The walk of which I have spoken was, as I have said, taken before direct railway communication was established between my pleasant little town and the main line. A few years later I found myself approaching it by train. As, travelling through the tertiary formation, we approached the girdle of chalk down, we passed through a cutting in which was exposed a bed of white clay, topped by a stratum of mould, with a surface of grass. Between the mould and the clay was a thin white layer which looked like chalk. There was evidently something unusual here, inasmuch as the chalk should have been below, instead of above, the clay. The contrast, also, between the layer of mould, at least a foot to 18 inches in length, attracted my notice, as I had just been reading Darwin's book on *Earth Worms*. My first excursion, therefore, after the day of my arrival, a pleasant walk of six miles, was made to this cutting. I soon found that the chalk was roughly broken, not rounded, as it might have been in some cataclysm from the adjoining hills, but apparently placed by human agency in a bed above the clay. Among the chalk, and in the lower part of the mould above, was everywhere abundance of broken pottery, of ancient type. Further exploration brought out the fact that the beds of clay were still being worked for use in pottery, the clay being shipped in large quantity to Staffordshire. My discovery was only a discovery for myself. I soon learned that in the workings clear evidence had been for some years obtained of the existence of a very large Roman pottery around the cutting I have mentioned. Many perfect jugs and vases had been disinterred, and the remains of old sheds and grinding stones had been exposed. On my walk back I saw in a window in the village adjoining a small Roman vase doing duty as a flower pot. It seemed to me, from the condition of the surface of the clay that all the growth of mould had taken place since the Roman labourer had bared it and formed his platform of chalk. So that here one had a sort of measure in from 8 to 18 inches of thickness of the slow up-building of a new stratum by the agency of the earth worm. Each inch must have taken one or two centuries. I hardly think that I should have been attracted as I was had it not been for the recent reading of the splendid work to which I refer.

And now, Mr. President and Gentlemen, our ramble must come to an end. In this holiday we have been, I hope, enjoying Nature and books, things which, I maintain, are cogent to the genius of our profession, but in its shorter and greater leisure. The pleasure which I have drawn from both in many a holiday time will, I trust, justify me before you in the choice of my subject. And, as for books, Horace has been greatly honoured of late by a great statesman. He (Horace) is a great friend of mine. I began this oration with him, and I will end with him, but not in the "amatory way" of the great statesman. I am not original in choosing this quotation. Sterne, in his immortal *Tristram Shandy*, pleads in these words for forgiveness for having taken the more cheerful view of the lives of men:

Dixero si quid forte jocosius, hoc mihi juris
Cum venia dabis.

ON VAGINAL HYSTERECTOMY.¹

By LOMBE ATTHILL, M.D.,

Ex-Master of the Rotunda Hospital, Dublin.

MALIGNANT disease of the uterus has, till within the last few years, been invariably fatal. To diagnose it correctly was, in fact, in all cases synonymous with pronouncing sentence of death, and that, too, by a slow, painful, and irksome process. The patient died worn out by pain, exhausted by frequently-recurring hæmorrhages, or of septicæmia. Seldom does any disinfectant suffice to remove the fætor of the discharges in the advanced stages of cancer. No wonder that the dread of the loathsome disease is present to the mind of nearly every woman who may suffer from any form of chronic uterine trouble. No wonder that vigorous efforts have been made by many surgeons to arrest its progress, and possibly to cure these sufferers, by means of the actual cautery, by the free

application of powerful caustics, by amputating the lower segment of the uterus when the seat of malignant disease, by curetting the cavity when it was primarily affected, or, as advocated by the late Dr. Marion Sims, by dissecting off with knives specially made for the purpose the whole of the intra-uterine surface, and then filling the cavity with cotton saturated with a strong solution of chloride of zinc.

All these proceedings are vain; I have tried them all myself, and have seen them tried over and over again, and in no one case of any form of true cancer did anything more than temporary benefit follow. Now hysterectomy is an accepted operation, the mortality following its performance is small, and, if cases be properly selected, the prospect of the recurrence of the disease is certainly less than when other organs are attacked by cancer. That this should be so is easily understood, for the uterus is not alone not essential to life, but is as it were isolated from the general system. Of this I am satisfied that malignant disease of the uterus is in general, and when the cavity of the uterus is the primary seat of disease, always in the first instance a pure local affection, and that it is not till it has reached a comparatively advanced stage that the system becomes infected.

I shall relate three cases in which hysterectomy was performed on patients under my care, and then shall endeavour to point out the lessons to be deduced from them.

