Sept. 8, 1936. W. C. GEWALT 2,053,282

FOUNTAIN MOP

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FIG.1.

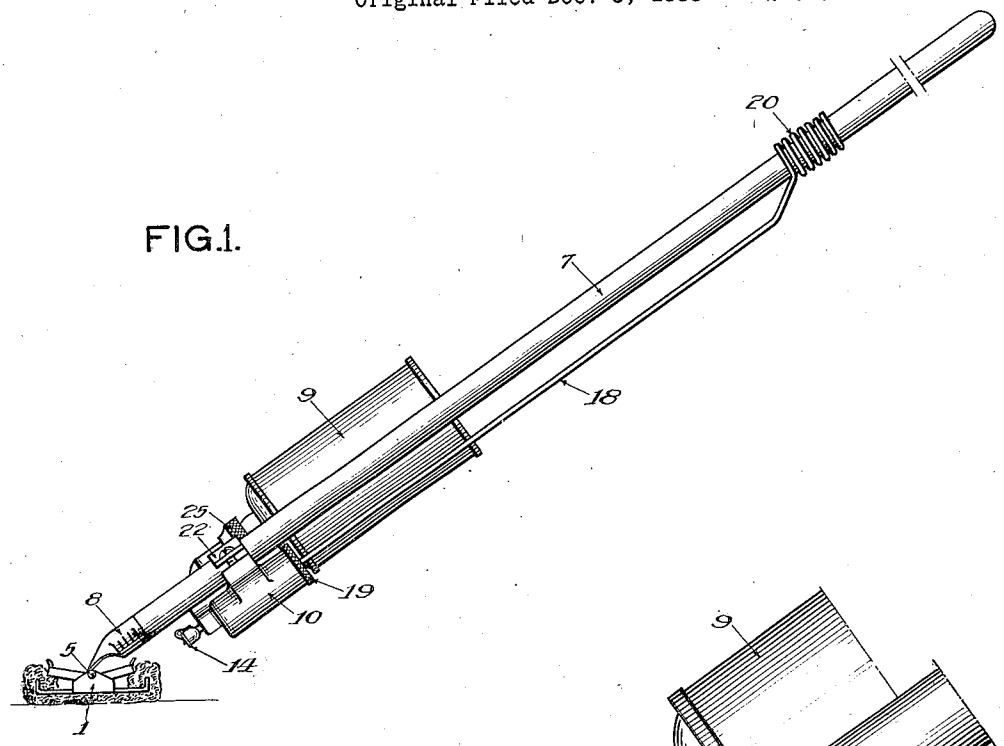

FIG.2.

