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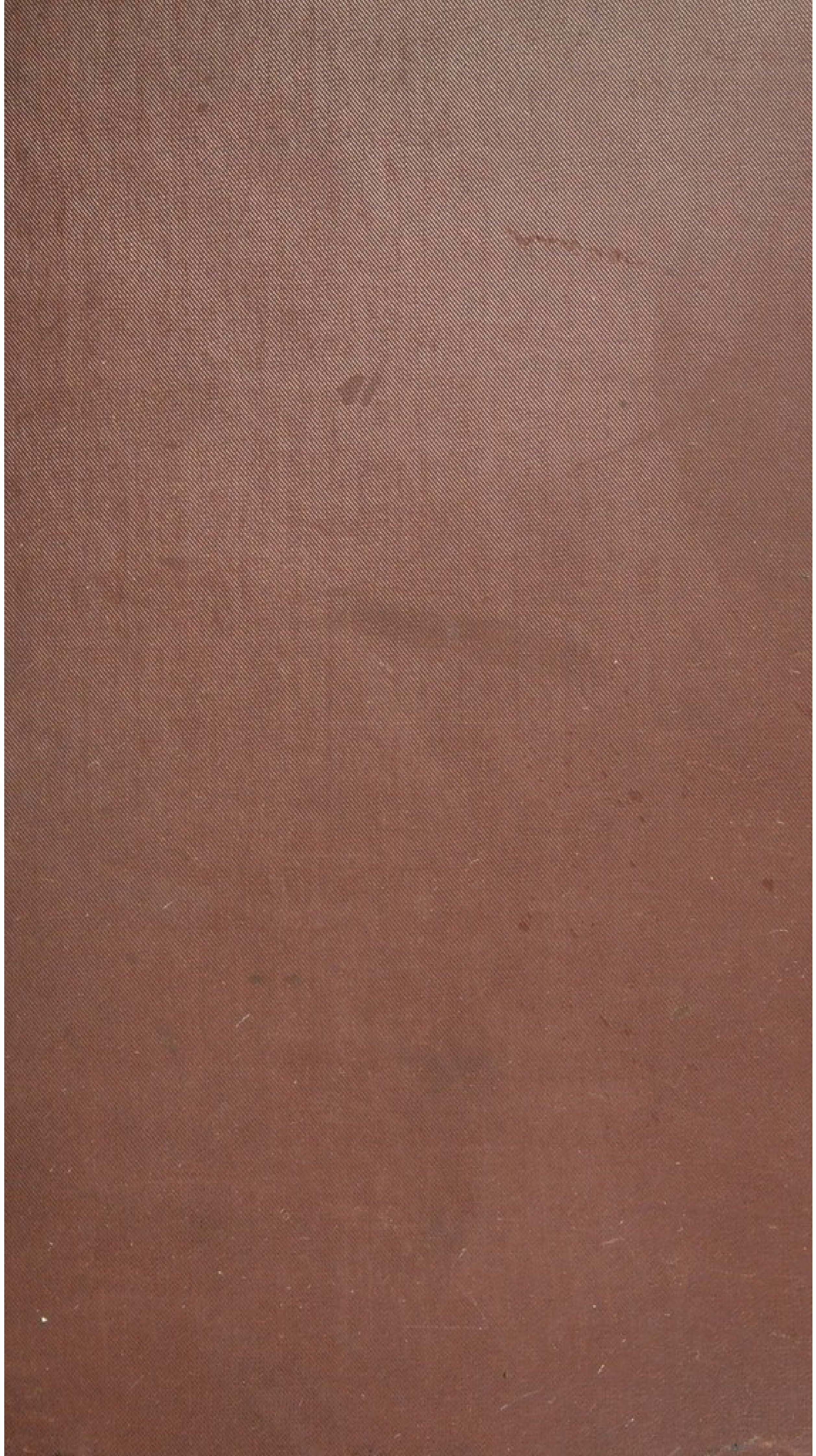

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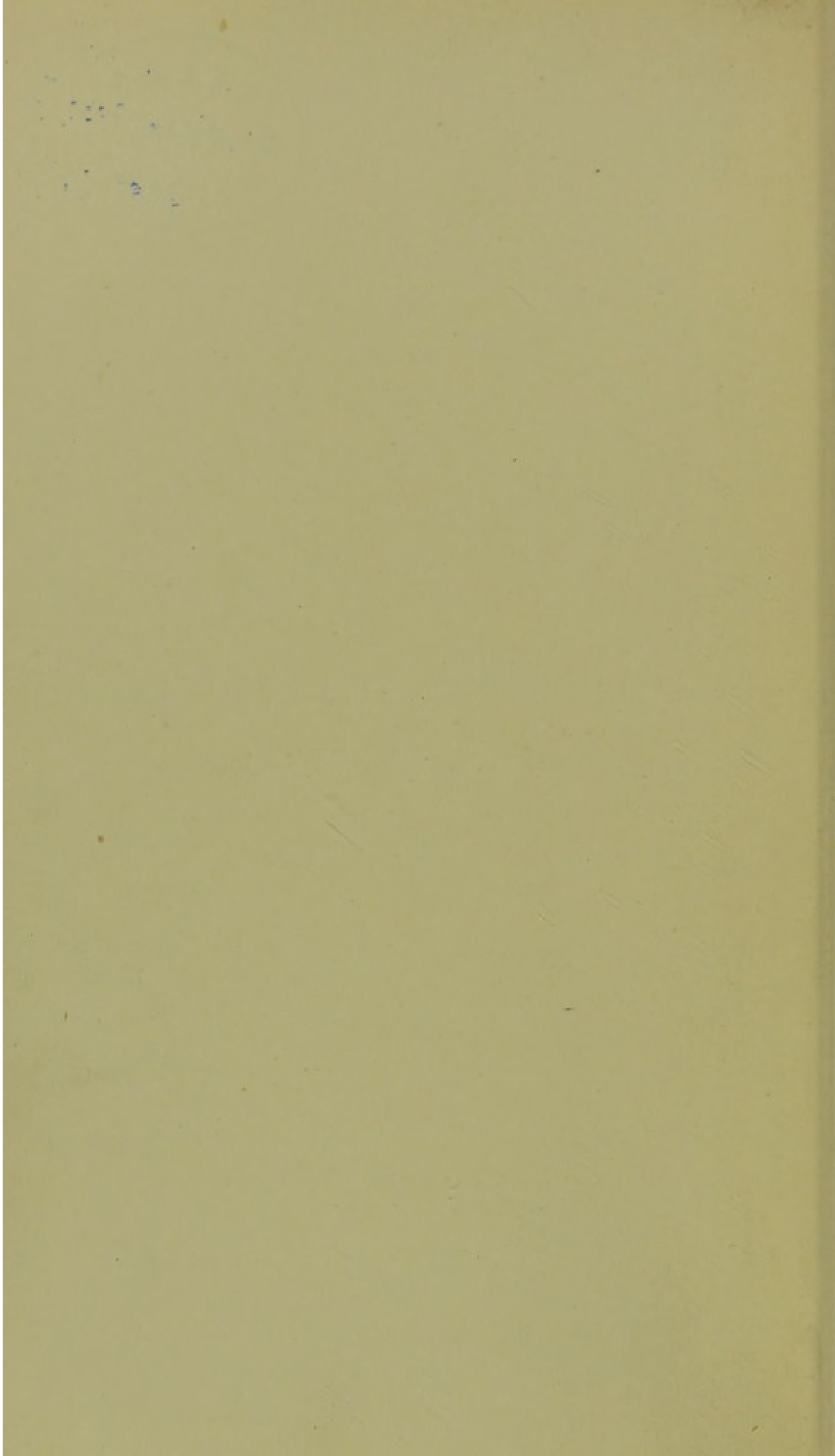
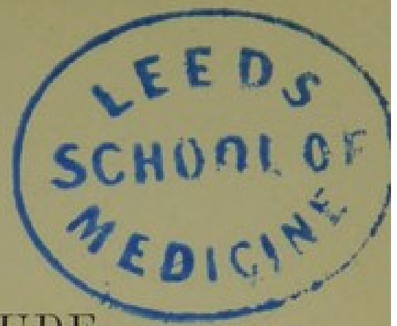
RUPTURE OF THE FEMALE PERINEUM





ON THE

TREATMENT OF RUPTURE

OF THE

FEMALE PERINEUM

IMMEDIATE AND REMOTE

BY

GEORGE GRANVILLE BANTOCK, M.D.

F.R.C.S. EDIN.

SURGEON, SAMARITAN FREE HOSPITAL FOR WOMEN AND CHILDREN; HONORARY FELLOW AMERICAN GYNÆCOLOGICAL SOCIETY, CANADIAN MEDICAL ASSOCIATION, AND DETROIT GYNÆCOLOGICAL SOCIETY; CORRESPONDING FELLOW, GYNÆCOLOGICAL SOCIETY OF BOSTON, U.S.A.; EX-PRESIDENT, BRITISH GYNÆCOLOGICAL SOCIETY; FELLOW, OBSTETRICAL SOCIETY OF LONDON, ETC.

Second Edition

WITH TWELVE ILLUSTRATIONS

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H. K. LEWIS, 136 GOWER STREET, W.C.

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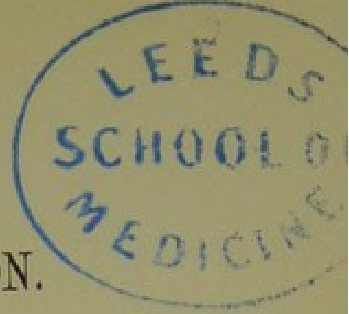
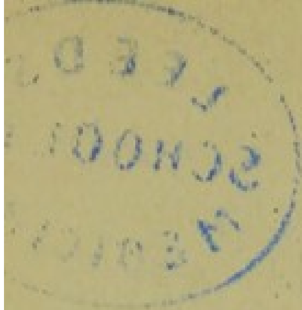

LEEDS SCHOOL OF MEDICINE

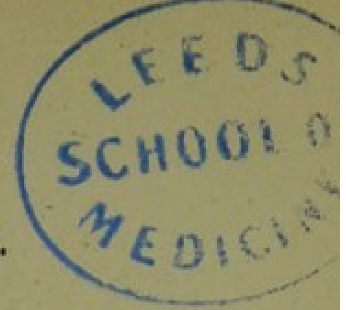
PREFACE TO SECOND EDITION.

The first edition of this work has been out of print for several years, and so many applications have since been made for it that I have been induced to re-write it. A few slight alterations have been made in matters of detail that have been suggested by experience, but the principle will be found to be the same. Ten years ago I was able to affirm that I had not had a single failure. Ten years' more experience enables me to say that in not a single instance has the wound broken down. I have also the satisfaction of receiving the testimony of others in favour of the method herein advocated, and I have the utmost confidence in again commending it to the notice of my professional brethren for adoption.

G. G. B.

12 Granville Place, Portman Square, W.
June, 1888.



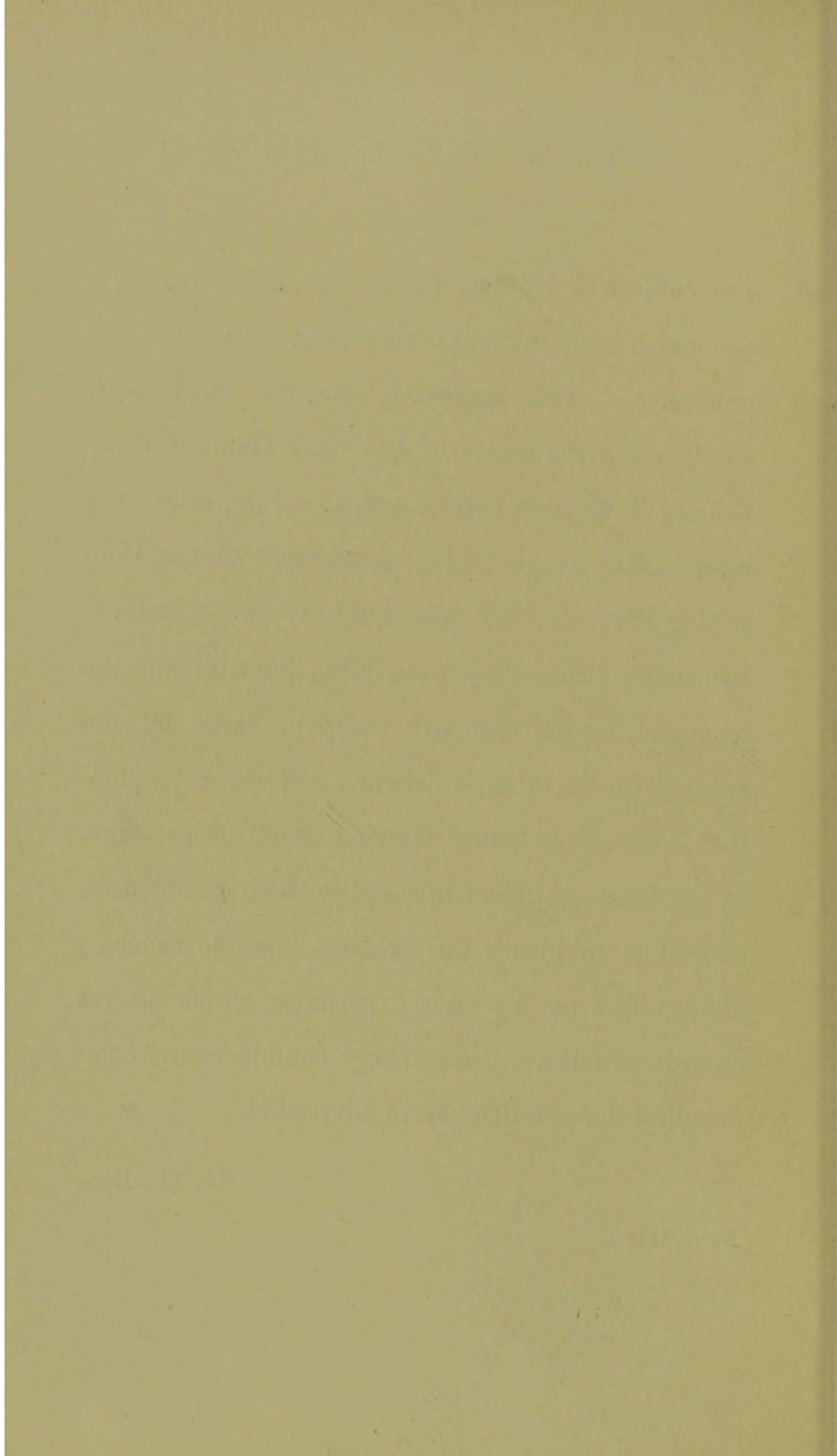


PREFACE TO FIRST EDITION.

The subject of Rupture of the Female Perineum is one which must interest a very large number of the profession. This condition, for the most part, comes under the notice of the busy General Practitioner in its recent state, and, as a rule, only at a more or less remote period under that of the Consulting Surgeon. Of course the treatment at these two stages differs very materially; for while, on the one hand, we find the parts ready prepared for the sutures, on the other, a delicate and careful operation is necessary before arriving at the same stage. It has been my object to simplify both procedures, as well as to insure the greatest possible success; and, guided by my past experience, which as yet records no failure, I have every confidence in commending the practice herein advocated.

G. G. B.

March, 1878.



ON THE TREATMENT

OF

RUPTURE OF THE FEMALE PERINEUM.

HISTORICAL SUMMARY.

We are indebted for the first notice of any operation for the restoration of a ruptured Perineum to the great French surgeon, Ambrose Paré, in these words—"and if it happen, as it sometimes does, that, after a forcible delivery, the genital parts of the mother are torn, and that the two openings are converted into one, then we should, by means of some stitches, unite the parts unnaturally separated, and treat the wound according to art."*

Guillemeau, "the pupil, the rival and contemporary" of Ambrose Paré, reports the first case of perineal suture. This case was "successful, is given in detail, and is well authenticated" (Roux).

The next case on record is one by another French surgeon, Delamotte (*Le Sieur de la Motte*, t. ii., part iii., p. 1218 (1765) obser. ccccii.) who wrote

* Ambrose Paré, *Œuvres*, *ed. Malgaigne*, t. ii., p. 718 (1561).

about the middle of the eighteenth century. The case is as follows—"I found the interspace (perineum) open, and this opening extended about an inch along the vagina and rectum, but giving rise to no inconvenience in consequence of the presence of retentive power. I then assured the patient that the accident was of no consequence, but that, if she liked, I could cure her immediately. Without hesitation she gave her consent, and I immediately introduced three stitches, one in the vagina and bowel, the other at the extremity of the anus, and the third at the fourchette. I only saw this woman twice in ten days, and found her so perfectly cured that I took out the stitches. Since that time she has been confined several times without a return of the accident."

