

to make a case." In truth, we have found in these closing chapters a special satisfaction, because of the clearness with which the positions of the combatants concerning the germ-theory are defined.

RECENT PROCEEDINGS OF THE ROXBURY MEDICAL SOCIETY.

WILLIAM P. BOLLES, M. D., SECRETARY.

DR. COTTING presented a case of fracture of the skull and showed the specimens. (See page 409.)

DR. CHEEVER, in commenting upon Dr. Cotting's case, referred to the points brought out at the trial, and especially to the principal one whether the injuries could have been produced by a single blow or not. The theory that they were produced by the accidental fall of the trap-door, as brought forward by the counsel for the defense, of course required that a single stroke could do all the damage. All the experts were agreed, however, that the blows upon the skull and nose were entirely distinct from each other, and must have come in different, though not opposite directions, and therefore could not have been such as the falling trap-door would have given. The blow upon the face came probably somewhat from above downwards, those upon the skull at right angles to its surface. A child's skull has been placed under a model of the trap-door in every imaginable position, but no one was found in which it was possible to inflict two injuries bearing similar relations to those in the case at hand. Dr. Cheever further believed that the injuries to the skull were produced by several separate blows.

DR. ARNOLD was satisfied, from an inspection of the specimen, that several blows must have been required to produce the various fractures.

DR. BOLLES agreed in the main with Drs. Cotting and Cheever, but thought it not absolutely necessary to assume a multiplicity of blows to explain the fractures of the skull, considering it possible to produce such an injury by one blow of sufficient force and quickness, yet he thought it equally probable that more than one were given. In case several were assumed, he did not quite agree with Dr. Cotting's location of them.

Retarded Union of Fracture due to Syphilis. — DR. ARTHUR H. NICHOLS read a paper upon this subject, illustrated by the following case. The patient was an intelligent gentleman, aged thirty-nine, an officer in a cavalry regiment during the recent war, possessing an exceptionally fine physique, with great muscular development. In the month of February, 1874, he slipped and fell upon an icy sidewalk, producing an oblique and slightly comminuted fracture of the tibia at a point two and one half inches above the malleolus. The fracture was properly reduced, and the parts maintained in apposition by the ordinary and appropriate treatment. At the expiration of five months an imperfect, cartilaginous union only was obtained; and though the degree of motion between the fragments was not so extensive as to preclude the possibility that some slight attempt at ossification had been made, the seat of the fracture was, nevertheless, indicated by a depression in place of a callus, the

flexibility of the limb at this point being well marked. It did not appear that this failure of reparation, which is of such very rare occurrence, could be attributed to any of the common causes of false joint after fracture. The fracture was not a compound one; nor was the injury of a crushing character, by which the vitality of the bone is known to be annihilated or impaired. There was nothing in the age or apparent condition of the patient calculated to prevent consolidation. The direct supply of blood to the injured extremity had not been cut off by any injury to the main arteries, nor was there any suspicion that the nutrition of the limb had been interfered with by tight bandaging. The patient, indeed, admitted that during the early part of his confinement to bed there had been considerable involuntary motion in the limb at night; but where there is no great displacement of the fragments it is not commonly thought that any ordinary amount of motion at the seat of fracture can seriously interfere with a reparation of the bone. At all events, this motion could have exerted no influence in preventing the subsequent consolidation of the cartilaginous union. Upon further inquiry into the constitutional tendencies and personal history of the patient, the fact was elicited that there existed the most unequivocal signs of *syphilitic contamination*. About five years previous to the date of the injury, he had contracted what was pronounced a true Hunterian chancre, which was followed by a specific affection of the throat, glandular enlargements in the neck, and the loss of hair. He received at that time appropriate treatment, and at the expiration of two years (having in the mean while been assured that he was cured), acting upon the advice of his physician, he married. His wife, who previous to marriage had enjoyed perfect health, subsequently gave birth, at different times, to three children, born at full term, each of which manifested the usual external signs of syphilitic infection, living but a few days. The wife, moreover, herself gave evidence of specific infection, having suffered from ulcerated sore throat, partial alopecia, and chronic headache, while her general physical condition had greatly deteriorated. In view of this evidence, therefore, that the system of the patient was still laboring under the influence of syphilitic virus, it seemed not unreasonable to conclude that the nutrition of the injured limb had been thereby unfavorably influenced, resulting in some morbid change at the point of fracture, by means of which a soft and flexible substance had been thrown out in place of the normal compact structure, a pathological phenomenon well known to occur where fracture is co-existent with phthisis or with pregnancy. The anti-syphilitic treatment was accordingly adopted, combined with salt-water baths and horseback exercise, with the result that at the expiration of two months a very decided improvement was perceptible, while at the end of six months bony union appeared to be perfect, and the full use of the limb was regained. Although it was a matter of some doubt as to the influence exerted in this instance upon the consolidation of the fracture by the presence of syphilitic virus, the case seemed, nevertheless, worthy of presentation as illustrative of a connection which has long been supposed to exist between two lesions bearing no apparent connection to each other, and deriving especial importance from the medico-legal questions to which injuries received under similar circumstances might give rise.

