

ON THE USE OF PESSARIES.

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AMONG the whole catalogue of the diseases peculiar to women there are none supposed to be so prevalent as falling and displacements generally of the womb, and there are none of so little real importance as these. In fact it may almost be said that no such diseases exist, this condition being usually, in the vast majority of cases, only a symptom of some other affection. Still, in the same manner as we hear physicians, of more or less erudition, talking of patients sick with dropsy, and giving burial-certificates for death by dropsy, we hear the same class of physicians having patients with falling of the womb, and inventing instruments and more or less barbarous machines of torture for the cure of falling of the womb and other displacements.

Now I will not positively assert that there is no such thing as simple falling of the womb, but it is no more frequent, I believe, than idiopathic dropsy; so rare, indeed, that I cannot remember having seen it of late years, and I doubt if the cases which I formerly supposed to be such, would stand an examination in the light of the present knowledge upon the subject.

If, then, what has been called prolapsus uteri—to consider this alone—is but a symptom of some other disease, it is manifestly absurd to direct curative measures to the symptom, although palliative measures might be admissible, and therefore it follows, that the treatment of falling of the womb, prolapsus uteri, procidentia uteri, *chute de l'uterus* by pessaries, unless used as palliative applications, is necessarily absurd, illogical in idea, necessarily unproductive of good; and, as a *non sequitur*, is productive of injury, and savors too much of charlatanry and a desire to transfer the contents of the pockets of the patient into those of the physician.

To commence this subject afresh. Falling of the womb, in its various forms and varieties, which it is not necessary in this paper to enumerate, is the displacement of the womb downwards, to a greater or less extent. It is a symptom of some other disturbance,

upon which it depends. It has formerly been considered to be caused not unfrequently by a relaxation and consequent elongation of the ligaments which normally act as stays and braces to it. In the great majority of cases, however, where many of the symptoms of falling of the womb are present, this organ has not changed its position sufficiently to make any great traction upon the ligaments, and although the womb has settled somewhat, the ligaments are not materially lengthened, even if their direction is changed and their angle with the uterus is made more oblique. This evinces that the uterus is held in position by some other, at least additional means, and this we find to be the vagina, in its turn supported by the perineum. A destruction or relaxation of one or both of these portions removes the base upon which the uterus rests.

It may also be mentioned, *en passant*, that the symptoms of weight and dragging in the groins are sometimes found where there is no observable displacement of the organ, and again these symptoms are entirely wanting where the uterus has descended so as to be actually observable when the patient is standing erect, evidently showing that the symptoms are erroneously ascribed to the existence of displacement.

We are therefore compelled to look for some other cause both for the displacement which exists and for the painful symptoms that accompany it; and this we find in the condition of the uterus itself. Bennet first alluded to the fact of the hypertrophic condition of the neck of the uterus as the cause, erroneously ascribing to this condition the displacement in every instance, overlooking the cases of general hypertrophy of the entire organ which are often the cause. We find it also not unfrequently in the early months of pregnancy. In fact it almost always exists normally, until the uterus is so large that it can rest upon the pubis and the ischia, but owing to the fact of the absence of any disease there is no disturbance caused thereby, and this fact is worthy of notice, as it shows that the symptom of prolapsus is unimportant, and that it is the ulceration, inflammation, or the attending and causative disease which is the source of irritation and the creator of the local and general disturbance.

It follows, therefore, without any argument to the regular professional man, that the treatment shall be directed to the cause, and if owing to the increased weight of the entire organ, or of the neck only, the aim should be to restore it to its normal condition, and according to the cause, in individual cases, should the treatment be directed. If there be thickening from chronic inflammation, intra

or extra-uterine, this should be cured and removed; if from the weight of adventitious growths, they should be removed; if from an elephantiac condition of the cervix, it should be removed (see case of amputation of the cervix uteri by myself, weighing over four ounces and a quarter, in the Bulletin of the New York Academy of Medicine for 1862). Amputation of the entire cervix is of rare necessity, but the removal of considerable portions, as the anterior or the posterior lip, although rarely done, should be a quite common operation. I am convinced by my own knowledge that it is far better to cut off a hypertrophied portion than to attempt to melt it down by strong caustics; not only is time saved, but suffering.