Hitherto it appears that we have been dealing with the recent rupture. In our own country, about the same time, Smellie, who was then at the height of his fame, taught that it was possible in some cases, not only to restore the rupture by immediate operation, but also at a more remote period. He was not, however, very confident, for he says "when the laceration reaches so high as to endanger the woman's retentive faculty, this method" (of paring off the callous edges or scarifying with a lancet or bistoury, and the insertion of deep sutures) "doubtless, ought to be tried; but not otherwise,

because the operation *very rarely succeeds.*" (Smellie's *Midwifery.* McClintock. *New Syd. Soc.* edition, vol. i., p. 373).

Smellie's teaching took no root, as might have been expected, and accoucheurs were in the habit of leaving the cases to nature for the most part, sometimes attempting a cure in recent cases by the application of Peruvian or Canada Balsam, by inducing constipation, and other equally useless measures. But a new era was begun when, at the end of last century, two French surgeons, viz., Noel, of Reims, and Saucerotte, of Lunéville, brought the subject before the French Academy. Saucerotte read his paper in Paris in the year 1797, entitled "Observations on a case of rupture of the recto-vaginal septum during a laborious confinement in which the cure was attempted more than three months and a half after delivery." His experience in the case herein recorded led him to the following conclusions:—Firstly, that constipation, which at the time of a recent solution of continuity might be a means of cure, is of no use when, as is generally said, the edges of the division have become callous through lapse of time. Secondly, after the operation a cooling and relaxing regimen, a free state of the bowels obtained by mild laxatives, but not by injections, is to be preferred to constipation. Thirdly, that it is absolutely indispensable to divide the *sphincter ani*

if we wish to avoid a barrier which offers more resistance to the escape of fæces than the edges of the recto-vaginal solution of continuity if we wish to facilitate the cohesion of the divided parts, which I believe impossible without the preliminary precaution.

So that we find Baker Brown anticipated in that part of the operation which he considered peculiar to himself, and on the necessity of which he laid so much stress.

Noel, of Reims, as I have indicated, divides with Saucerotte the honour of this important advance by also recording a successful case.

In France the seed thus sown, however, took root slowly, for we find the operation almost forgotten. Some twenty years afterwards M. Dubois operated once with success, and M. Paul Dubois also once, in the Maternity Hospital, with only partial success, both following the method of Noel and Saucerotte. The great Dupuytren also, about the year 1820, recorded a successful case to which he attached little importance. About the same time M. Montain, jun., reported in the *Revue Médicale* a case of this operation. But the greatest impulse was given to the operation by M. Roux, who published a paper on the subject (*Gazette Médicale*, t. ii., Jan. 2, 1834). In this paper M. Roux described his method of employing the quilled suture, now used for the first

time, and gave details of five cases, of which four were successful. From this time the acceptance of the operation was no longer doubtful, and he had worthy successors and imitators in Velpeau, Maisonneuve, Nélaton, Jobert de Lamballe, and others.

In Germany the subject appears to have attracted little attention, and for the first quarter of this century we find hardly any mention of it. Obstetric writers, such as Mursinna, Wentzel and Osiander, were chiefly occupied in discussing the most opportune time for the operation. It was not till Dieffenbach (1829) set forth his views, that we find the subject carefully studied, and the conclusions at which he arrived, and the principles he laid down show the care he bestowed upon it. This surgeon laid great stress on the value of his parallel incisions, a procedure in which he has had few followers. For the last forty years the value of this operation has been recognised, and it has been practised with success, notably by Langenbeck and others.

Still more scanty is the literature of this subject in our own language, and those obstetricians who deigned to notice it did so with the object of discountenancing any operative interference.

To Baker Brown must be given the credit of establishing this operation in this country—and his

list of operations even now remains the longest on record—and it has now taken its place in our systematic treatises on Surgery and Obstetrics.

DEFINITION.

By the term "Rupture of the Perineum" I mean laceration of a part or the whole of the perineal body.

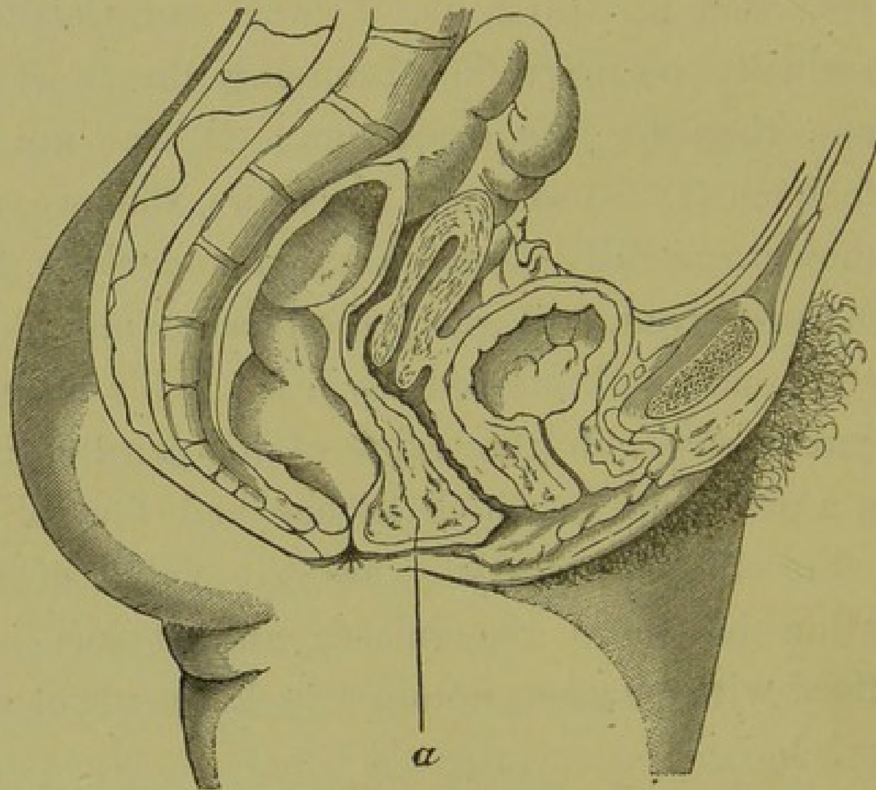


FIG. 1.—*a.* The perineal body. (After Savage).

This structure,* which constitutes the central portion of the perineum, is a triangular or short wedge-shaped body, interposed between the diverg-

* Savage. *Anatomy of the Female Pelvic Organs*, 3rd edit., p. 4.

ing vagina and rectum at their termination, and its base forms a considerable part of the perineum. It consists essentially of fibro-elastic tissue, vessels, and nerves. Covered by fascia, it gives insertion to the anterior fibres of the superficial sphincter ani, to the inner fibres of the two transverse muscles of the perineum, and to some of the fibres of the bulbo-cavernosus muscle of each side. Fig. 1, which is a reduced outline from Savage (Plate VIII., Fig. 2), shows the position and wedge-shaped form of this body, and it will be readily seen that on the integrity of this structure depends the efficiency of the perineum. This part of the subject is well illustrated by Dr. Gaillard Thomas,* in a series of diagrams.

The above definition necessarily includes all those cases in which the rupture extends beyond the perineal body, involving any, or all, the fibres of the sphincter ani, and also any portion of the recto-vaginal septum. Superficial lacerations occur in the process of parturition, involving only the skin and mucous membrane *as far as* the perineal body. These are of course excluded.

It is the custom in systematic treatises to lay down hard and fast lines which in practice are found to be purely imaginary and of no practical

* *Diseases of Women*, by T. Gaillard Thomas, M.D., 5th edit., 1880.

utility. Thus, Dr. T. Gaillard Thomas divides laceration of the perineum into four varieties, viz.:—

1. "Superficial rupture of the fourchette and perineum not involving the sphincters."

2. "Rupture *to* the sphincter ani."

3. "Rupture *through* the sphincter ani."

4. "Rupture through the sphincter ani and involving the vaginal septum."

The preceding definition appears to me sufficient for all practical purposes; for as regards the necessity of an operation, it makes no difference whether the rupture extends *to* or *through* the sphincter ani, since, in either case, the *perineal body* suffers, and the vagina loses its support; while if the sphincter ani be torn through it is very seldom that the septum is not also ruptured to a greater or less extent.

The treatment of Rupture of the Perineum differing in its particulars according to the period at which the operation is performed is to be considered under two heads—

I. Immediate operation.

II. Remote operation.

I. IMMEDIATE OPERATION.

Obstetricians are agreed that superficial laceration, involving the mucous membrane and skin only, is a very common occurrence, especially in primi-

paræ, and that such a condition requires no operative interference. The preceding definition, as I have already said, excludes such cases. But it is in those cases in which it is evident that the perineal body, partly or wholly, is involved that difference of opinion arises; and it is with reference to the latter that I lay it down as an incontrovertible proposition that, *as a general rule, the immediate operation should always be performed*, or, in the words of Prof. Von Hecker, "in my opinion, the right way to manage every rupture is the application of the suture as soon as possible after delivery."

It is here convenient to state that superficial lacerations of the perineum, when looked at in their recent state, generally appear larger than they really are because of the swollen state of the tissues. The exact amount is to be ascertained, not by looking at the extent of the raw surface, but by measuring the length of perineum left, and by examining the condition of the perineal body with the index finger in the vagina and the thumb on the remaining perineum.

Some years ago I attended, in labour, about the same time, two patients who had, in their first confinements, suffered complete rupture of the perineum. In both cases the injury had been repaired by a late distinguished operator: in the case of A by the second operation, and in that of B by the

third operation. It will probably be anticipated that in each case rupture again occurred, and that it was impossible to prevent it after the loss of so much tissue as repeated operations, by the method adopted by him, involved. In both cases I could feel the perineum giving way before the formation of a "perineal tumour" and my efforts were directed to limiting the rupture as much as possible. In both, however, the rupture was complete. I at once brought the parts together by suture after delivery of the placenta, using as a suture fine annealed iron wire, and the result was perfect union by first intention. I attended B in her third confinement, which was briefly, a repetition of her second. Again in her fourth, with a like result. It is a fact that in both these cases an attempt was made in the first confinement to obtain union by the means recommended by the opponents of the immediate operation, with the result we have seen, viz., that no union whatever took place. Nor is the explanation of the failure far to seek; for it must be evident that while the close apposition of the legs may tend to keep the lacerated surfaces in contact, it at the same time has the effect of closing the vaginal outlet proper. Hence, it follows, that the lochial discharge has to find its way out as it can, and that is as much *between* the raw surfaces as *per viam naturalem*. In the face of the above two cases,

and many others might be cited, it would seem to be scarcely necessary to argue in favour of the immediate operation; but in consequence of the fact that even now this question is not definitely settled, I feel it will not be amiss to pursue the subject further.

In a discussion at the Obstetrical Society of London, gentlemen were heard declaring that immediate operation was unnecessary; that the parts healed up spontaneously, and so forth. This subject was also discussed at some length by the New York Obstetrical Society in the year 1875. The *American Journal of Obstetrics* for April, 1876, contained a paper by Dr. M. J. Moses, of New York, on "Perineal Injuries," in which he advised non-interference immediately for the following extraordinary reasons:—

1. "Deep and extensive injuries are not disposed to heal owing to the devitalization of the tissues from pressure, and the exposure of the surface of the wound to the irritating influences of the lochia."

I shall adduce additional evidence to prove that the parts are not only *not indisposed* to heal, but that healing after the application of sutures is the rule, while the forcible and effectual apposition of the raw surfaces by means of the suture is the "very thing" to obviate "the irritating influences of the lochia," and to allow of their free escape by a suit-

able position. Of course, if the case be one of those mismanaged ones in which the head of the child has been allowed to remain for many hours in the vagina, and perhaps on the perineum itself, and in which sloughing must inevitably follow, it will be better to let the rupture alone, as it will probably be found that the bladder has also suffered. But this is an extreme case, and does not appear to be within the view of the author.

2. "The shock which the patient has suffered both from the labour and the accident renders her an unfavourable subject for operation." If the shock be so great that there remains no reparative power, then the parts will assuredly not heal spontaneously, the patient will probably die, and it will be well to let her alone; but if she have enough vitality for the repair of the cervical bruising (and perhaps laceration), for the processes of involution of the uterus and the secretion of milk, then surely she is equal to the repair of an injured perineum when put in the most favourable condition for healing.

3. "The surrounding situation; a lying-in chamber; a possibly crying child; an exhausted doctor, and a nervously over-anxious community of friends."

It would be a waste of time to answer such a farrago of nonsense. One cannot withhold from the author the credit of great ingenuity in compiling

such an array of extraordinary concomitant circumstances.

4. "The *fact* that any case which sutures would *possibly* assist (the italics are in the original) will as surely heal without them, if the knees are bandaged, and the vagina kept cleansed from impurities."

Such are some of the miserable arguments to which the opponents of the immediate operation are reduced.

The preceding cases are a sufficient answer to the last objection, and the *fact* is just the other way, as I shall yet further prove. How did it happen that the late Mr. Baker Brown was able to place on record over a hundred cases of operation for ruptured perineum, and that surgeons are so frequently called upon to perform this operation, if the author's assertion be a *fact?*

At the meeting of the New York Obstetrical Society, held on March 23rd, 1875 (already referred to), Dr. Noeggerath adduced the statistics of a number of continental accoucheurs—viz. Hecker of Munich, Winckel of Dresden, Abegg of Danzig, Schroeder, Bidder and Sutigin of St. Petersburg, Holst of Dorpat and Prof. B. Schultze; and he deduced from these that "complete success was obtained in about seventy-five out of every hundred cases of immediate operation." It is worthy of special note that

when the operation was performed by the principal, success was almost invariable, and that when failure resulted it was attributable to the inexperience and want of skill on the part of young physicians or students who had the management of the cases (Schroeder, Bidder and Sutigin). Thus Prof. Von Holst "claims to have closed up by first intention every single case in which he performed the operation" and Prof. Schultze "succeeded in uniting all of the thirty deep ruptures upon which he operated immediately after confinement, with the exception of two, where the process of healing was interfered with by puerperal ulceration of the vagina." Looking back upon my own experience I can affirm that I have never in the immediate operation, performed by myself, failed, and equally, that the contrary method has never succeeded in those cases of even partial rupture which have come under my notice, or in which I have been *prevented* by any circumstances from operating at once. I regard the operation, when properly performed, as one of *the greatest certainties in the whole range of surgery.*

The immediate operation is to the advantage of the patient in more ways than one. The discomfort attending the use of sutures lasts for a day or two only, especially when silkworm gut is used; whereas the soreness accompanying the slow granulation of the ruptured tissues continues for a week

or two, and the frequent dressings and cleansings are a source of great discomfort, if not pain to her. And whilst it is necessary for the patient to keep her bed during the puerperal period, is it not much better to take advantage of the opportunity thus offered? Present suffering does not disturb her with the thought that at a future time a painful operation will be necessary, and that she will have to go through what may be regarded as a second lying-in. Think, also, of the discomfort and inconvenience she is spared in the case of complete destruction of the sphincter with its consequent loss of control over flatus and liquid or semi-liquid evacuations. But that is not all; for it has been shown that puerperal fever is more likely to attack the patient who has not been operated on. Thus, Sutigin reports that of *sixteen* cases of rupture where no operation was performed, only six per cent. remained free from puerperal fever, while amongst *twenty-six* cases which were operated on, fourteen per cent. remained healthy; and while twelve per cent. died among the former, only seven per cent. died among the latter. (Noeggerath).

The immediate operation requires as much care and skill as the remote, and an equal attention to details. I have never found it necessary to place the patient otherwise than in the usual obstetric position, *i.e.* lying on the left side with the nates

over the edge of the bed and the thighs well flexed, provided a good light could be obtained. The operator, however, has this advantage, that the raw surfaces are ready to hand, and with a little care can be readily adjusted.

