

PERSONAL REMINISCENCES ASSOCIATED
WITH THE PROGRESS OF
GYNECOLOGY.

BY THOMAS ADDIS EMMET, M.D.,
New York.

I HAVE undertaken a serious task to trace, even in the briefest manner, the development of gynecology as it has passed within my personal experience. Since I must necessarily be the critic and pass judgment on much of my own work, I shall render myself liable to a charge of egotism unless we view each step from the same stand-point.

Moreover, it must be borne in mind that the occasion was not one of my seeking, and in the selection of the subject its treatment naturally fell to my lot, since no other member of the Society is now living who, as a pioneer, was personally identified, as I have been, to the same extent and through so long a period.

Twenty-five years ago, at the opening of this Society, September 3, 1876, I had the honor to read the first paper. There were some remarkable men among the twenty-eight founders who on that day answered to the roll-call ; they were men who possessed at least one characteristic in common—they were original thinkers. A little less than two-thirds of them have already joined the great majority, and some of them have left a gap which has never been filled. I can offer no reminiscences of these men, and can only speak of them as a body, for my personal acquaintance began with most of them on that occasion. As I am to confine myself

chiefly to personal observation, much I have to state must be in connection with my own work at the Woman's Hospital and the teachings of others which were utilized there.

The founding of this Society twenty-five years ago marked a half-way station, as it were, in my professional life, as I settled in New York in March, 1850. Within a few weeks thereafter I became attached to a large general hospital, where, during a few years' service, I gained the professional experience of a lifetime in a knowledge of the practice of medicine, obstetrics, with a little surgery and, in addition, what was then considered quite an extended knowledge of the diseases of women, but was very limited from our present stand-point. In 1855 I became connected with the Woman's Hospital and with Dr. Sims at the beginning of his work. In a paper familiar to many of you, as "*Reminiscences of the Founders of the Woman's Hospital*," I have given an indication of the knowledge then possessed of the diseases peculiar to women. Dr. Meredith Reese, at that time one of the most prominent physicians, maintained that the field was too small for a special hospital for women. Anyone, he thought, could apply nitrate of silver through a cylindrical speculum to an ulceration of the uterus; an astringent injection was all that was needed to cure a leucorrhea; there was no difficulty in introducing a Physic globe pessary for prolapsus. He thus summed up what he believed constituted the whole range of the diseases of women needing special attention—and these indications he considered could be treated to greater advantage in a general hospital.

Dr. Sims had recently changed his residence from Alabama to New York in quest of health, because he suffered from ulceration of the rectum, a result of dysentery, and his condition was such that his friends feared it would soon terminate his life. He had previously paid no attention to the diseases of women, but while engaged in general surgical practice he had recently succeeded in closing a vesicovaginal fistula by the use of silver wire, and he sought an oppor-

tunity to impart a knowledge of this method to the profession. The opposition to a special hospital was overcome by the recognized necessity for some means of curing this injury, which at that time was a common result from child-bearing.

The beginning of the Woman's Hospital was the temporary opening of a building for the cure of vesicovaginal fistula. If no other benefit could be shown as the result of forty-five years' work, it can be claimed that an inestimable boon has been given to the world through the experience gained there in the cure of some six hundred cases of this injury. Moreover, no case is now considered incurable, and even the occurrence of the injury at the present time can be guarded against under almost all circumstances.

Before the opening of the Woman's Hospital, already good work had been done in France, Germany and Great Britain to advance a knowledge of the diseases of women, and particularly in acquiring a greater facility of diagnosis relating to displacements and new growths. But no step had been made in the right direction as to treatment, for all previous efforts and those of many since were based on a false pathology. The advantages offered by the Woman's Hospital for testing Sims' speculum and the results rendered possible through its use were the first great progressive steps in the right direction. Dr. Sims was connected with the hospital for a little over five years before he settled in Europe. During this period he had acquired a knowledge of what had already been done in this special line. He had put into practice various methods to test their value and was gradually eliminating from his acquired knowledge that which would have obstructed his progress as would so many barnacles. He was rapidly preparing the way for new methods, which his wonderful ingenuity would have devised in the near future, when he suddenly terminated for a long period his connection with the Woman's Hospital. This was an unfortunate step, as he had not yet reached the firm foundation upon which he could have based his knowledge,

and he never again had the opportunity for study. And this loss, great as it was to him, was to the profession a greater, for his wonderful skill and close observation would have afforded under favorable circumstances the basis for all subsequent progress.

During these five years he was able only to perfect his instruments and the technique of the operation for vesicovaginal fistula to so high a degree that many of the former as well as this operation can never be improved upon. He had not been able to satisfy himself of the completeness of any other operation, and he was so far from having reached maturity in his judgment that his great genius prevented him from ever employing for like indications consecutively the same method of operating. But his method, although incomplete, with many of his instruments, prepared the way and facilitated the advance of others who followed him. For a year previous to the breaking out of the civil war, and during the time Dr. Sims was in Europe, I was in full charge of the Woman's Hospital, and for ten consecutive years subsequently was the Surgeon-in-Chief. Shortly after I began my clinical work, to teach, I realized that some of my friends, for reasons I need not state, did what they could to discredit my efforts by claiming they were but a reflection of the views held by Dr. Sims. Up to a late period I had little credit given me by many in the profession for original work. The history I have undertaken to trace would be incomplete if the fact were not made clear that when I became associated with Dr. Sims my own knowledge of what was then known was as extensive as his and possibly more accurate, for I had the advantage, as a younger man, of more time for study. During the period we were together I did more of the hospital work than he had time to do ; I also kept the history of the cases, did my own thinking, and altogether was the greater gainer from studying his results in comparison with my own work, while I had the additional advantage of being able to keep the run of every case for years afterward. I

certainly formed very decided views for myself, and they were very often at variance with those held by Dr. Sims, since we not infrequently drew our deductions from different stand-points.

