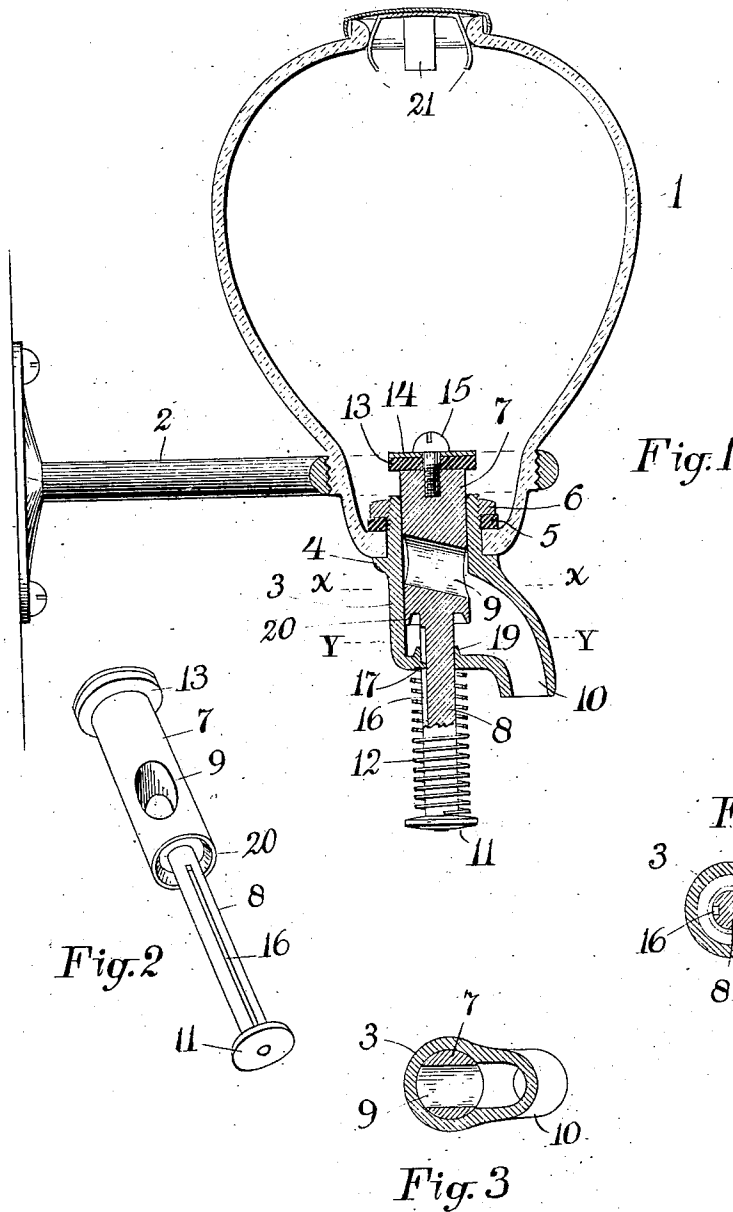


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LIQUID SERVER.
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931,984.

Patented Aug. 24, 1909.



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UNITED STATES PATENT OFFICE.

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LIQUID-SERVER.

931,984.

Specification of Letters Patent.

Patented Aug. 24, 1909.

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To all whom it may concern:

Be it known that I, EDWARD S. BACKMAN, a citizen of the United States, and a resident of the city of Malden, in the county of Middlesex and Commonwealth of Massachusetts, have invented certain new and useful Improvements in Liquid-Servers, of which the following is a specification.

This invention has for its object the effecting of certain improvements hereinafter set forth in devices for serving liquids, and especially liquid soap, in small quantities into the hand of the person operating the same.

Referring to the drawings forming part of this specification, Figure 1 is a central vertical section of a liquid server made in accordance with my invention. Fig. 2 is a perspective view of the serving plunger thereof. Fig. 3 is a horizontal section on the line X—X in Fig. 1. Fig. 4 is a similar section on the line Y—Y in Fig. 1.