In many cases the tissue has become exceedingly dense, cartilaginous almost in its character, and creaking under the knife, and would only be eaten away by the acid-nitrate of mercury or caustic potash, with great sacrifice of time and suffering. We should not hesitate to cut off such portions with the knife or scissors, with little fear of any ill result. Sometimes gores may be cut out and the cut edges united by silver suture; after all amputations, the edges of mucous membrane should be drawn together and united by the silver suture.

If there should be only a general enlargement of the uterus, as is frequently seen after a sudden arrest of the menstrual flow, causing congestion, increase in weight, and a temporary falling, the appropriate treatment is evidently to be directed to removing the cause and not to the results.

It follows therefore that as a necessary consequence, the treatment of falling of the womb by the use of pessaries of any kind (except "medicated pessaries," which are falsely thus styled, and which being intended not to act mechanically but to melt and thus locally to apply medicaments, should be classed with ointments and lotions) is theoretically improper, and cannot be relied upon to effect a cure.

But may they not be employed as adjuvants, not to cure the grand cause, but while this is attended to by appropriate means, may not pessaries, skilfully constructed and judiciously applied, be resorted to, to relieve the distress of certain symptoms? Let us allow, merely for the sake of meeting the question properly, that where there is a strain upon the ligaments, accompanied by dragging sensations in the back and groins, with irritation of either bladder or rectum, or both, from the pressure of the decumbent organ, that relief may be obtained by the use of anything which shall hold up this organ, whether the temporary use of the finger,

or the more permanent application of a pessary. Are we justified in using these applications as palliatives and adjuvants?

If any one is in acute pain from any cause, we are justified in temporarily relieving it, by opium or chloroform, provided his condition is not seriously aggravated by the use of the opiate or anæsthetic. But, if the opiate produces convulsions, and the chloroform is followed by persistent faintings and long-continued cephalalgia, we may properly first count the cost of the proposed relief.

What then is the injury derivable from pessaries? If any, is it the usual result, or exceptional?

We will not for a moment allow that they are anything more than palliative, not even by accident curative agents. Falling of the womb is often extremely temporary. Any woman subject to ill turns, lassitude, and general debility, will tell you that not unfrequently upon these occasions she is sensible of a falling of the womb, and this is unquestionably caused by a simple want of tone in the vagina. This organ loses its tonic contractility somewhat analogously to the changes incident to the scrotum of the male, which is tense or relaxed, as the general system is vigorous or enervated. Surely, in such temporary inertia of the vagina, the physician, who finding a debilitated patient with a temporary prolapsus uteri, and who should say that this displacement was the *fons et origo* of all the parts, and who, instead of a proper system of tonics, &c., should treat the symptom by a pessary, intended either as a curative or a palliative, would greatly err. When we note the irritation, both local and nervous, excited by a simple mucous polypus, a condyloma, a little fibrous body projecting into the vagina, we cannot but be prepared to find like irritation and greatly intensified, from the presence of any hard body, inserted within the vagina and of necessity pressing upon some portion of its parietes. And we do find it so universally. Some women, indeed, have so little nervous sensibility that they receive trifling irritation therefrom, but there is in all more or less local abrasion, irritation, or ulceration. One case is peculiarly before my mind, where a lady, formerly under my care in a neighboring town, being unwell from the invasion of a chronic disease of the liver, her attending physician noticed this temporary relaxation of the vagina with its attendant slight prolapsus, and inserted a pessary, which remained some week or so, and he then for some reason removed it, and, as he stated at a subsequent coroner's inquest, that he

examined her carefully with the speculum, and that there was no disease of the organs observable; yet at the post-mortem examination, made shortly after, there was extensive ulceration of the vagina in the position which this pessary occupied. I think it indisputable that a pessary allowed to remain for a very short period will invariably produce irritation, and if continued longer, will produce almost as certainly, ulceration. I have removed many pessaries that have produced ulceration; one in particular, hollow and of silver gilt, was completely honeycombed by corrosion, its interior filled with exuviae of the most horrible offensiveness, the vagina ulcerated through into the bladder, producing a vesico-vaginal fistula, and into the rectum, producing a recto-vaginal fistula; the vagina in some portion obliterated by adhesive inflammation and numerous fistulae made through the labia and around the mons veneris for the exit of the various discharges.