During my service with Dr. Sims I began to devise the instruments I needed and particularly the scissors of different shapes which are still in use, for the only ones then employed in surgery were for cutting bandages and a straight pair used by Dr. Sims for cutting silver wire, and possibly they were used for dividing the muscle in strabismus. The substitution of these scissors for the knife was my first contribution to surgery. A valuable one it has proved in facilitating the progress of operating, and their use as well has extended the range of plastic surgery far beyond what could have been accomplished with the knife.

The first step toward gaining a knowledge of the true pathology of pelvic inflammations was taken by me in 1862, when I began the intelligent use of hot-water vaginal douches, at a time when the use of cold water was the accepted practice, and the employment of ice-water for the same purpose advised. Probably no single agent has ever given more relief than hot water, when properly administered.

At the time the hospital was placed under my charge I had already developed considerable dexterity in operating, but what was of more importance I had reached a point in my experience where I had begun to recognize the difference between cause and effect. It was fortunate I was so situated at this time that I was obliged to make an effort to maintain my position, for I had been so overshadowed by Dr. Sims that the directors were doubtful if the hospital could be carried on in his absence, notwithstanding the fact that they all fully recognized the proportion of work I had done from the beginning. My fitness was soon to be tested, for shortly after his departure for Europe several unusually difficult cases of vesicovaginal fistula were sent to me. As Dr. Sims had never operated on any but what I can now term simple cases,

I was at first indisposed to make any effort for their relief, on the supposition they were incurable, but I was forced to realize that I must at least make the attempt. They were all cured ultimately, and I then sent for some thirty more, who had been at different times discharged as incurable, and I succeeded in curing all of these. From this experience was developed a special branch of plastic surgery, which in 1868 I gave to the profession in a work on *Vesicovaginal Fistula from Parturition and Other Causes*. In this volume I described my method for forming the female urethra after its loss from sloughing. No successful attempt had been previously made to form this passage, and the method of procedure I developed has not yet been superseded. In fact, I know of but few instances where any operator has made the attempt to avail himself of my experience, although I have formed the female urethra entirely in about fifty cases.

At the time this book was published I had already treated and cured a number of cases of long-standing cystitis by an artificial opening in the base of the bladder to secure perfect drainage. The object was to obtain rest, and thus cause involution of the muscular hypertrophy of the bladder walls, while through the opening local treatment to the interior of the bladder was easily administered. At first there was in every instance great difficulty in keeping this opening from closing, but eventually I succeeded in establishing it permanently by uniting at the time of making the opening the mucous membrane of the bladder to that of the vagina with interrupted sutures. I removed stone of any size from the female bladder through an opening thus made in the vesicovaginal septum, and I pointed out the danger of incontinence from dilating the female urethra. After thirty years' additional experience I still hold the opinion that dilatation of this canal for the admission of the finger or for the removal of stone is not justifiable. The most dexterous operator cannot always guard against laceration, with the danger of establishing permanent incontinence, while the opening in the

bladder will, as a rule, close without an operation if the edges are kept clean from phosphatic deposit.

In 1863 I successfully removed a large fibrous tumor which gradually became pedunculated by traction. From contraction of the uterus a large portion already filled the vagina, and to my surprise as fast as I drew down and removed a part with the scissors its place was filled, until at length the uterus, which seemed at the beginning nearly as large as at full term, was gradually reduced in the depth of the canal to six or seven inches. As the uterus was emptied and decreased in size, the last portion of the tumor, nearest to the os uteri formed, as I have found it always does at this point, a pedicle which is not larger than the index finger. Before the uterine canal was dilated by contraction on the mass the greater portion of the tumor was buried in the uterine tissue, with about eight or nine inches of its length projecting partially into the canal. From this date I have never hesitated to remove, by traction and in sections, a tumor of any size when the contractile power of the uterus demonstrated its expulsive capacity by being able to displace a larger portion into the vagina. Notwithstanding that this method of operating was published, and I have continued to use the same during the past thirty-six years, it has within a recent period been adopted on a foreign indorsement as something new. I have also removed smaller growths by traction and enucleation, wherever I could reach them in the uterine canal. When situated under the peritoneum and capable of being reached from the vagina, I have separated the bladder or the folds of the broad ligament, and after their removal have brought all the tissues together with temporary silver sutures passed from the vaginal surface to the bottom of any cavity left after contraction of the uterus.

I probably imported the first endoscope into this country, made by Crouse, which I hoped to modify for the purpose of examining the uterine canal and for studying the development of certain small growths, which I had detected and believed to

be minute fibroids. From want of space and difficulties which I could not overcome I had to abandon my efforts, but I had reason to believe I gained from my observations a clew to the genesis of fibroids. Yet at the end of nearly forty years my suppositions then formed have not yet been confirmed. I had good reason to believe that fibrous growths have their origin on the muscular tissue or directly under the lining surface of the uterine canal, and I found they increased in size in the direction of the least resistance. A growth so situated, alone and simple, was forced by uterine contraction in the direction of the canal and became pedunculated. Where a number were developed together much of the contractile force in their neighborhood was diffused, with the effect of forcing those of larger growth in the opposite direction to become in time subperitoneal. I drew my deductions from the following facts: In two instances where I succeeded in keeping the cases under observation an isolated mass became pedunculated, and I removed it as a fibrous polypus; in several other instances these masses which were clustered together disappeared from the canal, and subperitoneal fibroids were in time developed. As it is impossible to eliminate the probability of coincidence and to trace the progress in the change of locality and the difficulty of keeping any case under observation for a sufficient length of time is very great, I have been unable to make any advance beyond what I have stated.

But be this as it may regarding the progress of development, my investigation seemed conclusive that the starting-point in the growth of a fibroid was an evidence of a sterile condition. I felt myself justified in believing that so long as the surface of the uterine canal was in a normal and healthy condition to receive and to nourish properly an impregnated ovum a fibroid could not develop. If this be true the deduction follows that a fibroid will not grow in the uterus of a female never exposed to impregnation so long as the healthy condition exists which I have designated. In addition I

have known instances where a healthy state was apparently regained, and with a subsequent impregnation an existing fibroid gradually disappeared. From future observation as to the condition of the uterine canal, methods may yet be discovered to prevent the origin as well as to check the growth of fibroids in an early stage of development.

