June 19, 1945. J. B. EDWARDS 2,378,624

FOUNTAIN DISPENSER

Filed July 21, 1943

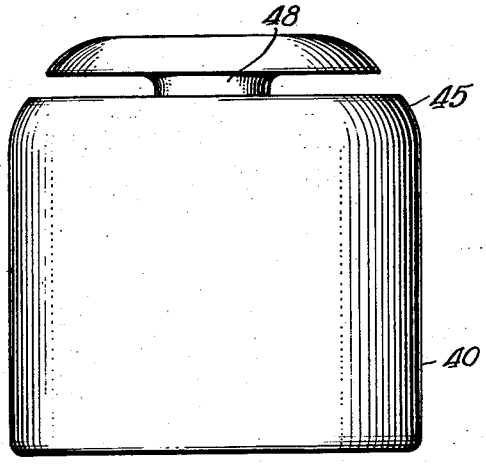

Fig. 1.

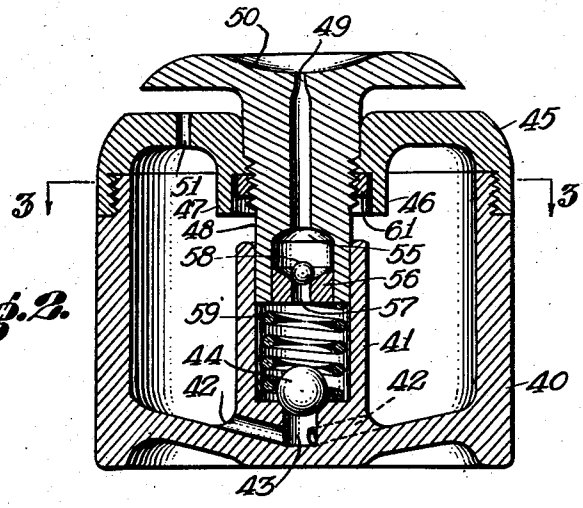

Fig. 2.

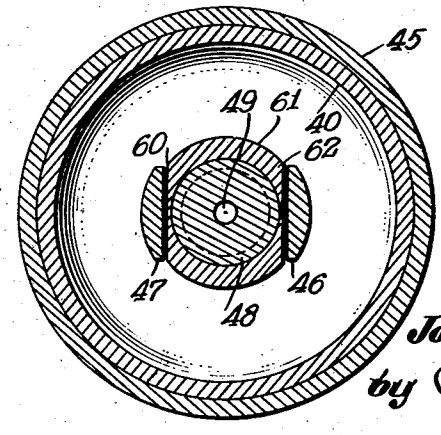

Fig. 3.

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Patented June 19, 1945 2,378,624

UNITED STATES PATENT OFFICE

2,378,624

FOUNTAIN DISPENSER

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Application July 21, 1943, Serial No. 495,574

3 Claims. (Cl. 91—54.4)

This invention relates to a moistening device and more especially to a moistening device adapted for dispensation of glycerine to moisten the fingers of operators in print shops and other places where sheets or pages have to be thumbed or handled by the hands of the operator. It is of course evident that this structure can be used for the dispensing of adhesive if desired where the adhesive is to be applied by the fingers of the operator.

It is an object of this invention to provide a dispensing device comprising a container, with a vertically reciprocable plunger disposed within the container, said plunger cooperating with a well and the plunger within the well having suitable valves therein for pumping a given amount of liquid for each depression of the plunger, said plunger having a bore extending upwardly and opening into a cavity on the upper end of the plunger whereby the bore will be filled with the liquid at all times and by depression of the plunger the liquid will be forced out into the concave portion on the upper end of the plunger where it can be transferred to the finger tips of the operators by touching the finger tips into the concave portion on the upper end of the plunger.

It is another object of this invention to provide a moistening device comprising a reservoir and a vertically reciprocable plunger movable in the reservoir and extending out of the upper end of the reservoir with the upper end of the plunger having a cavity therein and said plunger having a valve and passageway therein whereby vertical reciprocation of the plunger will pump liquid into the cavity in the upper end of the plunger together with spring means for normally urging the plunger to uppermost position, together with with means for limiting the upward and downward movement of the plunger.