But we will suppose that inflammation and ulceration may occur in a less formidable degree (and the case just quoted is allowedly an unusual result of the use of a pessary for too long a period and without proper care), and we will, for the sake of argument, allow that it is often of little importance, as it may be cured easily after the removal of the pessary when its desired end has been attained. What is then the result?

The more lax the vagina the larger will necessarily be the pessary, and the instrument in any case will necessarily impinge somewhat upon the hard tissues. In aggravated forms, with great uterine hypertrophy, whether of the body or the neck, no pessary, unless fastened externally, will remain within the vagina, but will be forced out.

In any case where the pessary remains for any period, the pressure of the cervix upon the pessary is invariably followed by more or less irritation, inflammation or ulceration, often to such an extent as to entirely neutralize the good desired from keeping the uterus *in situ*.

There is always more or less irritation, inflammation, and ulceration of the vagina pressed upon by the pessary, accompanied by more or less of an exhausting leucorrhœa productive of both physical and nervous debility.

After wearing through a period of irritation, the vagina in some instances, and under favorable auspices, becomes callous, and the pessary may remain innocuous, although the cases are far more numerous where the other extreme is attained, where the instru-

ment is unbearable, and where the integrity both of the bladder and rectum is materially compromised.

But, if borne, what is the result? If there is no irritation produced by the instrument, it in the first place is quite evident that no pessary was necessary for so tonic a condition of things, and secondly, when it is removed there is left a *hole* made by the pessary around which the vagina has firmly contracted, and into which, as soon as the pessary is removed, the then unsupported uterus must inevitably fall; and thus, admitting that the relief derived from the instrument has been temporarily obtained and without other injury, the local condition of the patient is now worse than it was originally. The horseshoe pessary makes two very marked holes, hardened from the deposit of fibrin around (and these often ulcerated and discharging pus, while the vagina around in its irritated condition secretes an immense leucorrhoeal discharge) where the ends of the instrument press.

Thus it appears to me that vaginal pessaries, having for their aim either the cure or the temporary relief of symptoms attending prolapsus uteri, are not only useless but actually injurious, and that we should seek to cure by removing the causes, by general tonic treatment, by raising up the superincumbent intestines, and thus in some degree relieving the downward pressure, and by such other methods, some of which have been alluded to, as may be found necessary.

There are, however, a class of cases of an entirely different nature, where the uterus is not prolapsed, and indeed where not unfrequently the os and a large part of the cervix has not changed its position. These cases, called ante, retro and lateral flexions and versions, are acute and chronic, and for their relief an instrument has been devised, which has improperly been called a stem pessary, inasmuch as it is an instrument of an entirely different principle and mode of action from the ordinary pessary. Were our works written, and our nomenclature in the Latin tongue, the instrument would properly be styled, not pessary, but *pessimus*; for it is the *worst* instrument of all, and yet, although so often injurious, and to a very serious degree, it is, in my opinion, an instrument in very occasional cases of justifiable employ and of actual use, yet never without very considerable accompanying danger. So rare, indeed, are the cases where its services are demanded that I have not in six years seen one case calling for it. Still, I allow its occa-

sional utility (especially where absorption of a stricture or uterine stimulation is desired, when the galvanic self-retaining stem is often of service). It is properly a uterine *splint*. Its purpose is to forcibly hold the uterus in a certain position, while certain lesions are healing. But it is only in acute cases where any benefit can be derived from it, and these are very exceptional in their number and character. A woman has had a fall which has dislocated the uterus. It is generally "verted" either anteriorly, posteriorly, or laterally, or it is partially flexed toward any direction. If this was immediately seen by a competent physician, by the aid of manipulation, often assisted by the uterine sound, the organ could speedily be restored to its normal position. But for some reason it is not, and after some days or weeks' delay, the sufferer comes under the auspices of one who understands the case, or submits to the examination requisite, and then for the first time an attempt is made to restore the organ to its proper situation. The uterus is easily replaced, but immediately upon the withdrawal of the sound, returns to the position to which it has been accustomed during the few previous weeks, on account of the relations it has there made. The introduction of the stem pessary and its presence there for a longer or shorter period will suffice to overcome these new and transitory predilections, and upon its removal finally, the cure is found to be effected and the abnormal tendency is overcome.

