March 26, 1935. T. CHO 1,995,602

RECTUM SYRINGE

Filed Oct. 24, 1933

Fig. 1.

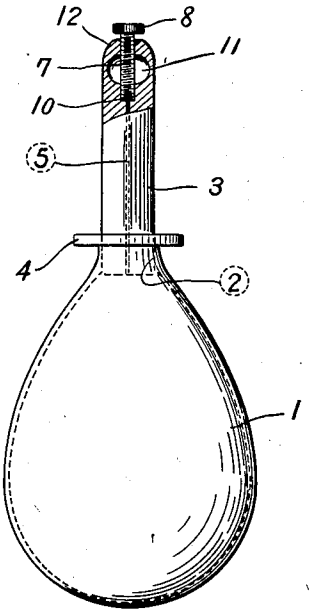



Fig. 3.

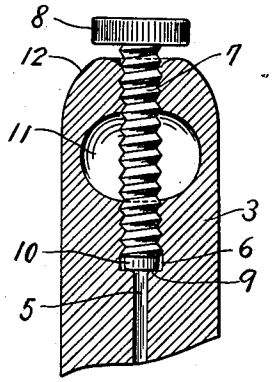
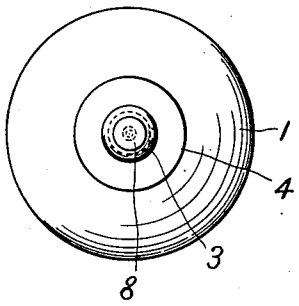



Fig. 2.




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# UNITED STATES PATENT OFFICE

1,995,602

## RECTUM SYRINGE

Toda Cho, Shiba-Ku, Tokyo, Japan

Application October 24, 1933, Serial No. 694,925
In Japan September 6, 1933

2 Claims. (Cl. 128—232)

My invention relates to improvements in rectum syringes or enema injectors, and more particularly to articles of the kind specified in which clyster-containing collapsible or deflatable bulbs are provided with clyster-injecting tube heads.

An object of my invention is to provide enema injectors in which liquid clyster contained within the collapsible bulbs is positively prevented from leakage through the injecting tube heads.

Another object of my invention is to obtain means for assuring liquid-tight sealing of the injecting tube heads.

A further object of my invention is to provide means for preventing untimely running out of liquid clyster, which would otherwise occur, when the mouth of the injecting tube head is initially opened by hand pressure acting on the collapsible bulb.

These and other objects are attained by my invention as will be apparent from the following description and claims taken in connection with the accompanying drawing, forming a part of this application, in which:

Fig. 1 is an elevational view, partly in section and Fig. 2 a plan view, of a complete enema injector constructed in accordance with one embodiment of my invention, and Fig. 3 is an enlarged sectional view of one portion of the enema injector shown in Figs. 1 and 2.

Referring now to the drawing, my enema injector comprises, in general, a collapsible or deflatable bulb 1 made of suitable material, such as celluloid, rubber, lead sheet, etc., and having an opening 2, into which an end of a tube head 3 is inserted and fixed to the bulb by suitable means. A flange 4 formed on the tube head 3 provides means for defining the extent of insertion of the tube head into the bulb opening 2 as well as into the anus.

The tube head 3 is provided with an axial passage 5 which opens into the bulb 1 for injection of liquid clyster, not shown, contained within the bulb. The passage 5 terminates in a threaded bore 6 into which a threaded plug 7 having a knob 8 is screwed. The bore 6 has a larger diameter than the passage 5 and a shoulder 9 is formed between them or at the inner end of the bore 6, against the face of which the inner end of the screw plug 7 abuts with axial pressure due to the screw-thread engagement of the plug 7 with the bore 6. Leakage of the clyster within the bulb 1 around the plug is thus positively prevented. In order to secure the passage 5 completely against leakage, a packing member 10 made of cork, rubber, felt, etc., is fixed to the end of the plug 7 and forms a part of the latter.

In using my rectum syringe for injecting the clyster into the bowel, the plug 7 is unscrewed from the bore 6 and the tube head 3 is inserted into the anus, and then suitable hand pressure is applied to the collapsible bulb 1. When the plug 7 is unscrewed while the bulb 1 filled with liquid clyster is held in the hand, even slight hand pressure applied to the bulb may cause an early running out of the liquid clyster through the relatively thin passage 5. In order to prevent such untimely running out of the liquid, a chamber 11 is provided within the tube head 3 in the form of an enlargement of a portion of the bore 6. This chamber 11 will also act as a secondary liquid source for the injection, the liquid pressure being created at the bulb 1, and a smooth injection is secured. The outer end 12 of the tube head 3 is made round in order to facilitate the insertion thereof into the anus.

While my invention is shown in but one form, it will be obvious to those skilled in the art that it is not so limited, but is susceptible of various changes and modifications without departing from the spirit thereof, and it is desired, therefore, that only such limitations shall be placed thereupon as are imposed by the prior art or as are specifically set forth in the appended claims.

I claim as my invention:

1. The combination of a rectum syringe comprising a collapsible bulb having an opening for administering a liquid clyster contained in said bulb, said rectum syringe comprising a tube head with an end inserted into said opening and fixed to said bulb, an axial passage formed in said tube head and opening into said bulb, a threaded bore formed in said tube head as a continuation of said passage and having a larger diameter than said passage to form a shoulder at the inner end of said bore, an enlarged chamber in which said bore terminates, a second threaded bore with its inner end opening into said chamber and with its outer end opening into the atmosphere, and a threaded plug screwed into said second and first-mentioned threaded bores past said enlarged chamber, said plug having its inner end abutting against said shoulder and preventing said liquid clyster from flowing into said enlarged chamber.

2. The combination of a rectum syringe comprising a collapsible bulb having an opening for administering a liquid clyster contained in said bulb, said rectum syringe comprising a tube head with an end inserted into said opening and fixed to said bulb, an axial passage formed in said tube

head and opening into said bulb, a threaded bore formed in said tube head as a continuation of said passage and having a larger diameter than said passage to form a shoulder at the inner end of said bore, an enlarged chamber in which said bore terminates, a second threaded bore with its inner end opening into said chamber and with its outer end opening into the atmosphere, and a threaded plug having a packing member fixed to its inner end and screwed into said second and first-mentioned threaded bores past said enlarged chamber, said packing member forming a liquid-tight seal with said shoulder and preventing said liquid clyster from flowing into said enlarged chamber.

TODA CHO.