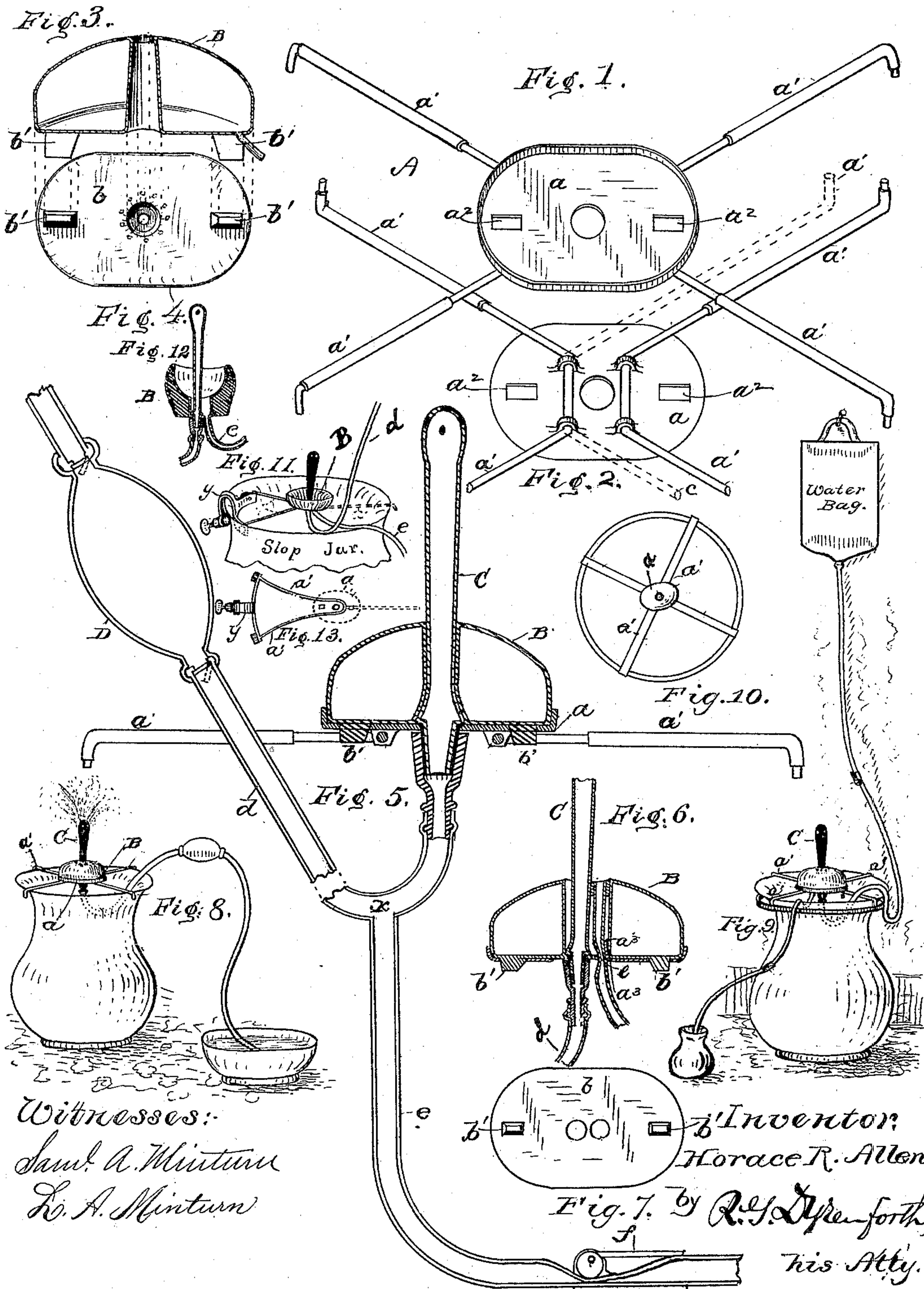


(No Model.)