But there are other cases of a chronic and less propitious character; where the symptoms of disease are of long standing, and where the displacement is of considerable duration. In some of these cases the original trouble has been from a dislocation of the organ originally, such as we have just described, which has become aggravated by neglect; the uterus has been doubled upon itself and there has been absorption of the tissue at the angle of flexion, the destruction of the tissue being the direct consequence of the flexion and the pressure.

In others the flexure is the result of disease in the tissue itself, a fatty degeneration which destroys its vitality, vigor, and power (and this is noted in "Scanzoni's Diseases of Females," R. M. De Witt, N. Y.). The consequence is a giving way of the wall at some point and subsequent absorption of the parts pressed upon, and the case as seen in the latter stage differs but little from that previously described, but one is the effect and the other the cause.

In these cases whatever we may know of cure, we certainly do know something of arrests. After the absorption has taken place,

we cannot repair the evils effected; nor can we, other than by tonic treatment, do ought to arrest the fatty degeneration and its accompanying displacement. But we can restore the uterus to its normal position when displaced by any accident, and if it will not remain, the stem-pessary will effectually retain it there, although always with no little danger, often with very little good. I have now a lady under my care, twelve years married and childless. Last fall she put herself under my charge, and I found a retroversion, of how long standing I cannot say, probably of years. I replaced the uterus with the sound several times, and it returned again, but at longer intervals. She finally became pregnant, and has since borne a living child at full time.

The objection to the use of the stem-pessary is the irritation it excites. Its use is the choice between two evils. It sometimes produces intra-uterine metritis, and that is sometimes followed by metritis and general peritonitis; this is more often the case where the patients have not been previously accustomed to the use of the sound. The portion upon which the vaginal extremity of the cervix rests is abraded, and ulcerated; leucorrhœa abounds. These must be expected, and borne for the greater permanent good hoped for, in exchange for this temporary condition.

Before the stem is permanently left within the uterus, a sound should be passed into this organ every day for a week or more, and allowed to remain for a gradually increasing period. The ulcerations, invariably to a greater or less extent caused by the presence of this irritating instrument (evidenced by the secretion of pus-globules in greater or less numbers), are readily cured, and when weighed in comparison with the very serious disturbances which are the result of this displacement, are comparatively unimportant, provided that the desired relief is thereby obtained.

It should be especially remembered that the only stem-pessary which I would on any condition ever allow to be used, is that which is fastened externally, and has no *point d'appui* upon the internal soft parts. When the stem is attached to any form of the ordinary pessaries there is, in addition to the pessary irritation of the uterus, the difficulty that they are less stable and do not retain the uterus in the desired position, and, what is of more serious importance, they produce great and unnecessary disturbance, as already spoken of respecting pessaries proper, in the vaginal tissues.

But the stem-pessary in any form is rarely required. It is only to be thought of after the failure to restore the organ by the re-

peated use of the sound to its normal position, and generally in acute cases. If the uterus fails to come up to its proper position by the gentle movement of the sound, the pessary, by continued pressure, will not bring it to its place, although it may produce inflammation and ulceration. If the organ is brought up and speedily relapses to its position, either there is absorption of the tissue on the one side or a contraction of the tissue, or the organ be bound down by the adhesion from contiguity without inflammation, or product of adhesive inflammation, viz., strong bands attached to the parietes of the pelvis or some of the adjoining organs. I have seen these bands running from the fundus uteri to the ovaries, the pubis, the sacrum, and the rim of the pelvis, sometimes to the rectum, and no force, with a sound or otherwise, could sever them which would not be as likely to rupture the tissue of the organ itself. All that can be effectually done in these cases is to recognize the fact of the incurable condition of things, and endeavor to render the ills and disturbances arising therefrom as little unpleasant as possible.