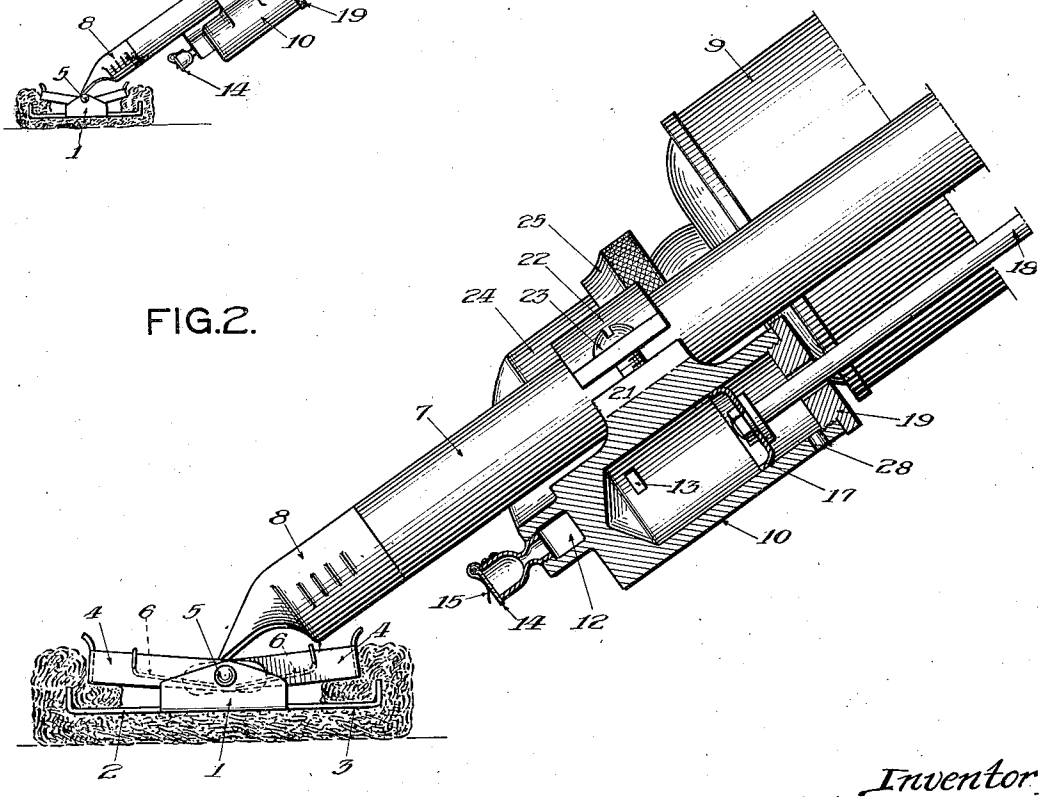

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FIG. 3.

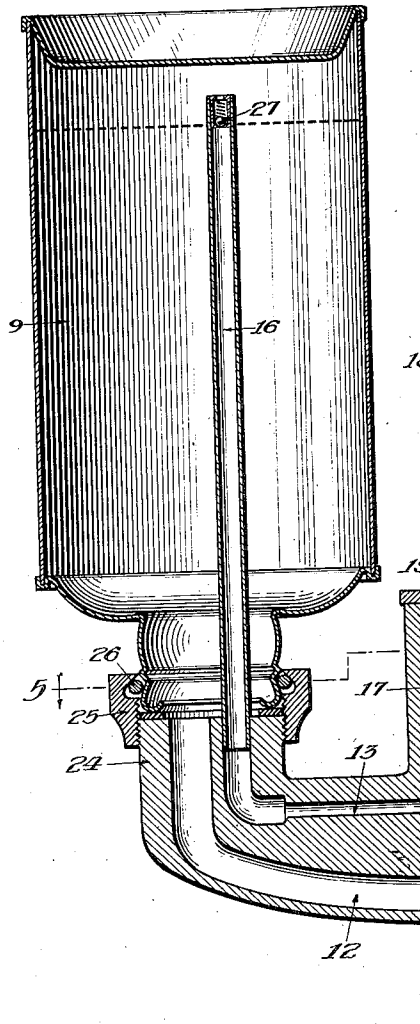


FIG. 4.

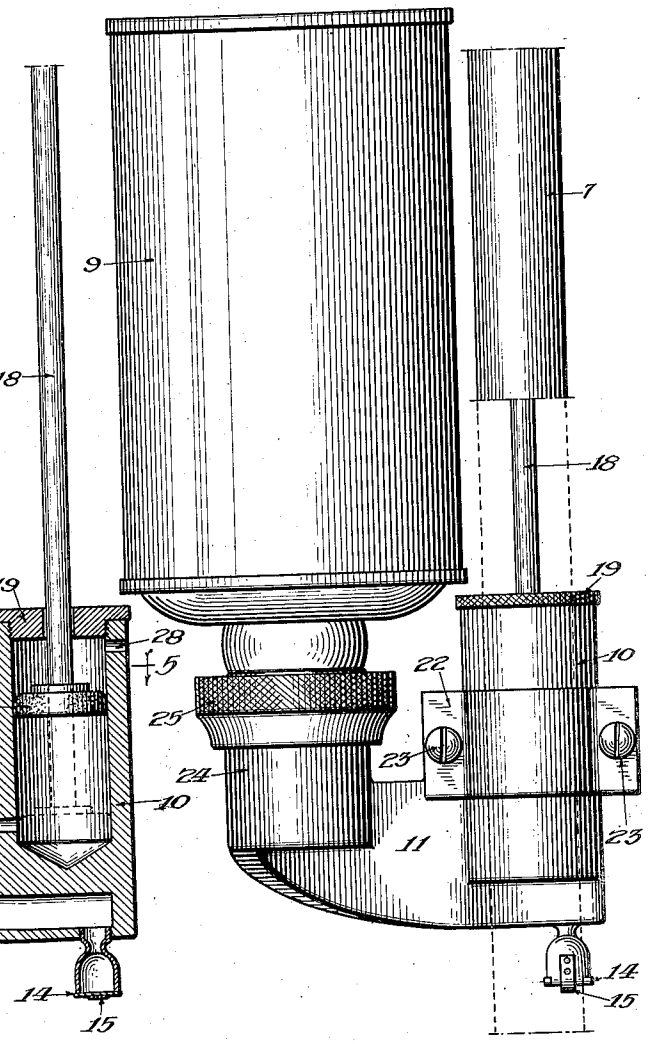
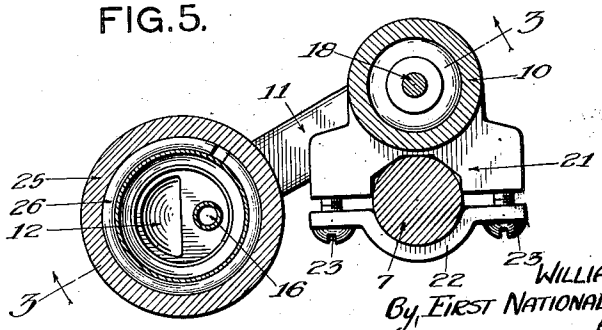