CASE I.—Miss —, aged 42, came under my care in February, 1890. She had been always healthy, and had lived an active life. Menstruation had been normal till about a year ago, when she first noticed it to be profuse, then that the flow recurred at shorter intervals. She began to lose flesh, and suffered from pains in the lower third of the back. In December, 1889, she had an alarming attack of hæmorrhage, which compelled her to seek medical advice. Since then had seldom been free from a watery hæmorrhagic discharge. A digital examination proved the vaginal portion of the uterus to be healthy. The fundus was very large, but quite movable; the os patulous and the introduction of the sound was followed by hæmorrhage. I diagnosed epithelioma of the cavity. I did not at the time inform the patient of my opinion, but advised that the uterus should be dilated and its cavity explored. I made this suggestion more with the view of verifying my diagnosis than with the hope of effecting much good. Accordingly, a few days later, this was done, and I removed with the curette a large quantity of soft growth, which was plainly cancerous. I then injected tincture of iodine, and on three or four occasions subsequently 15 minims of iodised phenol. At the time of the operation I suggested to her medical attendant the advisability of performing hysterectomy, but he thought the risk to life too great.

The patient improved greatly after this, and there was no return of the hæmorrhage or of the pain for nearly two months, but at the expiration of that time she came to me and stated that she had become as bad as ever. I then told her that her only hope lay in the removal of the whole organ. She at once consented to undergo the operation, which I performed on May 1st, 1890. During the four years which have since elapsed I have had this lady under my observation, and am happy to say that she is in the enjoyment of most excellent health. The uterus was examined by Dr. Bewley, whose report I append.

"Length of uterus, 4½ inches; length of cavity, 3½ inches; weight, 5½ ozs. The uterine tissue felt firm and healthy externally. On opening the organ the cavity was found to be large. The mucous membrane at the os and for half an inch up from it was healthy; then for 1½ inch the surface was irregular and ulcerated, and covered with soft polypoid growths. The ulceration had in one place—on the anterior aspect—extended to the surface of the uterus, but perforation had not occurred. The upper 1½ inch of the intrauterine mucous membrane was quite healthy. The uterine wall in the central ulcerated region was more transparent than elsewhere; it was fairly hard, though not as tough as normal uterine tissue. This part of the uterine wall showed cancerous infiltration—that is, polygonal epithelial cells were growing between the muscular bundles, either in the form of irregular masses or of large irregular-shaped tubular glands. The tissues cut through at the operation seemed healthy, although the cancerous cells had extended so as to be very near the surface indeed."

CASE II.—Miss —, aged 57, consulted me in February, 1893. She had ceased to menstruate at about the age of 30. This she believed to have been the result of a lengthened residence in Switzerland, but her health in no way suffered, and she did not observe anything wrong till about eighteen months previously, when a colourless watery vaginal discharge occasionally appeared; this by degrees became more profuse and deeper coloured, till of late it was continuous and sanguineous. The fundus of the uterus, though large, was quite free, and the cervix healthy. The introduction of the sound was followed by sharp bleeding. In this case I merely dilated the cervix sufficiently to enable me to remove with a small curette a portion of the intrauterine surface for examination, which verified the opinion previously formed as to the nature of the case, and a few weeks later the patient submitted to hysterectomy, which, on account of her means being very limited, was performed in the Rotunda Hospital by Dr. W. Smyly. This patient is still under my observation, and there is no reason to doubt that she is perfectly cured.

CASE III. On August 4th last Mrs. — was sent to me by Dr. Britton, of Strabane. She had been a widow for twenty years, and had given birth to five children. She was in her 58th year. Menstruation did not cease till she was 52, and for the three following years her health had been fairly good, though she never was strong. In the autumn of 1891 she observed a red sanguineous discharge to recur at irregular intervals, and about two months before she came to me she had an attack of regular hæmorrhage, which weakened her greatly, but she did not suffer any

Read before the Gynæcological Section of the Royal Academy of Medicine in Ireland.

pain. As in the two preceding cases, the uterus was large, but freely movable and not indurated. The cervix was shortened and healthy, in this case, too, I dilated the os just sufficiently to permit the passage of a small curette. The portions removed by it were evidently parts of a malignant growth. I performed vaginal hysterectomy a few days subsequently. She made a rapid recovery, the temperature never rising above 100°; nor did she suffer any pain or even feel sick. The following is Dr. Bewley's report of the result of his examination of the uterus: "The organ is somewhat enlarged, being 3½ inches in length. When cut open the lining membrane instead of being smooth is rough and irregular in an extreme degree. The cavity is bounded on all sides by masses of soft semi-gelatinous tissues which can be scraped away, leaving holes and fissures behind it in the uterine wall. No part of the lining membrane of the uterus is healthy, though the disease is much more marked in some parts than in others. Sections show masses of cells growing between the muscle bands in the uterine wall. I have no doubt that the disease is cancerous. The cut surfaces all appear healthy."

