

UNITED STATES PATENT OFFICE.

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UTERINE SUPPORTER.

1,019,373.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, EDWARD F. SHAULIS, a citizen of the United States, residing at Indiana, in the county of Indiana and State of Pennsylvania, have invented certain new and useful Improvements in Uterine Supporters; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to uterine supporters and more particularly to that class of supporters which require no straps but are held in place by the surrounding tissues.

An object of the invention is to provide a supporter which will be of extremely light weight and which will effectively serve its purpose without injury to the uterus, the periuterine tissue or the wall of the vagina.

Another object is to provide a collapsible, sectional supporter which may be readily inserted into position in the vagina and removed therefrom while said supporter is in collapsed or closed position.

Another object is to so form the interlocking sections of the supporter that the latter may be inserted, while the smaller sections are within the larger section, the same as an ordinary thick hard rubber ring pessary, without injury to any of those delicate organs.

Another object is to provide a support in which there are no thin narrow rings to perforate the bladder or bowels, but in place of them, a large smooth surface for uniform pressure against all pelvic structures, through which the support is derived.

Another object is to construct a supporter which will take up relaxed periuterine tissue as well as cystocele and rectocele, and which will help to correct versions, flexions and prolapsed conditions.

Another object is to provide a supporter of the above stated character, which will permit free uterine drainage and which will not cause peritoneal irritation.

Another object is to construct such a supporter which will require no buckles or straps to hold it in position and annoy the patient day after day, and which will not require the usual troublesome changing at night and morning, but will be hidden only to be removed often enough to clean it and see that it does not produce any irritation, which removal for the purpose of cleansing

and inspecting should be about once or twice a year.

Other objects and advantages will be hereinafter set forth and pointed out in the specification and claims.

In the accompanying drawings which are made a part of this application, Figure 1 is an elevational view, the supporter being shown in open position. Fig. 2 is a vertical sectional view on the line 2—2 of Fig. 1. Fig. 3 is a view similar to Fig. 1, showing the supporter in closed or collapsed position. Fig. 4 is a vertical sectional view on the line 4—4 of Fig. 3. Fig. 5 is a fragmentary detail view, somewhat enlarged, of the preferred form of interlocking arrangement of the sections. Fig. 6 is a fragmentary vertical section through the bottom section, showing the same provided with a removable closing cap.

Referring to the drawings in which similar reference numerals designate corresponding parts throughout the several views, 1 designates the main or upper section which is provided with the screw threaded extension 2 upon which extension is secured the outer threaded edge 3 of the circular, curved bowl 4. This circular bowl 4 is curved inwardly and downwardly (as shown at 5) to form the uterus receiving cup 6 ending in the small circular open lower end 7.

Fitting within the section 1 is the central section 8. Integral with the section 8 and extending from the outer face of its straight vertical portion 9 is the locking lug 10 which is preferably dovetailed. Within the straight vertical portion 11 of the section 1 is the horizontal slot 12 (preferably dovetailed as shown in Fig. 5 to receive the lug 10) extending about one-fourth the way around the section. One end of the slot 12 communicates and connects with the short vertical slot 13, the upper end 14 of which is turned horizontally in a direction opposite to that of the slot 12. The horizontal portion 14 of the locking slot is positioned at the extreme upper edge of the straight vertical wall 11 from which upper edge extends the hollowed out or concave surface 15, the purpose of which will later appear. The section 8 is continued downwardly and inwardly at a slight angle, terminating in the lower straight vertical inner circular wall 16, said continued portion of the section gradually increasing in thickness to

ward the said vertical lower portion 16. The inner surface 17 of the portion connecting the vertical walls 11 and 16 being concaved similar to the concaved surface 15 of the upper section 1.

Within the vertical wall 16 are communicating horizontal locking slots 18 and 20 connected by the vertical slot 19, said slots being similar to the slots 12, 13 and 14 of section 1. These slots receive the locking lug 21 carried upon the vertical outer circular wall 22 of the lower section 23 which is continued downwardly, being curved inwardly at a slight angle, and terminating in the circular open lower extremity 24. The circular opening 24 is directly below the central opening 7 and is considerably larger than the latter. It may also be well to state at this time that the open lower end 7 of the uterus receiving cup is on a plane with the lower edge of the section 1, and when the device is closed as clearly shown in Figs. 3 and 4, both the intermediate or central section and the lower section are positioned between the upper section 1 and the cup 6, all of the lower edges being parallel or in the same plane, to facilitate ready insertion and removal of the instrument. The sections may be provided with any number of interlocking slots and lugs, said slots and lugs to be of any shape or form desired, but preferably dovetailed as shown in Fig. 5.

