its anterior surface becomes its articular surface, and the muscular attachments reconstituted in suitable position. When no capsule can be differentiated, a flap of fascia lata, trochanteric bursa, and overlying fat may be wrapped round the lower end of the femur. Murphy has come to believe that such a transplanted flap from the trochanteric region forms the ideal material for arthroplasty of any joint.

For the shoulder the interposing flap may be obtained from the pectoralis major muscle, with the overlying aponeurosis and subcutaneous tissue, the pedicle being left attached to the humerus, or from the anterior portion of the deltoid.

In the elbow-joint the posterior incision is kept half an inch to the radial side of the olecranon, and, if necessary for freeing the ulnar nerve, a parallel incision is made towards the ulnar side. The interposing flaps are taken from the aponeurosis of the supinator longus, and from the fascia and fat on the inner side of the joint. The bases are directed upwards, and each flap is long enough to reach across to the opposite side of the joint.

For ankylosis between the radius and the scaphoid and semilunar bones a straight incision is made over the posterior surface of the radius, and the U-shaped flap, with the base directed upward, is taken from the deep fascia and the joint capsule.

In fixation of the mandible it is difficult to secure a local flap, and the trochanteric tissue is utilised.

As the result of arthroplasty, a new synovialoid membrane is produced with fluid contents and lining cells identical with those of hygromata. From the ends of the bone develops a fibro-cartilaginous structure. The new joints support full weight and traction, and the range of movement increases with time in uncomplicated cases till the normal limits are reached.

The wound-dressing favoured by Murphy is:—Bismuth subiodide dusting powder, covered with collodion gauze; over it a large pad of gauze moistened in carbolic lotion, 1 in 20; over it sterilised cotton-wool held in position by adhesive plaster and bandage.

OBSTETRICS AND GYNECOLOGY.

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ISTHMICO-CERVICAL PREGNANCY.

During the last fifteen years there have been recorded from time to time cases where the ovum was attached partly to the lower uterine
segment and partly to the wall of the cervix, and a distinction has been drawn between such and ordinary cases of central placenta praevia. In all of those cases the ovum has been situated partly in the cervix and isthmus and partly in the body of the uterus. Devraigne (L'Obstet., November 1911) describes a true case of isthmico-cervical pregnancy in which the ovum was situated entirely within the cervical canal and isthmus, leaving the body of the uterus completely free and empty above. The patient was a multipara, aged 35, admitted to the Tarnier Hospital, and there seen and treated by Bar. There was a history of six months' amenorrhoea, but no foetal movement had been felt, and the uterus corresponded in size to the fourth month. The os was open, and under anaesthesia the ovum could be felt attached low down within two cm. of the external os. Above it was a hard mass like a fibroid or double uterus. As the ovum was dead the foetus was removed, but the placenta was so adherent that all of it could not be got away. When the greater part had been removed the finger entered a large expanded cavity beyond the external os, and beyond it was a narrow aperture which led into the centre of the hard mass felt above. The expanded cavity from which the ovum had been removed was in the region of the cervix and isthmus. The narrower channel above was the cavity of the body of the uterus. During the puerperium the large cavity gradually contracted, and three weeks after delivery the uterus had returned to its normal shape. It was then possible definitely to exclude the presence of a double uterus. In a review of the literature Devraigne finds that the striking symptom in such cases is haemorrhage, absent in the present one owing to the previous death of the ovum. The haemorrhage is due to the placenta being situated on a non-contractile part of the uterus. The placenta has in all cases been densely adherent owing to the deep penetration of the villi into the cervical and isthmic tissues. The patients were all multiparae, and the youngest was 35. The author believes that the diagnosis of a number of these cases has been missed. The conditions present closely resemble those presented by a pregnancy in a uterus with fibroid tumour, the unexpanded body of the uterus closely resembling a subperitoneal fibroid. The cases often terminate in abortion. At full time the child is usually born dead, owing to the haemorrhage occurring during labour. The prognosis for the mother is naturally serious, and in one case it was necessary to remove the uterus in order to control the bleeding.

A Case of Cornual Pregnancy.

