ful watching and feeding, but that some needed a stimulant during the progress of the disease, and others required it from the commencement." If it had been added that the first class of cases occurred mostly in young persons, the opinion arrived at by these able physicians would have coincided with that entertained by my colleagues in this infirmary. Young persons, says Dr. Wilks, always do well if left alone. I cordially agree with this statement; for out of a number of cases occurring in young persons under the age of fourteen years, in only one was wine given, and to the extent of not more than two ounces daily. In the worst cases, in those advanced in life, we never gave more than eight ounces of brandy and four ounces of wine in twenty-four hours; and this quantity was considered excessive, and not given in more than three per cent. of the cases treated.

CLINICAL NOTES
ON
UTERINE SURGERY.

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No. III.
PAINFUL MENSTRUATION.

MENSTRUATION may be attended by a general malaise, but should not, as a rule, be accompanied by any very severe degree of suffering. If there is much pain, either preceding its irruption or during the flow, there will always be a physical condition to account for it, and this will be of a nature to obstruct mechanically the egress of the fluid from the cavity of the womb. The obstruction may be the result of inflammation and attendant turgescence of the cervical mucous membrane, whereby this canal becomes narrowed merely by the tumefaction of its lining coat. But the most frequent cause of obstruction is purely anatomical and mechanical. For instance, the os and cervix uteri may be preternaturally small, or the canal may be flexed; or these may be complicated with the presence of a polypus, or with that of a fibroid tumour, in either the anterior or posterior wall of the uterus, and occasionally in the antero-lateral portion.

Of 250 married women who had never borne children, 129, or more than half, had pain of an abnormal kind attending the menstrual flow. I have been in the habit of dividing these into two classes, calling the one painful, and the other excessively painful, or dysmenorrhœal. Of these 129, 100 were painful, or 1 in $2\frac{1}{2}$ of the whole number; 29 were dysmenorrhœal, or 1 in $8\frac{6}{10}$. Of the 100 painful menstruations, 58 had anteversion, or more properly speaking, anteflexion; 17 of these had fibroid tumours in the anterior wall: 25 had retroversion; 7 of these had fibroid tumours in the posterior wall: and in 17 the position was normal, 1 of these having a fibroid tumour in the fundus. Of the 29 dysmenorrhœal cases, 23 had anteversion; 14 of these had fibroid tumours in the anterior wall: 3 had retroversion; all of these had fibroid tumours in the posterior wall: and in 3 the position was normal. Of the 100 cases of painful menstruation, the os was normal in but 6, unnaturally contracted in 90, otherwise abnormal in 4. Of the 29 cases of dysmenorrhœa, properly speaking the os was not normal in a single case, being contracted in 26, and otherwise abnormal in the other 3.

The following tabular statement presents the particulars at a glance.

Of 100 cases of painful menstruation,	{	Os was normal in but	6
		" contracted in	90
		Cervix was flexed in	61
		" congested in	7
Of 29 cases of dysmenorrhœa,	{	There were polypi in	2
		Os was normal in	0
		" contracted in	26
		Cervix was flexed in	23
	{	" had polypi in	2
		" was congested in	1

From this it would appear that the pain of menstruation is almost wholly due to mechanical causes, for of the whole 129 only 8 had engorgement or congestion of the lining membrane of the canal of the cervix, and these were mostly complicated either with flexure of the cervix or with fibroid growths in

some portion of the body of the uterus. I would not deny that menstruation may be painful merely from a congested state of the cervical membrane, where there is no fibroid growth, no polypus, no contracted os, and no flexure of the cervix; but such cases are very rare indeed, while the great majority of dysmenorrhœal cases have a contracted os and a narrowed cervical canal or a flexed one. In some instances the os is not larger than a pin's head, or it may be large enough to admit a No. 4 bougie. Again, the os may be quite large enough, but the canal may be flexed so as to form a valvular obstruction to the egress of the menstrual fluid. Sometimes we find the os small and the canal flexed without painful menstruation, and here the cervix is not indurated, but soft and elastic to the touch. Of the 129 cases of painful menstruation, but 20 had the uterus in its normal position, while 81 had anteversion (31 of these with fibroids in anterior wall), 28 retroversion (10 of these with fibroids), 116 had contracted os, and but 6 a normal one; while 84 had flexure of the cervical canal, 4 had polypi, and 8 engorgement of os and cervical mucous membrane.

