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To Dr. Ferguson

With the Compliments
of the Author

ART. V.—*Practical Observations on some Congestive, Inflammatory, and Ulcerative Affections of the Uterus.* By EVORY KENNEDY, M. D., late Master of the Lying-in Hospital, Dublin. With coloured Plates and Illustrations.

A COMMON inquiry, both within and without the profession, at the present day, is, how comes it that affections of the womb appear to occur so much more frequently now than formerly? The answer to this is, that they do not occur more frequently; but from the attention that has latterly been bestowed upon them, and the facilities that at present exist for their elucidation, they

are now better understood, and their distinctive characters are beginning to be appreciated by those who study them. The consequence of this is, that many of those states of disease, formerly attributed to other causes, such as general debility, weakness, relaxation, nervousness, &c., or even to affections of remote organs, are now traceable to uterine lesions. The obscurity which hitherto enveloped their investigation, left us in ignorance of their existence, and led to their being ascribed to other than their real causes. These fallacies are, however, gradually giving way under the progress of analytic investigation, aided by the more general use of the speculum. As, however, the application of this instrument, in this country, must ever be limited, our progress shall be comparatively slow, unless those who have possessed peculiar opportunities of investigating these affections, give the results they have arrived at to the profession.

It is incalculable the amount of suffering and ill health which is, even at the present day, experienced by females, who have been treated ineffectually upon "general principles," and whom, after years of misery, the simplest local treatment rapidly restores to health^(a).

The object of the succeeding observations is, the practical elucidation of some of the most striking of these affections, so as to convey to others, as briefly and simply as possible, the conclusions arrived at upon these subjects by the writer. But, as no written description can convey to the reader a just idea of the appearances, presented by morbid lesions, so as to enable him, without a most extensive field of observation, to distinguish them accurately when presented to him, we have been at some pains to remove this difficulty, by giving delineations, taken from the cases when under treatment. For their fidelity we can speak with some confidence. Most of

(a) See M. Chomel's case, reported by M. Gueneau De Mussy. Dub. Hosp. Gazette, March 1, 1845.

those not drawn by ourselves were executed under our inspection, by that admirable delineator of morbid structures, Mr. Connolly, nearly ten years since. They were prepared for the benefit of the class at the Lying-in Hospital, who then possessed an opportunity of testing their accuracy, by comparison with the cases under their observation at the moment. Multiplied observation of similar cases, in the period that has since elapsed, having satisfied us of their truthfulness, led to the supposition that their publication might prove acceptable to the profession.

If the practitioner ask for a rule as to the cases in which the use of the speculum is admissible, we should answer,—that must rest with his own judgment in each individual case; and while we feel convinced that no man would propose an operation, so revolting to every feeling of a delicate-minded female, and distressing to himself, unless absolutely imperative, we would also hope, that where such necessity existed, no physician intrusted with the life or health of his patient would shrink from having recourse to every available means which science affords, in the discharge of the trust confided to him.

In the majority of cases we find the usual posture in parturition,—lying on the left side, with the limbs drawn up to the abdomen,—and placing the patient so that the direct light will fall in the axis of the outlet of the pelvis, serves every purpose. A sheet, with an aperture, or slit, corresponding to the vulva, should envelope the person, and the head and shoulders should be placed low.

In primary examinations, where the object is to explore the interior of the vagina, as well as to evert the uterine lips, the use of the four-bladed speculum, is preferable. Subsequently, however, and where applications are to be made to the interior of the vagina or the os uteri, Ferguson's glass speculum, prepared by coating the glass with caoutchouc, having a layer

of quicksilver interposed (thus converting it into a reasonably good reflector, and rendering it more luminous), answers remarkably well.

Whenever the os is displaced and difficult to catch in the field of the speculum, the expanding instrument is preferable, and its use attended with less inconvenience and delay. In some cases, where the neck projects directly backwards, it is impossible to expose it without placing the patient on her back, and elevating the pelvis above the level of the shoulders, but this is rarely necessary; the reverse occasionally holds good. The principal difficulty in catching the neck of the uterus in the field of the speculum arises from our pushing it aside in the introduction; an inconvenience most likely to occur when that portion is elongated or displaced. This may be prevented, by always making a careful manual examination, before introducing the speculum, so as to ascertain the exact position of the uterus, and direction of the os; when, upon introducing the instrument well up, and withdrawing the plug, if the os be not brought into view, the speculum may be gradually withdrawn, expanding it gently at the same time. By this means the neck will generally fall into the field of the speculum. In some cases of displacement of the uterus, or when this organ is very mobile, it is necessary to have it replaced, and retained *in situ* by the hand of an assistant pressed firmly from above into the pelvis. If these hints be attended to, the instrument lubricated, and introduced slowly and high up before withdrawing the plug, whilst the blades are gradually separated, and (if necessary) the vulva and vagina dilated by the previous use of tallow bougies, little difficulty or inconvenience can attend its use.

In some cases, as of acute vaginitis, any attempt to introduce the speculum is not only painful but highly injurious, until that affection is relieved by leeching and other means. Extreme congestion of the vagina, and extraordinary sensibility of the sphincter, also render its use inadmissible until these

symptoms have been removed, and the parts reconciled to its introduction by the use of proper bougies.

The uterus, and particularly that portion of it projecting into the vagina, is very liable to inflammation, congestion, and their sequelæ. This, for obvious reasons, is more frequent in married than in single females, although by no means confined to the former. The depth of the part engaged, and its comparative insensibility, renders its affections not always well understood, or referable to their exact seat; and we are more frequently consulted for the effects and the inconveniences resulting from them, than for the primary attack. Thus chronic inflammation or congestion of the neck may continue for weeks or months, and, perhaps, until leucorrhœal discharge, or ulcerative alterations, take place, no advice is sought. The practitioner then too frequently treats the symptoms, and overlooks the original disease, or by his very treatment aggravates and confirms it. Astringent and stimulating injections are almost invariably had recourse to; and cold aspersion, tonics, wine, porter, active exercise, &c., are esteemed essential for the cure of the debilitating discharge, as it is termed. The discharge certainly may be checked, but if it be, its primary cause is aggravated, and a simple, easily-managed affection is converted into an obstinate chronic disease.

It so happens that the symptom which generally attracts most the patient's attention in utero-vaginal affections is the accompanying discharge; and from the frequency of its occurrence in these cases it has thus acquired the importance of being esteemed the pathognomic affection, not, as it really is, a symptom; an error which, we fear, is likely to be confirmed by the adoption of the term *blennorrhagia* in the classification of these diseases. In applying this term we merely use it as denoting the presence of a symptom, *mucous discharge*, as its name implies; with the frequency of which every practitioner is conversant. Frequent as leucorrhœa, or blennorrhagia is with our females, it would appear that in France

it is much more so, if the statements of Ricord and Lisfranc are to be taken literally. The first says that ninety-nine women and a half in every hundred, during some part of the month, suffer more or less from blennorrhagia; whilst M. Lisfranc was in the habit of stating that the evidences of its existence were present upon the linen of nearly all the Parisian ladies; and this statement was based upon his own examination into this matter at a great washing establishment near Paris(a).

The prudent practitioner, when consulted in these affections, would do well, in most cases, to forget the existence of such a circumstance, and in place of treating *it*, set about ascertaining the true nature of his patient's case.

The empirical system of ordering an astringent lotion merely because there is a vaginal discharge, and then resting satisfied that everything practicable has been done, has prevailed too long, and proved an opprobrium, which every day's experience must serve to render more culpable.

Let us inquire whether, in the first instance, the disease was induced by an assignable cause; whether pelvic, sacral, or inguinal pains were first observed, with heat and irritation about the vulva, or in the course of the vagina; whether this occurred consequent upon sudden suppression of the menses, after exposure to cold or local irritation—in connexion with cutaneous eruptions,—after any marked change in habits of living,—early exertion after delivery, or miscarriage; whether the discharge, when it appeared, was subsequent to these, and how long; whether it was consequent upon intercourse, miscarriage, pregnancy, or delivery; and how far the patient's general health may be connected with it? Having inquired into all these matters, if the disease do not yield to a properly directed treatment, or if circumstances warrant a further examination, let this be made, and let the patient be treated upon fixed

(a) See Acton on Venereal Diseases, p. 45.

principles, based upon a knowledge of the *real nature* of her case.

The uterus, like the rectum, is liable to retardation of blood in the venous vessels and capillaries, giving rise to congestion, engorgement, and even varix. The neck and body are more prone to this than the fundus, a circumstance which, we imagine, may be accounted for by the anatomical distribution of its vessels, the blood in the fundus principally flowing to and fro in the spermatic vessels: whilst that in the neck and body returning by the hypogastric and iliacs into the cava, is more exposed to pressure from a variety of circumstances, but principally from distension of the rectum and cæcum, the enlarged uterus, in pregnancy, and pelvic growths, &c.

Congestion of the uterus is a large subject, and one that demands much the attention of the profession; we shall now merely deal with it in connexion with some of those lesions of that organ which it is our present intention to notice. It is generally more or less combined with infiltration into the cellular tissue of the neck and parenchyma, and sometimes with disease of the lining membrane, partial or complete. It contrasts with chronic inflammation by its darker colour, as seen through the speculum, and by the occasional development of varicose veins, as shewn in Fig. I. of the accompanying illustration. It is less sensible, both generally and to the touch, and though its principal inconvenience perceptible by the patient is the sense of weight or dragging, and in some more decided cases, of throbbing in the pelvic or sacral region, the latter symptom is more observable when the whole uterus is congested. In the cases where it is confined to the neck and lining membrane, the patient may experience little of these inconveniences, sometimes merely complaining of a slight feeling of prolapsus. The vaginal examination indicates, in complete congestion, a fullness and enlargement of the uterus, much resembling early

pregnancy. The partial congestion, however, gives us merely the increased development of the neck(*a*), with the body of the usual size, and imperceptible on pushing up the finger: or of the body, or a portion of it(*b*); these cases are often accompanied with displacement of the organ corresponding to the locality of the partial enlargement.

