

knowing to a certainty that the apposition is correct and that every reasonable precaution has been taken, thus giving no cause for worry, or fear of legal action in case of failure.

Carl Beck, of the New York Post-Graduate School, recognizes to the full the advantages of X-ray examination in fracture cases, and has written many powerful articles on the subject. I saw him operate on a case of fracture of the thigh while we had the radiograph before us. In this case a weak union had taken place with the lower fragment displaced nearly two inches upward. He had very little difficulty in breaking this union and bringing the bones into proper apposition.

Plate No. 3 illustrates a faulty union in the tibia, which, by driving the fibula down, interfered very materially with the action of the ankle.

Another use for the ray is the location of foreign bodies. These may be classified into, 1st, those formed within the body, such as calculi; 2nd, those introduced through the natural openings, such as the nose, ear, mouth, rectum or urethra; 3rd, bodies introduced by force, such as needles, bullets, etc.

With the first two classes my experience has been very limited, but before passing I would like to draw attention to some illustrations along this line in the notable collection of skiagraphs exhibited by Dr. Cummings, of Hamilton, at the British Medical Association meeting in Toronto. He had a collection of skiagraphs, taken at intervals varying from a few minutes to hours, of a patient that had swallowed a quantity of bismuth.

In this way it is possible to diagnose stricture of the œsophagus, to map out the stomach, or locate an obstruction in the bowel.

The third class which I mentioned perhaps brings the ray into use more frequently than either of the others. It is often a very easy matter to locate bullets, needles, glass or other foreign bodies of this class, but when we come to extract them we are often surprised at the amount of trouble they give us. If it is possible to cut down at right angles on a needle, such as was possible in radiograph No. 4, there is little difficulty; but in cases such as illustrated by radiographs Nos. 5 and 6, where the piece is small and deep-seated, we sometimes find that less harm will come from its presence than the attempt to remove it.

In the case of a boy brought into the hospital a year ago last September with a hat-pin in his back, it took us considerably over an hour to extract it. The piece was three and a half inches long, and the approximal end an inch beneath the surface.

Radiograph No. 7 illustrates another use of the ray, that of