A. E. SCOTT.

SYRINGE.

APPLICATION FILED DEC. 27, 1909.

1,023,042. Patented Apr. 9, 1912.

Fig. 1.

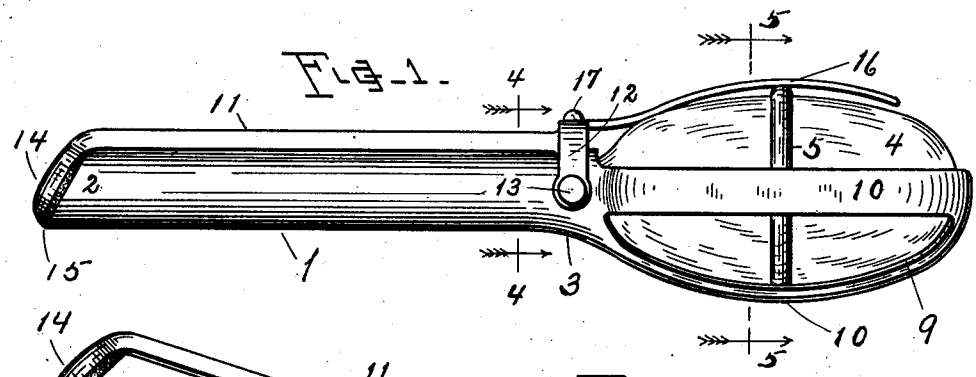


Fig. 2.

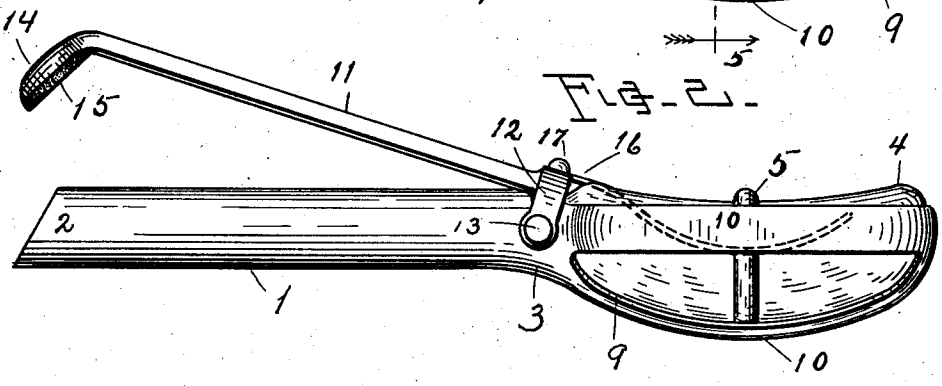


Fig. 3.

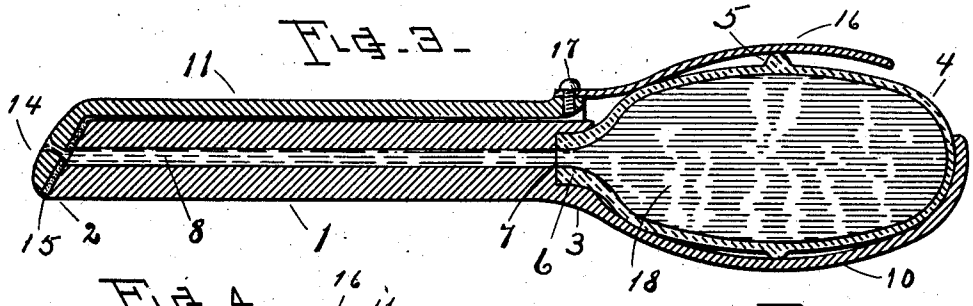


Fig. 4.

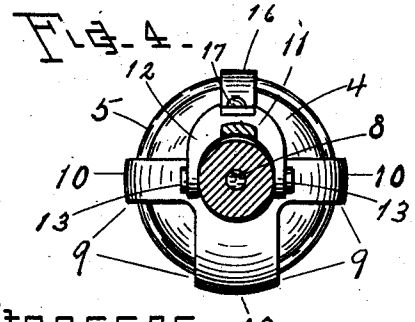
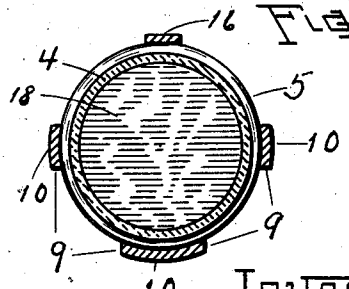


Fig. 5.



Witnesses

E. J. Spinas

H. Adams

Inventor

Allen E. Scott

per A. S. Paré

Attorney

UNITED STATES PATENT OFFICE.

ALLEN E. SCOTT, OF SAN FRANCISCO, CALIFORNIA.

SYRINGE.

1,023,042. Specification of Letters Patent. Patented Apr. 9, 1912.

Application filed December 27, 1909. Serial No. 535,049.

To all whom it may concern:

Be it known that I, ALLEN E. SCOTT, of San Francisco, California, have invented certain new and useful Improvements in Syringes, whereof the following is a specification.

