

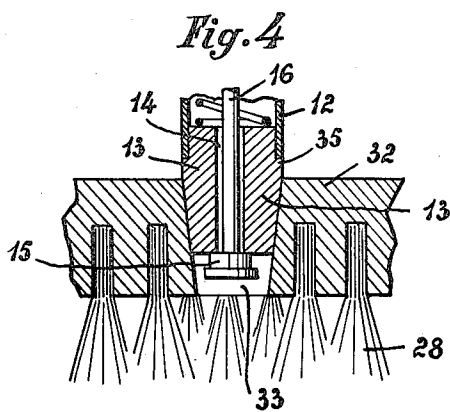
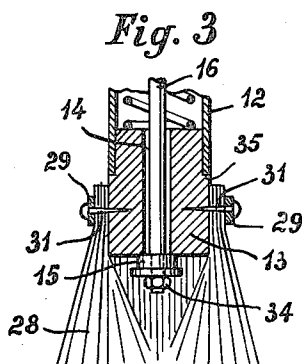
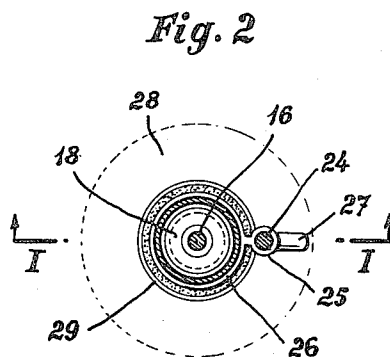
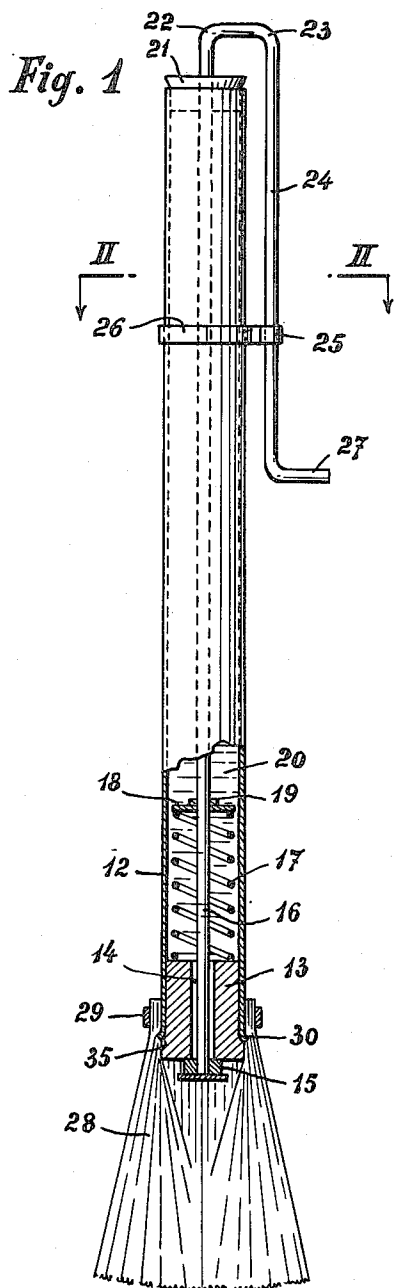
May 9, 1939.

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2,157,778

DISPENSING DEVICE

Filed March 7, 1936



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2,157,778

DISPENSING DEVICE

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Application March 7, 1936, Serial No. 67,708

In France March 12, 1935

3 Claims. (Cl. 221-94)

The invention relates to a reservoir-fed liquid distributor for brooms, brushes, mops, dish-cloths and the like and has for its object to provide an arrangement of this kind which is housed in the handle of the appliances and serves to feed the liquid to the head of the appliance, and which is capable of delivering this liquid by simple gravity and in controlled quantities, until the reservoir is drained completely.

On the handle housing the reservoir-fed liquid distributor, can be fitted a broom head, brush, mop or the like having a hole through which the lower extremity of the handle passes so that the broom head or the like makes a secure fit with the handle.

In the preferred form of the invention, the reservoir-fed distributor is formed from a straight tube which comprises the reservoir and is fixed as a handle to the head of the appliance which is to be moistened, while the tube is provided at its lower extremity with a valve held closed by a spring acting on a control rod extending axially through the tube and emerging at the upper part of the latter.

According to one feature of the invention the upper part of the reservoir tube may comprise a filler cap forming a guide for the control rod which passes through it.

According to another feature the control rod can be bent back along the length of the reservoir tube and may be provided with a lateral handle, formed integral therewith if desired, so that it can be operated by the hand holding the tube.

According to a further feature of the invention the tube may carry a lateral guide for the part of the control rod bent back along the tube, while the lower part of the tube may carry a lateral projection or equivalent retaining member for holding the mop of fibrous material or the like.

According to another feature of the invention the lower part of the reservoir tube may be closed by a plug pierced with an axial hole giving passage to the control rod and to the liquid and closed by an external valve carried at the end of the rod and urged against the hole by a helical spring which is threaded on to the rod and interposed between the plug and an abutment of this rod.

Furthermore according to this invention the plug at the lower end of the reservoir tube may carry a part not engaged in the tube and on which is mounted the fibrous mop or the like, or again this projecting part of the plug may form a mounting for the fibrous mop or the like to feed the liquid, or yet again this projecting part of

the plug may form a fitting for mounting the brush or the like, while the part of the plug not engaged in the tube may carry a shoulder pressing on the edge of the tube.

