shorter splints, the thigh was firmly fixed, as it proved, to the entire prevention of all shortening. The patient was ordered a full dose of morphia, and passed a good night. I paid several visits to Gosport after the resetting of the limb.

The recovery of the patient in little beyond the average period required in ordinary cases gave the best evidence that our calculations were founded in sound pathology. In other words, before the expiration of seven weeks, the patient's limb was permanently restored to its natural length, and to its normal muscular condition; and Mr. Rolph further wrote to me, some time after Kendall was able to walk about, "that there is no shortening *whatever* of the limb—not even to call for the employment of a high-heeled boot—no deficiency in strength; it is in every respect as full, as straight, as strong, and as long as the left thigh."

Southampton, 1855.

REPORT OF A CASE OF

EPILEPSY OF TWENTY YEARS' STANDING,

PRODUCED BY

AN INJURY TO THE HEAD,

WITH AN ACCOUNT OF THE POST-MORTEM EXAMINATION.

By T. CHAPLIN, ESQ., M.R.C.S. & L.S.A.,
RESIDENT MEDICAL OFFICER TO THE BLOOMSBURY DISPENSARY,

J. N——, aged fifty-three; twenty years ago, was knocked down by a cab, and sustained severe compound fracture of the skull. Several portions of bone were removed, and, after a protracted illness, he at length recovered. Subsequently, however, his mental faculties became weakened, and he has ever since been afflicted by the frequent recurrence of epileptic seizures. The convulsive attacks have usually been preceded by considerable disturbance of the general health, and accompanied by heat of skin, pain and throbbing in the head, and other symptoms of cerebral congestion. Leeches, blisters, and mercurial and purgative medicines have been the remedies made use of for their relief, and, until the last and fatal attack, with success. The attacks have, during the last two years, become more frequent and severe, and there has been loss of power on the left side of the body, but not so great as to affect his gait or to interfere with his occupation of street scavenger. His wife also informs me that for a long time past he has only been able to sleep when lying on his right side.

On the 29th of June, 1855, he was attacked with convulsions in the usual way, and the ordinary remedies were administered. On the third day of the attack he complained of chilliness, and from that time gradually became comatose, and died early on the morning of the seventh day. For some time before his death the left side of the body was completely paralysed, and the left arm rigidly bent. He lay constantly with the right side of his head upon the pillow, and manifested the greatest uneasiness if an attempt was made to alter its position.

Examination of the head, ten hours after death.—On the surface of the scalp were three depressions; two on the right side, over the superior and posterior part of the parietal bone, and one on the left side, near the same situation. On removing the skull-cap, it was found that the bone was deficient in its whole thickness beneath the two depressions on the right side only, the other depression not extending beyond the diploe. The scalp was adherent to the edges of the apertures in the bone, and partially also to the dura mater beneath, but between the portions of bone surrounding the openings and the dura mater was a small collection of purulent matter, and imbedded in this *a portion of hair*, some of which was more than three inches long, attached by an extremity to the scalp above, from which it appeared to have grown. The whole of the membranes beneath the openings in the bone were adherent firmly to each other, and to the surface of the brain, and in attempting to separate them from the cerebral structure, a cyst was opened, and a quantity of putrid pus of a dirty greenish colour escaped. This cyst communicated with the right lateral ventricle, which, as well as its fellow on the opposite side, was filled with the purulent matter. The septum lucidum was entire. The pus had also escaped to the base of the skull, and was discovered there in considerable quantity on the brain being removed. The walls of the cyst were thick and condensed, and the brain substance around semi-fluid and of a yellowish tinge, whilst farther out the cerebral matter was suffused with blood, apparently of recent deposition. The arachnoid membrane was slightly opaque over its whole surface. The brain generally was firm and healthy, with the exception of the parts forming the lateral ventricles, which were softened, and of a green colour, from contact with the purulent secretion.

Remarks.—One of the principal points of interest in this case is the example which it affords of most severe lesions of the brain existing for a long period without destroying life, or producing more than comparatively slight disturbance of the functions of the nervous system. The thickened character of the walls of the cyst, the nature of the pus, and the general history of the case, render it extremely probable that the abscess had existed in the brain perhaps for many years; yet the only symptoms were occasional fits of convulsions, trifling loss of power on the opposite side of the body, and some slight impairment of the mental faculties. The fact of the man always lying on his right side, taken in connexion with the post-mortem revelations, is also interesting. It is well known that in hydrothorax the patient is unable to lie on the side opposite to that on which the effusion exists, because in that position the pressure of the fluid upon the sound thoracic organs interferes with the due exercise of their functions; and in this case it would seem, that when the head was placed on the left side, the weight of the fluid, pressing upon the healthy hemisphere of the brain, impeded its function, and gave rise to a sense of uneasiness and anxiety.

The case is not uninstructive in respect of the question as to the exciting cause of an epileptic attack, when a constant predisposing cause is known to exist, all the paroxysms having been accompanied by other and obvious symptoms of congestion of the brain, besides the mere convulsions.