My invention relates in a general way to syringes and more particularly to the class of cylindrical shaped barrels having bulbs of caoutchouc or other elastic material whose expansions and contractions act as a pump, and consists in removably connecting the bulb and barrel in a convenient and efficient manner.

The object of the device, comprising my invention, is to raise in practice the lower portion of the womb and distend the folds of the vagina for the purpose of injecting or irrigating the same and thereby preventing or treating antiseptically all vaginal diseases.

Another object of my invention is to produce a much cheaper and more effective instrument that can be easily and quickly cleaned and sterilized when required.

The construction and arrangement of the above mentioned device will be best understood from the accompanying drawing consisting of one sheet forming a part of the following specification, and in which I have shown an embodiment in what I consider its best form, and have illustrated the same in five figures, viz:—

Figure 1 is a side elevation of a syringe with my improvements in position thereon. Fig. 2 is a similar view to Fig. 1 but showing the syringe as it appears in practice. Fig. 3 is a longitudinal section of Fig. 1. Fig. 4 is a cross section taken on line 4, 4, of Fig. 1 looking in the direction of the arrows and Fig. 5 is also a cross section taken on line 5, 5, of Fig. 1 looking in the direction of the arrows.

In these figures 1 represents the elongated cylindrical barrel of an ordinary syringe; 2 is the forward end of the barrel cut preferably at an angle, and 3 its rear end which terminates in an integral cup, shaped to receive and hold in place a portion of the caoutchouc or other elastic bulb, 4, of the form usually made including the circular rib 5, to reinforce that portion of the bulb and its neck 6, which is adjusted snugly within the circular recess 7, formed within the barrel 1 at the rear end 3, so that its interior communicates with channel 8 of the barrel. The barrel is preferably rectilinear and of equiperipheral formation. The cup is perforated as at 9 to reduce the metal and consequently reduce the weight of the instrument, leaving thereby three strips or bands 10 as particularly shown in the cross sectional figures 4 and 5. The arm 11 is placed on the cylindrical barrel 1 in a line with the free portion of the bulb and provided with yoke 12 formed integrally therewith and pivoted as at 13 to the sides of the barrel at its rear end 3. The arm is normally inclined with, and projects along the barrel to its forward end and there is provided with a cap 14 fitting the angular end 2 of the barrel and closing the channel 8, and the cap is provided with a packing 15 to form a tight joint at that place. The forward end of the cap 14 together with the packing 15 is substantially of oblate form and the edges of said cap and said packing are made flush with the end of the barrel 2, so that no irritation or inconvenience may result from inserting or withdrawing the instrument. The opposite or rear end of the arm 11 is provided with a thin flat spring 16 secured to the yoke 12 by means of a screw 17 so that it can be removed when desired and projects over the free portion of the bulb 4 to or near its rear end to operate therewith the arm 11 as particularly shown in Fig. 2. The spring 26 is quite thin and pliable, its thickness being greatly exaggerated in the drawing, and is preferably curved as shown in Figs. 1 and 3; but when a finger or thumb of the operator is pressed thereupon sufficiently to cause the bulb to partially collapse, the spring is thereby curved in the direction shown in Fig. 2.

The operation of my improved syringe is as follows, viz: The spring 16 being depressed consequently raises the arm 11 which removes cap 14 from the end 2 of the barrel and thereby opening the channel 8 at that end, and at the same time contracting the bulb 4 as particularly shown in Fig. 2. I then immerse the end 2 of the barrel in a receptacle containing medicated or other fluid to be used for the purpose above mentioned and as soon as the pressure is released on the spring 16 the bulb expands to its normal position at the same time drawing the fluid therein as 18 and

forcing back the spring 16 which causes the arm 11 to close the aperture of channel 8 at the end 2 of the barrel by means of cap 15—thus holding the fluid 18 in the syringe which may be then inserted in the vagina and the depression of the spring and contraction of the bulb being repeated in the manner above described cause the fluid 18 to be ejected into the vagina, while the arm raises the lower portion of the womb and distends the folds of the vagina and by the inverse operation causes the fluid thus ejected to withdraw back into the syringe thus accomplishing my purpose.

It will be readily seen that the bulb and other parts composing my invention can be easily removed and cleaned or sterilized when desired and the arrangement or the construction thereof as above described can be changed or modified without however departing from the scope of my invention.

Believing I have produced novel and useful improvements in the art to which my invention appertains and having fully described the same, what I claim and desire to secure by United States Letters Patent is:—

In a syringe, a body comprising a cylindrical barrel having a channel therethrough and having an aperture in an end thereof, a cup united with an end of the barrel which contains the aperture, a bulb in the cup, said bulb having a neck fitted into the aperture of the barrel, the top edge of said cup extending above the center of the bulb, an arm pivotally secured to the barrel, a cap on said arm for closing an end of the barrel, and means connected with the arm and contacting the bulb for forcing the cap into contact with the end of the barrel.

In testimony that I claim the foregoing I have hereto set my hand this 16th day of December, 1909, in the presence of two witnesses.

ALLEN E. SCOTT.

Witnesses:
H. B. DENSON,
L. A. ALLYN.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents. Washington, D. C."