These three cases were very similar, and are typical of the class in which hysterectomy should be performed, and they all tend to establish three facts:

1. That the operation of vaginal hysterectomy, if carefully performed in suitable cases, is a safe one.

2. That malignant disease, when originating in the cavity of the uterus, is at first a local disease, and that, if the organ be extirpated at an early period, it can be eradicated perfectly. This may be considered as proved in the case of the first patient operated on, four years having since then elapsed; the others are too recent for this to be said of them with confidence, though I believe it to be so.

3. These cases also tend to show that the constitution does not become infected till the cancerous growths either perforate the uterine walls, or, extending downwards, engage the vaginal aspect of the cervix; they show, too, that uterine walls are capable of resisting for a considerable time the progress of the disease. In none of the foregoing cases could it have existed for less than a year prior to the operation being performed; indeed, in the last of the three narrated, it must have been, judging from the date at which the sanguineous discharge was first noticed, in progress for over two years; this fact, however, does not in any way modify the rule that the operation should be performed the moment the true nature of the disease has been recognised.

The great value of the operation of hysterectomy is now so universally recognised that it seems to me there are only two points connected with it open to discussion; one—and the most important one—the stage at which its performance is justified, or, to be more accurate, what are the conditions which should decide us against advising its performance, for it is almost impossible to operate at too early a date if once satisfied that the organ is the seat of any form of cancerous disease. But it is necessary that this be ascertained, for cases have occurred in which the diagnosis of malignant disease has been falsified by an examination of the organ after its removal. I think, therefore, it should be an established rule in all cases in which the disease attacks primarily the interior of the womb, that a portion of the intrauterine tissue be first removed and examined. I am well aware that pathologists cannot always say definitely that a given specimen contains true cancer cells, but where the result of examination is so doubtful that no definite opinion can be given, I think it is wiser to be guided by the symptoms, and if hæmorrhagic, alternating with watery discharges, and of frequent occurrence, and if pain be present, I should in doubtful cases be disposed, other conditions being favourable, to operate. In the great majority of such cases the disease progresses, and, when too late, will prove to be malignant. I should regret much less to have to think I had possibly performed an unnecessary operation than to see a patient whose life I might have saved die a lingering and painful death.

But it is important and far more difficult to decide whether it be too late to attempt to operate. I have from time to time been asked to advise in these doubtful cases; in the great majority of them I have been obliged to say that any operation would be inadvisable; in some the attempt to remove the whole of the disease was, nevertheless, attempted with most unsatisfactory results. Either the patient died rapidly from the effects of the operation, or recovered from it, to die ere long of the same disease, which rapidly developed in the adjacent parts. In my opinion if the cervix be engaged to anything but a very limited extent, any operation is useless. If the cervix be healthy but the organ fixed, the prognosis as to the result of an operation is equally, or

possibly more, unfavourable; and, of course, if both the cervix be engaged and uterus fixed, it becomes still more so.

Another matter I lay stress on is the condition of the bladder. It is at the junction of the uterus and bladder that in cases in which the cavity is primarily engaged cancerous infiltration and ulceration is most likely to occur. This was exemplified in Case No. 1. In a very brief period that patient's condition would have been hopeless. She had been urged by her friends to go to London, to have my opinion confirmed, or the converse, before submitting to an operation. Had she adopted that course I believe her doom would have been sealed by the mere loss of time. She had no symptom of vesical irritation. Other patients sometimes have. In brief, so long as I am satisfied that neither the cervix or any adjacent organ is implicated, I urge the removal of the uterus. If the cervix be implicated, or if the uterus be not freely movable, and the bladder causing trouble, I consider it, as a rule, inadvisable.

It is to be borne in mind that I am speaking of cases in which the disease originates in some part of the interior of the uterus; the portion just above the os internum seems a favourite position for it to commence, though no doubt the cavity, also, is in many cases primarily attacked. Of one thing I am certain, that, contrary to the statements so commonly made in books, cancer primarily attacks the body of the uterus much more frequently than is supposed.