The curious circumstance of the hair having grown within the skull is suggestive of the caution which is requisite in cases of compound fracture of the bones covered by the hairy scalp, lest a portion of their covering should become turned in during the process of healing. Even had no other lesion existed, the irritation produced by the presence of this portion of hair might probably have been sufficient to give rise to seizures of an epileptic character.

I believe it has been proposed by some of our metropolitan surgeons to probe the brain, with the view of letting out matter, where abscesses are supposed to exist in that organ. In this instance, the purulent collection was so near the surface, and so immediately under the seat of injury, that no difficulty would have been met with in the endeavour to evacuate it, had such a proceeding been attempted. At the same time, however, it is clear that the practice would have been attended with little benefit, in consequence of the other serious injuries which the brain had received.

Great Russell-street, 1855.

REPORT OF A CASE OF

DISLOCATION OF THE KNEE-JOINT.

BY MICHAEL W. TAYLOR, M.D. Edin.

LUXATION of the knee being an injury of uncommon occurrence invests the following case with some degree of interest.

At eleven A.M. on April 12th, 1854, I was called suddenly to see Mrs. C——, aged forty-seven, living at a short distance from the country, for an accident of the following nature. About half an hour before, she had been into a byre, to loosen two cows of dangerous tempers, in order to lead them out to water. It was the first time she had ever approached them. She went between them, and they both suddenly attacked her and beat her to the ground; whilst she was underneath them they struck her violently with repeated blows. Her cries brought her husband almost instantly to the spot, who extricated her from her perilous situation, and carried her to bed.

On my arrival, the shocking deformity of the right knee-joint was the first object that attracted attention. A glance at the joint instantly disclosed the direction in which the bones had been thrown. On the outer aspect, the external condyle of the femur formed a very salient protrusion, from which the tightly stretched skin sloped downwards and inwards at an acute angle, towards the head of the fibula, which was quite three inches distant from the point of the condyle. On the inner aspect of the joint, on the contrary, the projection of the inner condyle of the femur was lost, and the head of the tibia and its inner articulating surface started out in bold relief under the distended integument. The patella presented a very prominent appearance, being tilted on the inner condyle with its outer edge looking forwards, in its usual site in the

fossa, between the condyles; there was of course a corresponding depression.

The unsightliness of the deformity was further increased by the manner in which the limb was twisted and bent. The leg was semi-flexed, and also bent outwards at an angle from the knee; the foot and toes were inverted; the femur also seemed to be somewhat twisted on its axis, so that the outer condyle was thrown forwards as well as outwards. On account of these flexions the shortening was very considerable.

It was a case of lateral luxation of the tibia inwards, the inner condyle of the femur resting on the outer articulating surface of the tibia. Reduction was readily effected. With the help of my assistant, Dr. Collinge, extension and counter-extension were made, and by pushing the tibia and patella in the proper direction, both bones at once resumed their natural positions. A gap was then noticed at the outer aspect of the joint, between the outer condyle and the head of the fibula; this was owing to the separation of the external lateral ligament from the head of the fibula, and the external semilunar cartilage was also felt distinctly lying loose under the skin, evidently separated from its attachment within the joint. Attempts were made to replace it, but it continually slipped out and could not be retained in its proper position. The tendon of the biceps was uninjured, as were also the inner hamstrings. The leg was bandaged, a light splint applied to the inner side of the knee, and an evaporating lotion applied. A draught with muriate of morphia.

Evening: Complains of pain on the left side of the chest, with dyspnœa. Crepitus detected under the left mamma. One of her ribs was fractured. To have a broad roller applied round the chest; bleeding to eight ounces; morphia draught at bed-time.

April 13th.—Knee feels stiff and sore, but there is no heat, nor much swelling about the joint; there is considerable swelling and ecchymosis on the outer side of the thigh at the middle third. The patient had a little sleep last night; some pain and difficulty in voiding urine; pulse ninety-six; tongue clean; no anxiety. A sedative draught to be taken every six hours, and one dose of castor oil.

14th.—Rather more tumefaction about the joint, with some sensation of heat; complains of pain upon motion of the limb or on pressure, but not much when she keeps the parts quiet, which she is enjoined to do absolutely. Altogether she feels more uneasiness from the fractured rib than from the knee; she requires the catheter twice daily, for retention of urine on account of contusion of the vulvæ.

An extended report of the case is unnecessary, as it was unattended with any serious or significant symptoms. By the end of a week the swelling was nearly gone, except at the middle third of the thigh, where the ecchymosis was considerable. At the end of a month, she was allowed to sit up, and use passive motion of the joint and crutches. At the end of two months, she was able to walk about with a stick. At the end of three months, she could walk for three miles without any lameness, and without support, though with a knee-joint deprived of its external semilunar cartilage, which might be felt under the skin, where it was undergoing absorption, having lost much of its original size.