Simple engorgement does not necessarily alter the density of the uterine tissue, or cause that increase of hardness, insisted upon by some authors as a pathognomic sign of this state(*c*); it may amount to a considerable degree without any very sensible alteration in its density, unless lymph be effused into its interstitial structure; a change, however, much more likely to occur in chronic inflammation, and which has, no doubt, been often ascribed to engorgement.

Congestion may exist without any lesion of the uterus, or it may be combined, as it very frequently is, with excoriation, ulceration, or granulation of the neck or lining membrane. It is difficult, from the reasons above specified, to ascribe the priority of occurrence to either. Much difference of opinion exists amongst authors, as to their order of occurrence; some asserting that engorgement of the neck precedes, in all cases, ulceration; whilst others deny this, although they admit its occasional priority. Without entering upon a discussion, which it is impossible always to determine with accuracy, we are quite justified in saying, that rarely does inflammation or congestion persist for any great length of time, without lesion of the in-

(*a*) M. Boys de Loury and Costilhes, in their *Clinical Researches* give the greatest dimensions of the uterine neck, in its normal state, as three centimes, in its lateral, and two in its antero-posterior diameter, when free from engorgement, observing that whenever the antero-posterior equals the lateral diameter it is a proof of engorgement.—*Gazette Medicale*, June, 1845. Ranking's Abstract, vol. ii. p. 168.

(*b*) See Duparcque, tom. i. p. 91.

(*c*) In using the term engorgement we would restrict it to vascular and œdematous congestion, and not include, under this denomination, as do the French authors, hypertrophy or fibrous deposits, steatomatous, inflammatory schirrous, or any other of the comprehensive organic deposits which they class under this term.

vesting membrane, within or without the uterus following ; and more rarely still does lesion occur, without congestion or inflammation resulting.

In inquiring into the causes of this disease, let us reflect what an important part is performed in the female, by the organs peculiar to her ; the extensive sympathies they evince, particularly with the cutaneous textures and their liabilities, as partaking of both serous, mucous, and parenchymatous structures, to the diseases of all these. Let us further bear in mind the extraordinary changes and alterations, in both structure and function, which they undergo in the different states of childhood, puberty, parturition, menstruation, &c., with their modifications and interruptions ; and then the comparative frequency of disease of these organs is not to be wondered at. On the contrary, that the periodicity of their functional operations, regulated by no appreciable controlling power, yet recurring at such intervals, should not more frequently be interrupted, is rather a matter of surprise.

That interruptions and alterations of their function should be productive of lesions, or occur consequent upon organic changes, is what we should naturally anticipate. The great object with the physician should be to ascertain, as far as possible, the relations in which such alterations stand to each other, as to cause and effect ; this knowledge being of vital importance, with a view to rational treatment.

In addition to removing its cause, congestion of the uterus is best treated by unloading the vessels of the part engaged. From three to six leeches applied directly to the uterus through the speculum or leech-bag, will do more to relieve this symptom than twelve or eighteen externally. Scarification is also of service, but to prove effectual the incisions must be kept open, by retaining the speculum within the vagina, and injecting warm water, otherwise they generally cease to bleed the moment the speculum is withdrawn.

The vessels having been unloaded two or three times, or

oftener if necessary, counter-irritation over the pelvis or sacrum, particularly in complete congestion, must be had recourse to: where it recurs, as it often does, again and again, particularly if assuming the inflammatory character, a permanent drain with Albespeyre's paper, or, which is still more efficacious, if the urgency of the case justifies it, a caustic issue kept discharging for several weeks or even months. A continuous stream of cold or tepid water may be thrown into the vagina twice or thrice each day, and followed by the use of mild astringent lotions, or washing the whole projecting part of the neck over with an eight-grain solution of nitrate of silver, and occasional inunction with citrine ointment.

The general treatment will consist in what may be termed alteratives. Tonics should always be had recourse to with great care, although not entirely prohibited; in fact, whilst we have seen the greatest mischief induced by the use of tonics in this affection, we should state that, *in some cases*, particularly those of long standing, where the constitutional health had suffered much, decided benefit has been derived from the careful administration of both bark and iron. Pullna water, sarsaparilla, iodine, mild mercurials (particularly Plummer's pill), and taraxacum, are, however, more to be relied upon and are much safer in their general use.

When the menses are interrupted, a few leeches ought immediately to be applied to the uterus, and, if the patient be plethoric, the lancet may be used; but the period ought not to pass over without detracting some blood, either from the uterus or its immediate neighbourhood. The hip-bath should also be had recourse to about the period. If a tendency to the occurrence of a half period, or "fortnight's menstruation," shew itself, this should be forestalled by the application of leeches, the day or two before its occurrence.

Inflammation of the uterus, when it assumes the acute character, is sufficiently easily recognised, by the seat of the pain and distress, combined with the febrile excitement and

sympathetic derangements it engenders. The forms of inflammation of this organ, which we at present treat of, are not, however, so easily recognised,—we allude to partial chronic inflammation, which may, at least in the first instance, occur unattended with much constitutional disturbance, when it is more from its consequences or effects that attention may be drawn to the disease.

The same observations may hold as regards partial inflammation, even when it assumes a more acute character. Most of the symptoms accompanying congestion of the uterus will occur in inflammation, whether chronic or acute, partial or complete, of this organ; but in addition we shall have pain, more or less severe, increased on pressure, accompanied, as it partakes of the more markedly acute character, by febrile disturbance, quick pulse, rigors, high-coloured urine, irritation of the bladder, loss of appetite, thirst, and acute pain on intercourse, &c.

The obvious treatment here is general and local depletion, antiphlogistic regimen, mercury, and counter-irritation, the warm bath, soothing fomentations and injections, and the removal of every possible source of excitement. The symptoms above described are obviously applicable to both acute and chronic inflammation, whether partial or complete, of the uterus, only varying in degree according to the intensity of the symptoms and extent of the organ engaged; for instance, if fulness and marked pain, increased on pressure, exist, on examining the uterine region over the pubes, then the body of the organ is engaged; if the fulness and pain increased on pressure be perceptible only on a vaginal examination, it is confined to the os, or neck; and if a discharge of a muco-purulent fluid, with a tendency to bleed, be observed from the interior, whilst heat and throbbing occur, the lining membrane is the seat of the inflammation. Should the discharge assume a very tenacious character, difficult to disengage from the interior, with a red, vascular, and angry appearance of the everted

portion of the lining membrane at the lips (see Fig. 9), then the glandular structure within the neck is engaged. We do not always find the exact part of the organ engaged so distinctly defined in practice, for this reason, that when one part takes on the diseased action, it very commonly extends, either directly, or by the persistence of the local irritation and determination, to the adjoining structures. In inflammation of the vaginal portion of the neck of the uterus, in addition to increase in development and heat, we shall find, on introducing the speculum, that the investing membrane has assumed a vivid red, or, if of longer standing, a brick-red colour (see Fig. 2), which very often extends to the uterine portion of the vagina, or even throughout this canal. In some of these a red, and somewhat prominent, spotted, aphthous, or papular appearance is perceptible upon the os itself, as in Fig. 2, or more markedly in Fig. 3, in which case it engaged the vagina also. These papillæ are seldom larger than a large pin's head, but there are others on which a follicular enlargement occurs, giving the appearance of vesicles embedded in the substance of the uterus: in some, distinct patches of inflammation pervade the vagina, leaving the intervening portions comparatively free from disease. We have also observed rhagades or fissures combined with this inflammation of the uterus and vagina; and in one case in particular, there would have appeared reason for connecting it with a dartsous affection, to which this patient was liable on other parts of her person. The inflammation in some cases assumes the marked diphtheritic character, with insular exudations as observed in the other mucous surfaces, in which case the vagina is also very commonly engaged.

We have drawn attention to the congestive and inflammatory affections of these organs in the first instance, with a view to shew their connexion with those diseases which we have now to discuss under the head of Ulcers of the Uterus. It would be natural to infer, that the ulcerative affections to which the uterus is liable should occur as the sequelæ of pre-

existing inflammation, and we doubt not that this is the case in the majority of instances. We do not from this mean it to be supposed, as it is conveyed in the observations of an intelligent writer in the *Annales de Therapeutique*(a), that all ulcers proceed from hypertrophy of the neck; on the contrary, we have met with many in which no such state existed, and indeed we believe it that he rather misapplies the term hypertrophy, in so designating that inflammatory or congestive fulness which precedes or accompanies these cases, and which is generally temporary in its nature. We have already alluded to the difficulty of always ascertaining accurately the order in which these states occur, from the advanced period of the case in which we are usually consulted.

Ulcers of the uterus may be classified into the benign, specific, and malignant; we have only at present to do with the first. Their causes may be general and local: the general are usually predisponent, such as constitutional diathesis, extreme plethora, or the reverse state, strumous habit; the use of stimulants; sedentary habits; costiveness; exposure to cold; cutaneous eruptions; aphthous tendency; and deranged digestion. The most prominent of the local are, inflammation and congestion, as already enumerated; excoriation; injuries; irritation extending from neighbouring organs, as the rectum and bladder; deranged menstruation; abortion; labour; displacements of the uterus; tumours, and other diseases of the uterus, vagina, and neighbouring tissues and organs; and too early exertion after labour or abortion, &c.

The simplest form in which the mild ulcer on the uterus shews itself may be termed Excoriation, or Erosion, in which it exactly resembles an abrasion of the cuticle in the male. It may commence in the same manner, or it may be the result of one of these aphthous or papular inflammations, terminating in superficial ulceration, which takes on a spreading action, and is slow to heal. We have a similar ulcerative process in

(a) Avril, 1845.

