(No Model.) J. H. MORRISON, Dec'd. 2 Sheets—Sheet 1.

G. A. MORRISON, Executrix.

SYRINGE.

No. 540,213. Patented May 28, 1895.

Fig. 1.

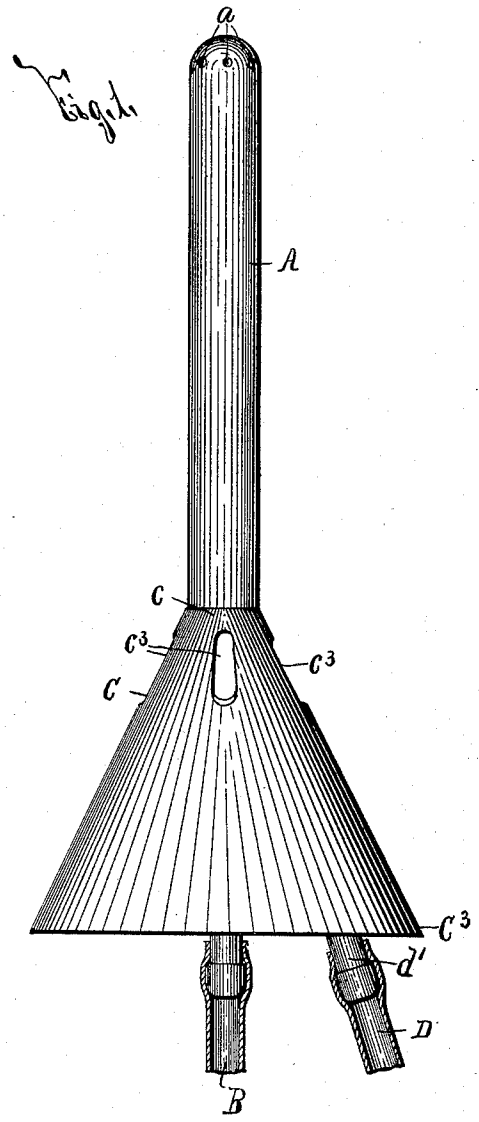


Fig. 2.

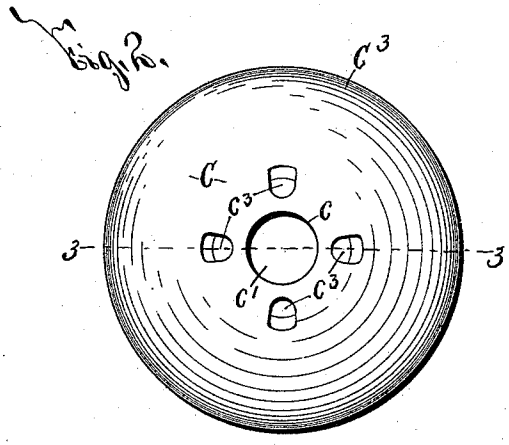
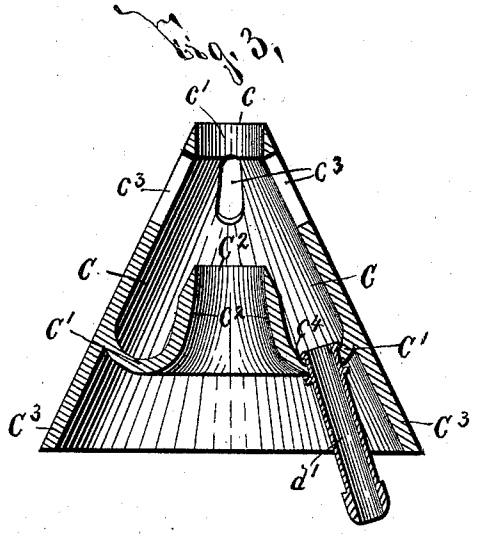


Fig. 3.



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(No Model.) J. H. MORRISON, Dec'd. 2 Sheets—Sheet 2.

G. A. MORRISON, Executrix.

SYRINGE.

No. 540,213. Patented May 28, 1895.

Fig. 4.

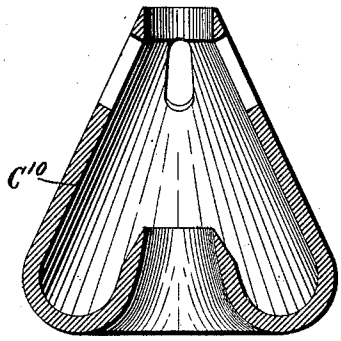


Fig. 5.

