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G. A. CLARK

2,398,518

PESSARY

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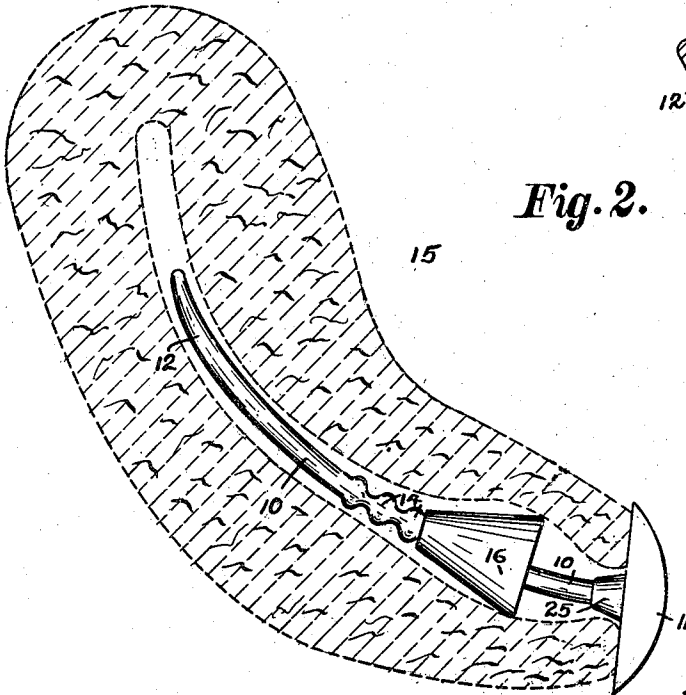


Fig. 1.

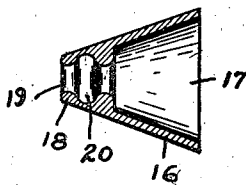


Fig. 4.

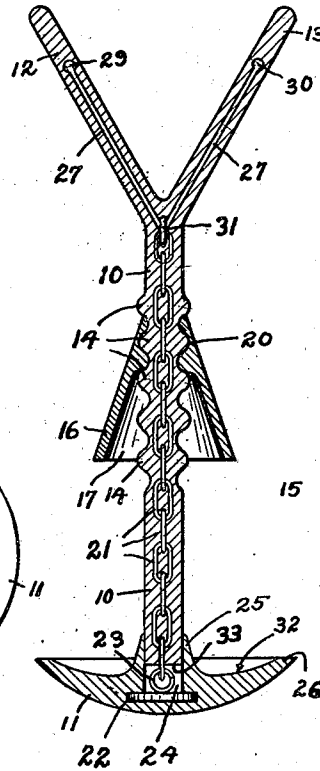


Fig. 2.

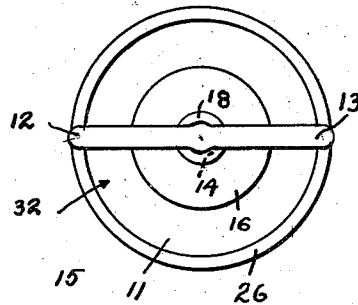


Fig. 3.

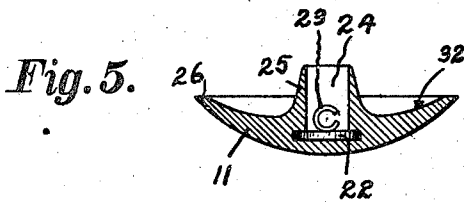


Fig. 5.

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2,398,518

PESSARY

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Application May 3, 1945, Serial No. 591,690

5 Claims. (Cl. 128—131)

The present invention relates to pessaries and has for an object to provide a flexible device such that it conforms readily to the contour of the canal and cavity of a user upon insertion, the parts of which are housed in rubber, whereby no metallic portions can come in contact with the flesh.

Another object of the invention is to provide a device the several parts of which are adjustable with respect to each other for causing the device to conform to the individual requirements of a user and for different therapeutical resultants of use.

A further object of the invention is to provide a device which will conform to the soft tissues of a uterus without injury thereto and without causing deleterious pressure and which will easily follow the canal of the organ without creating an undue pressure thereon.

