J. P. TRUAX.

DISPENSING APPARATUS.

APPLICATION FILED APR. 24, 1917.

1,257,425.

Patented Feb. 26, 1918.

2 SHEETS—SHEET 1.

Fig. 2

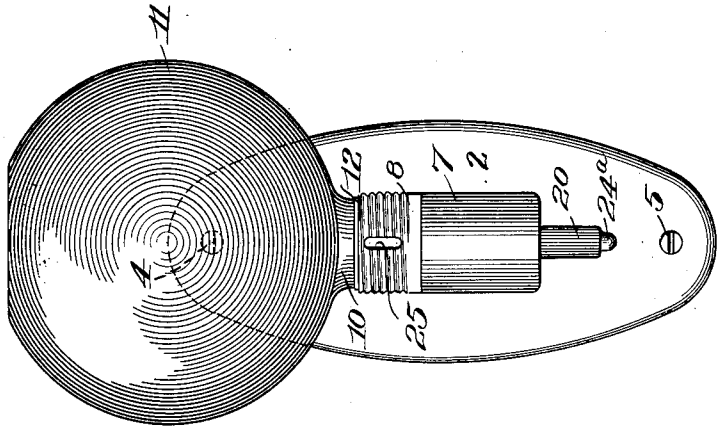
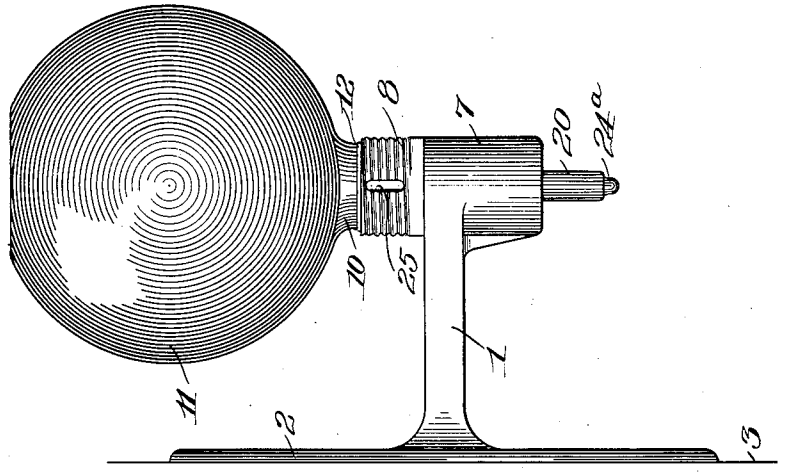


Fig. 1



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2 SHEETS—SHEET 2.

Fig. 3

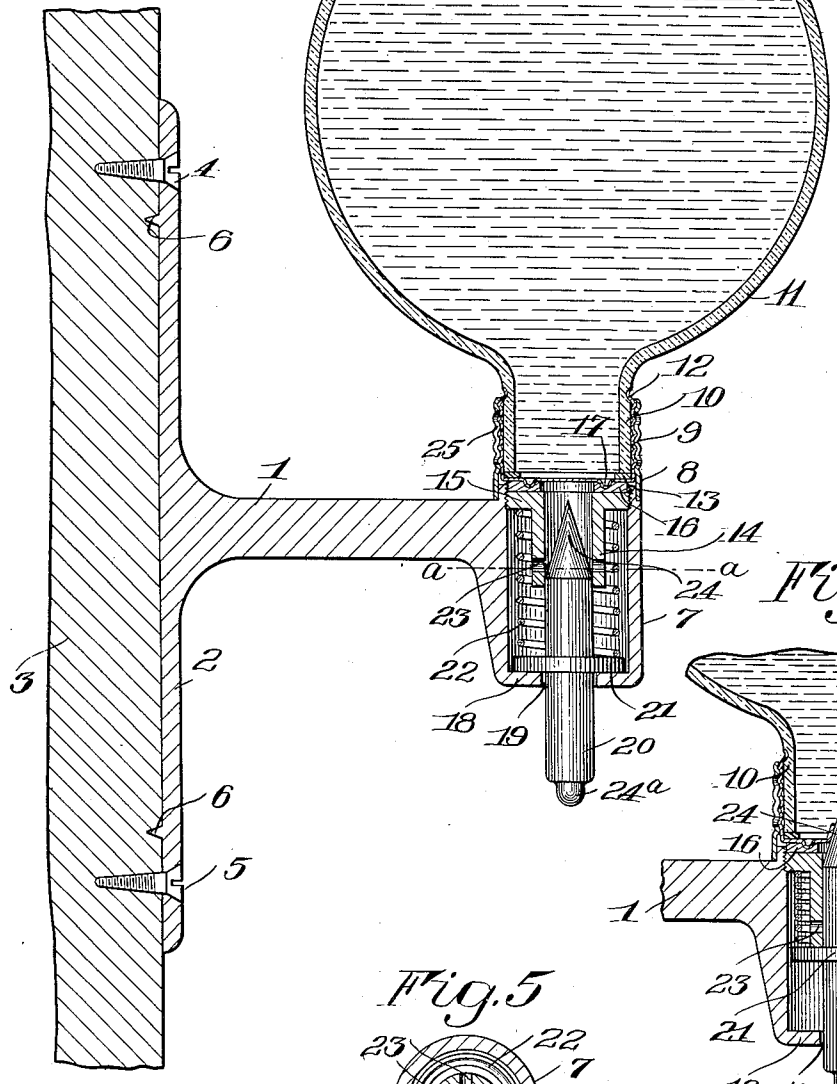
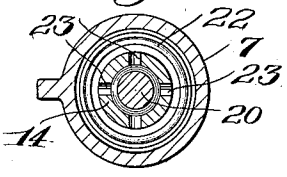


