advanced to between the sixth and seven months; as the case progressed, the umbilicus did not rise to the level of the general abdominal surface, but remained as a depression somewhat deeper indeed than natural; the parietes of the abdomen were obviously loaded with fat, and there was a feasible explanation of this localisation of adipose deposit; and, finally, although for some time there was a difference of opinion as to whether a placental bruit could be heard or not, some of those who examined being confident of its existence, it was ultimately agreed by every one who saw the patient that there was no auscultatory evidence of pregnancy.

The negative evidence, however, was not entirely free from considerations which affected its value. The vaginal examination was very difficult to make, on account of the involuntary resistance offered by the patient, who appeared to suffer intensely from the procedure; previous pregnancy had, of course, diminished to a certain extent the value of any indications afforded by the condition of the os and cervix uteri, and the long standing uterine disease had resulted in such engorgement of the organ as tended still further to falsify the data to be derived from this source. The absence of auscultatory evidence is by no means conclusive against the existence of pregnancy, even in a somewhat advanced stage; the factus may change its position *in utero*; an excess of liquor amnii militates against the transmission of the *bruit de cœur*; and the *bruit placentaire* as well as the *bruit de cœur* are both liable to intermissions from unascertained causes. Paul Dubois expressly states that the absence of the *bruit placentaire* is no proof of the non-existence of pregnancy; and Barth and Roger make the same remark in relation to the sounds of the foetal heart. Cases, well authenticated, have occurred in which neither the foetal nor placental murmur could be heard, and in which the result has been nevertheless the birth of a living child at the full time. The non-protrusion of the umbilicus was perhaps as crucial a symptom as any observed; when pregnancy has reached the sixth or seventh month, it perhaps never, or at any rate very rarely, occurs, that the navel presents the appearance of a deep pit; the only possible exception being those cases in which a foetus has been blighted at the earlier months, and is retained.

Dr. Tyler Smith from the first decided that the patient was not pregnant; and the result justified his diagnosis. The condition of the os and cervix uteri was not reconcilable in his opinion with the patient's supposed advanced state of pregnancy; no resistant mass could be felt between the interior lip of the "os" and the pubis, however high the finger was carried; and the immense abdominal enlargement appeared to be the result of the treatment adopted for the phthisical aspect of the case. On the 7th of September, half an ounce of cod-liver oil had been ordered to be rubbed into the skin twice a day, on any convenient part. The abdomen and back were the parts principally made use of for this purpose, and these were the localities in which the deposition of fat was most remarkable.

After several weeks persistence in this treatment, the patient's health improved so much that, at her own urgent request, it was discontinued. She was then plump generally, as well as having the remarkable localisation of fat alluded to. The estimated increment in her weight, after seven weeks' inunction, was about 12 lbs.; soon after its discontinuance, she began to diminish in bulk, one by one the other symptoms of pregnancy cleared off, and ultimately the menstrual function was re-established.

The term "spurious pregnancy" has been prefixed to the present case, not merely on account of certain signs which might have been mistaken for gestation, but because the suspension of the catamenia, the steady increase in size, the changes in the mammae, and the subjective symptoms of the patient, lasted about the usual term of pregnancy, and then disappeared almost suddenly. These circumstances appear to bring it into the category of those cases in which, in consequence of some change in the ovaria, the symptoms

of pregnancy are imitated; and under this influence, without the occurrence of impregnation, women arrange for an accouchement which they suppose to be impending, animals prepare their lairs, and birds build their nests. In the case of M. B., cod-liver oil inunction was tried a second time, but with no such results as those which have been detailed.

ADDENBROOKE'S HOSPITAL, CAMBRIDGE.

THREE CASES OF EXCISION OF THE KNEE-JOINT.

By GEORGE MURRAY HUMPHRY, Esq., Surgeon to the Hospital.

CASE I. Eliza Hobbs, aged 20 years, a light complexioned, not very healthy looking person, had suffered from disease of the left knee for more than six years. The synovial membrane was first affected, and subsequently the other structures of the joint. She was under my care in the hospital three years ago, when the disease was so severe that we feared amputation might be necessary. However, it gradually fell into a quiet state, and she went to her home to wait the effect of time. She returned in October 1854 with her general health improved. But the lower limb was useless, indeed burthensome; for though the disease in the knee had ceased, and the swelling had subsided, the joint was left in so mutilated and impaired a state that she could not bear upon the limb, or move the leg upon the thigh, or even lift it from the bed. Passive movements could be effected in a limited range, but these gave pain. The patella was fixed; the whole extremity flabby, though not much smaller than the other. There was little hope of the limb being brought into a useful state by any ordinary treatment, because some displacement of the ends of the bones had taken place, causing deformity of the limb. The inner condyle of the femur projected on the inside of the knee, and could be felt to be knotty from bony deposit upon it. The leg was inclined outwards from the knee to the ankle, forming an obtuse angle with the thigh. It was also a little bent and rotated outwards. I contemplated amputation; but the girl was very anxious that some attempt should be made to save the limb. My cousin, Mr. Frederick Humphry, now practising at Brighton, was going round the hospital with me and saw this patient. He told me that he had seen good results from excision of the knee, and recommended me to try it in this case. Having thought over the matter, I proposed the operation to my colleagues, who agreed in thinking it worth while to give the operation a trial in a case of this kind, although they, like myself, were not much prepossessed in its favour.