Several constructional embodiments of the invention will now be described with reference to the attached drawing in which the handle housing the reservoir-fed liquid distributor is applied, either to a mop wherein the pad of fibrous material is mounted directly thereon or to a brush provided with its own mounting which engages the handle.

Fig. 1 is a view in elevation with part in section along line I—I of Fig. 2 showing the invention applied to a mop such as a dish cloth.

Fig. 2 is a transverse section along line II—II of Fig. 1.

Fig. 3 is a partial section showing an alternative embodiment of the arrangement shown in Fig. 1, while

Fig. 4 is a partial section showing a further alternative embodiment of the invention applied to a broom or brush.

The reservoir-fed liquid distributor in each of the embodiments is formed from a cylindrical tube 12 forming the reservoir proper and closed at its lower extremity by a plug 13 which is provided with an outlet hole 14, the latter being controlled by a valve 15.

This valve 15 is fixed to a control rod 16 which freely passes through the hole 14 without sealing it, and extends axially in the tube from which it projects at the upper end. The control rod 16 is embraced by a helical compression spring 17 interposed between the plug 13 and a washer 18 which is carried by the rod and secured in position thereon by a pin 19 passing through the rod. The valve 15 is thus maintained normally closed and can be opened at will, to permit the flow of liquid indicated at 20, by manipulating the control rod 16 which slides in a longitudinal direction and is guided in its movement by passing through the closure cover 21.

The control rod 16 is cranked at 22 and 23 and has a part 24 extending preferably parallel with the tube and guided in an eye 25 carried by a collar 26 which is clamped around the tube. The extremity 27 of the portion 24 of the rod 16 is offset laterally to form a handle by which the valve 15 can be opened by the thumb of the hand holding the handle 12, when it is desired to moisten the fibrous material or the like of the mop or of the brush.

In the construction shown in Fig. 1, the dish-cloth is formed of a mop of fibrous material 28

attached to the reservoir tube 12 by a clamping ring 29 the latter being held in place by the spread out extremity of the tube 12 which forms a lateral projection 30, while the plug 13 also holds the

5 mop in which it is engaged.

Referring to the alternative embodiment shown in Fig. 3, the fibrous mop 28 is fixed to the plug 13, which itself forms the means for fitting the mop to the handle by the nails 31 passing through the ring 29 and entering the plug. The entry of plug 13 in the tube 12 is limited by a shoulder 35.

Referring to Fig. 4, the broom head 28a is fixed to a fitting 32 which is pierced to provide a mounting cavity 33, the latter being adapted to receive the projecting part of the plug 13. In this arrangement the plug 13 forms a male connecting piece between the handle or tube 12 and the broom head.

20 The valve 15 can be fixed in a detachable manner on the rod 16, for example by means of a nut 34 (Fig. 3) screwing on the threaded end of this rod 16, to permit of the removal of the plug 13 and its replacement. This arrangement is of utility when the plug forms the fitting for a broom head of fibrous material or of a mop of fibrous material which should be replaced when the fibres are worn out.

The dimensions of an appliance according to 30 the invention are no bigger than that of a similar appliance without a reservoir-fed liquid distributor and the appliance according to the invention is reliable in operation and of a simple and practical construction.

35 I claim:

1. A reservoir-fed liquid distributor for brooms, brushes, dish-cloths and like appliances, comprising a tube shaped to form the handle of the appliance and adapted to act as a reservoir for the liquid to be distributed, said tube being open at its ends, a valve positioned at the lower extremity of said tube to control the emission of the liquid from said reservoir, means for yieldingly holding said valve in its closed position, a removable cap adapted to engage the upper extremity of said tube to close the latter, said cap having an aperture therein, and a valve control formed of a one-piece member of inverted U-shape having one limb extending downwardly through said aperture in said closure cap for connection to said valve while the other limb of said U-shaped member extends downwardly along the outside of said handle and terminates intermediate the length

thereof to provide a handle for said U-shaped member which is slidable in its longitudinal direction to move said valve to open or closed position.

2. A reservoir-fed liquid distributor for brooms, brushes, dish-cloths and like appliances, comprising a tube shaped to form the handle of the appliance and adapted to act as a reservoir for the liquid to be distributed, a valve positioned at the lower extremity of said tube to control the emission of the liquid from said reservoir, means for resiliently holding said valve in its closed position, and a manually manipulated valve control formed of a one-piece member of inverted U-shape having one limb extending downwardly within the handle and form the top thereof for connection to said valve, while the other limb of said member extends downwardly along the outside of said handle and terminates intermediate the length thereof to provide a handle for said U-shaped member which is slidable in its longitudinal direction to move said valve to open or closed position, in which provision is made of a handle portion projecting laterally from the outer limb of said U-shaped member to facilitate actuating the latter.

3. A reservoir-fed liquid distributor for brooms, brushes, dish-cloths and like appliances, comprising an open-ended cylindrical tube adapted to form the handle of the appliance and to act as a reservoir for the liquid to be distributed, a plug inserted in the lower extremity of said tube, said plug having an axial hole therein forming an outlet for said liquid, a valve arranged externally of said plug to close said holes, a cap adapted to engage and close the upper end of said tube, said cap having an axial guide hole therein, a valve control formed of a one-piece inverted U-shaped rod having one limb passing through said closure cap and said plug for connection to said valve, and a second limb extending downwards along the outer side of said tube and terminating intermediate the length thereof, to provide a handle for said valve control means, an abutment secured to said first limb of said U-shaped member, and a helical compression spring located between said abutment and said plug so as normally to hold said valve resiliently in a position covering the hole in said plug, said valve control being movable longitudinally thereof to move said valve to its open and closed positions.

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