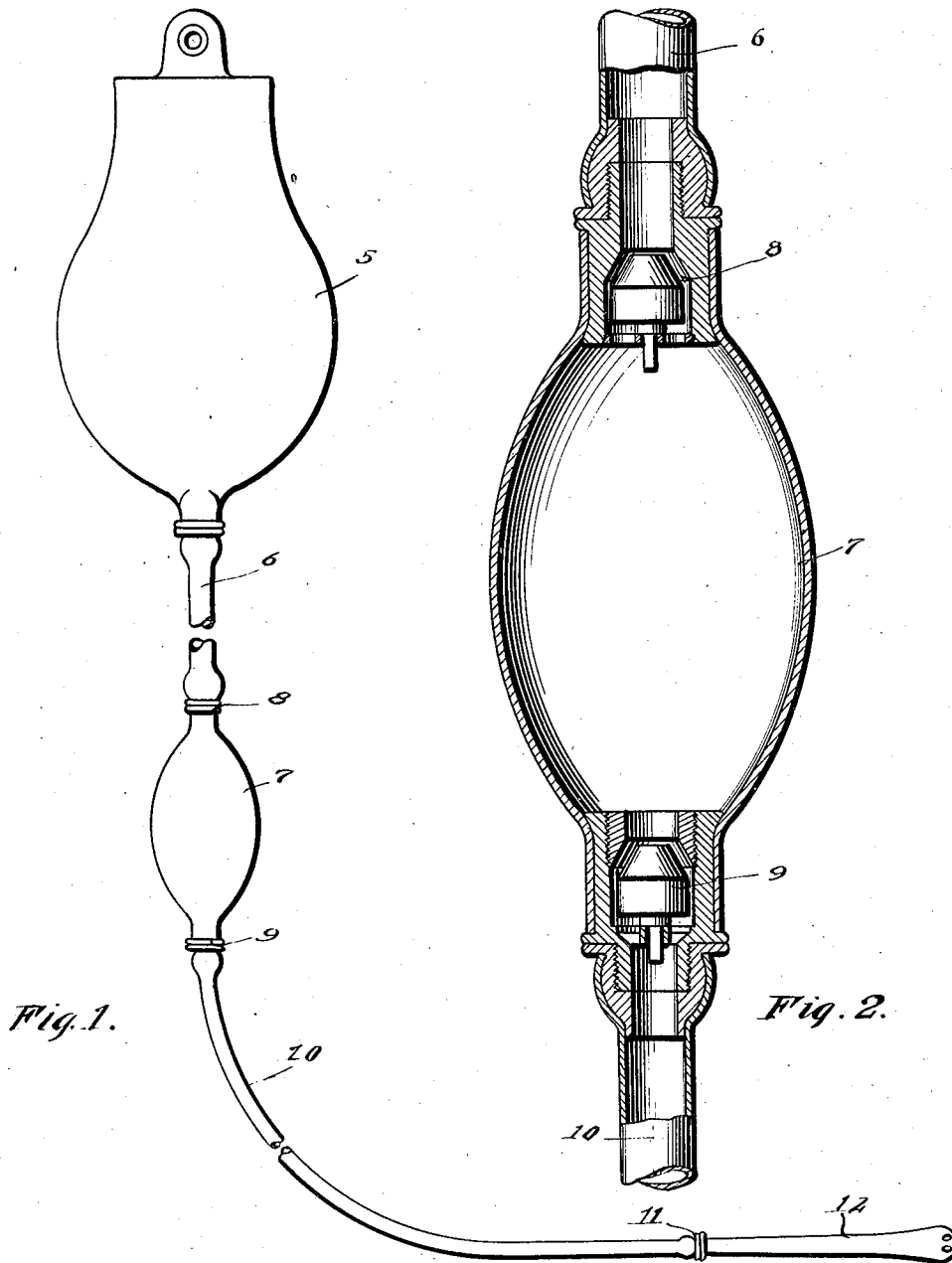


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SYRINGE.
APPLICATION FILED FEB. 4, 1919.

1,352,306.

Patented Sept. 7, 1920.



