

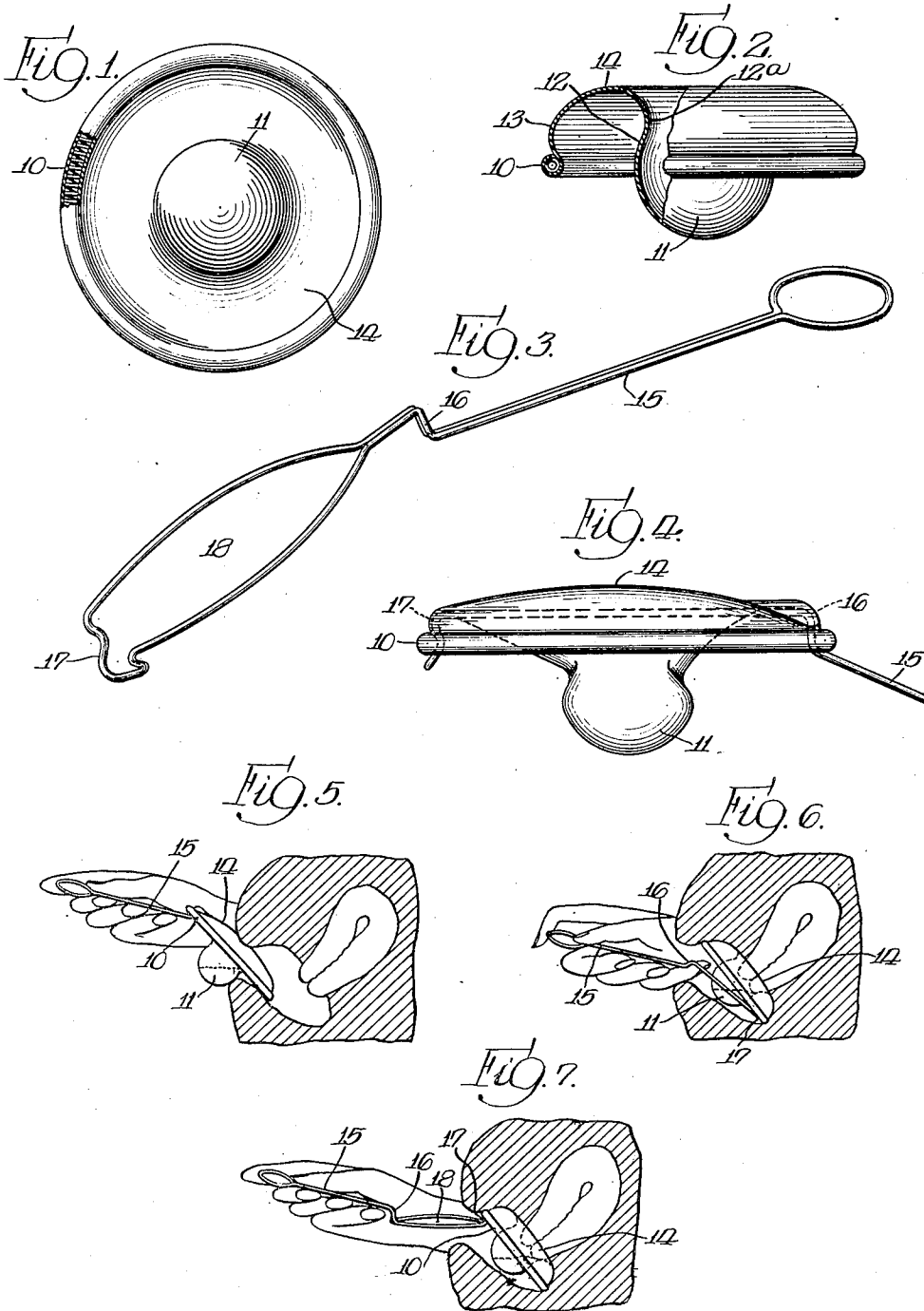
May 9, 1939.

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2,157,689

PESSARY

Original Filed Nov. 2, 1935



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UNITED STATES PATENT OFFICE

2,157,689

PESSARY

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Original application November 2, 1935, Serial No. 47,956, now Patent No. 2,103,319, dated December 28, 1937. Divided and this application May 24, 1937, Serial No. 144,436

4 Claims. (Cl. 128—127)

My invention relates to a pessary or vaginal diaphragm, this application being a division of Patent No. 2,103,319, patented December 28, 1937.

A pessary is commonly employed for applying a medicament to the genital organs of a female and holding it in place, and one of the objects of the present invention is to provide a device of the character described that will be, to a certain extent, universally adaptable, so far as size and location of the organs is concerned.

It is well known that there is rather wide variation in the size of the vaginal cavity, the position and size of the mouth of the uterus and the size of the vaginal opening. The pessary disclosed herein has been designed to adapt itself to wide variations in the described elements and to be used with a simple appliance that will enable the patient to apply and remove the diaphragm without the aid of a physician.