A still further object is to provide an improved structure with respect to my prior Letters Patent of the United States, numbered 1,896,071, issued February 7, 1933, for Pessaries.

Other and further objects and advantages of the invention will be understood from the following detailed description thereof, reference being had to the accompanying drawing, in which:

Figure 1 is a side view of the new device applied in a position of use to a uterus, the latter being represented by dotted lines.

Figure 2 is a longitudinal sectional view of the pessary shown in Figure 1.

Figure 3 is a top plan view thereof.

Figure 4 is a longitudinal section of a canal expander employed.

Figure 5 is a transverse section of the cover member of the invention.

It is well known that the neck of the uterus is made up of both circular and longitudinal fibres of muscle and does not bend. The body is more flaccid and will flex and bend in all directions. It is also well known that the human uterus is often of abnormal shape and size and that the canal, in the middle of the neck of the uterus, is larger than the outer or cervical portion and the inner, where the neck joins the body of the organ, and that there is a comparatively sharp bend in the uterus which causes trouble in the practice of gynecology and obstetrics and the present invention aims to provide a pessary, the parts of which are so constructed that it is pliable enough to follow the cavity of the organ without causing pressure and resultant symptoms of cramps, bleeding and nervousness.

Referring now to the drawing for a more par-

ticular description, the pessary of the present invention includes an elongated shank portion 10.

A head 11 is provided of concavo-convex contour in cross section, as shown in Figure 5. The shank 10 is bifurcated providing two oppositely disposed arms or wings 12 and 13.

Between the ends of the shank 10, a plurality of detents 14 are provided which are preferably in the form of annular shoulders, the latter each being approximately semicircular in cross section, as shown in Figure 2. The shoulders 14 are preferably formed integral with the shank 10.

The pessary, generally indicated at 15, is provided with a canal expander 16 which is also formed of rubber, being of hollow construction and of truncated conical contour in side elevation, as shown in Figure 1.

The member 16 has a wider open end 17 which is of much larger diameter than the diameter of the shank 10 and a narrower closed end 18, the latter being provided with an aperture 19, as shown in Figure 4.

The wall of the aperture 19 is axially disposed with respect to the longitudinal length of the member 16 and said aperture is of slightly lesser diameter than the diameter of the shank 10.

The wall of the aperture 19 is corrugated in cross section and of a complementary shape with respect to the longitudinal cross sectional contour of that portion of the shank which includes the shoulders 14, whereby a selected one of said shoulders may be lodged in the annular concaved receptacle portion 20 of the expander 16 for causing the expander and shank to be locked together during use and for purposes later explained.

All parts of the device, with the exception of its metallic parts are formed of chemically pure rubber or like material, and within the shank 10, a chain 21 is embedded. A button 22 is similarly disposed in the head 11. As best shown in Figure 5, the button 22 is provided with an initially open C-shaped connector 23 for engagement with an end link of the chain 21, as later described. The connector 23 is disposed adjacent to the bottom of the well 24 of the head 11. The wall 25 of the well extends beyond the perimetrical edge 26 of the head 11.

A steel spring 27 of V-shape in plan is provided and the legs thereof are axially embedded in the arms 12 and 13, as shown in Figure 2. Preferably the free ends of the member 27 are each provided with a flared portion of globular shape, respectively indicated at 29 and 30.

Adjacent the juncture of the legs of the mem-

ber 27, the latter is secured to an end link of the chain 21 by means of a keeper 31.

In use, the member 16 is selectively disposed with respect to the shank 10 by the physician suitable to individual requirements and the device inserted as shown in Figure 1 so that the cup or head 11 is disposed across the mouth of the womb and it will be understood that upon insertion, the legs 12 and 13 are caused to spread apart to their normal position by the arms of the spring 27 and across the cavity of the womb for holding the device and particularly the member 16 in a selected position.

Among other advantages of the invention, it is believed pertinent to mention that the inner surface 32 of the head 11 being of concaved contour, thereby snugly conforms to the adjacent tissues and the member 16 holds that portion, selected, of the wall of the adjacent passage way expanded, as shown in Figure 1.