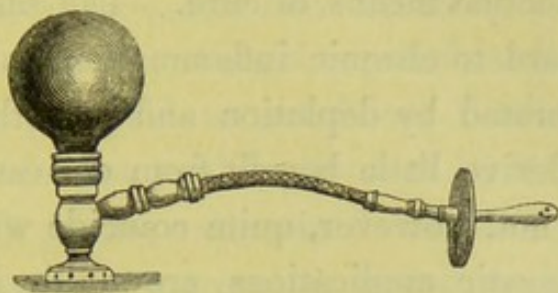
those affections of the mouth, with which we are so familiar, and which commence without any assignable cause (perhaps from cold or deranged digestion), ulcerate, spread, burrow, throw out granulations, and heal rapidly on the use of caustic. These cases usually commence upon the prominent part of the lips of the uterus, whilst some, spreading from the interior, the result of, perhaps, a similar state of the lining membrane, extend to the os or vagina. Amongst other causes, simple ulceration of the neck of the uterus has been ascribed by some writers to the irritation produced by the action of catarrhal discharge passing over the lips, but particularly the posterior lip of the os uteri. This opinion has been so completely answered by Duparcque, that we need not apologize for transcribing his words: "*Souvent, en effet, il y a catarrhe utérin sans ulcération du col; souvent aussi il y a ulcération au col sans sécrétion intru-utérine; enfin, la non-récidive après cicatrisation de l'ulcère, nonobstant la persistance du catarrhe utérin, et souvent aussi la cessation de tout écoulement, par le seul fait de la guérison de l'ulcération, toutes ces considérations prouvent très-péremptoirement que ces écoulemens non seulement ne sont pas cause, mais sont plus souvent essentiellement la conséquence de ces ulcérations.*"—Tom. i. p. 374.

The spread of the disease here depends evidently upon the extension of the diseased action, through continuity of tissue, the primary diseased action (inflammation) pre-existing. It requires the touch of the examiner to be well practised to recognise simple erosion (as represented in Fig. 4); and even the most practised will be deceived occasionally if he rely upon it exclusively. In the milder forms it is merely the epithelium that is eroded, and in these the surface of the sore is so smooth, and free from granulated elevations, that the finger may pass from the smooth, polished surface of the healthy neck over the ulcer, without detecting it. When the ulceration is excavated, or when the granulations are sprouting, then this disease is more easily detected; but even in these it is often difficult to

detect it by touch, although the defined margin of the ulcer may appear so distinct, as seen through the speculum. (See Fig. 4.) The ulcer in some of these presents a violet tint, with little difference in elevation: but in others, particularly as the disease is of long duration, and more granular, the tint is more vivid, and the irregularity of surface more marked.

In this form there may be very little inflammatory or congestive alteration in the neck, and little granulation or irregularity even in the ulcer itself. What, however, will place its existence beyond a doubt, will be washing it over with a ten-grain solution of nitrate of silver, or passing the solid caustic rapidly over the suspected part, when the exact outline of the ulcer will be mapped, in a dirty white tint, as represented in Fig. 5, so that there will be no possibility of its escaping detection. Although this affection may be attended with little or no inconvenience, and productive of no discharge in *many* cases, yet it is extraordinary the amount of irritation that may attend it in *others*; and, on this account, when detected, it ought always to be cured, a process which is often accomplished by once touching it gently over its whole surface with solid nitrate of silver, and using daily for ten days a very mild astringent lotion, say, one grain of acetate of lead to an ounce of water. We may mention that in using vaginal lotions, to do so with any benefit, the patient should always lie on her bed, with the shoulders rather lower than the hips, and a vessel or bed-pan be placed underneath, to receive the fluid that has been injected; and unless a continuous stream of the lotion be kept up for some minutes, we can anticipate but little benefit from any application that it would be safe to inject over the vaginal mucous membrane. Feeling the difficulties attending the want of an instrument, which, whilst it kept up this continuous stream, could be easily used, not acted upon by chemical agents, and moderate in its price; we have, for some time, directing our attention towards these objects, and have at length succeeded in constructing what may

be called a gum elastic syphon, the plan of which is here given. It is used by alternately squeezing and relaxing the bag with



the one hand (the bag filling by exhaustion through its own elasticity), whilst by means of a double ball valve, the fluid is taken up and directed through the

tube, which is held in the other hand, into the vagina. It answers equally well as an enema apparatus, and for all the usual purposes of the syringe.^(a)

The Granular Ulcer is the next form we shall treat of. Like the simple affection just described, it may commence on the lip, or may extend from within; it may occur at one spot on the os, or spread over both lips. It frequently would appear to extend from within the os, and is thus very commonly found combined with the same state of disease in the mucous membrane of the uterus itself. The granulations in this are redder and more distinct than in the former case (see Fig. 6), and almost always combined with increased development of the lip or lips engaged, and often with the symptoms either of congestion or chronic inflammation of this part. When this affection extends upwards into the lining membrane of the uterus, a muco-purulent discharge exudes as well from the uterus as the ulcerated surfaces exposed to view. These surfaces, would not account for the amount of discharge which very often accompanies this affection, and which evidently comes also from the upper part of the vaginal canal, which is usually of a dusky brick colour, with occasional papillæ, as observed in Fig. 3. This also is a simple and curable affection, requiring, however, a longer time to cure than mere erosion. Its curability will be much influenced by the degree of inflammation or congestion that may accompany it, as these affections must be treated on the principles already laid down, to enable us

(a) This instrument is manufactured by Robertson of Bachelor's-walk, Dublin.

to heal the granulation. Whilst acute inflammation exists, there is little use in having recourse to caustics, which, in this case, also constitute the most effectual means of cure. The same observation holds with regard to chronic inflammation; and until it is somewhat ameliorated by depletion and the other means indicated, we shall derive little benefit from our caustics. Our experience does not, however, quite coincide with that of Lisfranc, that "caustic applications are quite inadmissible whilst any inflammation of the uterus remains." In many of these cases, after reasonable depletion was had recourse to, the inflammation (congestive in its character) appeared to be kept up by the irritation caused by the ulcer, and was only removed by the application of caustic to the ulcers, the ulcer healing, and the neck losing its hyperæmia, *pari passu*: nay, in others, the strong caustic lotion, and even the stick caustic, quickly passed over the unabraded but inflamed surface of the os, appeared to produce the happiest effects in reducing the chronic inflammation prevailing in it. This was particularly observable in old chronic cases in which depletion had been tried, but with little effect. The caustic applications made to the granular ulcerations will require to be repeated at intervals of seven to ten days for three or four times, using it more lightly on each succeeding application. When the granulations are destroyed, an altered and healthy action is induced in these old habitually secreting surfaces, the cicatrization spreads from the circumference after each destruction, and at length little islands of healthy mucous membrane, with its epithelium, appear, dotted through the old granulations. In the interim between the caustic applications mild astringent lotions should be daily injected; lead, zinc, copper, alumn, decoction of oak-bark(*a*), and iodine lotions, if little inflammation be present; vegetable astringents, as tea, chamomile, poppy, and

(*a*) M. Gibert strongly recommends an alcoholic tincture of tannin, mixed with seven parts of water.—*Gez. Med.*, August 9, 1845, and West's Report in *Brit. and For. Quarterly*, vol. xlv. p. 293.

marsh-mallows decoctions, if inflammatory symptoms or irritation occur. Counter-irritation by stimulating liniments, and small blisters, and even leeching and the lancet may be employed, at intervals, if required, and alterative doses of mercury also, provided no scrofulous diathesis precludes this. This affection, or modifications of it, would appear to prevail to a much greater extent in the scrofulous diathesis, and in such it always produces greater inroads upon the constitutional health.

The form of ulcer next to be considered is an aggravated granular condition, which we shall denominate the Cock's Comb Granulation, from its resemblance to this structure (see Fig. 7). It generally engages the immediate margin of the os, consisting of large, sprouting, papillous granulations, with or without intervening fissures dividing them into lobulated portions, the lobes, when present, appearing to dip a good way into the cavity of the uterus. The first few cases of this kind we met with caused much anxiety as to their being curable in their nature; but the result of our observation upon them is such as to satisfy us that they are just as certainly (although more slowly) curable as the simplest granulation. On touching them steadily with the solid caustic it seems to sink into them, the structure offering little resistance, and a little blood may escape from the part touched. From these circumstances much anxiety has been evinced about these cases, and it has fallen to our lot to relieve from the impression that the patient was labouring under a malignant disease more than one such case, where even unfavourable medical opinions had been already pronounced. The caustic application requires to be made more freely here, so as to procure a decided slough, and get more speedily at the healthy parts underneath. If the solid nitrate of silver be employed, it should be pressed steadily, and for some time, against the sprouting granulations; if the nitrate of mercury (which we prefer), then the brush dipped in it must be repeatedly applied, and introduced well into the deeper diseased structure within the os.

It should have been mentioned that the slough takes, in this class of morbid organization, but a short time to separate; in some cases it is thrown off in twenty-four or forty-eight hours, in others it requires three or four days, according to the freedom with which the caustic has been used, and the extent of the structure destroyed.

There is another form of ulceration which resembles that now described, but is less sprouting in its granulations. It assumes, like this, a vivid red tint generally, engages one or both lips of the os, close to the aperture, although not necessarily found here, and occasionally extends completely into the neck, engaging the entire of both lips: it is generally, in its advanced stage, very lobular and fissured in its character, although not necessarily so at first, or when at some distance from the os: it is what might be termed doughy, or "boggy," in its structure, the caustic, or sound, sinking very deeply into it without any resistance being offered, and its bleeding very freely on the slightest touch: it is commonly attended with irregular red discharge, appearing at intervals, and particularly after intercourse; this occasionally amounts to debilitating hæmorrhage, with discharge of clots, and this is often the symptom that calls the attention of the patient to her being out of health. The leucorrhœal discharge may be trifling, and cause little attention. This we would designate the Bleeding Ulcer (see Fig. 8), and, although a perfectly curable affection, it is likely to be confounded with the malignant ulceration from its appearance and hæmorrhagic tendency. It is not impossible that some of the cases of reputed cures in cancer uteri, of which we hear, may have been simple cases of this form of disease; and we are free to admit that we have had extreme hesitation in pronouncing, in the first instance, a prognosis in some such cases, particularly where the ulcer was combined with induration.

The following case, attended in consultation with Dr. James Brady, and reported by him, affords such an example.—"Mrs.