I am aware that constructions have been proposed in which a cervical cap is formed in the diaphragm, the purpose of the cap being to receive and overlie the cervix and to contain a quantity of a medicament. In all such constructions, however, the matter of size and location of the mouth of the uterus is of prime importance inasmuch as the devices are not capable of adjusting themselves to variations; furthermore, in the process of insertion of the device, the lack of flexibility practically invariably results in squeezing out the medicament from the sack and dispersing it either exteriorly or interiorly of the vagina rather than retaining it until positioned as intended.

An object of my invention is to provide a pessary having a cervical cup or cap and to provide a large excess of thin rubber material constituting the diaphragm that connects the supporting ring to the cup. This excess of material is so disposed as to insure complete flexibility in the positioning of the cup over the mouth of the uterus, regardless of its position in the vaginal cavity. Thus if the cervix is not centrally located, the cup may adjust itself thereto or to any location within the supporting ring.

I prefer to provide an applicator which is so designed that it enables the insertion of the pessary with the medicament in the sack without squeezing out any substantial part thereof. This desirable result is further assured by reason of another improvement; that is, the slight contracting of the mouth of the sack. The applicator is so constructed that it is practically entirely enveloped in the material of the pessary when the insertion is made and is arranged to retain

the sack containing the medicament in such position that it is unlikely to be squeezed during the process of insertion.

The invention will be more readily understood by reference to the accompanying drawing in which;

Fig. 1 is a plan view of the vaginal diaphragm of my invention, a portion of the rubber being broken away to show the rim construction;

Fig. 2 is a side view partly broken away to show a portion of the device in section;

Fig. 3 is a perspective view of the applicator;

Fig. 4 is a side view showing the applicator in engagement with the diaphragm; and,

Figs. 5, 6 and 7 are views showing the method of applying the diaphragm.

The pessary or vaginal diaphragm of my invention comprises a relatively stiff but flexible rim consisting of a continuous coil of wire embedded in a rubber covering. The rim normally is circular as shown, but may readily be distorted into a long oval shape as shown in Fig. 4 when engaged with the applicator for insertion. A sack or cup 11 is provided composed of soft flexible rubber, the neck 12 of the cup being slightly contracted and the material thickened as at 12a for a reason that will be later explained. The cup is joined to the rim by means of a diaphragm consisting of an annular portion 13 and a curved portion 14. The annular portion depends from the ring (or projects upwardly therefrom depending upon the position in which the device is held) and the quantity of material in the parts 13 and 14 is substantially greater than would be necessary if the diaphragm were projected laterally in a plane between the cup and the rim. Thus a large excess of thin, flexible material is provided by reason of which the cup or sack may adjust itself to any desired position other than the position shown in the drawing. The excess of material provides also for freedom of action in inserting the device into its position of use as illustrated in Figs. 5 to 7.

An application such as suggested for use is shown in Fig. 3 to 7 and, consists of a light wire frame having a handle 15 with an offset or abutment 16, the wires being spread between the abutment 16 and the abutment 17 at the extreme end of the tool, the space 18 formed by spreading the wires being of a size to receive the sack as best shown in Fig. 4. It will be noted that with the rim engaging the abutments 16 and 17 the device is considerably elongated and flattened and that the frame or tool is substantially entirely concealed within the soft rubber mate-

rial. The reshaping of the diaphragm by attaching it in the described manner to the tool enables its insertion into the vagina in the manner shown in Fig. 5, the excess of material enabling the sack containing a medicament to be inserted without contracting it to an extent that would discharge the contents. The contracting of the neck of the sack also contributes toward this result. The contracting and thickening of the material of the neck also serves the purpose of firmly engaging the cervix and, due to the gripping action, being retained in position regardless of movement of the user. After the insertion has been made, as indicated in Fig. 5, the finger of the user is pressed against the outer edge of the rim in the manner shown in Fig. 6 whereupon the rim assumes its circular condition and the sack will adjust itself to the cervix regardless of its location. After disengaging the tool, the abutment 17 at its outer end may be used for gently forcing the rim into an extreme rear position in the vaginal cavity as shown in Fig. 7. In removal, the hooked end of the tool may be caught on the rim at any point and the device easily pulled outward.

The excess of material associated with the relatively stiff rim insures proper covering of the cervix and the application of the medicament to the required organs, and the tool for use in connection with the device is designed to accomplish the easy and safe insertion and removal of the pessary without inconvenience.

I claim:

1. In combination, a flexible ring, an annular depending membrane, and a sack having a marginal flange joined to said membrane, said sack projecting into the space defined by the annular depending walls of the membrane.

2. In combination, a relatively stiff, flexible ring, an annulus of rubber depending from the ring, a sack inversely positioned at the center of the annulus, and a diaphragm joining the open end of the sack to the lower end of said annulus.

3. In a pessary, the combination of a flexible ring, a cervical cap located at the center of the ring and a relatively thin and pliable membrane joining the cap and ring, said membrane being extended downwardly from the ring and thence inwardly to join with the open end of said cap, whereby a substantial excess of material is provided in said membrane over that which would serve to connect the cap directly to the ring, thereby enabling freedom of movement of the cap to required positions other than at the center of the ring.

4. In combination, a flexible ring, a membrane extending downwardly from said ring and thence inwardly, a sack joined to said inwardly projecting portion of said diaphragm, whereby said sack may adjust itself to different positions within the ring, the mouth of the sack being slightly contracted.

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