Almost at the beginning of my work I made a progressive study from simple prolapse to complete procidentia to investigate the various pathological changes which produce different forms of displacement, and at the same time I began to devise means of obtaining relief. Dr. Sims had given much thought to the same subject before I began my investigations, and he devised an operation on the anterior wall which he thought was a decided advance upon Baker Brown's method of uniting the greater portion of the labia for the purpose of shutting up the procidentia within the vagina. But unfortunately Dr. Sims never understood the law of opposing forces nor the fact that support to the uterus could not be obtained from the anterior wall of the vagina so long as the uterus could become retroverted by prolapse.

His operation was good so far that it could be utilized for another purpose, but as it failed in relieving procidentia he soon abandoned all idea of relief by surgical means. In time I appreciated that Dr. Sims' operation on the anterior wall was a step in the right direction, if utilized as a means for keeping the neck of the uterus so far toward the sacrum that it could not prolapse and if added to it were the support to be obtained from a proper repair of the floor of the pelvis. As early as 1863 I began to include some portion of the posterior wall of the vagina in my efforts to repair what was then termed a laceration of the perineum, and even to this day so termed by those who have not given the subject special thought. I am entitled to credit for having originated the operation for vaginal prolapse, for having developed the principle and for having perfected every step until success finally rewarded my efforts. Therefore, any procedure for

repairing so-called laceration of the perineum which includes any portion of the posterior wall of the vagina can be but a modification of the operation I have perfected.

The object of the operation for repair of the floor of the pelvis (which injury is the cause of the prolapse) is to restore to the bloodvessels the proper degree of support, which can only be maintained while the fascia and connective tissue of the pelvis are in a state of integrity. Experience has fully demonstrated that after Sims' operation on the anterior wall has been successfully performed the needed restoration for gaining the support is acquired by drawing forward and upward the crest of the rectocele to the neck of the bladder and fixing it there. Then the operation consists in attaching the sides of the rectocele in this position to the lateral walls of the vagina at the proper height so as to lift and maintain the posterior wall of the vagina against the anterior one or base of the bladder, which is a fixed plane and forms a portion of the roof of the pelvis. As I value a reputation for veracity, I claim to have permanently cured in the past thirty-five years hundreds of women who had suffered from various degrees of prolapse and about two hundred cases of procidentia, where in many instances the uterus had long been external to the vagina. I have never made any selection of cases, and in every instance the procidentia has been cured where the patient has been willing to submit to the delay (which must occur between the two operations) necessary for involution of the vagina and uterus to take place. All of the cases I have ever treated were for a time afterward under observation, and in my early experience a second operation on one or the other of the vaginal walls was frequently necessary. But for a number of years past I seldom fail to obtain permanent relief by an operation on each vaginal wall, and by keeping the patient sometimes for several weeks after each operation on an inclined plane until involution takes place. The operative procedure I have perfected has not only given entire relief to such a large number of women, but in several instances the

woman has borne a child without a recurrence of the prolapse.

In this connection I must offer my protest against removal of the uterus for simple procidentia, an operation which is not infrequently performed ; and ignorance on the part of the operator as to what can be done by plastic surgery for the relief of such a case cannot justify the procedure. It should not be done on the assumption that in some especial case plastic measures had failed, as the subsequent eversion of the vaginal canal and complete prolapse of the bladder outside of the labia will greatly increase the suffering. With a limited number of cases where the procidentia has resulted from a fibroid it is good surgery to remove the uterus. But it should be done by abdominal section where it is possible to secure the separated bladder surface at a point where the proper support can be obtained from the posterior attachments in the pelvis. Then prolapse cannot recur.

Many in the profession have never appreciated the mechanical forces which are to be overcome by these operations, and after failure have resorted to different methods for gaining a fixed point of suspension from above. I consider I established a most important point in the treatment of the diseases of women by showing that there exists a health-line, or plane of elevation, in every woman's pelvis, which the uterus must occupy or the pelvic circulation will be obstructed, and that this point varies with each individual. Therefore, the success to be obtained from the use of a pessary or from resort to any surgical operation for the relief of prolapse or version of the uterus consists in restoring the circulation so that the blood can leave the pelvis as easily as it enters it. With each stage of prolapse and with a corresponding degree of elevation above the health plane, the veins must become less convoluted, straighter, and less able to resist dilatation even to an indefinite extent ; while the circulation in the arteries cannot be lessened until their calibre become diminished by traction, exerted to an extreme degree in either direction.

Hence the advantage of keeping the cervix at the vaginal outlet in many operations for the purpose of controlling the loss of blood, as at this point the arteries are put on the stretch and their diameter becomes lessened.

The fact cannot be denied that many women are relieved, after a time, by ventral fixation and by other surgical means external to the vagina, which are employed for changing the degree of prolapse or version of the uterus. But I am positive in the opinion that these methods are empirical, so far as the operator can exercise either his judgment or experience in deciding with any accuracy the degree of elevation required in a special case. The operator doubtless takes credit to himself for the relief which sometimes results, but he is not a close observer if he overlooks the fact that just in those cases where relief is obtained the uterus seldom remains in the position occupied immediately after the operation. It is the exception to the rule not to find a gradual lengthening out of the attachment until a point is reached where the circulation can become properly established.

But granting that all can be gained from operations of this class which is claimed for them, I contend I can obtain more uniform and better results from my plastic work in the vagina, and by this means restore the parts moreover to their natural condition. Almost every surgical procedure has some field of usefulness however limited, and I have only employed temporary fixation to the abdominal wall occasionally to keep the uterus out of the pelvis until after the healing of the old pelvic adhesions had been broken up.

