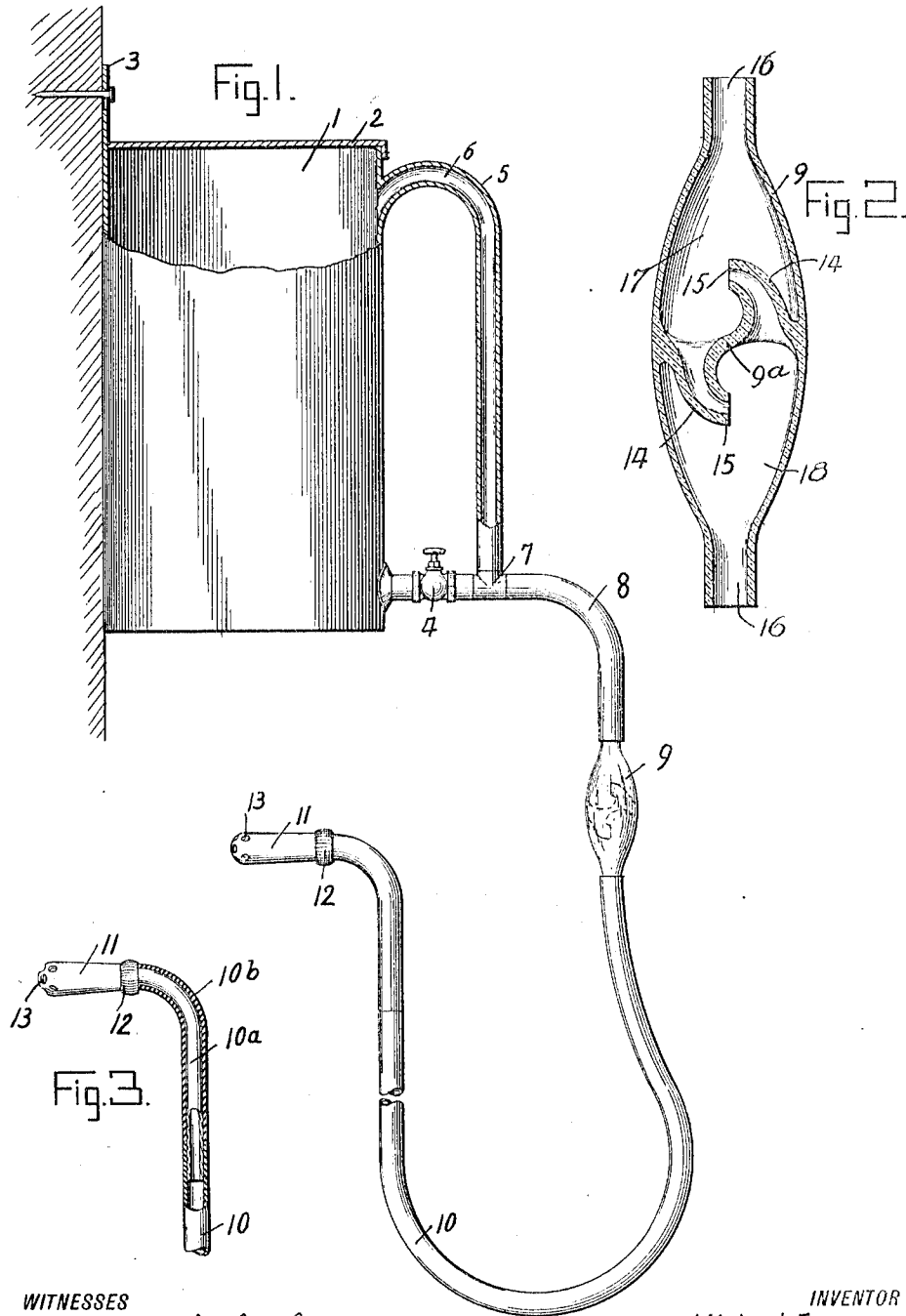


M. IVERSEN.
SURGICAL APPLIANCE.
APPLICATION FILED AUG. 2, 1912.

1,081,834.

Patented Dec. 16, 1913.



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SURGICAL APPLIANCE.

1,081,834.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, MICHAEL IVERSEN, a citizen of the United States, and a resident of Stoughton, in the county of Dane and State of Wisconsin, have invented a new and Improved Surgical Appliance, of which the following is a full, clear, and exact description.

This invention relates generally to surgical appliances and, more particularly, it is directed to a new and improved dropper, which is especially adapted for use in douching.

The object of the invention is the provision of a reversible dropper through which the fluid is adapted to be passed either in large quantities, as in giving enemas, or in certain determined quantities, as in proctoclysis, a path for return gases being provided in the article.

Reference is to be had to the accompanying drawings, forming part of this specification, in which similar characters of reference denote corresponding parts in all the views, and in which, Figure 1 is a side view, partly sectional, of the appliance; Fig. 2 is a vertical sectional view of the dropper; while Fig. 3 is a sectional view of the tube and the nozzle carried thereby.