The first thing to be done, once the patient is in position, is to pass into the vagina a piece of sponge, with a string attached, to facilitate its removal on completion of the operation. This serves the double purpose of cleaning the raw surfaces as it is introduced, and of preventing the lochial discharge from coming down upon the wound. Having ascertained the nature and extent of the rupture by separating the nates, and the relations of the opposing surfaces by bringing them into accurate apposition, the nates are held apart, the superior fold by the nurse, and the inferior by the left hand of the operator. The needle is passed in the manner to be described further on, as represented in fig. 6, care being taken *to keep it out of sight throughout its whole course.* In this manner the deep sutures, two or three in number, are introduced, beginning with the one next the anus, one or more being required for the anterior portion of the perineum, where the suture necessarily passes into the vagina. The wound is now carefully cleansed with a clean sponge, or, better still, if the means be at hand, with a stream of warm water, and the sutures are

tied, beginning with the posterior one. When all the sutures are tied the vaginal sponge is removed. In the case of complete rupture I have not found it necessary to employ any rectal sutures, nor is the operator troubled with any bleeding, as in the secondary operation. No dressing is required, but the external parts are to be kept as clean and as dry as possible. This is best done by directing a stream of warm water, either simple or containing one-twentieth of the Pharmacopœial solution of sulphurous acid, or a solution of chlorate of potash (5 grains to the ounce), upon the perineum, and then carefully drying, two or three times a day. *Opium is not required.* The slightest unpleasantness of the lochial discharge is at once to be met with the washing out of the vagina with the above solution of sulphurous acid or iodine (a teaspoonful of the tincture to a pint of water) two or three times a day, and for this purpose the patient should lie on the left side. The patient should be allowed to pass her urine while lying on the side; if unable to do so it should be drawn off, in the same position, at intervals of six or eight hours; or a catheter may be tied in, if the nurse be inexperienced. If the catheter be tied in (a common elastic catheter is to be preferred) it will be best to plug it and draw off the urine at stated intervals, and to renew the instrument every second day. On the fourth

or fifth day the rectum may be cleared out with an enema of soapy water or a mild aperient may be administered on the fourth day. As a rule the sutures may be removed after the action of the bowels; but in a severe case it may be advisable to have the bowels moved a second time before doing so. By this time union will usually be found to be complete, and, if not, the sutures cannot be of much, if any, service.

I have no hesitation in affirming that if these instructions be carefully followed failure will scarcely ever be met with; and that if the injury were immediately attended to in this manner, the remote operations would very seldom be required, and we should banish from the list of the gynæcologist a number of female complaints such as cystocele, rectocele, and prolapsus uteri, associated with rupture of the perineum, as they so often are. Besides all this we should avoid an incalculable amount of inconvenience and discomfort, if not actual suffering.

II. REMOTE OPERATION.

It is not my intention, for it would serve no useful purpose, to describe the various methods of performing this operation, neither the mode of preparing the parts for stitching, from the simple and

inefficient method of Smellie to the complicated method of Dieffenbach and Jobert de Lamballe; nor the various forms of suture, such as the twisted, serpentine, quilled, button, stay (of Brickell) and simple interrupted suture; nor to treat of the different materials employed, such as silk, hemp, iron, silver and gilt wire, catgut, and silkworm gut. I purpose confining myself to the operation which I am in the habit of performing, and which has now stood the test of twenty years' practice, with results so satisfactory that I have not to record a single case of failure, beyond a small fistulous track in one instance, in which the patient is to this day unaware of its existence.

In devising this method it has been my object to remove as little tissue as possible, to restore the parts as nearly as possible to their original relations, and to make the operation so simple that the merest tyro may, by following my description, be able to undertake the cure of this condition. Not that I would advocate its attempt by every one who meets with a case of severely ruptured perineum. Only in the event of skilled assistance being unobtainable, would I counsel the performance of such an operation by an inexperienced operator as a *dernier ressort*. For I think it will conduce to the welfare of the patient and the reputation of the practitioner if such operations be restricted to those who already possess

some skill in operating, or are likely to have the opportunity of qualifying themselves. It has too frequently occurred to me to have to operate on patients whose chance of cure has been imperilled by the ineffectual attempts of inexperienced operators, to permit of my passing by this aspect of the question. At the present day there is not a town of any importance, where a man, with more or less skill in surgical operations, cannot be found capable of undertaking such a case, and I cannot but think it is trifling with his patient, for a man, who has very infrequent opportunities of doing anything worthy of the name of an operation, to try his prentice hand in this one.

When I first began the study of this subject, now over twenty years ago, I had the advantage of witnessing the work of one of the most brilliant of operators. I was accustomed to see the quill suture invariably used, in ordinary cases. The late Mr. Baker Brown, who was remarkable for his manipulative dexterity, always employed this form of suture, with the exception to which I shall refer further on. Mr. Brown laid great stress on two of the steps of his operations. These were the use of the quill suture and the bilateral division of the sphincter ani. I propose to show that while the latter is quite unnecessary, the former is not only inefficient but probably the very worst form of

suture. In this I am glad to be able to bring to my support the unqualified approval of that distinguished operator, the late Dr. Marion Sims.

Having, as I have said, had the advantage of observing Baker Brown perform this operation a great many times, and of witnessing the after treatment of the cases, I may be allowed to say, without any breach of confidence, that I was not long in perceiving that something was wrong in the details. It was no uncommon thing to see copious suppuration in the course of the case, sometimes with extensive sloughing. Moreover, I frequently observed that when union had taken place the resulting perineum was thin and inefficient, and that the perineal body was in no way restored; in fact, the result was a mere membrane. Yet it was strange to hear the argument that the more copious the suppuration the greater was the firmness of the perineum, because of the larger amount of cicatrised tissue—a very erroneous argument. I had seen an operation succeed with the simple suture where the quill-suture had previously failed, and that too under the hands of the same operator. The more I thought over the matter the more dissatisfied I became with the quill suture, and when I saw this, the views I was gradually coming to hold received strong support and I became confirmed in them. I reasoned with myself in this wise:—When the quills are used the deeper

portion of the perineum is drawn out into an unnatural position, the fibres of the transverse muscles are violently stretched, as well as the elastic fibres which go so much to form the perineal body, and the projecting mass between the two quills is semi-strangulated. It is usual to cut these sutures in from thirty-six to forty-eight hours after the operation, and any one who has had to do this will remember the sudden rebound of the parts and the sinking in of the perineum when set free. The imperfectly united surfaces, as yet only, as it were, glued together, and without any organization of the connecting medium, are thus violently torn asunder, and but for the superficial sutures, which are always used at the same time, between the quills, the whole perineum would inevitably break down. But yet another result is the sloughing, more or less extensive, in the track of the sutures—a result which is almost inevitable, unless the pressure has been graduated "to a nicety." This is the great difficulty; for while the blood finds its way into the compressed tissues with some difficulty, its return is still more impeded; the mass becomes engorged, the sutures become tighter, and the evil goes on increasing. This sloughing, moreover, extends into the deepest part of the wound, where primary union is of so much consequence, and the perineal body is destroyed, as must be evident from the amount of pus

sometimes discharged in these cases. The superficial sutures, however, remain; there is no drag on the tissues at the line of surface apposition, and union often takes place there—the extent depending on the depth to which these sutures have been applied. Hence, as I have said, only a thin membranous perineum results. In the case of complete rupture a recto-vaginal fistula is by no means rare under these circumstances—proving the correctness of my explanation. When the rupture is incomplete a perineo-vaginal fistula will often remain. This happened in my first case, in which I used the quills. In my second case I was led to adopt the simple suture, from having witnessed two successive failures in the same case with the quills, while the third operation with the simple sutures of silver wire was a complete success. The first operation was a total failure; the second resulted in the formation of a thin narrow bridge about the middle of the perineum, which, of course, had to be divided preparatory to the final operation.

My second case, to which I have just referred was that of a young woman, aged twenty-five, who in giving birth to an illegitimate child at the age of fifteen, under the care of a midwife, suffered complete rupture of the perineum. The sphincter ani was destroyed, so that she had no control over liquid or semi-liquid evacuation; the os uteri ap-

peared at the vaginal outlet and she suffered from irritability of the bladder, due to cystocele. She sought advice chiefly on account of the uterine prolapse and was admitted into the London Surgical Home in August, 1867. The rupture was thus of ten years' standing. In this case I used the simple suture of silver wire and the result was complete union. The contrast between this case and those treated by the quill suture was so great that the nurse who had charge of the case, and who had attended many cases treated with the quill suture used to speak of it as the most successful case she had ever seen. This was wholly due to the simple suture, as I could not then lay claim to any great amount of skill. It may be added that three months afterwards, the uterus was well up in the vagina, the cystocele had disappeared, there was a thick and well defined perineal body, and it was remarkable how little trace there remained of the operation.

From that time I have never used the quill suture, though I have frequently *seen it used.* In this manner I continued to employ silver or iron wire, until the year 1875 when I first used silkworm gut, and my first trial was so satisfactory that I have continued to use it *exclusively* to the present day.

I am very often asked the question: "What is silkworm gut"?

Silkworm gut is obtained from the silkworm when it is about to spin its cocoon. In this state the worm is mascerated in a bath of vinegar for four hours. The body is then removed and the silk glands, of which there are two, are rolled between the finger and thumb and finally drawn out, fixed and exposed to the air until dry. This is the silkworm gut, fishing gut, or "Florence hair" of commerce.* It is made of different degrees of fineness, from the finest trout gut—finer than horse hair but much stronger—to the stoutest salmon gut.

At first I was in the habit of selecting the stoutest gut I could find, viz., that used for salmon-fishing, but after two or three years I gradually came to the conclusion that a medium size was to be preferred; for it was not so much a question of force in keeping the parts together, as accurate apposition of the raw surfaces, even to the lowest depth of the wound, that was the secret of success.

I was led to employ the silkworm gut for the following reasons:—The silver (or iron) wire, admirable though it is, in that it is non-absorbent, and hence produces very little irritation, is yet too rigid to adapt itself so as to equalise the pressure over the

* Silkworm gut or "fishing gut" may be obtained of any fishing tackle maker, but is now procurable from Messrs. Krohne and Sesemann, 8 Duke Street, who at my suggestion import it largely.

whole length of the loop—and the smaller the loop the greater is its rigidity—and is apt to do injury when being removed (the more injury the stouter it is) while the silkworm gut is equally non-absorbent; it adapts itself admirably because of its flexibility, especially when moist; it produces no irritation provided it be not drawn too tight, and can be removed with as much ease as a silk suture. The result is that my cases are now virtually well in about a week as the following case shows:—

C. C., æt. 25, was admitted into the Samaritan Free Hospital on May 25th, 1876. The rupture had taken place on January 20th, when she was delivered "with instruments," after a labour of nineteen hours. Next day she felt "sore," and was conscious of "wind passing" by the vagina. She got up on the sixteenth day, and at the end of five weeks presented herself at the out-patient department of the hospital, where she was seen by my colleague (at that time) Dr. Godson. After weaning her baby she entered the hospital on the above date. On examination the perineum was found to be completely ruptured, the greater portion of the sphincter ani was destroyed, and while the posterior fibres remained intact the septum had also given way behind it. By contraction, in the process of cicatrization, the opening in the septum had been much reduced, and it now measured about three-eighths by a quarter of an inch, the longest diameter being in the direction of the axis of the vagina. The anterior edge of the fistula was about half-an-inch from the anal orifice.

May 29th.—Methylene being administered by the late Dr. Wynn Williams, in the presence of Dr. Deronbaix, of Brussels, and Dr. Hartcop, and after vivifying the parts to the required extent—including the opening in the septum—I first closed the fistula from the rectum by two fine silk sutures, and then completed the operation, in the manner to be described, with four deep silkworm gut sutures. The patient had not menstruated since weaning her baby, but on the next day the period came on, and continued until June 4th, very free. During this time the patient was simply kept clean externally, and the bowels were kept confined by opium. On the 5th (7th day) I removed all the sutures—the deep ones were beginning to cut—with the exception of one of the (two) rectal sutures. *The wound was healed throughout.* During these seven days there was not even a blush on the whole length of the perineum; and I had the satisfaction of calling the attention of several visitors to this fact. But for the occurrence of menstruation I should have removed the sutures by the fifth or six day, for, by that time, there was no indication of cutting. The patient returned home on June 12th (viz., the 14th day) with a thick and sound perineum. A few weeks afterwards she presented herself for examination, and her condition was most satisfactory. The rectal suture had disappeared. See also Cases VII.-XII., etc.

On looking over Baker Brown's record it will be found that the greater number of his patients were about a month under treatment, and cases quoted from other authors—notably three cases from a memoir by M. Verhæghe, of Ostend, describing

Langenbeck's method—show that the average duration of the treatment, *i.e.* from the date of the operation to the patient's return home, was about a month, while we cannot fail to notice the frequency of purulent discharge, with not a few of the accidents to which I have referred, such as recto-vaginal, perineo-vaginal, fistula, etc., on to complete failure and even death. Thus, Brown's list, which is brought down only to March, 1864, contains the following:—amongst the cases of complete rupture in Nos. 3, 4, 12, 24, 32, 47, and 54 there remained a recto-vaginal fistula; in No. 62 the result was "incomplete" after the remote operation, and subsequently after immediate operation there was a perineo-vaginal fistula, in cases 19 and 21 failure, and in 11 and 56 death ensued. It must be evident that the amount of discharge means a proportionate distruction of the perineal body, and that the nearer we approach to union by first intention the greater must be the success.

It is worthy of special notice that the difference in the amount of pain in the two methods, viz., the quill and simple suture methods, is very striking. In the former case the patient complains very much of pain, and opium is urgently required for its relief. In the latter it is never required except in the case of a very irritable patient, and as a rule there is much less suffering than at the time of the injury.

The testimony of patients who have undergone operation under both methods is uniformly and very decidedly in favour of the simple suture.

Baker Brown, as I have said, regarded double lateral division of the sphincter ani as an essential part of the operation in the case of complete rupture. My experience proves that it is wholly *unnecessary*, and in this view I am supported by the high opinion of Dr. Henry Savage, who, from anatomical observations, has arrived at the following conclusion:—viz. that "the success of operations for the closure of perineal lacerations is obviously not promoted by division of the superficial anal sphincter." This statement is, moreover, endorsed as the result of experience by Dr. T. Gaillard Thomas, who quotes Sims, Emmet, and Peaslee as agreeing with him. In a review of my original paper in the *Obstetrical Journal*, Dr. Cazin* said "in this he is in accord with a large number of my countrymen." He, however, thought my statement too absolute, and was of opinion that the "liberating incisions, rejected in principle, should be used in the case of constriction of the finger by the newly restored orifice." I will not quarrel with this limitation, but must repeat that I have never found this step necessary.

* *Archives de Tocologie des Maladies des Femmes et des Enfants Nouveau-nés.* March, 1877, p. 189.

Nor are the parallel incisions of Dieffenbach, through the skin, outside the lines of suture, of any service. It must be evident that they cannot affect the deeper portion of the wound, where the chief difficulty meets us.

I now proceed to describe my method of performing the operation, and as the greater includes the less I will confine myself to the case of complete rupture.

The instruments required are a scalpel, curved or bent scissors, toothed forceps, several pairs of pressure forceps, large and small needles and needle holder (by preference Hagedorn's) and sponge holders, and for sutures, a few strands of very fine and medium sized silkworm gut, which should be placed in a small basin of tepid water until wanted.

Until within the last four years I used to employ a long curved needle set in a handle, but since the introduction of the Hagedorn's needle I have entirely discarded it in favour of the latter. This needle is so superior in every respect that I now use it exclusively. The form I prefer is the half circle as the most convenient, and such is the construction of the point and the whole needle that it passes through the tissues without any bruising, while being curved against the flat, it combines the greatest strength with the smallest size.

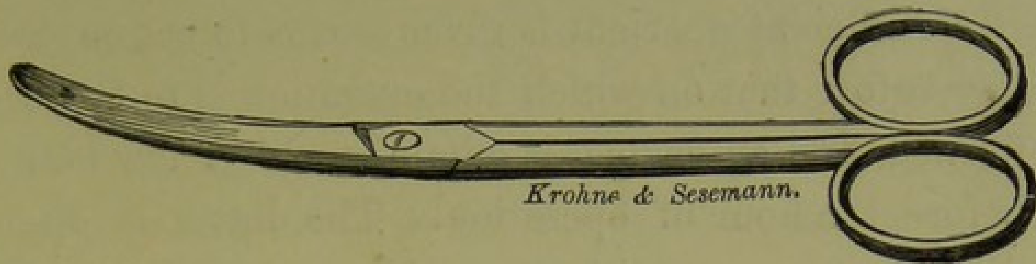


FIG. 2.—Curved Scissors.

