(No Model.)

E. L. DAY.

SYRINGE.

No. 551,264. Patented Dec. 10, 1895.

Fig. 1.

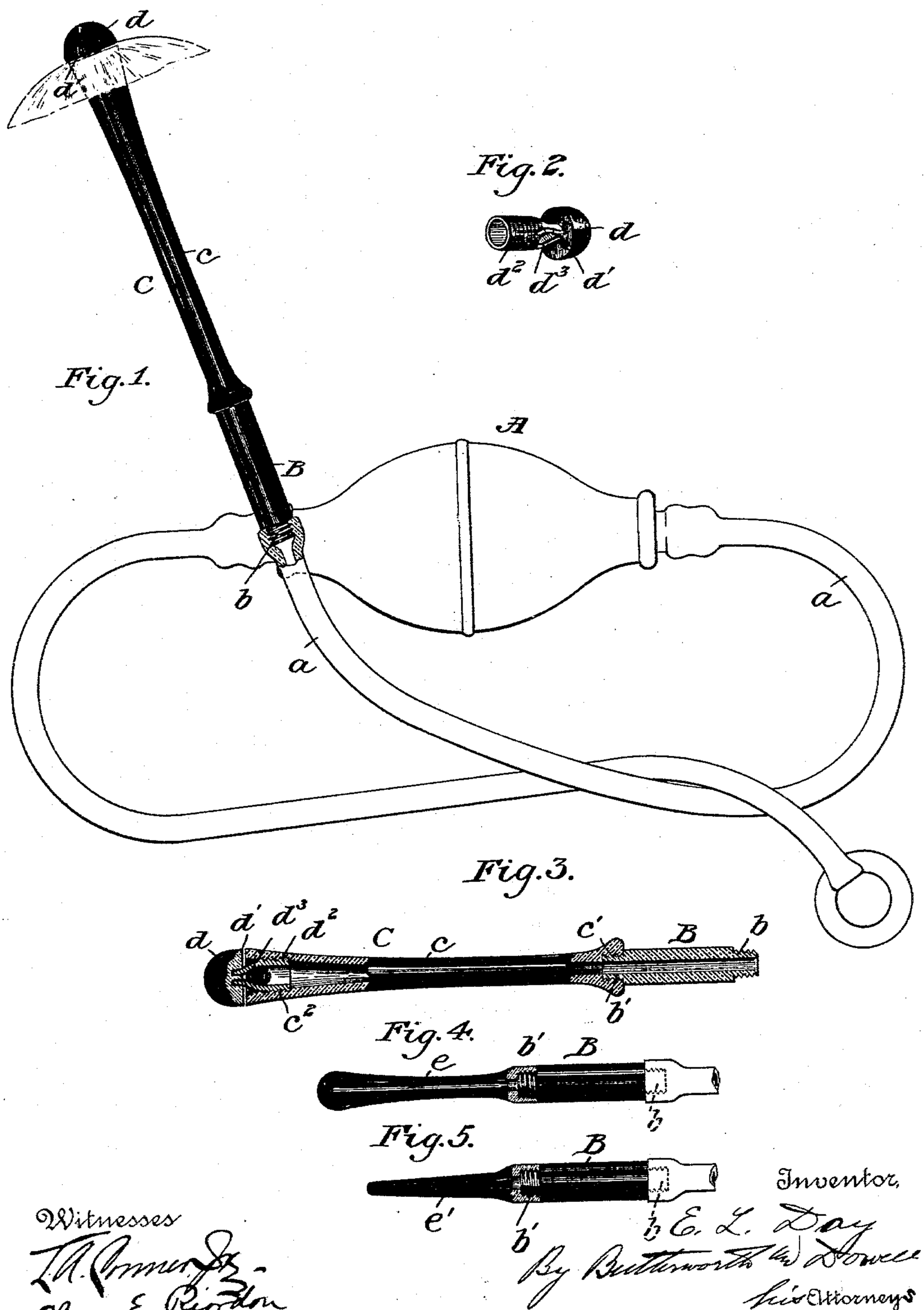

Fig. 2.

Fig. 3.

Fig. 4.

Fig. 5.

Witnesses
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UNITED STATES PATENT OFFICE.

ELISHA LITTLE DAY, OF BRENHAM, TEXAS.

SYRINGE.

SPECIFICATION forming part of Letters Patent No. 551,264, dated December 10, 1895.

Application filed February 15, 1895. Serial No. 538,564. (No model.)

To all whom it may concern:

Be it known that I, ELISHA LITTLE DAY, a citizen of the United States, residing at Brenham, in the county of Washington and State of Texas, have invented certain new and useful Improvements in Vaginal Syringes; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to syringes, but more particularly to vaginal points adapted to be connected with the tube of a hand-bulb or fountain syringe.

