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W. T. CARTER & E. M. DAVIS.

SOAP DISPENSER.

APPLICATION FILED AUG. 27, 1906.

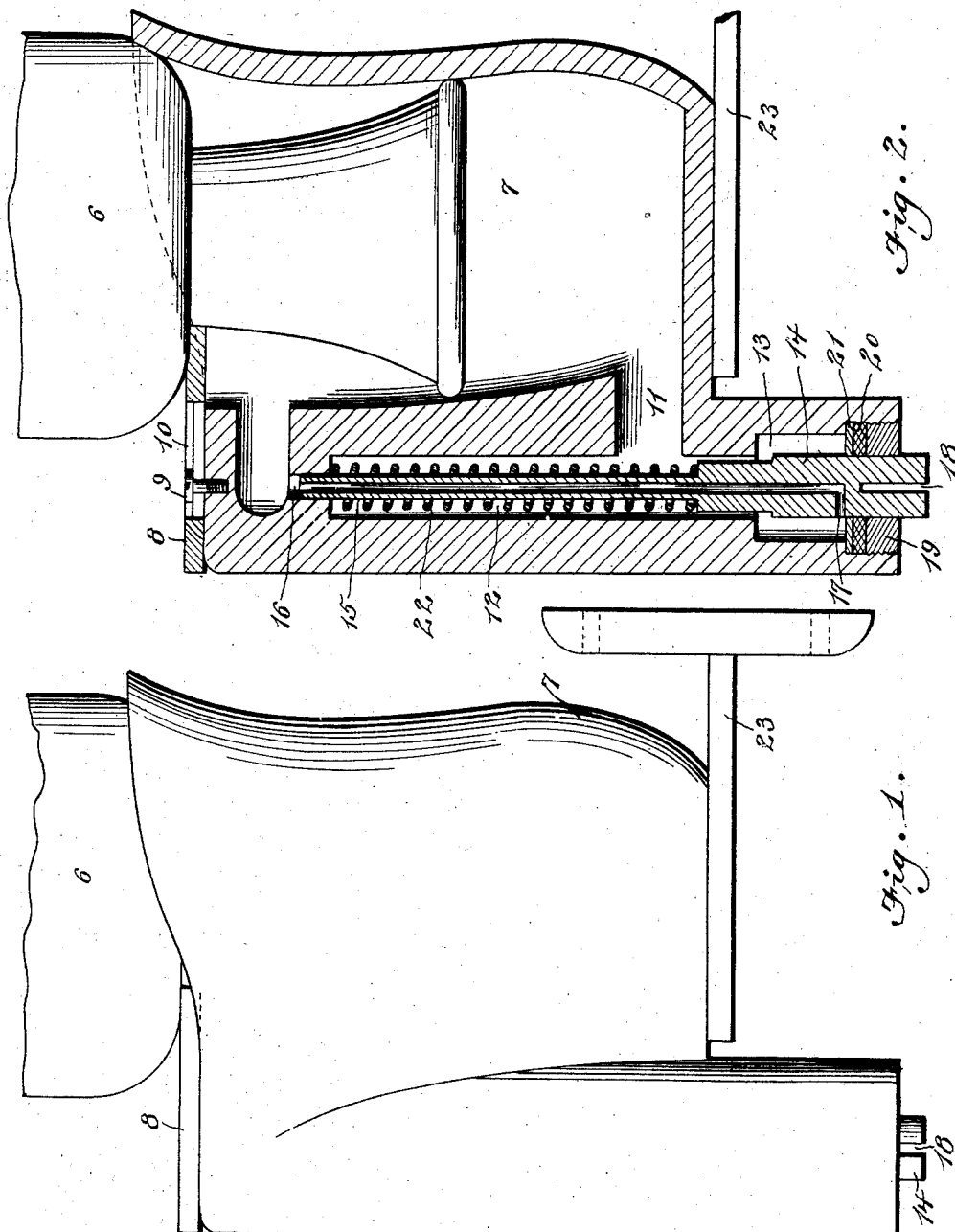


Fig. 2.