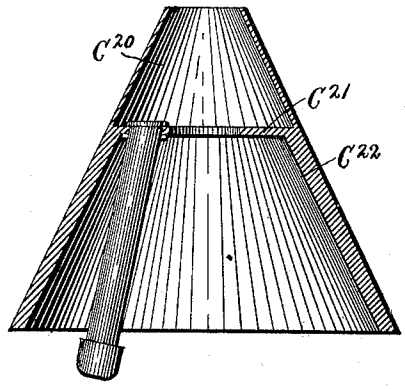
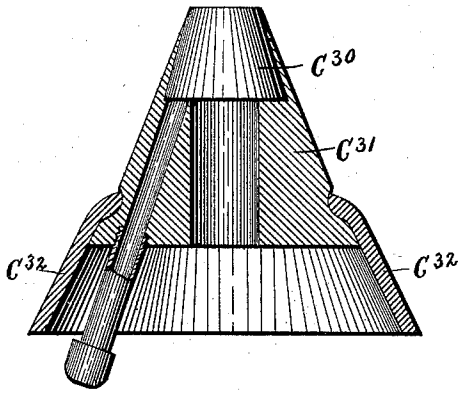


Fig. 6.



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UNITED STATES PATENT OFFICE.

JOHN H. MORRISON, OF SALIDA, COLORADO; GEORGIA A. MORRISON EXECUTRIX OF SAID JOHN H. MORRISON, DECEASED.

SYRINGE.

SPECIFICATION forming part of Letters Patent No. 540,213, dated May 28, 1895.

Application filed August 9, 1894. Serial No. 519,802. (No model.)

To all whom it may concern:

Be it known that I, JOHN H. MORRISON, of Salida, in the county of Chaffee, in the State of Colorado, have invented new and useful Improvements in Syringes, of which the following, taken in connection with the accompanying drawings, is a full, clear, and exact description.

My invention relates to improvements in vaginal syringes, and has for its object the production of a simple and practical device, which is readily applied to the main tube, or pipe of a syringe for receiving the discharged or returning liquid, &c., is economically manufactured, possesses no crevices or creases to receive unclean material, is easily and thoroughly cleansed, is adjustable for any desired amount of entrance or size of orifice, and even after its introduction may be readily adjusted without removal; and to these ends it consists, essentially, in a return chamber adjustable lengthwise of the main tube or pipe of the syringe, and formed with a reduced end nearest the outlet of the main tube for entering and closing the vagina, and having an inlet in its reduced end and an outlet in its opposite end.

The invention also consists in the detail construction and arrangement of the return chamber, and a flange extending from the outer edge of its enlarged end, all as hereinafter more particularly described and pointed out in the claims.

In describing this invention, reference is had to the accompanying drawings, forming a part of this specification, in which like letters indicate corresponding parts in all the views.

Figure 1 is an elevation of my improved attachment shown as operatively secured to the main tube of a syringe, the syringe-tube and the attachment being operatively engaged with the adjacent ends of incoming and outgoing pipes, shown in section. Fig. 2 is a top plan view of my detached attachment. Fig. 3 is a vertical sectional view taken on line 3 3, Fig. 2; and Figs. 4, 5, and 6 are vertical sectional views of slightly-modified constructions of my syringe attachment.

As ordinarily manufactured, syringes are so constructed as to discharge a current of water or other liquid, and are not provided with means for receiving and suitably conducting the discharged or returning liquids. Various syringes have been produced, however, which are formed with return passages or ducts for the discharged or returning liquid, and in my previous patent, No. 478,202, issued July 5, 1892, I have set forth a syringe of this character. In the practical manufacture and sale of this invention I have discovered that a syringe of this construction is more or less expensive, owing to the number of the parts, and the required fitting thereof necessary for permitting thorough cleansing, and that its sale is more or less limited, as it becomes necessary to purchase an entire new syringe, which is a matter of considerable importance to those having syringes of ordinary construction.

My present invention consists of an inexpensive attachment for use with the main tube or pipe of an ordinary syringe, and is so constructed that, when applied thereto, the discharged or returning liquids from the syringe are received within the chamber of the attachment, and are thence conducted through a discharge pipe connected thereto.

A represents the main tube or pipe of a syringe, which is of any desirable form or construction, and is formed at one end with one or more outlets *a*. The opposite end of the tube A is detachably connected to an inlet pipe B for the incoming liquid formed preferably of soft rubber or other flexible material. As the tube or pipe A and the inlet pipe B form no part of my present invention it is unnecessary to further illustrate or describe the same.

