The neck of the uterus may have been destroyed by sloughing, or by other means; there may be loss of the greater part of the vagina; there may be partial atresia of it; there may be an ovarian tumour; there may be fibroid tumours, pedunculated, sessile, interstitial, or intra-uterine; there may have been hæmatocele, pelvic cellulitis, or even carcinoma of the neck of the womb, and yet conception is always possible, provided menstruation, the sign and symbol of ovulation, be such as to warrant a healthy condition of the uterine cavity, the nidus of the new being.

Our literature teems with cases of delivery complicated with fibroid tumours in some part of the uterine structure, and our experience and observation teach us that these tumours are a very frequent source of sterility.

But to return to the question—"Is conception possible, and safe delivery probable, after the enucleation and removal of a large intra-uterine fibroid?" It is not at all uncommon to see this follow the removal of the intra-uterine pedunculated fibroid, called polypus—and why not the sessile fibroid, called intra-uterine fibroid tumour? But the proof of this is fortunately not left to hypothesis or analogy. And the question is answered affirmatively by the record of one of the most interesting cases to be found in English medical literature, by Mr. Grimsdale,* of Liverpool. The interest of the subject will justify me in extracting the general features of the case from Mr. Grimsdale's published account.

* A Case of Artificial Enucleation of a large Fibroid Tumour of the Uterus; with some Remarks on the Surgical Treatment of these Tumours. By Thomas F. Grimsdale, Surgeon to the Lying-in Hospital, and Lecturer on Diseases of Children, at the Liverpool Royal Infirmary School of Medicine.—*Liverpool Medico-Chirurgical Journal*, January, 1857.

On the 12th October, 1855, Mr. Grimsdale first saw Margaret West, aged 33 years, a stout healthy-looking woman, married three years; eleven months after marriage (say in 1853) delivered prematurely of a still-born child, profuse flooding, checked with difficulty; in 1854 conceived again, but miscarried at three months on Christmas; this also attended with great flooding; menstruation very profuse, but regular after this, till three months ago (say in July, 1858); supposed herself pregnant, but there was no nausea. The uterus was about the size of this organ at six months, but without the usual elastic feel of pregnancy. A loud bruit heard all over the tumour, cervix uteri pushed forward, os open, lips everted, hard and granular.

Mr. Grimsdale's diagnosis was, "fibroid tumour of the uterus; probably pregnancy in addition." He watched her for a fortnight. She had occasional profuse discharges of blood. On consultation with Mr. Bickersteth, they agreed that the safety of the patient demanded the induction of abortion at once. Sponge tents were used, the cavity probed for seven inches, the tumour found to be adherent to the whole extent of the posterior wall.

Mr. Bickersteth made the incision for enucleation with a straight bistoury through the posterior wall of the cervix, about three-quarters of an inch within the canal, and, coming down on the capsule of the tumour, plunged the knife into it; index finger passed through incision nearly to the second joint, and the tumour was thus separated for some distance from the proper tissue of the uterus. But little bleeding followed the incision, which was plugged, the lint being forced up between the tumour and the uterine wall.

1*st day after operation.*—Pulse 96; vagina hot; tampon removed; vagina syringed.

2nd day.—Aborted a four months' fœtus and placenta.

7th day.—But little variation; vagina syringed and opening plugged daily.

8th day.—Uterine pains; watery discharge; tumour began to protrude through the artificial opening, which was dilated a little more; presenting part of tumour soft; discharge offensive; pulse 120; countenance pale, anxious; tongue dry; thirst.

During the next week her condition changed a little for the better. She took beef-tea, opium, ergot, and had the vagina syringed twice a day. The tumour gradually dilated the artificial os, when, on the 14th day, the fingers could not reach the uterus; the tumour had passed through, so as to fill the upper part of the vagina. It was soft and sloughy; pulse 96.

