

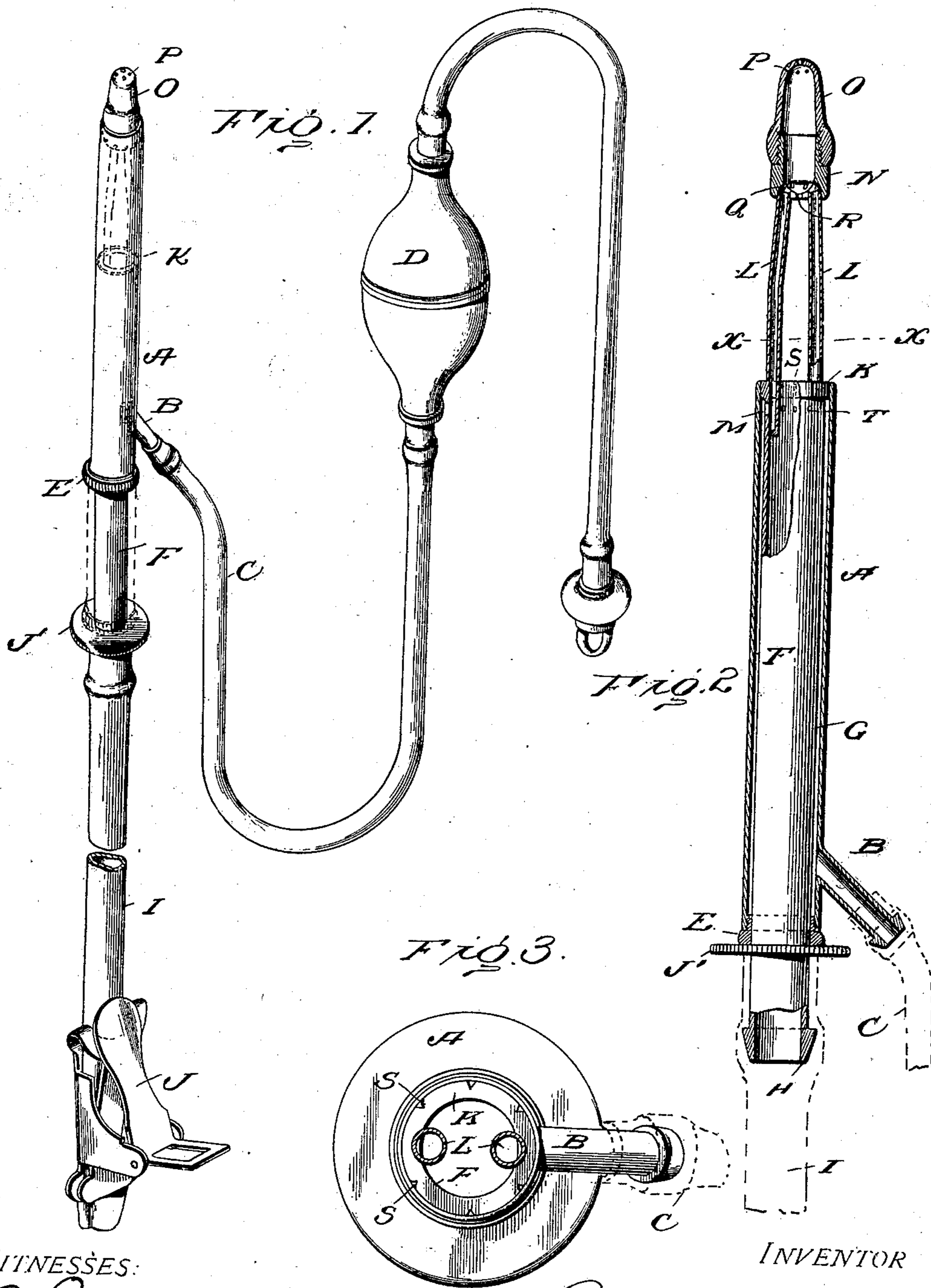
No. 663,691.

R. N. BARGER.
SYRINGE.

Patented Dec. 11, 1900.

Application filed Mar. 24, 1900.

(No Model.)