—, aged 48, of dark complexion; had six children; enjoyed uninterrupted good health until about two years and a half ago, when her 'changes' became more abundant, and more frequent than natural; but, attributing these irregularities to 'change of life,' she attached no importance to them, particularly as (with the exception of a white discharge in the intervals), she had no other symptom of disease. In January, 1846, the monthly change was accompanied, for the first time, by an alarming hæmorrhage, and for the following six months she had several similar attacks, which had reduced her, in August, when she sought advice, to a very low and dangerous condition. In addition to all the usual symptoms attending repeated losses of blood, the skin had assumed that peculiar green waxy hue so often found in organic disease; there was great debility, and the most obstinate vomiting, and the blood was flowing from the vagina in a continued stream; the os uteri was patulous, allowing the finger to be passed high up into the neck, which felt hard and slightly hypertrophied; the speculum revealed a fissured, granular ulceration occupying the anterior and posterior lips, particularly the former, and extending high into the neck. A pencil of nitrate of silver was freely applied to the bleeding ulcers on the os and neck as high as could be reached, and the vagina plugged, which completely stopped the hæmorrhage. Subsequently the fluid nitrate of mercury was substituted for the nitrate of silver, and applied as freely both to the neck and os. In about three weeks the hæmorrhage returned, and was again completely controlled by the same means; during the three following months the nitrate of mercury was regularly applied about once a fortnight, always with obvious advantage; the whole discharge, which previously had a peculiar unhealthy odour, now assumed the character usually found in simple leucorrhœa. The only constitutional treatment adopted was alterative doses of Plummer's pill, Donovan's syrup of bark, and sulphate of quinine.

“For the last three months the menses have been regular, both as to time and quantity, the only thing complained of being a slight pain at the commencement of each period; the ulceration is quite healed, but there is still some slight redness and congestion, particularly on the posterior lip; the skin has assumed its former healthy hue; the appetite is good, and, except a slight pain in the back, the patient considers herself in as good health as she ever enjoyed.”

This case is further illustrative of the inconvenience or mischief that might result from treating some of those hæmorrhagic and irregular discharges occurring about the cessation of the menses, as merely depending upon what is termed “the change of life.”

It is difficult to say how much of the hæmorrhage had come from the ulcer, or whether there was not also a discharge from the interior of the uterus; we would incline to the latter supposition, in cases where, like this, the hæmorrhagic discharge was so profuse. We should not be deterred from the application of our caustic by the bleeding in these cases, and unless freely used it is of little or no avail, as the blood which flows protects the surface from its action, and neutralizes it. A piece of lint ought to be applied carefully round the margin of the ulcer before each application of the caustic, to absorb any that escapes, and prevent the adjoining healthy structures being injured. When the cauterization is completed, the passage ought to be freely washed out with a continuous stream of water, kept up for some time. This, as well as the last described granulation, is very likely to be combined with diseased action of the lining membrane of the uterus, particularly when it has its seat on the very margin of the lips, the interior of the uterus bleeding freely in these cases, when a sound is passed within it. The caustic ought to be passed as far within as we can introduce it, and applied freely to its interior, and for this purpose the nitrate of mercury, on the camel's hair pencil, is preferable to the nitrate of silver, as it is more easily applied, capable of

being more generally spread over the diseased structures in the interior, and not liable to the objection that holds as regards the solid nitrate of silver, namely, its breaking off, and remaining within the uterus. To prevent such an occurrence, where the nitrate of silver is used, it ought to be melted into a port caustic, as recommended by Mr. Wilde, in the treatment of disease of the external meatus auditorius. See *Dublin Medical Journal*, vol. XXIV.

Not only should the caustic be applied to the interior of the uterus in these cases, on each occasion that we apply it to the diseased structures visible to the eye; but, as the healing usually goes on from without inwards, its use ought, as a precaution, to be repeated afterwards, so as to secure that the healing action is complete within the uterus, as well as without. The mucous membrane on the interior of the lips losing its angry granular character, its ceasing to bleed on being slightly touched, the absence of the muco-purulent secretion, and conversion of the discharge, if it continue, into a transparent, glairy mucus, are the only sensible evidences we possess of a healthy state of the lining membrane, and our caustic application, followed by the milder caustic or astringent lotions, should be repeatedly applied with the brush to the interior until these effects are produced.

It may be asked how far we are justified in thus describing these ulcers or granulations of the uterus under distinctive denominations; and whether they are not referable to the same diseased action in different stages of its development? This question has frequently occurred to ourselves, and we can only state that had we been able to arrive at such a conclusion with certainty, it would have been propounded; it was, therefore, deemed more correct to represent the varieties or modifications exactly as they presented themselves to us, leaving other observers to form their own conclusions.

It will have been observed that the same plan of local treatment, very slightly modified, according to the circumstances

of each case, applies to the different cases described, requiring in some to be much longer persisted in than in others. The general treatment necessary will vary very much according to the habit, constitution, and general symptoms of each case, and the stage at which our assistance is sought. A strong, plethoric young female labouring under an ulcer, immediately consequent upon, or co-existent with, inflammation of the uterus and vagina, will require depletion and anti-phlogistic treatment; whilst a granular ulcer, attended with profuse discharge, in a worn-out, attenuated female, would not only be injured by such a plan, but demand a course of treatment directly the reverse. Again, marked inflammation or congestion occurring even with the habit last described, would indicate the necessity of local depletion, combined with a more tonic regimen; whilst indications of a scrofulous diathesis would point out the propriety of using those specific means we know to prove successful in such cases. The frequency of the occurrence of these affections in connexion with scrofula cannot be too strictly borne in mind.

The use of wine, malt drink, and animal food, is a subject that requires distinct consideration in each individual case. As a general maxim, we would say that the two first are best abstained from, or, if permitted, given very sparingly; there are, however, cases in which they become imperative, as the constitutional health gives way on their withdrawal, and of course the reparative powers are unequal to their task. The principal objection to their use is their effect in keeping up chronic inflammation and congestive determination, and it must always be borne in mind that a strong predisposition exists, particularly to this latter affection, after healing up these long existing ulcerations, requiring our most marked attention to prevent, or, if it should occur, to remove. Everything, therefore, calculated to induce irritation or congestion, must be abstained from; thus, long continuance in the erect posture, jolting in carriages over rough roads, intercourse, wine, fermented

liquors, stimulating food, and exposure to cold or fatigue, are all to be avoided whilst under treatment, and even for some time after the healing of the ulcer, as we have known a neglect of these precautions frequently retard the recovery, and even produce relapse. Should these precautions be neglected, and congestion occur, then the uterus is likely to relieve itself either by a hæmorrhagic discharge, more or less profuse, or by blennorrhagia occurring from the uterus, vagina, or both. Should these symptoms set in, leeching may be necessary, but our patient can seldom bear depletion well at this stage of her treatment. Counter-irritation now becomes the most powerful means of reaching these deep-seated congestions and inflammations, particularly when attending the structural alterations and chronic affections described; and with this view, either the application of repeated small blisters over the pubes or sacrum, Albespeyre's paper, or the hot iron, as recommended by Dr. Corrigan in sciatica, will be found very serviceable. In some of the more obstinate cases, which did not yield to simple remedies, the introduction of a caustic issue, kept open for some weeks, or months, has been most efficacious. The nitrate of mercury allowed to lie on the abdominal surface, over the pubes, for some minutes, has answered very well, and produced a sufficient slough to imbed a piece of felt in, and is a less severe and painful application than the *potassa fusa*, generally applied where caustic issues are required.

We should have mentioned that amongst the plans of constitutional treatment had recourse to in some of the more obstinate cases described, change of air is pre-eminently useful. Often have we seen these ulcers become stationary in some stage of their progress, then extend, assume an unhealthy appearance, and, when every variety of local treatment seemed to fail, moving our patient a few miles from her previous residence induced a speedy healing action. In the lapse, perhaps, of a fortnight matters again became stationary, when the change of place was repeated with the same good effect. In fact, this

circumstance is now so familiar to us, that not unfrequently a patient is kept moving about from place to place until the cure is effected. It is remarkable also that this check in the progress of healing is more likely to occur in the approximation to cicatrization than in the earlier stage of the treatment. Sea air answers best in the great majority of cases, but we have even found a change from the coast inland of service. The air of Kingstown seems to agree particularly well with most of them.

It occasionally happens, that, just on completing the cicatrization of one of these old granulations, an aphtha appears upon its surface, exactly as in the mucous membrane of the fauces in infants, and if treated injudiciously it may spread over the membrane, or the ulcer may open out afresh. A continuous stream of borax solution, with an occasional painting over with the weak nitrate of silver lotion, a course of mineral acids, or waters, and, above all, change of air, will soon remove this, but it ought not be lost sight of, lest it run to ulceration.

We have generally found that, when our patient was in circumstances to admit of such a thorough constitutional change as a tour to the German watering-places usually produces, and when the season of the year allowed of it, her permanent recovery was best secured by availing herself of the advantage of this after the healing of the ulcer. Homburgh and Kissingen are the waters most safe and useful, and care should be taken not to use waters containing much iron, if any tendency to congestion exist, as we have known much mischief done by neglecting this precaution. Where a more aperient course is necessary, Pullna water answers very well, and as a resolvent remedy this water can be used at home, taking from an ale-glassful upwards each morning before breakfast, and walking for half an hour after taking it. When the digestive organs are sluggish, and congestion exists, or is threatened, this course answers particularly well. The Brighton Pullna, or Peilnar water, prepared by Straus, answers quite as well as the real water.

Although the ulcerative affections described cannot be said absolutely to preclude the possibility of pregnancy, there can be no doubt that they lessen the liability to its occurrence (and particularly the last forms detailed), so much as to justify their being enumerated amongst the causes of barrenness. Several remarkable cases illustrative of this fact have occurred under our notice, in which ladies, married for years without a family, and labouring under these affections, had proved pregnant within such a term from the healing of the ulcer, and return to uterine health, as to leave little doubt that they stood in relation of cause and effect without even straining a *post hoc* case. Although in two or three instances pregnancy occurred within two or three months after their cure, yet generally it required a much longer time, say six months or a year, or even two years: as if the organs had required time to recover their tone and functional energies after a derangement of this kind.