15th day.—Much worse; had a chill this morning; since then very low; pulse 112; thready; tongue dry; glazy; countenance anxious; very desponding; ordered brandy and beef-tea. 9 p.m.—Messrs. Bickersteth, Blower, and Fitzpatrick present; pulse a little better, but thrilling; tongue as before; countenance bad; put her under the influence of chloroform, which improved the pulse.

Mr. Grimsdale then passed his hand by the side of the tumour into the cavity in the posterior uterine wall, and easily separated the few attachments that remained at its middle and lower portions. He found the great bulk of the tumour soft and sloughy, somewhat like the placenta of a child dead some time in utero, and already separate from the uterus. Posteriorly, and high up near the fundus, some firm fibrous bands passed from the uterus to the tumour, which resisted all efforts to break through them they

extended over about three square inches of uterine surface; there were eight or ten distinct bands—one as large as the finger flattened out, and containing soft sloughy tissue. Finding it impossible to lacerate these bands, he held his hand in the uterus till Mr. Bickersteth went for a large pair of scissors, which occupied some thirty minutes. Even then the completion of the operation was difficult and tedious, for he says—"After continuous efforts for nearly an hour, I succeeded in dividing entirely its attachments, and removed the tumour, a sloughy mass about the size of an ordinary placenta." There was no hæmorrhage, and withdrawing the hand and the tumour, the uterus contracted down exactly as after the extraction of a placenta, and felt externally to be about the size of a normally contracted uterus after an ordinary labour. From this time her restoration to health was gradual, but sure. In a fortnight all fetid discharges had ceased. In two months the uterus had quite recovered its natural size and position, and on the sixty-eighth day after the operation she began to menstruate. It lasted four days, painless and normal in quantity and quality.

So far this case is most interesting surgically. If Mr. Grimsdale, had not removed the decaying, sloughing mass as he did on the fifteenth day, his patient would evidently have died of pyæmia in a very short time. But, to me, the most interesting part of the case is to be related.

The operation was performed on the 4th November, 1855; the tumour removed on the 20th. Menstruation returned on the 27th January, 1856; again on the 25th February; and she probably menstruated again about the 24th or 25th of March, for in a foot-

note in Mr. Grimsdale's report, he says, "Since the above was in type, I have delivered this patient of a well-grown eight-and-a-half months child, stillborn. The membranes ruptured suddenly on the 17th December, 1856. There was a slight discharge of blood soon after, but no pain till the 20th. At this date the fœtal heart-sounds were heard distinctly. The os dilated very slowly; the presentation was footling; and there was very inefficient expulsive action in the second stage of labour. On the morning of the 22nd I got hold of the left foot, and completed the delivery. The child had evidently been dead many hours, the cuticle of the feet having begun to desquamate. It measured twenty-one inches in length, and was plump and well formed. The placenta, large and healthy-looking, came away immediately, without hæmorrhage. The uterus contracted well and remained so."

The evident bearing of this case on the subject under consideration is my apology, if any were needed, for giving so minutely its synopsis and sequel. For it is a direct answer to the question, "Is conception possible and safe delivery probable after the enucleation and removal of large fibroid tumours?"

Before dismissing this subject, I may state that Mr. Baker Brown does not now mutilate the fibroid, but satisfies himself with simply incising the os and cervix uteri. But the most philosophical and, indeed, the most successful treatment of hæmorrhages from fibroids is that of Dr. Savage, of the Samaritan Hospital. He dilates the canal of the cervix with a sponge tent, and injects the cavity of the uterus with a solution of iodine, which has been so far both harmless and efficient. His formula is this:—

℞	Iodine	ʒ	i.
	Iod. Potassium	ʒ	ij.
	Rect. spt. wine	ʒ	ij.
	Water	ʒ	vi.

It invariably stops the bleeding, and, he says, when repeated at each occurrence of the flow, for five or six months, the tumours undergo a sensible diminution, and in some instances have entirely disappeared.

I have seen remarkable results from this treatment of Dr. Savage, and if the experience of others should be as fortunate as his, he will have substituted a simple, safe, and most successful method for one fraught with doubt, difficulty, and danger.