H. R. ALLEN.
SYRINGE ATTACHMENT.

No. 330,081.

Patented Nov. 10, 1885.



Witnesses:

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UNITED STATES PATENT OFFICE.

HORACE R. ALLEN, OF INDIANAPOLIS, INDIANA.

SYRINGE ATTACHMENT.

SPECIFICATION forming part of Letters Patent No. 330,031, dated November 10, 1885.

Application filed May 9, 1885. Serial No. 164,880. (No model.)

To all whom it may concern:

Be it known that I, HORACE R. ALLEN, a citizen of the United States, residing at Indianapolis, in the county of Marion and State of Indiana, have invented a new and useful Syringe Attachment, of which the following is a specification.

My invention relates to syringe attachments.

The object of my invention is to produce a support whereby a syringe may be used without having to hold the nozzle thereof in place, and whereby when a syringe is used in the treatment of vaginal and uterine diseases the external parts may receive a steady upward pressure, while the immediate escape of the water from the vagina will be prevented or retarded, thus distending the vagina and elevating the uterus by pressure of the liquid, and insuring penetration thereof to all parts necessary.

My invention consists, first, in the combination, with a syringe nozzle, pipe, or douche, of a frame adapted to rest upon a vessel or closet-seat for supporting such syringe nozzle, pipe, or douche.

The invention consists, further, in the combination, with a supporting-frame, of a cone, pad, cushion, cup, or shield, adapted to have passed through it the nozzle of a syringe or a pipe.

The invention further consists of a pad, cone, cushion, cup or shield, suitably supported and provided with means for permitting the outflow of water from the vagina and for retarding the same.

In the accompanying drawings, forming part of this specification, like letters and marks of reference indicate corresponding parts.

Figure 1 is a perspective view of the upper side of a supporting-frame. Fig. 2 is a perspective view of the under side thereof with two of the arms broken off, one method of folding the arms being shown in dotted lines. Fig. 3 is a vertical sectional view of one form of cushion or pad with a central tube smaller at the top to hold a syringe nozzle or pipe securely and make a water-tight joint, and showing around the central tube holes which may be close around the syringe nozzle or pipe when in position, which holes serve for the escape of liquid either into the central tube or into the cavity of the pad or bulb. Fig.

4 is a view of the under side or bottom of the same pad. Fig. 5 is a vertical sectional view of a cushion in position on the supporting-frame, and with a syringe attached ready for use. Fig. 6 is a sectional view of a modification of the pad or cushion, showing a part of the lower end of its central tube adapted to hold the syringe-nozzle, while the upper end is either open, as shown to the left of the figure, for the purpose of allowing the liquid to be discharged through the tube and by a pipe connected therewith below, or closed at the top, excepting to a pipe passing through the tube, and constricted by pressure of a part of the syringe-nozzle against it, but capable of being enlarged to its fullest extent by a lateral pull in the proper direction upon the education-pipe of the syringe, as shown to the right of the figure. Fig. 7 is a plan view of the under side of the modification shown in Fig. 6. Figs. 8 and 9 are perspective views of forms of the complete device in position for operation. Fig. 10 is a plan view of a modification of the supporting-frame. Fig. 11 is a perspective view of a modification of the frame and pad, the pad being in the form of a cup. Fig. 12 shows another modification of the pad, there being here, as in Fig. 6, capability of construction of the discharge-pipe from the pad by the syringe-nozzle. Fig. 13 is a plan view of the modification of the supporting-frame shown in Fig. 11.

