GEHRUNG. (E.C.)

THE

MECHANICAL TREATMENT

OF

CYSTOCELE AND PROCIDENTIA UTERI.

BY

EUGENE C. GEHRUNG, M.D.,

Consulting Physician to St. Louis Female Hospital, St. Louis.

(WITH TWO WOODCUTS.)

Reprinted from the AMERICAN JOURNAL OF OBSTETRICS AND DISEASES OF WOMEN AND CHILDREN, *Vol. XIII., No. III., July*, 1880.

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THE triumphs of surgery during the latter part of this century over many diseases hitherto incurable by other means, its success in making radical cures where other means are only palliative or fail completely, have of late so much attracted the attention of the profession to its wonderful results that it is with great diffidence that I shall attempt to rescue uterine procidentia, with its usual complications, to some extent at least, from its domain, to return it into the realm of mechanical means.

What is to be gained by this? the reader will ask. Answer: though surgery offers radical cures, these are often not permanent; especially of doubtful advantage when performed on the parturient canal during the procreative period, and, as a rule, accompanied with more or less danger, not to speak of the uncertainty of success. So that, where other means exist that may render the patient equally comfortable and are devoid of the dangers and other inconveniences of surgical operations, they deserve the preference, and are in general more acceptable as well as more frequently applicable. The timid have equal chance with the courageous. The relief may be instantaneous, since there is no period of convalescence necessary.

I am not unmindful that, with the present tendency throughout the world to surgical treatment of the defects under con-

[1] The word Procidentia is used instead of Prolapse, for the purpose of avoiding unnecessary definitions of degrees, especially as the first degree of prolapse is considered as foreign to the subject under consideration.

sideration, and provided with the many and ingenious operations devised for their cure by Sims, Huguier, Hegar, Emmet, and others, such an apparently retrogressive step is not apt to meet with much favor at first. Nevertheless, I am confident, from the results obtained, that it deserves an impartial trial. The history of medicine of the past shows that many things have been consigned to oblivion, which, being resurrected at a later period and correctly interpreted, became applicable to some useful purpose. Though I propose to return to the use of pessaries, yet the pessaries are not those that have been tried and rejected; on the contrary, they are comparatively new and act on totally different principles from those previously employed.

Between nine and ten years ago, I succeeded in perfecting a pessary that was brought to the notice of the profession for the first time in 1873, under the name of "A new Anteversion Pessary." Of course I was not aware, at that time, of its applicability to and usefulness in the treatment of procidentia. This knowledge was gained step by step in proportion to my better acquaintance with the qualities of the instrument when used for other displacements, as anteversion, anteflexion, and cystocele.

Before entering upon the description of the instrument and the treatment by it of procidentia, I shall risk trespassing on the patience of the reader, by a superficial review of the different recognized modes of development of this displacement, and by adding my own views in a condensed form, with a view of rendering the action of this pessary more intelligible.

There can be no doubt that procidentia frequently occurs, as Thomas, Barnes, and others describe and illustrate it, namely by a gradual descent along the axis of the vagina, the uterus forming a tangent along a quarter circle, the radii of which would meet at the centre of the os pubis, until part of or the whole organ is extruded from the vulva; the uterus retroverting as it descends. That this displacement may be the result of other processes is not less true.

Graily Hewitt says:[1] "Concurrently with such enlarged

[1] Diseases of Women, 2d Am. Ed., 1872, p. 274.

perineal aperture, the patient is the subject of defective involution of the uterus. She moves about too soon after labor; the uterus becomes first a little anteverted, then anteflexed; and the bladder, less supported than usual below and more pressed upon from above, gives way. The result is, perhaps, confirmed *anteflexion* and cystocele.

"A further stage may be witnessed after the lapse of many years as a rule, viz., complete descent of the whole uterus external to the vulva.

"Or, the patient is unmarried, anteflexion of the uterus exists. The bladder is slowly pushed downward, and, spite of the uninjured ostium vaginæ, is gradually protruded.

"Or, the patient has, shortly after labor, acquired a *retroflexion* of the uterus. The labor has been attended with laceration of the perineum also. Soon the uterus falls lower in the pelvis, the retroflexion becoming at the same time intensified, and first of all the posterior vaginal wall is protruded at the vaginal aperture (rectocele), then follows the fundus of the uterus. At a later stage of the affection the whole uterus may pass outside the vulva, remaining still, however, retroflexed."

Further, on page 281, Hewitt says: "The very great importance of *flexions*[1], as in very many instances being the starting-point of the displacement, is a matter which it seems desirable to make prominent."

The results of my observations of uterine displacements bearing on procidentia are as follows:

That the genesis of procidentia may be divided into three classes.

1st. By descent (from weight, traction, etc.), Thomas, Barnes, and others.

2d. By anteflexion (Hewitt).

3d. By retroversion (including retroflexion).

The second and third class may or may not *ab initio* be accompanied by the pathological conditions considered necessary for the production of the first, namely superincumbent weight, traction from below, laceration of the perineum or sub-involution of the uterus.

Though very few authorities mention anteflexion as a pos-

[1] The Italics are mine.

sible cause of procidentia, I feel confident in asserting, with Hewitt, that it does occur, and in such a way that nothing but the anteflexion can be regarded as the cause; that is to say, without the presence of tumors in any of the pelvic organs and without enlargement of the uterus itself, simply under the effect of the bearing-down forces of the abdominal muscles during exercise, the straining in defecation and micturition, accelerated by tight clothing and sitting occupations.