Dr. Routh* follows the plan of Dr. Savage, but substitutes a solution of the perchloride of iron for the iodine. I have used both agents, and the objection that I make to the iron is, that while it arrests the bleeding promptly, by coagulation, it takes two or three days for the uterus to expel the large masses of coagula, which often provoke very severe forcing pains. Whereas when the iodine is used the patient complains only of a little sensation of internal warmth, which is quite transitory.

It is very probable that the curative process of Mr. Baker Brown's simple incision of the os, and of Dr. Savage's iodine injection, and Dr. Routh's iron, all depend more or less on bringing about a degree of subacute inflammation in the uterine cavity, for I hear from Dr. Greenhalgh that Mr. Brown's operation when

* "On some Points connected with Pathology, Diagnosis, and Treatment of Fibrous Tumours of the Womb; being the Lettsomian Lectures,' &c. By C. H. F. Routh, M.D., &c. London: T. Richards. 1864.

successful always produces a great degree of constitutional disturbance, with considerable tenderness over the whole abdomen, but especially in the uterine region.

I had the opportunity of making a *post-mortem* examination in a case of fibroid tumour, alluded to on page 113, where the removal of a portion of the tumour, nearly as large as a fœtal head, was followed by a most marked improvement in the hæmorrhage. Indeed, after this it could not be called a menorrhagia. The woman died four months afterwards of an acute attack of peritonitis, lasting but a few days. On opening the abdomen the evidences of this suddenly developed and rapidly fatal disease were everywhere visible. On laying open the uterus there were found strong old adhesions, here and there, firmly uniting the anterior wall of the uterus to the opposite surface of the tumour, which grew from the posterior wall.

These bands of adhesion were in all probability the result of the inflammatory action necessarily set up in the part by the recuperative powers of nature after the ablation of the large vaginal portion of the tumour, four months before. This probability is reduced to a certainty when I call to mind the fact that previously to this operation the hand was several times, for the purpose of diagnosis, carried into the uterus, and passed freely and without obstruction between the contiguous surfaces of the uterus and tumour, where they were now found adherent in patches.

This condition of things must, then, have been the result of the operation four months before, and was most probably the cause of the great improvement in the menstrual flow.

While we admit that good results may follow the incision of the os and cervix uteri, after Mr. Baker

Brown's plan, and equally good, with less risk, may follow the injecting process, after that of Dr. Savage, I believe we are not in accord as to their rationale. I venture to suggest that they act beneficially by bringing about the same result, viz., an endo-metritis, minus the suppurative stage. If this be so, then we should adopt the iodine treatment on theoretical as well as practical grounds, as the one most conducive to the production of plastic or adhesive inflammation.

Dr. Greenhalgh informs me that he has had five successful cases from the iodine and sponge-tent treatment, combined with Récamier's method of scraping out fungous granulations, and that they were all cured promptly by a single injection for each ; and that both he and Dr. Savage now use the pure undiluted officinal tincture of iodine, instead of the solution.

It must not be forgotten that the uterine injection is to be always and invariably preceded by the use of the sponge tent ; that this is an essential part of the treatment, and by no means to be neglected, not even if the canal of the cervix should appear to be large enough to permit the easy exit of the fluid. To Dr. Savage we are particularly indebted for this practice, which renders this operation, once most painful and hazardous, now simple and safe.

Many years ago I relinquished the practice of injecting the cavity of the uterus, having seen the most violent and alarming attacks of uterine colic follow the injection of but one drop of a bland fluid ; but now, according to the plan of Dr. Savage, the cavity of the uterus is made tolerant of any quantity of even the undiluted tincture of iodine.

OF MENORRHAGIA FROM INVERSION OF THE UTERUS.—

Inversion of the uterus is fortunately of rare occurrence, yet as it may happen at any time and in the practice of any one, we shall devote some consideration to it. My countryman, Professor Charles A. Lee,* has given us a very complete monograph on this subject. He has collected from various sources 148 cases, beginning with the writings of Dr. Robert Lee, and ending with those of Dr. Tyler Smith and Professor White, of Buffalo. I would refer the reader to this excellent paper for a large amount of most valuable information which is condensed into a few pages.