In the cases I have detailed the uterus was removed *per vaginam*, and I believe it to be the best and safest operation, unless the fundus be too large to be without difficulty pulled through the pelvis. It is doubtless a troublesome one, and, indeed, I may say irksome. The steps of it are so well known as to render any special reference to details unnecessary: thorough disinfecting of the vagina and adjacent parts prior to commencing the operation is, of course, indispensable, as well as strictly antiseptic precautions subsequently. After the first incision across the anterior surface of the cervix, the finger, far more than knife or scissors, should be used to separate the uterus from its connections with the bladder till the finger reaches the top of the fundus, and the cavity of the peritoneum is entered; this and the next step—that of opening into Douglas's pouch—is the easiest part of the operation; the real difficulty consists in safely dividing the broad ligaments, so as to avoid injuring the ureters, and effectively securing the blood vessels. This is never an easy task, and is specially difficult when operating, as was the case in two out of the three cases narrated, on nulliparous women of middle age, in whom the vagina was narrow and indisposed to stretch.

In order to get at the broad ligaments more easily, and so to facilitate the securing of the uterine and ovarian arteries, it has been proposed to retrovert the uterus and pull the fundus through the wound in the posterior wall of the vagina. This I did in the first of the cases related. I do not intend to do it again. The fundus was very large, the difficulty of effecting the version very great, and the time occupied in doing so considerable, and no commensurate advantage was obtained. It is far better to drag down the uterus as low in the pelvis as possible, leaving it, however, in other respects in its normal position, and then to divide the broad ligament and secure the blood vessels.

It is the practice with some surgeons to seek for and remove the ovaries, and if they can be easily reached I do think it desirable, specially in the case of women who have not passed the climacteric period, for if left behind they may give rise to periodic attacks of pain and discomfort. In Case 1 one ovary was within reach, and was removed, the other could not have been removed without much trouble, and as the operation was a prolonged one I left it behind, and it has been a source of some discomfort; indeed, under any circumstances the removal of the ovaries gives additional security against a recurrence of the disease.

The only other question to be considered is whether the flaps of the divided vaginal wall should be approximated by the insertion of sutures, or that they be left alone. I think the latter course, in general, the best. The parts shrink and contract rapidly; union soon takes place, and the cavity closes, while silk sutures, which are generally employed, sometimes give rise to irritation. Packing the vagina with

antiseptic gauze is quite sufficient to prevent any prolapse, while it secures drainage, even if a drainage tube be not used, and this sometimes, at least, can be dispensed with.

A troublesome accident happened in the first of the cases I have related, which I am unable to account for. The catheter was passed every eight or ten hours for some days. After the operation the patient was allowed to use the bedpan, and she was able to empty the bladder without trouble, but on the tenth day after the operation urine was observed to escape *per vaginam*, and continued to do so for several weeks, when it ceased to flow. What was the cause of this? The bladder could not have been wounded during the operation, or urine would have escaped sooner. As the wound was a very large one three or four sutures had been placed in the flaps to cause them to approximate. Could the needle have penetrated the wall of the bladder while one of these was being inserted? I cannot say. I state the facts of the case.

I do not like to close this paper without alluding to those cases in which the cervix is the primary seat of cancer, and the advisability or otherwise of performing hysterectomy in such.

Pathologists are not agreed as to the direction in which in such cases the disease progresses. Dr. Cullingworth seems to believe that it spreads upwards. Dr. Williams, discussing the cases shown by Dr. Cullingworth, contended that the specimens exhibited showed that the tendency was for it to grow outwards, and to invade the parametric tissues,² and stated that his experience convinced him that where amputation of the cervix had been practised the disease, if it recurred, was found to have invaded the adjacent cellular tissue and not the stump. This tallies with my own experience, and was well marked in the case of a patient on whom I performed supravaginal amputation of the cervix for cancer. The patient appeared at first to have been cured, but after an interval of a year or more came again under my observation, and died in hospital; and a *post-mortem* examination proved the uterus to be healthy, but all the adjacent parts were extensively infiltrated with cancer cells.

Inclining as I do to the views expressed by Dr. Williams, I have the greatest disinclination to recommend any surgical treatment in the majority of these cases. Amputation of the cervix I deem, except as a palliative, to be useless, and unless the case be seen at a very early stage indeed, hysterectomy I consider inadvisable.