The first and second class being so ably described by the above-mentioned authorities, it only remains for me to consider the third; that of retroversion.

Retroversion to a slight extent is not so rare an affection as it is represented to be, by the text-books. There are no noticeable symptoms accompanying it, and evidently the physician is not consulted for a trouble of which the patient herself is unconscious.

Other difficulties, however, sometimes co-exist, for which the patient seeks relief, and then upon careful search the displacement may be discovered. If by any cause the body of the womb falls behind the axis of the superior strait of the pelvis, it is almost doomed, if retained there for any length of time, to become permanently and progressively retroverted or retroflexed. The small intestines soon fill the gap caused anteriorly by the displacement of the uterus and broad ligament backward; by the periodical distention of the intestines, assisted by the pressure of the abdominal muscles on physical exertion and straining, the body of the womb is gradually driven back nearer and nearer to the promontory of the sacrum, until arrested by it in its progress. The uterus now lies across the pelvis, its anterior surface presenting upward, the fundus resting against the promontory, while the cervix is held in position by its attachment to the bladder (undoubtedly the strongest natural support of the womb); all bearing-down forces, from whatever cause, are now directed against the anterior wall of the womb until the weakest point gives way. Suppose the vesical attachment to be the weakest point, this must give way to some extent, thus freeing the fundus from the promontory and enabling it to continue its migration until again arrested at some point along the concavity of the sacrum, or at the perineum, when the greater force must again fall on the

anterior attachment, and thus, by alternate steps, the descent continues until partial or complete procidentia is the result.

If, at any time during this process, the vesico-pubic attachment proves stronger than the substance of the womb, flexion takes place. The progress may be arrested at one of these stages and simple retroversion or retroflexion with more or less prolapse and cystocele will be the result. Often it continues until the cervix with the fundus of the bladder is expelled (partial or cervical procidentia with cystocele). Should, in its descent, the retroverted or retroflexed uterus come in contact with the rectum (a not very rare occurrence), then, the feces accumulating above the point of compression under the (sometimes extraordinary) efforts at defecation, rapidly depress the fundus of this organ until it rests on the perineum, and there closes the anal aperture, while the feces still continue to accumulate above and distend the bowel. This, by degrees, begins to sag towards the relaxed vagina, the posterior wall of which, lying in folds, gives no longer support to the rectum. At this point the rectum normally curves towards the vagina, and it is evident that the fecal mass follows this direction, which is now also the point of least resistance. Thus rectocele is frequently, if not generally, formed. Folds of the relaxed anterior or posterior wall of the vagina may protrude without being cystocele or rectocele, and should not be mistaken for such, as often happens. In retroflexions of a high degree, the fundus of the retort-shaped uterus rests on the perineum and of necessity the cervix near the vulva. The cervix rocking on the fundus, under every effort of the woman, dips against the ostium vaginæ, gradually distending it. At the same time the vesico-pubic attachment becomes loosened until the cervix is grasped by the vulva and is arrested in its rocking motion or, until it completely emerges, followed or not, as the case may be, by the body of the uterus. In proportion as it emerges the flexion is undone (if not previously made permanent by changes in the texture of the womb) as easily and completely as it happens when a retroflexed womb is artificially anteverted and sustained by a pessary. These steps sometimes take place in a comparatively short time, though generally years are necessary for their accomplishment, if uncomplicated. Hard labors, being the most frequent determining cause of

procidentia, may at times accomplish this result in a few days, weeks, or months.

From the foregoing it may easily be seen that I regard retroflexion as frequently complementary to retroversion; cystocele as a necessary and rectocele as an accidental complication of procidentia.

True hypertrophic elongation of the supra- or intra-vaginal portion of the cervix is foreign to my subject and is not benefitted by the treatment here proposed.

If reduction of a case of procidentia of the retroversion series (retroversion or flexion) is attempted, it will be found that, when the mass is returned into the vagina, the uterus is generally found highly retroverted or retroflexed. As a rule it is necessary to elevate the uterus from the sacral concavity and to pass it along one side or the other of the promontory before it is possible to return it to its normal position. The genu-pectoral position has its disadvantages as well as its advantages and without entering upon the discussion of this question, I shall simply state here that I give the preference to the dorsal position for the reduction of procidentia.

Retroversion being a frequent cause and more frequent accompaniment of procidentia, retroversion pessaries would appear to be the means par excellence most suited for the sustentation of the replaced organs. Experience, however, has proved that, as a rule, disappointment follows the attempt.

What else can be looked for, when a body is expected to sustain a great weight in an opposite direction to the tendency of its own foundation or base of support, this latter to be sustained by it simultaneously?

The bladder and vaginal walls that are to give support to the instrument and superimposed weight, themselves tend to escape in the same direction from the vagina as does the pessary that is expected to carry them all. Consequently, if a retroversion pessary acts beneficially at all, it can be no longer on the principle of leverage, as in retroflexion and retroversion; it must be by obstruction, some high authorities to the contrary notwithstanding. It rests in front against the bladder above the pubis, its lateral branches along the perineal floor, and posteriorly against the sacrum; *i. e.*, jammed in antero-

posteriorly across the pelvis, from whence arises the discomfort to the patient wearing it.

If there is one point in the genesis of procidentia upon which all writers agree, it is this:

That procidentia is impossible as long as the bladder retains its normal position.