A marks the supporting-frame, which consists of a central plate or disk, *a*, of greater or less size, and of any suitable shape, according to use, and with one or more perforations, the plate or disk being provided with folding legs or arms *a'*, which may be longitudinally extensible and against springs, and which may be hinged to the plate, so that the frame may be folded for packing, as shown by dotted lines in Fig. 2, or be fixed rigidly thereto to shut in or close under like the blade of a jack-knife. The plate may have an upward projecting rim, and through a central hole passes the syringe-nozzle or a pipe. The arms *a'* are designed to rest upon a vessel or upon a closet-seat, and support the nozzle of a syringe without any aid from the hands, and either by itself or in connection with a pad or cushion, which is thus held firmly against the parts. The pressure of the pad against the body may

be increased or diminished by bending the arms up or down. If bent down, the hams or buttocks will take the weight of the body off the pad. The outer ends of the arms are preferably covered with rubber to keep them from slipping or sliding upon the vessel or seat.

Modifications of my supporting-frame are shown in Figs. 10, 11, and 13.

The modification shown in Fig. 10 consists of a ring or hoop having the legs or arms crossed within its circumference, and bearing centrally the plate *a*. In operation the hoop is dropped upon or over the vessel or closet-seat, the nozzle projecting through the plate, and the plate, when desirable, also supporting the pad, all as shown in Fig. 9.

In the modification shown in Fig. 11 a clamp, *y*, secures two of the arms against the side of the vessel, there being, if desirable, a rod passing across, as shown in dotted lines.

B marks the cushion or pad, which is provided with a central tube, and which consists, preferably, of a hollow piece of rubber of suitable size and shape, the base or bottom *b* thereof being designed to rest upon the plate *a*, and being usually provided with downward-projecting lugs *b'*, designed to pass through slots *a'*, provided in the plate *a* to receive them.

When made of wood or metal, the pad may be fastened to the plate with screws; but whether of rubber or of other material, it is not absolutely necessary that the pad should be secured to the plate or disk, nor be upon any support.

The top of the pad is preferably convex or conical, and may be provided with holes for drainage, which may be close around the nozzle of the syringe when inserted, or around its own projecting nozzle, the shell of rubber or other material being thick enough to resist the pressure of the vagina. The openings near the top of the cone may pass directly into the bulb-cavity, and a pipe connected therewith carry off the liquid, and the conical bulb so formed may be attached to the eduction-pipe of a syringe. Under this construction the central tube is made small at the top to fit closely around a syringe nozzle or pipe there; but instead of the holes, which will be at the top around the syringe-nozzle when inserted, the central tube of the pad may be greater in diameter than the syringe-nozzle or inserted or attached pipe, this being held closely at the bottom, and there being beside it a drainage-tube.

The nozzle or pipe *C*, which is preferably of soft rubber, may pass from the center of the base of the pad through the top or convex portion of the same, and forms, preferably, a liquid-tight connection with the pad.

When the pad is fastened by passing the lugs or projection *b'* through the slots *a'* in the plate *a*, the nozzle is held erect, and the device forms a very soft and self-adjusting cushion when the user is sitting upon it with the soft rubber nozzle inserted into the vagina. The

cushion readily adjusts itself to the labia and external parts, and prevents the escape of liquid from the vagina until a sufficient quantity has been injected thoroughly to distend the same, lifting the uterus, correcting misplacement of the same, and thoroughly washing every portion of the mucous membrane with or without the frame.

Instead of being convex or cone shaped at the top the pad may be concave or cup shaped, as shown in Figs. 11 and 12.

Outflow of liquid from the vagina may be retarded, checked, or stopped in various ways, as by having the holes at the top of the pad in Fig. 3 so small as not to carry off at once the entire quantity injected, or as by the device shown in Fig. 5, or that shown in Fig. 6. In Fig. 5 the eduction-pipe *d* of a syringe, *D*, has connected with it at *x* a pipe, *e*, which is provided with a clamp, *f*. The requisite quantity of liquid is injected into the vagina, and, when desired, the clamp is opened more or less and the liquid allowed to drain off.