Fracture of Rim of Pelvis; Hæmorrhage from the Bowels on the Third Day. — DR. SEAVERNS reported the case. On September 16, 1875, at seven A. M., was called to see D. M. Found him in bed, suffering great pain. Pulse 90; nervous agitation extreme. Stated that during the previous night he was knocked down and severely kicked on the hip. On examination, a contusion about two inches long over left hip was visible, and on manipulation crepitus was apparent, and it was evident that a portion of the rim of the pelvis was broken off and turned in. The fragment was quite movable, every motion of it giving him great pain, but could not be turned out into its proper position.

The patient's knees were drawn up, and lateral motion of them moved the fragment; upon extending them carefully, the piece became less mobile, and the patient expressed himself as feeling more comfortable. Has passed water freely, unaccompanied by blood. In the afternoon the patient was still suffering greatly; a jacket was made to fit around the pelvis, and towels folded over the abdomen placed under the jacket to prevent motion of the fragment. One natural dejection. Opiates pro re nata.

Dr. John Homans saw the patient the next day, confirming the diagnosis. Fragment not clearly defined on account of the patient being a large, muscular man, but seemed to extend from just above the inferior spinous process backward to the middle of the rim of the pelvis. Patient had five loose dejections, and urinated freely.

On the 18th patient was still very restless; bowels still loose, but no blood in urine or fæces.

On the 19th the patient was more comfortable. Pulse 72. Had had three bloody dejections, the first two largely composed of coagulated blood, the last with some fresh blood and blood specks.

From that time no further hæmorrhage took place, and the patient improved steadily. The fragment continued to be somewhat movable until the 27th inst., and on the 30th it seemed quite firm, and his recovery followed rapidly. At that time the fragment was still tilted in, although less so than at first. Patient not seen since.

Partial Separation of the Placenta. — DR. GOSS reported the case. A woman, twenty-two years old, had been mother of two children, and had an abortion last April, soon after which she again conceived. Uterine hæmorrhage began about the middle of October and lasted until January, at intervals. January 3d she passed a large clot, but had no further hæmorrhage at that time. Upon examination, Dr. Goss found the womb enlarged to the size of seven months. The foetal heart could be heard, as well as the placental souffle. Patient feeble. A few days after this, labor began, the head presenting. When the os was partially dilated, one of the pains produced a sudden gush of blood; Dr. Goss then dilated, ruptured the membranes, and the labor progressed naturally. The child weighed three and three fourths pounds. The placenta was then removed, although somewhat adherent. From the continuance and time of the bleeding it was considered to be a case of partial separation.

Scarlet Fever, Acute Rheumatism, Peri and Endo Carditis, and Acute Nephritis; Partial Recovery, Relapse, and Death. — DR. BOLLES reported the case. A little girl of seven years, bright, and in perfect health, was taken ill

with scarlet fever of an unusually mild type. The symptoms were characteristic, but light: vomiting, a little headache, pulse somewhat raised, temperature about 102° , slight soreness and considerable redness of the throat, general and distinct eruption, and in a few days an unmistakable strawberry tongue. Within a week desquamation began. She sat up in bed (but did not get out of it); she seemed to be doing well, and gave every promise of a rapid recovery, when she began to complain of her arms, which, she said, ached. This trouble, at first light, increased until the eleventh day of her sickness, when it had developed into a well-marked acute rheumatism, with thirst, dry tongue, hot skin, and swelling, tenderness, and pain of both wrists and one ankle. The tongue, at first white, afterwards became dry along the middle and white at the sides. Temperature 103.5° . Pulse 132. There had been a little cough for a day or two, but it was troublesome only as it jarred the inflamed joints. The urine was made slightly alkaline, and kept so for a few days.