Early in 1862 I realized that the condition which had been universally accepted from the teaching of Dr. Bennett, of London, and treated as an ulceration was a laceration of the cervix, and in time I also appreciated the fact that the erosion or "ulceration" found on the cervix of young girls and non-parturient women was caused by a hypersecretion of the glands in the uterine canal, as the consequence of obstructed circulation from some form of pelvic inflammation. I need

say but little regarding the discovery and the perfecting of the operation of repairing the cervix, as it is one which has been universally accepted as a remarkable advance in practice, and the extent of relief afforded is fully appreciated. I will only state for the present that, notwithstanding I held the opinion for many years that it was perfect, I have recently almost abandoned the procedure, and have resorted to other means which have proved a still greater advance, as will be shown hereafter.

I have in the briefest manner attempted to trace in outline the chief plastic work perfected by me during the ten years I held the position of head of the Woman's Hospital, but I have intentionally omitted special reference to abdominal surgery for later consideration.

At an early period in my investigations I began to appreciate the fact that in the treatment of "uterine disease," as it was termed, general attention had been directed more to the effect than to the cause, and that the latter was closely connected with pelvic inflammations. I had become familiar with the exhaustive researches made by observers in Europe during the early part of this century, and with the fact as well that, after all their study, they had failed to reach any agreement as to the relative importance of cellulitis and peritonitis. Until I began to study the subject and to make careful post-mortem examinations the two conditions were generally regarded as distinct lesions, and no special connection was supposed to exist between either of them and "uterine disease." I very soon satisfied myself that the supposed pathologic conditions in the uterus not due to infection or new growths were but symptoms of some inflammatory action in the pelvis exterior to the uterus. I devoted over five years to writing a work on what I considered constituted *The Principles and Practice of Gynecology*, the first edition of which was published in 1879. This book must be considered as a factor in the advance of the treatment of the diseases of women. Whatever may have been its

merits or demerits in part, as a whole the book represented a new departure and one unique and based upon original observations. The greater portion of this book is accepted to-day without question as common property, and to such an extent has absorption from it taken place as to many principles, methods of examination, mode of operating and instruments that the original source even has been lost in the writings of many later medical authors.

The recital of a few circumstances connected with the publication of this work may now prove of interest. When the manuscript was nearly ready it was offered to a publishing house in New York and was not accepted, owing to the confidential advice of a member of the profession who had long sustained a close relation with the author. His judgment was accepted as conclusive that my teaching was visionary. This I learned many years afterward. On the advice of a friend a portion of the book was rewritten, as a compromise, to prepare its way with the profession ; the second edition was improved upon, and finally, in the preface to the third edition, I made the following statement : “ A portion of the manuscript of the first edition of this work was expunged or rewritten on the advice of a friend, with the object of omitting or modifying certain views therein expressed which were then deemed too decided. It was thought that the profession was not in a condition to receive views so radically different in character from those universally accepted. The opinion was expressed that even the success of the book might be jeopardized by urging the necessity for a revolution so complete as to establish a new school. Since that time the entering wedge has been pressed forward, and good has already resulted in the teaching of a more rational course of treatment. It is believed that in time professional opinion can be influenced to abandon intra-uterine medication, as one not based upon sound views of pathology ; to recognize the different forms and shades of pelvic inflammation outside of the uterus, and now usually overlooked, as constituting the

chief factors in the disease, and that the exciting causes of reflex disturbances will be more generally admitted. In this edition these and other views have been presented in a more forcible manner than formerly, with the hope that in due time good fruit will be borne." Events crowd each other, and in rapidly passing make but little impression under ordinary circumstances. I believe few in the profession to-day are aware of the facts set forth in the statement I have just quoted, through which a complete revolution in practice was effected, and even when serious thought is given to this subject the credit is generally attributed to some European source.

In 1884, on the publication of this edition, there were already many in the profession who had accepted the true pathology of pelvic inflammation, and advocated a change in the mode of treatment. But an unprejudiced examination of my teaching from 1862 will insure me the credit as the pioneer. Yet I have been charged with false teaching in not giving due importance to the existence of peritonitis, and a doubt even has been expressed as to the frequency of cellulitis, to which I attributed so much importance. But a dispute on this subject is to my mind not unlike the one in the fable between two knights—whether the shield hanging at the cross-roads was made of silver or of gold. Each judged only from his own point of view without thought as to what could be seen from the other side.

Unless the connective or cellular tissue becomes inflamed in connection with childbirth, as it frequently does below the dip of the peritoneum, no pelvic inflammation can exist in any other locality or to any extent without involving the peritoneum as well as the connective tissue. As a consequence of child-bearing or traumatism and in connection with septic poisoning, it seems clear to my mind that phlebitis and lymphangitis must occur at the beginning, and that neither of these can exist without involving the neighboring connective or cellular tissue as well as the peritoneum. This will

occur notwithstanding that sepsis may have been carried also direct to the peritoneum through the lymphatics. Observation teaches that a pure cellulitis is a transitory condition, in which the inflammation rapidly runs its course and subsides or becomes an abscess. The tissues involved are promptly absorbed and, if favorably situated, the elasticity of the neighboring cellular tissue closes up the gap. If the surrounding tissues are not sufficient in amount a pit is formed, for new connective tissue is not reproduced in repair of the old. Whenever the tissues are thus involved and the inflammatory action is continuous beyond a certain point they must break down into an abscess. But after the peritoneum has become involved to any extent and adhesions form, so as to derange the pelvic circulation and to produce other consequences, there may be afterward a limited effort at repair.

But the evidences of damage are of long duration after the inflammation has disappeared.