In the great majority of cases, in addition to a contraction or flexure of the canal, the cervix will be long, pointed, and indurated. If the flexure be anteriorly, we often find the intra-vaginal portion of the cervix unequally developed—that is, the posterior part, from the os to the insertion of the vagina at *a* (Fig. 14) may be an inch and a quarter long, while the anterior, from the os to the insertion of the anterior cul de sac at *b*, may not be more than one-third as long. But if there be a retroversion, then the os may be sucker-mouthed, the anterior lip overlapping the posterior, as in Fig. 15.

The size of the os and the position and relations of the cervix may be ascertained by the touch, as already explained.* But it is well always to resort to the sound to determine definitely the course, curvature, and contraction of the canal. To the touch and the sight the os may seem to be quite large enough, and

FIG. 14.

FIG. 15.

then we will find a flexure, perhaps a very acute one, at the junction of the cervix and body of the womb, due most probably to the pressure of a small fibroid in the anterior wall of the uterus, such as is represented by Fig. 16, *a*. But, leaving malpositions of the organ for the present, we will confine our-

FIG. 16.

selves to such cases as have a contracted canal or a flexed

* THE LANCET, Oct. 8th, 1864, p. 414.

cervix, thus presenting a mechanical obstruction to the passage of the menstrual flow.

The treatment of dysmenorrhœa was formerly very empirical. Dewees cured many cases with his ammoniated tincture of guaiacum, but I have not seen anyone who had derived the least benefit from it. The remedy is so nauseous that I could never get a patient to persevere with it. I must confess, however, that of late years, since I have learned more intimately the nature of the disease, I have not prescribed it at all. My friend, Professor E. D. Fenner, formerly of New Orleans, now surgeon in the Confederate Army, has been very successful with the bichloride of mercury in minute doses; but I have no experience with the remedy. Many prescribe belladonna and other narcotics, but they can only produce a merely palliative effect. Simpson's operation of enlarging the canal by incision is not always successful, but it is the only procedure from which I have derived the least benefit. The whole philosophy of the operation consists in opening the canal and keeping it open, so as to allow the easy passage of the menstrual flow. M'Intosh dilated the cervix with bougies, but whoever has followed him must have been struck with the uncertainty of the result, as well as with its painfulness, to say nothing of its danger. *A priori*, it would seem a trifling thing to pass a bougie along the cervix uteri, but I have known it to be followed by most serious results. In 1859 Professor Metcalfe, of New York, referred one of his sterile dysmenorrhœal cases to my care. There was slight anteversion, with a small fibroid in the anterior wall. The os was very small; the cervix long, pointed, and indurated; and the canal, though straight, was very narrow. I advised the operation of incising the os and cervix, which was objected to by the lady, although Prof. Metcalfe was anxious to have it done. I explained to her the process of dilatation, and she wished to try it. Accordingly a small bougie was passed in to the depth of two inches, and allowed to remain a few minutes. On the next day a larger one was used, and in two or three days more a conical bougie was passed, dilating the os externum to about a No. 9. She complained of a good deal of pain at the time, and there was a slight laceration of the contracted os. That night she had a rigor, followed by fever, with a most intense attack of metro-peritonitis, which lasted many weeks, and from which she barely escaped with her life. Her recovery was slow and tedious. This was my last bougie case. I have known several cases of the same sort in the hands of others in my own country, and I have seen two in Paris during my short sojourn there.

In November, 1861, in Paris, a medical friend asked me to see a case of dysmenorrhœa, which was sterile after a marriage of eight or nine years. The os and cervical canal were very small; the cervix long, pointed, and indurated. It was just the case for an operation, or there was nothing to be done. I advised him to perform Simpson's operation. He was afraid of it, and a year afterwards he introduced a screw bougie made of ivory deprived of its earthy constituents, which was allowed to remain in the cervix, and dilate it mechanically by absorbing moisture, and expanding it to twice its original size. A violent attack of metro-peritonitis was the consequence, and I saw this lady when she had been ill about a week. She had a pulse of 140, and continued in a very dangerous condition for a long time, but eventually recovered.

The other case of metro-peritonitis from mechanical dilatation occurred in the hands of one of the most eminent physicians in Paris. Fortunately the lady recovered after three weeks of fever, with the most intense suffering.