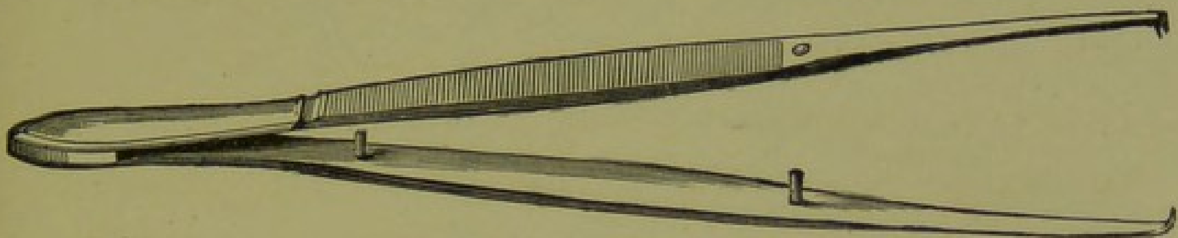


FIG. 3.—Toothed Forceps.

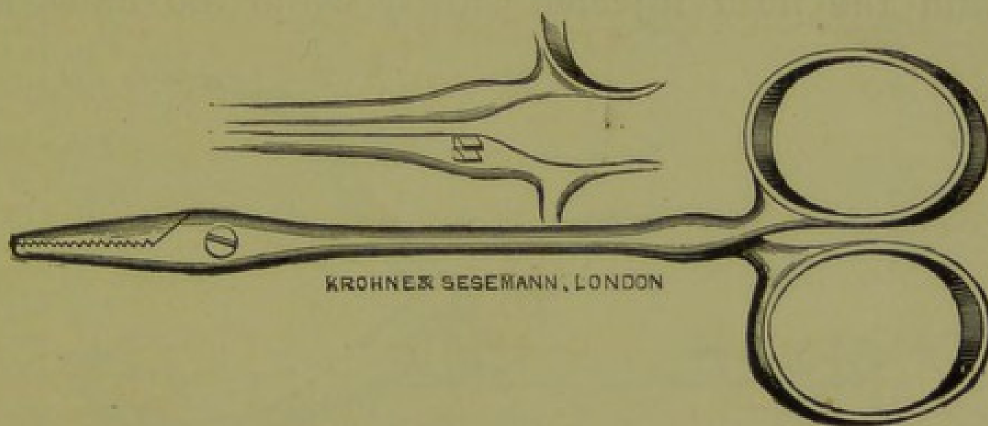


FIG. 4.—Pressure Forceps.

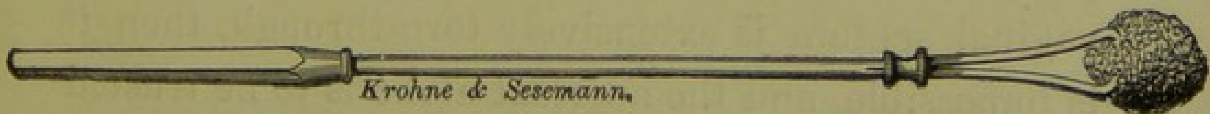


FIG. 5.—Sponge Holder.

An efficient aperient is given so as to act on the day before that on which the operation is to be performed, and an enema is administered a few hours before the hour of operation. The latter is often difficult to accomplish when the rupture has quite

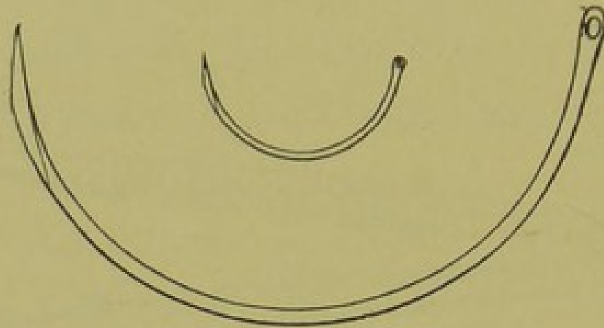


Fig. 6.—Hagedorn's Needles.

destroyed the sphincter. In such a case the patient is placed on her left side, with the hips well raised and the fluid injected slowly while the nates are

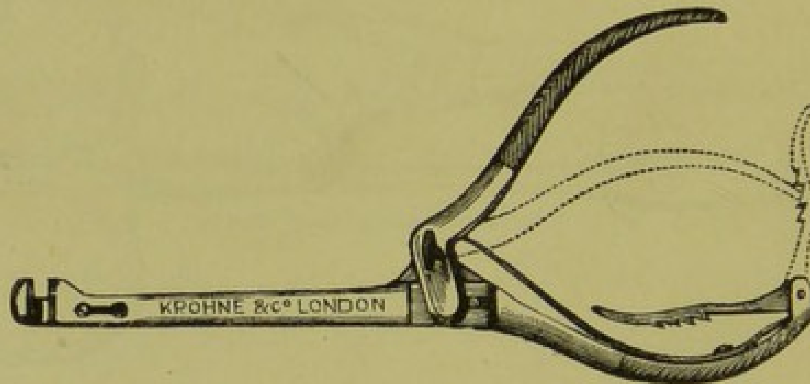


Fig. 7.—Hagedorn's Needle Holder.

pressed well together. When, however, the recto-vaginal septum is extensively torn through, then it is impossible, and the aperient alone is to be trusted to. In some of these cases the patient suffers from

a form of irritative diarrhœa, due apparently to irritation of the exposed rectal mucous membrane, as in Cases V., LII. and LXVIII. Of course in such a case the aperient is dispensed with, and it will be

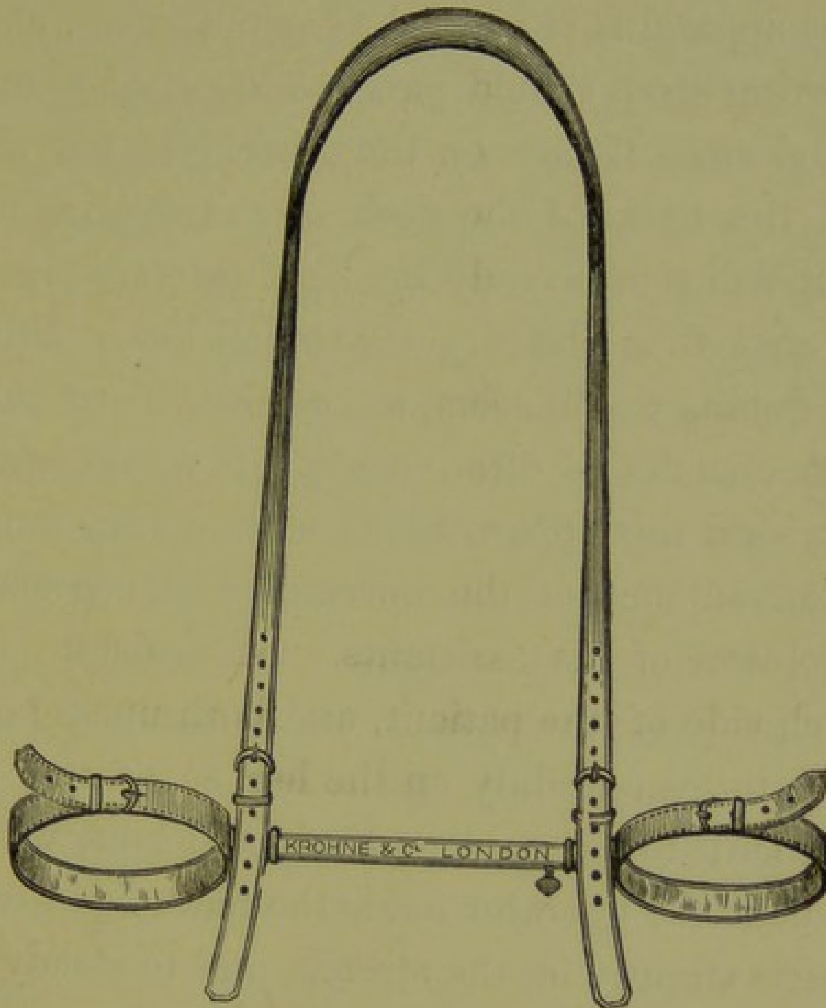


Fig. 8.—Clover's Crutch.

well to clear out the rectum just before commencing the operation, while the patient is under the anæsthetic, and to pass into it a piece of sponge with a string attached, to facilitate its removal.

The patient is now placed upon a table (as the

most convenient) and chloroform administered. As soon as the anæsthesia is sufficiently advanced she is placed in the lithotomy position with the nates well over the end of the table, and the legs secured by Clover's Crutch.* (Fig. 8).

This apparatus is applied *below* the knees, and the supporting strap should pass *over the shoulder* on one side and *under the arm* on the other. If put simply round the back of the neck any struggling of the patient will tend to pull the head forward upon the chest and thus obstruct the breathing. Although these details would seem to be self-evident yet the double mistake is often made. I would strongly recommend this apparatus as adding very much to the convenience of the operator and especially to the comfort of his assistants. An assistant stands on each side of the patient, and both must be careful not to lean unduly on the leg, so as not to tilt the patient to one side. Each assistant, with the hand next the operator holds the nates so as to keep the parts slightly on the stretch, and to steady them

* Clover's original crutch consisted of a solid stem between the two leg-pieces, about fourteen inches long. It is now made, at my suggestion, by Krohne and Sesemann, to telescope, so as to allow of more or less separation of the limbs as may be required by the nature of the case. This instrument is sometimes applied above the knee; an extensive use of it induces me to say that that is a mistake.

when required, the other hand, over the patient's leg, being free to use a sponge, or hold an instrument or suture, as the case may be. Hairs are shaved off and the parts are sponged clean.

The operator now marks out the line of junction of the skin and mucous membrane of the vagina and with a scalpel makes an incision in the line of junction, on each side. These incisions commence at the termination of, and just inside of, the labium minus and end at the anal verge, which is usually indicated by a puckered depression. These incisions, which are shown in fig. 9, should be at least an eighth of an inch deep, and are connected by running the point of the knife along the edge of the septum from *b* to *b*, splitting the septum into its two layers of vaginal and rectal mucous membrane; or the hardened edge between these two points may be removed in a narrow strip by means of scissors. The area thus marked out is represented in fig. 9.

Seizing hold of the angle of mucous membrane at *b* with a pair of toothed forceps, (fig. 3) the mucous membrane is now dissected back into the vagina as far as the dotted line *c*, not superficially, but as nearly as possible in the middle of the septum, *i.e.* between the two layers. It will thus be seen that with the scalpel there is no removal of tissue at all, and with the scissors only the hardened portion of combined mucous membranes forming the edge of

the septum. When this has been completed the time has come for the sutures. Any freely-bleeding vessels are temporarily secured by pressure forceps (fig. 4).

The next step is to restore the rent in the septum.

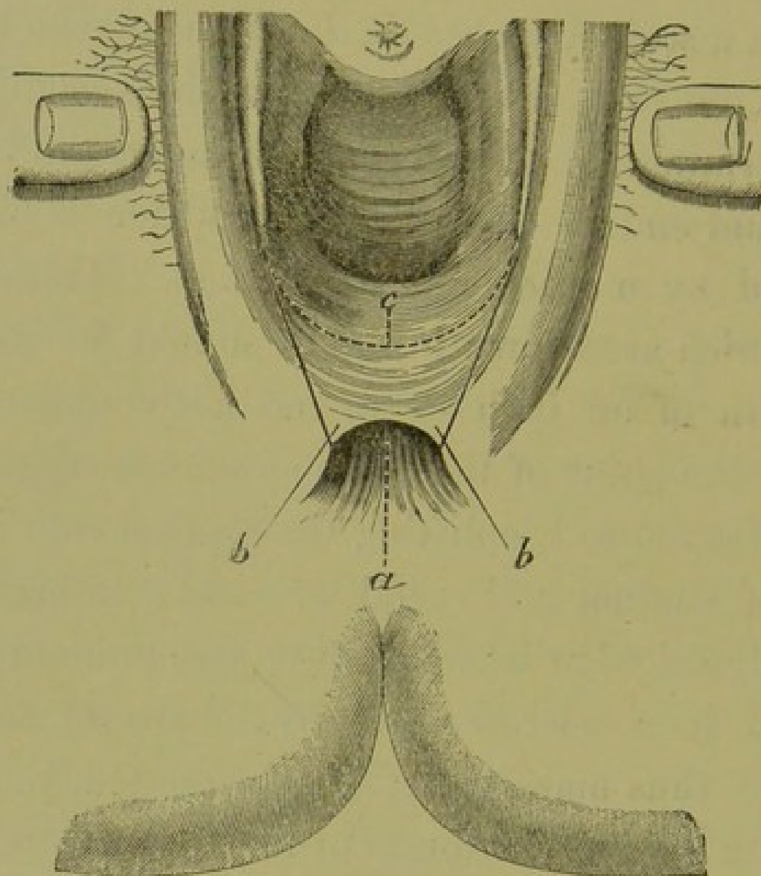


FIG. 9.—*a.* Recto-vaginal septum. *b.* Site of puckered depressions indicating the separated ends of divided anal circle and which must be brought together in the middle line to restore the anal circle. *c.* Dotted line indicating the extent to which the mucous membrane is to be reflected—*not cut away.*

For this purpose the operator takes a piece of fine silkworm gut carrying at each end one of the small (Hagedorn) needles. Firmly fixing one of these

needles in the holder—and care should be taken to do this properly—the needle is entered on the left side (the operator's right) about a quarter of an inch from the rectal mucous membrane—*in the raw surface*, and made to emerge as near the edge of the raw surface as possible, avoiding the inclusion of mucous membrane. The needle should be passed

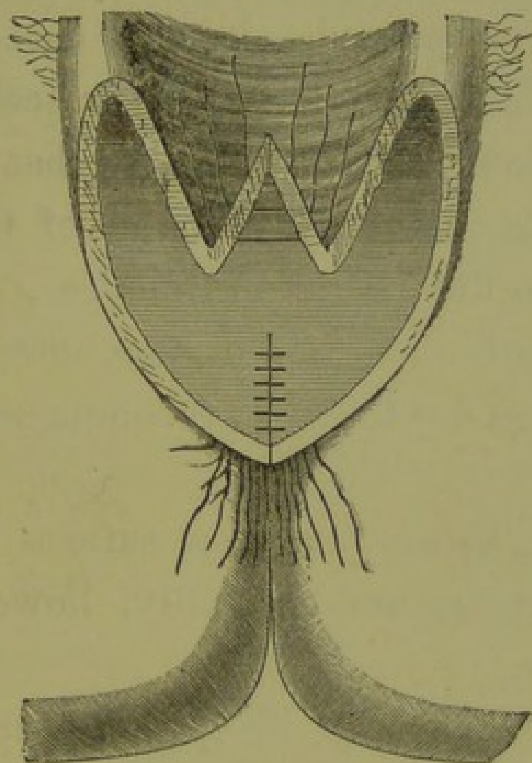


FIG. 10.—The ends of the rectal sutures are shown hanging from the anus, merely to show that they have been tied on the anal aspect but it is to be understood that they are all cut off short.

as deeply as possible, and not superficially. In like manner the second needle is passed on the right side. The needles are removed and the suture tied. Thus the knot will be on the rectal aspect of wound. The

ends are cut off short. In this way as many sutures as may be required are put in, at intervals of about a sixth or eighth of an inch, until the last brings together the points *b* in fig. 9 when the appearance of the parts may be represented by fig. 10.

The points *b* of fig. 9 are here seen brought together in the middle line.

Instead of the interrupted suture, the continuous suture may be employed. In this case the suture must be confined to the raw surfaces, carefully avoiding the mucous membrane, so that it becomes completely imbedded. The fancy of the operator may be left to determine the choice. I think the matter is not of much importance, nor do I think one method has anything to recommend it over the other.

I have used as many as ten sutures in extreme rupture of the septum. Usually, however, five or six will suffice.

Sometimes, especially in fat subjects, whose tissues are very inelastic, it will be advisable to restore the vagina in the same way; but in this case the sutures go through the mucous membrane and are tied in the vagina, leaving one end long to facilitate their removal (fig. 11). Care must be taken not to turn in the mucous membrane, but to keep the raw surfaces in apposition. This is facilitated by one of the assistants holding up the pre-

ceding sutures—after the first—with a slight drag, which brings the raw surfaces together. When there is a redundance of the posterior vaginal wall—a rectocele—it will be advisable to cut away a pyramidal portion of the mucous membrane, as in fig. 10, with the base towards the anus.