I have therefore used the term cellulitis in order to reconcile the views held by different observers, who were right from their individual stand-points, and to show the beginning or cause of this form of inflammation, instead of employing the term peritonitis, which would generally indicate more the effect or result than the original character of the disease. I think no one can carefully read my book and justly charge that I have not fully recognized the importance of peritonitis. I have made this digression not on personal grounds, but to establish the fact that when the treatment of supposed ulceration was abandoned and recognized as a laceration of the cervix and the predisposing cause of reflex disturbances and of epithelium, and when the importance of pelvic inflammations exterior to the uterus became known in their cause and effect through my teaching, so that treatment to the uterine canal was abandoned, quite as great an advance was thereby made in the treatment of the diseases of women as that which the discovery of asepsis accomplished, in another direction, for the advance of abdominal surgery.

At the meeting of this Society in 1878 many of you will recall the reading of a paper by me on vesicovaginal fistula. In it I then pointed out that this injury when from a slough was the result of delay in delivery and never from instrumental delivery, and I also proved that where ergot had been employed the extent of damage in labor was greatly increased. The older members of the Society can recall the general sentiment existing in the profession at that time against what was termed "meddlesome midwifery," and they also know how frequently the use of ergot was resorted to for the purpose of terminating tedious labors in preference to the application of the forceps. Few realize that since the publication of that paper a revolution as a direct consequence has taken place throughout the world in the practice of obstetrics. The practitioner who now fails to deliver as soon as possible after the head ceases to recede, on the subsidence of a pain, would be judged derelict in his duty, and ergot, to hasten delivery, has gone out of respectable use. Vesicovaginal fistula, from having been a common result of child-bearing, is now rarely found, and where formerly, of necessity, a special ward of forty beds was kept always full in the Woman's Hospital, to accommodate cases from every portion of the world, I now often do not see a case there in an interval of several years. During the past year, as an unusual circumstance, I have had two in my service.

Before the number had begun to decrease I was able to cure 96 or 97 per cent. of all the cases sent to the Woman's Hospital. At the present time I claim no case is strictly incurable, so far as giving retentive power to the patient with perfect comfort afterward. In those I have seen where the sloughing of the vagina with loss of all the soft parts under the arch of the pubes had been so extensive that sufficient tissue could not afterward be obtained from any source to repair the damage, I have given perfect retentive power by closing the vaginal outlet and then establishing a permanent fistula into the bladder above the pubes. The opening is

made between the recti muscles and enters the bladder between the peritoneum and pubes. This point of entering the bladder is not original, but the method of establishing the permanent opening, by uniting the edges of the bladder to the skin, was devised by me. This is the same method I adopted in the treatment of chronic cystitis, and it is the only one by which it is possible to form a permanent or non-contracting opening. The fistula so situated admits of great facility in washing out the bladder, and on the knees and elbows the cavity can be perfectly emptied, so that no phosphatic urine can accumulate. Perfect retentive power is obtained with moderate pressure from a properly shaped truss. As the number of cases requiring this procedure is decreasing so rapidly, it may in time be employed more by the general surgeon for the relief of men suffering from enlarged prostate or chronic cystitis.

The use of pessaries has gradually diminished, and with many their necessity is no longer appreciated. This seems a natural consequence attending the disappointment many have experienced from their use, a result possibly not due so much to the agent employed as to a failure on the part of many to appreciate what was to be accomplished by their use. My experience has taught me that the correction merely of the degree of version was of little consequence, as I have already stated, in comparison with the proper restoration of the prolapse of the uterus. All that can be expected from the use of a pessary is that the circulation shall be restored and the likelihood of harm avoided if this purpose be gained. By a proper use of a tampon we may accomplish much in many conditions where formerly a pessary would have been employed, and to a limited degree we can utilize various means for suspension by abdominal surgery. But with the reaction which must come in time, there will be a greater appreciation of the value of plastic surgery when employed with a clear idea as to what is to be accomplished. It will be realized, too, that there still exists a proper field for pessaries.

From the use of Trendelenburg's position and there observing the rapidity with which the enlarged vessels decreased in size where the circulation was oppressed by the action of gravity—I have extensively employed the inclined plane position in the treatment of pelvic inflammations. I have also found it useful after much of my plastic work in the vagina where, until involution had taken place, it was advisable to elevate and maintain the uterus at a higher plane in the pelvis than it would otherwise assume.

A most satisfactory advance has been made by me within the past five years in the determination of the limit of usefulness to be derived from the operation for repair of lacerated cervix properly executed. Under favorable circumstances a large portion of the dense and cystic tissue as well as true scar tissue is always removed, and most gratifying results have been obtained in the past by the gradual disappearance of various reflex symptoms, with marked improvement in general nutrition. I have noticed for several years a gradual change in the character of these lacerations, and that the results after trachelorrhaphy have not been as hitherto uniformly successful. The explanation of this fact is that owing to the general employment of aseptic precautions in obstetrical practice we now meet a smaller number needing surgical interference, because the tear in a large number of cases is repaired through the immediate effects of nature. But when nature has not been successful we find fewer cases than formerly where the diseased tissue was confined chiefly to the angles of the laceration. More dense tissue is now found throughout the flaps under the lacerated surfaces, with an increased number of mucous follicles in various stages of degeneration. In several instances, having failed in relieving the reflex symptoms after repairing the cervix, I opened up the united surfaces and found the tissue again infiltrated with diseased follicles, and the mucous membrane of the canal has generally been involved as far as the internal os. To remove fully this diseased tissue necessitated what might be termed

a conical amputation, which is but a modification of an operative procedure I perfected many years ago. I have gradually adopted the operation for amputation of the cervix, and have almost entirely abandoned the previously accepted operation for the repair of the cervix, which I had practised for thirty-seven years. The results after amputation have been uniformly successful in my practice and in that of others, who have fully adopted the special method which I have found necessary.

Impregnation has occurred in a number of instances within a year or two after the operation, and delivery effected with no impediment to the progress of the labor, nor fresh injury in consequence thereof.

The method of amputation with the special mode of introduction of the sutures for the purpose of firmly securing the vaginal flaps over the stump and for keeping the os uteri patulous constitute altogether as much an original operation in all its details as the one I have discarded.

