Oct. 19, 1943. L. I. WEINER 2,332,283

INSTRUMENT FOR INSERTING PESSARIES

Filed Jan. 10, 1942

Fig. 3.

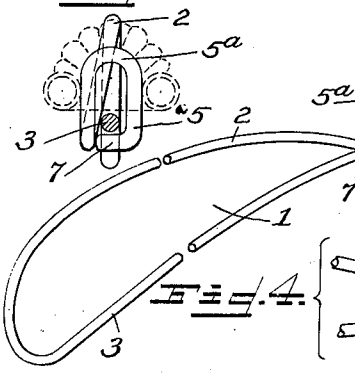


Fig. 1.

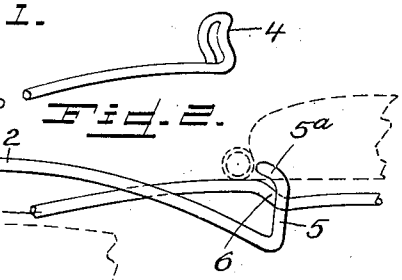
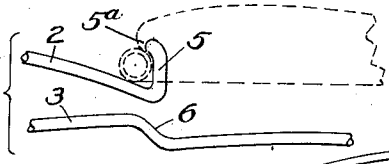


Fig. 2.

Fig. 4.



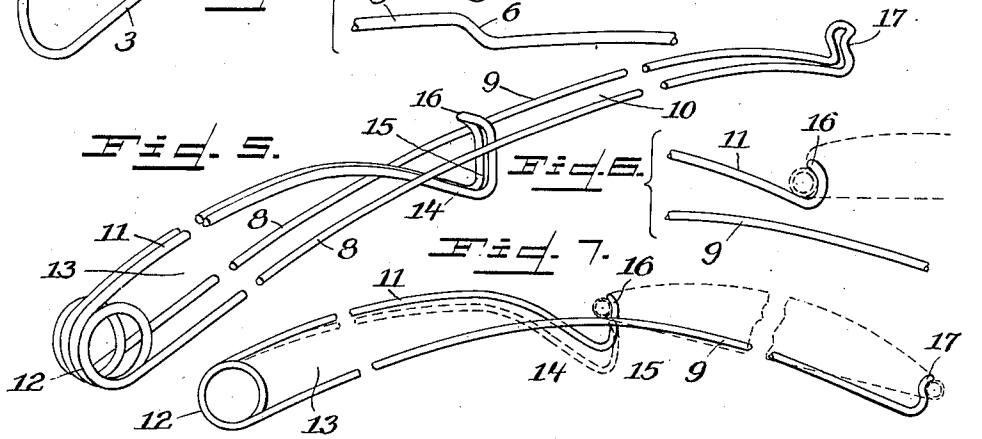


Fig. 5.

Fig. 6.

Fig. 7.

Fig. 8.

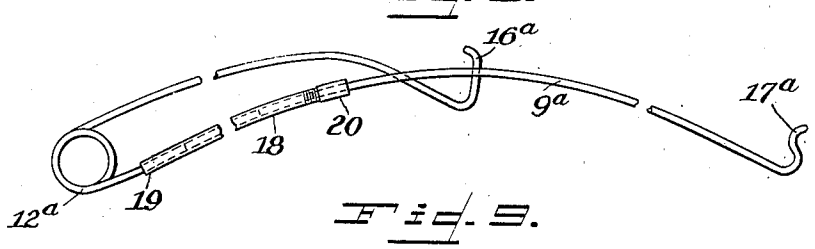
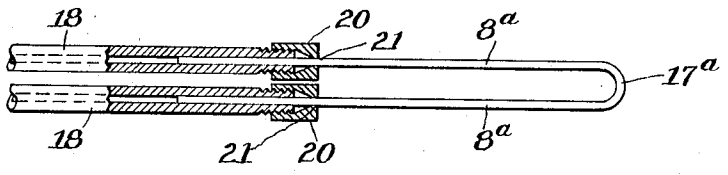


Fig. 9.