WITNESSES:
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SYRINGE.

1,352,306.

Specification of Letters Patent.

Patented Sept. 7, 1920.

Application filed February 4, 1919. Serial No. 274,964.

To all whom it may concern:

Be it known that I, ROBERT L. MOTT, a citizen of the United States, residing at St. Louis, State of Missouri, have invented new and useful Improvements in Syringes, of which the following is a specification.

This invention relates to syringes, particularly to those of the fountain type for use in vaginal or rectal irrigation, and has for its object the provision of a syringe having interposed in the outlet tube thereof a bulb provided at its ends with inlet and outlet valves, the bulb being compressible and expansible by manual manipulation, whereby to serve as a force pump for expediting the irrigating operation and for insuring thorough action of the syringe.

An important object is the provision of a device of this character which will be simple and inexpensive in manufacture, which may be associated, as an attachment, with an ordinary fountain syringe, and which will be not only efficient and durable in use, but a general improvement in the art.

With the above and other objects and advantages in view, the invention consists in the details of construction to be hereinafter more fully described and claimed, and illustrated in the accompanying drawing, in which—

Figure 1 is an elevation of the complete device, and

Fig. 2 is a longitudinal sectional view through the essential parts thereof.

Referring more particularly to the drawing, the numeral 5 designates a reservoir or receptacle which may be a rubber bag such as is commonly used or it may be any other desired receptacle. Connected with the bag 5 is an outlet tube 6 with the free end of which is connected a bulb 7 provided at its point of connection with the tube 6 with a downwardly opening check valve 8 and provided at its other end with a downwardly opening check valve 9. Connected with the bulb 7 is a discharge tube 10 which has its end provided with the usual fitting 11 for connection therewith of a nozzle 12 of the types commonly used in vaginal or rectal irrigation.

In the use of the device, the bag 5 is filled with the water or medicinal solution to be employed and the nozzle is disposed in the usual manner whereupon the contents of the bag will flow through the tube 6 and into

the bulb 7 from which the contents will pass through the discharge tube 10 and out through the nozzle 12. This above described flow is purely gravitational and the device may be used in this manner when preferred. However, by alternately pressing and releasing the bulb 7, a force pump action is produced, the valve 8 closing and the valve 9 opening when the bulb is compressed and the contents of the bulb being forcibly ejected through the discharge tube 10. When the bulb 7 is released the natural resilience thereof will cause it to expand, resulting in the closing of the valve 9 and opening of the valve 8 with the result that the bulb will again be filled. When the alternate compression and release of the bulb is effected rapidly, a practically continuous stream will be discharged from the nozzle with considerable force, the degree thereof depending upon the degree of pressure upon the bulb. This forceful discharge has not only the advantage of insuring complete irrigation but also prevents any possible clogging of the perforations commonly provided in the discharge nozzle.

From the foregoing description and a study of the drawing it will be apparent that I have thus provided a syringe for the purpose specified which will be simple and inexpensive in manufacture, and which will efficiently perform all the functions for which it is designed.

While I have shown and described the preferred embodiment of my invention, it is of course to be understood that I reserve the right to make such changes in the form, construction and arrangement of parts as will not depart from the spirit of the invention nor the scope of the subjoined claim.

Having thus described my invention, I claim:

In a device of the character described, a pumping mechanism comprising a body formed at one end with a reduced extension and having a bore extending therethrough and through the extension, the bore being enlarged to form a valve seat, a nipple engaged upon said extension and adapted for connection with a flexible tube, a spider within said bore, a valve adapted to close said seat and having a stem slidable through said spider, a second body having an extension thereon and provided with a bore extending therethrough and through the ex-

tension, a nipple secured upon said extension and adapted for connection with a flexible tube, the inner end of said bore being enlarged to define a chamber, a spider at the
5 juncture of the bore with the chamber, a valve movable within the chamber and having a stem slidable through said spider, and

a sleeve threaded into said chamber and having its end toward said valve formed with a valve seat engageable by the latter, and a 10 bulb connecting and having its ends engaged upon said bodies.

In testimony whereof I affix my signature.
ROBERT L. MOTT.