It follows as a corollary that:

If the bladder can be returned and held in its normal position, the procidentia, as such, must be cured.

The means whereby this can be accomplished consist in the afore-mentioned "anteversion pessary."

Unlike any other pessary hitherto in use, this one finds its support transversely instead of antero-posteriorly, not by spanning across the vagina and acting as an obstruction, but by a close application to the anterior and lateral walls of the vagina, so to speak, forming an unyielding duplicate of this part of the vaginal pouch, reinforcing the weakened walls and pinning them, together with the bladder, again to the position where nature intended them to be, and, *nolens volens*, the cervix has to occupy its relative position to it, carrying the fundus sufficiently high to clear the promontory of the sacrum, where, even if it remains retroverted, it will be harmless. This instrument gains its inferior support on the extreme lateral parts of the perineum, if there is one in existence, and if this body is absent wholly or in part, it may still find a sufficient support on the muscular remains of it covering the inner side of the rami ischii, and if made sufficiently long antero-posteriorly, on the levatores ani; provided that these muscles are not so relaxed, assisted by concomitant organic disease or overstretched by former futile attempts to cure the displacement by obstructive means.

I beg leave to make the almost unnecessary statement that the foregoing deductions are not drawn from the few cases of procidentia only that are appended below, but that the many cases of uterine displacements of every variety constantly passing through my hands furnished material in abundance to make these studies.

The pessary (see Fig. 1) consists of two superimposed ⊃-shaped arches, joined together at their open extremities by a gentle curve of their bars. The upper surface of the instru-

ment is convex, the lower is slightly concave. Their closed extremities form the anterior transverse arches S (superior), and I (inferior). The meeting of the two at R (right) and L (left) forms the posterior lateral arches. The perpendicular diameter from S to I measures invariably and in all sizes $1\frac{1}{4}$ inches. These transverse arches support the bladder in front while the lateral branches rest against the lateral walls of the vagina and on whatever is left of the perineum. The transverse and antero-posterior diameters vary in the successive sizes for $\frac{1}{4}$ of an inch. There are six sizes, namely 10, 20, 30, 50, 60 and 70. Number 40 is purposely left out for reasons given elsewhere.[1] The number 70, the largest size of the series,

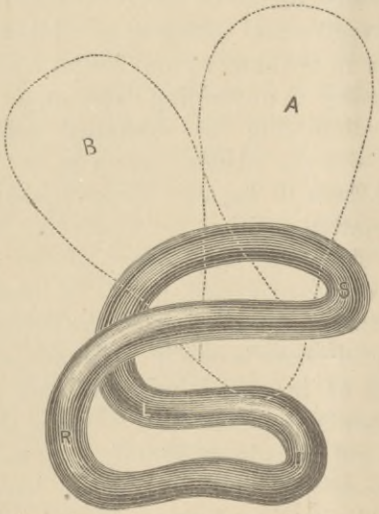

FIG. 1.—Gehrung's anteversion pessary.—A, uterus as supported in anteversion; B, uterus as supported in retroversion. The outlines of the uterus are less than natural size to economize space.

is probably the most frequently useful in case of procidentia, because of the great relaxation of the parts, even if there is no or but little perineal laceration. Sometimes a number 60, 50 or even 30 is applicable right from the commencement, though rarely. As the case progresses and the tonicity of the parts returns and their weight decreases, gradually smaller instruments can be substituted. The possibility of progressing from

[1] See Report Colorado Territory Med. Soc., 1873, and St. Louis Med. and Surg. Journal, July, 1877.

larger to smaller instruments is sufficient evidence that this pessary acts not by distention, but on physiological principles. With all other pessaries a gradual increase in size has been found necessary.

To increase the transverse at the expense of the antero-posterior diameter, heat gently the whole of the transverse bars, and when pliable separate the lateral branches to the requisite distance; if the antero-posterior diameter is to be increased at the expense of the transverse, approach the lateral branches, taking care to preserve their parallelism. A glance at the diagram in Fig. 2 will make this plain.

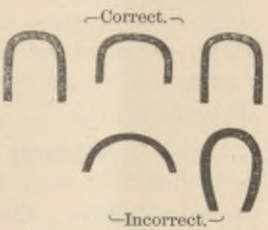

FIG. 2.

This pessary is easily introduced, yet the description of the process is difficult and appears at first sight formidable, but if the operator, with pessary in hand, takes the trouble to follow step by step the following description, having, or imagining to have, the patient before himself, in the usual dorsal position, the apparent difficulty is easily overcome.

Place the pessary on a table, the superior (convex) arch S below, the inferior (concave) I above, the arches R and L pointing toward you, then take hold of arch L, now presenting to your right, with the right hand and insert the arch R into the vagina to the right of the patient until three-fourths of the instrument are buried within; then make it turn on point R as on a pivot, by pushing the arch L towards the fourchette and the left side of the patient, so that, at the same time that the arch L slips into the vagina, the arch S will turn from behind forward and from below upward into the anterior fornix of the vagina and the arch I in inverse direction downward to the os pubis.

Before reducing the procidentia and inserting the pessary, some alterative wash should be applied to any eroded surface that may be present.

