Nov. 10, 1925. 1,560,841

L. H. NEARN

RESERVOIR MOP

Filed Nov. 1, 1924 2 Sheets-Sheet 1

Fig. 1.

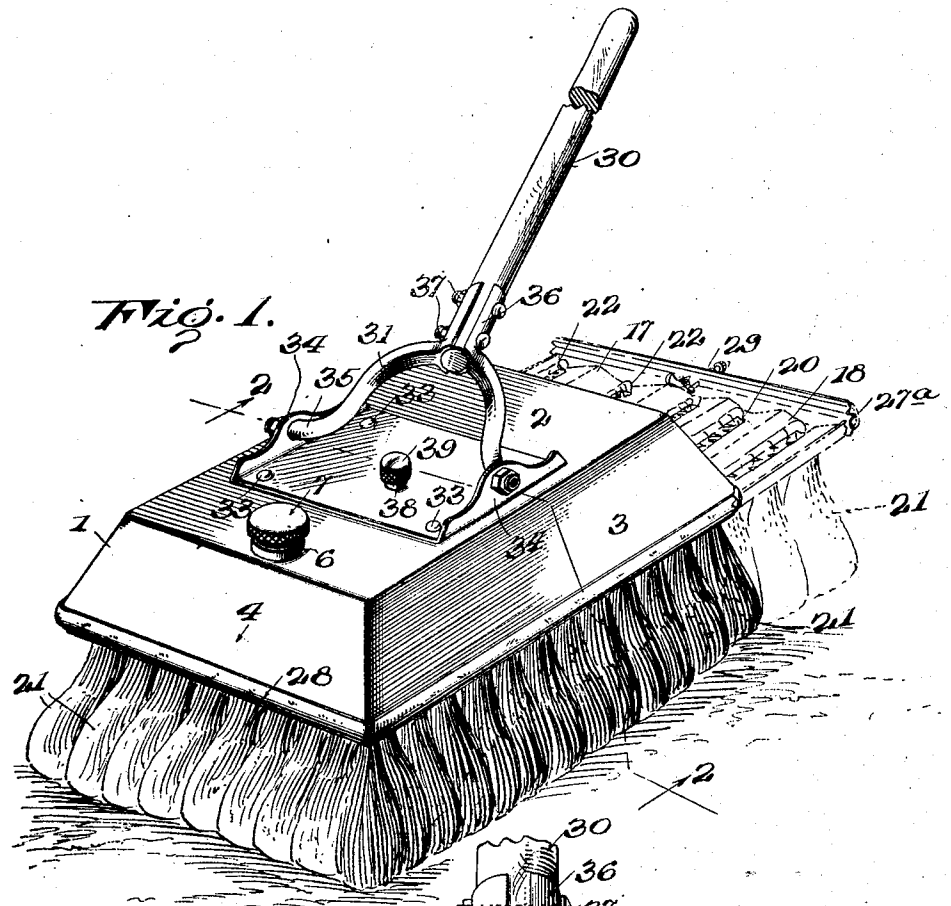
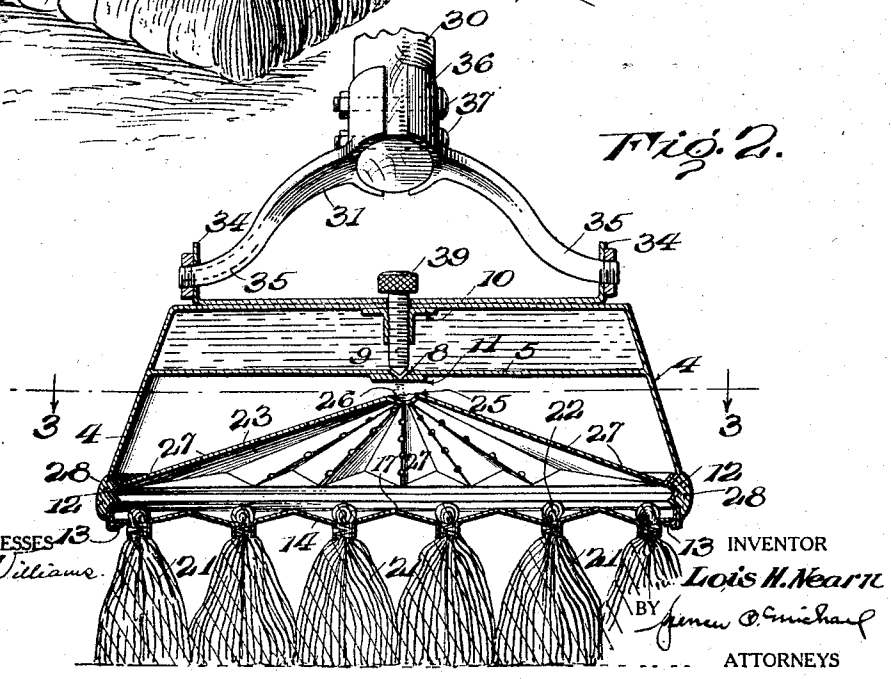