October 27th. I made a transverse incision over the patella, more than half round the joint, and short cuts upwards and downwards at right angles to it at either end; reflected the flaps thus made, and cut into the knee-joint, dividing the lateral ligaments. The patella had acquired close connexions with the outer condyle; and in the endeavour to separate it, and press it on the outside of the joint, with the view of saving it, the ligamentum patellæ was torn up from the head of the tibia. I thought it best, therefore, to remove the bone. The joint was then bent, the adhesions between the bones, which were of fibrous nature, and the crucial ligaments being at the same time divided with the scalpel. The ends of the bones being now sufficiently uncovered, I sawed about three-quarters of an inch off the condyles of the femur, and a thinner slice from the tibia. Placing the cut surfaces together, I found that the leg was inclined a little outwards. This was rectified by sawing off another thin oblique slice from the inner part of the cut surfaces of the bones. Some of the articular arteries required ligatures. Finally, the limb was bandaged upon a straight splint, with a pad under the head of the tibia to raise it; and proper apposition was secured by the pressure of broad lateral splints.

No unfavourable symptom followed. Not the slightest

fever, and scarcely any inflammation at the knee. The discharge found its way through the bandages, which I seldom disturbed—not more than once in a fortnight or three weeks. In January, the wound being healed all but one small orifice, and the union of the bones being tolerably firm, the limb was encased in a gum-chalk bandage, and the patient went home. In September she returned, the part having been painful and inflamed. There was a sinus extending three or four inches up the fore part of the thigh. This I laid open in its whole length, but could discover no evidence of diseased or exposed bone. The wound healed up, and she again went home. There was pretty firm osseous union between the bones, and every probability of her being able to walk upon the limb.

CASE II. Edward Wells, aged 47 years, was admitted April 19th, 1855. He was a native of Barbadoes, and a sailor. He broke his right patella transversely by a fall upon the deck six months ago, the knee coming in contact with an iron ring. He was taken ashore and treated in the hospital of Rio Janeiro. In three weeks, as his vessel was about to sail, he got up with crutch and stick, and went on board. No medical treatment could be there obtained, and he continued to go about with a crutch. Subsequently, he sought relief in various places; but finding none, and the limb being useless, he came into the hospital for the purpose of having it removed. The fragments of the patella were four inches apart. The lower one was a little nearer to the tubercle than natural; the upper one lying above the condyles of the femur. There appeared to be no direct connecting medium at all, the articular surface of the femur lying immediately under the skin. He could bend the leg, but had no power whatever to extend it; consequently, walked with a crutch and stick, scarcely using the right leg. Examining the left patella, I found that it also had been broken across, the fragments being moveable upon one another, though in close contact. This was caused by a fall on the slippery deck fourteen years ago. The knee was cupped and bound up for a fortnight; after which he went about, the joint feeling only weak for a time. Of late years he had felt no inconvenience from it, and was not aware that the knee-cap had ever been broken.

I had an apparatus constructed for the purpose of fixing the limb in a straight position, hoping that he would be able to walk with this assistance, and that gradually the part might acquire more strength. However, the upper fragment of the patella and the adjacent part of the thigh was so tender, that it would bear no pressure, and he became very impatient for some more decided treatment. Accordingly, I proposed to excise the joint, which, being agreed to by my colleagues, and assented to very willingly by the patient, was done on May 4th.

It being desirable to remove the fragments of the patella, which could be of no use if left, and which might interfere with the after treatment, I determined to make crucial incisions, instead of those practised on the former occasion. The first was transverse, more than half way round the joint, over the interval between the tibia and fibula. This was crossed by a longitudinal cut from the upper edge of the superior fragment of the patella to the lower edge of the inferior. The four angular flaps thus marked out were reflected, and the two fragments of the patella were dissected away. In doing this I found that both the latter were quite shut out from the cavity of the joint. The hinder and lower surfaces of the upper one were connected by tough fibrous tissue to the fore part of the femur, above the condyles, and there was no tissue at all constituting a direct medium of communication between the fragments. It would have been hopeless, therefore, to have made any attempts by treatment to enable the quadriceps to act upon the tendo patellæ. Having removed the fat from the front of the joint, and divided the lateral and crucial ligaments, I sawed off nearly three quarters of an inch of the condyles of the femur, and a thin slice of the upper end of the tibia. The bones were secured in good position by splints behind and on either side, well padded, as in the last case.

