893. Mr. J. G., age twenty-seven years. Applied for treatment of swelling in left groin.

Examination and history lead to the diagnosis of syphilitic bubo. There were no signs of fluctuation. Solution of cocaine was injected, and an incision three inches long was made. Four large softened suppurating glands were removed, cavity curetted, and wound closed with five double horse-hair sutures, a drain being placed in lower end of incision. A large bichloride dressing was applied, and patient walked out of office. He returned again on the fourth day, and wound was again dressed. On the tenth day the stitches were removed, the wound having healed by primary union.

A SUMMARY OF THE ADVANTAGES OF HORSE-HAIR.

- (1) Easily obtained and inexpensive.
- (2) Soft, pliable, elastic and holds a knot well.
- (3) Aseptic, non-absorbent and non-irritating.
- (4) Can be used with a very small needle, and makes no shoulder at the eye.
- (5) More easily removed than any other suture, without pain or injury to the tissues.
- (6) Can be used for drainage.

Clinical Department.

SIMULTANEOUS FRACTURE (INTERARTICULAR) OF BOTH OLECRANON PROCESSES.¹

BY E. S. BOLAND, M.D.

FINDING only one similar case on record, and getting the consent of my patient to appear before us to-night, I have thought that there might be enough interest in it, to justify me in reporting this case.

August 16, 1891, Miss H. fell from the foot-board of an open horse-car, her dress drapery having caught on some projection of the seat or seat arm. She believes that she had both arms flexed in falling and struck both elbows on the pavement. The appearance of the elbows confirms this view. When she fell, she had but a single thickness of a summer garment on her arms.

¹ Read before the Surgical Section of the Suffolk District Medical Society, April 5, 1893.

When examined by me within twenty minutes of the accident, I found a simple transverse fracture of the right ulna in the depth of the sigmoid notch and a similar break on the left side with, in addition, a splitting of the detached olecranon at an angle to its long diameter. There was bruising and excoriation of the skin and soft parts over the back of both elbows, most marked on the left side; but although all three of the fractures extended into the joint, in neither case was the joint opened to the surface of the skin.

Realizing that there might be troublesome complications ahead, I asked Dr. M. F. Gavin to see the case with me. When he examined her the interarticular swelling was slight. He concurred in the diagnosis; and together we applied light, long wooden splints to the palmar side of both arms from the axilla to the ends of the fingers, disregarding the natural lack of parallelism between the arm and forearm and leaving a wide opening in the dressings over the elbows, to accommodate the now rapidly increasing size of the elbows from swelling of the soft parts and effusion into the joints. No attempt could be made to keep the distinctly separated fragments in contact at this time. Later, it was attempted on the right side; but the attempt was unfortunate, and, as I believe, responsible for the slower recovery of mobility in this joint than on the other side, where the conditions were much worse primarily on account of the comminuted fracture and greater injury to the soft parts. Indeed, so badly did the left joint look at this time that I feared its disorganization as the skin sloughed in places, rendering soothing applications necessary for several days.

Dr. M. F. Gavin kindly saw the case with me when the dressings were changed for the first time, and again to assure us both that the case was not so bad as it looked (which was certainly bad enough) with sloughing soft parts.

The patient was now, at the fourth day, getting very uncomfortable from the necessary confinement to bed on her back, as in no other way could the arms be supported; and she was as helpless as if she had no arms, not being able to turn or sit up.

Knowing that there would still be many days before flexing of the arms would be safe, I applied the principle of the Salter's cradle to her case. Erecting a light frame seven feet high, I slung two straight cradles by compensating cords and pulleys so as to admit lateral or front and back swing and adjustable to any elevation or angle. While sitting in a chair this could be used for some hours daily, with much relief from the irksomeness of the bed and dragging weight of the arms when motion was attempted.

As the swelling of the elbows went down, I began to fear ankylosis rather than non-union, to obviate which I began passive motion, stroking, kneading and, in short, general massage of the arms as early as the fourteenth day. At no time was pronation or supination seriously interfered with; but flexion of the right arm was most difficult and painful, although flexion of the left, from which at first there was most to fear, was less so.

About the twenty-fourth day the splints were removed except at night, and soon after entirely dispensed with, and special attention was given to daily massage. I am convinced that to this thorough daily massage, the patient owes the successful outcome of her case.

As soon as possible, gymnastic exercises were begun — at first only tossing a four-ounce bean-bag, then small dumb-bells, then light chest-weight exercises and finally Indian clubs, which she is now master of.

As mentioned above, the most seriously injured arm (the left) in which no coaptating measures were used, began to gain first, made more rapid progress, and its perfect use was regained long before the right, though Miss H. had always been right-handed. I cannot explain this unless it was due to the attempt to coaptate the fragments of the right arm by pressure.

I was ready to report this case a year ago and show its results; but the Secretary of the Section had all dates filled for months ahead.

It is due to the patient to state that she has faithfully and intelligently persevered in every procedure attempted for her relief, in spite of the fact that an impending suit for damages put a premium on slow progress or permanent disability.

If you will examine the elbows, the lines of displacement can be distinctly felt, though less so now than formerly. The right hand covers the corresponding shoulder less perfectly than the left, but still as much so as in many who are uninjured. In sewing, when the weight of the arm comes on the shoulder, pain is still experienced. This is probably due to the severe jarring the shoulders received at the time of the accident, though no objective signs of injury could be found there at the time.

Miss H. will now swing the light Indian clubs, that you may see her perfect control of her arms. This exercise is one with which she was unfamiliar until after her accident.

AN ANOMALOUS EXTERNAL ILIAC ARTERY: AUTOPSY REPORT.¹

BY PAUL THORNDIKE, M.D.,
Surgeon to Out-Patients, Carney Hospital, Boston.

A MAN, M., forty-eight years of age, entered the Carney Hospital on January 23, 1893, as a patient of Dr. W. N. Bullard, visiting physician to the hospital. The man was suffering from a chronic interstitial nephritis and died from this disease a few days later.

While examining the man, Dr. Bullard noticed a marked pulsation in each groin, and on palpating the areas, felt what he thought were large arteries pulsating directly under the skin and each apparently passing over Poupart's ligament and down into Scarpa's triangle. Two days later, January 25th, I saw the man with Dr. Bullard. As the patient lay on his back in bed, a pulsating area was to be seen in either groin. On palpating one of these pulsating areas there was no feeling of "thrill" or expansion, but the fingers felt what was evidently a large blood-vessel, which appeared close under the skin at a point about an inch above Poupart's ligament, passed over the ligament at a point midway between the anterior, superior spine of the ilium and the symphysis pubis, and then immediately became indistinguishable from the femoral artery, which could be felt pulsating in its normal position. The vessel felt like a somewhat atheromatous artery, and was about the size of a lead-pencil. On examining the other groin an exactly similar condition was found.

On the following day the man died; and I quote this extract from the autopsy report, furnished me by Dr. F. Coggeshall, pathologist to the hospital:

¹ Read before the Surgical Section of the Suffolk District Medical Society, April 5, 1893.