WITNESSES:

John Miller
Wm. J. Jacob

INVENTOR

Ross N. Barger
BY *Ym. C. W. Fritze*
Attorney

UNITED STATES PATENT OFFICE.

ROBERT N. BARGER, OF HOPEDALE, ILLINOIS.

SYRINGE.

SPECIFICATION forming part of Letters Patent No. 663,691, dated December 11, 1900.

Application filed March 24, 1900. Serial No. 10,069. (No model.)

To all whom it may concern:

Be it known that I, ROBERT N. BARGER, a citizen of the United States, residing at Hope-
dale, in the county of Tazewell and State of
5 Illinois, have invented certain new and use-
ful Improvements in Artificial Defecators and
Irrigators; and I do hereby declare the fol-
lowing to be a full, clear, and exact descrip-
10 tion of the invention, such as will enable oth-
ers skilled in the art to which it appertains to
make and use the same.

My invention relates to certain new and
useful improvements in surgical instruments,
and which I denominate as an "artificial defe-
15 cator and irrigator."

It has for its object to provide a means for
irrigating the bowels to soften and fluidize the
fecal matter and discharge the same through
a drainage-tube; and with these ends in view
20 my invention consists in the construction and
arrangement hereinafter fully described, and
illustrated in the drawings.

My improved instrument is designed to
avoid the necessity in extreme cases of evacu-
25 ation by the usual process of contraction of
the sphincter ani and perineal muscles, and
is especially useful in cases of severe hemor-
rhoids and when a patient is too ill to make
any exertion for the purpose of evacuation,
30 and it is likewise useful in disinfecting the
bowels.

In order that those skilled may fully un-
derstand my invention, I will proceed to de-
scribe the construction of my improved defe-
35 cator and irrigator and the manner of using
the same, referring by letters to the accom-
panying drawings, in which—

Figure 1 is a perspective view of my im-
proved instrument, with the injection and
40 drainage tubes connected therewith, the parts
of the instrument being in position ready for
insertion, the dotted lines showing the change
of relation in the parts after insertion. Fig.
2 is a central longitudinal section, on enlarged
45 scale, of the instrument, the dotted lines in-
dicating its connection with the injection and
drainage tubes; and Fig. 3 is a cross-section
on the line *xx* of Fig. 2 and on a more exag-
gerated scale.

50 Similar letters of reference indicate like
parts in the several figures of the drawings.

A represents a tube of suitable material,

such as sheet metal or hard rubber, provided
with a lateral branch or induction nipple B,
adapted to receive the end of the flexible tube 55
C of an ordinary bulb-syringe D. The lower
end of the tube A is interiorly threaded to
receive a centrally-bored ring, plug, or cap E.

An interior tube F is located within the ex-
terior tube A, as best shown at Fig. 2, and 60
the difference in diameter of the two tubes is
such as to leave an annular space between the
said tubes and communicating with the in-
jection-nipple B of the tube A. The lower
end of the inner tube F is formed with a swell 65
H to receive the end of a flexible drainage-
tube I, which may be provided with any suit-
able clamping device J for contracting or clos-
ing said tube.

J' is a ring head secured to the tube F and 70
by means of which it may be readily manip-
ulated, as hereinafter described. The upper
end of the interior tube F is provided with
a ring bushing K, adapted to close the upper
end of the annular space G when the inner 75
tube is raised to the position shown in Fig. 2,
the lower end of said annular space being
closed by the ring E. The upper end of the
inner tube F has secured thereto two or more
small tubes L, the lower ends of which are 80
closed, and a lateral opening M constitutes a
communicating passage between the interior
of the small tubes L and the annular space
G between the exterior tube A and the in-
terior tube F, as clearly shown at Fig. 2. The 85
upper ends of the small tubes L connect with
a hollow cap N, the upper end of which is
threaded to receive a correspondingly-thread-
ed nipple O, the upper end of which is per-
forated with small divergent holes or chan- 90
nels P. The head N is also perforated to pro-
vide radial channels Q and one or more ver-
tical channels R. The lower portion or base
of the nipple O is swelled to fit within and
close the upper end of the outer tube A when 95
the parts are in the relative position shown
at Fig. 1 and ready to be inserted into the
rectum.

