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M. W. PRATHER
DIAPHRAGM APPLICATOR
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2,444,672

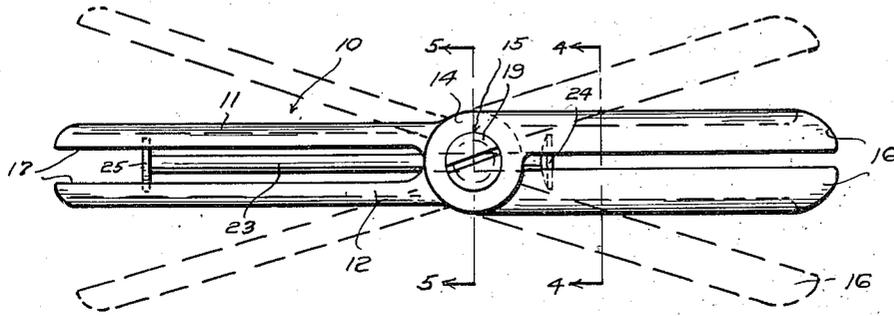


Fig. 1.

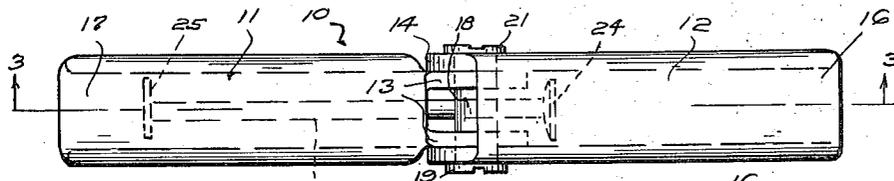


Fig. 2.

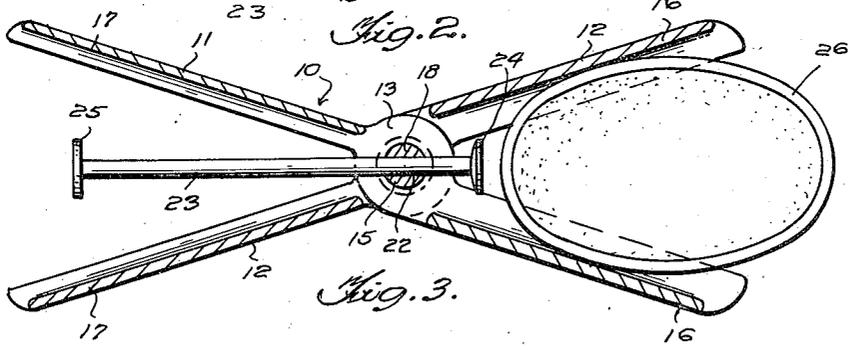


Fig. 3.

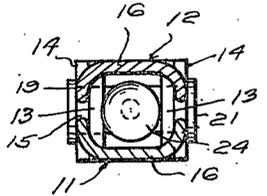


Fig. 4.

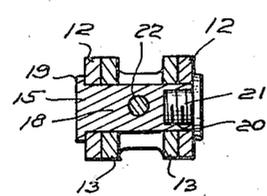


Fig. 5.

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UNITED STATES PATENT OFFICE

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DIAPHRAGM APPLICATOR

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Application July 19, 1946, Serial No. 684,657

1 Claim. (Cl. 128—127)

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This invention relates to new and useful improvements and structural refinements in diaphragm applicators, more specifically, to applicators for vaginal diaphragms and other forms of pessaries. These diaphragms are usually applied by being inserted into the vaginal canal, whereupon an effort is made to stretch the same with the fingers and to position them upon the cervix uteri. It is clearly evident that in view of the restricted site of application and inadequate dexterity of manipulation, proper positioning of the diaphragm is an involved and a difficult task, which frequently affords no hygienic value, if the diaphragm has not been correctly mounted upon the cervix uteri.