FIG. 5.



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UNITED STATES PATENT OFFICE

2,053,282

FOUNTAIN MOP

William C. Gewalt, deceased, late of Racine, Wis., by First National Bank & Trust Company, administrator, Racine, Wis., assignor to S. C. Johnson & Son, Inc., Racine, Wis., a corporation of Wisconsin

Application December 9, 1933, Serial No. 701,700
Renewed December 4, 1935

3 Claims. (Cl. 91—25)

The invention relates to a fountain mop of the type which is provided with a liquid wax dispenser to feed or deliver wax to be applied and distributed thereby upon a floor or other surface.

The fountain mop which is described and claimed in this application is a modification of the invention described and claimed in copending application Serial No. 588,870, filed January 26, 1932.

The present invention has as an object to provide a fountain mop having a wax dispenser by which wax in a predetermined, measured quantity may be fed or delivered direct from a wax reservoir.

Another object of the invention is to provide a fountain mop with a simple and efficient wax dispenser.

Another object is to provide a wax dispenser which may be applied readily to an ordinary wax mop.

Another object is to provide a wax dispenser which may be manufactured readily and economically.

Another object is to provide a wax dispenser to which the original can or container for the wax may be attached to serve as the wax reservoir.

According to the present invention in its fundamental aspect, a mop or similar appliance is provided with a wax dispenser in which a reciprocating pump upon the compression stroke of its piston creates a predetermined limited pressure in a wax reservoir to discharge wax therefrom in a measured quantity.

According to the invention in another aspect, the dispenser is provided with a coupling by which the original can or container for the wax may be attached thereto as a wax reservoir.

The fountain mop shown in the accompanying drawings and hereinafter described exemplifies and embodies the invention, and the views in these drawings are as follows:

Fig. 1 is a side elevation of the mop with the wax dispenser;

Fig. 2 is a side elevation of the mop with the wax dispenser in longitudinal section through its pump;

Fig. 3 is a longitudinal section through the wax dispenser on the line 3—3, Fig. 5;

Fig. 4 is a front elevation of the wax dispenser; and

Fig. 5 is a transverse section through the wax dispenser on the line 5—5, Fig. 3.

The mop is provided with a pad holder 1 which has a clamping plate 2 carrying a wool or other soft pad 3 arranged upon the bottom thereof.

The clamping plate has upon the top thereof clamps 4 which are pivoted upon a bearing rod 5 and urged by springs 6 towards the clamping plate.

The pad is fastened to the clamping plate by its ends being folded onto the top thereof and fastened thereto by the clamps.

The pad holder has a handle 7 which is connected to the clamping plate by a ferrule 8 pivoted upon the bearing rod.

The mop has attached to its handle a wax dispenser by which wax may be fed or delivered behind its pad to be applied and distributed upon the floor.

The wax dispenser is provided with a reservoir 9 from which wax may be fed or delivered upon air pressure being created therein by a reciprocating pump 10.

The reservoir and the pump are carried by a casing 11 in which are formed passageways constituting respectively a wax discharge spout 12 connected to discharge wax from the reservoir and an air delivery duct 13 connecting the pump cylinder to the wax reservoir.