Fig. 4

Fig. 5



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DISPENSING APPARATUS.

1,257,425. Specification of Letters Patent. Patented Feb. 26, 1918.

Application filed April 24, 1917. Serial No. 164,107.

To all whom it may concern:

Be it known that I, JOSEPH PURMORT TRUAX, of Rochester, in the county of Monroe and State of New York, have invented certain new and useful Improvements in Dispensing Apparatus; and I do hereby declare the following to be a full, clear, and exact description of the same, reference being had to the accompanying drawings, forming a part of this specification, and to the reference characters marked thereon.

My invention relates to a dispensing apparatus and has for its object to provide means for dispensing liquid from containers which are adapted to be rendered non-usable after the contents have been discharged therefrom. A further object of the invention is to provide a dispensing apparatus which can be manufactured at a minimum cost and which is simple in construction and easy of operation. To these and other ends the invention consists in certain improvements and combinations of parts, all as will be hereinafter more fully described, the novel features being pointed out in the claims at the end of the specification.

In the drawings:

Figure 1 is a side elevation embodying one form of the invention;

Fig. 2 is a front view thereof;

Fig. 3 is an enlarged sectional elevation through the container and holder therefor with the plunger in its lowermost position;

Fig. 4 is a sectional elevation showing the plunger moved to its uppermost position in which it is adapted to puncture the seal of the container, and

Fig. 5 is a sectional plan taken on line *a*—*a* of Fig. 3.

Similar reference characters throughout the several views indicate the same parts.

In carrying out the present invention I have provided an apparatus capable of dispensing various commodities, but which is more particularly adapted for use in dispensing liquid soap and the like. Owing to the increased demand for liquid soaps in private homes as well as in apartments and public buildings it has been found desirable to place the same upon the market in sealed packages or containers which can be purchased when desired and applied to holders provided with means for puncturing or breaking the seals of the containers after the same have been applied to the holders. In this way the containers are rendered non-usable after having been emptied and the makers of high grade liquid soaps who desire to dispense the same in this manner are assured that said containers cannot be refilled and used with a cheaper product after the seal is once broken and the original contents removed.

Referring to the drawings by numerals, 1 represents a bracket or holder having a base 2 which may be suitably connected with a wall or other support 3 preferably by means of the screws 4 and 5. The base 2 is provided with projections 6 which extend into the support 3 whereby the bracket or holder is prevented from turning upon one of the screws when the other is removed. The bracket 1 carries a cup-shaped receptacle 7, upon the upper extremity of which is mounted a threaded extension 8 arranged to receive the threaded closure or seal 9 on the neck 10 of the bottle or container 11, as clearly shown in Fig. 3. The seal or closure 9 is preferably secured upon the neck by providing an annular groove therein into which is spun the material forming the upper extremity of the closure as indicated at 12. A washer of flexible material is interposed between the neck of the container and the closure or seal 9 to form a liquid tight joint between the two, as indicated at 13. Positioned within the receptacle 7 is a tubular member 14 provided preferably with a threaded flange 15 which is screwed into the internally threaded receptacle at the upper end thereof. A washer 16 is loosely mounted upon the tubular member and provided with an annular groove to receive the bead 17 on the closure 9 as shown in Figs. 3 and 4, the washer being preferably formed of soft material, whereby a more perfect seat is provided for the seal or closure when the container is screwed into position upon the threaded extension 8. The bottom 18 of the receptacle 7 is provided with an opening 19 through which projects the plunger 20 which is slightly smaller than the opening to permit the discharge of the contents of the receptacle when the plunger is pushed up to elevate the valve plate 21 which normally closes the opening 19 as shown in Fig. 3, the plunger being returned by a spring 22 interposed between the plate 21 and the flange 15 of the tubular member 14. The tubular member is provided with outlet apertures 23 whereby liquid in the container is free to flow into the receptacle when the seal has

