pelvis were fixed, and there was a distinct mass on the left side. The abdomen was distended, and the patient in a good deal of pain.

Though I feared that interference might have come too late, still I advised operation, and immediately proceeded to carry it out. I opened the abdomen, and found a quantity of clot derived from a ruptured Fallopian pregnancy on the left side. As well as I could, I stitched the edges of the rent to the abdominal wound, but every touch caused hæmorrhage, so that I had to desist without doing much save removing the fetus and some of the placenta. The patient never regained consciousness, and died shortly after being removed from the operating table.

On March 1st, 1883, I saw, with Dr. Page of Solihull, a patient who had not been pregnant for many years, in whom there was a fixed mass in the pelvis, and whose menstruation had been arrested for about three months. She had a high pulse and an exalted temperature and great pain. I advised abdominal section, and found the abdomen full of clot. The right Fallopian tube was ruptured, and from it a placenta was protruding. I tied the tube and removed it. I searched for, but could not find the fetus, and I suppose it got amongst the folds of intestine and there was absorbed. Certainly it has not since been seen. The patient made a very protracted convalescence, but she is now perfectly well.

On April 9th, 1884, I opened the abdomen in the case of a patient whom I had seen a few days previously with Dr. J. W. Taylor, of Moseley, Birmingham. She had symptoms of acute pelvic inflammation, the organs being fixed, and there was a mass behind and to the right of the uterus. She also had not been pregnant for many years. I admitted her to my private hospital; and during the removal, doubtless, the rupture occurred. At the operation, I found the abdomen filled by a quantity of blood-serum and free clot. The left tube was distended by a placenta, which protruded through a rupture. I tied and removed the tube, but I could not find the fetus. She made an easy recovery, and now has almost completed her convalescence.

On May 25th, I operated upon a patient in the Hospital for Women, aged 27, who had had two children, the last having been born three years ago. She had menstruated regularly till three months previously. Pelvic pain had been in existence for some weeks, and had become steadily worse. I found the uterus fixed, and a larger tender mass on the left side; and I diagnosed the case as possibly one of pyosalpinx. At the operation, I found the left Fallopian tube had burst, and that there was a quantity of loose clot in the pelvis. The fetus was lying in the pelvis, attached to the placenta, which remained in the tube. The tube was adherent to surrounding structures, but was easily detached, tied, and removed. She made an easy recovery; the wound has completely healed, and she has left the hospital.

The fifth case has just occurred, an illustration of the curious sequence of exceptional cases often seen in practice.

A. M., aged 34, married fifteen years, has had four children, the last having been born six years and a half ago. Her last menstruation was early in April. Late in May she had an attack of intense abdominal pain, which increased in intensity till June 3rd. I found the uterus fixed, and a boggy swelling to the left. The abdomen was swollen, and peritonitis was clearly beginning, the pulse and temperature being both high, intense pain occurring occasionally, and the patient's expression being anxious. I opened the abdomen on June 5th, and found the pelvic contents matted together with recent lymph and blood-clot. I found the left tube torn almost in two, and occupied by a placenta, apparently of about the tenth week. I could not find the fetus. I tied and removed the tube, drained the pelvis, and the patient has made an easy recovery.

These cases all confirm the view of the pathology of extra-uterine pregnancy, which I advanced many years ago, that in origin it is always tubal, and that its varieties depend merely on the direction in which rupture occurs. These results also confirm the soundness of the policy of interfering early in such cases, for four out of the five have been easily and completely cured of one of the most formidable conditions of pregnancy. The first and only fatal case might have had a better ending if Mr. Spackman had seen her sooner, for it is only just to him that I should say he recognised the nature and gravity of the case at once, and sent for me immediately.

SOCIETY FOR THE STUDY AND CURE OF INEBRIETY.—An adjourned discussion on the papers of Dr. W. B. Carpenter, F.R.S., and Mr. Axel Gustafson, will be opened by Mr. Jabez Hogg, on Tuesday, July 1st, 1884, in the rooms of the Medical Society of London, 11, Chandos Street. The President, Dr. Norman Kerr, will take the chair at 4 o'clock. Dr. H. Rayner, Surgeon-Major G. K. Poole, Dr. C. R. Francis, Mr. Harrison Branthwaite, Dr. H. W. Williams, Dr. Joseph Rogers, and others, hope to take part in the discussion.

