paper I propose to give the results gained by the use of the heredity charts in cases where only nervous diseases are considered. In practice, diseases of systems other than that most obviously affected in the patient are often believed to have intimate relation with the patient's state, and are recorded. Bythe use of a more extended code of signs information of a general or strictly physiological kind may be given. A friendly critic has suggested that individuals whose existence is noted, but whose medical history is not ascertained, should be specially distinguished. This may be done by marking the ciphers with negative signs. Facts of twinning, still-birth, and sterility are also of importance, and should be noted by arbitrary marks.

For the loan of papers and for advice kindly given I am indebted to Dr Arthur Mitchell, of the General Board of Lunacy, and to Dr Maclaren, Superintendent of the Stirling District Asylum.

ARTICLE VI.—*Treatment of Lacerations of the Cervix Uteri.* By SKENE KEITH, M.B.

TRACHELORHAPHY, or repair of lacerations of the cervix uteri, is perhaps the most common gynecological operation at the present time in the United States of America. The great frequency of this operation in the States cannot, I fear, be due, at least entirely, to the better practice of European obstetricians, as not a few of the cases I have seen operated on in the Women's Hospital of New York have dated the commencement of their trouble to a labour occurring in the Old World.

Lacerations of the cervix uteri appear to cause two distinct sets of symptoms,—those caused simply by the tear, and those by the pressure of a mass of hard cicatricial tissue in the angles. There appears to be more of this dense tissue present when slight or no attempts have been made to keep the parts clean after delivery. The first condition gives rise to subinvolution and a hyperæmic condition of the uterus, with their attending evils; the second to reflex nervous symptoms. This latter condition Dr Emmet has, I think, proved by cases from which he removed cicatricial masses of tissue, but failed to get union. In such a case the nervous symptoms disappeared, although the size of the uterus was not reduced in the least degree. But when good union is obtained, the uterus, from having been four or even five inches at the time of operation, may be of normal size when the sutures are taken out ten days afterwards.

By the kindness of Dr T. A. Emmet, the originator of this operation, of the surgeons of the Women's Hospital, and of others, I have had many opportunities of seeing trachelorhaphy performed during the last three months. The object of the operation is, of course, to put the cervix in as good a condition as it was in before the

labour which caused the tear, and thus to cure the troubles which a laceration so often gives rise to.

All agree that preparatory treatment is necessary in every case where there is any cellulitis, and that this condition must be cured before any operation can be performed, except in some rare cases in which treatment seems to have the effect of reducing, but not of curing the inflammation.

Dr Emmet's preparatory treatment consists in curing the cellulitis which is so often present by the administration of vaginal douches of hot water once or twice a day, by applying iodine behind and all round the cervix twice a week, by supporting the uterus from the vagina by cotton pads soaked in glycerine, and so relieving the traction on the uterine ligaments and at the same time reducing the size of the cervix. The general health of the patient must be carefully attended to; she must be warmly dressed, and must take exercise, except during her monthly periods. The mucous follicles in the cervix are often enlarged, sometimes closed, and so distended by their secretion as to form small cysts. These must be carefully punctured and the contents evacuated, and this treatment alone will often reduce the cervix by one-half, and also allows the lips to roll in. By this treatment symptoms caused by the laceration will in some cases disappear, but in most, if nothing further were done, the patient would in two or three months be in as bad a plight as she was in before.

After the general health and the condition of the cervix have been improved, Dr Emmet proceeds to operate. A short time before the operation is begun, the patient is given an injection of hot water to contract the bloodvessels. Ether is administered, a Sims speculum introduced, and, after a sound has been passed into the uterus to see the exact position for the cervical canal, the lower or left side of both lips is pared by picking up the tissue with a tenaculum and removing it with curved scissors. Any cicatricial tissue in the angles is most carefully dissected out, for Dr Emmet believes that it acts exactly like a foreign body. This cicatricial tissue is found in greatest abundance next to the cervical canal, probably because the discharges from the uterus after delivery cause this side to heal more slowly. The upper or right side is then freshened in the same way. As thin a slice of tissue is removed as possible, except in those cases where there is much hypertrophied tissue, which has to be removed to allow the lips to come together. The central part of each lip is left undenuded, larger than natural, and wider towards the external os, as it is that end which gets most reduced in size after the operation.