INVENTOR
Louis I. Weiner
BY
Walter H. Greenfelder
ATTORNEY

Patented Oct. 19, 1943 2,332,283

UNITED STATES PATENT OFFICE

2,332,283

INSTRUMENT FOR INSERTING PESSARIES

Louis I. Weiner, New York, N. Y.

Application January 10, 1942, Serial No. 426,278

10 Claims. (Cl. 128—127)

The invention relates to an instrument for inserting a pessary in the vaginal canal and as herein embodied, is specifically adapted for use with pessaries of the so-called diaphragm type.

The instrument, in its simplest form for individual use, is designed for pessaries of one size or diameter only and in its more elaborate form for the use of physicians, is readily adjustable for any of the various sizes in common use.

An important feature of the invention consists in actually or in effect, forming the entire instrument of a continuous piece of material, preferably round spring wire, free of sharp bends or angles which would cause discomfort and prove objectionable in the use of the instrument and likewise free of inaccessible surfaces where foreign matter could deposit and accumulate to render the instrument unsanitary and dangerous to use.

A second feature of the invention consists in giving the instrument a body shape such as to make the two ends thereof available for use as the cooperating engaging members by which the pessary is held in stretched or distended form required to facilitate insertion. This feature simplifies the construction by avoiding the necessity of providing a pessary engaging member at an intermediate point to cooperate with an end member, as is commonly done in the art.

A third feature of the invention consists in a simple, effective and conveniently operated form of release for the pessary after it is inserted, it being only necessary to slightly compress the outer body portion of the instrument by light hand pressure, to free the pessary which thereupon, through the action of its flexible resilient rim, becomes self-distending within the vaginal canal, effectively closing the same as required.

Other features of the invention, in addition to those mentioned above, will be brought to attention in the detail description which follows:

The accompanying drawing will serve to illustrate the construction of several forms of the instrument suitable for carrying the invention into effect but I do not wish to be understood as intending to limit myself to the exact details shown as various changes may be made therein within the meaning of the invention as outlined in the appended claims.

In the drawing—

Fig. 1 is a perspective view of a simple form of the instrument designed for use with pessaries of one size or diameter only and made of a single wire loop, with the ends thereof relatively spaced apart and shaped to serve as cooperating pessary engaging members.

Fig. 2 is a detail view showing the outer or rear engaging member partly depressed and about to release the pessary.

Fig. 3 is a cross sectional view on the line s^3, s^3, of Fig. 1, showing the outer or rear engaging member in normal position or before it is depressed, to release the pessary, the end portion of which is indicated in dotted lines.

Fig. 4 illustrates a slight modification in the normal relation of the outer or rear pessary engaging member to the body of the instrument.

Fig. 5 is a perspective view of a double wire form of the instrument of somewhat modified construction.

Fig. 6 is a view similar to Fig. 4, illustrating a slight modification in the normal relation of the parts shown in Fig. 5.

Fig. 7 is a view in side elevation, showing in dotted lines the pessary held by the instrument and also showing in dotted lines the rear pessary engaging member depressed to release the pessary.

Fig. 8 is a similar view showing telescoping connections in the double wire body for adjusting the forward pessary engaging member as required to accommodate any of the various sizes of pessaries now in common use and

Fig. 9 is a detail sectional view of the telescoping adjustment.

Referring now to the drawing, the entire instrument shown in Figs. 1 to 4, inclusive, is preferably formed of a single length of round spring wire, doubled upon itself, at a point somewhat removed from the center thereof, to form a loop 1, the longer side of which is given the usual curvature found in instruments of this class.

As previously pointed out, an important feature of the invention consists in utilizing the ends of the wire body as cooperating engaging members for holding a pessary stretched or distended between them and in forming the loop as above described, one side 2 thereof is shorter than the other side 3, to provide the required space between the ends, which is somewhat in excess of the normal diameter of the pessary the instrument is designed to hold.