It is therefore the principal object of the invention to eliminate the above disadvantages by providing a device of the character herein described, whereby the diaphragm may be easily inserted into the vaginal canal and quickly and correctly installed in proper position upon the cervix uteri.

A further object of the invention is to provide a diaphragm applicator which may be conveniently manipulated and which will not cause injury or discomfort to the user.

Another object of the invention is to provide a diaphragm applicator which is simple in construction and which may be easily kept clean.

An additional object of the invention is to provide a diaphragm applicator which is well adapted for both professional and personal use.

A still further object of the invention is to provide a diaphragm applicator which will readily lend itself to economical manufacture.

With the above more important objects in view, and such other objects as may become apparent as this specification proceeds, the invention consists essentially of the arrangement and construction of parts as illustrated in the accompanying drawings, in which:

Figure 1 is a top plan view of the invention;

Figure 2 is a side elevation thereof;

Figure 3 is a cross sectional view, taken substantially in the plane of the line 3—3 in Figure 2 and showing the diaphragm in situ therein;

Figure 4 is a cross sectional view, taken substantially in the plane of the line 4—4 in Figure 1, and

Figure 5 is a cross sectional view, taken substantially in the plane of the line 5—5 in Figure 1.

Like characters of reference are used to designate like parts in the specification and throughout the several views.

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Referring now to the accompanying drawings in detail, the invention consists of an applicator designated generally by the reference character 10, the same embodying in its construction a pair of cross arms 11 and 12, disposed in a coplanar relationship and provided with laterally projecting lugs 13, 14 respectively, whereby the arms may be pivotally connected together by means of a pivot pin 15.

The arrangement of the lugs 13, 14 is best illustrated in the accompanying Figure 2, and the structure of the pin 15 will be hereinafter more fully explained.

The arms 11 and 12 form a pair of diaphragm receiving jaws 16 at one end thereof, and a pair of actuating handles 17 at their remaining ends, each of said jaws and each of said handles having a substantially U-shaped cross sectional configuration, whereby the applicator as a whole assumes a box-like cross sectional formation, as is best illustrated in Figure 4.

The pivot pin 15 consists of a main body portion 18 formed with a head 19 at one end and with a screw threaded, blind bore 20 at the remaining end. A suitable screw 21 engages the bore 20 and thus retains the pin in position, and the body portion 18 of the pin is also formed with a transversely extending aperture 22.

An ejector rod 23 is slidably positioned in the aperture 22, one end of this rod being provided with a concave seat 24, while its remaining end carries a finger knob 25. It will be noted that the ejector rod is disposed intermediately of the jaws 16.

When the invention is placed in use, the diaphragm 26 is positioned between the jaws 16 and is compressed thereby by manipulating the handles 17. Thereupon, the diaphragm may be conveniently inserted into the vaginal canal and when the required depth or distance has been reached, the pressure upon the handles 17 is relaxed and gentle force is exerted upon the finger knob 25 to cause the sliding of the ejector rod 23.

In this manner, the diaphragm will be expelled from the jaws 16 directly into its proper position on the cervix uteri.

It is believed that the advantages and use of the invention will be clearly understood from the foregoing disclosure and accordingly, further description thereof at this point is considered unnecessary.

While in the foregoing there has been shown and described the preferred embodiment of this invention it is to be understood that minor changes in the details of construction, combina-

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tion and arrangement of parts may be resorted to without departing from the spirit and scope of the invention as claimed.

What I claim as my invention is:

In a vaginal diaphragm applicator including a pair of diaphragm engaging arms, a pivot pin connecting said arms together, said pin being formed with a transverse aperture, an ejector rod slidable in said aperture and disposed between said arms, and an ejector plate at one end of said rod, said plate having a concave surface adapted to engage the diaphragm.

MARION W. PRATHER.

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REFERENCES CITED

The following references are of record in the file of this patent:

FOREIGN PATENTS

Number	Country	Date
30	Great Britain	Oct. 26, 1911
118,484	Germany	Mar. 11, 1901