

the stomachs in semi-digested condition lead us to believe that the homicides occurred at an early hour, August 7th, probably between 1 and 3 o'clock. How one or more persons could enter this home and with some instrument (probably the blood-stained mallet) slay one victim, seek the chamber and fire at least four shots into another, escape, and leave no clue, seems a mysterious problem.

A SIMPLE METHOD OF LOCATING SOME FOREIGN BODIES BY MEANS OF THE FLUORESCENT SCREEN.

BY FRANCIS H. WILLIAMS, M.D., BOSTON.

SEVERAL methods have been suggested for determining the position of certain foreign bodies by x-ray examinations, some of them so complicated as to confuse rather than assist the surgeon. A method, which I devised about three years ago, in which the fluorescent screen is used instead of x-ray photographs, I have found so successful in a number of cases that I think it will commend itself to others. I will therefore quote from the Medical and Surgical Reports of the Boston City Hospital, January, 1897.

Let me describe the method pursued in one of the simplest practical uses of the x-rays¹ namely, that of locating a bullet, whether in the head, body, or extremities. If unable to walk, the patient is brought in on a stretcher, which is placed directly on the supports attached to the static machine table (all the hospital stretchers are of the same size and fit the grooves in the supports), and the Crookes tube is placed underneath. If the physician has just come into the dark room from bright daylight he must wait until his eyes accustom themselves to the darkness; the machine is then started, and the spark-gap adjusted to the length most suitable to the condition of the tube, this length being determined by examining the patient through the fluoroscope.

Everything being now in readiness, the fluoroscope is placed directly on the thigh (let us suppose the bullet is there), and the examination is begun. After looking a moment the spark-gap may be changed a little in order to increase or diminish the light, as by means of this variation more can be seen, certain things showing better in a bright light and others in a less brilliant one. With a bullet it is generally well to use a considerable amount of light. After the fluoroscope has been moved about a little the shadow of the bullet is found, and the spark gap may again be changed, in order to get as clear a shadow as possible. The physician, while still looking through the fluoroscope, then makes with the pencil² already described a mark over the place where the bullet seems to be, and directly under the fluoroscope; he then makes a corresponding mark on the side of the thigh nearest the Crookes tube, over the shadow of the bullet, and draws 1 and 2 by the side of each of these two marks. Then, while still looking through the fluoroscope, the Crookes tube should be moved horizontally a few inches to and fro in order to learn how deeply the bullet is imbedded, for if the shadow of the bullet moves considerably in the fluoroscope the bullet is some distance away. If it moves very little it must be near the fluoroscope and the surface of the skin. If far from the surface its shadow will, of course, be ill defined; if near, it will be very sharply defined. Next, the patient should be turned so as to allow the physician to look through the thigh in a direction about at right angles to that first taken, and, as before, a mark should be made with the pencil over the

place where the bullet seems to be, both when the point of the pencil is held directly under the fluoroscope and on the side of the thigh nearest the Crookes tube. These points should be marked 2 and 2, and the bullet will be found at the point where the line from 1 to 1 intersects that from 2 to 2.³ I have used this method for locating bullets in different parts of the extremities, and in the neck, thorax, back and abdomen, and usually the situation of the bullet is readily determined by this means. The first bullet I located in this way was in April, 1896.

Clinical Department.

TWO CASES OF ECLAMPSIA SUCCESSFULLY TREATED BY VENESECTION AND INTRAVENOUS INFUSION OF SALT SOLUTION.

BY CHARLES N. CUTLER, M.D., CHELSEA, MASS.

THE first case was a primipara, twenty-five years of age, at full term of pregnancy, confined October 13, 1898; labor normal, duration of second stage about one and one-half hours. The first convulsion came on during the delivery of the head, and was repeated somewhat regularly with fifteen or twenty minute intervals. The administration of ether was immediately resorted to, and one-eighth grain pilocarpine with one-half grain morphine given hypodermatically. Consciousness did not return after the first interval. Pulse 125, temperature not noted. The patient had five convulsions up to the time of receiving the intravenous injection. Total suppression of urine.

With the assistance of Dr. George C. Hall, the median basilic vein was opened and about eight ounces of blood allowed to escape, followed by the introduction of about one quart of normal salt solution.

Ten minutes after completing the operation the pulse fell to 108, later to 104; consciousness returned in half an hour.

The catheter was introduced directly after the injection and two ounces of urine obtained, which became solid when subjected to the heat test. Three hours after the injection twelve ounces of urine was obtained by catheter.

Two hours later, on introducing the catheter, but two or three ounces of urine was obtained, showing a returning suppression; this was very soon followed by a convulsion very much milder in form than those which preceded it. Three convulsions followed at hourly intervals. The secretion of urine then began to increase; fourteen ounces was secreted in the three hours following the last convulsion. Consciousness again returned and the patient recovered rapidly without incident.

Twenty-four hours after the cessation of convulsions the urine showed only a slight trace of albumin.

The second case occurred in the practice of Dr. W. G. Bond, of Revere. A multipara with her second child, eight months pregnant, was attacked with a convulsion at 12 A. M., January 24, 1899.

Premature labor was induced by Dr. Bond and completed about 4 A. M. Prior to this the patient had three convulsions, notwithstanding the free exhibition of chloral, potassium bromide, morphine, pilocarpine and the administration of ether.

³ To prevent rubbing out the marks when the skin is washed for operation they may be made more permanent with tincture of iodine applied by means of a small brush with a fine point, or the skin may be touched with a small point of nitrate of silver.

¹ A Study of the Adaptation of the X-Rays to Medical Practice, by Francis H. Williams, M.D.

² The pencil may be made of a crayon suitable for marking on the skin, enclosed in a small metal tube. The metal casts a shadow on the fluorescent screen, and the position of its point is thus readily seen.