The ring bushing and guide K is formed
with small peripheral openings or grooves S, 100
communicating with the annular space G be-
tween the tubes A and F, as best shown at
Fig. 3. The inner tube F may be also pro-
vided near the upper end and below the ring

bushing K with small radial orifices T, leading to the space G for the purpose of aiding in cleaning the instrument.

In using the instrument the inner tube F is drawn down into the position shown in Fig. 1, with the nipple O closing and covering the wall of the outer tube A. The instrument is then properly lubricated and inserted up the rectum any desired distance, and then the inner tube is forced upward, by grasping the ring head J', into the position shown in Fig. 2 and opening the upper end of the outer tube A. Water or other preferred fluid in any proper quantity is then injected by the syringe D. The fluid passing into the annular space G is forced upward and into the small vertical tubes L, thence into the cap N and nipple O, and is ejected in spray from through the several orifices P Q R in an obvious manner. The contact between the water and the contents of the bowels causes liquefaction of the latter, and in such condition it is free to enter the upper open end of the interior tube F and pass down to and out of the drainage-tube I when not closed by the clamp J.

It will be observed that the drainage-canal within the inner tube F is unobstructed at all times and that the injected fluid is likewise unobstructed. I desire to call particular attention to the fact that the several orifices P, Q, R, and S enable the water or other fluid to be injected upwardly, laterally, and downwardly and to the best advantage in softening the fecal matter. The orifices S serve also the function of enabling the mouth of the water canal or space G to be cleansed, and the small radial openings T permit the ready cleansing of the interior drainage-canal.

From the construction shown and described it will be seen that the syringe and drainage-pipe may be readily removed, and that by removing the nipple O and the ring plug E the inner tube F may be entirely removed from the surrounding tube A and the instrument separated into three parts, so that they may be readily cleaned and sterilized.

My improved instrument may be used as an ordinary syringe by simply clamping or closing the drainage-tube I, and while it is especially designed to be used for artificial defecation and irrigation it will be readily seen that by obvious changes in the design of the parts it may be used as a vaginal syringe and irrigator.

I of course do not wish to be confined to all the details of construction shown, as they may be varied without departing from the spirit of my invention, and likewise I do not wish to be limited as to character of material employed in the manufacture of the instrument.

Having described the construction, operation, and advantages of my improved instrument, what I claim as new, and desire to secure by Letters Patent, is—

1. In combination with an outer tube provided with a lateral nipple B, and a closing-ring E, an internal drainage-tube of smaller diameter than the outer tube and provided at the lower end with means for connection with a drainage-tube, and at the upper end with a ring bushing and upwardly-extended conduit-tubes communicating with the space between the inner and outer tubes and terminating at the upper end in a perforated head and nipple, the inner tube adapted to reciprocate within the outer tube, an injection-tube connected with the nipple, B, and a drainage-tube I, connected with the lower end of the inner tube, substantially as and for the purposes set forth.

2. In combination with the outer tube A, and inner tube F, of different diameters to constitute an annular chamber G, the ring bushing K, tubes L, communicating with the space G, and terminating at the upper ends in a hollow perforated head N, provided with a removable nipple O, adapted to close and protect the upper end of the outer tube H, substantially as shown and described.

3. In combination with the outer tube A provided with the injection-nipple B, and closing-ring E, the inner tube F, provided with drainage-tube I, at the lower end and conduit-tubes L, terminating in a head N, and nipple O, and provided with a ring bushing K, having channels S, substantially as and for the purpose set forth.

4. In combination with the outer tube A, and inner tube F, provided at its upper end with radial orifices T, arranged with an annular space G between them, means for injecting fluid into the space G, whereby fluid injected into the space G, may escape within the upper end of the inner tube F to cleanse the same substantially as hereinbefore set forth.

5. In combination with an outer tube A provided with a laterally-projecting injection-nipple, an inner telescopic drainage-tube of smaller diameter than the outer tube and provided at its upper end with a nipple adapted to open and close the upper end of the outer tube substantially as and for the purposes set forth.

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

ROBERT N. BARGER.

Witnesses:

W. M. GOODING,
JOSEPH FISHEL.