No. 787,342. PATENTED APR. 11, 1905.

W. B. MOORE.

SOAP DISPENSING MACHINE.

APPLICATION FILED JULY 25, 1904.

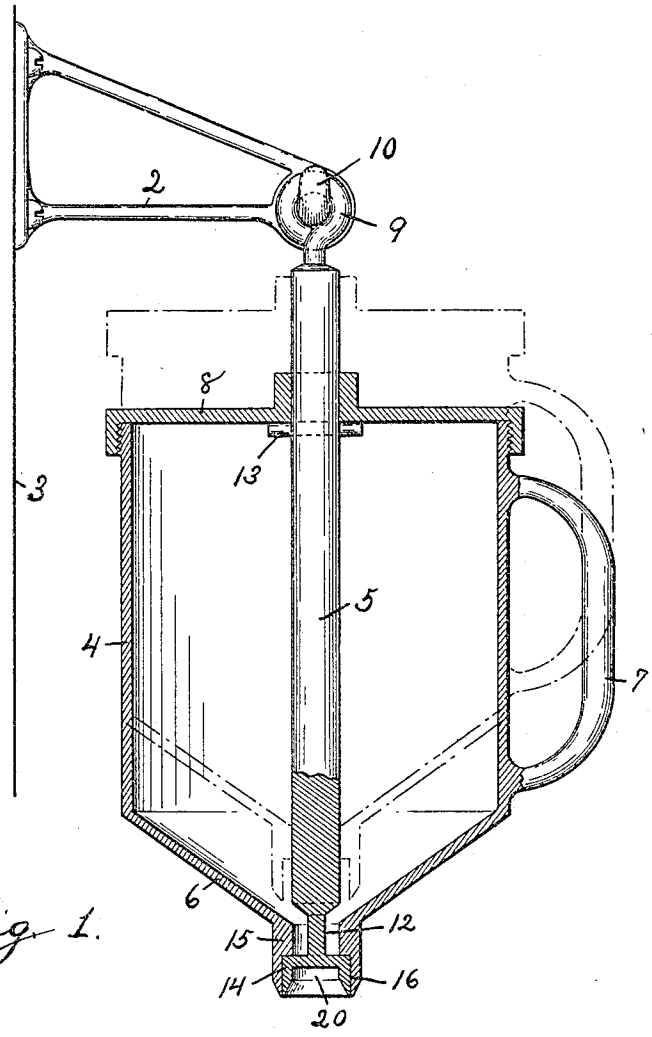
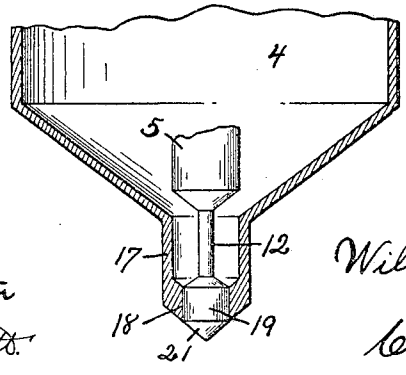


Fig. 1.

Fig. 2.



WITNESSES:

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No. 787,342. Patented April 11, 1905.

UNITED STATES PATENT OFFICE.

WILLIAM B. MOORE, OF JERSEY CITY, NEW JERSEY.

SOAP-DISPENSING MACHINE.

SPECIFICATION forming part of Letters Patent No. 787,342, dated April 11, 1905.

Application filed July 25, 1904. Serial No. 217,929.

To all whom it may concern:

Be it known that I, WILLIAM B. MOORE, a citizen of the United States, residing at Jersey City, in the county of Hudson and State of New Jersey, have invented certain new and useful Improvements in Soap-Dispensing Machines; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to numerals of reference marked thereon, which form a part of this specification.

This invention relates to soap-dispensing devices for toilet use and which are adapted to maintain a supply of soap in sanitary condition and deliver a portion when desired without wastage or contamination of the remaining soap.

More particularly, the invention relates to devices for dispensing liquid soap.

The objects of the invention are to secure a device which shall be highly sanitary, to secure a simple construction and one not liable to get out of order, to facilitate a ready cleaning of the device and its parts, and to secure other advantages and results, some of which may be referred to hereinafter in connection with the description of the working parts.

The invention consists in the improved soap-dispensing machine and in the arrangements and combinations of parts of the same, all substantially as will be hereinafter set forth and finally embraced in the clauses of the claim.

Referring to the accompanying drawings, in which like numerals of reference indicate corresponding parts in both figures, Figure 1 is a vertical sectional view of my improved machine, and Fig. 2 illustrates a slightly-modified construction of discharge or delivery parts.