It is not a fair argument against a valuable instrument that it is often improperly used, but it certainly is admissible in regard to an instrument considered to be more than useless, even injurious in every case, to show that in the hands of even the most skilful men mistakes are made, and this irritating pessary employed when no possible use could be obtained, either temporary or permanent, from it. Thus, I saw a patient in Brooklyn in consultation some two years since, under the care of one of the most eminent gynecologists in the most medical city of this continent, who had worn a horseshoe pessary for a long period, not having walked for several months, and had been upon her back for many weeks for a retroversion of the uterus. This was discovered to be caused by a fibrous body an inch in length projecting posteriorly at right angles with the cervix, and starting near its junction with the body. The pessary but aggravated the difficulty. The tumor was felt only by a rectal examination, and on that account it was probable that it was overlooked. Less marked instances of a similar nature might be given were it deemed necessary.

The slight value actually derived from the use of the pessary in any form is deducible from their number. Every gynecologist claims that great benefit is to be derived from the use of this mechanical appliance, but each states that it is only from his own

peculiar instrument that the benefit is to be obtained; every other pessary is valueless or injurious. Thus we actually have the whole profession condemning every instrument save the one which the self-esteem of the individual blindly indorses. (Since the paper has been in press I have been requested by several of the most eminent gynecologists of the land not to insert the representations of pessaries invented by them, as they were utterly useless.) Need we attempt to furnish a better argument of the general worthlessness of pessaries?

Appended to this paper we give the drawings of 125 different forms. They have been made for centuries and in every form. I quote here a description of those in use over a hundred years ago. It will be seen that, whether simple or complicated, the same objections are made to them.¹ The native ingenuity of this country is as

¹ Dr. Daniel Turner (Art of Surgery, London, 5th edition, 1736, Vol. II. p. 395 to 424) gives a full description of the pessaries, called pessus, of his and previous days. He says: "Some of the old Writers recommend the *Pessus* to be introduced into the Cavity of the Womb itself; thus *Quentzius*, in his Epistle to *Ambrose Parey*, speaks of a Woman he knew that carried one of them in her Womb for eight or ten Years, as also another, in like manner without hindrance of Conception. *Roussel* mentions a third who used the same *Pessary* in the inside of her *Uterus* for forty Years; unless at the Time of her Labor, when it came forth of itself; and after her Cleansing, it was put up again."—*Dr. Partu Cæzar*, Sect. 6, Cap. 5, 6, xxx.

Again, a poor girl "used constantly twice a Day to put up a Piece of Flannel of the Thickness, though not the full Length of a Finger, rolled hard up, in the place of a *Pessarium*, or, as it is named for Virgins, a *Nascalium*, first dipped and wrung out hot" from an astringent infusion.

The pessaries were generally made "of different lengths and compass, covered over with Cotton and faced with red Sattin, which was drawn forth by the String upon occasion of making water, and again introduced," the pessary being frequently dipped afresh in the hot fomentation.

The *Pessus* has frequently cork circles covered with silk or satin, and these frequently remained several months.

"Instead of the *Cork Pessus*, an ancient Practitioner in the Art of Midwifery told me he had contrived two Pieces of small Whalebone, each about three Inches, and crossing them in the Middle at the top; after he had covered them with a piece of Sarsnet, and fastened them by a Needleful of Silk, he bent them into a double Semi-circle, and then introduced it as high as he could reach against the *Cervix Uteri*, which, by the Springyness of the Whalebone bearing against the side of the *Vagina*, was there supported and retained, there being no occasion (as in the *Pessary*) to extract the same for making Water, neither yet for Bandage to keep it in; the chief care being to secure the Ends of the whalebone by a little Cotton wrapt in the Silk Covering, at each Extremity, that they may not hurt in their Bearings against the Sheath."