It is another object of this invention to provide a moistening device comprising a reservoir, a vertically movable plunger disposed within the reservoir, spring means for normally urging the plunger upwardly, adjustable means for limiting the upward movement of the plunger, said plunger having a bore and a valve therein for transmission of liquid to the cavity in the upper end of the plunger, said plunger operating within a well in the lower portion of the reservoir, said well having an inlet through which the liquid is admitted into the well, a ball check valve for holding the liquid in the well, and spring means disposed in the well for normally urging the plunger to uppermost position.

Some of the objects of the invention having been stated, other objects will appear as the description proceeds, when taken in connection with the accompanying drawing, in which:

Figure 1 is a side elevation of the moistening device;

Figure 2 is a vertical sectional view through the apparatus;

Figure 3 is a transverse sectional view taken along the line 3—3 in Figure 2.

Referring more specifically to the drawing, a main reservoir 40 has rising from the bottom thereof a well 41. A plurality of openings 42 leads from the interior of the reservoir 40 inwardly to a bore 43 in the lower end of the well 41. A ball valve 44 rests on the upper end of the wall of bore 43 and normally closes the bore. A cap 45 is threadably secured on the upper end of the reservoir 40, and this cap has down-turned lugs 46 and 47. A plunger 48 is slidably mounted in an opening in the cap and is also slidably mounted in the upper end of the well 41. This plunger 48 has a centrally disposed opening 49 which is likewise restricted at its upper end and opens into a dish-shaped cavity 50. The cap 45 has a vent hole 51 to allow air to move into the reservoir 40 to displace the liquid as it is used from the reservoir 40. The plunger 48 has an enlarged bore 55 near its lower end communicating with bore 49, and a plug 56 closes the lower end of this bore or cavity 55. The plug 56 has a bore 57 which is normally closed by a ball valve 58. A compression spring 59 has its lower end resting on the bottom of well 41, and has its upper end disposed against the lower end of plunger 48 to normally move the plunger upwardly to the position shown in Figure 2. The plunger has intermediate its ends a threaded portion around which a nut 61 is threaded. This nut has flat portions 60 and 62 which are disposed adjacent the projections 46 and 47 to prevent turning of the nut so that by turning the plunger 48, its vertical adjustment can be affected so as to limit its stroke upon being depressed.

It is thus seen that I have provided a dispensing device which will deliver small quantities or droplets of a moistening agent into a cavity disposed on the upper portions of the device so that the same is handy for the operator, and yet waste and untidiness are avoided.

In the drawing and specification, there has been set forth a preferred embodiment of the invention, and although specific terms are employed, they are used in a generic and descriptive sense only and not for purposes of limitation, the scope of the invention being defined in the claims.

I claim:

1. In a dispensing device comprising a reservoir, a well member rising from the bottom of the reservoir and having a passageway leading from the bottom of the well member to the reservoir, a check valve preventing downward flow of liquid out of the well member, said reservoir having a cap with an opening therein, a plunger slidably mounted in the cap and extending into said well, a passageway leading from top to bottom of said plunger and having a check valve therein prohibiting downward flow of liquid in the passageway, the upper end of the plunger having a cavity therein communicating with the upper end of the passageway in the plunger, spring means normally urging the plunger upwardly and adjustable means for limiting the upward movement of the plunger.

2. In a moistening device, a reservoir for holding liquid and having an opening in its upper portion, a cap having an opening therein and closing the reservoir opening, a pump barrel supported by the reservoir having a passageway in its lower end communicating with the reservoir, a check valve normally closing said passageway against downward movement of the liquid, a plunger slidably mounted in the opening in said cap and extending into the pump barrel, said plunger having a centrally disposed passageway leading from top to bottom of said plunger and having a check valve therein prohibiting downward flow of liquid in the passageway, the upper end of the plunger having a cavity therein communicating with the upper end of the passageway in the plunger, spring means normally urging the plunger upwardly, and means limiting upward movement of the plunger.

3. In a dispensing device comprising a reservoir, a well member rising from the bottom of the reservoir and having a passageway leading from the bottom of the well member to the reservoir, a check valve preventing downward flow of liquid out of the well member, said reservoir having a cap provided with an opening therein, a plunger slidably mounted in the opening in the cap and extending into said well, said plunger having a passageway leading from top to bottom of said plunger and having a check valve therein prohibiting downward flow of liquid in the passageway, the upper end of the plunger having a cavity therein communicating with the upper end of the passageway in the plunger, spring means normally urging the plunger upwardly and adjustable means for limiting the upward movement of the plunger.

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