ance of hemorrhages is strongly presumptive of the rise of malignant disease. Forming sessile or pedunculated tumors, they resemble, and sometimes may be, early papillary epithelioma. But where during the latter years there has been persistent menorrhagia, followed by hemorrhages more or less periodical, without any prolonged break to mark the cessation of ovarian life, although the insidious invasion of malignant disease may be possible, the presumption is greater in favor of chronic inflammatory change in the mucous membrane.

Whether malignant or benign, a symptom which cannot be overlooked any more than the hemorrhage is almost constant, that is, severe pain. This I have found, both when the growths were in the cervix and when they were in the proper cavity of the uterus.

The bleeding is often profuse to the extent, by its quantity and frequent recurrence, of endangering life. When the seat of the disease is the cervix the blood is sometimes bright arterial; when the seat is in the body of the uterus, and the blood is liable to temporary or partial retention, it may be darker, even black.

This gradual rise of the affection towards the advent of the menopause, and its comparatively rare occurrence at an earlier age, supply evidence of its slow development out of chronic inflammation.

They are not uncommonly associated with fibrous tumors or polypi in the body of the uterus, as may be seen in illustrations in the chapter on those affections.

As already said, the body of the uterus is almost invariably enlarged; its walls are thickened. This commonly induces some signs of prolapsus, but flexion is by no means a necessary concomitant. I think I have more frequently observed ante-version. The enlargement of the womb is the result of slow hyperplastic process. There is generally a degree of softness of structure. Increased vascularity or congestion, aggravated by ovarian stimulus, leads to menorrhagia, now and then amounting to alarming flooding. Dyspareunia commonly attends, and intercourse is sometimes the exciting cause of hemorrhage. The uterus is found by touch to be increased in bulk and weight, and to be unusually sensitive. The sound will often cause bleeding, and more pain than usual. The speculum shows tumefaction and vascularity of the vaginal-portion, and a patulous state of the cervical canal, and blood or mucus issuing from the uterus.

The systemic symptoms are the expression mainly of the losses of blood, and of the impairment of the functions of nutrition and innervation, consequent on anæmia and local irritation. This exhaustion and the attendant pain will commonly give the patient a peculiar, worn, haggard expression of countenance.

The first indication in *treatment* is usually the urgent one to arrest bleeding. To carry this out the most effectual means are the topical application of perchloride or persulphate of iron in styptic strength, or rather fuming nitric acid, or tincture of iodine. These agents may be carried into the uterine cavity on a sponge or cotton-wool, mounted on a whalebone probang, or on a glass pencil, through a speculum, if the canal of the cervix is open and straight enough; or better still, by the fenestrated tube. In the contrary case it may be necessary first of all to

dilate the cervix by spongy or laminaria tents. Indeed, the rule laid down in the chapter on "Hemorrhages" to "obtain and maintain free patency of the cervical canal" applies strictly to this case. So true is this, that in many cases the mere artificial dilatation will check the hemorrhage. Dr. Routh[1] even affirms that the action of "the sponge-tent itself suffices to cause absorption and diminution of volume of the uterus."

When the hemorrhage has been checked, tonics, as strychnine, quinine, ergot, will be useful. The diet should be light; stimulants should be sparingly given.

The introduction into the cavity of the uterus, every fourth or fifth day, of solid sulphate of zinc, nitrate of silver solid or in strong solution, of tincture of iodine, or of iodide of mercury in ointment or pasma, will render eminent service.

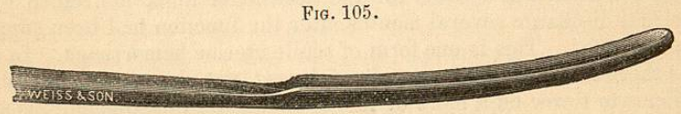
In obstinate cases, where topical applications fail, the expediency of removing the diseased tissue must be considered. It was in such cases that Récamier practised the operation of *scraping off the excrescent fungosities* by a *curette*. The proceeding seems a bold one, even rough; but the condition of the patient is serious. Undoubtedly women have been rescued by it from imminent danger. In this affection, as in undoubted malignant disease, it is the surface, the papillary projections, which are the immediate source of the bleedings. When the superficial stratum is removed, the bleeding is usually arrested for a time.

Fig. 104 represents Marion Sims's curette, which I have found a very convenient instrument. It has two sizes, one at either end of a stem, about ten inches long.

Fig. 104.

Marion Sims's Curette.

Fig. 105.



Récamier's Curette.

Fig. 105 represents Récamier's curette. The two forms may be conveniently united in one instrument, so that either end may be used. The curette held in the right hand is passed into the body of the uterus, guided by a finger of the left hand applied to the os uteri, the fundus being supported by the hand of an assistant above the symphysis. The subacute edge of the curette is then drawn over the entire internal surface, so as to break down and detach any projecting masses. Sometimes small

[1] "Cases of Menorrhagia treated by Injection, or the Removal of the Uterine Mucous Membrane by the Gouge." By C. H. F. Routh, M.D., Obstetrical Trans., vol. ii.

pisiform or pyriform bodies, like minute vascular or mucous polypi, are brought away. By injecting a light stream of water these bodies will be washed out, and may be collected for examination. It is not generally necessary to apply anything to the surface after the curette has done its work. But there is better security against bleeding, and probably useful modifying action, if the surface be mopped with tincture of iodine, nitric or carbolic acid.

