Clinical Department.

A CASE OF JUSTIFIABLE HOMICIDE.*

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IN the evening of Jan. 17, 1907, I was called as consultant to Morton Hospital, Taunton, to see a man who had a bullet wound in his head. I found a large, powerful man, of middle age, with a large bullet wound in front of the left ear. He was unconscious, with slow and stertorous breathing, and had a very rapid and feeble pulse, which I was told was growing more rapid and more feeble. He had been shot at his home about one hour before my visit, and by order of his physician had been taken to the hospital. He died about two hours after my visit.

The next day I was called to take charge of the case as medical examiner. I obtained the history from the widow of the deceased, which was essentially as follows: About fifteen months previous he was injured in an accident on an electric car, suffering, it was supposed, a fracture of the skull. He was unconscious for about two weeks and ill for several weeks. He gradually improved and attempted to resume his duties as proprietor of a manufacturing business, but he was quite unlike himself and became ugly and abusive, especially to his family, and commenced to drink unreasonably. On the afternoon of the day of his death he came home considerably intoxicated and very abusive in his manner, went to his supper and soon asked his wife how she had succeeded in consulting a lawyer; she replied that she had not consulted a lawyer, but he said that he knew she had and that she lied, and he chased her to the kitchen and to the sitting-room, catching up a chair and threatening to kill her. Then the son, seventeen years of age, ordered his father to stop, but the father said he would not and chased her to the back hall and caught her by the neck. She pushed him off, but he grabbed her by the throat saying, "I will kill you."

The boy then rushed out to them and said, "I will shoot if you do not stop." He did not stop and the boy shot and his father dropped in a heap upon the floor. The boy telephoned for the police and for a physician, who ordered removal to the hospital. In the history the statement was made that since the original accident the man had lost his sense of smell.

AUTOPSY.

The autopsy was made at 10.30 A.M., Jan. 18, 1907, about twelve hours after the death, with the assistance of Dr. Charles A. Atwood, associate examiner, and Dr. Harry W. Miller, pathologist at Taunton Insane Hospital. Body of a large, well-developed man. Rigor mortis well marked. The only mark of violence found was a bullet hole just in front of the meatus of the left ear, measuring $1\frac{1}{2}$ inches long and $\frac{3}{4}$ inch wide in the center. Edges of the wound and skin in its vicinity blackened and apparently burned. Direction of the wound inward toward the right side of the body and upward toward the top of the head. The articular portion of the left condyle of the lower jaw was roughened by the bullet and the opening through which the bullet entered the skull could be felt at base of skull by finger in the wound. Abdominal and thoracic organs apparently in normal condition except that the liver was large and of light yellow-brown color and friable. The gall bladder was enlarged and distended with bile and an unusual amount of fat was found on the abdominal organs. Dura mater was generally adherent (to brain substance and underlying membranes), due probably to old

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pachymeningitis. There was subdural extravasation of blood over lower portion of surface of left cerebrum, of the cerebellum and even of the medulla. In the right cerebrum, opposite the wound of entrance, a considerable clot was found in the brain substance and extending over a large part of the right side of the cerebrum. In this clot the bullet was found, near the surface of the brain, and over the bullet there was a very small tear in the dura mater, but there was no mark on the inside of the skull. Comminuted fracture of the petrous portion of the left temporal bone, covering an area of $1\frac{1}{2}$ inches in diameter. At the tips of the frontal lobes of the cerebrum (and on the under side) the dura mater was much thickened and strongly adherent to the brain tissue, and brain tissue at same point showed yellow softening over a patch $\frac{3}{4}$ inch in diameter. The olfactory nerves were involved in this yellow mass (these were considered to be the results of old inflammation).

Notes made by Dr. Harry W. Miller to supplement notes made by medical examiner, Dr. S. D. Presbrey:

Died at 10.30 P.M., Jan. 17, 1907, three hours after a bullet (32 revolver) wound in head.

Post-mortem examination began at 10.30 A.M., Jan. 18, 1907, conducted by medical examiner Dr. Silas D. Presbrey, associate examiner Dr. Charles A. Atwood and Dr. Harry W. Miller.