The spout has on its discharge end a nozzle provided with a pivoted cap 14 having a spring 15 to urge it to remain closed to prevent wax from leaking from the reservoir.

The air delivery duct has connected thereto an air delivery pipe 16 extending from the casing into the reservoir to near the top thereof.

A pump piston 17 in the pump cylinder is connected to a piston rod 18 passing through a removable cap 19 upon the cylinder and connected to a piston handle 20 arranged upon the mop handle to slide thereon.

The casing 11 is attached to the handle of the mop by a clamp which grips the handle between a seat 21 formed upon the casing and a cleat 22 connected to the casing by screws 23.

The wax reservoir 9 is carried and supported upon the casing by its being attached to a bracket 24 extending from one side thereof.

The original can or container in which the wax is obtained may be employed as the wax reservoir by providing the bracket with a suitable coupling to connect it thereto.

If the original container is of the ordinary type provided with a neck having an annular groove near the top thereof, it may be attached to the bracket by a coupling of the type shown, in which a collar 25 contracts a split ring 26 to clamp the neck upon the bracket.

The collar is screw-threaded upon the bracket and has an internal conical face disposed to en-

gage the split ring in such manner that when the collar is turned down upon the threads the ring is contracted into the annular groove.

The bracket has arranged thereon a resilient gasket upon which the neck of the container bears and is clamped by the collar to form a tight joint between the reservoir and the spout.

The dispenser is operated to feed or deliver wax therefrom by actuating the pump handle **20** to move the piston back and forth through the limited length of the pump stroke.

The pump upon the forward or compression stroke of its piston discharges a predetermined quantity of air from the front part of the cylinder through the air delivery duct and the delivery pipe into the reservoir above the wax to create pressure therein, whereupon wax in a measured quantity is dsplaced and fed or delivered from the wax reservoir through the discharge spout.

The piston during its backward stroke admits air past its sides from the rear part to the front part of the cylinder, but is prevented from withdrawing air or wax from the reservoir by a check valve **27** at the upper end of the air delivery pipe in the reservoir.

The cylinder has an inlet port **28** to admit air to the rear part thereof during the forward stroke of the piston.

When the mop is being utilized, for example, to apply wax to a floor, the operator actuates the pump to deliver measured quantities of wax at appropriate intervals as the work progresses.

The invention described in the foregoing specification and hereinafter claimed may be applied to various mops or similar appliances for distributing liquid wax or other liquids, or for similar purposes, and it is susceptible of various modifications without departing from the spirit and scope of the invention as defined by the appended claims.

The invention which is set forth in the foregoing specification is hereby defined and claimed as follows:

1. A wax dispenser for dispensing wax in measured quantities to a mop from a container, comprising a casing having a pump cylinder formed therein, a tubular bracket formed integral therewith and having formed therein an air duct communicating with said pump cylinder and a discharge spout, means on said bracket for attaching a wax container arranged in communication with both said air duct and said discharge spout, a piston in said cylinder for forcing a measured quantity of air into said container to displace a like quantity of wax and discharge said wax through said discharge spout, and means for attaching said dispenser to a mop.

2. A fountain mop, comprising the combination with a mop having a mop-pad and a handle, of a wax dispenser carried by said mop in position to deliver wax to said mop-pad and provided with a discharge nozzle and a pump cylinder having at one side a tubular bracket, a wax reservoir connected to said tubular bracket and carried thereby, a piston arranged in said cylinder for forcing air into said reservoir through said tubular bracket to displace and discharge said wax through said nozzle, means for attaching said dispenser to said mop, and means on said mop handle for actuating said piston.

3. A wax dispenser for dispensing wax or other liquid to a mop from a container, comprising a casing having a pump cylinder formed therein, a tubular bracket formed integral therewith and having formed therein an air duct communicating with said pump cylinder and a discharge spout, means on said casing for attaching the same to a handle of a mop, and a piston in said cylinder for forcing air into said container to deliver wax or other liquid to said mop.

FIRST NATIONAL BANK AND TRUST COMPANY OF RACINE, WISCONSIN,
Administrator of the Estate of William C. Gewalt, Deceased.
By PHILIP B. KORZILIUS,
Trust Officer.