A CASE OF STRYCHNIA POISONING.

By LESLIE OGILVIE, M.B., B.Sc.,

Lecturer on Comparative Anatomy at the Westminster Hospital, and Physician to the Paddington Green Children's Hospital.

On May 12th, at a quarter past 9 o'clock p.m., while seeing my patients at the North-West London Hospital, I received a summons to visit a man named Thomas Cross, aged 72, who lived near the hospital. I was told that both he and his wife were seriously ill, and that he was on the point of death. It was explained to me that both had taken a powder about two hours previously, that the woman felt ill about ten minutes afterwards, and that an interval of about an hour had elapsed before the man was seized with any symptoms. In the interval, he had been able to visit a daughter who lived in the neighbourhood, and he became suddenly ill on his return home.

On my arrival, I found the old man near the open window *in articulo mortis*, the buttocks resting on a chair, his body and legs extended, the heels resting on the floor, and his head supported by a woman.

On inquiry, I was told that he had been convulsed, and, knowing that a powder had been administered, the position of the body suggested to me death from strychnia poisoning. I was told, however, that he had been subject to fainting fits, in which he struggled for breath, and for which he was under treatment at the hospital. Both he and his friends thought at first that this attack was of a similar nature, because he had great difficulty of breathing.

The symptoms presented by the wife strengthened the suspicion of strychnia poisoning. She had an anxious expression, and was seated on the bed, with her chin elevated and her jaws closed, so that she could with difficulty articulate. Her mind was clear, and she described her symptoms with intelligence. She complained of a "crampy feeling in the chest," rigidity of the muscles of the legs, and complete inability to walk or assist her dying husband, stiffness of the jaws and neck, and great thirst. She stated that the symptoms had been more severe an hour previously. She was with difficulty removed to another room, as she trembled when moved, and begged to be left alone. I did not think it necessary to administer apomorphia, for which, however, I had sent to the hospital, because the symptoms were subsiding, and nearly three hours had elapsed since their onset. I gave her sixty grains of bromide of potassium, and repeated the dose almost immediately. Owing to the partial closure of the jaws and the difficulty of swallowing, she was only able to drink small quantities at a time. She gradually improved, and ultimately recovered. In neither case had there been any vomiting.

I was informed that one of the daughters had arrived on a visit that afternoon, and had brought the powders with her. She stated that she had given the powders in beer, and that they contained calomel. She had been in the habit of taking them for years, and thought that her parents might derive benefit similar to that which she had experienced. She had no other powder with her, and the cups in which the doses were given had been washed.

I had little doubt that strychnia had somehow been administered, and the circumstances being such as to excite suspicion, I deemed it necessary to communicate with the police, in the meantime collecting the bottles, and requesting the daughter and other persons not to leave the house.

On viewing the body of the man about one hour after death, with Dr. Murrell of the Westminster Hospital, whom I had called to my assistance, we found the rigor mortis well marked, the legs somewhat separated, the knee-joints stiff, the skin dry and still warm, the face pale, the mouth closed, and the pupils moderately contracted.

The following is an account of the *post mortem* examination, performed forty-four hours after death, in warm and damp weather. I was fortunate in procuring the advice and assistance of my colleagues, Dr. Allechin and Dr. Murrell, of the Westminster Hospital, who verified the appearances observed. The body was well nourished. It showed considerable signs of *post mortem* decomposition, as indicated by the green discoloration and distended condition of the abdomen, and extreme straining of the superficial veins over the root of the neck, shoulders, upper arms, and the inside of the thighs and legs. There was considerable *post mortem* congestion of the posterior aspect of the entire trunk, limbs, head, neck, and ears; and gaseous distension of the subcutaneous tissue at the root of the neck (*post mortem* emphysema). There was extreme and equal arcus senilis. Some sanguineous fluid was escaping from the mouth. The *post mortem* rigidity was passing off, but was still distinctly perceptible in the muscles of the calf and thighs. The usual cadaveric rigidity of the masseter muscles was noticed. There were no marks of injury of any kind on the head or body. A