In many cases of inversion the cause is said to be, pulling on the cord. It sometimes occurs spontaneously, especially when the labour has been very rapid. It doubtless occasionally happens at a period more or less remote after confinement. But I am disposed to believe that an adherent placenta, particularly to the fundus, is the most frequent direct cause of this accident, whether the cord be pulled upon or not. Some five or six years ago, Dr. Lewis A. Sayre, Professor of Surgery in the Bellevue Hospital Medical College, New York, showed me a case of inverted prolapsed uterus, which occurred in a woman who had never borne children. The inversion was evidently the consequence of a fibroid polypus attached to the fundus by a short thick unyielding pedicle, which, as it passed through the cervix, must have drawn the fundus with it. This case excited at the time a good deal of interest amongst the medical men connected with the hospital, on account of the obscurity of its history and the difficulties of its diagnosis. The

* "A Statistical Inquiry into the Causes, Symptoms, Pathology, and Treatment of Inversion of the Womb." By Charles A. Lee, M.D.—*American Journal of the Medical Sciences*, October, 1860, pp. 313 to 363.

woman had passed the time of menstruation; she therefore suffered no longer from hæmorrhages, but complained only of the mechanical inconveniences of the procidentia.

Dr. McClintock describes a case so exactly similar to this, that the drawing of it in his book (page 98) would pass for an accurate representation of Dr. Sayre's case.

Dr. Lee's paper contains references to several cases similar to these, reported respectively by Browne,* Higgins,† Oldham, Rigby, Le Blanc, and Velpeau, the last four in "Ashwell on Diseases of Women," pp. 403–5.

Dr. Alexander H. Stevens, of New York, has had a chronic case of inverted uterus under observation for more than thirty years. It had existed for some years before he saw it. His patient suffered from periodical hæmorrhages, which ceased with change of life, when the inverted organ diminished in size, as it always does at this critical period. The fundus is now not more than half the size that it was during menstrual life.

Dr. Charles A. Lee‡ has seen one of twenty-five years' duration, which had remained undetected till he was consulted. The patient was then forty-five years of age. She had had hæmorrhages at intervals, and was quite anæmic. In the course of twelve months afterwards (March, 1858) the menses ceased, her health became vigorous, and there was no need of surgical interference.

Dr. Lee§ quotes one case of congenital inversion,

* *Dublin Medical Journal*, vol. vi. p. 33.
† *Edinburgh Monthly Journal*, July, 1849, p. 889.
‡ *American Journal of the Medical Sciences*, October, 1860, p. 340, case 140
§ *Loc. cit.*, p. 323.

reported to the French Academy of Medicine by Dr. Williame, of Metz. His paper also contains two cases of inversion occurring at an earlier period of pregnancy. One of partial inversion, reported by Dr. Spae in the *Northern Journal of Medicine*, July, 1845; the other of complete inversion at the fifth month of pregnancy, by Dr. John A. Brady, in the *New York Medical Times*, February, 1856. But the most remarkable case of this sort is that of Dr. Woodson,* of Kentucky. The patient, aged twenty-seven or twenty-eight years, pregnant about four months, was engaged in washing, some distance from the house, when violent labour pains came on, and she was not able to get home. She was greatly alarmed, felt the fœtus protrude from the vagina, and took hold of it and forcibly pulled it away, which brought the uterus entirely out, producing complete inversion. She tore off most of the placenta which was adherent, forced the uterus back into the vagina, and did not call for medical aid for five days afterwards. Dr. Woodson then saw her, in consultation with the family physician; and found the uterus inverted, lying just within the vagina, with a portion of decomposed placenta still adhering. He ordered vaginal washes and an anodyne for the time, and on the next day, the sixth after the accident, he succeeded in replacing the uterus. The loss of blood was not great or alarming, although it had continued from the time the accident occurred.