Fig. 2.



WITNESSES

W. A. Williams

INVENTOR

Lois H. Nearn

BY James O. Michael

ATTORNEYS

Nov. 10, 1925. 1,560,841

L. H. NEARN

RESERVOIR MOP

Filed Nov. 1, 1924 2 Sheets-Sheet 2

Fig. 3.

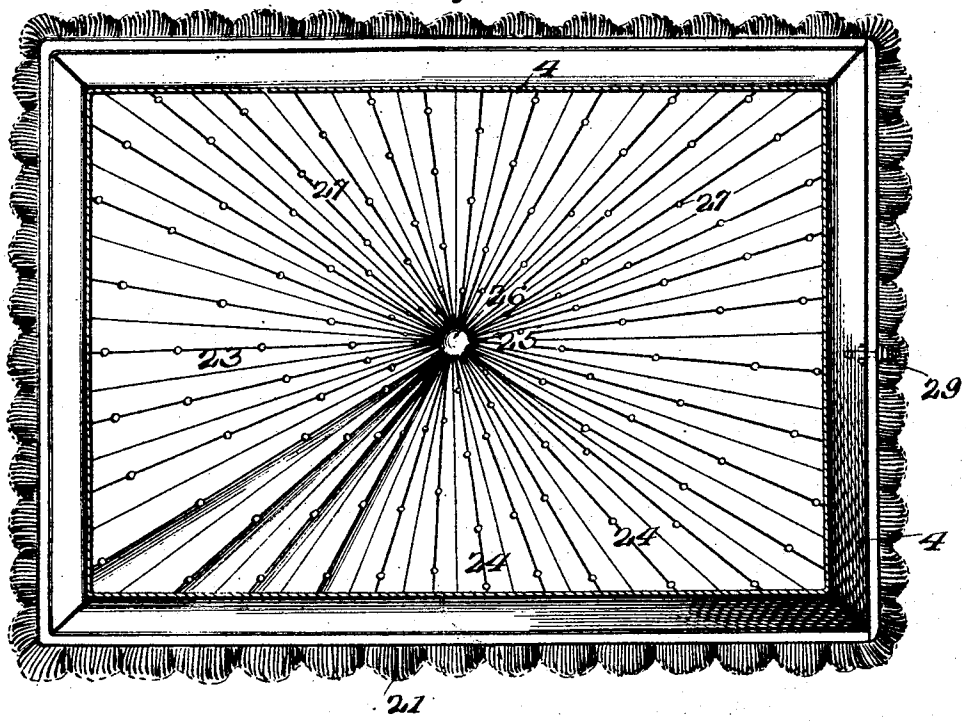
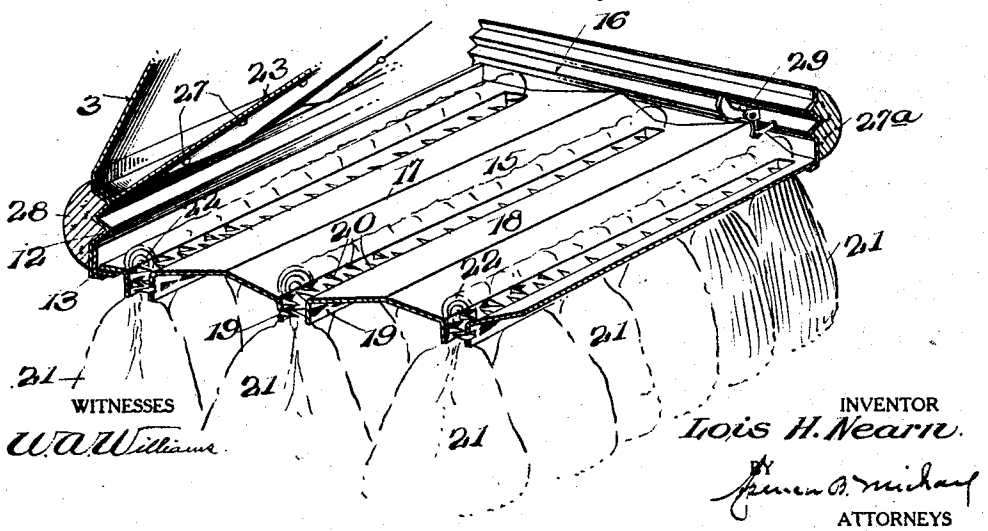