catheter was passed; and about an ounce of pale-coloured slightly turbid urine drawn off into a chemically clean bottle, which was then sealed and labelled. On reflecting the skin, the subcutaneous fat was found to be small in quantity, and the muscles of the thorax pale in colour. There was about three ounces of blood-stained fluid in the peritoneal cavity; and the stomach and intestines were moderately distended with flatus. There were no signs of inflammation. A ligature was placed round the oesophagus, about two inches above its cardiac orifice, and another round the transverse part of the duodenum. The stomach was not removed at this stage, the examination of the thorax being proceeded with. The usual amount of the heart was uncovered by lung. There were about two ounces of blood-stained fluid in each pleura, and about two drachms of a similar fluid in the pericardium. The heart weighed fifteen ounces, and was much enlarged, soft, and flabby. The substance was pale and mottled, and distinct patches of fatty degeneration were perceptible, especially in the left ventricle. The valves were apparently competent; the circumference of the mitral valve was four and a half inches, and that of the tricuspid five inches. The maximum thickness of the left ventricle was five-eighths of an inch. Good muscular tissue existed to the extreme apex of the right ventricle. There were some atheroma of the coronary arteries. The aorta was uniformly distended. It was generally deficient in elasticity, with a small amount of atheroma. The aortic cusps were slightly thickened, but not atheromatous. No clots were found, even in the extreme auricular appendages, and very little blood. The lungs were intensely congested, especially posteriorly, and were almost black from decomposition. They were crepitant throughout. The gullet, stomach, and duodenum were removed, and placed in a clean bottle, which was sealed and labelled. The liver, kidneys, and spleen were small, but healthy. They, too, were preserved in separate vessels. The intestines were empty. The trachea and pharynx were examined, and no sign of foreign body, or ulceration, or other morbid change, was observed. There was no sign of injury to the scalp or skull. The dura mater was normal. There was considerable subarachnoid effusion, chiefly over the posterior half of the brain. The vessels and sinuses were very empty. There was some atheroma of the vessels of the circle of Willis, and of those in the Sylvian fissure. There was no hemorrhage of any kind in any part of the brain. The spinal cord was removed and carefully examined, and no sign of congestion or extravasation was found.

Sufficient cause of death not having been found at the *post mortem* examination, the specimens, preserved as above described, were subjected to analysis. A large quantity of strychnia was found in the stomach, together with sixteen ounces of partially digested food.

REMARKS.—The points of interest in this case are the following.

1. The length of time which elapsed before the onset of the symptoms in the case of the man is probably accounted for by the presence of a quantity of food in the stomach.
2. The fact that so much strychnia remained in the stomach, two and a half hours after its administration, points to the importance of administering an emetic in such a case, even after the lapse of some hours. It would naturally be best to administer the emetic hypodermically, as there might be difficulty in getting the patient to swallow. The use of the stomach-pump would induce the tetanic spasms.
3. As regards the *post mortem* appearances, the points to be noted are: the persistence of the *post mortem* rigidity after considerable decomposition; the absence of clots in the heart; and the pale condition of the thoracic muscles.

WHAT IS THE FUNCTION OF THE CORPUS CALLOSUM?

By WILLIAM W. IRELAND, M.D., Preston Lodge, Prestonpans.

IN the BRITISH MEDICAL JOURNAL for May 24th, there is an abstract of a lecture on the Structure and Functions of the Brain in relation to Disease, delivered before the Faculty of Physicians and Surgeons of Glasgow, by Mr. D. G. Hamilton, Professor of Pathological Anatomy in the University of Aberdeen. The lecture seemed to promise some information about ... functions of the corpus callosum. The theory that it was a commissure for associating the two sides of the brain and bringing them into harmony, which, Mr. Hamilton tells us, has met with almost universal acceptance of late years, having never seemed acceptable to me, I was pleased to learn that some one was willing to consider afresh the question, What is the use of this mass of white matter? To this, comparatively little attention has been paid by experimental physiologists. When Professor Hamilton announced that he had investigated the matter for himself, and inquired par-