In illustration we may give a case occurring in June, 1843. Mrs. —, aged 27, of a scrofulous diathesis, six years married; had two children, the youngest four years old; miscarried shortly after the birth of the last, since when has suffered from constant blennorrhagia, with dragging pain in the back; lassitude; loss of appetite, and great debility; has been abroad for treatment and change of air; has taken tonics without end, and used astringent lotions with temporary check to the discharge. On examination, an ulcer, of the cock's-comb character, was detected, which healed under the use of caustic, residence on the sea-shore, and iodine, with occasional tonic alteratives. This lady went to the country perfectly cured of the ulcer after three months, and within two months proved pregnant, went to her full time, and has since had two children.

When pregnancy occurs along with an ulcerated state of the os, particularly if the inner margin of the lips, or lining membrane of the uterus, partake of the disease, we can well understand that hæmorrhagic discharge from the uterus is

likely to occur at any stage of gestation, but more especially when the neck takes on its development. These cases are not only predisposed to abortion, but those repeated premature confinements, preceded and attended by hæmorrhage, which we meet in the fifth, sixth, or seventh months, not unfrequently depend upon this circumstance, a fact that should be always borne in mind and inquired into when consulted about miscarriages or premature confinements, with a view to their prevention in future pregnancies. If an ulcer exist it should be cured before reimpregnation; many cases illustrative of the importance of attention to this circumstance could be adduced. Now, although the ulcer be healed before reimpregnation (and thus confinement to the recumbent posture for months may be avoided), yet let it not be imagined that no precaution is necessary on the recurrence of the period of former miscarriages, or premature confinements, as habit engenders a tendency to unload the womb at given periods, and great care should be taken at these times to prevent its occurrence, even although no threatening by discharge evince itself.

It will naturally occur to us from what has preceded, that as well with a view to impregnation as in order to prevent the throwing off the ovum prematurely, the more perfectly the organs shall have returned to their healthy condition, and the longer time that elapses without cohabitation, the more likely is impregnation to take place, and the less likely to be prematurely interrupted.

We have seen that ulcers of the neck of the uterus do not absolutely preclude the occurrence of pregnancy,—nay, the fact of this function being accomplished with the coexistence of even malignant ulceration of the neck, is long familiar to the profession. When consulted in a case of this complication, are we justified in undertaking to heal the case locally, pending the expiration of the pregnancy? The inducements to adopting local treatment, then, are the possibility of the disease spreading if allowed to continue unchecked, and the constitu-

tion taking up the diseased action, as in specific ulcers; the checking a profuse weakening discharge; and the prevention of miscarriage or premature confinement. On the other hand, it may be fairly questioned whether the risk of miscarriage or premature labour would not be greater under the repeated use of the speculum and other local interference than by leaving the case to be restrained by mild astringent injections, and carefully-directed constitutional treatment until after labour. As a general rule, we would recommend the latter plan, although in some cases we have been obliged to adopt a different one; for instance, in a well-marked venereal ulcer we have no alternative but the use of such treatment, both local and general, as will prevent the ravages of this disease. Even in a case exhibiting suspicious characters, the same plan becomes necessary.

In other ulcerations also, where it is a choice of evils,—for instance, those exhibiting doubtful characters of malignancy, lupus, or phagadenic ulcerations,—we would not feel justified in losing several months in our endeavours to check their progress. In aggravated cases of what we have designated the bleeding ulcer, attended with repeated hæmorrhages, which, if unchecked, not only much debilitate our patient, but are also likely to induce miscarriage, a similar plan is necessary. Several such cases have occurred to us, in which we have, by local treatment, prevented these repeated discharges, and enabled our patient to go to her full time, although having had repeated premature confinements before from this cause. A case of this kind occurred in a lady who sought advice for sanious and purulent discharge, with occasional hæmorrhages, great debility and depression, quick, small pulse, and constant apprehension of miscarriage, having aborted before, under similar circumstances, about a month later in her pregnancy. On examination, a bleeding ulcer, such as is depicted in Fig. 8, occupied the entire circumference of the os, extending evidently some way into the neck, which was slightly patu-

lous, and plugged with glutinous secretion. A stick of nitrate of silver was passed quickly over the ulcer, and as far within the os as was practicable without using any force or disturbance to the parts. This operation was followed by an immediate check to the discharge, from which the patient continued free for four days. The superficial slough then separated with slight return of red-tinted discharge. This operation was afterwards repeated on three occasions with intervals of eight days, the saturnine lotion being used daily in the interim, when the discharge totally ceased. The patient improved in strength and appearance, was able to walk and drive about, and went on to her full time free from inconvenience. When she was examined after her confinement, a very slight ulceration was perceptible on the posterior margin of the neck, which was healed by one caustic application.

Although the simpler ulcerations, and particularly those on the neck, at a distance from the os, might be cauterized in pregnancy with less risk of producing miscarriage than the case where the ulcer extends within the os, yet as no urgent necessity for interference exists, we had better leave them to the use of astringent injections until after labour. Certainly in no case of pregnancy, where milder and less irritating means were available, and promised fairly, should we be induced to follow the injunctions of M. B. de Loury and Costilhes, and use that most potent of all caustics, the Vienna paste, and afterwards plug the vagina for twelve hours, with a view to the cure of the ulcer.

The occurrence of inflammation and ulceration of the cervix in virgins is less frequent, for obvious reasons, than in the married female; but it also occurs with them. With the exception of the linear or fissured ulceration (which is confined, as far as our observation goes, to the married female who has been impregnated, and results from the effects of impregnation), most of the other forms of inflammation or ulceration occur in unmarried females, or in females so recently married,

and exhibiting such evidences of its having existed previous to matrimony, as to leave no possible doubt that they had long suffered from it in the virgin state.

Opportunities of investigating these cases are comparatively rare, as it is only in the more aggravated forms, and where every other available means have failed, that an examination is instituted.

Some months since, our advice was taken for a young lady aged 19, six weeks married, and who had suffered from hæmorrhagic discharge from the uterus from a few days after her marriage. On inquiry it was ascertained that she had had repeated irregularities of a similar kind since she was fifteen years of age; the menorrhagia alternating with blennorrhagia, the latter to a slight extent. Under these circumstances a vaginal examination was instituted, and instead of an ovum (she supposed herself pregnant and threatened with abortion), a bleeding ulcer was found to occupy both lips of the os and to spread some way up into the neck, which was prominent, rather hard, and fuller than natural, but exhibited all the characteristics of the virgin uterus. This case was treated with caustics and iodine; stimulants and tonics, which had been very freely given, were withheld; she perfectly recovered, the ulcer cicatrising, and the menorrhagia and blennorrhagia totally disappearing.

In the case of an unmarried lady, aged 30, for many years in ill health, wasted, subject to repeated attacks of menorrhagia, with blennorrhagia to a slight extent in the interim, and who had been repeatedly treated with tonics, astringents, &c., the relations required an examination to be made, as every plan of treatment had hitherto failed, and malignant disease was dreaded. This was done, after a preparation of some days by bougies, when a granular ulcer was detected by the touch. The constriction of the parts was such that a speculum could not be used without great suffering; caustics were applied through a tube, and astringent injections used daily;

counter-irritations had recourse to, and a course of Plummer's pill and Pullna water administered. The ulcer healed, and her health and appearance rapidly improved, with a total recovery from both sanguineous and muco-purulent discharge.

Nothing is more striking in these cases of recovery than the change effected in the skin, and its return to the tints of health, from its shrivelled, anxious, and sallow appearance.

The fissures that occur from abortions and labour, in the lips of the os, constitute a frequent incipient cause of ulceration, which, taking on an unhealthy action, attended with vascularity of the adjoining tissues, spread both within and without. They are sometimes, however, confined to the very margin of the os. These are fissured or linear ulcerations (see Fig. 1), which require to be treated with caustics, as those ulcers already described: the caustic should dip well into the bottom of each fissure, as in fissures of the anus, to secure their healing.

The small tubercles(*a*) occasionally observed in the cervix uteri are said to pass into scrofulous ulcers, as in other parts of the body; but we have been unable to trace the transition so markedly as to justify our ascribing any of those ulcers we have met with to this cause.

The genito-urinary mucous membrane is markedly liable to catarrhal affections from cold, or other causes determining to mucous membranes, such as this susceptible structure is in very many cases predisposed to. Thus, as we see in some a liability to nasal, and in others to bronchial or gastric mucitis; so in many females there exists a strong predisposition to its occurrence in the uterus or vagina. Catarrh in the uterus is much more obstinate than this affection in the vagina, and the inflammation of the latter mucous membrane more tedious in resolving itself than that occurring in the nymphæ and vulva. Thus, the deeper the seat of the disease the more difficult to cure, a fact which is observed to

(*a*) See Dr. J. H. Bennett's excellent Practical Treatise. London, 1845.

occur independent of the difficulty attending the treatment. The same observation applies in the male^(a), the inflammation of the prepuce and glans penis being much more under control than that of the urethra, or throat, &c.

In catarrh of the uterus the disease commences with simple inflammation of the lining membrane of this organ, which may be confined to the cavity of the neck, or extend throughout the body. The inflammation may extend to the submucous tissue, accompanied by tension and fulness in the uterine region, the natural secretions being first, perhaps, suspended, then increased. The glandular structures in the neck and os become diseased, a muco-purulent secretion takes place from the interior of the uterus, exhibiting, as the effect of the glandular hyperæmia, a glairy, viscid, and extremely tenacious character, constituting one of the most marked pathognomic signs of this affection. The menstrual secretion may continue to return with regularity, or it may be suspended; and, in the latter case, the suspension is often combined with congestion of the uterus, adding to its bulk considerably (see Figs. 1 and 9), and causing an increase of all the symptoms of local distress. This state may persist for a few months, when the menstruation may return in excess, and recur irregularly, assuming, at times, a hæmorrhagic character, and induced by slight exertion or irritation. This state, owing to the suppression of the menses, and increase in development of the uterus, has been mistaken for early pregnancy; the uterus assuming the size of the pregnant organ from the first to the third month.

