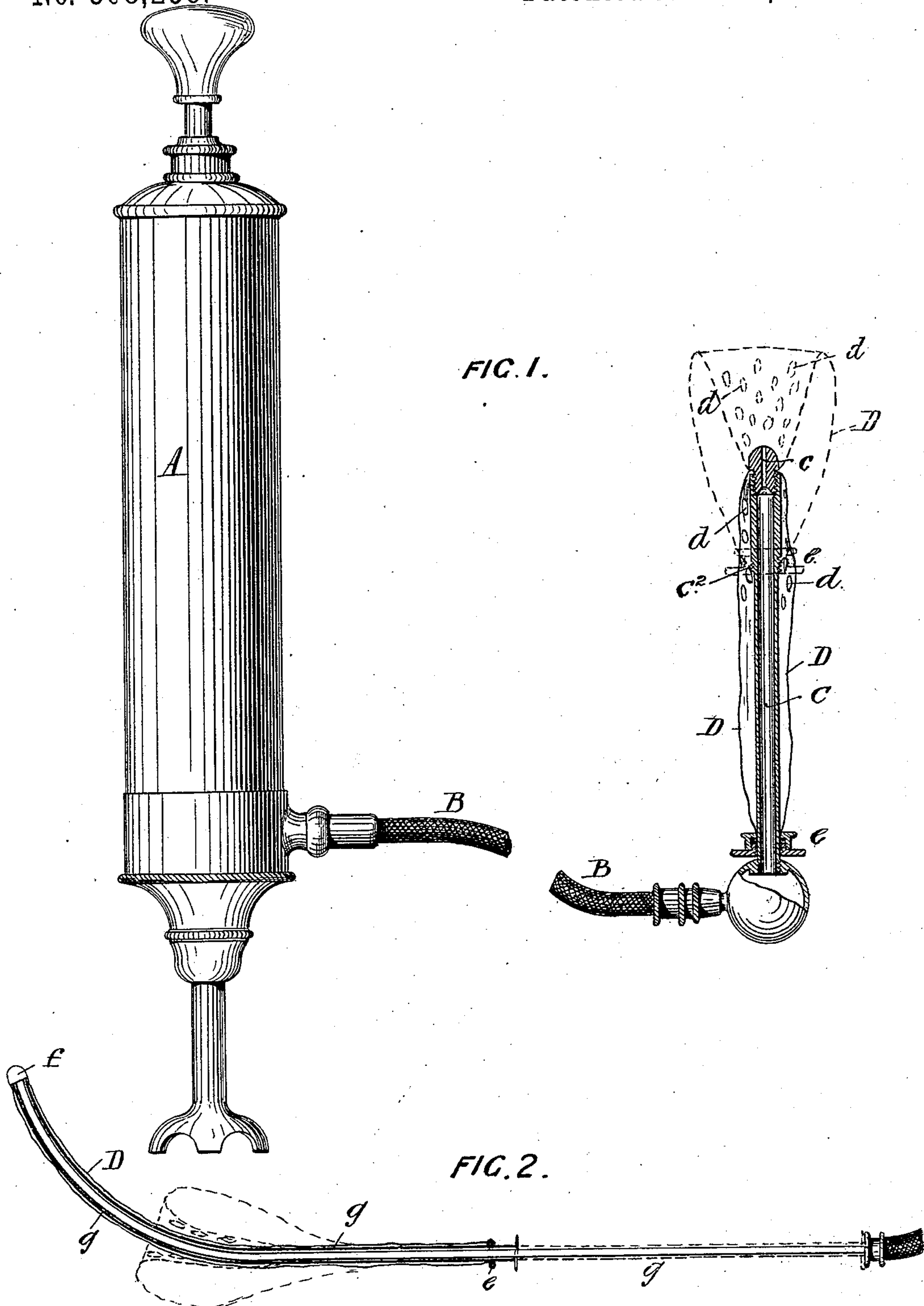


(No Model.)

C. H. BUTLIN.
SYRINGE ATTACHMENT.

No. 308,238.

Patented Nov. 18, 1884.



Witnesses:
E. A. Dick
J. Walter Blandford

Inventor:
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by *Marcellus Bailey*
Att'y

UNITED STATES PATENT OFFICE.

CHARLES HENRY BUTLIN, OF CAMBORNE, COUNTY OF CORNWALL,
ENGLAND.

SYRINGE ATTACHMENT.

SPECIFICATION forming part of Letters Patent No. 308,233, dated November 18, 1884.

Application filed November 23, 1883. (No model.) Patented in England October 12, 1883, No. 4,857.