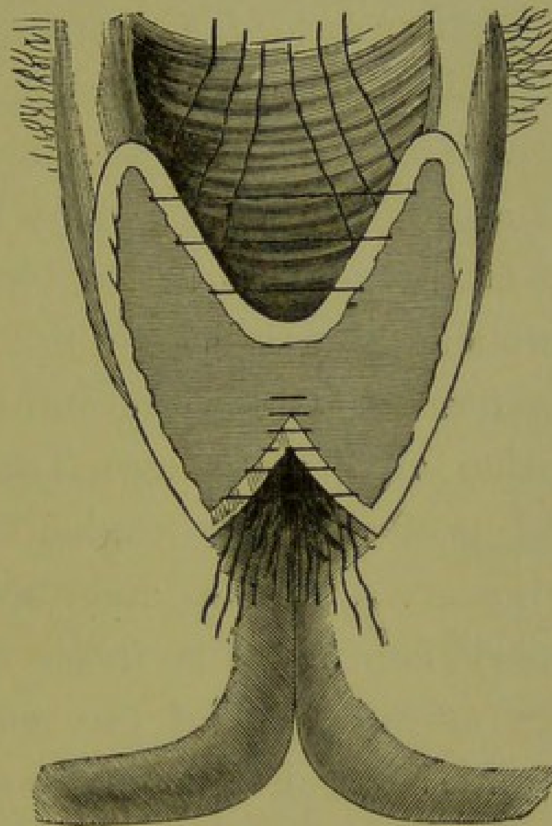


Fig. 11.—Representing the vaginal sutures as well as the rectal—*untied*.

All these sutures having been inserted and secured, the deep or perineal sutures proper now claim attention.

The operator now takes one of the large Hagedorn needles (fig. 6) armed with a piece of medium or

stout silkworm gut, fixes it firmly in the holder, inserts it in the skin in the left side about a quarter of an inch from the raw surface, directs it to the opposite side, carefully keeping the point well buried in the tissues until it emerges at the corresponding point on the right side, and then draws it through leaving the suture in its track. To prevent the needle from passing into the rectum, the index finger of the left hand is inserted as a guide, enabling the operator to steer a middle course. In this manner three or four sutures, as may be required by the extent of the rupture, are to be inserted, so that one or two should pass above the rent in the septum. The neglect of this precaution may lead to the formation of a recto-vaginal fistula. The next two will pass into the vagina. When the vaginal sutures are omitted, and they are not always necessary, care must be taken to make the needle emerge at the edge of the mucous membrane on the one side and enter at its edge on the other, so as to prevent in-turning, and thus secure apposition of raw surfaces only. The state of things will then be as represented in fig. 12.

For the purpose of restoring the anal verge as accurately as possible, it is advisable to insert another fine suture which is left untied until all the perineal sutures are secured. This I call the anal suture, seen in fig. 12.

By the time all the sutures are inserted, all bleeding will probably have ceased, except, perhaps,

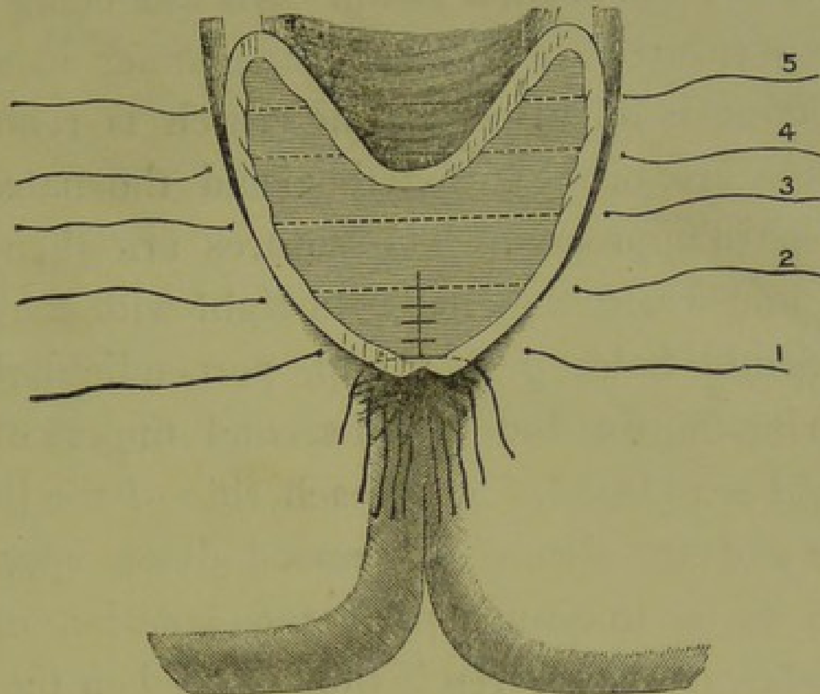


Fig. 12.—Anal sutures tied, and perineal sutures inserted. The anal suture also shown.*

some oozing from one or more of the needle tracks.† The raw surface is well washed with a

* From retraction of the reflected vaginal layer of mucous membrane, it would almost appear as if a great deal of tissue had been removed. This is due to the absence of shading about the level of No. 3 suture, which about marks the angle of reflection.

† I regard it as a positive disadvantage that one is able to complete this operation in ten minutes. In a freely bleeding case it is impossible to arrest the bleeding within the time, and I know of several cases—done under this rapid method—which have broken down, apparently from this cause.

stream of very hot or iced water, according to the fancy of the operator, all clot is carefully removed and the surfaces are left clean. All this being done the deep sutures are tied, and the manner in which this is done is important. The crutch is removed, the knees are brought together and the nates are left free to approach. The sutures are then collected, and whilst they are held tight with the right hand firmly holding them up, perpendicularly to the perineum, the index and second fingers of the left hand are placed, one on each side of the line of sutures and the tissues are pressed down upon the septum so as to ensure perfect co-aptation of the raw surfaces. The force is thus applied on the outside of the sutures and not between them. The bundle of sutures is now entrusted to an assistant, who holds them tight, and they are successively tied, beginning with the one next the anus, marked No. 1 in fig. 12. Finally the anal suture is secured. The ends of the sutures are cut off about an inch from the knot, the parts are sponged clean, and the patient is removed to bed and placed on her left side, as the most convenient for the nurse. No dressing whatever is to be applied over the perineum, unless the patient be very stout, when a piece of simple absorbent gauze is placed between the opposing parts. This absorbs any perspiration and keeps the wound dry. Sometimes there is

great irritation of the skin from chronic diarrhœa, as in Case XLVIII., when it is advisable to dust the perineum and opposing parts with Iodoform or Oxide of Zinc, the parts being also kept apart by a piece of gauze.

Comparing this method with that represented by Baker Brown and Savage, its superior merits cannot but be evident. In these authors' plates the suture is represented as bridging over the raw surface at the bottom of the wound, to the extent of at least half-an-inch. The inevitable result of this is the formation of a pouch which favours the collection of blood and serum in direct communication with the external surface by the track of the suture. The purulent process set up in the track of the suture cannot fail to be communicated to the blood clot, and hence an abscess, which discharges in the direction of least resistance. This will be found to be between the imperfectly united surfaces for the most part, and we have as the final result an inefficient perineum with a recto-vaginal, perineo-vaginal, or other fistula, or perhaps complete failure of the operation. The method herein advocated ensures complete apposition to the very bottom of the wound.

The after treatment is very simple. No opium is to be given, partly because the pain is usually so slight that it is not required, partly because it some-

times, I believe, promotes sickness, and as a rule constipates the bowels too much. I have discontinued it for several years; for, as a rule, the patient describes the pain as less than she experienced at the time of the accident. It must be remembered that any pain felt is due to the tension of the sutures. Obviously then, care should be taken not to tie them too tight. In the old days of the quill suture it is easy to understand how the pain might be very severe in consequence of the strangulation of the tissues, as I have already pointed out (p. 22) and hence it was the rule to administer opium rather freely. And indeed it was a necessity. But with the simple suture carefully drawn together the pain is only of the most trifling degree. In fact the degree of severity of the pain may be taken as the estimate of the over tightening of the sutures.

In no case should alcohol be administered. Baker Brown was in the habit of giving Port Wine (by preference) rather abundantly, especially when there was any suppuration. I am sure I have seen it do harm, and I am equally certain that I have never seen it do any good. *I believe all cases of operation are better without it, and consequently I never administer it now.*

Food is withheld for at least twelve hours, and then it is given only in small quantities in the form of barley water or milk and water. Should there

be any sickness after the anæsthetic nothing should be given for twenty-four or more hours, except some hot water for the purpose of clearing out the stomach or allaying the sickness. As it is very seldom there is any rise of temperature over one degree (Fahr.) there is no thirst to speak of. If there be any it is best allayed by allowing the patient to wash her mouth with warm water to which Chlorate of Potash may be added in the proportion of two or three grains to the ounce, or Glycerine in the proportion of a tea-spoonful to the ounce. Thus, if the operation be done in the morning and there be no sickness, the barley water or milk and water may be begun at the end of twelve hours; if in the afternoon, then not till the following morning. Counting the day of operation as the first day, the patient is confined to this liquid diet over the second day. On the third and fourth bread and milk or gruel may be allowed once or twice a day in addition. On the fifth day fish, fowl, or mutton, and afterwards ordinary but simple diet including vegetables.

The urine should be drawn off every six or eight hours if the nurse be experienced; if otherwise, the patient may be allowed to pass it herself, while the nurse keeps the labia apart. In both cases the patient should lie on the left side with the thighs well flexed. These precautions are more for the purpose of avoiding movement on the part of the

patient, than of preventing access of urine to the wound. The fear of the latter I regard as a bugbear as the following cases testify.

Mrs. —— was attended for me in 1877, in my absence, in her first confinement. The child was born just before the arrival of my substitute, who found the perineum badly ruptured. Three sutures of silver wire were at once applied and a catheter left in the bladder. On my return after four or five days I found the patient in a most filthy state, the catheter had become blocked up, the urine escaped by its side, and the stench arising from the saturation of the bedding with the mixture of ammoniacal urine and lochia and the general condition of the external parts were beyond description. Yet union of the perineum was complete, and the patient had not a single bad symptom.

Case XLVIII. was that of a very stout woman. On proceeding to remove the vaginal sutures on the tenth day, I found the vagina containing quite an ounce of urine. Here again union was complete.

The local treatment consists in keeping the perineum clean, and as dry as possible. For these purposes it will be well to direct a stream of a weak solution of Sulphurous Acid (1 in 20) or of Chlorate of Potash 2 or 3 grains to the ounce, on the perineum by means of a small brass syringe, in order to wash away any discharge, and then dry it with dossils of absorbent cotton wool or a soft cloth. The ends of the silkworm gut are not in the way as

are the ends of wire. It is rarely necessary to wash out the vagina, at least till after the third or fourth day, by which time union may be expected to be complete. Should the menses come on as in Cases XXIV., XLI., the external cleansing must be more carefully attended to. In washing out the vagina it will be best to employ a No. 12 catheter instead of the ordinary vaginal tube so that the return current may be freely provided for and undue distension be avoided. This should be done with the patient lying on her left side. Sulphurous Acid (1 in 20 or 30) is the best vaginal irrigant as it so readily dissolves blood, and cannot injure the patient in any way like Carbolic Acid or Corrosive Sublimate.

On the fourth day it will be advisable to begin to take measures for procuring action of the bowels on the next day. For this purpose I employ a pill containing one grain each of the compound Extract of Colocynth and of Hyoscyamus and given every four hours, until an action has been procured: or a tea-spoonful of the Compound Liquorice powder may be substituted and repeated as required. Some operators favour a daily action of the bowels. I cannot but think this is a mistake in the case of rupture of the septum, as much as is the opposite custom of keeping the bowels confined for a week or more. While I regard the former as at least injudicious I look upon the latter as decidedly injurious. I am of opinion that the parts should be kept

quiet for at least three or four days, and that even after the lapse of a week they should not be exposed to too much strain by the passage of a too solid fæcal mass, even with the aid of an enema. The middle course appears to me to be the safest. After the bowels have been once moved a daily evacuation should be encouraged.

On the sixth or seventh day the perineum should be carefully examined, and on the slightest indication of cutting by any of the sutures these should be at once removed. If there be no irritation or cutting, as will be the case if the sutures have not been drawn too tight, they may be left for two or three days more. But there is seldom any advantage in leaving them more than nine or ten days. As a rule, however, they may be removed on the seventh or eighth day. Vaginal sutures should be left longer, and until there is no risk of injury from the introduction of the finger.

In a simple case, that is, uncomplicated with cystocele or rectocele, the patient may be allowed to get out of bed in a day or two after all the sutures have been removed. Otherwise it will be advisable, especially in the case of cystocele, to keep her recumbent for three or four weeks, or even longer, and until the new perineum has become firm.

If these details be attended to the success of the operation is almost a certainty. I repeat I have never had a case break down.

LIST OF CASES.

IMMEDIATE OPERATION.

To those already given the following may be added as further examples.

Mrs. P., first confinement August, 1876. Head just born as I entered the room. Perineum ruptured to the sphincter. Three silkworm gut sutures. Union complete on removal of the sutures on the fourth day.

Mrs. O., æt. 32, first child September, 1877. Labour tedious. Forceps. Perineum ruptured to sphincter. Three silkworm gut sutures. Union by first intention.

Mrs. D., perineum restored by my colleague Mr. Knowsley Thornton. Attended by neighbouring practitioner in my absence. Rupture inevitable through too long prolongation of perineum forwards. Three hours later I found that the rupture had not taken the middle line, but passed to the right of the sphincter, which was uninjured, and I at once introduced four silkworm gut sutures, leaving a larger vaginal opening. Circumstances prevented me from seeing her on the fourth day, and I was unable to visit her till the tenth day. I then removed the sutures. The parts were quite dry, presenting not even a blush of redness along the whole length of the perineum or around the stitch holes, and union was perfect.

Mrs. E. was ruptured through the sphincter in her second

confinement, in which the child was delivered by forceps. I restored the perineum some months afterwards. (Case 36). In her second confinement, delivery being effected by forceps, the perineum was again torn, I at once put in four sutures, and perfect union resulted.

It is not necessary to multiply these cases.

REMOTE OPERATIONS.

Cases I. II. and III. are recorded in the body of this work.

IV.—*Nearly complete rupture of the perineum, with large rectocele; operation; cure.*

Mrs. P. applied at the out-patient department of the Samaritan Hospital (1869) complaining of "something coming down." I found the perineum ruptured to the sphincter, and a very large rectocele, which gave her great trouble in the evacuation of the bowels.

I restored the perineum as in fig. 12, using iron wire for the deep sutures, and fine silk for the vaginal sutures, of which there were six. The parts healed up well and the patient returned home at the end of three weeks. I have not heard of her since.

V.—*Complete rupture through the sphincter; operation; cure.*

Mrs. L., æt. 37, entered the Samaritan Free Hospital, February 26th, 1875. Two years previously was confined without the assistance of a medical man, and the perineum

was badly torn. A week after "was sown up" by a doctor, but no union resulted. From that time she had no control over loose evacuations, and has suffered from a sort of chronic diarrhœa. Perineum ruptured through the sphincter. Five sutures of silkworm gut were employed, and one superficial suture next the anus. The central suture was removed on the third day, after the evacuation of the bowels, another on the fifth, and the rest on the seventh day, when union was complete. The bowels were moved daily after this, and the patient was out of bed on or about the eleventh day.

VI.—*Nearly complete rupture of perineum ; operation ; cure.*

Mrs. S., æt. 28, admitted into the Samaritan Free Hospital May, 1875.

In September, 1873, was delivered of her second child, and the perineum was ruptured partly through the sphincter. Three deep sutures with as many superficial ones of silkworm gut were used, as in fig. 12. On the third day the bowels were moved; on the fourth day the deep sutures were taken out, and ten days later the superficial, and the patient went home on the twentieth day quite well.

VII.—*Partial rupture of perineum, with rectocele ; cure.*

A. B., æt. 43, admitted into the Samaritan Free Hospital, November 22nd, 1876. Has had eight children delivered naturally without any injury; the last a year and a half ago. This was the largest of her children, and she "felt very sore" after its birth.

On examination the perineum was found torn to about

two-thirds of its extent, and the septum bulging considerably (rectocele). In the presence of Dr. Kuhlerkampf I operated as in fig. 10, using five intra-vaginal sutures, five perineal, and one superficial (anal end) suture of silkworm gut. 28th (third day)—Wound looking very well; removed the superficial suture and the deep one next it, and also the middle suture, after clearing out the rectum with a soapy-water enema. 29th—Two of the vaginal sutures have come away. 30th (fifth day)—All the remaining deep sutures removed. Dec. 2nd—The remaining vaginal sutures have come away. Dec. 9th (fourteenth day)—Gone home, with a good and sound perineum.

VIII.—*Partial rupture of perineum; operation; cure.*

E. C., æt. 38, admitted into the Samaritan Free Hospital, May 22nd, 1877. Perineum torn on first labour, ten years ago. Child presented by arms, and was delivered by turning. On examination the tear was found to extend to rather more than half of the perineum.