ticularly into the literature of the subject, and that he had confirmed and improved upon the observations of Foville and Gratiolet, the lecturer seemed to approach something interesting. After a description of the course of the fibres of the callosal tract (he omits all mention of cells or nuclei), he sums up with a number of assertions which do not seem to be clearly deducible from his premises, and which come into direct collision with what I have myself written. It is to be hoped that the interest of the subject is sufficient to excuse me in defending the following statement. "The function of the corpus callosum is unknown, and it is clear that its absence, uncomplicated with other deficiencies, is not sufficient to cause idiocy." (*Idiocy and Imbecility*, 1877, p. 68.) The lecturer says very distinctly that, "when the corpus callosum is congenitally deficient, persons in whom this defect occurs are more or less imbecile," and that, "whenever the destruction of the corpus callosum is extensive, it seems as if the whole internal economy of the brain were disturbed, and more or less mental alienation or idiocy follows." This would, of course, support his theory that the fibres of the corpus callosum "are part of the anatomical substratum of those faculties of the brain which may be termed psychical."

Congenital deficiencies of the corpus callosum are very rare. It is doubtful whether more than thirty cases have been described. I happen to have seen one, which was complicated with other deficiencies in the brain; and this is so generally the case that it is not safe to draw inferences from the want of the corpus callosum, since the incapacities observed during life may be owing to the abnormal appearances in other parts of the brain. I was able to cite two cases, observed by Dr. J. Sander and Professor Germano of Turin, where the corpus callosum was found to be entirely wanting, without any mental derangement or deficiency of intellect being observed during life; and after the book appeared, another case was published by Dr. G. Eichler. It was that of a man who died at the age of 45. The corpus callosum, fornix, and soft commissure were wanting, and the anterior commissure was somewhat larger than usual. There were some abnormalities in the gyri, especially the temporal and occipital. There was nothing particular noted about his intelligence. He could read, write, and count. He seems to have been a man of average intelligence, and had led a respectable life (*Archiv für Psychiatric*, Band viii, Heft 2). There is a report of Dr. Eichler's paper in the *Journal of Mental Science*, January, 1879, and in *Brain*, vol. i, p. 419.

The lecturer observes that in animals not possessing a corpus callosum the intelligence is feeble, or confined to a few definite circles of action; but as the callosal brain is reached, more or less improvement in the intelligence of the animal is noticed. Is this really the verdict of zoology? We thought that birds wanted the corpus callosum; but some birds, such as crows or parrots, are much more intelligent than many quadrupeds.

Professor Hamilton concludes: "Whether as yet unobserved morbid changes in the corpus callosum may throw any light upon those great blanks in our pathology, namely, mania in its various forms, melancholia, and, more especially, general paralysis of the insane, remains to be seen. It is possible that even a vascular change, an abnormal vaso-motor action influencing this part of the brain, might be sufficient to account for many forms of mental derangement."

I had no idea that the pathology of mania and melancholia were so ill worked out; and if Professor Hamilton will inquire into the pathology of general paralysis, he will find that, as far as our present means of investigation go, there is very little left to do.

COLOTOMY AND OSTEOTOMY.

By H. A. REEVES, F.R.C.S.Ed.,
Surgeon to the London Hospital.

THESE operations are at present attracting surgical attention. As the introducer into this country of inguinal colotomy, and being second on the list of osteotomists, I feel called on, through recent publications, to record my experience regarding them. Sigmoid colotomy, though originally a French operation, never took root in France as a palliative in rectal cancer, or stricture with ulceration; but since the publication in the BRITISH MEDICAL JOURNAL, a few years ago, of my early cases, this operation is finding favour on the Continent, and also in this country. In that paper I pointed out the various advantages of inguinal over lumbar colotomy, and indicated the best mode of reaching the colon; and since then I have operated on eight other cases, making the total of sigmoid colotomies eleven in adults; if three in infants, done for imperforate rectum, be added, the number of my inguinal colotomies amounts to fourteen. During the past fifteen years, in addition to these, I have had occasion to perform thirty-nine lumbar