"Mr. Edward Chapman, Surgeon, who has lately published an Essay on the Improvement of Midwifery, once told me of an Accident that had befallen one of his

perceptible in this as in any other branch of human industry. The numerous specimens which we have obtained are mainly through the kind offices of Mr. Stohlman, junior partner of Tiemann & Co., the celebrated New York surgical instrument makers, and we presume that there are yet many others which have not yet been generally known. These delineations will serve to show the believer in the pessary what has been done, and may serve to prevent the waste of thought and time of some one striving to re-invent an instrument which, being practically valueless, has now fallen into disuse, or to convince one that if, among so numerous a collection—embracing the simple and the complex, and made of every material—none answer the desired purpose, that probably nothing of the sort will, and therefore, it is to be hoped, may direct his attention to more probable methods of cure.

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Women, from the wearing of a Ring, which was that of the *Os Tincæ* and *Cervix Uteri* slipping therein, and where it was so collared that a Mortification, from a Fluxion of Humour thereon, had ensued, if he had not, by the Help of his Fingers after the use of an *Emollient* Fetus, disengaged the same, which Misfortune might arise in all Likelihood from the over-large Perforation in the *Circulus*, admitting the *Cervix*, when, after turning *Edgeways*, both Pain and Inflammation might ensue thereon."

LIST OF PESSARIES EXHIBITED IN THE ACCOMPANYING ILLUSTRATIONS.

- 1, 2, 3, 4, 5. Mauriceau's pessaries.
- 6, 7. Deventer's.
8. Simpson's elastic.
9. Hunold's elastic.
10. Goellicke's elastic.
- 11a. Saviard's pessary.
- 11b. Saviard's, cushioned to receive the uterus.
12. Hunold's.
- 13a. Recamier's movable.
- 13b. Modified by Gerdy.
14. Smellie's.
15. Levret's ovoid, of cork.
16. Stark's disk.
17. Stark's rings.
18. Juville's Salt-cellar shaped.
19. Zeller's bent.
20. Steidele's elastic.
21. Juville's cylinder.
22. Zeller's curved.
23. Steidele's.
24. Juville's elastic.
25. Suret's movable.
26. Weir's.
27. Simpson's.
28. Zaengerle's.
29. Wiegand's ring.
30. Pickel's double.
31. Gaviel's, inflated with air.
32. Caoutchouc.
33. Caoutchouc, oval.
34. Zaengerle's cylinder.
- 35, 36, 37, 38, 39, 40, 43. By Bruennig-hausen.
41. Acrel's elastic.
42. Camper's.
44. Acorn-shaped.
45. Oslander's oval.
46. With descending stem.
47. Hull-Annan abdominal supporter.
48. Charriere's supporter.
49. Kilian's uterine supporter.
50. Moureman's supporter.
51. Knippfoph's supporter: *b*, intra-vaginal portion.
52. Kilian's vaginal brace.
53. Romero y Linares' pessary.
54. Scultetus' ring pessary.
55. Mesnard's pessary.
56. Heller's uterine supporter: *a*, vaginal wire stem supporter, before introduction; *b*, after being placed *in situ*; *c*, abdominal pad.
57. Roser-Scanzoni's supporter.
58. Kiwisch's supporter.
59. Berliner's pessary: *a*, closed for insertion; *b*, open.
60. Zwank's pessary: *a*, closed; *b*, open.
61. Zwank's, modified by Schilling.
62. Elastic of Bourgeaud.
63. Schilling's, closed for insertion.
64. Schilling's, open.
65. Schilling's, with side springs.
66. Schilling's, with side springs.
67. Schilling's modification.
68. Eulenberg's open, in position.
69. Dr. Skinner's instrument for prolapsus, and with stem for intra-uterine application: *a*, hard rubber stem, to be first inserted with a projecting wire, *b*, over which the main pessary, *c*, is slid.
70. Simpson's pessary.
71. Dr. Thomas's design for prolapsus, ante or retroversions: *a*, as before introduction, the flat portion intended to run up before or behind the vaginal cervix, to restore it to its normal position; *b*, as *in situ*, with its movable flanges outspread, to impinge on the vaginal walls.
72. Noeggerath's stem pessary, with elastic fastening.
73. Plantation pessary, composed of cotton fibre, sewed together in any desired form.
74. Meigs's double ring pessary, of gutta-percha.
75. Newell's, of hard rubber, the long extremity of which is intended to pass out of the vagina, and,

