

M. A. DEES.
INTERNAL BATH APPARATUS.
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1,115,908.

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Fig. I.

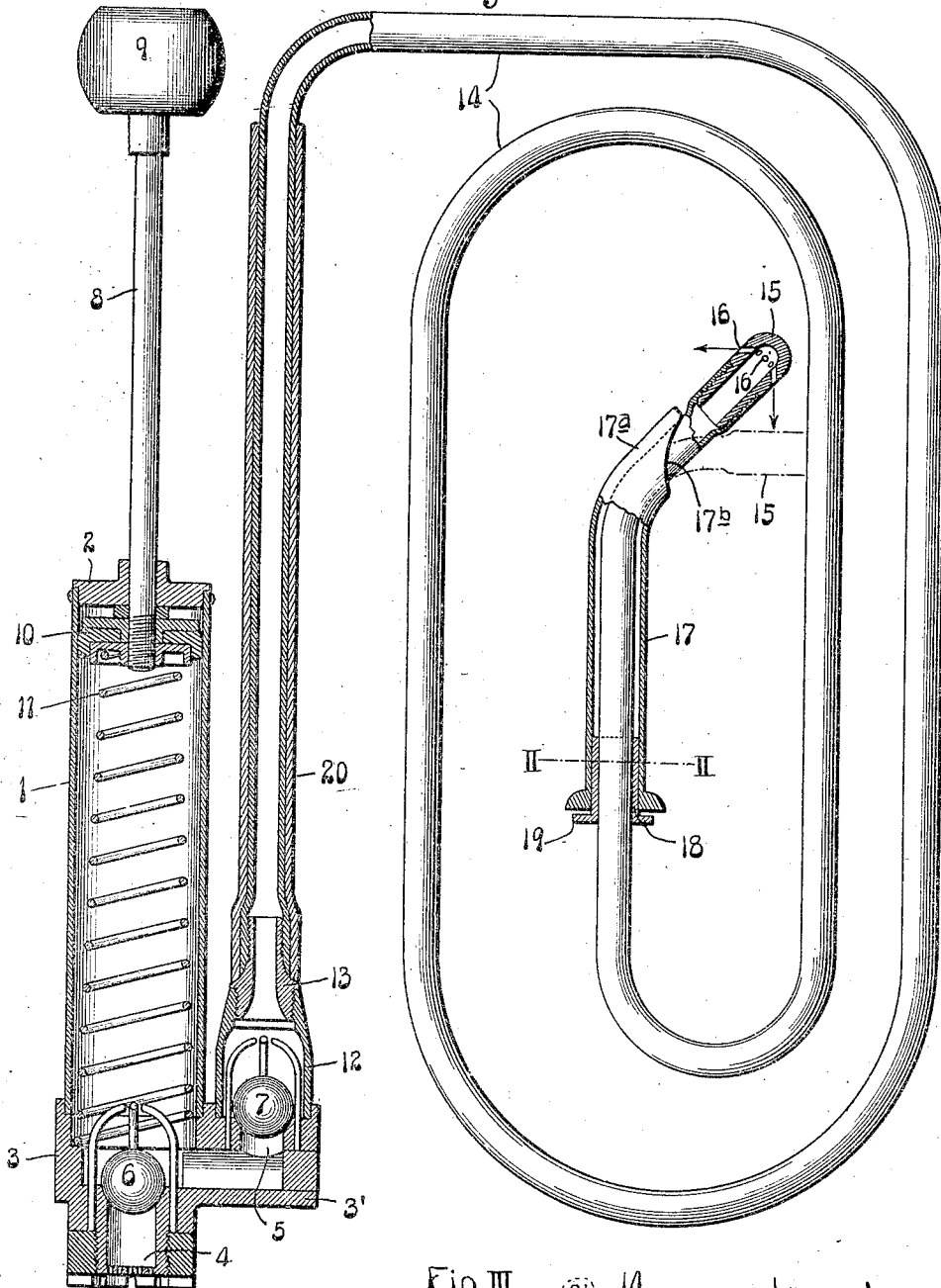
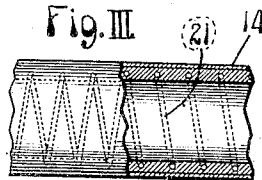


Fig. II.



Fig. III.



Attest
a. g. McCauley
Chas. A. Becker.

Inventor.
M. A. Dees
by *Knight & Cook*
Attys

UNITED STATES PATENT OFFICE.

MARK A. DEES, OF ST. LOUIS, MISSOURI.

INTERNAL-BATH APPARATUS.

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Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, MARK A. DEES, a citizen of the United States of America, and a resident of the city of St. Louis, in the State of Missouri, have invented certain new and useful Improvements in Internal-Bath Apparatus, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming a part of this specification.

My invention relates to apparatus for cleaning or flushing the colons or larger intestines of human beings, to dislodge fecal matter to be discharged from the body.