The examination of the abdomen and thorax was made by Drs. Presbrey and Atwood, but nothing of significance was found.

(For description of external wound in front of left ear see Dr. Presbrey's report.)

No other surface injury to head.

Skull cap normal. No positive evidence of old fracture.

The dura mater was slightly adherent over the upper surface. Much extravasated blood found over left side around the wound of entrance. (Condition at base of skull as result of bullet wound described in Dr. Presbrey's notes.) The dura mater at the under part of the frontal lobes anteriorly was very much thickened and adherent to the underlying brain tissue. This membrane at the anterior part of the longitudinal sinus was also thickened. The brain tissue immediately beneath this thickened membrane, at the under part of the frontal lobe, was in a condition known as yellow softening, a condition which indicates disease of some standing. These patches of softening were found on the under surface of both frontal lobes: on the left side reaching to the tip of the lobe, very close to the middle line, 4 cm. long x $1\frac{1}{2}$ cm. wide ($1\frac{3}{4}$ inches x $\frac{3}{4}$ inches); on the right side 2 cm. ($\frac{3}{4}$ inch) from the tip, irregularly circular, of a diameter of 2 cm. ($\frac{3}{4}$ inch). (Sections from both these areas and from the thickened dura were taken for microscopical examination.) Both olfactory nerves were imbedded in this chronic inflammatory mass and were both in an advanced stage of degeneration.

The wound of entrance was found in the left temporal lobe on the under surface 5 cm. (2 inches) from the tip and appeared as a rough, jagged, circular opening, full of clotted blood, 3 cm. ($1\frac{1}{2}$ inches) in diameter.

The anterior part of the cerebellum was partially torn by the bullet.

The wound of exit was found on the right side of the brain, a little behind the middle, 14 cm. ($5\frac{3}{4}$ inches) from the tip of the frontal lobe and 6 cm. ($2\frac{1}{2}$ inches) from the middle line. This wound was jagged, circular, 2 cm. ($\frac{3}{4}$ inch) in diameter, filled with clotted blood, and embedded in this clot the bullet was found. It caused a very small tear in the dura mater over the wound exit. The distance traveled by the bullet through the brain tissue was $14\frac{1}{2}$ cm. ($5\frac{3}{4}$ inches).

The ventricles were full of freshly clotted blood.

Weight of brain before removal of clots, 1520 gm.
Weight of brain after removal of clots, 1395 gm.

MICROSCOPICAL DIAGNOSIS.

Cerebral hemorrhage (gunshot wound). Gunshot wound of brain. Cerebral softening in frontal lobes. Degeneration of olfactory nerve.

I here insert an extract from a letter recently received from Dr. Miller: "I found significant lesions (excluding the bullet wound, which is described elsewhere) only in the lower frontal regions, i. e., in the under surface of the first convolution immediately external to the longitudinal fissure. The change in the tissue was of the nature of what we call softening or encephalomalacia. Granule cells were present in this area, the presence of such cells indicating that the process was going on for some time. Another evidence of chronicity was the chronic inflammatory changes found in the olfactory nerves, which had also undergone an atrophy. These changes were evidently of traumatic origin, the result of the street-car accident. The mental symptoms were quite consistent with the pathological findings."

Cause of death: Pistol-shot wound of the head and lesions that indicate old inflammation due to former injury, which may have been a cause of mental perversion. The case was reported for inquest.

The boy who shot his father was arrested the night of his father's death and soon released on bail. The next morning he was brought before the First District Court and held without bail for the Grand Jury and remained in jail till the Grand Jury met Feb. 4 to 6, 1907.

The Grand Jury reported "no bill" and he was discharged.

The will of Mr. ——— was dated Aug. 20, 1906, nearly a year after the first injury, and at a session of the Probate Court, May 10, 1907, the will was disallowed.

The judge of the First District Court notified me that under the circumstances no inquest was necessary.