A cornual pregnancy is one where the ovum develops in one of the cornua of a normal uterus. In some cases the ovum implants itself in the mucosa of the uterus in this situation, whilst in others it does so in the intramural part of the Fallopian tube. This latter is really an interstitial tubal pregnancy, but the ovum tends to develop towards the
uterine cavity. In most cases a distinct diaphragm of tissue separates the foetal sac from the general uterine cavity. An ovum in such a situation produces an irregular enlargement of the uterus. The case may go to term and the patient be delivered naturally. Rupture may occur in the early months either into the uterine cavity or through the wall of the uterus into the peritoneum with all the symptoms of a ruptured tubal pregnancy. Schumann (Amer. Journ. of Obstet., April 1912) describes a typical case. The patient was a multipara, aged 34. She was first seen when four months pregnant, and sought advice because of severe abdominal pain. She presented the ordinary symptoms and signs of pregnancy, but the uterus was abnormally enlarged towards the right side of the fundus. The pain became so severe that operation had to be undertaken. She was prepared for abdominal section if necessary, and the cervical canal was dilated. The uterus was large and flaccid, and, with the finger inside, a large dense mass was felt occupying the right cornual region and bulging into the cavity. In the centre of the septum which separated the cornual mass from the uterine cavity was a small aperture through which the foetal sac could be felt. The ovum was removed from the thinned-out uterine horn. The placenta was much flattened and had at one side a finger-like prolongation, which had been attached for a considerable distance along the lateral aspect of the tube. The uterine cavity was lined by a complete decidua. The wall of the sac in which the ovum was lying was very attenuated and felt as if on the point of rupture. Owing to this thinning of the sac the operator must always be prepared when dealing with the condition from the vagina to open the abdomen should occasion arise.

TREATMENT OF ACUTE Puerperal INVERSION OF THE UTERUS.

Phillips (Journ. of Obstet. and Gynec. of Brit. Emp., March 1912) considers that the treatment of this complication advised by the ordinary obstetric text-books should be revised. They urge immediate replacing of the inverted uterus in all cases. In Phillips’ opinion the displacement should be ignored until the shock which is so frequently present has been treated. The three symptoms present in such cases are haemorrhage, pain, and shock. The latter is produced during the actual process of inversion, is always well marked immediately after the accident, but if the patient survive, gradually disappears. The process of reinversion also causes shock, even if the patient be anaesthetised. In an analysis of 184 cases Phillips finds a mortality of 23·4 per cent. In 79 of these, where the uterus was immediately replaced in the presence of marked shock, the mortality was 30 per cent. In 47 cases where the uterus was not reduced at once only two patients died—less than 5 per cent. He holds that where there is marked shock this ought first of all to be treated by saline infusions, hypodermic injections
of morphia and pituitary extract, and the application of hot blankets. After some hours the patient should be anaesthetised and replacement effected. After this a second saline infusion and stimulants may be necessary. He describes three cases in which he followed out this line of treatment with successful results. In one of the cases he postponed replacement till the next day, and found no difficulty on account of the delay. The delay of a few hours does not appear to increase the difficulty materially. Whether shock be present or not an anaesthetic should be given.

**Severe Intra-Peritoneal Haemorrhage from Rupture of a Normal Graafian Follicle.**

In the majority of cases of intra-peritoneal haemorrhage in women the source of bleeding is a ruptured tubal pregnancy. There are, however, other possible sites. Jayle recorded, in 1909, 17 cases where the bleeding resulted from the rupture of a haemorrhagic cyst of the ovary. The following year Bazy made observations on intra-peritoneal haemorrhage occurring from the non-gravid tube. Regurgitation of menstrual blood from the uterus through the tube is also possible. Cranwell (Ann. de gynéc. et d'obstet., April 1912) records a case of severe intra-peritoneal haemorrhage from the rupture of a normal Graafian follicle. Only two other such cases are to be found in the literature. The patient in this case was a parous woman aged 24, previously perfectly healthy. She was seized with acute abdominal pain, which was at first intermittent but later became continuous. This pain lasted for several days. When admitted to hospital the patient was pale, was frequently sick, and was covered with a cold sweat. The abdomen was distended, and she presented the typical appearances associated with an intra-peritoneal haemorrhage. The abdomen was immediately opened. The cavity was full of fluid blood and blood-clot. The left ovary, slightly increased in size, had on its surface a minute orifice from which the blood was flowing. The ovary, together with the tube, was removed. The other ovary was slightly cystic. The patient made a good recovery. On microscopic examination the ovary showed nothing abnormal, except a rupture in the wall of a recent follicle. From the size of the lutein layer surrounding this, and from the characters of the lutein cells, ovulation had occurred two or three days previously. This case, together with the other two recorded, is of interest as showing that extensive bleeding may result from what ought to be a physiological process. Minor degrees of such bleeding probably occur more frequently than is generally supposed. It is not uncommon to find traces of blood in the pouch of Douglas when the abdomen is opened in the course of gynecological operations. This blood probably results from the rupture of a Graafian follicle.
Acute Dilatation of the Stomach in the Puerperium.

