

A new method of treating intra-capsular and extra-capsular fractures of the femur, and its upper third / by Wm.H. Pancoast.

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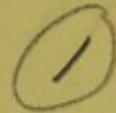
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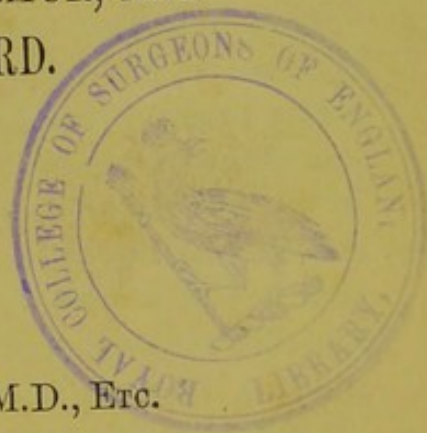
A NEW METHOD

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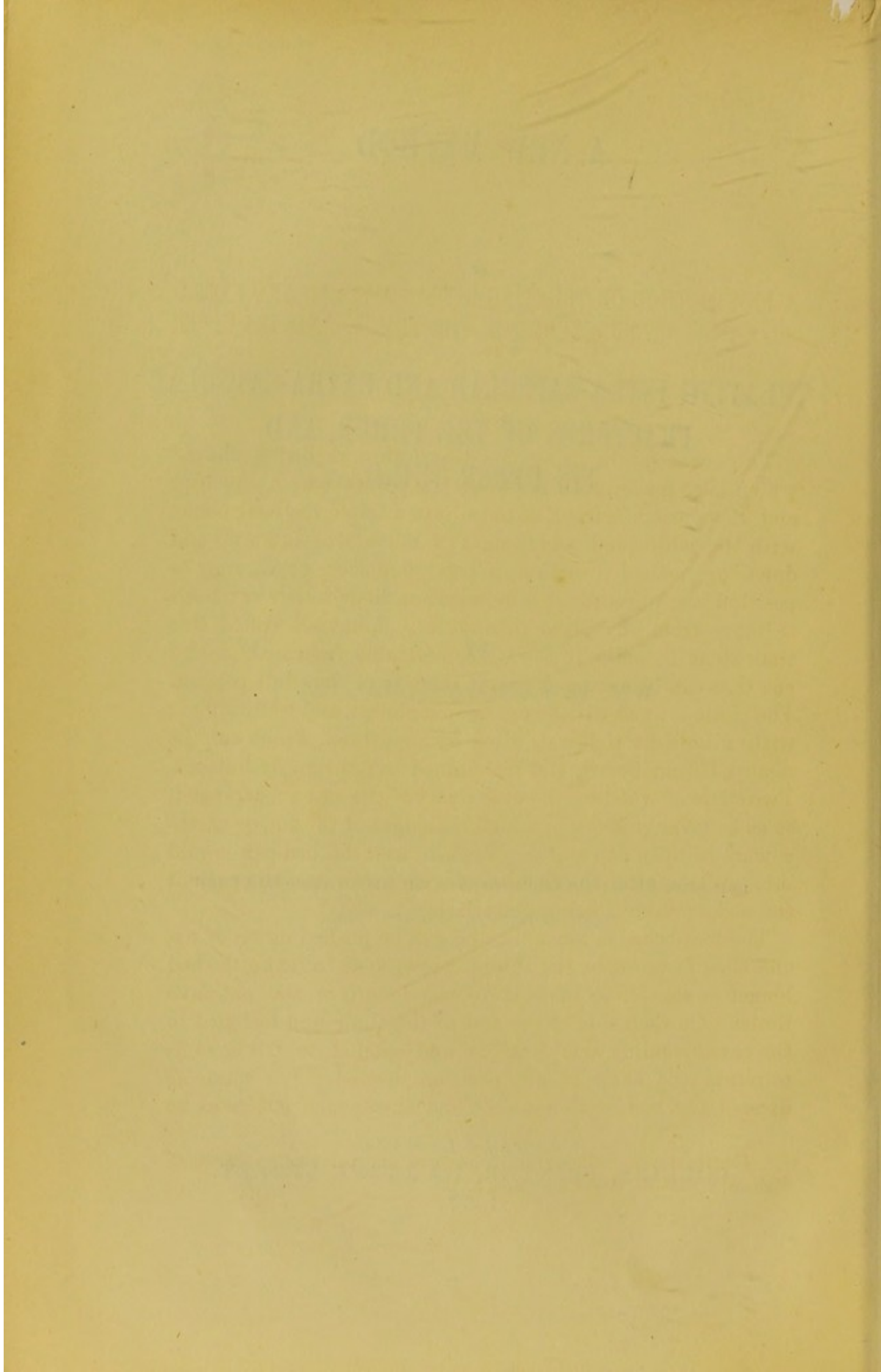
BY

WM. H. PANCOAST, M.D., ETC.