Fig. 4.



WITNESSES

W. A. Williams

INVENTOR

Lois H. Nearn.

Spencer B. Michael

ATTORNEYS

Patented Nov. 10, 1925. 1,560,841

UNITED STATES PATENT OFFICE.

LOIS H. NEARN, OF TRACY CITY, TENNESSEE.

RESERVOIR MOP.

Application filed November 1, 1924. Serial No. 747,345.

To all whom it may concern:

Be it known that LOIS H. NEARN, citizen of the United States, residing at Tracy City, in the county of Grundy and State of Tennessee, has invented certain new and useful Improvements in Reservoir Mops, of which the following is a specification.

This invention relates broadly to devices for applying liquid dressing such as oil, polish, liquid wax, etc., to floors, and more particularly to devices of this character which include an applicator such as a mop, a reservoir for containing a supply of the dressing, and means for conveying the dressing to the mop.

The invention has for its object the provision of a device of the character indicated which includes a reservoir beneath which is supported a mop element, and a valve for controlling the supply of liquid dressing discharged upon the mop.

A further object of the invention is to provide means interposed between the reservoir and the mop element which will positively provide an equal distribution of the dressing to all parts of the mop.

A further object of the invention is to provide a device of this character wherein the mop element is removably attached to the reservoir, whereby, when desired, it may be readily detached therefrom for the purpose of cleaning or renewal.

A further object of the invention is to provide a device of the character indicated which will be simple, yet durable in construction, and economical, yet efficient in operation.

For the purposes of illustration one embodiment of the invention is hereinafter fully described, and illustrated in the accompanying drawings, in which:

Figure 1 is a perspective view of the invention.

Figure 2 is a sectional view taken on the line 2—2 of Figure 1.

Figure 3 is a sectional view taken on the line 3—3 of Figure 2.

Figure 4 is a detailed view partly in section of the mop tray.

Referring more in detail to the accompanying drawings, the invention consists of a reservoir 1 which may be made of sheet metal in any desired form or configuration, but is preferably rectangular as indicated in Figure 1, having a relatively flat upper surface 2, and downwardly and outwardly inclined side and end walls 3 and 4.

The top wall 2 of the reservoir is provided with a filling nipple 6, which may be normally closed by a screw cap 7 of the usual form. As shown in Figure 2, the reservoir is provided with a bottom wall 5, spaced apart from the top wall 2 any suitable distance, depending upon the desired capacity of the reservoir, said bottom wall 5 being provided with a central orifice 8, with which a threaded needle valve 9 cooperates. The needle valve is adjustably supported in the top wall 2 of the reservoir by means of an internally threaded nipple 10, said nipple being welded, soldered, or otherwise fixedly secured to the inner face of the wall 2. The bottom wall 5 of the reservoir may be reinforced adjacent to the discharge orifice 8 by means of a perforated washer 11, fixedly secured to the under side thereof in any suitable manner, whereby a substantial bearing surface may be provided for the needle valve 9.