The replacement of a chronic inversion was formerly thought to be impossible. Now, however, it is proven

* *American Journal of the Medical Sciences*, October, 1860, Art. XI., "Complete Inversion of the Uterus at four months of Utero-gestation. Replaced six days after the accident." By E. W. Woodson, M.D., of Woodville, Kentucky.

to be not only possible, but quite practicable. Dr. Tyler Smith* replaced one after twelve years of inversion. It required eight days with the india-rubber air-ball pessary, conjoined with manipulation night and morning for ten minutes at a time. Dr. Charles West† has replaced one of twelve months' standing. He also used the graduated pressure of an india-rubber air-ball, after Dr. Tyler Smith's plan. Both of these cases recovered. Professor White,‡ of Buffalo, New York, replaced one of fifteen years' standing. The operation was done in fifty minutes, under chloroform. Unfortunately the patient, thirty-two years of age, died of peritonitis sixteen days afterwards. Dr. Noeggerath,§ of New York, has succeeded in one case of thirteen years' standing.

This great revolution in practice in the treatment of chronic inversion is due to Dr. Tyler Smith, who was the first, I believe, in this country, to demonstrate its practicability, and to Professor White, who was the first in America to perform this operation successfully.

I have had but two cases of chronic inversion. In one, the uterus was removed by the écraseur; in the other it was replaced in five minutes under the influence of ether. One had existed for nine months, the other for twelve. One was at the Woman's Hospital; the other in private practice. The first case was sent to the hospital in June, 1859, by Dr. Maxwell, of Johnstown, New York.

This patient, aged thirty-nine, married five years, had

* *Medical Times and Gazette*, April 24th, 1858.
† *Medical Times and Gazette*, October 29th, 1859.
‡ *American Journal of the Medical Sciences*, July, 1858.
§ *American Medical Times*, April 26th, 1862, p. 230.

had one miscarriage and two labours at full term, the last on the 26th December, 1858. She was in labour nine hours. The pains continued very strong after the expulsion of the child. The placenta was retained. The physician was obliged to remove it, and in so doing, remarked that something had come down which would have to go back again. The mother of the patient saw a large bleeding mass protruding, which the physician pushed up into the vagina. The hæmorrhage and the pains continued for nearly twenty-four hours afterwards.

On the next day another physician was called in, who succeeded in checking the hæmorrhage and relieving the constant pains. About a month after delivery, the hæmorrhage suddenly returned with great force, but was controlled by a tampon. From this time she was never entirely free from more or less hæmorrhage, up to the time of her admission to the Woman's Hospital. She was so completely blanched from loss of blood, and so exhausted, that I hardly had a hope of doing anything for her relief. I have seldom seen any one recover from such a state of exhaustion. The pulse was very rapid and feeble, the heart giving full evidence of her anæmic condition. She could not be raised up in bed without fainting, and would often faint while in the recumbent posture. Her recovery from this condition was wholly due to the extraordinary efforts and attention of Dr. Emmet, whose eminent ability I have so often mentioned in these pages. He arrested the flow by a tampon of the liq. ferri persulphatis of Dr. Squibb; he relieved the disposition to frequent syncope by elevating the foot of the bed, making it an inclined plane, and inviting what little blood she had to the brain; while by stimulants, tonics, and good nutrition, a little by the stomach and a great deal by the rectum, we had the happiness of seeing