The hæmorrhage is usually very slight unless the circular artery be cut; but the bleeding from it can be easily arrested by passing a suture deeply in the tissues below the artery, and thus exerting pressure. This is better and certainly much more easy than applying a ligature to the vessel itself, as the tissue in

which it runs is very dense. Any oozing can be stopped by the pressure of the sutures, or a little hot water will easily arrest it. Dr Emmet uses silver wires for sutures, and puts in from six to eight to the inch. The first one is put in deeply below the angle on the upper side, at right angles to the cervical canal, and the ends are then held by the nurse, who holds the speculum, and thus the cervix is steadied while the others are passed. The two sutures on either side of the os externum are put in at right angles to the others, and serve to roll in the lips and prevent any gaping at the crown. After all the sutures have been introduced they are twisted up and carefully bent along the cervix, so that the ends may not injure the vagina, and are then cut short. The after-treatment consists in daily injections of hot water after the second day. The bowels are allowed to move regularly, and the sutures are removed in a week or ten days.

With the exception of Professor A. J. C. Skene, all the operators I have seen follow Dr Emmet very closely in both his operative measures and in his after-treatment. The differences in Dr Skene's way of getting to the same end may at first sight appear trifling, but in reality make the operation considerably more easy to perform. Dr Skene does not give a vaginal injection before operating, and does not give ether unless the patient be very nervous, the tear a very extensive one, or the parts unusually tender. After introducing Sims's speculum he fixes on to each lip a pair of double-curved tenacula, so as to be able to move either lip in any direction, whilst with a pair of scissors, which he has named hawk-bill from their very evident resemblance, he cuts out with one snip first the lower and then the upper angle; and then, as it is usually necessary to denude a larger surface, he does it with Emmet's scissors. Some might suppose that the action of the hawk-bill scissors was too mechanical; but this is not so, as the lips of the cervix are held in exact position for the scissors by the curved tenacula.

Silk sutures are used instead of wire, and allow of lancet-pointed needles being used. The silk is rendered aseptic and incapable of absorbing any serum or other fluid by being soaked in a mixture of carbolic and salicylic acids and wax. I have seen a suture prepared in this way which had been left in a cervix for over fourteen months and had done no harm, although the woman had become pregnant and been delivered while it remained in position. The silk sutures can be easily tied by Skene's suture-adjusters, their great advantage being that they do not obstruct the light as the fingers would, and allow of the edges being brought accurately together. After the sutures have been all tied, a tampon of marine lint is put into the vagina; this keeps the cervix steady by acting as an external splint, just as the silver wire acts as an internal one. The tampon also takes up all serum, and prevents it from becoming putrid. It is removed in forty-eight hours, and

is not renewed, nor are any vaginal washes injected unless any suppuration—an exceeding rare occurrence—should take place.

I have had opportunities of comparing Dr Emmet's and Dr Skene's results, and there is nothing to choose between them. Dr Skene kindly allowed me to operate on one of his patients; and I am sure that any one who has not Dr Emmet's marvellous skill in operating about the uterus or vagina, nor has become wedded to his ways, will appreciate Dr Skene's improvements, as I think, in performing this very useful operation.

ARTICLE VII.—*Diseases which Involve the Organ of Hearing.* By P. M'BRIDE, M.D., F.R.C.P.E.

(*Continued from page* 704.)

PART II.—OTHER PATHOLOGICAL CONDITIONS LIABLE TO PRODUCE SECONDARY EAR DISEASE.

Gout and Rheumatism.—Toynbee ascribed the presence of exostoses in the meatus in many cases to a rheumatic or gouty diathesis. Our modern text-books, with the exception of those of Gruber and Macnaughton Jones, do not seem to indorse this view. At the last International Congress, however, Dr Urban Pritchard stated his belief in the arthritic diathesis as a cause of aural exostoses. One of Dr Pritchard's arguments was founded on the fact that in his practice this form of ear-disease was much more frequent among the better classes than in hospital patients. Garrod, as is well known, has described deposits of urate of soda crystals occurring in the auricles of gouty persons. These are most common in the upper part of the helix.

According to Hinton, "there is no form in which a gouty affection of the ear is so clearly marked as in a peculiar obstinate irritability of the meatus, attended with slight serous or sticky discharge, with itching and pricking pain, the walls being somewhat swollen, with a tendency to purple in their redness. In these cases the membrane also is congested, but the structures of the tympanum may apparently scarcely be involved." This condition also obstinately resists treatment by local remedies alone.

Anchylosis of the stapes in the fenestra ovalis is said by Toynbee to be most common in those who have a tendency to gout or rheumatism. Dr Buckler, in a work published in 1853, refers to the occurrence of anchylosis between the ossicles in rheumatism. Unfortunately, I have been unable to obtain his treatise, and cannot, therefore, tell on what data this statement is founded. That those diseases which attack joints elsewhere are likely at times to involve those of the ossicles seems in the