May 24th.—Operation with four silkworm gut sutures. 28th—Rectum washed out and sutures removed. Union complete, no redness whatever about the wound. June 1st, gone home (twelfth day).

IX.—*Complete rupture of perineum, with half an inch of recto-vaginal septum; fæcal incontinence; operation; cure.*

C. K., æt. 28, sent by Dr. Colbeck, of Dover, was admitted into the Samaritan Free Hospital, August 4th, 1877.

Delivered of her first child by forceps on February, 1874; since then has had no control over the bowels. Perineum torn through the sphincter, along with about half an inch of the septum.

August 6th.—Assisted by Dr. Young, of Florence, (now of Rome), while Mr. Alban Doran administered methylene bichloride, I operated as in fig. 12, restoring the anus with six fine and closely set catgut sutures, and the perineum with five, of silkworm gut. 8th—Patient has had no opium. Bowels acted this morning, semi-fluid evacuation. No disturbance of wound. 11th—After the rectum was cleared out by enema, and in the presence of Dr. Young, I removed all the deep sutures except the anterior one; no irritation of wound though two of stitches beginning to cut. Wound perfectly united. 18th—Returned home, (twelfth day).

X.—*Partial rupture with cystocele and rectocele; operation; cure.*

C. B., æt. 25, admitted into the Samaritan Free Hospital, December 7th, 1877. Had her first child in August, 1875; delivered by forceps, and felt "very sore" for some time afterwards. For a long time has suffered from "such a bearing down," "womb coming down," and pain in left side. Perineum torn, with a few fibres of sphincter, a large rectocele and commencing cystocele.

December 8th.—Methylene bichloride and afterwards chloroform administered by Mr. Meredith, I operated as in fig. 10. Three sutures of silkworm gut in the vagina, ends cut off short; four sutures of same material for the perineum.

11th—Bowels freely moved; *no opium;* no irritation

of the wound. 12th—Removed three posterior stitches. Wound quite united externally. Vagina to be washed out with sol. potass. chlor. (gr. 13). 13th—Had stitch removed. On using syringe yesterday some offensive discharge washed out of vagina. Wound, however, looking very well. 12th—Patient has gone home to day (eleventh day). To wash out vagina daily with solution of sulphurous acid (1 to 10) and to return in three weeks. January 9th, 1878, perineum quite sound. No vaginal discharge. The intra-vaginal sutures *in situ*, and on passing anterior blade of Neugebauer's speculum the line of cicatrix in septum perfect, *no irritation* about the sutures which were removed. They were as harmless as the rings in a lady's ear. Patient expresses the greatest satisfaction with the operation.

XI.—*Partial rupture of perineum; operation; cure.*

M. N., æt. 22, admitted into the Samaritan Free Hospital, January 15th, 1878, was delivered of first child September 2nd, 1877, by a midwife, after a labour extending from Thursday evening till Saturday morning. No instruments employed. Felt "sore" for about a week. At end of second had an attack of "inflammation of the womb," which kept her in bed for three weeks. On getting about, complained of a bearing down, and has not yet got rid of it. Perineum ruptured more than one half.

January 18th.—Perineum restored with three silkworm gut sutures. 19th—Complains of soreness similar to, but not so bad as that felt at same period after labour, no opium, wound quite dry. 23rd (fourth day)—After the rectum was cleared out I removed the stitches. Wound healed by first

intention; no irritation whatever. 7th—Out of bed feeling quite well, with exception of a little irritation of bladder from use of catheter; to take acid. hydrochlor. dil., ♏ 10, three times a day. 10th day—Stitch holes healed up. 12th day—Gone home, feeling quite well, no bearing down or discomfort of any kind.

XII.—*Complete rupture of perineum with about half an inch of recto-vaginal septum; operations; cure.*

E. A., æt. 24, admitted into the Samaritan Free Hospital, January 23rd, 1878, delivered of first child after a labour of about eighteen hours, October 21st, 1877; felt very sore, a few days afterwards found she had no control over the bowels when moved by an aperient. At end of a week her medical attendant put in one stitch, which produced no benefit. No control over loose evacuations since her confinement.

January 26th.—Perineum restored as in fig. 12, with four fine silkworm gut sutures for the rectum, ends left hanging out, and five for the perineum. 2nd day—Less sore than at corresponding period after her labour, *no opium*. 3rd day—Spasm of sphincter ensues on passage of flatus, otherwise the anal sutures cause *no discomfort*. 4th day—Vagina washed out with sol. potass. chlor., (5 grs.); three ounces of olive oil injected into bowels at bed-time. 5th day—Rectum cleared out by enema this morning; perineum looking very well; wound healed; no discharge; removed four perineal sutures. 6th day—Removed last perineal suture, viz., the posterior. 8th day—Stitch holes healed; the rectal sutures produce no discomfort; bowels opened. 10th day—Removed three rectal sutures; bowels act daily; out of bed. 13th day—Men-

struating; patient walking about. 15th day—Menses have almost ceased; perineum quite sound; last rectal stitch removed. 16th day, (15th really)—Gone home.

XIII.—*Complete rupture of perineum; immediate operation, with partial union; recto-vaginal fistula; operation; cure.*

Mrs. B., æt. 24, perineum ruptured through sphincter in second confinement eleven weeks ago. Three metallic sutures introduced by the doctor, but imperfect union only took place, so that there is now a thin membranous perineum with a recto-vaginal fistula, through which flatus and liquid fæces pass into the vagina.

June 17th, 1878, in the presence of Dr. Marion Sims, I divided the perineum into the fistula; rectum restored by six fine silkworm gut sutures, cut off short except the one at anal orifice; four deep perineal sutures. 2nd day—No opium, no pain. 5th day—Wound looking well, seen by Dr. Teuffel, pil. coloc. c. hyoscy. at bed-time. 6th day—Bowels moved twice—freely—no discomfort; perineum intact. 8th day—Perineal sutures removed; wound quite healed. 17th day—Anal stitch removed. 19th day—Gone home with firm perineum.

XIV.—*Complete rupture of perineum, with half an inch of recto-vaginal septum; operation; cure.*

Mrs. K., æt. 31, admitted February 25th, 1879. First child, August 27th, 1878, nineteen hours' labour. Forceps. Was very sore for a month after, no attempt made to restore perineum.

February 26th.—Six sutures in restoring rectum, one at anal orifice, and three deep perineal sutures. 3rd day—Has had no opium, beyond a few morphia and ipecacuanha lozenges for troublesome cough. Wound looks well. 5th day—Bowels well moved. 6th day—Vagina washed out with sol. acid. sulphuros. (1 to 20). 8th day—Perineal sutures removed; perfect union. 13th day—Out of bed. 17th day—Gone home, with a thick sound perineum.

XV.—*Complete rupture of perineum, with nearly an inch of septum; failure of operation many years before; operation; cure.*

Mrs. W., æt. 48, had been ruptured about fifteen years ago, and was operated on about seven years ago, but the result was a complete failure. For many years had been in the habit of taking Tr. opii whenever she had to go out as she had no control over her bowels. The perineum had been torn through the sphincter, and the tear had evidently extended quite an inch up the septum. There was a great deal of cicatricial tissue on each side, the edge of the septum was much indurated, and there was a narrow bridge of tissue between the rami—a part of the perineum.

April 22nd.—After dividing the bridge spanning the opening, I removed some of the cicatricial tissue, but leaving healthy mucous membrane; then I restored the rectum with five fine silkworm gut sutures, cutting them off short, and one at the anal verge, and closed the perineum with five deep sutures. Tr. opii, 20 drops, an hour after operation, though the pain was only trifling. 2nd day—Flatus passing freely through anus, no pain. 3rd day—A little discharge

from vagina, which is to be washed out with acid. sulphuros. (1 to 20). Wound looking well. 5th day—Bowels moved several times by means of pil. coloc. c. hyoscy. (āā gr. 1), three pills at intervals of four hours; has a troublesome cough. 6th day—Cough better, vaginal discharge almost gone (leucorrhœal). Some of stitches showing signs of cutting. 7th day—Removed three anterior perineal sutures. 8th day—Flatus passes normally. 9th day—Anal stitch removed, two remaining perineal sutures not producing any irritation. 11th day—Bowels moved daily, perineum quite dry. 14th day—Last two perineal sutures cut. 16th day—Out of bed, perineum quite sound.

This was a test case, from the great destruction of tissue in the former operation.

XVI.—*Rupture of perineum to sphincter, with rectocele and cystocele; operation; cure.*

Mrs. E., æt. 40, mother of four children, admitted into the Samaritan Free Hospital, June 24th, 1879. Fourth and last child, September, 1875. After this felt weak, with bearing down, "something coming down." Had been treated with a variety of instruments for prolapsus, and was still unable to get about without great discomfort.

June 27th.—Perineum restored with five sutures, and a triangular portion of mucous membrane removed from the septum, as in fig. 10, and the edges brought together with seven sutures; no opium. 13th day—All the perineal sutures removed. Wound perfectly united so that the line of union is scarcely discernible. 23rd day—Vaginal sutures removed. Scarcely any trace of operation on perineum, which is thick and sound. Goes home to day.

XVII.—*Complete rupture of perineum with part of septum ten years ago; fæcal incontinence; failure of immediate operation, as also of operation six months after; usual operation; cure.*

Mrs. S., æt. 33, admitted December 10th, 1879, perineum ruptured with her first and only child, which was delivered ten years ago by forceps. Some stitches were put in at the time, and she seemed to be all right until the bowels acted at the end of a week, when the evacuation was so solid that the whole wound gave way. Since then has had no control over a loose evacuation. Was operated on six months after, but no union took place. A portion of rectal wall protruding.

December 13th.—Parts prepared, with as little loss of tissue as possible, rectum restored with four sutures, and the perineum with five; no opium. 2nd day—Some pain persisting; had two doses of morphia. 4th day—Menses have come on. 6th day—Bowels well moved, perineum looking well. 10th day—All the perineal sutures removed. 14th day—All stitch holes healed up, perineum quite firm and thick. 18th day—Gone home.

XVIII.—*Complete rupture of perineum through the sphincter and involving portion of septum. Partial fæcal incontinence; operation; cure.*

Mrs. R., æt. 37, admitted March 11th, 1880. Five years ago last Christmas delivered of sixth child, with forceps, all her labours difficult, but this the only instrumental one. Felt very sore for a long time afterwards. On getting up

after a fortnight, she found she had lost control over the bowels, had "no more than a baby." Had another child three years ago, born naturally. Has been rather worse since then. Went into one of the London general hospitals, where she was told she was not strong enough to undergo operation, though in better health than now. Has no control over any but very solid evacuations, and there was great difficulty in giving an enema.

March 15th.—Operation as in fig. 11, using six sutures in the rectum, four for the perineum, and a continuous suture of four points in vagina (the last of horsehair). Tr. opii, ♏ 20, per rectum, and again repeated seven hours after. 2nd day—Tr. opii, ♏ 20, repeated at bed-time. 5th day—Bowels moved well, in all three times. 8th day—Perineal stitches removed, some of them cutting a little. 9th day—Menstruating very freely. 13th day—Gone to convalescent home, perineum quite healed.

XIX.—*Abscess in perineum and recto-vaginal septum, leaving fistulous tracks. Sinuses laid open after division of perineum through sphincter. Subsequent restoration of perineum; cure.*

M. D., æt. 29, single, was admitted on January 12th, 1880. For several years had complained of pain on sitting down, and of a yellowish vaginal discharge, but was not aware of any local mischief till October last, when she began to suffer from a constant throbbing. Soon after this two abscesses broke, one into the bowel, the other on the right side of the perineum, at the lower end of the corresponding labium. Since that time there have been several collections of matter

relieved by discharge. On examination I found at the lower end of the right labium the orifice of a sinus, which led towards the centre of the perineum, and per rectum, the point of the probe could be felt just under the mucous membrane. In the centre of the fossa navicularis there is another opening which leads directly into the rectum. At the point of emergence of the probe there is an opening capable of admitting the tip of the index finger.

January 19*th*.—I divided the perineum in the line of the central sinus, through the sphincter, and laid open the sinus on the right side, as well as two sacculated cavities in the vaginal wall, freely dividing all hardened tissues. The general cavity thus laid open, was stuffed with lint wet with a solution of sulphurous acid (1 to 5). After some weeks the patient left the hospital with the parts well healed, but I did not deem it advisable to proceed to the restoration of the perineum until all danger of any unhealthy tissue remaining was well past.

She was re-admitted on May 11th, and I operated on her next day. The perineum was prepared and restored as in fig. 12, with six sutures in the rectum and five in the perineum. 4th day—Bowels well moved by means of pil. coloc. c. hyoscy. (one gr. of each in three doses). 8th day—Three sutures removed; beginning to eat. Perineum washed with sulphurous acid and kept dry. 10th day—Menses appeared. 13th day—Two remaining perineal sutures removed, perineum looking well. 14th day—Out of bed. 16th day—Gone home with perineum well healed and firm.

XX.—*Complete rupture of perineum through sphincter, with about an inch of the septum. Partial fæcal incontinence; cure.*

A. W., æt. 19, admitted June 15th, 1880, was delivered on January 20th "with instruments." Felt very sore afterwards, and had no control over large evacuations. About a month ago was operated on by a well known hospital surgeon. The operation failing, he put in two more stitches three or four days after, but no union resulted, and the result is that she has less control than before.

Perineum ruptured through the sphincter, with nearly an inch of the septum, and evidently considerable loss of tissue.

June 16th.—Perineum restored with six sutures in the rectum and four in the perineum, as in fig. 12. As there was a little bleeding from the vagina—from the edge of the mucous membrane near the top of the wound—I introduced a small piece of sponge for the purpose of keeping up a little pressure. This was left in for six hours, by which time all bleeding had ceased. No opium.

2nd day—No pain. Patient contrasts the small amount of pain she has had compared with what she endured in the former operation, in which the quills appear to have been used. 6th day—Menses have come on very free, bowels well moved. 10th day—Menses have nearly ceased, all the perineal sutures removed, wound quite healed. 13th day—Out of bed. 19th day—Returned home, perineum thick, sound, and a very normal looking anus.

XXI.—*Complete rupture of perineum with more than half an inch of septum; fœcal incontinence; operation; cure; subsequent pregnancy without injury.*

Mrs. D., æt. 28, admitted September 30th, 1880, delivered with instruments on January 19th last, after "twenty-four hours of real labour." Though feeling very sore, was not aware of the injury sustained until, on taking an aperient, she found she had soiled her bed unawares. Has had no control since, unless the bowels were constipated. Weaned her baby three weeks ago, and has not yet menstruated. Perineum torn through the sphincter with more than half an inch of the septum.

October 5th.—In the presence of Dr. Iles and several other visitors, I restored the perineum, using seven sutures for the rectum and five for the perineum. No opium. 6th day—Bowels slightly moved after six pills (coloc. c. hyoscy. āā gr. 1) every four hours, and an enema; hard fæces. 7th day—Bowels well moved, perineum quite sound, perineal sutures removed. 10th day—Anal suture removed. 11th day—Out of bed. 16th day—Gone to convalescent home, with the perineum quite sound, and perfect control.

Under date February 27th, 1882, Dr. Eccles, of Liverpool, under whose care she had passed for her confinement, wrote as follows:—"I delivered her on the last day of December of a fine male child, without any further rupture of the sutured parts. The site of the sutures showed very plainly when the parts were distended, but at no point was there any 'giving.' Finding all right I kept the bowels quiet for a few days, then gave a simple enema, which she retained

for a short time. Since then she has had perfect control over the bowels. You will remember that I mentioned (in a letter before the confinement) that she suffered during her pregnancy from a want of control of a distressing kind. She states now that she has quite as much control over the bowel as she had previous to the accident."

XXII.—*Complete rupture of perineum with nearly an inch of the septum; operation; cure; subsequent confinement without injury.*

E. D., æt. 38, admitted January 3rd, 1881, was sent to me by Dr. Griffith, of Queen's Park, who reported as follows:— "She had a long lingering time with an impacted breach (first child) and I was obliged to introduce my hand and bring down the feet, as by no other means could I move the child (which was dead)." The result was a somewhat severe laceration. This was on November 15th, 1880. I found the perineum as described in the heading.

January 5th.—Perineum restored with five rectal sutures, and one at anal verge, and five perineal. No opium. 5th day—Bowels moved freely, some leucorrhœa, vagina washed out with sulphurous acid. 6th day—Perineum uninjured, though bowels moved frequently. 10th day—All the perineal sutures removed, none cutting, anal suture left. 12th day—Out of bed. 16th day—Gone home. Perineum shows scarcely any trace of the operation.