When the instrument is in open position (as shown in Figs. 1 and 2) the exterior of the device is, on account of the curvature of the outer faces of the sections, substantially pear-shape, the upper portion being the largest, the object of which will be readily understood.

The entire device is preferably constructed of hard rubber, may be made in various sizes to meet the needs, and is not harder to insert than a single hard rubber ring.

As will be noted there are no thin narrow rings to perforate the bladder or bowels. Further there are no buckles or straps to cause perineal irritation and thus annoy the patient day after day.

This supporter permits free uterine drainage and does not have to be changed night and morning. It is only necessary to remove the device (which is hidden when in position and of such light material that the weight thereof is unnoticed by the patient) often enough to clean the same and see that it does not produce any irritation. This will sometimes have to be done several times a year and in other cases only once in a year or more.

The instrument is supported and held in proper position by the surrounding tissues, on account of its large smooth surface which creates a uniform pressure against all pelvic structures. It will take up all

relaxed periuterine tissue as well as cystocele and rectocele. And, on account of the smooth curve on the upper edge of the instrument upon which the uterus is to rest, will serve to correct versions, flexions and prolapsed conditions, as will be understood.

The supporter is inserted in the vagina while closed in the same manner as an ordinary hard rubber ring pessary and forced upwardly into proper position. When the uterus has fallen into the cup, the index or first finger is pushed up through the hole of the intermediate or central section and with pressure laterally against the third section, a turn is made just long enough to bring the lug or lugs 10 opposite the vertical slot or slots 13 and allow said lug or lugs 10 to slide down said vertical slot or slots 13 and into the transverse locking slot or slots 12. The section is then given a slight turn to move the said lug or lugs 10 to the end of the said locking slot or slots 12 to lock said section in position. The pressure of the tissues of the wall of the vagina will keep the section from unlocking by preventing rotation thereof. The lower or last section is brought into locked engagement with the intermediate section in the same manner as that just described in connection with the central section.

When the instrument is to be removed the above described operations and order thereof are reversed to return the sections to the position occupied by them during the insertion of the device. The large or upper ring or section is then turned and brought out. If care is used no tissue will be caught on account of the smooth rounded curves and the construction in general of the device.

In Fig. 6 the lower open end 24 of the bottom section 23 is shown as being provided with screw threads to receive the screw threaded disk 25 which has suitable drainage perforations 26. This disk, on account of its perforations, permits free uterine drainage therethrough and, also performs the very important function of preventing the entrance therein of any object. This is important for the reason that were it possible for a finger or other object to enter the supporter at the lower end of the bottom section it may be casually caught therein and be difficult to remove.

Thus it will be seen that I have provided a uterine support which will be effective in use and as it is composed of a small number of parts of simple formation, the instrument may be manufactured at an extremely low figure.

What I claim is:

1. A uterine supporter composed of interlocking telescoping sections.
2. A uterine supporter comprising a uterus cup section, and a lower tapering

section telescopically connected to said cup section to support the latter.

3. A uterine supporter comprising a uterus cup section, and an interlocking telescopic supporting section for said cup.

4. A uterine supporter comprising a uterus supporting cup section, and a three part interlocking telescopic supporting section for said cup.

5. A uterine supporter having a smooth curved outer surface comprising a uterus engaging section, and an interlocking detachable telescopic supporting section for said cup.

6. A uterine supporter of gradually decreasing diameter comprising a uterus supporting cup, and an interlocking telescopic supporting section for said cup.

7. A uterine supporter of gradually decreasing diameter toward the lower end thereof comprising a uterus supporting cup, and a sectional telescopic support therefor.

8. A uterine supporter of gradually decreasing diameter comprising a uterus cup, and a sectional telescopic support therefor, said supporter being provided with a central uterine drainage opening through the cup and the support therefor.

9. A uterine supporter adapted to be held

in place by its uniform pressure against all pelvic structures, comprising a uterus cup, and a support therefor composed of interlocking sections adapted to fit one inside of another at times, said sections having registering locking slots and lugs.

10. A substantially pear-shaped uterine supporter the upper end of which is the larger, comprising a centrally apertured uterus cup, and a sectional interlocking detachable telescoping support for said cup, said support also being centrally apertured to permit free uterine drainage.

11. A substantially pear-shaped uterine supporter the upper end of which is the larger, comprising a centrally apertured uterus cup, a sectional interlocking detachable telescoping support for said cup, said support also being centrally apertured to permit free uterine drainage, and a perforated disk removably secured in the lower end of said support.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

EDWARD F. SHAULIS.

Witnesses:

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