When the menses continue regular the uterus increases but little in development, but usually appears deeper in colour, from the congestion which so generally accompanies the catarrh; the os is usually patulous, the inner edge red and granular, bleeding on the slightest touch, and the os plugged up with viscid, muco-purulent matter, a portion of which hangs out into the vagina, and which, on examination, presents the

(a) See Acton on Venereal Diseases, p. 47.

appearances observed in Fig. 9. The mucus is removed with the greatest difficulty, and the sound or brush introduced within the cavity of the neck for this purpose invariably causes an escape of blood from the diseased membrane on the slightest touch.

This is a disease frequently met with in married females who have borne no children, and is one of the most frequent accompaniments of barrenness—frequently, perhaps, its cause; it is also often met with in unmarried females; and married females whilst they often trace it to repeated early miscarriages, just as often admit its having existed years previous to their marriage^(a).

There is an expression of countenance, distressing in its nature, and a tint of skin, as if washed over with a dirty brush, which usually accompanies this affection, and which there is no mistaking. What causes the disease to escape the ken of the practitioner, in general, is, that on an ordinary vaginal examination, no diseased state of the uterus can be detected, and even with the speculum we may overlook it, as the alteration of the mucous membrane does not always extend to the everted portion of the lips (as it does in Fig. 9); the glairy mucus filling the os may be absent, or, if present, esteemed a natural secretion. Whenever the appearance of the skin just described, accompanied with an anxious expression, is found in a barren female, whose uterine health is deranged,—more especially if she have red discharges occurring from the uterus at irregular periods, with or without the glairy discharge, and accompanied by debility and lassitude,—this disease should be suspected, and a careful inquiry as to its existence instituted.

It is of great importance that this disease should be arrested, as, although it may go on for many years, after the constitution becomes reconciled to it, producing little more inconvenience than that mentioned above, yet, in some cases it proceeds to a state of disorganization of the uterus, the submucous

(a) This is a common appearance in prostitutes.

tissues becoming more extensively engaged, and undergoing a change which may be termed *uterine ramollissement*, attended with frequent hæmorrhages and unhealthy grumous or muco-purulent discharges, the constitution sympathizing more and more with the disease, until the patient sinks under it. This termination is, however, rare, yet there can be little doubt, that, without the disease proving in itself directly fatal, it lays the foundation of such constitutional delicacy as indirectly to produce a fatal result by the induction of other diseases of debility, as phthisis and dropsy, &c.

The difficulty and risk attending applications made to the interior of the uterus, render the chronic affections of its lining membrane less promising in their recovery. When the diseased action is confined to the cavity of the neck, it is more within our control; and here a catheter loaded with nitrate of silver, or a port caustic constructed as already mentioned, so that the caustic cannot possibly escape and remain in the uterus, may be repeatedly applied, and by this means the action of the membrane altered, and reduced to a healthy state. The nitrate of mercury is both a safer and more efficacious alterative in these cases. A camel's hair brush, dipped in this fluid, may, where the os is sufficiently patulous, be passed within it, and carried quickly over the interior membrane, re-dipping and again introducing it until a sufficient effect is produced. The os is very likely to contract after its first or second introduction, rendering its repetition difficult, and it would not be safe to introduce a larger quantity than the brush will carry. In order to secure the caustic's being diffused over the interior, and not wiped off at its entrance by the lips, it is well to use a gum-elastic tube, open at the extremity, through which the loaded brush can be passed. This plan will enable us also to get our applications high up into the body of the uterus. The greatest difficulty we have to contend with, in some of these cases, is overcoming the contraction of the neck, or inner os, in order to get up to the body. This must be done by a series of bougies, and those made of gutta perca

answer particularly well, from their combining resistance with elasticity, so as to lessen the liability of using any injurious force in overcoming the spasm. When this has been sufficiently overcome to admit of passing the largest-sized catheter or tube, as already described, our applications can be made through it. If a brush be used, it can be loaded and concealed within the tube until the point of difficulty be overcome; and then, having previously taken the precaution of graduating the handle to which the brush is attached, we can move it over the interior of the uterus free of the tube, and withdraw it: the brush or sponge should be so fastened to the stick as to prevent the possibility of its separating. In this way nitrate of silver, its solution, nitrate of mercury, nitrate of copper, or whatever application we place most confidence in, can be applied with safety.

We had been in the habit of using injections freely into the uterus for some years without any inconvenience, until we observed a case published in one of the periodicals about nine years ago, in which this operation was reported to have been followed by fatal peritonitis, in consequence of the injected fluid escaping into the abdominal cavity through the Fallopian tube; since then we have adopted this practice less frequently, and with such precautions as to prevent the possibility of any mischief of this kind occurring. By means of a long, graduated glass syringe, a quantity of fluid, not exceeding twenty minims, can be thrown into the cavity of the uterus, and its escape secured in the following manner: the syringe, attached accurately to a small male gum-elastic catheter, is fitted into a somewhat shorter catheter or tube, open and well-finished at its extremity, the difference in calibre between the catheters being such that the large catheter admits of the regurgitation of the fluid between it and the smaller. The syringe and inner catheter are first charged with the fluid to the point, leaving the piston so far withdrawn as to allow merely twenty minims, or half a drachm, in addition to the charging of the tube, within the cylinder of the syringe, as

proved by the graduated mark on its side. The patient is now placed in the recumbent posture, the tube introduced, the inner catheter (graduated also, so as to indicate when it projects beyond the other) is passed through, and the fluid slowly projected into the cavity of the uterus. After resting there as long as we wish, the piston may be drawn up so as to suck any remaining portion of the fluid, and a little water thrown in, in the same manner, if required; or the larger tube allowed to remain, so as to secure the escape of any remaining fluid.

By this means, applications can be made with safety to the interior of the uterus, and, as in these obstinate, and often unpromising cases, to prove efficacious, they require to be several times repeated, it becomes a great desideratum that their use should be attended with the least possible risk and inconvenience.

It should be mentioned, that in two out of many cases in which uterine injections have been practised, they were succeeded by acute hystericalgia, accompanied by severe dragging sensations in the loins and back. These symptoms, although at first apparently alarming, yielded in both instances to full opiates, the warm bath, and abdominal fomentations.

After the free cauterization with nitrate of mercury having been repeated in these cases three or four times, at intervals of eight or ten days, a ten-grain solution of nitrate of silver or nitrate of copper may be used at intervals of three or four days for some time; afterwards, the repeated use of acetate of lead, zinc, and borax lotions, at first concentrated, and then about two or three grains to the ounce, seem to agree best. With this local treatment, engorgement, which is very commonly present, must be removed by direct leeching, if the patient can bear it, followed by counter-irritation, as already described. Occasional mustard plasters, stimulating liniments, or the emplastrum calefaciens, or a plaster of Burgundy pitch and tartar emetic, may be allowed to remain for some time over the pubes, or on the sacrum; and, in cases where the obstinacy of

the congestion requires it, and the patient's constitutional health will permit of it, a more permanent drain by means of potassa fusa, the Vienna paste, or nitrate of mercury, may be established.

The use of such remedies as induce a healthy action in the catarrhal affections of other organs may be tried, and the balsams, cubeb, and buchu, seem occasionally of service. Tonics, although inadmissible in the first instance, and calculated to aggravate the disease, yet, when cautiously tried after the local treatment, or combined with it, appear of service; of these the best are the mineral acids, zinc, quinine, and the iodide of iron; but if a hæmorrhagic tendency exist, iron must be used with great caution. Benefit appeared to have been derived from Donovan's arsenical solution, in some of the more obstinate cases, when other means had failed. The most powerful alterations, in these cases, are change of climate and the cautious use of mineral waters: of course abstinence from every local irritation, and from the use of stimulants, is essential. Although nutritive diet and moderate walking exercise are admissible, a total change to a milk diet, giving up meat, wine, and malt altogether, has sometimes appeared beneficial.

The symptoms that indicate improvement here are, diminution of the size of the uterus and of its accompanying distress, when engorgement had coexisted with the catarrh; the diminution and alteration in character of the secretion; its losing its opaque muco-purulent appearance, and becoming transparent and glairy; the skin assuming a healthy tint, and the person getting less wasted, whilst the irregular sanious discharge, as well as the excessive hæmorrhagic and painful menstruation, ceasing. But the crowning proof of recovery from this disease would be pregnancy, as we have met with no affection of the uterus, where an absolute mechanical obstruction did not exist, so invariably attended with barrenness as catarrh, a fact ascribable to the viscid secretion blocking up the uterus,—as well as to the change effected by the diseased organ interrupting its functional powers in reproduction.

It not unfrequently happens that, when an ulcer of some standing is healed (whether it had or had not been previously combined with engorgement), congestion of the uterus sets in, and in this case the congestion generally extends to the body as well as the neck of the uterus. The same observation holds on altering to a healthy state the secreting lining membrane of the uterus, in cases of catarrh, and also in cases of inflammation of the glands in the neck.

This result is much more likely to occur in those cases in which the engorgement or subacute inflammation, co-existing with these morbid states, was not sufficiently attended to and relieved throughout the progress of the recovery, by unloading the vessels sufficiently at this time, either by leeching, scarification, or counter-irritation. This will be indicated by pelvic and lumbar distress, throbbing, and bearing down, and, if neglected, may terminate in a natural effort to relieve itself, either by the occurrence of menorrhagia, or a profuse blennorrhagia, or sometimes, in the first instance, by amenorrhœa, which after continuing for some months, merges into one or other of the former states. Should this result unfortunately occur, it must be met promptly by depletion, if the patient can bear this; and, if a plethoric female, by general as well as local depletion. If these means fail, by repeated small blisters, applied over the pubis or sacrum; or, in more obstinate cases, by the insertion of an issue. When the congestion extends to the whole uterus it is rarely relieved without very decided counter-irritation. This engorged state of the uterus is very liable to alternate with, translate to, or coexist with, congestion of the liver or spleen; a fact that ought to be borne in mind, as these states set in so rapidly at times, as to render them difficult to discuss, and more particularly, if our patient be worn out by the disease, and reduced by the treatment, it places her in a very unfavourable position for bearing the discipline which this new complication demands.