Absolute rest is essential. Metritis may follow. The operation should not be resorted to except when milder proceedings have failed to relieve urgent symptoms. Occasions arise when timidity on the part of the surgeon will seal the patient's fate; and when his duty is calmly to balance the dangers of expectancy, and those of resort to even a doubtful remedy.

After this decisive course of action we have reason to hope that a healthier mucous membrane will be produced. But the truth must be admitted that the disease is apt to return. This, however, may not happen for several months; and during this time the patient may suffer little from hemorrhage or other trouble. During this period of intermission, much may be done to bring down the chronic congestion and tumefaction of the uterus. Strychnine, quinine, iodide of potassium, even iodide of mercury will be useful. And, internally, the application of iodine, or of iodide of mercury, or of nitric acid will prove serviceable.

Senile Uterine Catarrh.—This disease has been adverted to when discussing atresia. It deserves separate consideration, on account of its frequency and importance. It probably, in most cases, is continuous from chronic metritis acquired before the menopause. Notwithstanding the disposition to uterine senile involution or atrophy, a change which, in some cases, may terminate that vascular activity upon which inflammation and even secretion depend, a degree of morbid action is often perpetuated. The pelvic vessels often continue engorged after the menopause from impeded hepatic circulation. The uterus in these cases will remain unduly congested, and the slow chronic inflammatory process is easily fed.

This condition will account for the occasional apparent return of the menstrual discharge several months after the function had been supposed to have ceased. This is one form of senile uterine hemorrhage. In other cases there is not so much vascular fulness; yet the mucous membrane continues to throw off a more or less abundant thin opaque mucous secretion. The walls of the uterus are usually somewhat thicker than usual. Atrophy, in fact, has been arrested. The cavity is almost always enlarged. The sound readily turns round in it. The flaccid condition of the uterus disposes to flexion, most frequently to retroflexion; although it is certain that in many cases the flexion existed before, and may have been the cause of the endometritis. When this occurs there will of course be more or less retention of mucosities in the uterus. And it is to this retention that some of the most marked symptoms are due. It brings about a sense of fulness; weight and oppression, with pain in the pelvis. The constant wear and tear tells upon the nervous system and upon general nutrition. The most distressing nervous symptoms, despondency

being the most characteristic, are often produced. The quantity of the discharge is at times also great enough to make a serious drain.

In a considerable number of cases I have found complete, or nearly complete, closure of the cervical canal, generally at either the os externum or os internum. The walls have grown together by a process compounded of inflammation and atrophy. (See Fig. 98, p. 411.) But the uterine cavity continuing to secrete, the secreted fluids accumulate, and thus retention and its consequences ensue. Expulsive pains are felt, which generally subside, to be renewed at variable intervals. In some cases, the aged uterus, not receiving the stimulus of menstruation, and but feebly responding to other stimulus, accommodates itself to the distension. Atrophy progressing, the fluid part of the mucous may disappear, or be retained without causing further trouble. But in other cases, and those, if I may judge from my own experience, not a few, the distress does not subside. Advice is sought on account of the pelvic suffering, or metrorrhagia. Then we find the roof of the vagina contracted into a cone, at the apex of which is a small depression, recognized as the os uteri. There may be little or no projecting vaginal-portion. Behind this depression we may feel the retroflected body of the uterus; or this part may be in natural position. On trying to pass the sound we find it soon meets with an obstruction. The os externum is occluded. Sometimes a little steady pressure with the point of the sound will penetrate the obstruction. But I have several times found it necessary to restore the cervical canal by incision or puncture. For this purpose a most convenient instrument is the sheathed male urethral stricture bistoury, or the modification of it, designed by me for gynæcological purposes. This done, an ounce or more of muco-purulent fluid has escaped with manifest relief. To prevent relapse it is necessary now and then to pass the uterine sound; and to correct the morbid state of the cavity to introduce a stick of sulphate of zinc, or to swab with tincture of iodine, or nitrate of silver, every three or four days. By this treatment a cure is commonly effected in a few weeks. The atrophic process goes on undisturbed.

In chronic internal metritis, especially in elderly women, Aran advises the use of the hollow sound or catheter, as a means of diagnosis. The retained mucous fluids are thus drawn off, and their quality and quantity may be estimated. We may use a male silver or elastic catheter, but the curved must be moderate. The ointment-carrier (Fig. 52, p. 155) answers the purpose. Dr. Charles Hennig lent to the Obstetrical Society's Exhibition an aspirator-tube designed to draw out fluids from the uterus.

The following remarks apply generally to the treatment of chronic endometritis. The exhaustion wrought by disordered nutrition may, there is great reason to believe, in some instances end in the development of tubercular mischief in the lungs. This is not surprising, when we remember that a strumous or lymphatic diathesis is a very powerful factor in producing and in giving the stamp of obstinacy to chronic metritis.

