of continuity of the bone. The wound was then dressed with cold water. The after treatment was of stimulant and tonic description, with careful attention to the bowels, and occasional opiates. At the date of the report, fifteen days after the operation, the patient was walking about the ward. The wound of the scalp was united and the small portion over the trephined part was healing by granulation. The case appears on the monthly report of Beaufort Hospital, North Carolina, signed by Surgeon F. S. Ainsworth, U. S. V.

Case.—Private Edward Connors, Co. A, 9th Illinois Cavalry, aged 22 years, received in a street fight, March 22d, 1864, a blow from a stone, which struck the left side of the forehead. He was admitted into the Lawson Hospital at St. Louis, Missouri, on the same day. There was an external wound three inches in length, a depressed fracture involving both tables of the skull. Several small spiculæ of bone were removed, and the depression of the inner table was raised by an elevator. A piece of the broken outer table was missing, having, apparently, been torn off at the time of the injury. A saline purgative was administered and low diet was prescribed, with cold water applications to his head. His general condition at this time was good; the pulse was natural, the pupils were sensible to light and normal in movement, and his intellect was perfectly clear. He continued thus until the night of the 23d, when symptoms of concussion and compression of the brain were manifested: the symptoms of compression, perhaps, predominating. On the following day, there was evidently compression, as indicated by the stertorous breathing and insensibility, dilated pupils and slow pulse. Death took place at midnight on March 24th, 1864. An autopsy was made on the following day. The external table of the frontal bone showed the loss of a fragment of the size of a quarter of a dollar. A fissure extended backwards an inch and a half into the left parietal. There was a stellate fracture of the inner table, but no depression. At the seat of injury there was no extravasation of blood. The brain substance around this point was softened, but to an inconsiderable degree. The specimen was preserved, but was not forwarded to the Army Medical Museum. The case was reported by Surgeon C. T. Alexander, U. S. A., in charge of Lawson Hospital.

CASE.—Private Miles P. Hatch, Co. H, 161st New York Volunteers, aged 22 years, was admitted, on January 12th, 1865, to St. Louis Hospital, New Orleans, Louisiana, with twenty other wounded men, injured on the occasion of the collision between the United States transport J. H. Dickey, and John Rain, on the Mississippi River, fifteen miles below Vicksburg, on January 9th, 1865. Private Hatch was found to be still laboring under the effects of concussion of the brain. He had received a violent blow, causing a wound of the scalp and fracture of the skull. Symptoms of injury to the brain persisting, the wound in the scalp was enlarged, and the fracture was exposed, and a fragment of depressed bone was removed. The case terminated fatally on January 14th, 1865. This imperfect account is derived from the monthly report of the 161st New York Volunteers, for January, 1865, and from the hospital register, signed by Surgeon A. McMahon, U. S. V.

Case.—Private Jonathan Leet, Co. M, 22d Pennsylvania Cavalry, aged 18 years, received, on April 4th, 1865, a comminuted fracture of the cranium, by a blow from a glass bottle. He was admitted to hospital, at Cumberland, Maryland, on May 14th, from his regiment. Fragments of bone were removed on the following day. He was discharged from service on August 15th, 1865. Surgeon J. B. Lewis, U. S. V., records the case.

CASE.—Private Conrad Murphy, Co. E, 17th Kentucky Volunteers, was confined for misconduct in the guard-house, on February 15th, 1863. 'He was insubordinate, and the sentinel struck him on the head with the butt of a musket, with such violence as to fracture the frontal bone. Murphy was taken to the Post Hospital, at Clarksville, Tennessee, under the charge of Surgeon A. B. Patterson, 102d Ohio Volunteers. Stertorous breathing, dilated pupils, oppressed pulse, and stupor, indicated compression of the brain. An incision was made at the seat of injury, and the depressed bone was elevated, and detached spiculæ were removed, but the grave symptoms were not modified, and death took place on February 18th, 1863. At the autopsy, made by Assistant Surgeon S. Hubbard, 17th Kentucky Volunteers, it was found that there had been an extensive extravasation of blood upon the brain.

CASE.—Private ———, 149th New York Volunteers, received at Stevenson, Alabama, January 29th, 1864, a heavy blow from a glass bottle, in a private quarrel, in the camp of the Second Division, Twentieth Army Corps. He was taken to the regimental hospital, and Surgeon J. V. Kendall, 149th New York Volunteers, ascertained that there was a fracture of the frontal bone over the right frontal sinus, with depression of the vitreous table. The patient had repeated convulsions and in



FIG. 20.—Four fragments removed from the right side of the frontal bone, fractured by a blow from a bottle; natural size. Spec. 2210, Sect. I, A. M. M.

the intervals was partially comatose. Surgeon Kendall extended the wound in the integument so as to freely expose the bone, and removed four fragments of bone, and also raised a depressed portion of the inner plate, which was not detached. The scalp was then brought together by sutures, and cold water dressings were applied. The patient was reported as doing well in February, the symptoms of compression being entirely relieved, but it has been impracticable to learn the ultimate result of the case. The fragments of bone removed are represented in the adjoining wood-cut, (Fig. 20.) and comprise about half a square inch of the inner table, and a somewhat larger portion of the external table.

Case.—Private Charles V. Orton, Co. L, 1st Tennessee Cavalry, in an engagement at Shoal Creek, Alabama, October 19th, 1864, received a wound in the neck from a musket ball, which lodged under the sterno-cleido-mastoid muscle, and also a blow, apparently from the butt of a musket, or stone, which produced a compound fracture of the frontal bone. The regimental surgeon, Dr. W. F. Green, reports that several fragments of bone were removed from the forehead, and the signs of compression of the brain being thereby relieved, the patient was sent, by way of Pulaski, to Nashville, Tennessee, and was admitted to Hospital No. 14, on November 23d. He was subsequently sent to the West End Hospital, at Cincinnati, Ohio, and was discharged from service, on May 2d, 1865, for disability rated at three-fourths. He was allowed a pension of six dollars per month from this date, and Commissioner H. Van Aernam states that he drew his pension on March 4th, 1869; but that the particulars of his condition at that time were not reported.