After the position of the member 16 with respect to the cervical canal of an individual user has been ascertained, since the wings or legs 12 and 13 in conjunction with the shank 10 prevent movement of the member 16 toward the mouth of the uterus, in order to prevent a movement in a reverse direction, the following outlined procedure is practiced:

That end of the shank 10 which is opposite with respect to the wings 12 and 13 is cut off to provide the end 33 of the shank 10 of adequate, proportional length and so that a portion of a link of the chain 21 projects outwardly of said end 33. The next adjacent link is then severed and discarded.

The said projecting portion of the said end link is then hooked to the connector 23 and the opening of the latter is closed to lock the head 11 to the shank 10, whereby the wall 25 of the well 24 extends an appreciable distance beyond the end 33 of the shank 10 for preventing contact of metal with tissue, as shown in Figure 1, and the head and shank are, in operative effect, the same as if made initially integral or joined, while at the same time, fitting, adjusting and maintaining the whole device to suit the requirements of an individual user, as prescribed and processed by the physician, for therapeutical purposes.

It will be seen that the construction is such that since the opening 17 of the member 16 is larger in diameter than the shank 10 that the flexible shank, adjacent its end 33, is permitted to move from side to side of the opening 17 freely during use.

As thus described, it will also be seen that when the new device is applied to pathological conditions, including congestion and mal-positions of the uterus, the new device tends to return it to its normal state of health, also promoting later conception in sterile females and that, during use, the new device stimulates the nerves and muscles, massaging the endometrium without applying pressure to any of the parts of the uterus during all conditions of use.

I claim:

1. A pessary comprising an elongated shank portion; a cover portion of approximately concavo-convex contour in cross section at one end of said shank, the other end of said shank being bifurcated, said parts being formed of flexible material; a flexible chain; a normally V-shaped spring; a button; said spring and button being

respectively secured to opposite ends of said chain; said chain, spring and button being embedded respectively in said shank, the bifurcated portion of said shank and said cover; and a hollow conical member slidably disposed on said shank.

2. The construction of claim 1 which further includes a plurality of detents formed on said shank for locking the conical member thereof in a selected position with respect to the shank.

3. A pessary comprising an elongated shank having a bifurcated end portion; a normally V-shaped spring disposed in the arms of said bifurcated portion; a chain embedded in said shank; a cover of concavo-convex contour in cross section having an approximately axially disposed well, the wall of said well extending from the convexed surface of said cover; a button embedded in the cover at the closed end of said well, said button being provided with a hook having an initially open side; one end of said chain being secured to said spring, an end portion of a selected link at the other end of said chain being adapted to be engaged with said hook through said open side and the latter closed for maintaining the adjacent end of said shank in said well and securing the shank and cover together; a plurality of spaced apart detents disposed on said shank between its ends; and a truncated hollow cone axially disposed on said shank, the truncated end of said cone being disposed toward the bifurcated end of the shank; said cover, shank, and cone being formed of flexible material impervious to moisture, whereby the cone may be disposed and maintained, during use, selectively with respect to the length of said shank and an end portion of the latter cut off for shortening the length of said shank suitable to the requirements of an individual user.

4. In a pessary, an elongated shank; a chain embedded in said shank, a portion of an end link of said chain being disposed outwardly of said end of said shank; a cover of concavo-convex contour in cross section, said cover being provided with an approximately axially disposed well, the annular wall of said well extending from the convexed surface of said cover; and a hook attached to said cover at the bottom of said well, said hook being adapted to engage said end link and being so constructed that said hook may be locked to said end link for securing the said end of said shank within said well, said cover and shank being formed of rubber.

5. In a pessary, a shank having a bifurcated end, a plurality of annular spaced apart shoulders transversely disposed on said shank; a V-shaped spring; a chain; an end link of said chain being secured to said spring adjacent the junction of the arms of the latter, said spring being embedded in the bifurcations of said shank, said chain being embedded in said shank; an expander member of truncated conical contour in side elevation, said member being hollow adjacent the flared end thereof, the other end of said member being provided with an axially disposed bore, the wall of said bore being corrugated in cross section complementary to the contour in cross section of any one of said shoulders for receiving a selected one of said shoulders therein, said member and said shank being formed of rubber.

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