

1,057,696.

2 SHEETS—SHEET 1.

Witnesses
J Milton Jester
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By

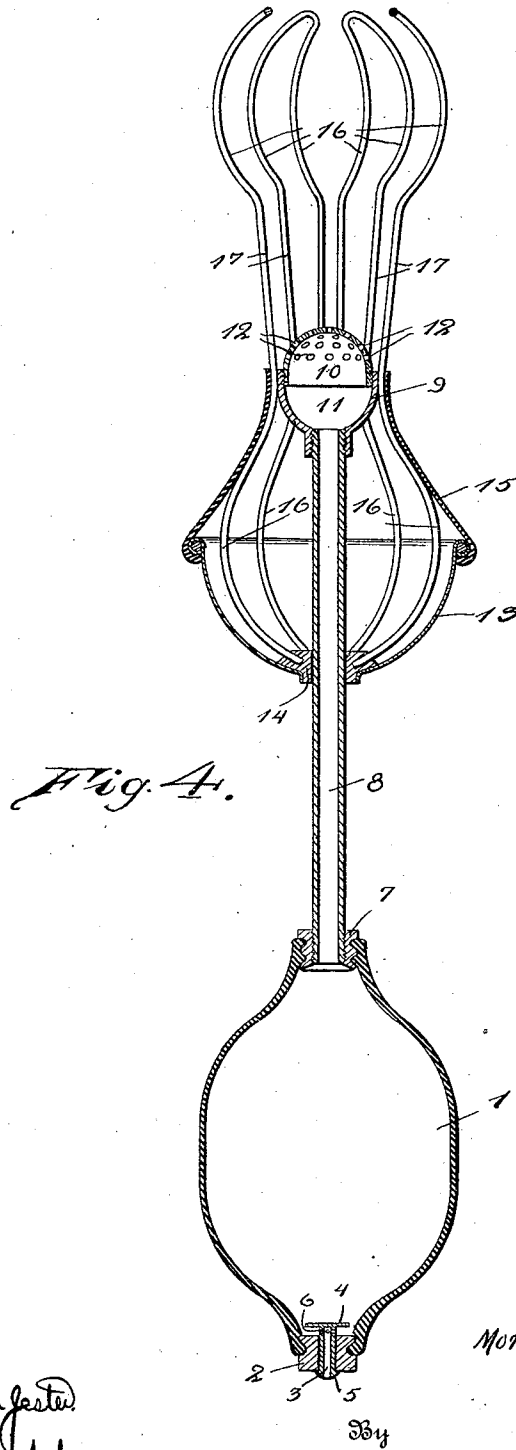
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M. L. WOODWARD.
POWDER BLOWER.
APPLICATION FILED OCT. 19, 1911.

1,057,696.

Patented Apr. 1, 1913.

2 SHEETS—SHEET 2.



Witnesses

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UNITED STATES PATENT OFFICE.

MORTIMER L. WOODWARD, OF SAN ANGELO, TEXAS.

POWDER-BLOWER.

1,057,696.

Specification of Letters Patent.

Patented Apr. 1, 1913.

Application filed October 19, 1911. Serial No. 655,482.

To all whom it may concern:

Be it known that I, MORTIMER L. WOODWARD, a citizen of the United States, residing at San Angelo, in the county of Tom Green and State of Texas, have invented certain new and useful Improvements in Powder-Blowers, of which the following is a specification.

This invention relates to a device for insertion in the vagina, to dilate or distend the wall of the same and subsequently blow or spray a powder-medicament upon said wall.

An important object of this invention is to provide a device of the above mentioned character, which is simple in construction, and cheap to manufacture.

Other objects and advantages of my invention will be apparent during the course of the following description.

In the accompanying drawings forming a part of this specification and in which like numerals are employed to designate like parts throughout the same, Figure 1 is a side elevation of the device, Fig. 2 is a plan view thereof, Fig. 3 is a horizontal section taken on line 3—3 of Fig. 1, and, Fig. 4 is a central longitudinal section through the entire device.