The circumstances worthy of remark in this case are, first, the rarity of the accident; secondly, the amount of injury sustained by the articulating apparatus; thirdly, the facility of reduction, and the small amount of subsequent local and constitutional disturbance.

Dislocation of the knee must be regarded as a very rare kind of injury, more particularly if we exclude from our calculation cases of compound dislocation, which involve extreme and irreparable destruction of parts, and those cases in which there is a gradual and partial luxation of the bones, from chronic articular disease, with ulceration of the ligaments. As an evidence of this fact, it may be stated, that in the principal medical journals, for the last twenty-five years, I find reports only of ten cases. Of these, there were dislocations of the tibia forwards in three cases, tibia backwards in two cases, tibia inwards in three cases, tibia outwards in two cases. These are exclusive of those mentioned by Sir Astley Cooper in his work on Dislocations, and by other systematic authors.

It would seem, then, that the tibia is about equally liable to be displaced in any of these four directions, though when the bone is thrown in the forward or backward directions the dislocation is more apt to be complete; whereas lateral luxations are partial only, and incomplete, and I do not know of any case on record in which the bones were truly and perfectly disjointed in a lateral direction.

Owing to the great extent of the articulating surfaces of the bones forming the knee-joint, it is impossible that displacement to any great extent can occur, without serious disruption of the ligaments and tendons which are adapted to maintain coaptation. It may be interesting to inquire, as far as it was practicable to ascertain, what was the amount of injury suffered by the articulating apparatus in the present instance. The evident and perceptible injuries were, first, the complete and thorough rupture of the external lateral ligament, which was torn from its attachment to the head of the fibula; secondly, the dislocation of the whole or greater portion of the external inter-articular cartilage, which had been wrenched off from its adhesions to the tibia, on the snapping of the ligament, to the free floating extremity of which it was still attached; thirdly, the rupture of the lower and most transverse fibres of the vastus external muscle, owing to the strain on the quadriceps tendon, in consequence of the displacement of the patella.

A conjecture of the further amount of injury may be formed by a consideration of the relative position of the displaced bones. From this one inevitable result would appear to be, the rupture of the anterior crucial ligament, which passes from the spine of the tibia to the external condyle; but it by no means follows that the posterior crucial ligament was in like manner ruptured. This ligament, which passes from the spine of the tibia to the inner condyle, decussates the former like one line of the letter X. Its duty in reference to lateral displacements of the tibia is to serve as a stay to oppose dislocation of that bone outwards; but on division of the anterior ligament, it will tolerate, without rupture, very considerable aberration of that bone inwards.

It is probable that the posterior ligament of Winslow was separated from its attachment to the external condyle. Although the strain upon the internal lateral ligament must have been very great, yet it did not seem to have given way, nor did there appear to be any displacement of the internal semilunar cartilage. The force which drove the tibia inwards effected also the complete dislocation of the patella in the same direction. This bone was lying on the inner side of the inner condyle; hence the stretching of the extensor muscles, and the rupture of a bundle of fibres in the middle third of the thigh.

The alarming appearance presented by any form of dislocation of the knee-joint is calculated to give rise to apprehension as to subsequent inflammation and grave results, or to render the prognosis unpromising as to speedy or complete restoration of function. If, however, we look to the history of cases of this accident, we shall find nothing to corroborate in full measure these anticipations of evil. Reduction is generally effected with comparative ease, as might be expected from the breadth and shallowness of the articulating surfaces, and the opposing force of the muscles acting only in one direction—that is, in the axis of the bones, being on that account more readily overcome by direct extension. The progress of the case is generally satisfactory, and no harm results from the tumefaction and degree of inflammatory action which supervene. Of the ten cases which I have mentioned, as contained in the journals, in seven the cure resulted in from one to three months; in one the issue was unreported; one was a case of permanent dislocation of the tibia outwards, unreduced, and of three years' standing; one was a case of dislocation of the tibia forwards, requiring amputation, in consequence of gangrene supervening from injury to the popliteal artery. In some cases a degree of lameness always remains; this may perhaps arise from commencing to use the limb too soon. It would be well for the surgeon not to allow any motion or flexion of the knee for four or five weeks—a space of time within which it is not probable that ligamentous structures can obtain compact and tenacious union.

Hutton Hall, Penrith, 1855.

POISONING BY SULPHATE OF ZINC.

BY PATRICK BRENNAN, M.D., Glasgow.

FRANCIS K——, aged nineteen, early in the present month, sent to a druggist's shop, in the vicinity of this city, for a pennyworth of Epsom salt, for which he received four ounces of the sulphate of zinc. He dissolved it in a gill (five ounces) of warm water, and drank it off. To make sure work, and in order to waste none of the precious medicine, he washed the physic-basin twice, and drank the contents thereof. Immediately he felt (in his own words) as if a powerful electric shock had passed through his head—he expected that his brains would have burst through his skull. Coldness, shivering, and bodily prostration followed; a leaden, purple tint of the countenance, and contracted features, presented themselves; a sense of choking, and constriction round the chest; convulsive