December 16th, 1882.—Dr. Griffith reports to-day that Mrs. D. was safely delivered of a female child on November 11th, 1882, without the slightest injury.

XXIII.—*Complete rupture of perineum with half an inch of septum; cure.*

A. R., æt. 33, admitted January 25th, 1881, was delivered of her first and only child in India, without any assistance, six years ago, the child presenting by the breech, and the labour lasting twelve hours. Patient has no control over loose evacuations, through destruction of the sphincter with quite half an inch of the septum.

January 29th.—Dr. Balleray of Paterson, New Jersey, U.S.A., present; perineum restored by four sutures in the rectum, one at anal orifice, and five perineal sutures. One dose of Tr. op. (♏ 15). Patient a nervous, fidgety woman. 3rd day—Perineum looking very well. 5th day—Bowels moved. 8th day—Four perineal sutures and the anal one removed. 11th day—Menstruating. 14th day—Out of bed. 18th day—Gone home, perineum quite firm, suture marks disappearing (no note of the removal of fifth perineal suture).

XXIV.—*Complete rupture of perineum with nearly two inches of septum; cure.*

S. F., æt. 37, admitted March 21st, 1881. Was torn in her second confinement fifteen years ago, labour tedious, but not instrumental. Seventh and last child three years ago, after an interval of six years, when the rupture was increased. Previous to this labour had a little control over the evacuations, but now has none.

March 23rd.—Perineum restored as in fig. 11, with ten sutures in the rectum, one at anal verge, three in vagina,

and five in the perineum. At the conclusion of the operation the anus was so tight that the question arose in my mind whether I should not divide the sphincter; however, I did not. As there was a little sanguineous oozing from the vagina, I inserted a small piece of sponge to keep up gentle pressure for a few hours. 6th day—Two perineal sutures removed—anal and vaginal ends—wound looking very well. 8th day—Three remaining perineal sutures removed. 9th day—Patient out of bed. 15th day—Gone home, perineum looks almost as if nothing had been done to it.

XXV.—*Complete rupture through the sphincter; operation; cure.*

S. A. F., æt. 26, had her perineum torn in the birth of her second child 1½ years ago, the delivery being effected by forceps, and was admitted into the Temperance Hospital, where Dr. Edmunds requested me to exhibit my method.

August 1st.—In the presence of Dr. Edmunds, Dr. Howard of Baltimore, Dr. Van Imschoot of Ghent, and other visitors, I operated as in fig. 12, using five sutures for the rectum, one at anal verge, and five for the perineum.

6th day—Bowels well moved. 7th day—Perineum quite sound, though not kept so clean as it should be, menses appeared this morning, washed out vagina, cleared the perineum, and removed four sutures, leaving the anterior perineal and anal sutures. Patient left the hospital about the 14th day, perineum quite sound.

XXVI.—*Complete rupture of perineum with an inch of the septum; cure; two subsequent confinements without injury.*

Mrs. M. D., æt. 30, was delivered of first child in March, 1880, by forceps. Labour very tedious. Three days afterwards, on taking an aperient, found she had no control over the bowel, and she has never regained it. On examination there was found a very narrow band at site of posterior fibres of sphincter.

December 14th, 1881.—In the presence of Mr. Thomas Smith, Dr. Anthony of Ceylon, Mr. Kynsey, assisted by Dr. Woodham Webb, and Mr. Bailey giving chloroform and ether, after dividing the band, I restored the perineum as in fig. 11, with seven sutures for the rectum, two in the vagina, and five in the perineum. No opium. 6th day—Bowels moved well. Two sutures—alternate—2nd and 4th removed. Perineum looking well. 10th day—Remaining sutures removed, perineum well united.

I attended this patient in her second confinement on February 26th, 1883, when the perineum remained intact, and she was delivered without assistance again on April 27th, 1884, also without the slightest injury.

XXVII.—*Complete rupture of perineum with quite an inch of the septum; two operations in the country, failure; operation; cure.*

E. H., æt. 40, admitted October 3rd, 1882. Between eleven and twelve years ago had her perineum torn in the birth of first child. Has had five children, and thinks she

has got worse with each, till she had lost all control. After the first child, had no control over loose evacuations. About two years ago was operated on in the country, but the result was a complete failure. A fortnight later the operation was repeated, with a like result. Perineum ruptured with quite an inch of the septum, much cicatricial tissue on the sides of the vulvar opening.

October 7th.—In the presence of Dr. Bompiani of Rome, Dr. Fontana and other visitors, I removed the edge of the septum with scissors, and then reflected the mucous membrane into the vagina, removing no more tissue than the thickened edge of septum. Rectum closed with a continuous suture of about six points on each side, and three interrupted sutures. While the reflected portion of mucous membrane was held forwards and upwards, I passed the first suture through its base, the next in front of that, and so on, till the fourth, which caught it, where it was held by the forceps. The sutures were tied in inverse order, *i.e.*, beginning with number four.

5th day—Bowels well moved. 6th day—Removed number three suture, which was cutting a little. 9th day—Removed sutures four and two. A day or two afterwards number one suture was removed, and the patient returned home on the 19th day, with a thick, sound perineum.

XXVIII.—*Complete rupture of perineum with over an inch of septum; operation; cure; after having undergone ovariotomy* (*a dermoid*).

R. H., widow, æt. 32, two children. Perineum ruptured in first confinement, twelve years ago. Has had no control over loose evacuations since first confinement.

Admitted into Samaritan Free Hospital, November 25th, 1882, and I removed a dermoid ovarian tumour on the 6th. She left the hospital on the 27th (21st day) and was re-admitted a fortnight later, viz., on the 10th January, 1883.

January 13th, 1887.—Restored the perineum with a continuous suture of eight points (on each side) one anal suture, three vaginal sutures, and four deep perineal sutures, as in fig. 11. 6th day—Bowels moved, no injury to perineum. 8th day—Removed two posterior sutures and anal one, wound showing no sign of irritation. 11th day—Removed remaining sutures, wound quite healed. 13th day—Out of bed. 19th day—Returned home quite well.

XXIX.—*Complete rupture of perineum with about an inch of the septum; operation; cure.*

Mrs. C., æt. 22, admitted April 7th, 1883, was delivered of her first child on November 22nd, 1882, by forceps. Two or three days afterwards found she had lost control over the bowel.

April 9th.—Perineum restored by means of seven or eight sutures in the rectum, four in the vagina and four perineal sutures, as in fig. 11. Morphia $\frac{1}{4}$ gr. subcutaneously at bed-time (and next morning). 4th day—Bowels well moved. 8th day—Removed the anal and number two sutures. 9th day—Menstruating. 10th day—Removed two perineal sutures. 14th day—Out of bed, perineum quite healed up. 16th day—Removed one of the perineal sutures overlooked on 10th, no irritation in track, perineum quite sound and firm. Patient goes home to-day.

XXX.—*Complete rupture of perineum through the sphincter, with an inch of the septum; operation; cure.*

Mrs. M., æt. 24, admitted April 9th, 1883. Delivered of first child on 27th September, 1882, after a labour of twenty-four hours.

Her medical attendant reported the case as follows:—"Breech presentation, a long time in passing through the brim, and it blocked the passage for some time before it came down in the perineum. The body of the child was large, and passed into the world with some difficulty. As the shoulders were passing I noticed that the perineum began to give. I did all I could to relieve it, but it was useless, for as the head came the tissues gave way right through the perineum and sphincter. The child weighed about twelve pounds, was twenty-three inches in length, and seventeen inches round the shoulders. I at once inserted two deep and three superficial sutures. Everything went on well until the 6th day, when a copious motion tore the stitches out." Hence the advisability of not allowing the bowels to get too constipated.

April 12th.—In the presence of several spectators, perineum restored with seven or eight sutures in the rectum, four in the vagina, and four for the perineum.

The notes of the details have been lost, but it is sufficient to say that the patient returned home on the 18th day with a thick and sound perineum.

XXXI.—*Complete rupture of perineum through sphincter with half an inch of the septum ; operation ; cure.*

Mrs. E., æt. 24, admitted May 3rd, 1883. Delivered of first child, July 21st, with forceps (in New York) the doctor being in the house *not more than twenty minutes.* Became aware in a day or two that she had lost control over the bowel. Suffered a great deal. Could not sit for nearly three months, on account of the soreness it caused.

May 5th.—In the presence of Messrs. Jessett, Anthony and Corazza, I restored the perineum, with six or seven sutures in the rectum, five in the vagina, and four in the perineum, as in fig. 11, removing as little tissue as possible.

The full notes of case lost. Perineum, however, healed up well, but the patient developed some obscure pelvic condition with her next menstrual period, which came on after the first week, and it was not till the 19th June that she was able to return home.

XXXII.—*Complete rupture through the sphincter. Partial fæcal incontinence ; operation ; cure.*

Mrs. C., æt. 31, came under my care in August, 1883, she has had four children, the last in December, 1882. Was torn in second confinement, in April, 1880. Has no control when the bowels are relaxed, and suffered very great inconvenience in last pregnancy.

August 24th.—Perineum restored with a continuous suture of five points in the vagina, and five deep perineal stitches. No opium.

3rd day—Diarrhœa, Dover's powder. 4th day—Diarrhœa has ceased. Perineum looking very well. 5th day—Sutures three and four removed. 6th day—Sutures one and five removed. 7th day—Last suture removed. Beginning to eat. Perineum quite united. 9th day—Patient out of bed. 15th day—Gone home.

XXXIII.—*Complete rupture of perineum with greater part of the sphincter ; large rectocele and cystocele ; cure.*

Mrs. R. Perineum ruptured many years, and for several years has suffered from difficulty in evacuating the bowel when constipated, as well as in micturition; is obliged sometimes in the former case to push back the rectocele.

October 13th, 1883.—Mr. Tom Bird giving bichloride of methylene, and Dr. Alfred Grosvenor assisting, I restored the perineum with five sutures, at the same time removing a triangular portion of the mucous membrane from the posterior vaginal wall.

On the 10th day the sutures were removed, when the perineum was found well united and healed.

XXXIV.—*Complete rupture of perineum through the sphincter, with nearly an inch of the septum ; cure.*

Mrs. A., æt. 24, two children. Perineum torn with first child, forceps, March 12th, 1877, and extended with second on December 15th, 1880.

February 4th, 1882.—Perineum restored with seven or eight stitches in rectum, one at anal verge, and five perineal sutures. No opium. 5th day—Bowels very constipated. Has had five pills (coloc. and hyoscy.) before action secured.

No injury. All the sutures out by 8th day, and perineum quite healed by the 14th day.

This patient has been since confined without any injury, under the care of Dr. Platt, of Kilburn.

XXXV.—*Complete rupture of perineum through the sphincter, with quite half an inch of septum; cure.*

Mrs. E., æt. 35, perineum torn in second confinement on October 7th, 1883, child, a large male, delivered by forceps. Was very sore after the birth and for many days, and when the bowels were first moved she found she had lost control.

November 26th, 1883.—Dr. Junker administering his mixture of chloroform and pyroxyllic spirit, and Dr. Wilkinson of Sydenham, assisting, I restored the perineum with six sutures in the rectum, and five in the perineum. 2nd day—Has been very sick (for twenty-four hours), and has had morphia (gr. $\frac{1}{4}$) subcutaneously on account of the pain which is evidently due to the sickness. 5th day—Perineum looking well. 9th day—Three perineal sutures removed, wound well united. 12th day—Last two stitches removed. 14th day—Out of bed, perineum quite sound.

I delivered this patient on April 17th, 1885, with forceps, when the perineum again gave way through the sphincter. It was at once repaired with three sutures and healed up perfectly, the patient returning home on the 22nd day.

XXXVI.—*Complete rupture of perineum, with an inch of septum; partial fæcal incontinence; cure.*

Mrs. E., æt. 35, had her perineum torn in her second confinement, October 7th, 1883, when the child (a male with

very large head) was delivered with forceps. The first time the bowels were moved by an aperient she found she had lost control. On examination there was found a tear extending through the sphincter and involving quite an inch of the septum.

November 26th, 1883, Dr. Junker giving chloroform mixed with pyroxyllic spirit, (constituting an artificial but definite so-called bichloride of methylene as demonstrated by a French chemist) I performed my usual operation, removing only the hard edge of the septum, and splitting the septum. Six sutures were used for the septum, and four deep for the perineum. The temperature rose to 100° at 9.30, but next morning was normal.

27th.—At 3 p.m., had ¼ gr. morphia subcutaneously on account of the pain, at 10 p.m. the temperature was 99°.

29th.—Temperature normal since last report. To take a teaspoonful of glycerine three times a day.

30th, (fourth day).—Bowels moved by a dose of the compound liquorice powder, no injury.

December 3rd, (seventh day).—Three perineal sutures removed. Wound looks perfectly well. 10th day—Last sutures taken out. 12th day—Out of bed.

April 17th, 1885.—Delivered to-day by forceps, perineum giving way, but immediately restored with three sutures. 7th day—Sutures removed, perineum quite restored and wound healed.

XXXVII.—*Partial rupture of perineum, followed by very large rectocele and cystocele; cure of rectocele.*

Mrs. D., æt. 36, mother of six children, the youngest being two months old, admitted January 18th, 1884. Began to suffer from "falling of the womb" about five years ago,

which gradually increased until a body as large as half a large cocoa-nut came down. She had great difficulty in evacuating the bowel. Had tried a Zwanke's pessary, but it failed to keep up this protrusion, which escaped behind the instrument. On examination while the mass protruded it was found to be a very large rectocele with some cystocele. Perineum torn to near the sphincter.

January 19th.—I first removed strips of the vaginal mucous membrane from the septum (rectocele), running up the vagina, in such a way as to leave a double triangular raw surface, with the apex high up in the vagina, and then brought the edges together with nineteen sutures, and then restored the perineum with four sutures. 4th day—Bowels moved (and kept open daily afterwards). 7th day—Four vaginal sutures removed. 11th day—Thirteen vaginal sutures out and one perineal. 22nd day—Three perineal sutures and last two vaginal. The patient was kept recumbent till 28th day—And she went home on 29th.

Since then the patient has been supplied with a Hodge's pessary specially constructed with a diaphragm on which the cystocele might rest, which answers its purpose perfectly. The rectocele has been quite cured.

XXXVIII.—*Complete rupture through the sphincter, with about half an inch of the septum into the right angle of the vagina; operation; cure.*

Mrs. G., æt. 36, admitted January 30th, 1884, five children. Four years ago was confined with her third child without assistance, the labour being very rapid. Felt very sore but still retained control. There was some difficulty with

her fourth child, and she was injured more, and since then has quite lost control except when very constipated.

Perineum torn centrally, but the septum gave way into the right angle. This was probably the result of the second injury.

February 2nd, 1884.—In the presence of Dr. Gervis, while Dr. Junker administered his mixture of chloroform and pyroxyllic spirit, I restored the rectum with six sutures, brought the vaginal edges together with four sutures, the perineum proper with five, and one for the anal verge. There was unusually free bleeding, but it ceased on closing the perineum.* No opium. A good deal of sickness, more than with pure chloroform. 5th day—Bowels well moved. 7th day—The anal and three perineal sutures removed, perineum quite united. 15th day—Vaginal and remaining perineal sutures removed, and the patient out of bed. 20th day—Went home.

XXXIX.—*Partial rupture of perineum through the sphincter, with rectocele; cure.*

Mrs. W., æt. 31, widow, four children, admitted May 22nd, 1884. Last child seven and a half years ago. Injured with her first, twelve years ago. Has suffered very much from "bearing down." There is a considerable sized rectocele with great tumefaction of the mucous membrane at vaginal orifice.

May 23rd.—Perineum restored with four sutures, bring-

* The lateral direction of the tear in the septum was more evident after the rectal and vaginal sutures were tied.

ing the reflected vaginal mucous membrane forward so as to be caught by the sutures to assist in thickening the perineum. Very free bleeding. 5th day—Sutures one and four removed. 7th day—Sutures two and three removed, perineum well healed. 13th day—Out of bed. 14th day—Gone home.

A week afterwards patient returned complaining of discomfort in the bottom of the back and bearing down. Uterus retroverted with some flexion. A No. 5 Hodge's pessary. At the end of another week returned complaining of great irritation, for which she has had to use frequent injections. Uterine body bent over the posterior cross-bar of pessary. Substituted a Meadow's compound stem, which gave immediate relief. I have no further notes of the case.