In said drawings, 2 indicates a bracket of any suitable construction by means of which the body part of my improved device can be suspended on a wall 3. Said body part comprises a receptacle 4 for containing the liquid soap and a central plunger 5, slidable with respect to the said receptacle. The receptacle 4 has a sloping or funnel-shaped bottom 6, a handle 7 at one side, and a removable cover 8, providing a central bearing for the plunger-rod. The said plunger has at its upper end outside the cover 8 an eye 9, which receives a hook 10 on the supporting-bracket 2.

At the lower end or bottom of the body part of my device is the discharge or delivery means, which will next be described.

The sloping floor 6 of the receptacle leads to a central exit in the form of a short tube, and in said tubular exit lies the lower end of the plunger 5. Back from its extremity the plunger-rod is recessed or reduced, as at 12, and stop means, such as a pin 13, serve to normally hold the receptacle and plunger in such relative position that the head or lower end of the plunger lies in the tubular exit described and the reduced portion of the plunger partly in the exit and partly in the receptacle. When, therefore, the receptacle is slid with reference to the plunger, the head of the plunger is projected from the exit, while its main or body part closes the inner end of the exit and the soap contained in the recessed portion 12 of the plunger is discharged. In the preferred construction (shown in Fig. 1) the head 14 of the plunger is enlarged over the size of the plunger, and the inner walls of the exit 15 are recessed, as at 16, to receive said head. An exit-tube 17, as shown in Fig. 2, may, however, be equally well employed, having a restricted portion 18, receiving a head 19 of the plunger, which is of less diameter than the plunger. Obviously the size of the reduced or recessed portion 12 of the plunger may be varied according to the amount of soap it is desired to discharge.

The extremities of both the discharge-tube and the plunger-head are preferably tapered or beveled to prevent the adherence of soap thereto. This is shown in Fig. 1 as accomplished by hollowing out the end of the plunger, as at 20, and beveling the walls thus formed at their inner side, while the walls of the discharge-tube 15 are outwardly beveled. In Fig. 2 the end of the plunger is tapered, as

at 21, and the tube-walls are beveled at the outside to lie in the same conical surface therewith when the parts are in normal position.

Obviously instead of suspending my improved device from the bracket 2 it may be suspended from any other kind of a suitable support, or since it is necessary only that the receptacle and plunger be slidable with respect to each other the receptacle could be supported and the plunger adapted for direct reciprocation by the operator. Furthermore, my device is not limited to dispensing soap, but can be employed for other purposes, as measuring or the like.

Having thus described the invention, what I claim as new is—

1. The combination with a receptacle having a tubular exit, of a plunger having an interior portion fitting said exit and adapted to pass therethrough and project from the same, said plunger having a reduced portion at the outer end of said interior portion, and a head beyond said reduced portion.

2. The combination with a receptacle having a tubular exit, of a plunger having at its extremity a head normally closing said exit, said plunger having adjacent to said head a reduced portion normally lying partly in the exit and partly in the receptacle, and having an interior portion fitting the exit and adapted to pass freely therethrough and project from the same.

3. The combination with a receptacle having a tubular exit with a radially-enlarged outer portion forming at its inner end a stop, of a plunger having an interior portion fitting said exit and adapted to pass freely therethrough and project from the same, and having at its extremity a head fitting the enlarged portion of the exit and adapted to engage said stop, and having between said inner portion and head a reduced portion of greater length than the smaller portion of the exit.

4. The combination with a receptacle having a tubular exit with a radially-enlarged outer portion forming at its inner end a stop, of a plunger having an interior portion fitting said exit and adapted to pass freely therethrough and project from the same, and having at its extremity a head fitting the enlarged portion of the exit and adapted to engage said stop, and having between said inner portion and head a reduced portion of greater length than the smaller portion of the exit and of less length than the entire exit.

5. The combination with the receptacle having a central bearing at one end and an exit-tube at the other, a plunger arranged in said bearing and having a head normally lying in said exit-tube, said plunger having adjacent to its head a recessed portion lying in both the exit-tube and the receptacle and means for supporting the entire device by the upper end of said plunger.

6. The combination with a receptacle having a tubular exit, of a plunger having portions fitting said exit and being reduced or recessed between said portions, said portions being adapted to enter said exit one from each end and one of them to travel inward past the limit of travel of the other, whereby the entire inner surface of the exit is cleaned at each operation of the machine.

7. The combination with a receptacle having a tubular exit with two portions of different diameters, of a plunger having two portions adapted to fit, respectively, the said portions of the exit and being reduced between said portions, said two portions of the plunger being adapted at each operation of the plunger to travel over the entire inner surface of the exit, and the said larger portion serving as a stop.

In testimony that I claim the foregoing I have hereunto set my hand this 15th day of July, 1904.

WILLIAM B. MOORE.

Witnesses:

NATHAN J. CROWELL,

RUSSELL M. EVERETT.