Leeching and counter-irritation, with mercurial alteratives, must be had recourse to, for the organs secondarily engaged;

but what we have derived the most marked benefit from under these circumstances, has been a course of Pullna water, and taraxacum, followed by the discutient waters of Germany, change of air, and the use of the Russian bath.

We have already stated, whilst treating of this affection, coexisting with ulceration, that the use of tonics, although sometimes indicated and required, must be resorted to with the greatest caution. The same observation applies, with equal or even more force here; and whilst we can bear testimony to the marked benefit occasionally derived from a judiciously administered course of tonics, and even of steel (which is that most prone to increase congestion), we must state, that we have seen a vast deal of mischief done by their indiscriminate use, and marked engorgement of uterus and liver recur again and again under their administration, where the indications were such as to tempt the physician to avail himself of the acknowledged advantages afforded by this class of remedies in improving the general health.

We have now to treat of an occasional complication of these uterine ulcerations, requiring especial attention, we mean mucous polypi(*a*), as their existence often escapes our notice.

Fig. 10 affords an example of that peculiar form of polypus, in which the thinnest possible layer of mucous membrane investing a glutinous fluid, grows from the inner surface of the uterus, generally the neck, by a long, thready pedicle. There may be several of them, rarely but one; and they are, in the great majority of cases, combined with an unhealthy state of the lining membrane of the uterus in the neighbourhood; in some presenting chronic inflammation merely, in others a state of ulceration, with hardness and unhealthy degeneration of the uterine wall; whilst in many, catarrhal inflammation of the whole lining membrane accompanies their growth. Although the polypous growth projects generally beyond the os, it is so yielding in its nature that it requires a practised examiner to detect it by

(*a*) See Dr. Bennet's papers in *The Lancet* for 1845; and Dr. Montgomery, in *Dub. Quar. Jour.* for Aug. 1846.

the touch alone: affording little more resistance than a globule of viscid mucus exuding from the uterus. The speculum, however, sets any doubt that remains, as to its existence, at rest, as it exhibits the projecting pendulous substance observed in Fig. 10. This is rather larger than those usually met with; and from the effect it produced in interfering with impregnation, in the following case from which this drawing was taken, demands our attention.

Our professional assistance was required by Mrs. —, for irregularity, as she termed it, in her periodic health, consisting of a protracted hæmorrhagic discharge. She was about thirty-eight years of age, and had had one pregnancy immediately on her marriage, but miscarried, and had not since conceived. On examination, a small, mucous, polypous growth was detected, filling up completely the os uteri, in fact quite as effectually as if it had been plugged. The lips of the os were tumid, and the margins inflamed. The growth was removed by scissors, and no other presented itself. The solid nitrate of silver was passed freely into the os, which was inflamed and slightly ulcerated on the inner surface; and she was allowed to return to her residence, a few miles from town, with injunctions of separation. Within a month she was again visited, suffering intense sickness of stomach without any assignable cause; pregnancy was suspected, although the suspicion appeared a vague one under the circumstances, but its possibility was strenuously denied by her; nevertheless she was delivered of a healthy boy, within eight months and a fortnight from this time.

This result is, however, a rare one in these cases, as generally the diseased state of the lining membrane of the uterus is such as to preclude pregnancy. Other similar growths exist higher up in the neck or body of the uterus, sometimes extremely small and with shorter pedicles, and these come down at uncertain intervals. Sometimes several very small ones, giving the appearance of little more than hypertrophied papillæ, are perceptible within the neck, with or without intervening

ulceration of the mucous membrane; in more aggravated cases the ulcers appear excavated into the substance of the uterus. The patient's countenance is sallow, and indicates disease; usually there is wasting, loss of strength, with pelvic distress, and not unfrequently, as in catarrh, these symptoms are accompanied by displacement of the uterus. We imagine that this, as well as uterine catarrh, is more frequently met with in gouty habits, and is not an uncommon affection in females who are said to recommence menstruating at a very advanced age, or rather who have irregular hæmorrhagic discharges at this period. Removal of these growths and the free use of caustic, particularly the nitrate of mercury, to the interior of the uterus, about their base, followed by mild astringent applications and weak caustic solutions and alteratives, becomes necessary; and, if engorgement and catarrh coexist, the treatment applicable to these states is to be employed.

A conversance with the *sympathetic affections* which these lesions of the uterine structures give rise to is of the utmost importance to the practitioner, as ignorance of them has been too often the source of protracted suffering to the unfortunate patient; they may be pronounced local and general, and are often so much more marked and prominent than the disease itself, as to engross our exclusive attention. Those of the bladder and rectum are amongst the most frequent; for instance:—In June, 1841, Miss ——, unmarried, aged 32, of a spare habit, anxious expression, and dingy complexion; complained of dysuria and frequent micturition, particularly at night, rendering her nights miserable, and, as she expresses it, life a burden to her; urine natural, except when digestive organs are mismanaged, then slightly turbid, with mucous flocculi; has been suffering from this complaint for some years, and was treated in various ways. Tonics, diluents, resins, baths, anodynes, &c., were tried without effect. Complains of no decided leucorrhœa, but on strict inquiry a very trifling muco-purulent discharge is said to have been occasionally observed. A

vaginal examination was instituted, and granular ulceration, with engorgement of the anterior lip of the neck, detected; this was treated by scarification, caustics, and astringent lotions; a mild course of mineral acids was administered, and the hot and cold bath persisted in daily; this patient speedily recovered, and has since continued free from this distressing complaint.

Mrs. —, aged 35, married for seven years, but had no family; for five years has suffered almost constantly from pain at the neck of the bladder, and along the whole course of the urethra, with spasmodic contraction of this canal about its upper third; coitus is attended with much suffering; has occasional exacerbations of these attacks, when her sufferings are extreme; some small warty growths were removed from the meatus and interior of the canal, and bougies, as well as caustic applications, were applied. As intense suffering was produced on pressing the posterior part of the body of the uterus, which was rather more tumid than natural, and a fissure, or linear ulcer, surrounding the os to a very slight extent, was detected, the former was remedied by repeated leeching directly to the part, the latter by caustics; an alterative course of mercury was given, followed by mild tonics, when she recovered, and within four months afterwards afforded the best proof of this by becoming pregnant: she carried her child to the full period, was delivered naturally under the care of our friend Dr. Millar, of Londonderry, and the last accounts of her were most satisfactory.

Mrs. —, aged 40, had several children; complains of constant pressure, fulness, and pain in the region of the rectum, some way within the anus; with dragging sensations in the loins, great straining at stool, and difficulty in relieving the bowels, although not naturally costive; the motion of a carriage is most distressing, and her suffering from taking purgative medicine is extreme: she describes this as being lessened after the contents of the bowels pass a certain point. A careful examination of the gut can detect no disease whatever; but the

neck of the uterus is felt projecting in upon the rectum, and when pressed against, through it, considerable pain is experienced, but referred by the patient entirely to the gut, and not at all to the womb(a). A vaginal examination detects the uterus slightly anteverted; the neck engorged to a considerable extent, and pressing on the rectum, with an old ulceration of what we denominated the cock's-comb character occupying the whole circumference of the os, and spreading to a considerable extent over the posterior lip. Leeches were repeatedly applied; the nitrate of mercury freely used to the ulcer. The recumbent position enjoined, together with a spare diet and the withdrawal of stimulants, as this lady was of a full, plethoric habit: the result of this was a gradual but complete recovery from the distress in the rectum to which she had for years been liable, without any direct local treatment of this organ.

A very frequent symptomatic ailment in these lesions is pain of a neuralgic character in the iliac region, its most frequent seat being about midway between the crest of the ilium and the umbilicus.

Mrs. —, aged 27, three years married, without a family, sought advice for pain in this region, ascribed to disease of the left ovary, which, she stated, was enlarged, and for which she had been actively treated. On a careful examination no such enlargement or other evidence of ovarian disease could be detected, and the disease was esteemed neuralgic. Treatment to meet this was tried, but without effect. She denied having any vaginal discharge, and stated her periodic health to be quite natural, but admitted that shortly after her marriage she had suffered from blenorrhagia. A vaginal examination was instituted, and a simple ulcer or erosion observed on the anterior lip, with slight engorgement of the neck. This was speedily cured by caustics and emollients; a course of syrup of bark administered, and separation kept up for two months. The lady returned to the country, much

(a) See Lever's Practical Treatise, p. 65.

relieved of the pain, although not perfectly free from it, and within six weeks after her return proved pregnant. She has since then (three years ago) had two children. The pain disappeared, unless for about two months after her last confinement, when the ulceration had re-appeared, the effect of her confinement, and on this occasion assumed the fissured or linear character. It as speedily disappeared under the usual treatment, so did the pain, and she has since, upwards of a year and a half, been quite free from it.

