had had very little effect in reducing the swelling of the left side of the tongue; generally she was worse; rigors now came on, and the pulse intermitted three or four beats. Mr. Quain saw her, and proposed incising the right half of the tongue, but both patient and friends objected. Mr. Laurence saw her the last time alive the same night, her surface was deadly cold; pulse not perceptible at the wrist, yet, strangely enough, the respiration went on tranquilly though feebly. Mr. Laurence at once perceived that she was dying of slow asphyxia, and that her only chance was in tracheotomy; this was proposed with more impressive force than a surgeon almost dare do. She and her husband doggedly refused; next morning she was dead.

Autopsy.—No organic disease was discoverable. The whole of the tongue was swollen, pale, and soft from maceration in a puru-serous fluid, which infiltrated the substance. The superior aperture of the larynx was greatly narrowed by serous effusion; the rima glottides to a less extent; below this point, the whole of the trachea was perfectly unobstructed; the sub-maxillary region and anterior triangles of the neck were infiltrated with a serous fluid, which, among the suprahyoid muscles, had assumed a purulent aspect. The lungs were singularly healthy; the heart, kidneys, and bladder appeared no signs of disease.

From the above facts, it follows that tracheotomy would in all probability have saved the woman's life, and Mr. Laurence believes he proposed it at the proper time. It is true there was, throughout the case, not one fit of suffocation. On the contrary, she died choked in the most gradual conceivable manner; and were he to meet with another case, he would not defer the operation until the patient was in his last gasps, as was too commonly the case, but resort to it as soon as he saw the patient sinking, previous measures not having ameliorated his condition. A curious pathological fact, which Mr. Laurence noticed and pointed out to Mr. Phillips, who attended the case with him, was the successive and separate invasion of the two halves of the tongue by the inflammatory action, offering a remarkable instance of the dependance of pathological changes on the anatomical distribution of the bloodvessels.

SOME UNUSUAL CIRCUMSTANCES MET WITH IN OPERATIONS FOR THE RELIEF OF STRANGULATED HERNIA.

BY R. QUAIN, ESQ.,

PROFESSOR OF CLINICAL SURGERY TO UNIVERSITY COLLEGE HOSPITAL.

INGUINAL HERNIA.

THE first case mentioned was one of inguinal hernia, occurring in a gentleman of middle age, who from having been a corpulent person, had lately been much reduced in size. The patient had not previously any symptom of hernia, and he was not conscious of the presence of an enlargement in the groin before the present attack. He was seized while walking in one of the parks, with pain and sickness, and had suffered more or less for three days, when Mr. Quain was summoned with a view to an operation. The tumour, which was fully the size of an egg, was found above the inguinal groove of the right side, over the internal inguinal ring and the inguinal canal. It was entirely clear of the inguinal groove—without any neck or elongation extending downwards from the abdominal wall to the thigh, and had therefore none of the position of a femoral rupture. Regarded as an inguinal hernia, there was one peculiarity worthy of notice, namely, that the mass admitted of being grasped between the fingers more completely than is usual in cases of bubonocoele—almost as completely as a mass of enlarged glands in that situation might be. After the integuments had been divided, a tumour was met with, embedded in the subcutaneous fat, the most prominent part reaching very nearly to the skin. In the first instance, said Mr. Quain, not being prepared to meet with a hernia in the position till after the tendon of the external oblique muscle had been divided, it occurred to me that the tumour now in view might be a fatty one, and that the hernia must be sought for beneath it. But upon examination, it proved to be the hernia itself, protruded through the external abdominal muscle. The edge of the opening in that structure being notched at its upper part, the bowel was readily returned to the belly without division of the sac or any further interference with the other investments of the hernia. The patient did well. Upon his making some forced exertion, however, the bowel was protruded again in the same place in a fortnight after the operation. It was easily replaced.

CASE 2.—In another operation also very recently performed,

for strangulated inguinal hernia, in a young robust female, a patient of Mr. Coghlan's, I found a considerable part of the protruded mass—which was of large size, and composed of omentum consolidated into a thick lump, with but a small knuckle of bowel—separated from the subcutaneous fat of the abdomen, immediately above the inguinal groove, by only a thin membranous stratum, while the rest—the other part of the rupture—was still bound down by the strong tendon of the external oblique muscle. In this case it seemed obvious, from the altered condition of the protruded omentum, that it must have lain long in its unnatural position—the symptoms of strangulation having been induced by the recent descent of a knuckle of intestine; and the partial projection of the mass through the muscle was in all probability the result of the gradual separation of the tendinous fibres by pressure from beneath. But the approximation of the hernia to the surface in the former case is not to be accounted for in the same way; for in it there was no omentum, and the tumour when operated on was only recently formed. In this (the first) case, it might be that the protruded bowel had followed after one of those small lumps of fat which occasionally form over the peritoneum, and gradually find their way towards the surface, drawing behind a tube of peritoneum, which is then ready to receive the hernia. It must be observed, however, that I have not hitherto seen anything bordering on this condition, except in the place of femoral hernia; and on the whole I believe it to be most probable that the tendon of the external abdominal muscle, enfeebled as I have more than once seen it, in the same situation, by the wide separation of its fibres, had given way to the hernia opposite the internal abdominal ring, instead of compelling it to follow the course of the inguinal canal to the external ring as happens in an ordinary case.