This experience warns against merely mechanical dilatation. But it may reasonably be asked, "Is it more dangerous than splitting up the neck of the womb?" I answer, "Yes." I cannot now tell how many hundreds of times (certainly more than five hundred) the operation of cutting open the os and cervix has been done by Dr. Emmet and myself at the Woman's Hospital and in private practice, and I now remember but a single instance in which it was followed by inflammatory symptoms, and this resulted in pelvic cellulitis and abscess. The case was badly chosen for operation, and if I had known that this patient had had a pelvic abscess once before, I certainly should not have operated on her. The house-surgeon of the hospital inadvertently overlooked this part of the history of the case, and hence the accident.

1, Bolton-row, Mayfair, Feb. 1865.

(To be continued.)

VACCINATION AT SOUTHAMPTON.—During the year ending September 30th, 1864, out of 1618 registered births, only 834 children are reported as having been vaccinated.

THE "MODUS OPERANDI" IN SUCCESSFUL LITHOTRITY.

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WHILE there appear to be some leading general principles which direct the practice of lithotritry, there is no operation in surgery, perhaps, which depends more on attention to minute details for its successful performance.

The general principles may be thus stated:—

1. That mechanical contact with the bladder and urethra, whether from instruments or from rough fragments of calculus, is to be reduced to the smallest possible extent.

2. That the natural functions of the urinary organs are to be as much as possible rendered auxiliary to the operation; and that they are to be interfered with, and, *à fortiori*, to be impaired, as little as possible.

In illustration of the first principle—viz., to avoid all unnecessary instrumental contact with the bladder and urethra, I may say that in the nineteen cases related in last week's LANCET as having been operated on by me during the year 1864, and comprising 124 distinct sittings, not one preliminary injection was employed, nor was there a single washing out afterwards to remove débris. The lithotrite was rarely introduced more than once at a sitting, never more than twice, and no sitting exceeded five minutes in duration; the majority did not last three minutes. Lastly, a large fragment was never withdrawn by the lithotrite. By this practice a great amount of mechanical interference was spared to the patient. I think I have seen as much harm result from rapid and forcible distension of the bladder by injections for the removal of débris as from any other part of the operation of lithotritry, excepting always, it may be said, unnecessarily rough and frequent use of the lithotrite. The evils which follow rapid distension of the bladder in washing out forcibly are, chronic cystitis and atony of its coats. No doubt the former condition is often treated in the most efficient manner by washing out gently, and with small quantities of fluid slowly thrown in; but that is a kind of washing which is useless to remove débris.

On the same principle, I greatly prefer to avoid any unnecessary introduction of the lithotrite. The object has been to use an instrument which will pulverize the stone as much as possible, so that it may be ejected during the natural efforts of the bladder, and not to remove more débris in the blades of the lithotrite than can be easily withdrawn without encountering resistance, so as not to damage the neck of the bladder or the urethra.

The sitting, also, should be short: two minutes, for the presence of the lithotrite in the bladder, suffice for all ordinary purposes; sometimes three minutes are necessary. Ample time is thus afforded to seize and crush fragments four, five, or six times, employing the flat-bladed lithotrite with no opening in the female blade (so often misnamed or confounded with the "scoop," a wholly different instrument), and removing with it only as much as can be contained without causing difficulty in the withdrawal. Rarely should there be more than a slight appearance of blood, either at the time or in the first urine subsequently passed; often there will be none. The operator requires no other instrument with him than the lithotrite, and for so short and unirritating a proceeding he requires no chloroform and no preparation. The urine may have been voided half an hour or an hour previously; it is of small consequence, provided that too much is not present, a large quantity usually making it less easy to seize the stone. The patient soon loses his dread of a proceeding so little disturbing; and, as the sitting is rarely followed by a chill, it may be repeated every fourth or fifth, sometimes in exceptional cases every second or third day, without inconvenience. If more than ordinary soreness or irritability of the bladder is found on the introduction of the lithotrite, it is withdrawn, or there is a shorter sitting than usual, and so a chill may be avoided; conditions which under anæsthesia would not be recognised. Thus, it may be added, that in two only of the patients referred to (the single child's case of course excepted) was chloroform administered, and each of those at the first sitting only; the second was submitted to, at my request, without it, after which each patient preferred to dispense with chloroform, and had all the subsequent sittings without it. (Cases 1 and 12.)

The flat-bladed lithotrite, referred to above, has the singular