Dr. Sims over forty years ago amputated the cervix and attempted to cover the stump by drawing the raw edges of the vaginal tissue over it and securing them with silver sutures. But with the frequent occurrence of secondary hemorrhages under the flaps the formation of an abscess or sepsis whenever the sutures did not cut out to insure drainage, and finding closure of the uterine canal in every instance after the surfaces had cicatrized, he at length abandoned all efforts in this direction.

With my method of passing the sutures from the vaginal edge into a large central portion of the uterine stump the surfaces to be united are held in close contact as the vaginal tissues are drawn over the stump and secured by interrupted silver sutures. But a still more important feature is the introduction of one or more sutures on each side from the vaginal edge into the edge of the uterine canal, and after they are secured the edges of both mucous membranes are drawn in exact contact, so that in the healing process there

can be no contraction of the uterine canal, while primary union throughout the whole line is the rule under proper aseptic precautions.

A generation has passed since my clinical observation established a knowledge of the close relation existing between a laceration of the cervix and subsequent development of epithelioma. Countless numbers of women have suffered from laceration of the cervix, and yet from some unknown cause epithelioma was not developed. Yet every woman who has passed under my observation during the past thirty years or more suffering from epithelioma without exception had sustained some injury of the cervix as a consequence of labors, criminal abortion, or forcible dilatation. Within this period five or six instances occurred in my service at the Woman's Hospital where this disease developed while the women were under preparatory treatment with laceration of the cervix, and in each case the growth was so rapid that in a week or more the mass was as large as we usually see it in practice for the first time. All of these women suffered from an unusually large number of cystic follicles, which were being punctured from time to time as a preparatory measure before operating for repair of the cervix. It has been observed that within a few years past there has been a great increase in the numbers suffering from cancer, but whether this be specially true in relation to epithelioma, which would be included in the number, I have no means of ascertaining. But I am certain the condition of extensive cystic degeneration now more frequently found in the cervix than formerly is one which renders the individual far more liable to epithelioma than occurs where the dense tissue alone is found in the angles of the tear.

The operation of amputation I have described is well worthy of consideration, for I believe should the time come when such cases are treated intelligently by the profession at large a great advance will have been made for the relief of suffering humanity. If any reliance can be placed upon

accurate clinical observation extending over a period of years, there can be nothing truer than that epithelioma can be prevented by the means I have indicated. Instead of this frightful scourge existing as one of the commonest causes of death among women who have borne children, it could be made the rarest of diseases. And yet there are, to my knowledge, prominent and otherwise intelligent men in the profession who will go out of their way to advise a woman against the necessity of an operation for the removal of this danger. This is certainly not progress.

Finally, in connection with plastic surgery of the vagina, I will briefly refer to a method of operating which in my hands has become one of the most satisfactory in gynecological surgery. I have reference to what I term a true laceration of the perineum, where a child's head causes a rupture in the median line through some portion of the rectovaginal septum and sphincter ani, and upward into or through the so-called perineal body, or the reverse condition which may result from the use of forceps. It is just thirty years since I first succeeded in uniting the ruptured ends of the muscles and realized that previous to that time the only retentive power, and that a limited one, ever gained was due to the formation of a cicatricial band. No portion of the ruptured muscle was ever united and, I may add, a large number who attempt this operation at the present time get no better result than the formation of this cicatricial band. But to the third edition of my book I must refer the student who may be interested in following the progress and difficulties which were overcome in perfecting such work.

After denuding the edges of the tear to the proper width for union and having freshened the divided ends of the muscle, I bring the edges together with simple interrupted silver sutures as I would close a vesicovaginal fistula. By the daily administration of saline purgatives the patient has no difficulty with the bowels. Altogether the operation has been reduced by this method to one of the simplest in surgery

and one which has proved almost uniformly successful in a single operation.

I can make but passing reference to the advance in the treatment of the diseases of the bladder. It is well established that many of the reflex disturbances from which women suffer are due to injuries in the urethra consequent upon child-bearing. Dr. Skene has placed the imprint of his talent and industry on the methods employed for treating different diseases of the bladder, and the chief modes now in vogue are based on his teaching. But as yet there has been little advance made in the surgical treatment of the female urethra beyond what I demonstrated as possible over twenty years ago, in the last edition of my work on *The Principles and Practice of Gynecology*. From want of knowledge of the injuries to which this canal is subjected, through ignorance and accident, this yet remains an almost unexplored field for the profession at large. Nearly a generation has passed since I pointed out that injuries to the urethra were as frequent a cause of reflex symptoms with women as follow laceration of the cervix, and it was not an infrequent injury to have a portion of the whole mucous membrane and sub-mucous tissues of the urethra separated as a result of labor. In my work I have given an illustration showing how this prolapse, with the imaginary caruncle, can be readily removed through a button-hole opening made in the urethra, and how the tissues can again be permanently united throughout the length of the canal. Yet but a few days since a pitiful case came under my observation which fully demonstrated what may be justly termed the criminal ignorance of these injuries which still exists with some members of the profession. In this instance a reputable physician had tied and cut off portion after portion of a simple prolapse of thickened urethral tissue for the cure of a supposed caruncle, until the tissues about the neck of the bladder had been dragged out to the mouth of the urethra and there fixed by the scar, leaving the woman in constant suffering and with incontinence !

I received my first medical impressions at a time when after a practitioner of medicine had succeeded in establishing his reputation as a skilful physician his work was always held in higher estimation than a surgeon could command. As a consequence I have never been able to lose my profound respect and confidence in the practice of medicine. It has taught me to be conservative and, notwithstanding from the force of circumstances the greater portion of my professional life has been devoted to surgical work, and with an experience in abdominal surgery which few ever have the opportunity to acquire, I never operate until I have exhausted every other means. In fact, in many instances I accept the necessity for an operation as an evidence of defeat owing to lack of therapeutic knowledge.

