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## THE ROENTGEN RAY IN THE ORME MURDER TRIAL.

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The Tragedy.-It was in an old house known as "the barracks," in the little village of Horseheads, Chemung County, N. Y., on the eighth day of July eighteen hundred and ninety-seven, when an elderly man with a long gray beard and intelligent features upon returning rather unexpectedly to his residence found to his great surprise his conjugal partner in the fond embrace of an Italian boarder named James Punzo. In the general melee which ensued Mrs. Orme is said to have assaulted her husband with a large tin dipper striking him several times on the head, cutting a deep gash with each blow from which the blood gushed most profusely, covering his head and face and blinding his eyes. Whereupon Orme drew a revolver and discharged two of its chambers, both shots took effect upon his antagonists. One struck Mrs. Orme in the mouth and removed a portion of her tongue, the other went crashing through the skull and into the brain of James Punzo, her paramour.

The Sequel.—Mrs. Orme recovered sustaining only the loss of a small portion of her lingual organ, but Punzo did not fare so lightly, the thirty-two caliber bullet penetrated his skull at a

point in the back of his head, one and one half inches to the left of the median line as indicated by the external occipital protuberance, and about one and one half inches above the superior curved line, entering the posterior portion of the left hemisphere of the cerebrum to the depth of about two inches, in which position the bullet remained until its exact position was revealed by postmortem examination.

At The Hospital .- On the day of the shooting Punzo was taken to the Arnot-Ogden Hospital, in the city of Elmira where the patient was subjected to a process of probing which failed to locate the position of the foreign body. From the eighth day of July (the day of the shooting,) to the fourteenth of the same month the patient remained in a somewhat dazed condition with more or less elevation of temperature. On the sixteenth of July the patient began to manifest signs of improvement so that between that date and the thirty-first, a period of fifteen days, his temperature, respiration and pulsation indicated a nearly normal condition and it was subsequently proven by the sworn testimony of six professional nurses that the patient so far recovered that he was able during this time to leave his bed nearly every day, to walk about the hospital wards, including the rooms set apart for the convalescing, that he was allowed to

converse freely with all who were interested in his case and wellbeing, during the greater portion of this period he was perfectly rational but had short spells of incoherency. Examination of the patient July thirty-first showed that the scalp wound had healed perfectly over the aperture in the skull, but on that day an unsuccessful attempt was made to locate the bullet in Punzo's brain with the Roentgen Rays.

The Exposure.—In order that your humble scribe may render a true and impartial report of the remainder of this extremely interesting case we will refer to the court records of the Orme trial, from which we glean the following:

First. Substantially an extract taken from the testimony of the prosecution's own witness as to the modus operandi employed in the x-ray examination. The patient was placed under the influence of ether and maintained unconscious for the space of fifty minutes. A sort of head rest was employed which had an aperture through it to admit the back of Punzo's head. A Crookes' tube was then placed in a stationary position directly under, and opposite to the bullet opening in the skull at a distance of one and one half inches from the head, this tube was attached to and received its excitation from what is known as a Holtz Static Generator with a capacity of producing a half million volts. Its use was continued for a space of thirtyfive minutes without removal from its position. The weather and other conditions were favorable for the working of the apparatus; nevertheless no picture of the bullet was obtained, nothing but a dark outline of the skull appeared upon the sensative photographic plate.

Exit Punzo.—The clinical record of the hospital indicated that within a few hours after this x-ray exposure the patient's temperature rose from normal to 100.4 (two degrees,) and from that day until the day of his death, August

twelfth, his temperature fluctuated from one to two points above to a little below normal, the patient remaining in a dazed or semi-comatosed condition which gradually increased up to the time of his demise.

Second. The following is a sworn statement certified to by the leading physician who was duly appointed by the Coronor of Chemung County, to make a post-mortem examination of the body of James Punzo.

"On the twelfth day of August, 1897, at the hospital morgue, Elmira, N. Y., I assisted in the autopsy of the body of James Punzo. The body was in some degree emaciated and showed but little rigormortis. We found no external wound but could feel through the scalp a circular opening in the occipital bone. The scalp was incised transversely and turned off from the skull and on uncovering the opening in the bone a flattened bullet fell out. The skull was then sawed through, the brain uncovered and removed for examination.