Two days after, she passed a very restless night, with pain in her side and "stomach," and was uneasy and greatly distressed. The pulse had risen to 144; the temperature, however, was not high. A loud pericardial friction could be heard all over the chest, drowning every other sound except a pleuro-pericardial rub, which was heard either at that time or very soon after. The little patient was at this time a truly pitiable sight, the distress for breath and that around the heart prompting her to frequent changes of position in order to relieve it, while the tenderness of her joints made movement almost impossible.

There was also about this time some local inflammation of the left lung; for two days after this were noted "fine râles on the left side," and once or twice after this they were noticed again. At no time was Dr. Bolles sure of dullness there, although one day it was noted as suspected. During the next ten or eleven days she went along with the usual symptoms of acute peritonitis, such as accelerated breathing and pulse, and vague, sometimes definite distress in the left chest. There were also frequent attacks of distress referred to the stomach, and vomiting. There was no great dyspnoea at this time, and the appetite was unusually good.

Eleven days after the beginning of the pericardial trouble the friction sounds had almost disappeared, those which remained being mostly pleural, and a loud, hoarse, endocardial murmur had taken their place, either having just begun or being perhaps uncovered by the disappearance of the other sounds; there was occasional distress in the bowels. Pulse 144. Respiration 50.

The râles were still present in the left lung. For the next three or four days she grew worse, the same symptoms increasing, as the following note will show: "Heart's action tumultuous, murmur loud, and sometimes musical. Vomiting, distress in bowels, a little fluid in abdomen. Pulse 152. Respiration 80." Next day she preferred to sit up, and on the day following could not lie down. This was the twenty-seventh day of her sickness, and from this time until death, forty-seven days later, orthopnoea had never been absent.

Up to this time her urine had not been affected, but now it was greatly diminished in quantity, and thick and white with urates, but without albumen or casts. It was passed but once a day, not more than three ounces at a time,

and once not a drop was voided for more than twenty-four hours. The dyspnoea was becoming distressing; she could neither lean back nor forward nor toward one side for an instant, but either sat in her father's arms or rested her chin in his hand, and took short, miserable naps in that way. Her tongue was covered with aphthous sores, dry, round, and clumsy. She could say only one syllable with each breath, and that became at last unintelligible; thirst and cough were constant; she groaned incessantly, and vomited what little food she could be forced to eat; her appetite was entirely gone, and her spells of retching were frequent and long. The legs were rapidly swelling, and the face was puffy and shining. Tracheal râles and subsultus were present, and her death was daily expected. The heart-murmur was constantly changing from loud to low, and rough to smooth, but always, when well defined, heard with the systole, and best at the apex. Then albuminuria, blood, and casts appeared, and the urine gradually increased in quantity. The pulse ranged from 120 to 160, and the respiration attained a maximum of 80.

The orthopnoea slowly diminished for about five weeks, during the latter half of which time she was very comfortable, and gave promise of quick recovery. She ate and drank well, and played all day; there was no pain and no vomiting or distress. The albuminuria had gradually diminished, and finally both albumen and casts had for two or three days entirely disappeared. The cough, however, was still present and pretty troublesome; râles could be heard in both chests, especially on the left side, and there were dullness and bronchial respiration on the left. She always rested by lying over the rail of the left side of her crib, or in some such way, so as to bring the left lung below.

After apparently passing through all these troubles safely, nearly nine weeks from the beginning of her sickness, and four from the first appearance of albumen and casts, and several days after they had disappeared, she was a second time taken with vomiting, pain in bowels, suppression of urine, and blood, while albumen and casts returned, and all the previous symptoms became aggravated. The œdema became excessive, the breathing short and shallow, and at the last the superficial veins were swollen, the lips livid, and death occurred seventy-four days from the beginning of the fever.

Autopsy. — There were about four ounces of fluid in the peritoneal cavity, twelve ounces in the right and eight in the left pleural cavities. There had been no pleuritis upon the right side, but the left lung was bound by a number of pretty strong adhesions, and the left side of the pericardium was adherent to the side of the chest by its pleural surface, holding the heart somewhat to the left. The lungs were œdematous. The pericardial sac was obliterated by adhesion of its walls, which could be separated, however, by a little force. The heart was enlarged by dilatation, and flaccid. The mitral valve bore a ring of little vegetations entirely surrounding its opening. Kidneys large, pale, "coarse-looking," not examined microscopically, but evidently considerably degenerated.