The procidentia being reduced—I speak of reducible cases only—the womb elevated beyond the promontory of the sacrum, and the pessary in place, it is advisable, for precaution's sake, to pack the balance of the vagina pretty snugly with dry cotton-batting, sprinkled on the outside with, or dipped into,

tannin-powder, so that the cotton balls, wherever they come in contact with the vaginal mucous membrane, exert an astringent effect on it, by means of which the pessary is held in place until the parts surrounding it have adapted themselves to the instrument. To make assurance doubly sure, this packing may be repeated at several succeeding visits. This done, the patient should be directed to lie down for several days, which direction, I must confess, none of my patients has followed. In time of twenty-four to forty-eight hours, if not sooner, the spurious hypertrophy of the cervix and uterus has dwindled away, the entire organ diminished in weight, the mucous membrane, that had acquired dermic properties, has partly regained its normal characters, and the tone of the vagina is sufficiently recovered to retain the pessary without other assistance.

I wish to lay great stress on this, that all possible precautions should be used that the first attempt in any case may not prove a failure; first, on account of the moral effect this would exert on the physician and patient, and, second, if a pessary once slips by whatever cause into a false position, it will be very difficult ever afterwards to retain it in its right place.

In selecting the instrument, it is well to take the largest one that can be introduced without causing undue pressure anywhere; of which one can satisfy himself by introducing the finger between it and the vaginal walls alternately at different points of the pessary. If it causes pain or inconvenience it is probably too large. If too small it will slip out or become displaced. Not more than twenty-four hours should be allowed before re-examining the patient after the first introduction of the support, and the vagina should be carefully examined to find out if at any place it has caused undue pressure. If so, it must be altered accordingly or replaced by a smaller one. If, on the other hand, it has slipped from its position, a larger instrument must be substituted, or the one in use be modified as indicated in Fig. 2. Such modifications are, however, rarely necessary.

The following cases, I hope, will go far to show the correctness of the foregoing remarks.

Case I.—*Anteflexion-procidentia, cured.* Oct. 30th, 1876. Mrs. J. T. R., a lady in the higher walks of life, of this city, aged 44, 3 children, 1 miscarriage 13 years ago. Menstrual flow about double the normal quantity, with coagula; constant leucorrhea; sound entered 2½ inches. Duration of illness, 13 years; miscarriage the probable cause. On standing, the womb would come down and the whole cervix project from the vulva. She complained of pains in the back, pain in the bladder, accompanied with painful and frequent micturition. Had been almost constantly under medical care and was completely discouraged. Physical examination revealed the cervix with part of the bladder protruding externally; the womb anteflexed, hugging the os pubis and compressing the bladder, almost closing its neck. After the necessary attention to the concomitant pathological conditions, I applied a No. 50 anteversion pessary, that kept the uterus and bladder in their normal position. From that date there has been no sign of procidentia or vesical trouble. The chronic endometritis rapidly disappeared under appropriate treatment. She considered herself as completely cured, having learned to remove and apply her pessary. One year has passed since I saw her last.

Case II.—*Retroversion-procidentia, with cystocele and rectocele, cured.* Aug. 11th, 1877. Mrs. M. W., aged 58; married 33; four children, oldest child, 32; German; very corpulent. She is the owner of a small dairy, managed by herself and daughter alone, the products in butter and cheese she herself carries to the customers. Examination revealed a complete procidentia with cystocele and rectocele, reducible, but not retained even in dorsal decubitus. She complained of dragging pain in the back, pain in the abdomen and dysuria. The surface of the protruded mass was covered with dry scales instead of mucous membrane. The cervix somewhat lacerated and highly eroded to a considerable extent around the os. Perineum lacerated to rectum. Uterine cavity 4½ inches. A sound introduced through the urethra and the finger through the rectum could be felt alongside the protruding mass, and could be brought in contact above it and in front of the vulva. After an alterative application to the eroded surface, I reduced the tumor *en masse* without difficulty, and after elevating the fundus above the promontory, inserted a No. 70 pessary, and filled the vagina with dry cotton sprinkled with tannin. With the direction to keep herself as quiet as possible and to return the next day, she went home, about four miles, partly on foot and partly by street car. On her return, Dr. J. Marion Sims, of New York, and Dr. T. L. Papin, of St. Louis, examined her with me, before and after the removal of the pessary. The womb and support had kept their places. On Dr. Sims' suggestion the pessary alone (without the cotton) was replaced and the patient directed to walk once or twice around the block to ascertain whether the pessary would or would not be sufficient to sustain the organs in their place without the assistance of the cot-

ton. After the accomplishment of this task, Drs. S. and P. examined her again, and pronounced everything in perfect order. The ulceration was much improved in appearance, the size and weight of the uterus considerably reduced, the cavity measuring but 3½ inches in depth, and the mucous membrane had almost regained its normal appearance. The relief experienced by the patient was very great. The cotton packing was then re-applied and two days' interval allowed. The next time, not without reluctance, the pessary was trusted alone. A week later, the organs having returned almost to their normal size and place, and the vaginal tonicity improved, the pessary began to cause some uneasiness and a smaller size, No. 60, was now substituted for the previous instrument. Still later, on the same indication as just described, a No. 50 was tried and worn with good success for six months without removal. The organs were well retained in their natural position, though the uterus still reclined backward. At no time did she feel any inconvenience from the pessary, nor even its presence. She called a few times during the year 1878. Once in 1879.