In the drawings wherein is illustrated a preferred embodiment of my invention, the numeral 1 designates a bulb formed of rubber or the like and connected at its lower end with a ring 2, as shown. This ring receives a tubular stem 3 of a check valve. This tubular stem is provided with heads 4 and 5, to limit the longitudinal movement of the stem 3 in both directions. The stem 3 is provided adjacent the upper head 4 with openings 6, which are uncovered when the stem is in its elevated position and covered when said stem is lowered. It is evident that this check valve will allow air to pass therethrough into the bulb 1 but will prevent air from passing therethrough in a reverse direction. The upper end of the bulb 1 is suitably attached to a ring 7, internally screw-threaded, to detachably engage the lower screw-threaded end of a discharge tube or pipe 8, as shown.

At its upper end, the discharge tube or pipe 8 has connection with a substantially spherical nozzle 9, preferably formed of two parts 10 and 11, telescoping, as shown. The part 11 has screw-threaded engagement with the upper end of the discharge tube

or pipe 8, as shown. The part 10 is provided with perforations 12, through which the powder-medicament, is blown.

The numeral 13 designates the body portion of the device, in the form of a metallic cup, having its lower portion provided with an opening for receiving a ring 14. This ring is rigidly connected with the cup-shaped body portion 13 and is longitudinally adjustably mounted on the tube or pipe 8. Suitably secured to the upper open end of the body portion 13 is a shield 15, formed of rubber or the like.

Attached to the ring 14 are fingers 16, as shown, which constitute an expanding frame or dilator. Each of these fingers is preferably formed by bending a section of wire or the like midway its ends and securing the free ends of the wire to the ring 14. The fingers 16 are curved longitudinally outwardly at their upper ends, as shown, forming an enlarged head for the expanding frame, to receive the nozzle 9, when such nozzle is in its most elevated position. The lower portions of the fingers extend within the shield 15 and cup 13 and are curved longitudinally outwardly therein, as shown. When the expanding frame is in its contracted condition, the intermediate portions 17 of the fingers 16 are substantially parallel, as shown in Fig. 1. Attention is called to the fact that the part 10 telescopes the part 11, which latter part is engaged by the fingers 16. It is thus seen that the part 10 is always spaced from the fingers 16 and hence said fingers will hold the wall of the vagina from contact with the part 10, to prevent the perforations 12 from being closed.

In the use of the device, the bulb 1 is disconnected from tube 8 and filled with the powder-medicament and said bulb is subsequently connected with said tube 8. The different elements of the device now assume the relative position, as shown in Fig. 1. The device is properly inserted in the vagina. The operator holds the body portion 13 against movement and draws the bulb longitudinally away from said body portion. The part 11 of the nozzle 9 now engages the intermediate portion 17 of the fingers 16, causing said fingers to move outwardly to engage and expand or distend the wall of the vagina. It is thus seen that the nozzle operates the expanding frame or distender comprising the fingers 16 and that such

fingers prevent the wall of the vagina from coming in contact with the part 10 of the nozzle, whereby the perforations do not become closed. The arms are properly shaped to conform to the natural contour of the wall of the vagina. When the wall of the vagina is thus distended, the bulb 1 is pressed, which forces or blows the powder-medicament through the tube 8 and part 10 of the nozzle. When the elements are returned to their normal position, the tension of the arms 16 return such arms to their innermost position.

I wish it understood that the form of my invention herewith shown and described is to be taken as a preferred example of the same and that certain changes in the shape, size and arrangement of parts may be resorted to without departing from the spirit of the invention or the scope of the subjoined claim.

Having thus described my invention, I claim:—

In a device of the character described, a metallic cup-shaped body portion provided at its edge with an outwardly extending annular rib, a tapered annular rubber guard having its enlarged end provided with an inwardly extending beading engaging the exterior of the annular rib, a ring mounted

within the central opening formed through the cup-shaped portion, expanding arms carried by the ring and bent outwardly within the cup-shaped body portion and the shield to engage the shield and tending to move the same forwardly with relation to the cup-shaped body portion, the expanding arms being bent outwardly at their free ends forming an enlarged head carried by intermediate portions of the arms which are parallel when said arms are not expanded, a tube mounted to reciprocate within the ring, a hemispherical shell carried by one end of the tube to operate within the arms and to be restricted in movement in one direction by engagement with the outwardly bent portions of the arms which are disposed within the shield and held against undue outward movement by the shield, an inner perforated hemispherical shell extending within and having screw-threaded engagement with the first named shell, and a bulb connected with the outer end of the tube.

In testimony whereof I affix my signature in presence of two witnesses.

MORTIMER L. WOODWARD.

Witnesses:

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JAMES L. CRAWFORD.