- by resting on the vicinity of the urethra, to support the instrument in its desired position.
76. Kissam's ivory ring pessary before introduction, intended to be held *in situ* by a stem passing out of the vagina, and secured by a band passing round the body above the pubis: *a*, the transverse position of the ring after introduction.
 77. Scanzoni's, fastened externally with an arrangement permitting the lateral motions of the body.
 78. Merriam's glass pessary (patented), to be fastened externally.
 79. Vail's boxwood, cup-shaped, with elastic centre, and elastic cushion for labia.
 80. O'Leary's hard rubber cup, with a screw to regulate its length, resting on a plate secured externally.
 81. Globular, silver gilt, of a similar construction.
 82. Taft's ball and socket (patented).
 83. Of gutta-percha.
 84. Banning's, of hard rubber.
 85. Physick's silver gilt globe pessary, improved by Tiemann & Co.
 86. Elmer's silver gilt.
 87. Blumenthal's gilt, steel springs.
 88. Dixon's silver gilt, egg-shaped.
 89. Meigs's gutta-percha ring.
 90. Schaffer's spiral spring.
 91. Davis's, of hard rubber; the rings across it can be removed or added, as length is desired: *a*, represents the instrument as introduced; *b*, as *in situ*.
 92. Hard rubber, cup-shaped.
 93. Lalanne's spiral spring, inflating.
 94. Sims' pure, flexible Britannia pessary, capable of being bent in any desired form.
 95. Hodge's horseshoe, of gutta-percha.
 96. Tiemann & Co.'s improved double ss, of hard rubber.
 97. Reising's self-holding, for retroflexions. No. 1 represents the instrument prepared for introduction; No. 2, after being inserted, the pad *a* pressing against the vaginal cervix, the plate *b* upon the pubis, screwed firm by the key 3.
 98. Emmet & Sims' rings of pure Britannia or tin, covered with gutta-percha, which can be bent into any shape.
 99. Of sponge, fastened to a wire and supported externally.
 100. Galvanic, with a copper globe to rest in the vagina and a zinc plate over the pubis.
 101. Gescheidt's inflating, gum-elastic.
 102. Silver expanding pessary of Dr. ———, of Montgomery, Alabama.
 103. Lalanne's hard rubber, with gilt springs.
 104. Valleix's original stem pessary before and after introduction.
 105. Simpson's stem pessary, with spring below the ball admitting motion added by Tiemann & Co.
 106. Wright's silver gilt.
 107. Tiemann & Co.'s: *a*, before introduction; *b*, placed *in situ* by means of a screw in the shank, fastened by a fillet around the abdomen.
 108. Rochester's Valleix's improved.
 109. Peaslee's intra-uterine, self-retaining.
 110. Simpson's galvanic (copper and zinc), self-retaining. Some have the different metals at the extremities of the stem, and others the metals run the whole length of the stem.
 111. Hitchcock's hard rubber.
 112. Small silver, self-retaining intra-uterine; by turning a screw the end is opened within the uterus.
 113. Miller's intra-uterine: *a*, of hard rubber; *b*, of lead.
 114. Sims' intra-uterine: *a*, before introduction; *b*, as *in situ*.
 115. Budd's intra-uterine: *a*, as before introduction by means of a holder; *b*, in position.
 116. Elliott's intra-uterine, with movable stem.

117. Conant's stem and ring pessary: *a*, as introduced; *b*, when expanded; *c*, lateral view.
118. Peaslee's intra-uterine, gutta-percha. The stem for introduction is to be removed.
119. Simpson's intra-uterine, of coin silver, represented as introduced, the stem taking a perpendicular position when *in situ*.
120. Edward's stem: *a*, before introduction; *b*, when in position.
121. Perkins' intra-uterine: *a*, in two portions, the stem part inserted, and the ring, then passed into position, is fixed as in *b*.
122. Instruments made of flexible wire, and also of hard rubber, fastened externally: *a*, for anteversion; *b*, for retroversion; *c*, for prolapsus.
123. Dr. Hull's intra-uterine stem pessary, entirely of hard rubber: *a*, representing stem before introduction.



