The flaring side walls of the reservoir extend a substantial distance below the bottom wall 5 thereof and terminate in longitudinally corrugated sections 12, having inturned terminal flanges 13 as clearly shown in Figure 2. The inturned flanges 13 are designed to support the removable mop tray 14, into the bottom portion 15 of which are stamped or otherwise formed a plurality of parallel longitudinally disposed crests 17 separated by open channels 18. The channels are formed by slitting the metal of the tray along lines parallel to and equidistant from the crests 17, and then bending the metal downward along lines parallel to the slits and on either side thereof to form depending integral walls 19. The channels thus formed are designed to receive the mop tufts 21. These tufts are formed from strands of string, yarn or the like, laid parallel and looped intermediate their ends to form the tuft heads 22. The tufts are then mounted in the channels 18 with the heads 22 projecting above the bottom 15 of the tray, between the crests 17, and retained in this position by a plurality of tangs 20, stamped out of the channel walls 19. By this construction the heads 22 of the tufts are free to absorb the dressing discharged upon the tray and to convey the same by the capillary action of the individual strands of the tufts

to the floor engaging portions of the tufts, as will be hereinafter fully explained.

A distributor plate 23 is mounted between the bottom wall 5 of the reservoir and the mop tray 14, which, as shown in Figures 2 and 3, is secured to the walls of the reservoir adjacent to, and immediately above the corrugated sections 12 thereof. The plate 23 is substantially conical in form and is provided with a plurality of radially disposed valleys or corrugations 24, emanating from the apex 25 of the plate, said apex being slightly depressed to form a shallow well 26. The valleys of the corrugations 24, extending radially from the well 26, are provided with a plurality of longitudinally distributed perforations 27, whereby the floor dressing discharged upon the plate may be distributed uniformly upon the mop tray.

As hereinbefore recited, the mop tray 14 is designed to slidingly engage the inturned flanges 13 of the side walls 3 similar to a drawer, and to this end the corrugated section 12 of one of the end walls 4 is omitted, whereby to provide an opening through which the tray may be inserted and withdrawn. The tray 14, on its outer or exposed end, is therefore provided with a deep wall 27^a corresponding in size and shape to the corrugated section 12 omitted from the end wall 4 of the reservoir. By this construction the appearance of the reservoir is rendered intact when the mop tray is in place.

The end wall 27^a of the tray is provided with a suitable latch 29 whereby the tray may be retained securely in place beneath the reservoir when the mop is in use. The corrugated sections 12 of the reservoir and the end wall 27^a of the mop tray are preferably covered by cork, rubber, felt, or other suitable material, whereby to preclude the possibility of marring objects of furniture coming in contact with the device during use.

The device as thus described is designed to be manipulated in the usual manner by means of a handle 30 secured to the reservoir by means of a yoke 31 and a yoke plate 32. The yoke plate 32 is permanently secured to the upper surface of the reservoir by means of a plurality of rivets 33, or any other suitable means, and is provided with upturned perforated lugs 34 designed to receive the oppositely disposed extremities 35 of the yoke 31. In order to facilitate mounting the handle and yoke, the latter may be provided with a split socket 36 to which the handle is secured by a plurality of bolts 37.

It is to be noted that the upturned lugs 34 of the yoke plate 32 are set in a substantial distance from the outside edges of the top, whereby to prevent said lugs and the yoke terminals carried thereby from coming in contact with articles of furniture. By this construction it is to be noted that the handle may be swung to either side of the mop, and the direction of use of the latter thus reversed without lifting the mop from the floor.

The yoke plate 32 is positioned centrally of the top wall 2 of the reservoir and is perforated at 38 in order to accommodate the needle valve 9, which extends through the top wall 2 and yoke plate 32 and terminates in a knurled head 39 by which the valve may be adjusted relatively to the discharge orifice 8 to control the flow of the liquid from the reservoir onto the distributor plate.