No unfavourable symptoms followed. Suppuration took

place; and, after a time, the discharge gradually diminished. On June 19th, the wound was nearly healed, and there was pretty firm union between the bones, though he could not raise the limb from the bed. On Sept. 21st, the wound had long been soundly healed, and the bones firmly united. He could raise the limb from the bed, and bear some weight upon it; could move about very well with crutches, and there was every probability of his being soon able to walk without them. On this day he left the hospital, and I have heard no more of him.

CASE III. Wm. Childs, aged 12 years, a pale, but not unhealthy child, was admitted with the knee bent to a right angle. Indented cicatrices of sinuses, which had evidently extended deeply, told of former serious disease. At the present, all acute symptoms had passed away; there was no swelling, and no pain; but the joint had been destroyed; no movement could be effected, and the limb was rendered quite useless by the contraction. I first determined to try whether the joint could be brought into better position without any operation. Accordingly, when he was under the influence of chloroform, extension was commenced steadily and carefully. I found that the joint yielded without much difficulty; and, having straightened it, we fixed it upon a splint bound to its hinder part. Having been kept thus for several weeks, it was done up in gum-chalk bandage, and he was allowed to bear upon it a little. The progress, however, was not satisfactory. The joint gained no strength. The limb was quite unable to bear the weight of the body. No movement could be effected. There was some swelling and tenderness. The contraction began to recur, and it was evident that the limb would remain a useless one, unless some more decided treatment were adopted. It appeared a favourable case for excision, which I performed August 31st, 1855. The external incisions were crucial, as in the last case. The patella was firmly ankylosed to the femur, and was accordingly left. The tibia and femur were united by firm fibrous tissue, which was partly divided by the knife, partly torn in flexing the joint. A small portion of each bone was removed, and the limb placed in a straight position, supported by splints.

The operation was not followed by any febrile disturbance or bad symptom. Suppuration took place in the usual manner, and subsided as the healing of the wound went on. The latter process was completed in little more than a month, and in about two months there was firm union between the bones. A gum-chalk bandage was applied, and he went home.

REMARKS. Although it is a common thing for severe operations upon bones, such as those for necrosis, to be followed by very slight constitutional disturbance, I was nevertheless surprised, and I am sure other persons who witnessed these excisions of the knee-joint were also surprised, at the very slight amount of febrile or other unfavourable symptoms which ensued. The incisions were extensive, and the operations altogether presented rather a formidable appearance; yet the condition of the patient afterwards was not in either case such as to give me a moment's uneasiness. There was no fever; no more inflammation and suppuration than desirable; and the healing processes went on steadily and quickly. This favourable progress may be attributed partly to the age of the patients; partly to the external wound being large, the divided bones being in close relation to it, so that there was ready vent for purulent and other products. I was surprised also at the rapidity with which firm union between the bones took place, particularly in the man's case where the bones were sound. Indeed, the *immediate* results of the operation in these three cases were most satisfactory, beyond my expectations. There is every reason to believe that its *ultimate* advantage in the preservation of a useful limb will be proved by time.

The object of the operation being to lead to a solid union between the tibia and femur—in short, to reduce them to one bone—there cannot be any great advantage gained by leaving the patella. The attempt to do so must render

the operation more difficult, and must often fail, as it did in Case I. Moreover, it seems probable that the presence of the patella after the operation, by covering in the front of the wound, and preventing the free escape of purulent and other fluids, may do harm.

ST. MARY'S HOSPITAL.

FRACTURE OF FOUR BONES, WITH CONCUSSION OF THE BRAIN: RECOVERY.

Under the care of WILLIAM COULSON, Esq., Surgeon to the Hospital.

SHADRACH W., aged 15 years, a plasterer's assistant, was, on December 3rd, 1855, engaged on a scaffold carrying material for building, when his foot slipped, and he lost his balance, falling from a height of sixty feet to the ground. During his fall, he came in contact with some steps, and then with a pile of slates. He was thereby rendered insensible, and was at once brought to St. Mary's Hospital, where he was admitted under the care of Mr. Coulson.

The boy was suffering from concussion of the brain, and was, when admitted, and for a little time after, insensible. On examination, it was found that no less than four fractures existed. In the first place, there was a compound fracture of the left arm, just above the elbow-joint, the wound being on the outer side. The wound attending this fracture was not very large. In the next place, the right leg was fractured at the junction of the upper with the middle fourth of the leg, the fracture involving both the tibia and the fibula. The left external malleolus was also broken across, and the ankle-joint strained and contused. Bleeding from the urethra to a slight extent was present.