Figure I is a view of my bath apparatus, shown partly in elevation and partly in longitudinal section. Fig. II is a cross section of a flexible tube or conductor, a sleeve and a tubular plug taken on line II—II, Fig. I. Fig. III is an enlarged view of a fragment of the flexible tube or conductor, illustrated partly in elevation and partly in longitudinal section.

Referring first to the pump of my bath apparatus, 1 designates the pump barrel, which is closed at its upper end by a head 2, and is mounted upon a base 3, provided with an intake duct 4 and a discharge duct 5, the former leading to the lower end of the barrel, and the latter leading from the lower end of the barrel. The ducts 4 and 5 are controlled, respectively, by check valves 6 and 7 that may be of ball type, as shown, or of any other suitable type.

8 designates a piston rod operable in the head of the pump barrel, and adapted to be moved downwardly therethrough by grasping the handle 9 at the upper end of the piston rod. The piston rod carries a piston 10 by which the contents, water, or other liquid entering the pump, may be forced from the barrel of the pump through the discharge duct 5, past the check valve 7.

Inasmuch as my apparatus is intended to be self operated by the person receiving the internal bath, it is important that the piston be returned automatically to refill the pump barrel, after each discharging stroke of the piston; and, to accomplish such automatic return, I place within the pump barrel a spring 11 that presses constantly against the piston and moves it upwardly to its normal position at the top of the barrel, without the assistance of the operator.

The extension 3' of the pump base through which the discharge duct 5 extends

has fitted to it a coupling 12, including a nipple 13.

14 designates a long, flexible cylindrical tube of the same diameter, approximately, from end to end, and of rubber or other pliable material, that constitutes the conductor of my internal bath apparatus, this tube being preferably reinforced, as will be hereinafter described, to render it non-expandible, and non-contractible. The tube is made of a sufficient length to permit of its entrance into the organ to be bathed or flushed, to any desired degree, in order that the action performed may be as complete as there may be demand for.

15 designates a discharge nozzle fixed to the terminus of the flexible tube or conductor 14, and through which the liquid forced into and through the tube or conductor escapes. This nozzle contains discharge orifices 16, located in its wall only, said orifices being inclined backwardly relative to the longitudinal axis of the nozzle, in order that the liquid escaping therethrough may perform a service I will hereinafter mention. The nozzle is of larger diameter than the flexible tube and has its inner part reduced in diameter and threaded to receive the inner end of the tube which is expanded thereover. The nozzle with the inner extremity of the flexible tube are both therefore of larger diameter than the body of the flexible tube.

17 designates a guide sleeve arranged upon the flexible tube 14 adjacent its terminal end. This sleeve is, preferably, inflexible and is adapted to be primarily adjusted so that it will fit closely around the nozzle, previous to the introduction of the latter into the anus. The sleeve is of greater internal diameter than the external diameter of the flexible tube it surrounds and, therefore, when the sleeve is shifted backwardly away from the nozzle to surround the tube 14 only a passageway exists between the sleeve and the tube which is utilized for a purpose to be explained.

Provision for closing the passageway, just referred to, between the sleeve 17 and the flexible tube 14 is made by providing a tubular plug 18, which is adapted to be slipped into and out of the lower end of the sleeve, the plug being formed with a flange 19 that may be grasped to insert or withdraw it.

20 designates a casing for the portion of

the flexible tube or conductor 14 adjoining the pump and by which said portion is held in upright, or substantially upright, position to prevent closure of the passageway therein by the tube becoming bent.

I have previously mentioned that the flexible tube or conductor 14 is preferably reinforced to render it non-expandible and non-contractible, this being desirable in order that the tube will not expand under the force of liquid delivered therethrough, and will not contract to close the passage in the tube. To guard against both expansion and contraction of the tube, I embed therein a coil 21 of wire, or other suitable material, (see Fig. III).

The sleeve 17 of my apparatus has several important functions which I will enumerate as follows: It serves as a guide to facilitate the introduction of the flexible tube 14 and nozzle 15 into the rectum; it serves to prevent the flexible tube from chafing the anus; it prevents compression of the tube by the muscles of the anus; it incases the portion of the tube in the rectum to avoid closure of the passageway therein by bending of the tube; it furnishes a vent. Furthermore, this sleeve has a laterally curved forward end 17^a, which permits of the said forward end being directed into the bend at the upper end of the rectum, so that the nozzle of the flexible tube 14 will be guided to the sigmoid flexure in its course toward the descending colon. The terminal end of the sleeve is beveled or cut away at 17^b to allow the nozzle 15 and tube 14 to bend readily in a lateral direction relative to the rectum without too great a curvature of the forward end of the sleeve, and the curved upper end of the sleeve, above the bevel, serves to guard the flexible tube against pending action by the wall of the canal above said end.