In some cases marked by peculiar obstinacy there is indeed a tubercular condition of the uterine mucous membrane. For this I doubt if there is any cure. To pursue local treatment in such cases, beyond

perhaps applying an occasional detergent or disinfectant, would be to inflict needless distress. It may also become a question how far, when lung mischief has become revealed, it is desirable to persist in treating the uterine catarrh. It should not I think be always given up. The principle of curing as far as we can, every component part in a chain of morbid complication obtains here. But often it will be found the most judicious course to abandon local treatment, and to address all our care to the general system, and the alleviation of the lung-distress.

Anomalies of Consistency.—One of the most remarkable is the *pulpiness* of advanced age, coming on after long-continued mucous secretions, which disposes to ecchymosis or uterine apoplexy. Another form of softening is that ensuing upon childbearing, when involution is arrested by marasmus. The mucous membrane may also become soft from repeated hemorrhage. From constant infiltration or maceration it swells and disintegrates.

Abnormal hardness of the uterus affects chiefly the vaginal-portion in consequence of the predominance of connective tissue in hypertrophy.

Lesions of Continuity of the Uterus.—Lacerations may occur in the non-pregnant uterus. I have carefully described the lacerations of the pregnant uterus in my *Lectures on Obstetric Operations*, 3d edition, 1876. Under excessive distension from collections of blood or mucus, laceration or perforation has occurred. The uterus also has ruptured from the pressure of a polypus in its cavity.

The *tumors* of the uterus will be described in a separate chapter.

CHAPTER XX.

PELVIC CELLULITIS (PARAMETRITIS): PELVIC PERITONITIS (PERIMETRITIS): GENERAL DISCUSSION ON PATHOLOGY AND CAUSES; PERIMETRIC INFLAMMATION (PERI-UTERINE INFLAMMATION); METRO-PERITONITIS.

THE subject of inflammation of the pelvic tissues connected with the uterus and its appendages has been worked out, of late years, with great clinical skill; and, I may venture to add, with superfluous critical acumen. There is a natural tendency to embody or condense the new views we arrive at as to an essential pathological condition, by assigning to this condition a new name. If this name be tolerably precise and descriptive, it is often readily accepted as the last expression of science. Hence a name is apt to impose upon the learner the belief that he has caught the true clinical idea. And then in accordance with another tendency, the mind, satisfied with the seeming fulness of the idea embodied in a

new term, proceeds to eject every other term hitherto associated with the condition under discussion as false. Unable to entertain two ideas at the same time, hastily concluding that one or the other must be false, the one which is presented in the most attractive or authoritative manner is accepted, to the absolute exclusion of the other.

This reflection is remarkably illustrated in the history and varying nomenclature of inflammations of the pelvic structures. These inflammations of course remain, or continue to be reproduced, as they always have been. New names may represent new theories, but the clinical facts are unchanged. It is these which it is important to understand. It is to be feared that new names have tended rather to obscure these facts than to elucidate them. In attaching too much importance to names, that is, in allowing the mind to be dominated by the theories that names represent, we are apt to lose sight of the truth which lies in the rival names and theories. A true theory and a false theory are antagonistic. If we accept the one we must, logically, reject the other. But there is no antagonism between two true theories. These must be reconcilable, however widely observation and reasoning carried on in different lines may place them in opposition.

I will now endeavor to state the case plainly, divested of all theory or school-doctrine. All the structures in the pelvis are liable to inflammation. It is conceivable, and true in fact, that any one of them may be alone the seat of inflammation. It is conceivable, and true, that two or more of them may be inflamed together. We have already endeavored to trace the history of inflammation of the ovaries, Fallopian tubes, and uterus. It remains to fill up the account by tracing the history of inflammation of the other adjoining structures. What are these structures? We are not called upon in this place to consider inflammation of the rectum, bladder, or vagina, otherwise than incidentally. The structures with which we are now concerned are the cellular or connective tissue, the peritoneum, and the broad ligaments. No one disputes that each of these structures may be the principal focus of inflammation. For example, however we may cavil at the term "pelvic cellulitis," we cannot deny that the pelvic cellular tissue, that is, the connective tissue in relation with the uterus and broad ligaments, is liable to inflammation. Paris, Frarier, Courty,[1] E. Simon, Alph. Guérin, each relates cases of distinct pelvic cellulitis. "Pelvic cellulitis" expresses this fact, and nothing more. Again, however we may cavil at the term "pelvic peritonitis," we cannot deny that the peritoneum which invests the organs in the pelvis is liable to inflammation. "Pelvic peritonitis," then, is a good term, as expressing this fact. So again, at the bedside we are often called upon to speak of inflammation of the broad ligaments. When we so speak we do not pretend to define rigorously which of the constituents of the broad ligaments—connective tissue, vessels, muscular fibres, or peritoneum—is especially the seat of inflammation. Although undoubtedly inflammation may *begin* in the vessels, or in the connective tissue, or in the peritoneum, we shall rarely find an instance in which inflammation does not involve the proximate tissues more or less. We are there-

[1] Maladies de l'Utérus, etc. 1870