In Fig. 6, as shown to the left thereof, the tube is as large at the top as at the bottom, and the lower end instead of the upper end is made to hold the nozzle or pipe. The lower end of the tube is covered over or plugged and provided with two holes. The nozzle or pipe is inserted through the one hole while to the other is connected a discharge-pipe, which may either only connect with the central tube or pass up through it to the upper part thereof, as shown to the right of the figure. In this case the lower portion of the nozzle is of metal or hard rubber and bears against that portion of the bottom of the pad which intervenes between the discharge-tube, (marked *e*), constricting such discharge-tube by pressing it against a metal plate *a'*, which may be a flange projecting from the plate *a* of the frame. The piece around the lower hard part of the nozzle, and which bears against the discharge-tube *e*, may be in the form of a ring inserted into the enlarged bottom of the tube through the pad. The ring then presses the discharge-tube *e* against the plate, flange, or lip *a'*, and either partly or entirely shuts off the discharge of liquid from the vagina. It is held against the discharge-tube *e* by the elasticity of the pad *B* serving as a spring.

When it is desired to discharge the liquid more or less freely from the vagina, the eduction-pipe *d* is pulled in a direction away from the discharge-pipe *e*, which relieves the same from pressure against the plate. The ring may be slightly widened at its lower edge, so that the farther it is forced upon the nozzle the more completely will it constrict the discharge-pipe. The constriction may be such that there will be a constant discharge from the vagina.

Before the pressure in the vagina will become too great the discharge-pipe will be opened by such pressure itself, being thus automatic, and thus serving as a safety-valve. For this reason, and because it can be so

readily and conveniently operated, I consider this form of valve preferable to that shown in Fig. 5.

The constriction of the discharge-pipe may be applied to the device shown in Fig. 12.

The advantages of my syringe attachment, as above described, are that it dispenses altogether with the annoyance of holding the nozzle of a syringe or pipe of a douche in place with the hand; that the person employing it can sit at ease without fatigue and use a greater amount of liquid, producing a more decided effect, and that the cushion, pressing firmly against the body, fits the parts closely, preventing escape of liquid until the vagina is thoroughly distended, thus washing all objectionable matter from it or subjecting it and the os and neck of the uterus to a longer action of any medicated fluid, while at the same time it helps to correct displacement of the uterus.

With the pipe *c* attached and without the frame, by firmly pressing or pulling the pad against the parts, as by a rod attached to the plate *a*, bent up at right angles to lie against the abdomen, and provided with a handle, and jointed for convenience in packing, the syringe may be used while the patient is lying in bed.

In the ordinary syringe the nozzle is not more than one-eighth of an inch in diameter, and the liquid thrown into the vagina passes down and out alongside of the nozzle, and as it requires but little more space than that occupied by the nozzle but a small portion of the mucous surface is brought in contact with the liquid.

In my improvement the mouth of the vagina

is closed by the pad, whether convex or concave, and the liquid, being forced in and not allowed to escape immediately, expands the walls of the vagina until it reaches every part. The pad may thus be used in its frame as an attachment upon the eduction-pipe of a syringe and have a hard or soft tube projecting from its cone end, either the perforations around the end into its tube or into its cavity, or the tube itself in connection with a discharge-pipe, or a separate discharge-pipe, serving to carry off the fluid injected into the vagina.

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

1. The combination, with a syringe nozzle, pipe, or douche, of a frame adapted to rest upon a vessel, or a closet-seat to support such nozzle, pipe, or douche, substantially as described.

2. In a syringe attachment, the combination, with a supporting-frame adapted to rest on the top of an open vessel or closet-seat, of a pad, cone, cushion, cup, or shield supported thereon, and a syringe-nozzle or a pipe, substantially as and for the purposes specified.

3. A pad adapted to fit the vagina, provided with an induction-tube and with a discharge-conduit adapted to stop, check, or retard the outflow of liquid from the vagina, and combined, with a frame, substantially as described.

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

HORACE R. ALLEN.

Witnesses:

S. DAVISON,
L. A. MINTURN.