I have deemed it best to confine this paper to the consideration of cases in which malignant disease attacks the uterus. To enter into a discussion of the question of hysterectomy in connection with myomata would be to extend it unduly; but it is not to be supposed that I do not recognise its value in such cases, only I fear that there is a tendency to have recourse to the operation nowadays somewhat too frequently. Nor do I ignore the fact that it seems to me that as our confidence in the safety of the operation extends, so will the frequency of its employment also extend. Thus there are certain forms of prolapsus uteri in which I am of opinion it should without hesitation be practised. Take those extreme cases, not so infrequently met with amongst the poor, in which nearly the whole of the uterus lies outside of the pelvis and the organ hangs down between the thighs, no plastic operation can be relied on in such cases, and no instrument will retain the organ with comfort *in situ*. These cases, too, are most favourable for vaginal hysterectomy because the organ is so accessible, and I believe that in such it will by-and-by be not infrequently performed.

² BRITISH MEDICAL JOURNAL, April 19th, 1890, p. 900.

UNIVERSITY OF PENNSYLVANIA.—Professor Pepper, who has resigned the office of Provost of the University of Pennsylvania, will continue to hold the Professorship of Medicine. During the thirteen years of his administration the teaching staff of the University of Pennsylvania has increased from 88 to 268, and the number of students from 981 to 2,180. About four million dollars have been added to the value of the lands, buildings, and endowments. Professor Pepper's own gifts to all departments of the University have been many and generous. On resigning the Provostship he made a contribution of 50,000 dollars, which will be applied to the extension of the hospital buildings.

EPIDEMIC JAUNDICE.¹

By WILLIAM RANKIN, M.D. GLASG.,
Churchtown, Londonderry.

A CORRESPONDENCE on the subject of epidemic jaundice has been going on for some time back in the columns of the BRITISH MEDICAL JOURNAL, and as a number of cases of an epidemic nature have come under my own notice within the past twelve months, a few observations on the subject may not be without interest.

Early in July, 1893, a lad aged 11 years, came to me complaining of feeling generally out of sorts. He had been troubled with headache, sick stomach, vomiting, and no desire for food for about a week previously. He had not kept to bed, and had walked over a mile to see me that morning. The tongue was furred, and the skin and conjunctivæ tinged yellow. Looking upon the case as one of jaundice due to ordinary gastro-duodenal catarrh, I treated it as such, and thought no more about it.

On that day fortnight two other members of the same family—one a girl aged 13, the other a boy aged 10—appeared, complaining of a precisely similar train of symptoms. There were the three young members of this family, and they were the only persons in the house affected. These two received the same simple treatment, and they also quickly recovered. I may mention here that my whole medicinal treatment consisted in two sharp calomel purges at an interval of three days, and a mixture of nitro-muriatic acid and nux vomica given for a week or ten days.

At that time I had a number of cases of a similar nature, and they all yielded rapidly to these simple remedies. During the months of July and August I saw eleven cases of jaundice in young persons, and all within a limited area—I should say not more than a mile long and half a mile wide—and I am quite sure there were other cases in the same locality at the time which did not come under my observation. When one case occurred in a house, as a rule other members of the family became affected, but in no instance did I see jaundice in an adult at this time, and occasionally—as in the three cases first referred to—all the children in the house suffered. They all occurred in the low-lying part of my district.

The disease seemed to have exhausted itself during the months of July and August. It was evidently of an epidemic nature, but as regards the precise cause I could not then satisfy myself. I may mention, and I have since seen the theory advanced, that it occurred to me at the time that it might have been a sequela of influenza. Influenza, however, at least influenza in epidemic form, was certainly not in the neighbourhood at the time.

During March and April, 1894, an almost similar series of cases have cropped up in the high-lying part of the district. The first case I saw, early in March, was a boy aged 10 years, one of a family of six children, who came to me suffering markedly from jaundice. In this family the whole six children, one after another, became affected, and other cases occurred in the immediate neighbourhood, all within a radius of half a mile. The last two cases were in children of different families, but neighbours. Both these cases I saw on the same day, April 7th. At the time these different cases occurred I was not aware of the existence of what is generally recognised as influenza in the district, nor have I since seen any cases of influenza.

In almost every instance the friends had been able to satisfy themselves quite readily as regards causation. One had seen some repulsive sight, while another had been where there was a bad smell, as they said, and yet another had taken a drink out of a dirty pool; some had eaten too heartily and some had eaten something which had "gone against them," and one at least had got a fright. The two cases which I saw on April 7th, occurring in different families, were both ascribed to the patient having eaten eggs on Easter Sunday. In regard to treatment, the popular notion was quite in keeping with the views of the majority in regard to causation, some going so far even as to apologise for seeking medical aid at all, saying they understood the affection

Read before the Londonderry and North-West of Ireland Branch of the British Medical Association.