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2,187,168

THERAPEUTIC DEVICE

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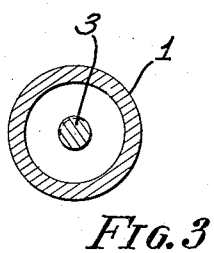
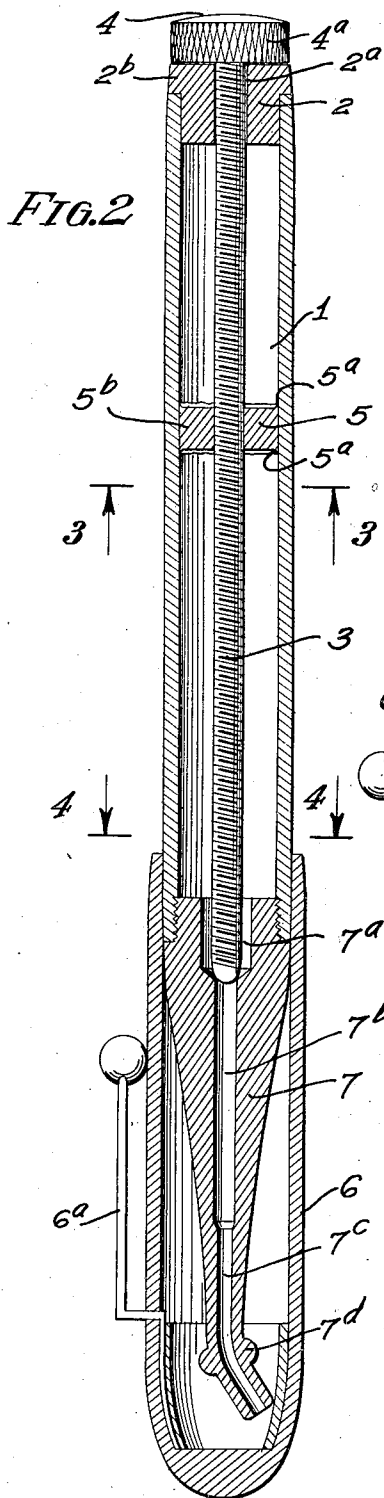


FIG. 3

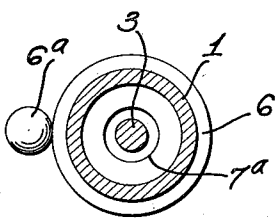


FIG. 4

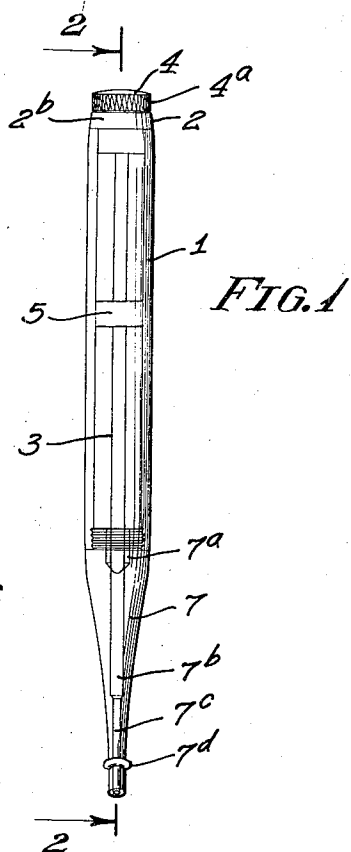


FIG. 1

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THERAPEUTIC DEVICE

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2 Claims. (Cl. 128—236)

My invention relates to therapeutic devices in the form of a suppositor or syringe and the objects of my invention are:

First, to provide a device of this class which occupies no more space when full than when empty, thus it may be easily carried or handled whether full or empty;

Second, to provide a device of this class having a plunger screwably mounted upon its plunger rod and with a transparent barrel or casing thereby enabling the operator to accurately determine the amount of medicine or the like therein;

Third, to provide a device of this class which will measure accurately the desired amount of medicine or the like;

Fourth, to provide a device of this class which may be easily cleaned and refilled;

Fifth, to provide a device of this class which is sanitary of construction;

Sixth, to provide a device of this class in which several charges of medicine may be carried within the device;

Seventh, to provide a device of this class which is simple and compact of structure; and

Eighth, to provide a device of this class which is easily manufactured, durable, efficient in its action, and which will not readily deteriorate or get out of order.

With these and other objects in view as will appear hereinafter, my invention consists of certain novel features of construction, combination and arrangement of parts and portions as will be hereinafter described in detail and particularly set forth in the appended claims, reference being had to the accompanying drawing and to the characters of reference thereon which form a part of this application in which:

Figure 1 is an elevational view of my device with the cap member removed; Fig. 2 is an enlarged sectional view from the line 2—2 of Fig. 1 with a cap member, also shown in section, positioned over the end of a suppositor member and with parts and portions shown in elevation to facilitate the illustration; Fig. 3 is a transverse sectional view thereof from the line 3—3 of Fig. 2 and Fig. 4 is a transverse sectional view from the line 4—4 of Fig. 2.

Similar characters of reference refer to similar parts and portions throughout the several views of the drawing.