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A NEW METHOD OF TREATING INTRA-CAPSULAR AND EXTRA-CAPSULAR FRACTURES OF THE FEMUR, AND ITS UPPER THIRD.

THIS consists in using the Charleston reclining chair,* which is so made, with joints at the points where the hips and knees are supported, as to imitate a triple inclined plane, with the additional advantages of movement in an up and down or vertical direction, if passive motion, or change of position is required; as it is mounted on little rollers or wheels to move from one place to another. I have modified this chair so as to make it a very comfortable fracture-bed, and one that can be arranged to suit the size of the adult patient. The chair is lined with some cheap material, and well stuffed; with a hole in the seat, filled by a cushion, which can be removed from below, and is retained in position by buttons. Two strips of wood on the under part of the seat are arranged, so as to form grooves, in which the edges of the tin, or earthenware bed-pan can slide. When in use, the bed-pan is slid into position after the cushion is withdrawn, and the patient can use it without being disturbed.

The foot-board is movable, and can be pushed down or up, and then fastened by the thumb-screw, so as to make the bed longer or shorter to adapt it to the length of the patient's limbs. On each side of the seat of the chair and fastened to the corresponding arm is a bar and ratchet, so arranged as to retain the chair in any position desired. The chair is dressed as a bed, with blanket and sheet, each cut so as to

* Therapeutic or reclining chair invented and patented by James G. Holmes, 9 East Battery, Charleston, S. C.

have a hole corresponding in size and position with the cushion which fills the opening used for the bed-pan. The patient is carefully placed in the chair, surrounded and padded with as many pillows as are needed, according to the size of the individual, to make the chair snugly support the broken thigh. When the fracture is through the neck of the thigh-bone, an additional support is advantageous, by means of a broad strap and pad; the latter being placed behind the trochanter major, and retained by the strap which buckles around the pelvis. By this arrangement the pad supporting the trochanter, and pushing it forwards, keeps the femur below in a right line with the upper fragment, and assists the action of the chair. If the upper third of the bone is broken, the fragments may be kept in close apposition by means of short splints retained by strips of bandage. The advantage of this method of treatment, may be illustrated by recalling the fact, that when one is lying recumbent on a bed, the external rotator muscles have the fullest action, and the thighs, aided by their weight, roll outwards, everting the knees and feet. If this position is imitated in a chair, so that the body is only supported at the shoulders, and on the tuberosities of the ischia, the same eversion of the lower limbs takes place; now let the body be drawn slowly up into the chair in a sitting position, and the eversion of the thighs, legs, and feet is corrected. This little manœuvre shows the value of the chair, as a means of retaining a fractured thigh in the best position for coaptating the fragments, thus facilitating the cure, and as the chair acts as a triple inclined plane, the proper amount of extension is made. There is another great advantage in the use of this chair, which induced me to adopt it in the treatment of the fractures mentioned. As fractures in the neck of the thigh-bone generally occur in the aged, it is of the utmost importance that they should be submitted to a treatment as little wearisome and exhausting as possible. Those that have come under my observation, have been individuals of advanced age, and I have known of several such fractures, which have been fol-

lowed by death. One such case which I saw about sixteen years ago, made a very strong impression upon me. It was a fracture of the neck of the femur, and, if I recollect rightly, on the left side, in the person of a very aged lady, the sister of a distinguished naval officer. She had arrived at the depot in Philadelphia, after a very long journey from the west, and "was just rising from the seat to leave the car." Being stout, she made some little effort, and the left foot catching in the leg of the seat in front of her, twisted the thigh, and she fell back helpless. On being carried to the hotel, the surgeon found that the neck of the femur was fractured. I was asked to assist him, and I well recollect the trouble that the case gave us, and the suffering of the patient. Every means was tried to make her comfortable, and to keep the fragments in good position. But owing to the hot weather and her obesity, she could not bear any form of apparatus, and gradually sank. The best that could be done, was to arrange pillows upon a double inclined plane, and to support her strength as well as possible. She died in the course of a few days. I noticed, however, that the double inclined plane, and the sort of bed-chair we made for her, gave her the greatest comfort, and kept the fragments in the best position. I decided that if I should have a similar case, I would use some form of an inclined plane, and not worry and exhaust an aged patient, by endeavoring to fasten him or her, in an apparatus, with the desire of making bony union, which is always so doubtful; but by using some form of the double inclined plane, make my patient comfortable with the hope of prolonging life, and at the same time placing the broken bone in the best position to re-establish its continuity.