C is the return chamber of my improved attachment, which is adjustable lengthwise of the tube or pipe A. This chamber is preferably formed substantially conical, and is usually provided with a flexible inclosing wall of rubber or other suitable material. The reduced end *c* of the chamber C is nearest the outlet *a* of the tube or pipe A in order that said reduced end may enter and close the vagina. By moving the chamber C lengthwise of the tube A the syringe is adjusted to the desired amount of entrance, and, as said chamber is inclosed by a flexible wall, it readily fits any size of orifice when sufficiently introduced.

The reduced end c of the chamber C is formed with a perforation c' having an expansible wall, and this perforation readily receives the pipe A, and closely fits the same. The opposite end of the chamber C is formed with an end wall C′, the substantially central portion of which is provided with a projection C^2 extending toward the reduced end c and provided with a perforation c^2 aligned with the perforation c' and also formed with an expansible wall. The perforation c^2 also readily receives and closely fits the main tube A, and the peculiar construction of the projection C^2 tends to make a tight joint between the chamber C and the tube A for preventing the discharge of liquid from said chamber through the aperture c^2 along the tube A. The apertures c' c^2 form a lengthwise passage for receiving the tube A, and, although the aperture c' preferably closely fits the tube A, it is evident that said aperture may be sufficiently loose to permit the entrance of liquid within the chamber C if desired.

My improved attachment is preferably provided with a flange C^3, which extends from the outer edge of the wall C′, in a plane substantially coincident with that of the inclined wall of the chamber C and further insures a tight joint between the attachment and the walls of the orifice of the vagina. Moreover, if the chamber C is of sufficiently small capacity, it readily enters the vagina, and the flange C^3 bears against the walls of the orifice thereof, and protects the same from the hot water or other liquid frequently used to control hemorrhage or inflammation.

The reduced end of my improved attachment is formed with an inlet c^3, and, instead of depending upon a single opening, I preferably use a number thereof arranged in a circular series, and each formed of greater length than width. The opposite end of the attachment is provided with a suitable inlet c^4, to which an outlet pipe D for the outgoing liquid is connected either by a nipple d', as illustrated, or in any other well known manner.

At Fig. 4 I have illustrated a slightly modified form of my invention, in which the chamber C^{10} is unprovided with a depending flange at the outer edge of its enlarged end, and at Fig. 5 I have shown an additional modification consisting of a chamber C^{20} formed with a substantially flat lower wall C^{21} and a flange C^{22} of considerably greater projection or width than the flange C^3. Shown at Figs. 1, 2, and 3.

At Fig. 6 I have illustrated a further modified form of my invention consisting of a chamber C^{30} open at its upper end and formed in the upper extremity of a body C^{31}, more or less rigid, and a flexible shield or sleeve C^{32} secured to the lower edge of the body C^{31}.

My improved attachment is evidently economically manufactured, is capable of thorough cleansing, and, after the introduction of the syringe, it may, if desired, be moved lengthwise of the main tube for varying the amount of entrance of the syringe.

The operation of my invention will be readily understood upon reference to the foregoing description and the accompanying drawings, and, as previously stated, it is not limited to any particular construction of main tube or pipe, and its exact detail construction and arrangement may be somewhat varied.

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

1. In a vaginal syringe, the combination of a main tube provided with an outlet; with a return chamber adjustable lengthwise of the main tube and formed with a reduced end for entering and closing the vagina, having a perforation therethrough for receiving the main tube formed with an expansible wall; said chamber being also formed with a projection extending from substantially the central portion of its opposite end, and having a perforation in its outer end for receiving the main tube, aligned with the former perforation and formed with an expansible wall; and said chamber having an inlet in its reduced end and an outlet in its opposite end, substantially as described.

2. As a new article of manufacture, the herein described attachment for syringes, the same consisting of a substantially conical chamber having a flexible wall and provided with a lengthwise passage therethrough for receiving the main tube of a syringe, and having an inlet opening in its reduced end, and an outlet opening in its opposite end, substantially as and for the purpose specified.

3. As a new article of manufacture, the herein described attachment for syringes, the same consisting of a substantially conical chamber having a flexible wall and provided with a lengthwise passage therethrough for receiving the main tube of a syringe, and having an inlet opening in its reduced end, and an outlet opening in its opposite end, and a substantially conical flange or shoulder extending from the outer edge of said opposite end of the chamber and forming substantially a continuation of the outer longitudinal wall of said conical chamber for protecting the adjacent parts of the user, substantially as and for the purpose described.

In testimony whereof I have hereunto signed my name, in the presence of two attesting witnesses, at Salida, in the county of Chaffee, in the State of Colorado, this 21st day of July, 1894.

JOHN H. MORRISON.

Witnesses:
L. P. RUDOLPH,
J. W. DEWEESE.