From the foregoing description it is apparent that the reservoir 1, having been filled with dressing of the desired character, by means of the filling nipple 6, the needle valve 9 is adjusted relative to the discharge orifice 8 of the plate 5 so that any desired quantity of the dressing will be continually discharged upon the distributor plate 23. The dressing issuing from the discharge orifice 8 drops into the well 26 and from there it overflows into the radial valleys 24. These valleys being perforated, the dressing is permitted to drop uniformly over the mop tray 14, the crests 17 of which direct the dressing into the channels 18, from which protrude the heads 22 of the mop tufts 21. These heads absorb the dressing and by the capillary action of the strands deliver the same uniformly throughout the entire surface of the mop. After the mop has been used for some time and has become soiled and unsanitary, the tray may be removed by releasing the latch 29 and the mop thoroughly cleaned and sterilized. By this construction not only may the mop be kept in a clean and sanitary condition at all times, but also when, after being in use for a long period of time, the mop tufts have become excessively worn, a new mop tray may be purchased at small cost and the apparatus thus rendered as good as new.

It is to be noted that while a preferred embodiment of the invention has been hereinbefore described and illustrated, it has been but for the purposes of example only and not as defining the limits of the invention, which are to be determined by the appended claims.

Having thus described my invention, what I claim as new is:

1. A device of the character described comprising a liquid reservoir, depending flanges carried thereby, a removable mop carrying tray supported by the flanges, a discharge orifice in the reservoir, means for controlling the same, and a distributor plate interposed between the discharge orifice and the mop tray whereby to distribute the liq-

uid from the reservoir uniformly over the mop tray.

2. A device of the character described comprising a liquid reservoir, a liquid receiving tray carried thereby, means to discharge the contents of the reservoir upon the tray, mop tufts carried by the tray, and distributing crests positioned between said tufts whereby to distribute the liquid onto the mop tufts.

3. A device of the character described comprising a reservoir provided with a discharge orifice in the bottom thereof, a valve controlling the discharge of liquid therethrough, a conical distributor plate positioned beneath the reservoir, said plate being provided with a shallow well at the apex thereof, a plurality of radial corrugations emanating from said well, said corrugations being perforated, a mop tray positioned beneath the distributor plate, said tray being provided with a plurality of alternate raised crests and open channels, and a plurality of tufts mounted in the channels.

4. A device of the character described comprising a liquid reservoir having a discharge orifice, a valve controlling said orifice, a mop tray positioned beneath the reservoir, a distributor plate positioned between the discharge orifice of the reservoir and the mop tray, said distributor plate being substantially conical in form and having its apex depressed to form a shallow well, and provided with a plurality of corrugations emanating from said well, said corrugations being provided with longitudinally distributed perforations.

5. A device of the character described comprising a liquid reservoir having a discharge orifice, a valve controlling said orifice, and a mop positioned beneath the reservoir, said mop comprising a tray provided with a plurality of open channels, tufts mounted in the channels and means to retain the tufts within the channels.

6. A device of the character described comprising a liquid reservoir having a discharge orifice and a mop positioned beneath the reservoir, said mop comprising a tray provided with a plurality of open channels, tufts mounted in the channel, and raised crests between the tuft channels whereby to direct liquid discharged from the reservoir upon the tray into the open channels containing the tufts.

7. A device of the character recited in claim 5 wherein the mop tray is further provided with raised crests between the tuft channels and a perforated distributor plate positioned between the tray and the reservoir.

8. A device of the character described comprising a liquid reservoir, flanges depending therefrom, a mop tray slidably supported upon the flanges, a latch carried by the tray, whereby to retain the same in operative position, and means to discharge the liquid from the reservoir onto the mop.

9. A device of the character described comprising a liquid reservoir, flanges depending therefrom on three sides thereof, a mop tray slidably engaging the flanges, said mop tray being provided with an upstanding complemental flange on its outer end adapted to cooperate with the depending flanges of the reservoir, and means to discharge the liquid from the reservoir onto the mop.

10. In a device of the character described a mop tray comprising a corrugated bottom, said bottom being slotted intermediate the crests of the corrugations, mop tufts positioned in said slot, and tangs carried by the side walls of said slots for securing the tufts therein.

11. In a device of the character described a mop tray comprising a corrugated bottom section, said bottom being slotted intermediate the crests of the corrugations, and mop tufts mounted in said slots.

12. In a device of the character described a mop tray comprising a bottom section provided with corrugations, said bottom intermediate the crest of the corrugations being slotted to form open channels having depending side walls, mop tufts mounted in the channels and tangs carried by the side walls to engage the tufts to retain the same within the channels.

In testimony whereof I affix my signature.

LOIS H. NEARN.