Acute gastric dilatation is a complication not infrequently met with after abdominal operations. It causes a great deal of distress to the patient, and if not relieved may terminate fatally. Audebert (Ann. de gynéc. et d'obsté., February 1912) calls attention to the same condition occurring after childbirth. He has observed 4 cases, and other cases have recently been recorded. The usual symptoms are constant vomiting of brownish-green fluid, great thirst, swelling of the epigastrium, and general meteorism; splashing in the gastric region can usually be elicited; the expression becomes anxious; the pulse is feeble and rapid, and there is a tendency to collapse. The bowels are constipated. The time of onset varies. The vomiting may begin immediately after delivery or may be delayed for some hours or even for three or four days. In eight of the cases recorded the patients had had chloroform, and at first the vomiting looked like ordinary chloroform sickness. In a number the labour had been delayed, and obstetric interference was required. Two were suffering from eclampsia. In one of Audebert's cases, however, the labour was perfectly normal and no chloroform had been administered. In treating such cases the best results are obtained by making the patient lie on her face. When this is done, vomiting almost immediately ceases and the general condition rapidly improves. A pillow ought to be placed underneath the abdomen. In some it may be necessary to wash out the stomach. The best prophylactic treatment is thorough evacuation of the bowels before delivery. We have ourselves seen a case of this kind where the vomiting was very excessive, with dilatation of the stomach, weak rapid pulse, and slight jaundice, and we ascribed the condition to an overdose of chloroform during labour. Gastric lavage and saline infusions cured the condition.

Decidua Formation in the Omentum in Secondary Abdominal Pregnancy.

The so-called decidual reaction consists in the transformation of connective-tissue cells into large polygonal cells with large round faintly-staining nuclei. These cells lie close together, forming a dense tissue. Such a reaction can only occur in a soft tissue which is capable of expansion, such as the endometrium. Considering the frequency with which in secondary abdominal pregnancy the ovum becomes attached to the omentum, the number of cases where decidual reaction has been described in it are few. Outerbridge (Amer. Journ. of Obstet., February 1912) in a search through the literature has found only seven cases. In his own case the tubal pregnancy had become secondarily abdominal and the placenta had developed partly in connection with the omentum. The placenta presented the ordinary microscopic appearances. Next to the trophoblastic layer was a tissue composed
chiefly of loose fibres and fat and containing engorged blood-vessels, evidently omentum. Scattered throughout the fatty tissue were clearly-defined groups of characteristic decidual cells. These were round or polygonal in shape, many times larger than the stroma cells of the surrounding tissue, and were arranged in a tessellated manner, almost like a squamous epithelium. Between these larger cells were smaller ones like ordinary connective-tissue cells. The appearances were those of a typical decidua. The decidual cells had evidently arisen from the stroma cells of the omentum, as transition forms could be distinguished. Sections of the tube showed an interstitial salpingitis but no decidual reaction. In the ovary, however, there were masses of decidual cells grouped round the periphery.

DISEASES OF THE EAR.

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OTITIC CEREBRAL ABSCESS.

Cerebral abscesses due to infection from the middle ear are situated in the temporo-sphenoidal lobe; they are said to be twice as common as cerebellar abscesses. They usually occur in the second and third decades, are more frequent in the male sex, and are more common on the right than on the left side.

Etiology.—The most usual cause of temporo-sphenoidal abscess is an acute exacerbation of a chronic middle ear suppuration, especially of those cases complicated by cholesteatoma. Cerebral abscess rarely follows acute suppurative otitis media except in bad cases of measles, scarlet fever, or influenza; such a complication is favoured if a dehiscence be present in the roof of the middle ear cleft between the squamous and petro-mastoid portions of the temporal bone, or if air cells in connection with the mastoid antrum extend into the posterior root of the zygoma. Chronic suppuration gives rise to four cerebral abscesses for every one due to acute otitis.

Bacteriology.—In acute cases the organism is usually a streptococcus in pure culture or combined with diplococci. In chronic cases, in addition to streptococci and staphylococci, the B. proteus, B. coli, B. pyocyaneus or diphtheroids may be present. If anaerobic organisms be found the prognosis is bad.

Pathology.—There are two forms of abscess—(1) superficial, and