Fig. 1.

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UNITED STATES PATENT OFFICE.

WILLIAM T. CARTER AND ERVIN M. DAVIS, OF CHICAGO, ILLINOIS.

SOAP-DISPENSER.

No. 866,191.

Specification of Letters Patent.

Patented Sept. 17, 1907.

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To all whom it may concern:

Be it known that we, WILLIAM T. CARTER and ERVIN M. DAVIS, citizens of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented new and useful Improvements in Soap-Dispensers, of which the following is a specification.

This invention is a device for dispensing liquid soap or other liquids, and the device comprises a fixture adapted to receive and hold a bottle of the liquid in inverted position, and provided with a valve whereby a predetermined or desired quantity of the liquid may be delivered at each operation. Provision is made allowing the removal of an empty bottle and the substitution of a full one.

In the accompanying drawings, Figure 1 is a side elevation of the device. Fig. 2 is a vertical section thereof.

Referring specifically to the drawings, 6 indicates the bottle which will contain the soap or other liquid.

This is inverted and held in position to discharge its contents by means of a fixture, which may be attached to a wall or other support. Said fixture consists of a cup-shaped body 7 into which the neck of the bottle is inserted, and in which it is held by a removable plate 8 shaped to fit the neck of the bottle and removably attached to the fixture by a screw 9. The plate is slotted as at 10 to allow it to slide back and forth to permit the bottle neck to be inserted and to fit necks of different sizes.

The bottom of the cup has an outlet 11 which communicates through a vertical bore 12 with the chamber 13 at the lower front portion of the fixture. Movable up and down within the chamber and bore is a valve 14 having an upward tubular extension 15 which extends through the bore 12 and into a guide opening 16 at the top thereof. The tube is open at the top and forms an air vent to supply air to the chamber, through a port 17 at the lower end of the tube which opens laterally into the chamber. The valve plug 14 has at its lower end a cross slot 18 which is of sufficient length to communicate with the chamber 13 when the valve is pushed up. The valve works through a nut 19 in the lower end of the chamber, above which nut is packing 20 and a washer 21. A spring 22, coiled around the tube 15, normally forces the valve down or out and closes the same.

In operation, the soap flows from the bottle 6 into the chamber 13. When the valve plunger 14 is pushed up, the soap flows out through the slot 18 and air enters through the tube 15 and port 17 into the chamber 13, to vent the discharge. The upward movement of the plunger closes the bore 12 so that only the liquid contained in the chamber 13 is discharged at each operation.

A bracket 23 serves to support the fixture upon a wall or otherwise as desired.

The invention is not limited to the exact embodiment shown, since it may be modified to suit local conditions, or otherwise varied within the scope of the following claims.

We claim:

1. In a dispensing apparatus, in combination, a receptacle for the fluid, a cup provided with means to hold the receptacle, a valve casing having a chamber communicating with the cup and a valve in the casing having means to allow discharge of the fluid from the chamber and to simultaneously cut off the communication from the cup to the chamber and to admit air into the upper part of the cup.

2. In a dispensing apparatus, in combination, a cup, means to supply the same with the fluid to be dispensed, a valve casing having a vertical bore and a chamber at the lower end thereof and a passage from the bottom of the cup through the side of the casing, and a valve plunger movable up and down in the casing and having an outlet port adapted to open from the chamber, and an air vent tube extending upwardly through the bore and opening at its lower end into the chamber and at its upper end into the cup above said passage.

3. In a dispensing apparatus, in combination, a cup, an inverted vessel for the liquid to be dispensed, having a mouth opening into the cup, and sealed by the liquid therein, and adapted to maintain a constant level of liquid in the cup, a valve casing beside the cup, having upper and lower passages communicating with the cup, said passages being located respectively above and below the level of liquid in the cup, and a valve movable in the casing and having a discharge port and also having an air vent tube extending upwardly to said upper passage.

In testimony whereof we have signed our names to this specification in the presence of two subscribing witnesses.

WILLIAM T. CARTER.
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Witnesses:

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