our patient rally and gain blood and strength enough to undergo operative procedures. We were afraid of chloroform in her enfeebled condition. She was therefore cautiously etherized. The hand was then passed into the vagina, the uterus grasped, and steady efforts made to replace the organ. These efforts were continued for nearly four hours. The uterus was partially replaced; that is, it was reinverted to such a degree as to place the fundus up within the os uteri, but it could not be passed farther. The diagram (fig. 46) would represent what I mean. It took but a short time to reinstate the organ thus far, but no efforts could do more. A tampon, with some styptic lotion, was applied to hold the uterus *in situ*. And here is where I made the great mistake. If, instead of the styptic tampon, I had adopted Dr. Tyler Smith's plan with the elastic air-bag, the result might have been different. A day or two afterwards, when the tampon was renewed, I was horrified to discover that the vagina, particularly at its posterior cul-de-sac, had an ecchymosed appearance, as if it had been stretched almost to the verge of being ruptured. I am now satisfied that we continued our efforts for too long a time, although they were not made spasmodically. The tampon was changed daily, the uterus being retained as presented in the diagram. There was no pain, no hæmorrhage, and our patient ate and slept well, and improved rapidly in looks and strength.

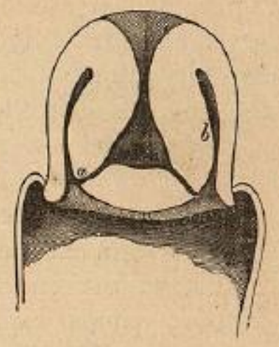

Fig. 46.

About eighteen days after this (July 12th) Mrs. R. was placed again under the influence of ether, and

another effort made to replace the uterus; but after an hour's time we were obliged to desist. The late lamented Drs. Valentine Mott and John W. Francis, of the Consulting Board of the hospital, were both present at each trial, and they were of the opinion, that in this case the entire ablation of the organ would be a safer operation than to make another effort to reinvert it. A few days afterwards menstruation came on, was exceedingly profuse, and the fundus was again forced somewhat into the vagina in spite of the tampon. The uterus was then pulled down into the vagina, and a strong ligature was passed round the cervix, and firmly tightened by a small screw écraseur, with the intention of ultimately removing the organ. The ligature controlled at once the hæmorrhage, and wholly arrested the circulation of the fundus, as manifested by its sudden deep purple colour. But the constitutional disturbance was so intense and alarming that we were compelled to remove the ligature apparatus at the end of two hours. The great pain, excessive nausea, rapid pulse, clammy skin, jactitation and pinched features were too distressing to be witnessed, much less endured, and so the ligature was removed, and opiates were freely given till she was entirely relieved. A general course of invigorating treatment was followed. Menstruation in August lasted eleven days, but the flow was not very great at any time.

After the September menstrual period, one more effort was made to reinvert the uterus; but we could effect no more than is shown in the diagram (fig. 46).

After this she and her husband begged to have the organ removed, as we promised to do it with the écraseur without pain.

Accordingly, on the 1st of November, she was chloroformed, and the chain of the écraseur was passed round the cervix, near the os, and tightened. When the operation was half finished, a link parted. Another chain was applied, and with this the organ was cut through; but the broad ligament on the right side was fortunately not wholly severed. As the chain was felt to pass suddenly through the uterine tissue, I was about to remove it and the severed tumour together, when all at once the most fearful hæmorrhage I ever encountered took place, and in an instant the vagina was full of arterial blood. If the bleeding had been from the blood-vessels of that portion of the broad ligament already severed and retracted within the peritoneal cavity, it would have been beyond reach, and, of course, our patient would have died before she could have recovered from the effects of the chloroform. Fortunately, the bleeding was from that part of the broad ligament still adherent to the severed uterus. Quickly drawing it forward, I passed the fore and middle fingers through the cervix uteri into the abdominal cavity, and with them compressed the remains of the ligament against the edge of the cervical opening, which promptly arrested the hæmorrhage. The blood was then sponged out of the vagina, and the undivided portion of the broad ligament with the artery was tied; after which a few sponge probangs were passed into the peritoneal cavity, and the blood that had found its way there was carefully removed. It must not be forgotten that the patient was in the usual lateral semi-prone position. The divided edges of the cervix were united by five or six interrupted silver sutures. The one on the extreme right was made to transfix the ligated portion of the broad ligament, which had

been drawn through into the vagina. The edges of the cervix united by the first intention. The opening through the cervix, before it was closed by the sutures, would easily have admitted the passage of three fingers at a time into the peritoneal cavity. This was rather a fortunate thing under the circumstances, as it afforded great facility for sponging out the blood from the peritoneal cavity. The patient recovered rapidly. Dr. Emmet gave her opiates at stated intervals for two or three days, with good nutriment. She had a small vaginal discharge for a short time, till the little projecting portion of broad ligament was removed. Ten days after the operation the bowels were opened by enemata. Two of the sutures were cut off close, and left to be permanently sacculated.