The progress made during the past twenty-five years has been a brilliant one from a purely operative stand-point, but its brilliancy is due, I fear, more to the immunity gained through the perfect aseptic precautions which are now possible than to the skill of the average operator. Yet we have developed in this country, I believe, many of the most skilful laparotomists in the world. Among the profession, as a whole, the knowledge of plastic surgery is not so great as it was twenty-five years ago, for at that time we led the world as the teachers of a new school. It would also seem as though many of the younger members of the profession more particularly have become indifferent to the knowledge necessary of acquirement in order to become accomplished physicians, and are so infatuated with an operative craze that in the near future the practice of medicine may become an exclusive specialty. It follows, therefore, as a natural consequence, that with no special knowledge of the practice of medicine all general and local treatment will be ignored. There is a field for surgery, and a most important one it fills, but there are too many members of the profession who have no faith in medicine and who ignore a necessity of any procedure not connected with abdominal surgery—a state which is not an

evidence of progress, but, on the contrary, is an indication or rather proof that we have deteriorated in the healing art as physicians.

My experience in abdominal surgery has extended from 1860, when the operator, for the removal of an ovarian tumor, had to face the probabilities of a coroner's inquest in case of death. The general sentiment of the profession was opposed to it, notwithstanding that the Atlee brothers and others in this country and Clay in England had already demonstrated there was a probable future for the operation.

I operated for the first time in 1861 on what proved to be a fearful case from the extent of adhesions, and the woman died of shock shortly after completing the operation. I had, thereafter, several cases where I made no attempt to remove the tumor in consequence of the adhesions. But occupying the position of Surgeon-in-Chief at the head of the Woman's Hospital I was soon at work, and for a time, until Dr. Peaslee began to give special attention to the operation, the greater portion of the abdominal surgery of that day in the city of New York came under my charge. The accepted practice was to tap and never attempt removal of the tumor until time had elapsed for the peritoneum to become tolerant, as it was supposed that it did from pressure of the tumor. The operation was always deferred until the patient had become emaciated, and it was delayed, as a rule, until the tumor had reached such a size that its removal became imperative as a last resort to save life. With the immunity now to be obtained by proper precautions and the great advantage to be derived from an early operation in the development of all growths, the operator of the present day cannot appreciate the degree of pluck and dexterity which was formerly needed to overcome the difficulties usually encountered. It is scarcely possible to meet in practice to-day the same extent of adhesions and variety of complications which then presented in almost every case, with the patient, as I have stated, reduced as a rule to the last extremity. Such at least was my experi-

ence in the Woman's Hospital, where these cases were sent as to a last resort.

I have estimated that in the past thirty-nine years I have done about fifteen hundred laparotomies, the actual number being I believe rather above than below this approximation. About two-thirds of these were for the removal of ovarian tumors, with a few hysterectomies, and the greater number were done before or in the early days of aseptic surgery. It has been a source of regret that I was never able to keep a systematic record of these cases in private practice, and, from various causes, nearly all the early Woman's Hospital case-books have disappeared. Fortunately, when I could find the time I was in the habit of writing out the history and description of the more interesting operations for my own use, and a large proportion of these cases I afterward utilized in writing my work already referred to.

Notwithstanding I lack the statistics, I am certain my success was as good as that which anyone else obtained, and I have thought I could claim better results before the days of asepsis, from the fact that many of my operations were done in private, and that I did no general practice, while the only safeguard beyond this exclusion was a liberal supply of hot-water and turpentine soap.

In my earlier operations I always attached the stump of the ovarian pedicle in the lower angle of the abdominal incision. Afterward I reluctantly employed the clamp with various results. I finally ligated and dropped the stump into the abdominal cavity as Nathan Smith, of Connecticut, had done as early as 1821, but which became popularized fully forty years after by Tyler Smith, of London, as something new.

Dr. Thomas Keith, of Edinburgh, and afterward of London, discarded the ligature and divided the pedicle slowly with the actual cautery at a red heat, with the effect of reducing the extremity of the stump to a horn-like consistency, which was then returned to the abdominal cavity. He ob-

tained at that time better results by this method than any operator who employed other means. It is worth recording the remarkable spectacle of witnessing an operation performed by Dr. Keith and his son Skene. With such precision and common accord did these two work together and assist each other that it was not possible to state to whom the credit was due for any special operation done by them, unless 'given to the father as the originator.

One of the latest advances now is due to a revival of Keith's method by its application to the division of other tissues by the cautery, but in the substitution of the electric for the actual cautery and the use of ligatures.

In this connection I may also mention Tuffier's angiotribe, as a substitute for the *écraseur* of old, which can be so easily sterilized that it has been accepted as a most important instrument when used for the purpose of dispensing with ligatures.

Previous to the later improvements in the technique of aseptic surgery I obtained the largest series of consecutive recoveries about 1868, after securing the pedicle with silver wire introduced as a cobbler's stitch. I made four sections or more of the pedicle, the wires being drawn tight, twisted and cut off short, with the ends turned under the nearest loop, when the whole ligature became encysted. From being proud of my first success in saving one case out of every three, to-day I think we may claim that 98 or 99 per cent. of all ovarian tumors removed at an early date and free from extensive adhesions should recover.

Noeggerath first called the attention of the profession to the frequency of pelvic inflammations among women from sexual intercourse if the male had ever contracted gonorrhea, and he stated that the danger from contamination was equally great after the disease had apparently long been cured. Tait, afterward, from living in a manufacturing town where the existence of a pus-tube from this cause was frequently found, was able to perfect the diagnosis between a distended

tube and the condition which he had, in common with the profession before Noeggerath's observations, treated as pelvic abscess. Years before the investigations of either of these observers I had treated what I regarded to be a pelvic abscess with thickened walls, by cutting into it from the vagina and dragging its edges down into the vaginal wound. I secured them there by means of interrupted silver sutures. My purpose was to establish drainage at the lowest point, and, after breaking up all the pockets of pus with the finger, to change the character of the lining membrane by injections of Churchill's iodine or the use of the curette. The cavity would, as a rule, gradually disappear with frequent washings out with warm water and soap.