I may here remark that Mrs. W., contrary to my advice to keep as quiet as possible, never for a moment had abstained from doing her work, but on the contrary, feeling so much improved from the start (so she informed me afterwards), she told her daughter (the subject of case No. IV.) to rest herself, and so the old woman did the work for both. Nearly three years are now passed since the first introduction of the pessary, and a year and six months since I saw her last. In spite of a fall down a long flight of stairs, from which she was laid up for several weeks, she is still (so I am informed) in perfect health and comfort.

P. S.—April 5th, 1880. Examined Mrs. W. after an absence of 18 months, and found everything in best order, with one exception. There was some excoriation caused by the uninterrupted pressure of the pessary, that sustained this not inconsiderable weight for so long a time, without the least attention. I removed the pessary for a few days, applied and ordered some washes, after which a No. 30 pessary was applied in place of the No. 50, the bladder, uterus, etc., having begun to settle downward again. The excoriation is completely healed, despite of the presence of the pessary, which she wears again with the greatest comfort. She feels as well and is as hearty as any woman of her age, now 61 years.

Case III.—*Partial procidentia* (*retroversion*) *with cystocele, cured.* Prof. T. L. Papin reports this case: "April 3d, 1880. Dear Doctor:—In answer to your request I take pleasure in reporting to you the following case: Mrs. J. A., aged 35 years, of Irish descent, was troubled with procidentia for years. Dr. ——, her attending physician, had replaced the womb by a large size Thomas' anteversion pessary; the organ was more or less completely retained in the vagina, though not without considerable suffering to the patient, for the relief of which she became a frequent attendant at my clinic at St. John's Hospital. In the

absence of better means, I still continued the use of the Thomas' pessary, changing to a Meigs' ring sometimes, and sometimes removing the pessary entirely for the purpose of giving her some rest and relief of pain, the result of pressure. This continued until I saw, together with Dr. J. Marion Sims at your office, the excellent result obtained by your anteversion pessary in a similar case, whereupon I invited you to apply one of your pessaries to this patient at my clinic. This was in October, 1877. Immediately following the application of this support the womb and bladder appeared to be much better sustained, and the patient upon rising from the operating table declared that she was perfectly comfortable, and that she felt none of the pains the old pessary had given her. This well-being continued at her subsequent visits, and when I saw her last, in fall 1879, she was so much improved in general health and the local conditions so satisfactory, that I discharged her with the advice to keep the parts clean with daily warm salt water injections and to come every few months to let me examine her. Very truly yours,

T. L. Papin."

Case IV.—*Partial procidentia (retroversion), cystocele, cystitis, cured.* Oct. 2d, 1879. Mrs. G. B. is the daughter of the subject of Case No. II. She is in size and figure the exact counterpart of her mother; aged 27. Married 9 years; two children, one 8, the other 6 years old; three months after last labor the procidentia commenced. Physical examination revealed partial procidentia, cystocele, laceration of cervix; laceration of perineum to sphincter; the mucous surface of cervix dry and scaly. Only when lying down would the slightly retroflexed uterus return into the vagina. Chronic cystitis of a moderate degree was present, the consequence of the cystocele. Bowels regular. Reduction being performed, it became necessary to correct the retroversion and flexion before introducing the pessary, a No. 60, assisted as in the other cases with the cotton and tannic acid. A short time afterwards a No. 50 and then a No. 30 pessary was substituted. To the accompanying endometritis (cervical and corporeal) the necessary attention was paid. Saw her last about a year and three months ago, when she was a well woman to all intents and purposes.

P. S.—April 5th, 1880. Examined her to-day after wearing the pessary uninterruptedly since her last visit in January, 1879. She states that her health is very good, and that she never felt the pessary nor any inconvenience from it or her disease. The parts look well, womb and bladder are well sustained. No excoriation. Removed pessary No. 30, that appears now unnecessarily large, and replaced it by a No. 20. April 9th, everything is in the best order. Requested her to call at least once in every six months.

Case V.—*Complete procidentia (retroversion), cystocele, laceration of cervix and perineum, valvular disease of the heart. Com-*

plete failure. Nov., 1877, Mrs. M. W. admitted to Prof. L. Ch. Boislinière's hospital clinic, April 14th, 1877. She is a native of Switzerland, widow, aged 36; 3 children; age of last 8 years; character of labors, difficult; no miscarriage. Duration of present illness 8 years, for 6 years in a marked degree; menstruation normal. She is very ignorant, dull and indifferent; as immoderate in working as in eating. Stout, apparently plethoric, yet atonic. She was troubled also with frequent violent coughing spells and spells of retching and vomiting, the latter, as I was informed by her friends, caused by inordinate eating. For several years past she relieved herself somewhat by keeping the procident organs within the vagina by a Babcock's pessary, but on account of the pain and excoriation it caused her, she was unable to wear it constantly and abandoned it to seek relief at Dr. Boislinière's clinic, where, among other treatment, large balls of oakum were inserted and other preparatory treatment made for the necessary operation by Dr. G. A. Moses. By invitation of Dr. Boislinière I saw her in November, 1877. The uterus, bladder, and vagina were all protruded in a mass; the mucous membrane resembling skin; the cervix extensively lacerated and eroded. The perineum torn to the sphincter. The uterine cavity measured 5 inches. No rectocele. Reduction easy, the vaginal aperture remains gaping from long-continued distention and atony of the vaginal and pelvic muscular tissue. A No. 70 pessary was introduced, the vagina packed as usual with cotton and tannin. At her subsequent visit (she was then an out-patient) three days later, everything except the cotton, that had come away, was found in place. Sound 3½ inches.