In the practical use of my internal bath apparatus, the operation is as follows: The sleeve 17, with the nozzle 15 of the flexible tube 14 firmly drawn into the forward end of the sleeve, is introduced through the anus into the rectum. The pump of the apparatus is placed in a suitable vessel containing water, or other liquid, to be used as a flushing medium. The pump being now operated, the liquid in the vessel is drawn into the pump and forced therefrom through the flexible tube or conductor 14 and escapes through the orifices in the nozzle 15 into the rectum. The said orifices being inclined backwardly, as previously stated, the escaping liquid is delivered in a backward direction with force, and striking against the fecal matter, or the wall of the adjacent canal, acts as a power agent to cause the nozzle to be impelled forwardly and draw the flexible tube or conductor through the sleeve 17. By a continuation of the opera-

tion described, the nozzle 15 and the flexible tube or conductor are caused to travel outwardly until it reaches the descending colon, and as much farther as may be desired. During this time, the liquid escaping from the nozzle acts to soften the fecal matter it enters into to permit the ready escape of such matter through the anus.

When it is desired to vent the canals while my apparatus is in use, the plug is separated from the sleeve 17 so that the loosened fecal matter will find exit through the passageway between the sleeve and the flexible tube or conductor. If, however, the user of the apparatus prefers that the liquid be retained in the body until treatment has been completed, the retention may be obtained by insertion of the plug into the sleeve, thus closing the passageway just mentioned.

I claim:

1. An apparatus of the character described comprising a flexible non-expandible and non-contractible cylindrical tube, or conductor of the same diameter, approximately, from end to end and through which a liquid may be forced, and a nozzle attached to the flexible tube, or conductor; the nozzle having orifices in the wall thereof extending backwardly at an angle to the axis of the nozzle through which the liquid is discharged rearwardly against the wall and contents of the intestine for forcibly advancing the flexible tube, or conductor, through the intestine.

2. An apparatus of the character described comprising a flexible non-expandible and non-contractible cylindrical tube, or conductor of the same diameter, approximately, from end to end, a nozzle attached to the flexible tube, or conductor, and means for forcing liquid through the flexible tube, or conductor, the nozzle having orifices in the wall thereof extending backwardly at an angle to the axis of the nozzle through which the liquid is discharged rearwardly against the wall and contents of the intestine for forcibly advancing the flexible tube, or conductor, through the intestine.

3. An apparatus of the character described comprising a flexible tube, or conductor, through which liquid may be forced, a nozzle attached to the flexible tube, or conductor, and a guide sleeve through which the flexible tube, or conductor, is movable longitudinally; the nozzle having orifices in the wall thereof extending backwardly at an angle to the axis of the nozzle through which the liquid is discharged rearwardly against the wall and contents of the intestine for forcibly advancing the flexible tube, or conductor, through the intestine.

4. An apparatus of the character described comprising a flexible tube, or conductor, through which liquid may be forced, a nozzle attached to the flexible tube, or con-

5 ductor, and a guide sleeve having a curved forward end and through which the flexible tube, or conductor, is movable longitudinally; the nozzle having orifices in the wall thereof extending backwardly at an angle to the axis of the nozzle through which the liquid is discharged rearwardly against the wall and contents of the intestine for forcibly advancing the flexible tube, or conductor, through the intestine.

10 5. An apparatus of the character described comprising a flexible tube, or conductor, through which liquid may be forced, a nozzle attached to the flexible tube, or conductor, and a guide sleeve having a curved and beveled forward end and through which the flexible tube, or conductor, is moved longitudinally; the nozzle having orifices in the wall thereof extending backwardly at an angle to the axis of the nozzle through which the liquid is discharged rearwardly against the wall and contents of the intestine for forcibly advancing the flexible tube, or conductor, through the intestine.

25 6. An apparatus of the character described comprising a flexible tube, or conductor, through which liquid may be forced, a nozzle attached to the flexible tube, or conductor, and a guide sleeve through which the flexible tube, or conductor, is movable longitudinally; the guide sleeve being sufficiently greater in internal diameter than the external diameter of the flexible

35 tube, or conductor, to provide a passageway between the flexible tube, or conductor, and the guide sleeve and the nozzle having orifices in the wall thereof extending backwardly at an angle to the axis of the nozzle through which the liquid is discharged rearwardly against the wall and contents of the intestine for forcibly advancing the flexible tube, or conductor, through the intestine.

40 7. An apparatus of the character described comprising a flexible tube, or conductor, through which liquid may be forced, a nozzle attached to the flexible tube, or conductor, and a guide sleeve through which the flexible tube, or conductor, is movable longitudinally; the guide sleeve being sufficiently greater in internal diameter than the external diameter of the flexible tube, or conductor, to provide a passageway between the flexible tube, or conductor, and the guide sleeve and a plug insertible into the guide sleeve; the nozzle having orifices in the wall thereof extending backwardly at an angle to the axis of the nozzle through which the liquid is discharged rearwardly against the wall and contents of the intestine for forcibly advancing the flexible tube, or conductor, through the intestine.

MARK A. DEES.

In the presence of—

M. FALVEY,
E. B. LINN.