On the 18th of January, 1866, I was called to see Mr. Wm. D., a prominent gentleman residing in Arch Street. I found that he had fractured his left femur through the neck, by simply stepping off from his marble step to the pavement, a height of about three inches. He was 75 years of age and feeble, and I did not think he could bear the confinement of a bed, so I ordered for him a "Charleston reclining chair,"

modified as I have described—thus placing him upon what I considered the most comfortable and advantageous form of the inclined plane, a triple one. I made him comfortable with pillows, applied the pad and buckle to pull the trochanter around into position, and adjusted the foot-board to suit his length, as he was a large and heavy man, with long limbs. He soon became reconciled to his new bed. It was dressed with blankets and sheets. It could be moved on its rollers from one part of the room to another, be adjusted by the bar and ratchet at any angle desired, and the bed-pan arrangement worked nicely. I had the pleasure of seeing my patient improve day by day, cheerful and contented; while I felt assured that if he had been stretched on his bed, with or without an apparatus to support the fracture, he would have gradually sunk exhausted. Mr. D. was so pleased with his chair that at the end of eight weeks I was unable to induce him to leave it, and try the bed, for he said “the chair was the most comfortable.” He remained in the chair for about nine weeks, gradually accustoming himself to walking with the aid of *crutches*, and reclining on his bed. I then dismissed him. He soon regained the use of his limbs, and for the succeeding three years of his life, was as active as ever. He even said to me, that he thought the broken thigh was the stronger of the two. Whether this fracture united by bony deposit or not, I cannot say with surety; but it seemed to have done so, from the restored strength of the limb. At least the ligamentous union, if it was such, was so close and good, that the bone was as strong as if the fracture had been united by true *callus*. Mr. D. died of endocarditis February 24, 1869, a little more than three years after the fracture. I attended him in this last illness, but was unable to obtain a post-mortem examination of the seat of fracture.

My next patient was Miss Barnitz, the sister of the president of a prominent college. I was called in consultation by Dr. Wm. L. Knight. The patient was about 60 years of age, had slipped upon a piece of orange peel in the street, and was

carried to her residence. We found a fracture of the neck of the left femur. I placed her in a similar chair, in which she remained with great comfort for about nine weeks. At the end of that time, she returned to her home in a distant town cured, and walking well, April 7, 1870. This patient was feeble, and would also have borne with difficulty, a long confinement to her bed.

The next case was that of Mrs. S., aged 67. She fractured the neck of the left femur, August 2, 1870, in stepping out of the car at the depot, on returning from Atlantic City. She was very stout, and could not bear the confinement to her bed. Prof. Gross saw her with me in consultation. We used the same treatment; she remained in the chair about nine weeks, and then resumed active exercise. She sent for me three weeks ago for another trouble, and I saw her yesterday. I found her stout and strong, and walking well, though preferring to use occasionally the support of a cane. It is now nearly three years since the fracture occurred.

The next patient was Mrs. D., residing in New Jersey, an aged lady between 60 and 70 years of age. She was on a visit to Philadelphia, and while walking in Market Street was accidentally knocked down, June 24, 1872. I found a fracture of the neck of the left femur. I used the same treatment. At the end of a week she was so comfortable, that her son removed her, sitting in her chair, to her home. She was taken in a furniture wagon to the cars, and in a freight car to her home. I have no positive data as to the result in her case, but I believe she continued the use of the chair, and was ultimately cured.

I used the chair again when I was called in consultation, in another case of fracture of the neck of the femur, in the person of a very aged lady, who had an enormous bed-sore, and was exceedingly feeble and prostrated. She was more comfortable in the chair, and we had better opportunity of treating her, and of dressing the bed-sore. Our judgment was that her life had been prolonged, and her comfort much increased, by the use of the chair splint. She was I believe

between 80 and 90 years of age, very feeble, and did not recover from the shock of the injury.

I have been consulted as to the use of the chair in four other cases. Two of them were in distant parts of the country, and I have no report of them. The remaining two I saw with the attending physicians, and a favorable report of the usefulness and convenience of the chair has been given me.