I have occasionally heard from Mrs. R. since the operation, and she remained in good health.

This cut (fig. 47) is copied from a drawing made

Fig. 47.

immediately after the uterus was removed. It shows that portion of the ligament in which the bleeding artery was found. The artist has slightly exaggerated the long diameter of the organ.

With my next case I was more fortunate. This was a case of a lady in Springfield, Massachusetts, who was attended in her labour by one of the most eminent of our New England practitioners. I presume it was an example of spontaneous inversion at a somewhat remote period after confinement, for the character of the physician is a sufficient guarantee that it could not have resulted from any mismanagement on his part; nor could it have occurred spontaneously at the time of his attendance without being detected by him A few weeks after this lady's delivery, her physician went abroad. Some months afterwards she called another physician, who treated her for menorrhagia. She did not improve; and by-and-by a consultation was held, when the case was ascertained to be one of inversion.

She was then etherized, and efforts at reduction were made, and continued for an hour without effect. Two or three weeks after this I was sent for; the patient was etherized as before, and I was able to reduce the inverted uterus to its normal relations in less than five minutes. This was in May, 1860, about twelve months after the labour. The medical brethren present gave me great credit for the facility with which the operation was performed. But its speedy accomplishment was a little accidental. Introducing the left hand into the vagina, I grasped the uterus, and soon restored it to the position represented by fig. 46 (page 129), where the fundus is shown as just within the os uteri. At this moment I changed my hold on the uterus, and, rather by accident than design, deeply indented the right cornu, *a*, with the thumb of the left hand; the fingers compressed the opposite side of the organ, *b*, and while the thumb pushed the tissue

in which it was imbedded upwards, the fingers rather acted in a contrary direction on the opposite side; and to my great surprise, the uterus jumped, as it were, out of my hand, assuming its proper normal position. I certainly had not the remotest idea of restoring the organ under a half-hour's effort.

The case reported by Dr. Noeggerath was reduced very much on the principle of the above; but instead of its being accidental, as with me, he reasoned out the process after he had failed by the ordinary method.

As before said, we are indebted to Dr. Tyler Smith, of London, and Professor White, of Buffalo, for our present success in the treatment of inversion of the uterus. These two distinguished gentlemen seem to have worked out the problem about the same time, and independently of each other. Dr. Tyler Smith takes the slower method of persistent and gradual pressure with the air-bag; Dr. White, the more brilliant but more dangerous plan of immediate reduction by manipulation, under the influence of chloroform. I fear that in my own country we have been too much captivated by the *éclat* of sudden success. I am sure now that it would be safer to combine the plans of Dr. Tyler Smith and Dr. White.

I would hesitate a long time before removing another inverted uterus.

Judging from the experience of my two cases, the great difficulty seems to be in passing the fundus through the os internum. It was easy enough in each instance to reinstate the organ to the condition represented by the diagram (fig. 46). That being the case, I should infer that there were no peritoneal adhesions to prevent the completion of the operation.

There is one point that I wish to dwell on particularly.

Those who follow the plan of my distinguished countryman Professor White (whom I have imitated), would do well always to make counter-pressure with the outer hand over the abdomen, as represented in this diagram (fig. 48).