One of the most frequent of the more remote uterine sympathetic affections is headach, which may assume the character of cephalalgia, hæmæcrania, or trigeminal neuralgia: the latter, but particularly that of the supra-orbital branch, is the more frequent. In addition to curing the original source of irritation, the use of ammonia and valerian, but especially of bark, will afford relief to the headach; Donovan's syrup is the form we have found most safe and efficacious. We shall not dwell upon this subject, as it is intended to treat of it hereafter, under the head of "Catamenial Headach," an affection very frequently met with, and which demands attention. Neuralgia also appears in other parts of the body depending upon uterine sympathies. We shall now give a remarkable case, in which treatment was totally unavailing, the sympathetic neuralgia appearing to depend upon the state of pregnancy, and only relieved by its terminating. Mrs. B. was brought from the country for advice: she was a slight, delicate person, with a transparent skin, shrunken look, her countenance expressive of great suffering, and she had already borne two children. She had for some years suffered occasionally from acute pain in the abdomen, a little to the left of and below the umbilicus, which recurred, after long intervals, particularly during her pregnancy. It was irregularly periodic in its character, and her agony during the acute suffering was such as we have rarely witnessed, although she was a most patient creature. Fortunately the extreme anguish was but of short duration, as it gradually subsided into a more tolerable pain, which

would eventually disappear altogether, and not return until about the same hour the next day. She was in about the fourth month of pregnancy, and a copious muco-purulent discharge, with occasional hæmorrhagic tint, escaped from the vagina. On examination a very extensive aggravated granular ulcer of a scrofulous character, and which bled freely on the slightest touch, was perceptible, the lips and neck were tumid and everted, and the ulcer occupied the interior of the neck, as well as spread extensively over both lips. The stick caustic was freely applied, but its application was attended with marked exacerbations of pain, and with some discharge of blood; astringent lotions, alumn, lead, and copper, were thrown up; and the caustic was repeated. The ulcer took on a healthy action, and her general health and appearance improved. The pain, however, after becoming less severe, again recurred in all its fierceness. Every medicine that experience had recommended in these cases was had recourse to, and the assistance of some of the ablest of our practitioners was obtained. Change of air and regimen, bathing, tonics, bark, iron, arsenic, applications of all descriptions, stimulating and soothing, opium in every form, were tried; morphine was inserted, veratrine used, arnica, and Indian hemp tried; and at length, under the apprehension that organic disease was invading the intestines, which appeared to be the seat of the pain, an issue was inserted, and even morphine allowed to absorb through it, to endeavour to afford relief to her agony; but all failed. The pain returned, not so regularly periodic, but it returned; and, at length, both patient and physician were worn out with this distressing malady and its unavailing treatment. She returned, in despair of obtaining relief, to the country, had a premature confinement, the disease gradually wore away, and the last reports of her were, that she is free from pain, and has been so for months, and is, in fact, as well as before this illness. Here the pregnancy, as much as the ulcer, seemed the source of irritation.

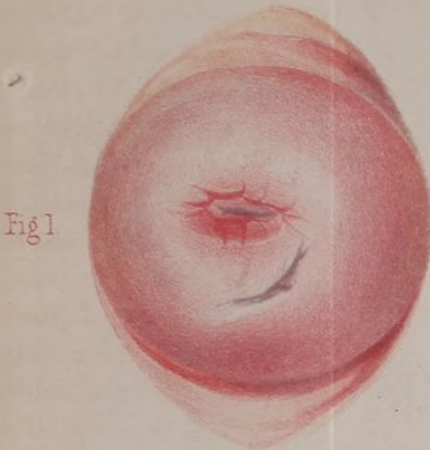


Fig. 4

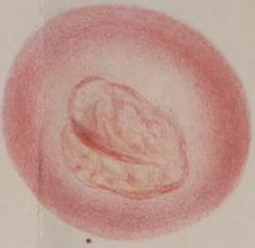


Fig 6.

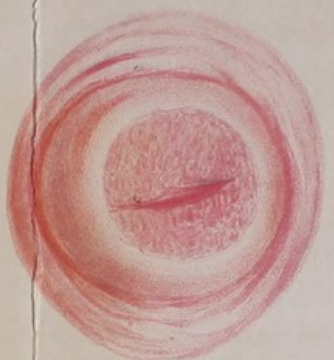


Fig 2.



Fig. 5.

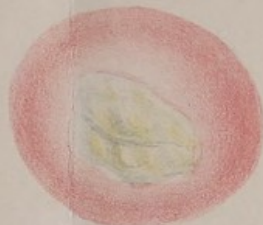


Fig 10.

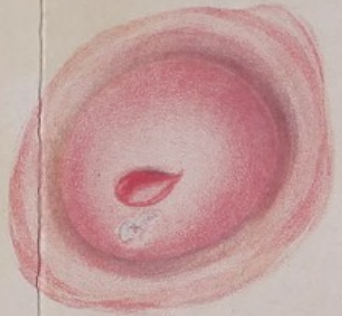


Fig 3



Fig 7.

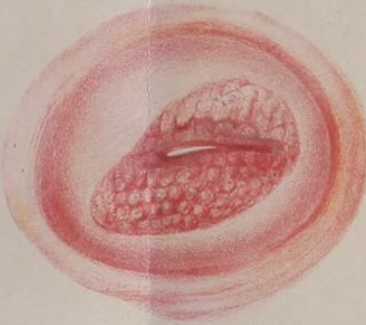
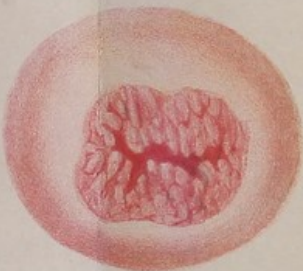
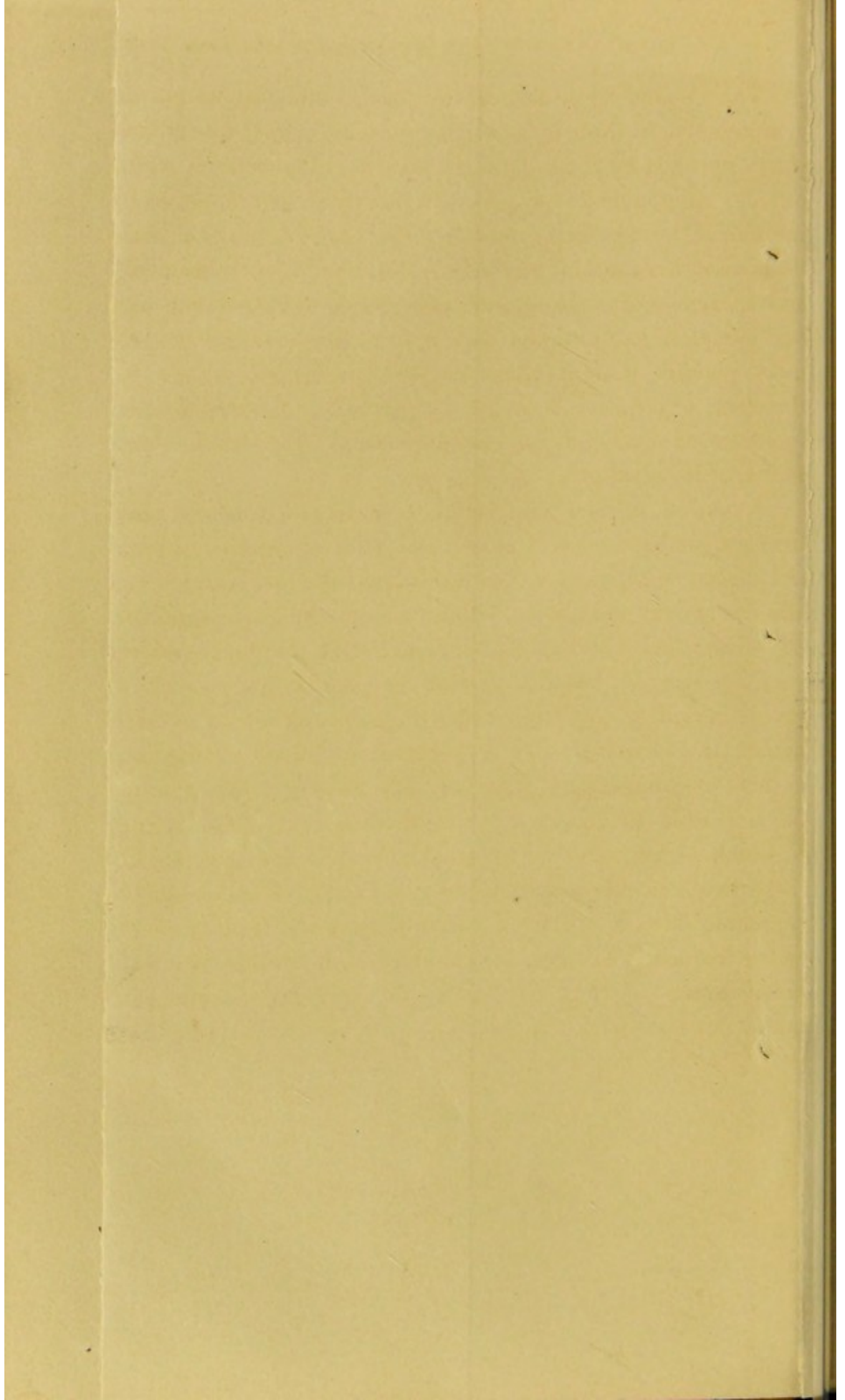


Fig 9.



* Fig 8.





The general ill health which most commonly occurs as symptomatic of these uterine affections, is better understood than expressed by those familiar with it. The patient, without any assignable cause, gets out of health, her appetite is indifferent, bowels torpid, skin dry and discoloured, she loses flesh, wants her usual elasticity, becomes languid, easily fatigued, and incapable of exertion, and all this may occur without any one symptom to draw attention to the uterine functions; at most, perhaps, a slight blenorragia when the menses are on the wane, or ushering them in; the periodic discharge is a little in excess, or she suffers from the presence of occasional lumbar, sacral, or inguinal pain.

Attention is then directed elsewhere, and the stomach, liver, or, perhaps, spleen, is engaged with; blue pill, bitters, alteratives, and tonics tried in succession with equal ill success; and the patient and doctor withdraw from the contest, mutually dissatisfied with the result. The fact is, the "sedes malorum" has escaped detection, and it remains for the patient to resign herself to her fate, supporting, in addition to her ill-health, the character of a hypochondriac in the estimation of her unsympathising friends. All these symptoms may be ascribable to one or other of those lesions of the uterus to which we have already adverted, and until this be removed the patient's health cannot be re-established. It seems unaccountable how so trifling a variation from the healthy state, as we frequently observe, can produce such serious inconvenience to the constitutional health; we cannot at this moment satisfy ourselves why it should be so, but must rest satisfied by simply stating, "so it is."

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