To this day I practice the same procedure with equally satisfactory results if I find, on opening the abdomen for the removal of a pus-tube, that the adhesions are so extensive that they shut in the pelvic cavity from the peritoneal one above. It is seldom impossible with care and time to separate the most extensive adhesions, but with the destruction of tissues necessary to remove tubes and ovaries under such circumstances we are obliged to consider the almost certainty of death unless free drainage be established by the removal also of the uterus. Under these circumstances I generally close the abdomen and open the pus-tube from below as I have described, and in case of exceptional failure necessitating the subsequent removal of the tube by reopening the abdomen, the condition and chances of the patient will have been improved by the delay.

It is true Tait and others held that a pelvic abscess exists, but as a pus-tube. If it be admitted that connective tissue exists in the pelvis, it would be difficult to explain why it should not become inflamed and break down into an abscess as it does in every other portion of the body. Pus-tubes are certainly of frequent occurrence, and their importance was not suspected before Mr. Tait's discovery. But we must look to the other side of the shield, because in my experience both

exist. I have three times opened the abdomen and finding the tubes in a healthy condition have emptied the abscess from the vagina.

In removal of the ovaries I have always been most conservative, and when I could do so I have left some portion, however small, taking care to cover it with peritoneum. It has given me great satisfaction to learn afterward that pregnancy had occurred in several instances with successful delivery. I can recall two instances going to full term where the portion of only one ovary left was not larger than a grain of Indian corn.

Unobstructed drainage is now generally accepted as a necessity to save life where extensive injury has been done to the peritoneal surfaces. It was a principle recognized by Dr. Sims many years ago to establish this by an opening in the posterior cul-de-sac, but he found by experience that this was impracticable. The principle is now accepted, twenty years afterward, with the knowledge that, when necessary, the peritoneal cavity cannot be perfectly drained without removal of the uterus.

When I began the study of medicine some fifty-four years ago it was the successful practice with many to treat "child-bed fever" or the septic peritonitis of to-day by means of frequently repeated small doses of calomel and soda, followed by free saline purging. The theory of Dr. Alonzo Clark was blindly accepted afterward that perfect rest of the intestines was necessary for the cure of peritonitis and the "locking up of the bowels," as it was termed, by the excessive use of opium in some form, for many years retarded the advance of abdominal surgery. It was a deadly practice and the direct cause of death in a very large number of these operations. The practice was to narcotize the patient at the beginning or before the operation as a prophylactic, and by thus arresting all the secretions the patient went quietly to her grave without troubling her physician, who remained in ignorance of the cause of death, unless it

were shown by a post-mortem examination. The revival of the old practice in the use of saline purgatives to drain that great lymphatic sac, the peritoneal cavity, has proved a great advance and the saving of many lives.

Partial hysterectomy I practised at an early stage, but the results were most unsatisfactory, and it constituted the most formidable operation in surgery before the methods of asepsis became perfected. For a long time after the advantages of ligating an ovarian pedicle and dropping it back had been fully recognized, the clamps or other means continued to be employed after a partial hysterectomy for the purpose of fixing a stump in the abdominal wound. I generally ligated and returned the stump, and as early as 1880 I covered it with the separated portion of the bladder with the object of placing it and the ligature outside of the peritoneal cavity ; this for that time was a great step in the right direction.

In 1882 I removed the uterus for fibroid tumor with commencing epithelioma on the cervix. The case was reported at the time and is mentioned in my work on gynecology, with the previous case. After making an incision above the pubes in an unusually fat woman, I passed from the vagina by means of a Peaslee's needle on to my finger in the peritoneal cavity a double ligature of thick silver wire from in front of the uterus over the middle of the broad ligament and into the vagina through the posterior cul-de-sac on each side so as to avoid the ureters. After twisting these ligatures from the vagina, I then removed with scissors the entire uterus without using any other ligature. The woman had no bad symptoms until after the fourth day, when septic poisoning developed and caused her death from an ounce or two of fluid which was found sacculated in the hollow of the sacrum. This operation at that time was certainly a novel procedure.

While reading this proof I was visited by a physician from one of the Western States, and on making reference to this case he reminded me that in 1880 I thus removed the uterus

from a patient he had sent me, who was suffering from epithelioma. He, moreover, stated she was in good health when he left home several months ago. While I have no recollection or record of this case, I know that I did do several operations of the kind about this time, and he was probably correct, as he established the date by other circumstances.

But I consider no radical advance was made until Dr. Louis Stimson demonstrated the feasibility and the advantages, at the beginning of the operation, of ligating the uterine artery on each side. The point selected by him for securing the vessel has not been adopted, but the advantage of ligating the main trunk at an early stage, to diminish the loss of blood and to expedite the progress of the operation, was at once appreciated. The advantage of securing the artery on each side at an early stage simplified the removal of the uterus from the vagina. In my judgment Dr. Howard Kelly has done more than any other operator to popularize and to develop the technique of this operation by abdominal section, while every improvement in asepsis which has been perfected by others has contributed to the remarkable results now possible. Notwithstanding the uneventful recovery of the few cases where I have performed hysterectomy during the past two or three years by the vaginal and abdominal section, I was never particularly impressed with the great advance which had been made and which I had accepted without thought. But recently as a spectator I realized to the fullest extent what had been accomplished on witnessing the rapid removal of the whole uterus for an unusually large fibrous tumor by my assistant surgeon at the Woman's Hospital, and where from the completion of the operation to convalescence there was less disturbance than I have often encountered in my early experience after the removal of a simple parovarian cyst.

Of late years, in the absence of novelty and from there being others ready to relieve me, abdominal surgery has

occupied but little of my time, and has afforded me less interest in comparison to the practice of plastic surgery, where I have found a fruitful field which has been neglected by many.

It has, therefore, been appropriate that I should not enter into detail regarding the practice of abdominal surgery within the past few years, but should leave the subject to be completed by some other observer who has been more actively engaged in the work during this time. With this statement I close my record.