The forward end 4 is preferably doubled upon itself and bent into an approximate S-shape, which serves both to hold the pessary for insertion and as an engaging hook to withdraw it.

The outer or rear end 5, is similarly doubled upon itself and bent into a vertically disposed inverted U-shape, to normally straddle the longer

side 3 of the loop, as shown in Fig. 1, or, if preferred, it may be normally positioned above but in line with the same, as in Fig. 4, to be brought into straddling relation when depressed to release the pessary, by hand pressure upon the shorter side 2 of the loop.

The upper portion of the inverted U-shaped end is bent over, as indicated at 5a, to give it a pessary retaining form and when depressed, this bent over portion rides down an incline 6 or into a notch, if preferred, formed by a short bend in the longer side 3 of the loop, as best shown in Fig. 2, thereby disengaging itself from the pessary and freeing the latter for self distention within the vaginal cavity.

When the inverted U-shaped end 5 normally straddles the longer side of the loop, as in Fig. 1, accidental disengagement therefrom may be prevented by bending the extreme end 7 of the wire under the same, as shown in Fig. 3.

The entire instrument shown in Figs. 5 to 7, inclusive, is formed of a single length of wire, doubled upon itself, with the ends welded together or otherwise united, to form a continuous double strand body. The strands 8, 8 are spaced apart throughout a portion 9 of their length to provide an opening 10 between them and are closely associated throughout the remainder of their length, as indicated at 11.

A coil 12 is so formed in the double strand body, at a point somewhat removed from the center thereof, as to bring the body portion 11, in which the strands are closely associated, in centered alignment with the opening 10 between the spaced apart strands in body portion 9, as best shown in Fig. 5. Thus aligned, the body portion 11 may be depressed to cause the pessary engaging end thereof to pass partly or entirely through the opening 10, as may be required, to effect the release of the pessary and is utilized for this purpose, as hereinafter described.

Upon completion of the coil 12, the extending body portions 9 and 11 are bent into parallel relation, forming a loop 13, one side of which is longer than the other as a result of forming the coil off center, as above described.

The shorter side of the loop i. e., the body portion 11, is bent downwardly near its end to normally extend through the opening 10 in the body portion 9, as indicated at 14 and then upwardly at 15, to cause the extreme end 16 thereof to project through and above the opening, where it is shaped to serve as the outer or rear pessary engaging member. While the above described formation gives rise to certain advantages, it is not essential to the successful operation of the device that the end of the shorter side of the loop be normally extended through the opening 10, between the body wires 8, 8, and, if preferred, may be positioned above and in line with the opening, as shown in Fig. 6.

Cooperating with the member 16, there is a second pessary engaging member 17, formed at the extreme end of the longer side of the loop and as the two members are spaced apart in fixed relation, the instrument is limited, like the form shown in Figs. 1 to 4, for use with pessaries of one size or diameter only as required for individual use.

Assuming a pessary to be held by the instrument, as shown in Fig. 7, in which it is stretched or distended between the engaging members 16 and 17, its release is effected after insertion, by downward pressure of the hand upon the body portion 11, to move its terminal member 16 from the full line to the dotted line position shown in Fig. 7. As the member 16 moves downward in the opening 10, the pessary is prevented from following and being drawn into the opening by the spaced apart strands of the body portion 9 of the instrument upon which it comes to rest and as the member 16 continues downward, it disengages itself from the rim of the pessary, permitting it by self distension to free itself from the member 17 and expand and close the vaginal cavity. As the hand pressure is discontinued on the body portion 11 of the instrument, it springs back under the reaction of the coil 12, to its normal position, shown in full lines in Fig. 7.

The form of the instrument shown in Figs. 8 and 9, is designed for the use of physicians, in being readily and conveniently adjustable for any of the various sizes of pessaries now in common use and excepting the feature of adjustment, the construction is the same as that above described and shown in Figs. 5 to 7, inclusive.