Barrel member 1, barrel plug 2, plunger rod 3, handle means 4, plunger 5, cap member 6, and suppositor end 7, constitute the principal parts and portions of my improved therapeutic device.

A barrel member 1 is provided which is preferably made of transparent material, such as Celluloid or other suitable composition. The barrel 1 is in the form of a tube of substantially constant diameter. A barrel plug 2 is adapted to fit snugly into the upper end thereof. Said barrel plug is provided with a central opening 2a there-through for receiving the one end of a plunger rod 3.

Secured to the end of the plunger rod and adapted to fit the enlarged upper end 2b of the plug 2 is a handle means 4. As at times it may be difficult to turn the handle means, a knurled portion 4a is provided thereon.

The plunger rod 3 is threaded, preferably with threads of high pitch as shown in Fig. 2 of the drawing. Screwably mounted upon said plunger rod is a plunger 5 which fits snugly against the inner wall of the barrel member 1. The plunger 5 is provided with a small relatively sharp ridge 5a on its upper and lower sides adjacent to the inner wall of the barrel 1 so as to reduce the tendency of the medicine within the barrel from working past. In order to prevent the plunger 5 from turning, it is provided with a rough surface at 5b adapted to engage the inner surface of the barrel member 1.

Screwed or otherwise secured to the lower end of the barrel member 1 is a suppositor end 7 which is provided with a large bore 7a in its upper surface which suppositor end closes the end of the barrel member 1. Centered relative to the axis of the barrel member 1 and intersecting the bore 7a is a passage 7b which extends downwardly some distance and intersects with a reduced bore 7c which extends through the end member 7. At the juncture of the bores 7a and 7b is formed a valve seat for engagement of the rounded end of the member 3 to form a closure valve.

The lower end of the end member 7 is provided with a flange 7d, as shown best in Figs. 1 and 2 of the drawing, and is provided with a curved end at this flange 7d to facilitate its use.

A cap member 6 is provided which fits over and encases the suppositor end 7. Said cap member may be provided with a clip means 6a in order that the device may be carried in a pocket like a fountain pen.

The device is filled with medicine or the like by shifting the plunger to its upper position against the plug 2 then removing the member 7 and placing the medicine within the barrel, then replacing the member 7. The handle means 4 is then turned until the medicine begins to issue from the end of the suppositor 7.

If the medicine is a liquid, it may be drawn into the end of a suppositor.

It will be noted that the device may be filled almost full of medicine and yet have no projecting plunger or the like which could be accidentally depressed causing and the medicine to issue. The device may be used for treatment of hemorrhoids or various female troubles.

My therapeutic device operates as follows: The member 4 is turned outwardly spacing it from the member 2 while the plunger member 5 stays stationary. Then press the member 4 inwardly the distance spaced against the member 2 carrying with it the members 3 and 5, thus the quantity of fluid injected is determined by the space between the members 4 and 2.

It is obvious from the construction as illustrated in the drawing and described in the foregoing specification that there is provided a suppositor as aimed at and set forth in the objects of the invention, and though I have shown and described a particular construction, combination and arrangement of parts and portions, I do not wish to be limited to this particular construction, combination and arrangement, but desire to include in the scope of my invention the construction, combination and arrangement substantially as set forth in the appended claims.

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

1. In a therapeutic device of the class described, the combination of a barrel member open at its opposite ends, a tapering annularly disposed discharge means secured in one end thereof provided with a bore therethrough for the exit of fluids and with an enlarged recess in its upper end communicating with said bore, a plunger member reciprocally mounted within said barrel member, a screw threaded plunger rod screw threaded in said plunger member and extending into said recess at its lower end, a plug secured in the opposite end of said barrel member provided with a central bore in which said plunger rod is freely

reciprocal, said screw threaded plunger rod provided with a head on its extended end to facilitate the turning of said plunger rod, means for preventing said plunger from turning in said barrel whereby said plunger rod may be turned outwardly in said plunger so that the head is spaced from said plug whereby the space determines the quantity of fluid injected when the plunger rod head is pressed downwardly against said plug, said plunger rod forming a valve with the lower side of said recess for closing the opening from said therapeutic device when the plunger rod is fully inserted.

2. In a therapeutic device of the class described, the combination of a barrel member open at its opposite ends, a tapering annularly disposed discharge means secured in one end thereof provided with a bore therethrough for the exit of fluids and with an enlarged recess in its upper end communicating with said bore, a plunger member reciprocally mounted within said barrel member, a screw threaded plunger rod screw threaded in said plunger member and extending into said recess at its lower end, a plug secured in the opposite end of said barrel member provided with a central bore in which said plunger rod is freely reciprocal, said screw threaded plunger rod provided with a head on its extended end to facilitate the turning of said plunger rod, means for preventing said plunger from turning in said barrel whereby said plunger rod may be turned outwardly in said plunger so that the head is spaced from said plug whereby the space determines the quantity of fluid injected when the plunger rod head is pressed downwardly against said plug, said plunger rod forming a valve with the lower side of said recess for closing the opening from said therapeutic device when the plunger rod is fully inserted, and a friction cap mounted over said barrel and covering said discharge means for supporting a clip mounted on said cap member.

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