Report of Medical Examiner to Coronor on the Autopsy's Revelations .- The wound in the brain extending from the opening in the skull was laid open by incision. The ball had passed through the skull a little above the transverse ridge and half an inch to the left of the external occipital protuberance and entered the brain, its direction then being forwards and outwards toward the left. At its termination there was a depression in the brain of the size and shape of the ball where it had laid imbedded. I measured the extent of this wound and found it to be one inch and one half in length, and the ball must have been lying there when we commenced the autopsy, and by the concussion and jerking of the head in removing the scalp it became dislodged from its bed and dropped into the opening in the skull. Therewas no abscess or accumulation of puss in or about the wound. Numerous deep

anterior to the track of the ball, but we found no wound or injury to indicate that the ball had penetrated the brain any further than one and a half inches. The scalp had perfectly closed over the aperture in the bone, and a little plastic lymph had been effused about the bed where the ball had lain to protect the brain from its rough and angular surface, and would appear to be in a favorable process of repair. It would appear then

It is idle to say we do not know that they penetrate the brain or do harm, because we do not know what they are. We know no less what the x-rays are than we know what light, heat and electricity are. All we know of any of them is by their effects. And we know that instances are now being published from all parts of the country of most disastrous and destructive effects of the x-rays in unskillful and imprudent hands."

In my opinion James Punzo came to



that the bullet wound was only a contributing cause and by no means the only or sole cause of his death. It has been stated here in the account of the treatment given him that on two occasions anaesthetics were administered and the x-rays used to locate the ball in his head. The administration of the anaesthetic at any time after adhesive inflammation had supervened jeopardized his safety, and the application of the x-rays to his head was hazardous to his life.

his death from injuries to the brain caused by a gunshot wound, anaesthetics and the x-rays.

(Signed) E. H. Davis, M. D.

Third. The following is taken from a report of Attorney Wilmont E. Knapp.\*

The Trial.—George A. C. Orme was placed on trial charged with murder in the first degree on the thirteenth day of

<sup>\*</sup>Wilmont E. Knapp, of the law firm of Messrs. Knapp and O'Connell, attorneys for the defense whose indefati gable efforts in their client's behalf resulted in his ac quittal.

December at a term of the Superior Court, held in the city of Elmira. The case lasted until the twenty-third of December (some ten days) the defence maintained that the cause of death was not the bullet alone, but that there were other contributing causes. First, and chiefly the exposure of the deceased to the influence of the Roentgen Rays. Second, repeated and improper administration of ether. Third improper probing for the bullet on the day of the shooting, being claimed that the probe went outside of the wound and into the substance of the brain proper. The last subject, however, was very lightly touched upon and played little or no prominence in the case, owing to lack of proof, but the question of the x-rays figured as the principal element as to the cause of death.

The jury sustained the position taken by the defense and acquitted the defendant. The penal code section 181 prescribes that the prosecution must establish beyond a reasonable doubt that the bullet was the only and direct cause of death.

The Scribe Swears .- To sustain the contention of the defense the writer was produced and duly sworn. In reply to the hypothetical question based upon the conceded facts as to the manner in which the x-rays were employed the following answer was given: "I regard the use of this small apparatus (that is the one employed upon Punzo) for x-ray purposes extremely dangerous to the subject exposed. See illustration. I should say that such an examination of a brain already irritated as his was supposed to have been would in my opinion, have not only retarded the healing process but cause a distinctive irritation, resulting in a breaking down and softening of the brain tissue and thus cause the death of the sufferer." In the exposure of Punzo to the Roentgen Rays it was proven that no preventative means were employed to obviate their dangerous and destructive effects. The parts were too close to the excited tube. No plate of aluminum connected with a ground wire was interposed between the Crookes' tube and the patient's head to absorb the electrical streamers. No attempt was made to insulate the patient from the electrical conductors of the apartment. In other words the irritated brain of the patient was placed directly in the danger zone without protection from electrical bombardment, and in all probability what was a healthy reparative constructive proc ss was arrested and converted into a condition of destructive or retrograde metamorphosis.