The receptacle 1 for containing the liquid to be dispensed or served is preferably composed of glass, in order to show at a glance the quantity remaining therein; and this receptacle or holder is illustrated in Fig. 1 as supported by a bracket 2 projecting from a vertical surface, but any other form of support may be employed provided it leaves the under part free for the delivery mechanism. Fixed liquid-tight in the otherwise open but contracted bottom of said holder 1, is a small cylinder 3 held in place by a shoulder 4, yielding washer 5 and nut 6 on the threaded upper section of said cylinder. Within this cylinder and slidably but snugly fitting it, is a plunger 7 from whose lower end projects a stem 8 slidable in an opening in the lower end of said cylinder. Transversely through said plunger, but preferably at a slight angle as illustrated, is an opening 9 the size of which is designed to equal the quantity of liquid to be served. When the plunger is pressed upward, as by means of its stem, until said opening 9 rises above the edge of the cylinder, the liquid within the holder immediately fills such opening. Then, as the plunger is moved downward to its lower limit, such liquid is carried in the opening and discharged into the spout 10 formed at one side of the lower part of the cylinder.

The relative positions of the spout and stem is such that the application of the palm of the hand to the stem and the actuation of the

plunger, delivers the discharged soap into such palm. A button or flat head 11 is fixed to the extremity of said stem for the purpose of keeping the stem from hurting the hand, and also to serve as an abutment for the spiral spring 12 located about the stem, by means of which the plunger is returned with more certainty and promptness to its lowermost position.

To insure that there shall be no leakage from the holder between the sides of the plunger and the interior of the cylinder, I prefer to provide the upper end of the plunger with an overhanging shoulder consisting of a yielding washer 13 held in place by a rigid washer 14 and a small screw 15 tapped into the plunger. When the latter is in its lowermost position, its spring 12 presses said yielding washer 13 tightly upon the upper edge of the cylinder and renders all leakage impossible.

Inasmuch as the spout 10 opens from one side alone of the cylinder 3, it is necessary for the plunger to be kept from turning and thereby keeping the fluid in the opening 9 from discharging to said spout. For this purpose, the stem 8 is formed with a longitudinal groove or spline 16 into which a small spur of metal 17 is forced from that of the surrounding cylinder-bottom. Said opening is inclined as shown in Fig. 1 for the purpose of aiding its filling and discharge.

To keep the liquid from leaking down about the stem 8, I form the hole through which it passes, with a flange or dike 19 rising a slight distance as shown in Fig. 1, and provide the plunger with a depending apron 20 overhanging said dike. Hence whatever liquid drips from the plunger is made to fall outside such dike and thence down to the spout, but it cannot reach the stem.

The cap or cover for the open top of the holder is held in place by the spring fingers 21 entering such opening.

What I claim as my invention and for which I desire Letters Patent is as follows, to wit:—

1. A liquid server comprising a holder, a cylinder communicating at one end with the lower part of said holder and having a lateral discharge exterior to the holder, a plunger slidable in said cylinder having external means for its operation and formed with a transverse opening near its lower end, and means held by the upper end of the plunger

for insuring closure of the upper end of said cylinder when the plunger is in its lowermost position.

2. A liquid server comprising a holder, a
5 vertical cylinder open at its upper end and depending through the bottom of said holder, a downwardly directed spout opening laterally from the lower part of said cylinder, a
10 plunger slidable in said cylinder and having a stem projecting through the lower end of said cylinder, said plunger being formed with a lateral opening near its lower end and a spring acting on said stem to depress said plunger.

15 3. A liquid server comprising a holder, a vertical cylinder open at its upper end and depending through the bottom of said holder, an apertured plunger slidable in said cylinder, a discharge at the lower part of said cylinder,
20 a yielding washer overhanging the upper end of said cylinder carried by said plunger, and resilient means pressing said plunger downward, and means for raising said plunger.

25 4. A liquid server comprising a holder, a vertical cylinder communicating at its upper

end with said holder and a spout leading laterally from the lower part of said cylinder, a plunger slidable in said cylinder and having a transverse slightly inclined opening through it near its lower end, and means for moving 30 said plunger.

5. A liquid server comprising a holder, a vertical cylinder, a plunger slidable in said cylinder and adapted to receive liquid from the holder, a stem projecting from said plunger 35 through the lower end of said cylinder for the operation of said plunger, and a spring for depressing said stem and plunger, the opening in the bottom of said cylinder through which said stem slides being surrounded with a dike, and the lower end of 40 said plunger being formed with an overhanging apron or skirt.

In testimony that I claim the foregoing invention, I have hereunto set my hand this 45 5th day of November, 1908.

EDWARD S. BACKMAN.

Witnesses:

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WARREN N. AKERS.