XL.—*Complete rupture of perineum, with about an inch and a half of the septum; operation; cure.*

Mrs. K., æt. 37, admitted into Samaritan Free Hospital, November 8th, 1884. Has had nine children. Was torn in giving birth to first child, twelve years ago, and has had no control ever since. Last child three months ago. So much of the septum torn that it is impossible to administer an enema. Some prolapse of posterior vaginal wall.

November 10th, 1884.—Rectum restored with ten sutures, then the vagina with three or four, and perineum with five, and one at anal verge.

This was the first time of using the Hagedorn needles, and so pleased was I with their advantages, that I have since continued to use them exclusively.

4th day—Bowels moved freely. 6th day—Perineum quite

united. Four perineal sutures removed. 10th day—Vaginal sutures and the anal one removed. 11th day—Out of bed. 14th day—Gone home with a thick and sound perineum.

XLI.—*Complete rupture of perineum, with nearly an inch of septum; operation; cure.*

E. H., æt. 39, admitted into the Samaritan Free Hospital, December 22nd, 1884. Three children. First nearly thirteen years ago, delivered by instruments alive; last in April of this year. Ever since birth of first child has had no control when the bowels were relaxed. On examination the rupture is seen to have included the sphincter with nearly an inch of the septum.

At 9 p.m. on evening of admission her temperature was 99·2°.

December 23rd.—Mr. Doran giving chloroform, I removed the hard edge of septum and then dissected back the vaginal mucous membrane with its submucous tissue, thus splitting the septum, and restored the rectum with five sutures, then I brought the vaginal mucous membrane together with three sutures, and finally the perineum with five deep sutures. All these sutures were passed with the Hagedorn needles, small and large, and they gave me great satisfaction.

24*th*, (2nd day).—No opium has been given, and there has been no sickness. In the afternoon the period came on, the last being six weeks ago. 4th day—Menses have ceased. Bowels well moved naturally and without injury. 7th day—All the deep perineal and vaginal, together with the anal suture removed. Wound quite healed. Bowels moved daily since 4th day. 10th day—Out of bed. 13th day—Gone home.

XLII.—*Complete rupture of perineum, with an inch of septum; operation; cure.*

Mrs. S., æt. 26, was delivered of her first child on January 8th, 1885, by Dr. Mair of Bayswater, by turning. The extraction of the child was very difficult, and it was impossible to preserve the perineum, which gave way, involving the sphincter and about an inch of the septum. Twelve hours afterwards Dr. Mair, taking advantage of daylight, put in three sutures, but no union resulted, and ever since the patient has had no control.

February 24th.—Assisted by Dr. Mair, and Dr. Hugh Sutherland giving chloroform, I removed the edge of septum as well as a small quantity of cicatricial tissue on each side, and reflected the mucous membrane to the required extent. The rectum was restored with six or seven fine sutures, one outside for restoring the anus, and the perineum with four deep sutures, all these being tied before the anal one.

2nd day—Patient being restless but not complaining of pain. Dr. Mair gave her a few drops of laudanum about midday.

4th day—A pill containing one grain each of compound colocynth extract and hyoscyamus, given at night, and to be continued every four hours.

6th day—The bowels not having acted yet, a scammony draught was given about midday, and in two hours afterwards a comfortable evacuation was secured.

9th day—All the perineal sutures, together with that at the anus, removed; wound soundly healed.

14th day—Patient out of bed, quite well.

XLIII.—*Rupture of perineum to sphincter, prolapse of uterus, etc.; operation; cure.*

O. K., æt. 28, admitted into the Samaritan Free Hospital February 2nd, 1885. Has had three children, the last October 30th, 1883. Has suffered from prolapse since birth of second child, four years ago. Went into a hospital for women in August, 1880, and had a *ring pessary* applied. This instrument gave her great pain, through the uterus getting jammed into the hole of the ring. She was obliged to remove the instrument, and in a day or two miscarried. I first saw the patient in March, 1883, when I diagnosed pregnancy and gave her a Zwanke's pessary. She went to her full time, and was delivered in October, as above stated. About a month after this confinement I adapted a large Hodge's pessary until I could admit her, and it answered its purpose fairly well.

February 19th.—Since admission patient has been kept in bed, and has had the glycerine plug and hot douche used daily, except while menstruating, with the effect of reducing the size of the uterus. Mr. Doran giving chloroform, I removed a triangular portion of mucous membrane from the rectovaginal septum, bared the perineum, and brought the raw surface together with six vaginal and four deep perineal sutures.

8th day—All the perineal sutures removed.

12th day—Vaginal sutures removed.

19th day—Went home.

About a month after this, or as soon as I could introduce one without risk of injury, I adapted a Hodge's pessary,

and she became pregnant in June. I have not since heard of her, but recommended her to lie up for a full month after confinement, and as she promised to return if necessary, it is not unreasonable to conclude that she continues well.

XLIV.—*Complete rupture of perineum with an inch of septum, fæcal incontinence ; operation ; cure.*

Mrs. K. was ruptured in her first confinement, and had an operation performed in Brighton, but the result was very unsatisfactory, for the fæcal incontinence was rather aggravated than relieved. She was a very stout subject, and therefore an unfavourable one for operation.

On April 2nd, 1885, I restored the rectum and perineum in my usual way, and the patient returned home on the 18th with a good sound thick perineum.

January 25th, 1887.—Mr. Manser, of Tunbridge Wells, writes:—"Mrs. K. was confined on December 11th, 1886. She had a somewhat rapid labour with chloroform. The perineum remained intact."

XLV.—*Complete rupture of perineum with nearly two inches of septum, fæcal incontinence ; operation ; cure.*

E. H., æt. 29, was delivered of her first child on April 6th, and was admitted into the Samaritan Free Hospital on July 20th, 1885. The labour lasted twenty-four hours, and during the last hour she was under chloroform. The rupture was recognised, and three stitches were inserted at once, but no union took place. On examination the rupture was seen to involve the sphincter and nearly two inches of the septum,

in a perfectly straight line, the apex of the tear being exactly in the middle line.

July 27th, 1885.—Mr. Stormont Murray giving chloroform, and Mr. Doran assisting, in the presence of several visitors, I split the septum on both sides, as well as for half an inch beyond the apex of the tear in the septum, and brought the rectal edges together with nine or ten sutures, then the vagina was repaired with five sutures, and finally the perineum was closed with five deep sutures. No tissue was removed except the edge of the septum, which was done in a continuous strip with scissors.

No opium was given, sickness rather troublesome for twelve hours at intervals; temperature rose to 100° on evening of second day, but next day became normal, and continued so thereafter. The bowels were moved for the first time on the 4th day, and daily afterwards. On the 7th day the four anterior perineal sutures, and the one at the anus removed, and the wound quite united, except at the vaginal verge, where the edges had got a little turned in. Next day the posterior perineal suture removed, and on the 17th day the patient returned home, having been out of bed for four days.

XLVI.—*Complete rupture of perineum with half an inch of septum; operation; cure.*

Mrs. B., operated on with the assistance of Mr. Fergusson of Richmond, who took charge of the after treatment.

June 11th, 1886.—The rectum and perineum were sutured separately in my usual manner. The bowels were moved for the first time on the 5th day. One stitch was taken out on

the 6th day, and the remainder on the 9th, when the perineum was firmly united, and the patient left her bed on the 13th day. No opium.

XLVII.—*Complete rupture of perineum with about an inch of septum; fœcal incontinence; operation; cure.*

J. W., æt. 29, sent to me by Dr. Evan Jones of Aberdare, and admitted into the Samaritan Free Hospital, October 13th, 1886.

Has had three children, the last four months ago. Perineum torn with first child, January, 1884, which was delivered with instruments after a hard labour. From that time has had no proper control over the bowel.

October 18th, 1886.—Assisted by Mr. Doran, in the presence of Dr. Muhlenberg of Philadelphia, Mr. Stormont Murray giving chloroform, the rectum was restored with six sutures, the vagina with three, and the perineum with five deep sutures.

5th day—Bowels opened without injury; no opium has been given.

8th day—Four perineal sutures and the anal one removed.

13th day—Remaining perineal suture and the three in vagina removed since last report, and patient out of bed to day.

16th day—Patient gone home to day.

August 24th, 1887.—Letter received from husband announcing birth of a boy (this week) "without the assistance of a doctor, both mother and child doing well. The operation stood the test without giving way in the least."

XLVIII.—*Complete rupture of perineum with an inch of the septum; two operations unsuccessful; fæcal incontinence aggravated; chronic diarrhœa; operation; cure.*

C. W., æt. 22, a very stout woman, admitted into the Samaritan Free Hospital December 29th, 1886, on the recommendation of Mr. Knott of Burwood Place. Has had three children and her perineum was torn in her second confinement, when the labour was terminated by forceps. Third child born seven months ago after an easy labour. At the time of the rupture was sewn up but without union. Three months afterwards operated on by a general practitioner but the wound broke down and the fæcal incontinence was made worse. Recently she came under the care of Mr. Knott who treated her with tonics under which she improved and he then sent her to me. For the last seven months, that is since her last confinement has suffered very much from diarrhœa.

On examination she was so troubled with diarrhœa that the external parts were very much irritated with the more or less constant discharge from the bowel, which, owing to the very stout state of the patient could not easily get away. Having weaned her child only two days previously, both breasts distended, the left very much so. By means of pressure a large quantity of milk was got away, flowing in a continuous stream two or three jets at a time, especially from the left breast. Straps of adhesive plaster were then firmly applied. The vagina was washed out several times a day and the external parts kept as clean as possible.

December 31st.—Mr. Doran assisting, Mr. Stormont Murray giving chloroform, and in the presence of Dr. Wands of

Indianopolis and others, I operated in the usual way, removing no tissue at all, and restored the rectum with six sutures, the vagina with the same number, and the perineum with five. The external parts were still very red and were dusted with Iodoform in sufficient quantity to prevent actual contact of the skin surfaces. 2nd day—Left breast rather full and some milk drawn off; highest temperature 99·4°; *diarrhœa has ceased;* no opium. 3rd day—Breast softer; temperature normal; feeling quite comfortable; thinks flatus escapes through vagina; a thick pad of cotton wool placed between nates, behind anus, to allow flatus to escape direct from anus; after this there was no more complaint of the flatus escaping unnaturally. 4th day—Bowels moved by three colocynth and henbane pills at intervals of four hours, without injury or discomfort. 8th day—Bowels moved daily; all the perineal sutures (five) removed; perineum quite healed. 10th day—On proceeding to remove the vaginal sutures the vagina was found to contain a quantity of urine which had been forced backwards owing to the fatness of the patient. 11th day—Patient out of bed. 13th day—Gone home, perineum quite sound, and diarrhœa cured from the moment of the operation.

XLIX.—*Incomplete rupture of perineum, cystocele, operation followed by pessary cure.*

Mrs. F. does not know when the perineum was torn, but since last confinement has suffered from prolapse, which on examination, in consultation with Mr. Propert, was found to be a cystocele.

October 13*th*, 1887.—Perineum restored with the assistance

of Mr. Propert, while Mr. Stormont Murray gave chloroform. No tissue was removed, but the parts split; five sutures were used and a very thick perineum formed, care being taken not to carry it too far forwards so that a pessary could be inserted afterwards if required. 11th day—Sutures removed, perineum well united. Patient to be kept recumbent for a month.

Inserted a vulcanite pessary, Hodge's shape with a diaphragm occupying the space between the side bars anterior half. The patient had worn an ordinary Hodge for some days while the vulcanite instrument was being made, and this together with the recumbent position had already brought about a great improvement.

L.—*Complete rupture of perineum with nearly an inch of the septum; failure of immediate stitching; operation; cure.*

Mrs. S. was torn in her first confinement in India, three sutures were put in at the time, but no union took place. On her return to this country in broken health she consulted Dr. Mair of Bayswater, who asked me to see her.

October 15th, 1887.—Assisted by Dr. Mair, while Mr. Stormont Murray gave chloroform, I restored the perineum, using five sutures for the septum, in addition to the anal one, four for the vagina, and five deep for the perineum; no opium.

The patient was very restless and troublesome yet union by first intention took place except at the vaginal orifice where the muco-cutaneous edges did not unite well, apparently through turning in.

The patient returned to India in December in much improved health, greatly relieved in mind by the absence of involuntary escape of flatus.

LI.—*Complete rupture of perineum without destruction of sphincter, but with a recto-vaginal fistula; unsuccessful operation on fistula; complete perineal operation; cure.*

Mrs. C. was brought under my notice by Mr. Propert on account of a recto-vaginal fistula, and on July 2nd, 1887, I attempted to close it. The septum was very thin and it was not easy to get a sufficiently large surface without destruction of tissue, which I avoided. The attempt failed and on the 20th of November I divided what remained of the sphincter together with the septum into the fistula. I then removed the edges of the fistula, split the septum backwards for a quarter of an inch, and the tissues on each side, restored the rectum with eight or ten fine sutures, closed the vaginal tear with about four, and the perineum with five, deep sutures.

About the 12th day the sutures were removed leaving a good sound perineum and septum.

LII.—*Complete rupture of perineum with an inch of the septum; chronic diarrhœa and fæcal incontinence; operation; cure.*

M. A. R., æt. 23, two children, admitted into Samaritan Free Hospital, December 15th, 1887, perineum torn with first child. Since then has had no control over the bowel, and for many months has suffered from what she calls

chronic diarrhœa. She has lost flesh very much since birth of first child, is miserably thin, and according to Dr. Gage Brown, who sent her to me, presents a marked contrast with her former healthy and prepossessing appearance.

On examination, septum destroyed for at least an inch, and exposing the mucous membrane of the rectum, which presents an angry appearance.

December 19th.—Assisted by Mr. Doran, Mr. Stormont Murray giving chloroform, and without removing any tissue, except the hardened edge of the septum and a small portion forming the angle marked *b* in fig. 9, and after splitting the septum for a quarter of an inch beyond the rupture, I restored the rectum to the anus by a continuous suture placed wholly in the raw surfaces, and carefully avoiding the mucous membrane; the deep perineal sutures, five in number, were inserted, and three sutures brought the vaginal edges together, before the deep perineal sutures were tied.

Next day the period came on, and lasted over three days. The highest temperature (99·6°) was concurrent with the appearance of the menses, and it remained about 99° until the period ceased, when it became normal. No opium was given. On the 5th day the bowels were moved by compound colocynth and henbane pills (one grain of each extract) repeated every four hours, until five were taken. On the 6th day four of the deep sutures were removed, and on the 12th day the remaining perineal and vaginal sutures were removed, and the patient got out of bed. On the 10th day the case was shown to the visitors at an ovariotomy (December 30th), Dr. Balls-Headley of Melbourne, Dr. Dirner of Budapest, and others, perfectly healed and showing very little trace of the operation.

The patient returned home on the 16th day. The diarrhœa ceased from the moment of the operation.

LIII.—*Complete rupture of perineum with over an inch of the septum; chronic diarrhœa and fæcal incontinence; operation; cure.*

A. P., æt. 24, married, one child, was sent to me by Dr. John Moir of West Ham, and admitted into the Samaritan Free Hospital on February 22nd, 1888. Was confined with her first child in June 1887, under the care of a midwife. The labour terminated naturally. Since then has had no control, except when constipated, and for the most part has suffered from chronic diarrhœa. This is explained by the exposure of the mucous membrane of the rectum, through an extensive rupture of the perineum, with more than an inch of the septum. Under strain the anterior vaginal wall protrudes through the opening.

February 24th.—Chloroform being administered by Mr. Stormont Murray, and Mr. Doran assisting, I divided the skin from the lower end of the labium minus to the anal verge on each side, split the septum, and reflected the mucous membrane as far as the dotted line *c* in fig. 9, while the two flaps were held up; the rectum was restored by a continuous suture of fine silkworm gut, about eight points, and the anal suture; the two flaps were united with five sutures, so as to complete the vagina, then the deep perineal sutures were put in to the number of five. The wound was then well washed out with a stream of hot, followed by iced water, and the sutures tied.

25*th.*—No opium, temperature normal till evening, when

it rose to 99·6° at nine p.m. Diarrhœa has ceased since operation.

27th.—4th day—Vagina washed out on account of some discharge, chiefly leucorrhœal. Two pills, one at ten a.m. and one at two p.m., containing extr. coloc. co., and ext. hyoscy., of each one grain, produced a good evacuation without injury.

29th.—6th day—Bowels again well moved. Perineum looking well.

March 1st.—7th day—Perineal sutures removed, along with the anal and one vaginal. Two of sutures beginning to cut.

8th.—14th day– Patient out of bed. 15th day—Remaining vaginal sutures removed. 16th day—Patient gone home. Perineum quite sound, thick and firm, with complete control.

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