The invention will first be described with reference to the accompanying drawings and then pointed out in the claims at the end of the description.

Referring to the accompanying drawings, forming a part of this specification, Figure 1 is an elevation, partly in section, of the invention as applied to a ball or bulb syringe. Fig. 2 is a perspective view of the cap removed from the point. Fig. 3 is a section, partly in elevation, of the vaginal point and the fixed piece or coupling; and Figs. 4 and 5 are side elevations, partly in section, of a couple of forms of rectal points attached to the fixed piece or coupling, illustrating the scope of interchangeability to which the fixed piece may be employed.

In the drawings, A may designate a ball or bulb syringe of the usual or of any preferred construction provided with the tube *a*, in one end of which is secured a hollow piece or coupling B. This coupling may have a screw-thread *b* at one of its ends for securing the tube *a*, or other suitable device, thereto, and is preferably provided with a screw-threaded end *b'* to which points of various constructions may be removably secured. To the end *b'* of the coupling may be secured the tube *c* of the point C, which tube is preferably provided with an internal screw-thread *c'* at one end adapted to engage and be held by the threaded end *b'* of said coupling or fixed piece, and at the other end with an internal screw-thread c^2. To the end c^2 is preferably adjustably secured the cap *d* which may have a plane inner surface *d'* and a closed outer surface, and be provided with a hollow screw-threaded stem d^2 projecting outwardly therefrom and secured to or formed integrally with said cap, the said stem being provided with side openings d^3 adjacent the inner surface of the cap and of sufficient size to obstruct as little as possible the passage of the fluid. The cap may be approximately semispherical and preferably of sufficient size and construction to prevent the fluid, when forced through the tube *c*, from passing beyond said cap when the same is inserted into the vagina or other part to be treated. This construction permits the fluid to be injected in the form of an annular sheet, as shown in Fig. 1, and permits the size of the sheet to be varied by adjusting the cap *d* in the tube *c* so as to vary the distance between the inner surface of the cap and the forward end of said tube.

The operation of the device will be readily understood from the foregoing description in connection with the drawings. It will be seen, when the point is inserted into the part to be treated, that the cap *d* will close the channel or passage in advance of the tube *c*, so that as the fluid is forced through the tube *c* it will strike against the inner surface of the cap, causing the fluid to spread in the form of an annular sheet, which will discharge to the rear of said cap on account of the reduced diameter of the tube *c*. By this arrangement it is possible to treat or cleanse only the part requiring treatment, without the danger of injury resulting from injecting the fluid too far into the body.

In Figs. 4 and 5 are shown the rectal points *e* and *e'* for grown people and children, respectively, which may be readily attached to the end *b'* of the fixed piece or coupling B when the vaginal or other point is removed.

It is obvious that the vaginal point may be attached to any suitable forcing apparatus, and that it may be secured direct to said forcing apparatus; also that any preferred means may be employed for securing the parts together. Instead of the stem d^2 being hollow, it may have external grooves or depressions for the passage of the liquid; and the cap may be held to the tube *c* by other means than by a screw-thread. Other changes of a substantially like character may be made if desired without departing from the spirit of my invention.

Having thus fully described my invention, what I claim as new, and desire to secure by Letters Patent of the United States, is—

1. As an article of manufacture, a point for a syringe comprising a tube adapted to be secured to a suitable forcing apparatus, and a cap for said tube arranged over one end thereof; said cap having a closed or solid outer surface and having its marginal surface adjacent to the end of the tube but slightly separated therefrom so as to provide an annular lateral discharge space between the end-walls of the tube and the marginal surface of the cap, whereby the fluid issuing therefrom is discharged in the rear of the cap in a substantially solid annular sheet, substantially as described.

2. As an article of manufacture, a point for a syringe comprising a tube adapted to be secured to a suitable forcing apparatus, and a cap secured to said tube at one end thereof; said cap being substantially semi-spherical in form and having its plane surface arranged adjacent to the end of the tube but slightly separated therefrom so as to provide an annular lateral discharge space between the end-walls of the tube and the plane surface of the cap, and having a stem with water passage therein projecting from its plane surface for securing it to the end of the tube, substantially as described,

3. In a syringe, the combination with a tube provided with a screw-threaded end, of a substantially semi-spherical cap having its plane surface removed from but adjacent to the end of the tube, and a hollow screw-threaded stem projecting from said cap and engaging the end of the tube, said stem having lateral openings for the forward passage of the fluid, substantially as described,

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

ELISHA LITTLE DAY.

Witnesses:

J. P. BUCHANAN,

WM. R. EWING.