been punctured by the pointed end 24 of the plunger, as shown in Fig. 4, and the plunger returned to the position shown in Fig. 3. The seal or closure is, of course, formed of relatively soft thin material, so that after the container has been screwed into position, elevation of the plunger will break the seal and effect an opening through which the contents of the container may be discharged. It will be seen that with the seal broken and the plunger in the position shown in Fig. 3 that the receptacle 7 will be filled with the liquid escaping through the apertures 23 and that as soon as the plunger is moved upwardly, said apertures will be closed, thereby allowing the liquid in the receptacle above the valve plate 21 to be compressed and forced out through the opening 19 when the same is uncovered by the valve.

The bottom of the plunger has been reduced and rounded as indicated at 24ª to prevent unnecessary splashing of the liquid caught in the hand of the person operating the device. Another feature of the invention is the placing of the screws 4 behind the container 11 so that they are not accessible when the container is secured in position upon the bracket, whereby removal of the bracket and container at the same time for the purpose of refilling the latter, is prevented.

The extension 9 is provided with openings 25 so that if the container is removed and refilled after the seal is broken the greater part of the liquid will escape through said openings before the container can be screwed into the position shown in Fig. 3.

I claim as my invention:

1. In a dispensing apparatus, a bracket, a receptacle thereon provided with an opening, a container mounted upon the receptacle provided with a closure of relatively soft material, and means normally closing said opening and movable in the direction of the container to puncture said closure and to uncover the opening.

2. In a dispensing apparatus, a bracket, a container thereon provided with a closure of relatively soft material and a member upon the bracket movable in the direction of the container and adapted to puncture said closure for the purpose of releasing the contents of the container.

3. In a dispensing apparatus, a bracket, a removable container thereon provided with a closure of relatively thin material, a receptacle beneath the container having an opening and a member normally closing said opening and movable to open the same and puncture said closure.

4. In a dispensing apparatus, a bracket, a removable container thereon, a receptacle beneath the container having an opening, a valve normally closing said opening, a member within the receptacle communicating with the container and provided with an outlet aperture leading to the receptacle, said valve being movable in the direction of the container to close the aperture and to uncover the opening, whereby the liquid in the receptacle is forced through said opening.

5. In a dispensing apparatus, a bracket, a receptacle thereon provided with an opening, a threaded extension upon the receptacle, a container arranged to be screwed upon the threaded extension and provided with a closure of relatively soft material, and a plunger normally closing said opening and movable to open the same and puncture said closure.

6. In a dispensing apparatus, a bracket, a receptacle connected therewith having an opening, a container above the receptacle, a member interposed between the receptacle and container provided with an aperture normally establishing communication between the container and receptacle and means for closing said opening, said means being movable to open the latter and close said aperture.

7. In a liquid dispensing apparatus, a bracket, a receptacle connected therewith having a normally closed opening, a container connected with the receptacle, a member interposed between the receptacle and container provided with an aperture normally establishing communication between the container and receptacle, a valve movable in the direction of the container to uncover said opening and to close said aperture, whereby the liquid in the receptacle is forced therefrom, and means for returning the valve to normal position.

8. In a dispensing apparatus, a bracket, a receptacle carried by the bracket having a threaded portion formed thereon, said receptacle being provided with a discharge opening and an aperture located above the latter, a sealed container arranged to be screwed upon said threaded portion and adapted to close said aperture when in fixed position upon the receptacle, and means for breaking the seal of the container when in said position and uncovering the discharge opening, said aperture being provided for the purpose of preventing the insertion of an unsealed container upon the receptacle without the loss of a portion of the contents of said container.

JOSEPH PURMORT TRUAX.