To make the instrument adjustable to different size pessaries, it is only necessary to provide for varying the distance separating the pessary engaging members 16a and 17a and this is accomplished by incorporating a telescoping connection in each of the strands forming the body portion 9a. By means of these connections, the body portion 9a of the instrument may be lengthened or shortened to relatively space the members 16a and 17a apart as required by the size or diameter to be used.

Interposed within the length of the body portion 9a, tubular sections 18, 18 are secured as continuations of the body wires, being made fast thereto at the ends 19, adjacent the coil 12a and provided with chucks or equivalent means 20 at their open ends 21, in which the body wires 8a, 8a, carrying the forward pessary engaging member 17a, telescope and are clamped to hold the member as adjusted. As the chucks or other clamping means employed are of well known construction, as shown in Fig. 9, it will not be necessary to describe them in detail.

Having described my invention, I claim:

1. An instrument of the class described, comprising a body of suitable material in the form of a compressible loop terminating in end formations suitable for engaging the rim of a pessary, the sides of the loop being of unequal length to space the ends apart the required distance to hold a pessary distended between them, the release of the pessary thus held being effected by compressing the loop to give the pessary engaging end of the shorter side thereof cross movement relative to the longer side to strip the pessary from said engaging end and free the same.

2. An instrument as defined in claim 1, in which the entire formation is developed from a single length of resilient material.

3. An instrument as defined in claim 1, in which the entire formation is developed from a single length of resilient material and a coil is formed at the point where the material is doubled upon itself.

4. An instrument as defined in claim 1, in which the entire formation is developed from a continuous length of resilient material which is first doubled upon itself and the ends united to form a two-strand body and thereafter doubled upon itself to form the loop.

5. An instrument as defined in claim 1, in which the longer side of the double strand loop is formed of extensible telescoping sections and

provided with clamping means for securing the sections as extended.

6. An instrument of the class described, comprising a body of suitable material doubled upon itself to form a loop having sides of unequal length and spaced apart hook-like ends adapted to hold a pessary distended between them and means for releasing the pessary, the said means consisting in making the end portion of the shorter side of the loop depressible to move the pessary into engagement with the longer side thereof to check further movement of the pessary and further depressible to disengage itself from the pessary and free the latter for self-distension within the vaginal canal.

7. An instrument as defined in claim 6, in which the pessary engaging end of the shorter side of the loop is shaped to straddle the longer side thereof.

8. An instrument as defined in claim 6, in which the pessary engaging end of the shorter side of the loop is shaped to straddle and ride down an incline formed in the longer side thereof to disengage itself from the pessary.

9. An instrument of the class described, comprising a resilient body in the form of a loop terminating in hook-like ends, the sides of the loop being of unequal length to space the ends apart the required distance to hold a pessary distended between them, the said loop being compressible to give the engaging end of the shorter side thereof cross movement relative to the longer side to strip and release the pessary from the engaging end of the shorter side, the entire formation being developed from a continuous length of material which is first doubled upon itself and the ends united to form a two-strand body and thereafter again doubled upon itself to form the loop, said strands being spaced apart throughout that portion of their length that forms the longer side of the loop to provide an opening between them and associated in such close relation throughout the remaining portion of their length that forms the shorter side of the loop that when the loop is compressed to free the pessary, the pessary engaging end of the shorter side enters and is guided by the opening between the strands of the longer side of the loop.

10. An instrument of the class described, comprising a resilient body in the form of a loop terminating in hook-like ends, the sides of the loop being of unequal length to space the ends apart the required distance to hold a pessary distended between them, the said loop being compressible to give the engaging end of the shorter side thereof cross movement relative to the longer side to strip and release the pessary from the engaging end of the shorter side, the entire formation being developed from a continuous length of material which is first doubled upon itself and the ends united to form a two-strand body and thereafter again doubled upon itself to form the loop, said strands being spaced apart throughout that portion of their length that forms the longer side of the loop to provide an opening between them through which the end portion of the shorter side of the loop extends and is then bent upwardly with its hook-like end projecting through and above the opening to engage the pessary.

LOUIS I. WEINER.