I substituted a smaller (No. 60) pessary, which action I regret, as it was, at least for this case, premature. This she lost the next day, in consequence of one of her coughing spells, which, as I found out later, were so severe that I was unable to retain the uterus in the vagina by the full strength of my hand. The No. 70 was then used again. By rendering the instrument broader, *i. e.*, separating the latero-posterior arches to a greater extent, I still hoped to overcome the difficulty. I think now that this was a mistake; greater benefit would probably have been derived by narrowing and lengthening the instrument as shown per diagrams in Fig. 2, though it must have failed likewise in this case. The pessary was, however, retained, but had caused a deep excoriation on the left side, for the healing of which time had to be allowed, during which all that was gained before was lost again. At a later period she called at my office for some time, by the advice of Dr. Boislinière, but to no better purpose. The coughing and vomiting spells, combined with the extreme relaxation of the vaginal tissue, that increased *pari passu* with the progress of the heart disease, convinced me that neither mechanical means nor surgical operation could benefit such a case. She was discharged as incurable. She re-entered the hospital afterwards and finally was lost out of sight.

CASE VI.—*Complete procidentia (retroversion), cystocele, rectocele, probably cured.* Nov. 16th, 1877. Mrs. H. N., American, slender, mother of 8 or 9 children, about 38 years old; had several children since the occurrence of the procidentia with (apparent) spontaneous restitution of the displacement, and recurrence of it after labor. This woman was sent to me by Dr. L. Ch. Boislinière for the replacement of the displaced organs, while otherwise under his care. The procidentia was nearly complete, complicated with cystocele, slight rectocele, and some laceration of the perineum. With a No. 70 pessary at first, and later on with a No. 50, she was well supported for six months. I tried several times, to her disadvantage, to substitute the anteversion pessary by one for retroversion, for the purpose of testing whether or not the value of my instrument was real or fictitious. This was done without the patient's knowledge. She became aware of it very soon, as it slipped out; and, while there, did not give her the relief she was accustomed to receive from the other. She was several times examined by Dr. B. while under my care. Dr. B. sent me the following note:

"DEAR DOCTOR:—I must compliment you on the fine result of your pessary—I found the uterus normal in position and depth (a little low yet); some cervical erosion. Yours truly,

L. CH. BOISLINIÈRE."

Her present condition is unknown to me.

CASE VII.—Oct. 27th, 1878. Mrs. R. H., of Rock Springs, Mo., was brought to me by a prominent midwife. Incomplete procidentia. Applied a No. 70 pessary and explained to the midwife, on her request, the use and application of the pessary. Gave the patient directions to call again in two days, or sooner, if inconvenienced either by the pessary or the disease. She has never returned.

CASE VIII.—*Complete procidentia (retroversion), with intestinal hernia in the pouch formed by the everted vagina, cystocele, rectocele, insanity. Cured.* Feb. 19th, 1878, was called in consultation by Prof. J. K. Bauduy, who furnishes me with the following copy of the official report of the asylum:

"Entered St. Vincent Asylum, Jan. 10th, 1878, Mrs. Margaret Doran, aged 45 years, born in Ireland, wife of a farmer, had a miscarriage two years ago, has had spells of fainting since last Christmas, and complains of pain in her head since last August, suffers from falling of the womb. Insanity not hereditary in her family. Certificate signed by Dr. Thos. O'Reilly. Mrs. Doran talked of burning herself in a straw pile before she left home. Feb. 28th, '78, Mrs. Doran left the institution. Restored."

By physical examination and the report of the physician and nurse, I learned that the patient suffered from complete procidentia, cystocele, rectocele, eversion of the vagina, the sac so formed filled with intestines, all together reaching low down between the thighs, but reducible without difficulty. A pessary No. 70 was

introduced with great difficulty on account of the patient's violent resistance, her disease being violent, almost incontrollable acute mania. The sisters informed me the next day that the patient was much quieter than usual, during the previous afternoon and evening, but that she was as bad as ever this morning. On examination the pessary was not found. Search for it proved useless. The finger passing up along the posterior vaginal wall, a peculiar slit was encountered like a tear in the vaginal tissue, that terminated in a cul-de-sac, large enough to admit two fingers to the depth of an inch. My first impression was that the pessary had disappeared into the abdominal cavity, but the edge and internal lining being found smooth and the pouch closed at its upper extremity, the fear was soon dispelled. The patient being in a straight-jacket, it was difficult to account for the disappearance of the instrument, which was found a few days later in the garden. The next pessary met with nearly the same fate, and had the same beneficial effect as the other. It was found crushed in the end of the sleeve of the straight-jacket. With the permission and assistance of Dr. Bauduy she was put under anesthesia before introducing the next pessary. This had the desired result, since she was not aware of its presence. In three to four days of progressive improvement, the patient was so far recovered that there was nothing left to show that she had ever been insane. Her husband then insisted on taking her home, promising, however, to bring her to me in from one to two weeks unless she should grow worse, when he would bring her at once. That was the last I saw of her, until I came across a notice in a newspaper that Mrs. Doran, in a fit of insanity, set her clothes on fire and nearly burned to death. Whether the pessary had come away or whether insanity had returned in spite of its presence will perhaps forever remain a mystery. In corroboration of the above statements Dr. Bauduy writes:

"Dr. Gehrung.—Dear doctor, Mrs. Doran suffered with extreme procidentia uteri complicated with rectocele and cystocele, and occasional enterocele. . . . By your pessary and very successful attention she was soon perfectly and *entirely* relieved and discharged cured from the asylum. Yours sincerely,

J. K. Bauduy, M.D.,
Physician St. Vincent's Inst. for the Insane."

Case IX.—*Complete procidentia (retroversion) of 42 years' duration, with cystocele, rectocele, chronic cystitis, and completely effaced vagina. Cured.* Jan. 28th, 1879, Mrs. K. T. sent to me by Dr. W. H. Hardaway; aged 67 years. Procidentia for forty-two years, with above complications. Sound 3½ inches. The tissue of the everted vagina was apparently completely obliterated, so that the mass found between the thighs made the impression of a tumor growing on a level surface; there was no vaginal depression observable. With careful and gentle manipulation I succeeded, however, in reducing the procident mass and in inserting a No. 50 pessary and some packing. This held its

place and gave soon almost complete relief from the cystic and rectal trouble, and the excoriations that had covered the entire mass healed kindly. This relief continued until her death, in August of the same year, by erysipelas contracted while nursing her brother, affected with the traumatic form of this disease.

Case X.—*Complete procidentia* (*anteflexion*), *cystocele, vagina completely everted. Cured.* August 11th, 1879, Mrs. A. D., directed to me by Prof. G. Baumgarten; aged 72 years; 2 children. Duration of disease four years. Supposed cause "a fall." Uterine cavity not enlarged; cervix covered with granulations. There was a large, solid tumor of irregular outline in the region of the spleen, dating about as far back as the procidentia. Pessary No. 50, assisted by the tampon, sustained the uterus, etc., well from the beginning, and procidentia, cystitis, and cystocele disappeared. She has been under observation about once a month up to January, 1880. April 4th, 1880, I learned to-day that Mrs. D. died on March 31st. Her friends informed me that she had lately been troubled with very severe pains emanating from the above-mentioned tumor, called by her last attending physician an enlarged spleen.

Case XI.—*Partial procidentia* (*retroversion*), *etc. Cured* (?). Dec. 3d, 1879, Mrs. S., a widow, aged 40 years, washerwoman, Irish; sent to me by Dr. Bauduy with partial procidentia, cystocele, etc. Pessary No. 60. She continued without intermission to do her washing and reported herself completely supported and relieved from her former symptoms. Saw her several times with the same report. Have not heard from her for several months.

Case XII.—*Partial procidentia, cured.* The following case I saw in Dr. E. Noeggerath's clinic at the Woman's Hospital in New York. By request of Dr. Noeggerath, and in presence of Drs. Noeggerath, Griswold, and Mackenzie, all of the hospital staff, I applied a No. 60 pessary that appeared to act to the satisfaction of all present. On account of my return to St. Louis, I had no opportunity to see the case again; I shall therefore give a copy of a letter received from Dr. H. Griswold.

"Dear Doctor:—I have seen the patient to whom you refer quite a number of times. She still wears the pessary with much comfort. Her uterine symptoms are rapidly yielding to local and constitutional treatment.

"I was so favorably impressed that I tried one of your pessaries upon a

"Case XIII.—(*Total failure*) *of complete procidentia* in private practice, *but the parts are so lax and the perineum lacerated to such an extent*[1] that the instrument cannot be retained. Bearing in mind your direction that the distance between the superior and inferior arches should be maintained, I tried *widening the ring* in

[1] The italics are mine.

the hope that I might gain some purchase on the lateral walls of the pelvis—but the experiment failed. The patient has *advanced heart disease* and I am at my wits' end to retain her pelvic organs within their cavity. Respectfully yours,

HENRY GRISWOLD."

I feel myself greatly indebted to Dr. Griswold for the report of his second case, as it serves to corroborate my statements in the text that certain organic and wasting diseases cause such a degree of relaxation of the perineum, or its remains, that almost nothing is capable of retaining the pelvic organs in their place. In such cases surgical operations are inadmissible, and, if performed, probably useless. I repeat here that I believe that the increase of the antero-posterior diameter of the instrument, instead of the increase of the transverse diameter, would have met with a better result. The mistake, therefore, if it was one, is mine, not Dr. Griswold's.

CASE XIV.—*Cured.* Dr. W. Hudson Ford, of this city, reports as follows :

"April 1st, 1880.

"DR. E. C. GEHRUNG:—Dear doctor, in reply to your note it gives me pleasure to contribute the following details relating to a case in which, at your suggestion, I employed one of your anteversion pessaries for prolapsus uteri.

"Mrs. S., æt. about 60 years, had suffered some six or eight years from prolapsus of the uterus in the third degree. She had travelled a good deal in search of health and had consulted several practitioners of first-class reputation in the largest eastern cities. Various expedients had been tried and a variety of pessaries, including a cup and stem attached to an external support, but nothing afforded her more than temporary relief. Finally she laid aside all kinds of pessaries and submitted to the inconveniences and pains of her condition. She was the mother of several children now grown and with family of their own. When I first saw her she was obliged to remain recumbent for a great portion of every day, frequently for days together. The uterus was found projecting entirely or almost so beyond the vulva, the surface dry, not ulcerated, and the vagina thickened and devoid of secretion. Having replaced the uterus, I applied one of your anteversion pessaries, a No. 60 I think, at least quite a large size, and allowed her to rise from the recumbent posture at once. It sustained the uterus perfectly. Astringent vaginal washes and cold hip-baths were at the same time recommended. During a period of six weeks or two months after this, during which time I was often at her house, no re-descent occurred, nor was any irritation caused by the pessary which would require its removal even temporarily. It sustained the uterus so well and so painlessly that she was able

forthwith to keep the erect posture as long as she desired, and to engage in all her domestic duties without any inconvenience whatever.