FEMORAL HERNIA.

CASE 3.—A female, aged upwards of seventy years, was admitted ten days ago into the hospital, with the common indications of strangulated hernia, vomiting, and constipation, together with a tumour in the groin. The patient stated that she first had rupture in the same place more than forty years ago, and that she had been troubled with a return of it from time to time, but had not required active surgical interference, though she had not worn a truss. The tumour was immediately below the groove of the groin, upon the thigh at its middle, and spreading inwards from the middle towards the pubes. It was the size of an orange, but elongated and flattened; was flaccid and painless to pressure. The manipulation of the taxis had no effect whatever in reducing the size of the mass, which resembled, in most respects, an incarcerated hernia—that is to say, a hernia which, though not reducible, was not strangulated. From this circumstance, and because the general symptoms were by no means urgent, an operation was not then suggested. Under the use of opium the symptoms were much abated, and for two days the patient was troubled only with belchings of air; but on the third day from the first occurrence of the symptoms, as vomiting returned, at the same time that the constipation still continued, and some abdominal tenderness had arisen, the operation as for strangulated hernia was performed. After an attempt had been made ineffectually to replace the hernia, when the fibrous structure on the inner side of the neck of the hernia was divided, the large sac which had been felt upon the surface was laid open. It contained serum, but no hernia. Satisfied, however, that a hernia was the most probable cause of the symptoms, I made a careful examination in the cavity, in the direction of the femoral ring. There was no communication between it and the interior of the abdomen. Instead of this, a narrow circular depression, about an inch in diameter, was found in the situation of the femoral canal. Within this depressed circle the membrane, which here felt elastic, was divided, and a knuckle of bowel came into view. It was of dark-brown colour, and was in contact with the proper sac, except only where some thin shreds of lymph were interposed. The operation was completed in the usual way. While the patient was going on favourably as regards the result of the hernia, she was seized upon the third day after the operation with bronchitis, of which she died. The matter of chief importance in this case was the fact of the strangulated bowel being altogether masked by the large serous bag, which, not partaking in any degree in the inflamed condition of the hernia, was calculated to mislead as to the real nature of the cause of the patient's suffering.

CASE 4.—A few years ago, a case was sent to the hospital by Mr. Walter Bryant, which agreed with the preceding case, in the fact of an unusual serous bag being present, and yet differed

from it in some not unimportant particulars. A female, aged forty-two, was attacked with violent vomiting; and during the forced straining, a tumour was formed at the right groin. She had a hernia several years ago in the situation of the present swelling, and she had worn a truss, but she did not use the instrument regularly. The tumour, which was the size of a walnut, had the usual position, and all the characters of a femoral hernia. It was nearly round, was prominent and tense. To the touch it was remarkably tender—so much so, that an attempt to effect the replacement of the bowel was productive of great pain; and, at the same time, the abdomen generally was tender. The operation was therefore immediately performed. The whole prominence was found to consist of a thin membranous bag, filled with bloody serum, and nothing else. The inner surface of this membrane was of dark-brown colour, slightly vascular. There was no communication with the abdomen. Suspecting that the inflamed condition of the little serous cavity, though it should be the cause—as in all probability it was—of the tenderness of the tumour, would not account for the general symptoms, and that there still might be a hernia, I incised a slightly prominent part of the sac, at its upper end, and came upon a small piece of strangulated bowel invested by, and immediately in contact with, a proper sac. It may be mentioned, that a large quantity of deep-coloured serum escaped from the cavity of the peritoneum in this case, after the reduction of the hernia, the discharge being encouraged by pressure of the hand over the abdomen. The patient had a severe attack of peritonitis, but she did well.

These are the only examples of hernia complicated in the way described that I have met with in practice. That complication, too, must be a very rare one; for Sir A. Cooper seems not to have met with any case of the kind, though he must have sought out every unusual circumstance within his reach for the purposes of his work on Hernia; and Mr. Lawrence does not make mention of any instance having occurred under his own observation. Nevertheless, a few cases have been placed on record. One is recorded, in the fourth volume of the "*Medico-Chirurgical Transactions*," by M. Chevalier; and a few others are described by Breschet, from the practice of Dupuytren. ("*Thèse sur la Hernie Fémorale ou Mérocèle*."). In Chevalier's case—which occurred in St. George's Hospital in the practice of Mr. Gunning, John Hunter assisting this surgeon in distinguishing the condition of the parts—the hernia, with a proper sac, was pendulous in the unusual serous bag; while the arrangement in Dupuytren's cases seems to have resembled the second of those I have narrated—except, perhaps, that the presence of the hernia was in them more apparent than in mine. Now, where the hernia is actually under view, the only mistake likely to be made is that of taking the proper sac for the bowel; but where the hernia is to be sought for after the first sac has been opened, the nature of the case may be altogether overlooked.