The appliance comprises a fountain can 1 of any desirable material, preferably enameled ironware, and provided with a scale on the inside in order that the quantity of fluid contained therein may be easily determined, the can being preferably provided with a cover 2 and some means whereby it may be suspended in position, as a perforated projection 3. Adjacent the lower end of the can is a valve or stop cock 4 and extending from the top portion of the can is a handle 5 made up of a hollow tube having the opening 6 extending therethrough, the opening communicating with the interior of the can 1, and with the outside of the said valve or stop cock 4; the opening in the handle 5 may be brought into communication with the outlet in the lower portion of the can through the stop cock 4 in any desirable manner, the idea being that from the junction 7 two paths are provided to the interior of the can.

Beyond the point 7 and communicating with the two passages to the interior of the can is a tube 8 of any desirable form or material and of any desired length, one end of a dropper 9 of transparent material being secured to the other end of this tube, while

beyond the dropper is a further tube 10 having a metal nozzle 11 provided with a shoulder 12 and a number of openings 13.

Referring particularly to Fig. 2, it will be noted that the dropper 9 is preferably of integral construction and is provided with the inner partition 9^a, whereby a plurality of chambers 17, 18, are provided, the chambers communicating with the said tubes 8 and 10 by means of the constricted and open end portions 16. The partition 9^a is of peculiar construction and is provided on opposite sides thereof with the nozzles 14, whereby the chambers 17, 18, are in communication with each other through a plurality of passages which extend through these nozzles, it being noted that the outer ends 15 are curved as shown. The construction of the dropper is symmetrical so that it is therefore reversible and either end may be made the top or bottom thereof.

The outer end of the tube 10 which terminates in the nozzle 11 is shown particularly in Fig. 3. It is preferably of the conformation shown, and comprises a metal tube 10^a with a rubber or similar covering 10^b, the metal tube being preferably provided with the integral shoulder 12 and the metal nozzle 11 with the opening 13 therein, the shoulder being provided in order that the nozzle may be retained in the opening in which it is placed to a determined depth.

The use of the apparatus is as follows:—The fluid to be used is placed in the fountain can and if only a given number of drops per minute are to be administered, the stop cock 4 may be regulated and the number of drops may be counted by viewing the interior of the dropper. The nozzle 11 or metal tip is inserted and, if this tip has been previously warmed, it may be left in position for some time, since it will quickly come to the temperature of the body. If the apparatus is to be used in giving enemas, of course, the dropper is not of such importance but may, however, be left in position, the fluid passing therethrough. The particular value of the dropper, as well as the fountain can, lies in the fact that gases which are returned may pass through the tube and the dropper and enter the can through the passageway or opening 6 in the tubular handle without affecting the flow of the fluid through these parts, due to the plurality of passageways between the compartments of the dropper and the hol-

low handle. The appliance may be left in position with respect to the body between treatments, if so desired, and when so used provides for the return of gases, thereby relieving abdominal pains.

The appliance shown and described does away with contrivances for keeping any solution hot in order to keep it at the temperature of the body since the metal tip or nozzle and the metal tube with the insulating or rubber covering will come to the temperature of the body.

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

1. The combination of a tube and a dropper to one end of which the tube is secured, the said dropper comprising a transparent open ended body having a plurality of compartments with a plurality of passageways between the compartments, whereby the amount of fluid passing through the tube may be seen.

2. The combination of a tube and a dropper to one end of which the tube is secured, the dropper being open ended and provided with a central partition with a plurality of passageways extending therethrough, whereby the dropper is provided with a plurality of compartments in communication with each other, the passageways serving to regulate the amount of fluid passed through the dropper and also serving to permit the passage of return gases therethrough.

3. A dropper such as described, comprising a transparent body having a plurality of compartments with a plurality of passageways between the compartments, whereby the amount of fluid passing from one compartment to the other may be seen.

4. A dropper such as described, compris-

ing a transparent body having a partition therein forming compartments and provided with a plurality of passageways extending therethrough, the end portions of the compartments being open, whereby when fluid is entered into one compartment the amount passing into the second compartment may be seen.

5. A dropper such as described, of integral construction and of transparent material, having a partition therein whereby a plurality of compartments are formed, passageways extending through the partition, the said passageways being curved, the fluid passing from one compartment to the other through the said passageways being visible.

6. A dropper such as described, comprising an open ended body, having a partition therein whereby compartments are formed, and curved passageways extending through the said partition into the compartments.

7. A dropper such as described, comprising a body having contracted open ends and provided with a partition therein, and passageways extending through the partition, the passageways being curved and extending in opposite directions, the said partition forming compartments within the dropper, the said passageways permitting the flow of the fluid from one compartment to the other and the escape of gas in an opposite direction.

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

MICHAEL IVERSEN.

Witnesses:

CLARA BRICKSON,
BERTHA JOHNSON.