To all whom it may concern:

Be it known that I, CHARLES HENRY BUTLIN, surgeon, a subject of the Queen of Great Britain, and residing at Camborne, in the county of Cornwall, England, have invented certain Improvements in Enemas, Catheters, or like instruments for making surgical injections, (for which I have obtained a patent in Great Britain, No. 4,857, dated October 12, 1883,) of which the following is a specification.

My invention has for its object to provide the nozzle parts of enemas, catheters, or like instruments for making surgical injections with means whereby a retention of the fluid of injection is obtained.

According to my said invention I affix at or near the outlet-orifice of the instrument a flexible bag or its equivalent, which extends some distance back over the tube, and is provided with a ring or other attachment to be held in the hand. The instrument when in use is introduced in the ordinary way, the tube being held in one hand, and the ring or attachment of the flexible bag in the other. By retraction of the tube or the bag the said bag forms a lining or retainer for preventing backflow or escape of the fluid of injection.

A vaginal syringe has before been made containing a flexible retaining-bag; but this bag has been combined with internal-hinged metallic fingers, which would be spread apart by the movement of the like, so as to expand the bag. In my instrument, however, no such devices are employed. The inner wall of the doubled portion of the bag is free to lie against the outer wall and to hold the same against the sides of the passage into which the tube may be inserted.

Figure 1 of the accompanying drawings represents an enema arranged according to my invention. A is the part of the instrument by which the fluid of injection is forced or pumped, and B is the flexible tube leading to the nozzle part C. These parts may be of any suitable kind, the essential features of my invention being quite independent of the kind of forcing or pumping apparatus employed. I have merely illustrated one form of it to make the drawing complete. D is a flexible

bag surrounding the tube C of the nozzle part. The said bag may be attached in any suitable way. As shown in the drawings, its upper end is pinched between the end of the tube C and the nipple *c* screwed therein, its lower end being secured between the parts of the screw ring piece *e*, in which the tube *c* is capable of sliding.

When the parts are in the position shown in full lines in the drawings, the instrument is inserted in the ordinary way. The tube C is then drawn back, whereby the bag D is caused to take the position indicated in dotted lines, forming a lining or retainer for preventing backflow of the fluid of injection. The parts may be secured in position by screwing the ring *e* upon a screw-thread formed on the tube C at *c*².

The fore part of the bag D may be perforated, as at *d*, to facilitate the operation and retention of the fluid.

Fig. 2 represents the application of the invention to a catheter. The head *f* of the catheter has a depressed part behind it, to keep the upper part of the attachment close to the head of the catheter. A tube, *g*, is provided, capable of being slid upon the catheter-tube. The said tube *g* may be of flexible material, strengthened by a metal strip or strips, or it may be of any other suitable material. To the front end of this tube the front end of the bag D is attached.

The instrument is introduced with the parts in the position shown in full lines, and then the tube *g* is drawn back, as indicated in dotted lines, the outer part of the bag D being held in position by grasping the ring *e*. The catheter may then be pushed forward, as it will slide through the tube *g* and flexible bag, and at the same time fluid may be injected.

The bag D is shown in its doubled position in an exaggerated way to render the drawings clearer.

The head *f* may be perforated instead of or in addition to the side, as usual.

From the foregoing description the general application of my invention to instruments for making surgical injections will be readily understood.

I claim—

1. In a syringe, the combination, with the main injection-tube, of a flexible retaining-bag surrounding said tube and having its ends secured to a tube and collar movable longitudinally relatively to one another to straighten or double said bag, the inner wall of the doubled portion of said bag being free to lie against the outer wall without the interposition of hinged metallic fingers, and hold the same against the sides of the passage into which the tube may be inserted to retain the fluid injected, substantially as hereinbefore set forth.

2. In a syringe, the combination, with the main injection-tube, of a flexible retaining-bag surrounding said tube and having its ends secured to a tube and collar movable longitudinally relatively to one another to straighten or double said bag, the end of the bag near the point of delivery of the tube being perforated to more effectually insure that the fluid shall hold the outer wall of the bag against the sides of the passage into which the tube may be inserted, substantially as hereinbefore set forth.

3. In a syringe, the combination, with the main injection-tube, of an outer tube surrounding and adapted to slide upon the same, a sliding collar on said outer tube, and a flexible retaining-bag surrounding said tubes, and secured at the forward end to the outer tube and at the rear end to said collar, substantially as hereinbefore set forth.

4. In a syringe, the combination, with a curved injection-tube, of an outer flexible tube surrounding and adapted to slide upon the same, a sliding collar on said outer tube, and a flexible retaining-bag surrounding said tubes, and secured at the forward end to the outer tube and at the rear end to said collar, substantially as hereinbefore set forth.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

CHARLES HENRY BUTLIN.

Witnesses:

ROBERT M. PAUL,
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J. H. SAMPSON,
Accountant, Truro.