The complication of injuries was therefore great. After a short time, the boy recovered his mental faculties, and seemed much better. The arm was set, and wet lint applied over the wound, the arm being kept at a right angle as much as possible. A long external splint was adjusted to the right leg, and cold lotions to the left ankle, with a splint to the inner side.

Dec. 6th. The boy is doing remarkably well. He complains of pain, but there is no symptom present which need occasion uneasiness. The cold lotions are continued to all the injured parts. A slight oozing of blood from the left arm occurs from time to time. The arm was soon after put up with splints.

Jan. 5th, 1856. Between this date and the last, nothing has occurred calling for mention. Union of the fractured bones is proceeding satisfactorily. The leg is now put up with starch bandage, and the injury to the left ankle-joint is apparently quite recovered from.

Jan. 9th. Feels well. The arm has still a right angle splint applied to it.

Jan. 23th. Sitting up. No complaint of pain. But little motion of the elbow-joint has yet been allowed, but the union is proceeding as well as can be expected. The boy will soon be discharged, quite well.

This case is interesting, as showing the great amount of injury which may be sustained with impunity by individuals who are little advanced in years. The great height (sixty feet) from which the boy had fallen was certainly quite enough, according to the doctrine of probabilities, to have produced a fatal result. As it was, however, the fatal result did not take place, although very severe injuries were produced by the fall. These injuries were, as is seen above, happily recovered from; and this case shows, in addition, what a short space of time will suffice to establish the reparative process, and produce such an amount of union as is compatible with a certain degree of motion of the affected members.

Original Communications.

AUTOPLASTIC SURGERY OF THE EYELIDS.

By AUGUSTIN PRICHARD, Esq., Bristol.

THE free vascular supply to the skin of the face, and the consequent easy union of clean cuts; the great deformity arising from injuries and scars; the frequent occurrence of the cases, and the great inconvenience attendant upon impaired power in the external organs of sense, have conspired to make this region of the body an especial favourite with autoplasmic surgeons.

Of the following cases of restoration of the lids, some are like those which other surgeons have narrated, but the rest present certain peculiarities in the mode of relieving a very troublesome condition of the eye and lids, following burns, which I do not remember to have seen recorded, and to which I should like to draw the attention of the readers of the JOURNAL.

I have introduced a series of these cases, that they may be complete; but I do it as briefly as possible, in accordance with the judicious plan lately adopted in the JOURNAL of the Association, of curtailing lengthy contributions.

CASE I. *Notch in the Upper Eyelid from Accident: Cure by Operation.* E. G., aged 20 years, had a deep triangular notch extending through the lid, almost as far as the upper edge of the tarsal cartilage, in consequence of a cut. The margins of the notch were quite healed, and the eye and lids were in every other respect healthy. I pared the edges of the opening, and brought them together with a fine German silver pin, which I removed on the third day, when the wound was quite healed, and the patient cured.

CASE II. *Fissure of the Lid from Accident: Operation.* F. S., aged 19 years, met with a gunpowder accident eight years before he came under my care. He exploded an ink-bottle full of gunpowder, by which his right eye was lost. When I first saw him, the eye was almost sunk, the upper lid divided, with adhesion between the sclerotic and the margins of the fissure. The conjunctiva of the lower lid was swollen, and his eyebrow much cut and disfigured with the scar. The eyelashes and the adherent lid kept up constant irritation and discharge, so that he was scarcely able to use his uninjured eye.

I first divided the adhesion between the sclerotic and the edges of the cleft, so as to free the lid; this required some careful dissection with the scissors. A fine pin was then passed in along the edge of the lid, to bring the two portions of the fissure in apposition with a twisted suture, which was satisfactorily done; and, as the wound gaped a little above, I inserted a single suture of fine thread. The remains of the eye were left untouched.

He suffered intense pain for some time after the operation, but the next day was much more comfortable. I removed the upper stitch on the third, and the pin on the fourth day; and found the patient quite comfortable, the wound healed, and the left eye already much stronger than it has been for a long time. A few days afterwards, with a tenaculum and scissors, I removed all the projecting red conjunctiva of the lower lid, and divided a little frenum, which still passed from the edge of the lid to the remains of the sclerotic.

This patient went home nine days after the first operation, with a small notch still existing in the margin of the lid, but with his left eye strong, and both much more comfortable in every respect.

The operation just described was performed five years ago; and the case well illustrates the sympathetic irritation of an otherwise sound eye, and its speedy cure on the removal of the cause.

CASE III. *Complete Eversion of the Upper Lid, cured by Operation.* H. B., about 18 years of age, came under my care as long ago as the year 1848, with the following