A REPORT OF TWO CASES OF POISONING BY WOOD ALCOHOL.*

BY A. H. PIERCE, M.D., LEOMINSTER, MASS.,

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R. C., was an American about fifty years old, and, except for alcohol addiction, of reasonably good habits.

On Sunday, when drunk, he stole some "Colonial spirits" from the factory where he was employed. Through the day he drank a quantity of it, how much it was impossible to ascertain. He offered some to a friend, who took a few drams only, without disagreeable after-effect.

Monday morning he worked as usual. Monday afternoon he felt sick and remained at home. He complained of headache, dizziness, vomiting, abdominal pains, a burning sensation in epigastrium and behind the sternum, and muscular weakness. He would not allow his wife to call a physician. During the evening he fell into a troubled sleep. He awoke about midnight and found he was totally blind. I visited him about

* Read before the Massachusetts Medico-Legal Society at Boston, Feb. 5, 1908.

2 A.M. Tuesday; he was in bed, tossing from side to side, complaining bitterly of pain and weakness and nausea and bemoaning his lost vision. His mind was absolutely clear; he told me he "was done for." His skin was pallid and dusky. The pulse was weak and rapid and of poor volume. His respiration was labored, but, as I recall it, not particularly slow. Probably the mental anguish was a factor. Suddenly a severe convulsion occurred and death ensued in a few moments.

No autopsy was performed.

The second case is one in which I was called to investigate and in which, by permission of the district attorney, I performed an autopsy. I quote from my official report:

The clinical history of the case was this: The deceased had had frequent attacks of gastric irritability in the past few years, manifesting themselves by nausea, vomiting, pain in the stomach and prostration. Intemperance in the use of alcohol seemed a sufficient cause for these attacks.

He worked steadily on Dec. 16, 17 and 18, 1906. He was feeling ill on the 17th and was worse on the 18th, complaining of epigastric pain and nausea and great prostration. During the evening of the 18th he became very restless, crying with epigastric pain and expressing his premonition of impending death. At 2.30 A.M., Dec. 19, he asked for a doctor. Dr. E. F. O'Malley, of Fitchburg, responded, reaching the patient at 3.20 A.M. He found him unconscious, but moaning as if in pain, with rapid, feeble pulse, pallid, sweating skin and with pupils widely dilated, but responding equally to light. Under stimulation his pulse improved, but at 4 A.M. his respiration became very slow (about 5 or 6 to the minute) and a deepening cyanosis preceded a convulsive seizure at 5.30 A.M., followed by a second at 5.40 A.M., ten minutes after which he died. No history of impairment of vision could be elicited.

Subsequent to the autopsy there was obtained from the deceased's wife a bottle of liquid from which he was said to have drunk voluntarily, on Dec. 16, about 1½ oz., diluting the same with water. No information could be obtained from his family of the source of this bottle. Chemical analysis by Prof. C. F. Nixon proved the liquid to be methyl alcohol, of the quality known as "Colonial spirits."

Autopsy Dec. 19, 9 P.M.: The body was that of a male, well developed and fairly nourished. Apparent age, thirty-four years. Height about 5 feet 8 inches. Hair and moustache dark brown. Rigor mortis and post-mortem lividity of back present. There were three old round scars ½ inch in diameter on the anterior surface of the left leg about 8 inches below the knee.

The usual incisions were made in opening the abdomen, chest and skull.

Abdomen: No excess of fluid in cavity, and peritoneum was normal. Slight swelling of many of the mesenteric glands. Liver, normal in position, size and upon section; spleen, normal; pancreas, normal; kidneys, normal; ureters, normal; gall bladder, normal excepting a few old adhesions along lower edge.

Appendix: One and one-half inches long, with adhesions and a constriction ¼ inch from tip.

Stomach: This organ was tied off at the cardiac and pyloric orifices and its contents, about 4 oz., removed through a puncture into a clean jar. The stomach was then laid open. The mucous membrane was decidedly congested, the blood vessels engorged and with numerous hemorrhagic areas of small size.

Intestines: A similar condition extended along the duodenum and the jejunum and a short distance into the ileum, being most intense in the first portion of the duodenum and gradually diminishing in severity until lost.