"Circumstances interrupted my personal observation of the case after this, which was some ten months ago, but I think she would have notified me if any recurrence of her trouble had taken place. In this case, your pessary accomplished what every other appliance had failed to do, and entirely obviated all necessity for recourse to any of the dubious vaginal operations, which I might have been tempted to try for the relief of the prolapse.

Very truly yours,

W. Hudson Ford."

Prof. L. Ch. Boislinière favored me with the following synopsis of cases observed in his own private and hospital practice.

Case XV.—Mrs. U., multipara; past menopause. Retroversion procidentia, treated by Gehrung's pessary, to be worn several months; had to be removed once every three to four months to relieve excoriation. Gives good success.

Case XVI.—Mrs. B., 22 years, married; one child; procidentia with anteversion (?), perineum lacerated to sphincter; wore Gehrung's pessary with ease and complete relief until she became pregnant again. Pessary removed in the second month of pregnancy.

Case XVII.—Mrs. Pr., æt. 48 years, last child 21 years. Procidentia with retroflexion; caused by a fall; hyperplastic cervix. Gehrung's pessary worn with benefit until lost sight of.

Case XVIII.—Mrs. Edw. Sch., German; 24 years; married 18 months; one child 4 months old; labor hard; ill since birth of child; perineum ruptured through sphincter; rectocele, cystocele, procidentia and anteflexion. Under observation 6 months with pessary until pregnant again.

Case XIX.—Mrs. Capt. R., multipara; æt. 35 years; two labors instrumental; partly lacerated perineum, hyperplastic cervix; incomplete procidentia; retroflexion; wearing G.'s pessary with great relief preparatory to intended perineorrhaphy.

Case XX.—Mrs. J. H. H., multipara, 35 years old; incomplete procidentia with large glandular (hollow) polypus protruding from the os. Uterus anteverted. Polypus removed by écrasement. Uterus reposited and secured by G.'s pessary, which she is still wearing with comfort.

Case XXI.—Mrs. Mary G., 40 years old; 7 children; last labor unassisted on account of rapidity of labor; lacerated perineum through the sphincter. Procidentia with retroversion. A few months later perineorrhaphy was successfully performed. The uterus was kept replaced, became anteverted to a pathological ex-

tent, remaining hyperplastic, which necessitated the use of G.'s anteversion pessary for two or three months and then removed for good.

CASE XXII.—Mrs. R. McC., 26 years old; multipara; last child 16 months old; labor normal. Procidentia caused by early getting up (on the second day). Incomplete procidentia. Uterus anteflexed; cervical hyperplasia. Benefited by G.'s pessary for 3–4 months, until lost out of sight. Yours truly,

L. CH. BOISLINIÈRE.

Had the preceding cases all transpired in the hands of one observer only, their number would prove little or nothing; being, as they are, collected from various sources and by disinterested observers, and, being based upon preliminary experience of innumerable cases of the different initial stages of procidentia proper, such as prolapse in the first degree, cystocele with or without versions or flexions; they go far to show that the good results obtained are not accidental but real.

The advantage of this pessary in cystocele uncomplicated by procidentia is proved beyond peradventure by the testimony of such trustworthy and able gynecologists as Dr. P. F. Mundé, Dr. W. T. Lusk, and others of New York, not to mention the evidence furnished by the many able observers of this city and elsewhere, nor my own experience extending over many years.

That the pessary *may* have to be worn for lifetime is certainly a great drawback, but, especially if the patient learns how to insert it herself, not as great an inconvenience as the wearing of false teeth, spectacles, artificial ear-drum or artificial limbs, and a much lesser one than the frequently necessary use of the pessary despite the operations for procidentia.

With it the patient is at once able to go about her business without pain, risk, or danger. The not inconsiderable percentage of deaths after the surgical operations for the cure or relief of procidentia would be avoided by the use of this instrument.

It is successfully applicable in almost all cases of reducible procidentia, where surgical procedures are admissible, and in some where they are not.

It can be applied by almost every physician and without lengthy preparations. Thereby time and expensive travels to experienced operators may be saved. Chronic cases of many years' duration would seldom be met in the future.

The early months of gestation are no counter-indication to this treatment. Should pregnancy occur during the use of the pessary, it should be retained until about the fourth month, as in cases XVI. and XVIII. No apprehension need be entertained that a dearly bought result will be destroyed again by the approaching labor, as after surgical treatment. Parturition being over, the pessary must be re-applied at the first indication of a return of the displacement.

It may be urged as an objection against the use of the pessary, that the patient has to remain under observation and is at first obliged to make frequent calls. This objection will, however, fall to the ground if it is remembered that almost all these cases are complicated with some pathological conditions. While attending to these, the pessary may receive all the necessary care gratuitously.

The foregoing cases are all that I was able to collect. They are reported without addition or deduction. It seems to me that they can well bear comparison with any similar series of cases treated by surgical means or any other procedure. It must be left to the judgment of the profession and future observations to decide between the knife and the pessary.