In pushing the uterus upwards by the hand in the

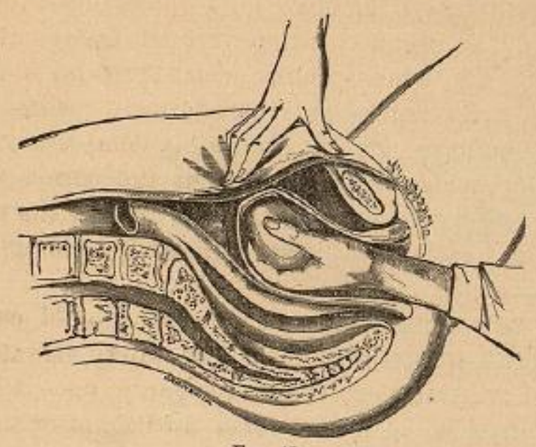

Fig. 48.

vagina, there is certainly some danger of lacerating the vagina and tearing the uterus asunder from its attachments at the posterior cul-de-sac. Counter-pressure will obviate that danger. Another advantage of counter-pressure is that the fingers pushed down on the uterus, as the cervix is doubled on itself, assist very materially in dilating that portion through which the fundus is to be forced upwards.

From what I have already said, it would appear that the reduction of an inverted uterus naturally divides itself into two stages: the first, that of pushing the body of the uterus up within the cervix, as represented in fig.

45; and the second, that of completing the operation by forcing the fundus through the os internum. The first stage is accomplished by directly pressing the body of the uterus upwards, and putting the vagina well on the stretch, which, as Dr. White* says, "pulls open, first its mouth, then its neck, and finally, if persevered in, doubles the body upon itself also;" the second, by compressing the fundus laterally, and deeply imbedding the thumb in the cornus uteri (fig. 46, *a*), by which means we slide one-half of the organ at a time through the os internum instead of the whole fundus, which presents a greater diameter. Pressure antero-posteriorly would avail nothing, because we would simply compress two flat unyielding surfaces together; but the cornus can be dimpled and forced inwards and upwards by the thumb. It is useless to attempt this manœuvre till we complete the first stage of the operation.

I do not think that, as a rule, we should continue our operative procedures more than thirty minutes at a time. If we fail to restore the organ at once, then we should introduce an india-rubber air-bag, after the plan of Dr. Tyler Smith, and wait for our patient to recover fully before trying again.

But suppose after proper efforts we fail to restore the uterus, should we amputate it?

In the hands of Professor Channing, of Boston, and Dr. M'Clintock, of Dublin, amputation of the inverted uterus has proved to be a very successful operation, and one to be justified if all legitimate means of restoration, patiently and perseveringly tried, fail to reinstate the inverted organ.

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* *American Journal of the Medical Sciences*, July, 1858, p. 23.

But before taking this last resort, I would, rather than amputate, make longitudinal incisions from the os tincæ along the cervix to a point beyond the os internum, for the purpose of facilitating the process of reduction.

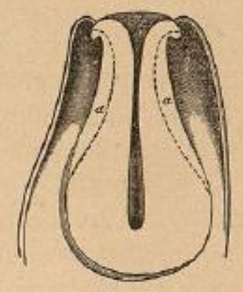

Fig. 49.

I would make at least three—one on each side, as represented in this diagram (fig. 49, *a a*), and another similar on the posterior surface. I say posterior only because it would be easier to make it there than on the anterior surface if the patient be on the left side, with my speculum as it is ordinarily used. The object of these incisions would be to divide the circular fibres of the uterine tissue, and thereby to remove one of the principal barriers to the reduction of the fundus.

I hope I have said enough to show that we should not resort to the operation of amputation till we have tried persistently and patiently every possible means for reinstating the organ to its normal position.

The patient in whom I was so fortunate as to restore the organ after twelve months of inversion, subsequently conceived; and thus we see the important bearing of this operation upon the subject of sterility. Even Dr. Tyler Smith's successful case of reduction after nearly twelve years of inversion, was followed by conception; and these two cases are, I think, sufficient to warn us against a too hasty resort to the operation of amputation.

I have just heard from Dr. Tyler Smith (July 12th, 1865), that his patient "has had several children since the operation (in 1856), and that the medical man who