Although it is only in a surgical point of view that the presence of the unusual serous bags or cysts which have been referred to is really important, still one can scarcely avoid a conjecture as to the manner of their production. Here the question likely to arise may probably be this: Is the cyst independent of hernia or not? My reply is, that I have not seen any such formation, in the same position, independently of hernia; and I am not acquainted with an example recorded by any other surgeon. The cyst, moreover, seemed, in Case 4, to resemble very closely a peritoneal sac. It was inflamed, too, like the hernia and its proper peritoneal investment; and in that case—and the same may be presumed of those recorded by Chevalier and Breschet—the cyst was so small, and so completely in the position of the hernia, as to seem a dependence of the hernia. One could scarcely separate it in idea from the hernial protrusion. It is, indeed, different, as regards Case 3. There the cyst was large, while the rupture was small; and she was wholly free from the inflammation which affected the hernia. Still, even as regards that case, it is to be remembered that in a careful dissection, carried from the cavity of the larger sac to the protruded bowel, there were certainly not two membranes, as would probably be if the femoral bag and the sac of the hernia were separate structures, originating, the one from below, the other from above. Considering, then, that, so far as I know, the cyst does not exist without a hernia, and also that it has been met with only in cases in which hernia had been formed a considerable time before the operation which brought it to light, I incline to regard the structure in question as an old hernial sac, closed at its neck, in the crural canal.

Reviews and Notices of Books.

The Brain in Relation to the Mind. By JOSEPH SWAN.
London: Longmans. 1854.

It might naturally be expected that the accomplished and indefatigable anatomist of the nervous system should contribute something to our knowledge of the physiological relation of the nervous matter to the operations of the mind. He who had done so much to unravel the complicated physical structure of the brain could not remain satisfied without seeking to obtain a more accurate acquaintance with its uses. Mr. Swan informs us "that it has been his endeavour to find out why there is so small a portion of the brain set apart for the uses of the organs of the several senses, and a still smaller portion for the involuntary functions: and why by far the largest amount—probably nine-tenths of the whole—has been connected with the voluntary tract which gives origin to the voluntary nerves. Such an extensive collection of fibres, in combination with the grey matter forming the convolutions, did not appear necessary for promoting the voluntary activity of muscles only, nor even for insuring the combinations and intricacies of their motions; it was therefore concluded that the greater portion must exist for the determination and uses of some of the intellectual powers, in connexion with the organs which formed the medium of communication with the external world, and was necessary for the acquisition and communication of knowledge."

The mode in which Mr. Swan seeks to establish his proposition, that the large relative size of the voluntary nervous tract is due to its constant and essential employment in the intellectual operations consists in a series of reflections upon the gradual development of the faculties of the mind; upon letters and words as expressions of the mind; upon speech, writing, and calculation, as expressions of the mind; upon various acts, and other questions relating to the mode by which the mind acquires and imparts knowledge.

We have not space to follow our author through the entire course of his argument; and it is impossible to do him justice by resorting to the process of making partial extracts.

We must be content with stating his general conclusions. It is Mr. Swan's opinion that every mental operation involves an exercise of the voluntary principle. Every impression upon the optic or auditory nerve, for example, is carried to the sensory, and, by a voluntary act of the fibres of the voluntary tract, is fixed or impressed by them. In the exercise of memory, of imagination, and, indeed, of every intellectual operation, the intervention of the will is essential, and therefore the action of the voluntary tract. The novelty of Mr. Swan's view appears to consist in this: that the voluntary tract, which has been hitherto regarded as appropriated exclusively to the regulation of the motor actions of the body, is largely concerned in the conduct and operations of the mind. He has one interesting observation, showing the connexion between the voluntary principle of the mind and the motor principle of the body:—"Each portion of learning, and the completion of every mechanical operation, is generally finished by a demonstration of the contractile functions, shown in the actions of the muscles, either of the lips and tongue, or the hands." Reflection upon this fact, of which every one may convince himself by attentive observation of what passes within himself during intellectual activity, will greatly strengthen Mr. Swan's proposition, that the voluntary tract is the seat and source of mental, as well as of muscular, action.

In the full belief that it is an important accession to psychological knowledge, and one worthy of the great reputation of the author, we cordially recommend this work to our readers. It is the natural and worthy supplement to his splendid works on the Anatomy of the Nerves.