Nov. 7, 1933. A. A. REISER 1,934,144

MOP CLEANER AND DUST RECEPTACLE

Filed July 30, 1932 2 Sheets-Sheet 1

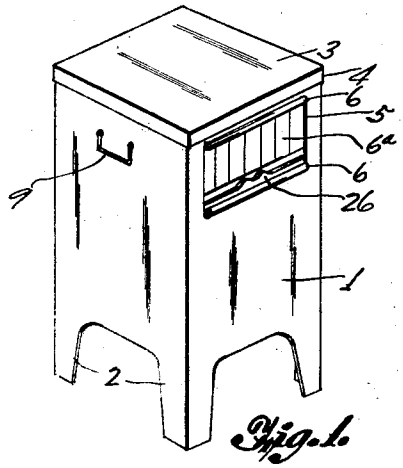


Fig. 1.

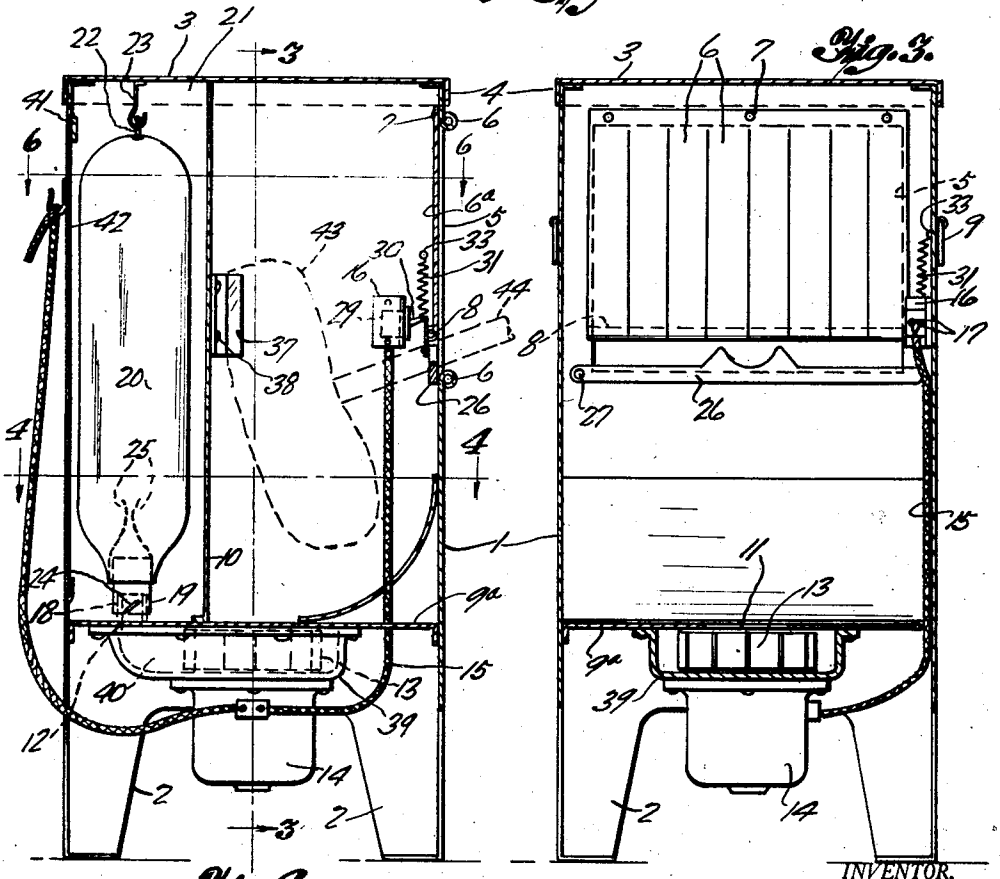


Fig. 2.

Fig. 3.

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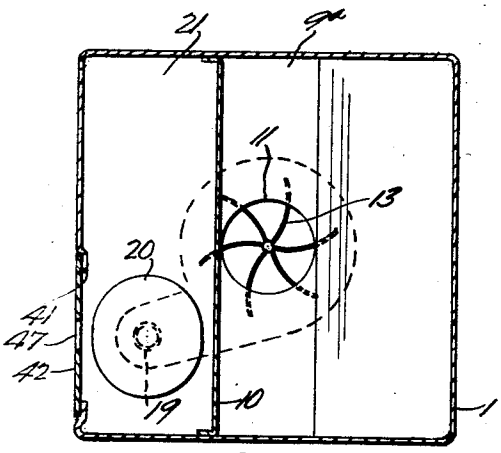


Fig. 4.

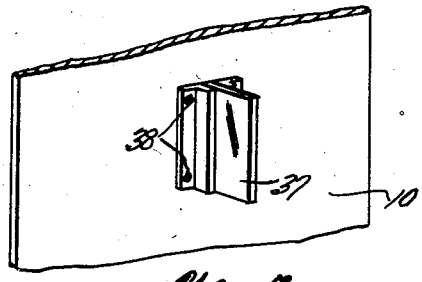


Fig. 5.

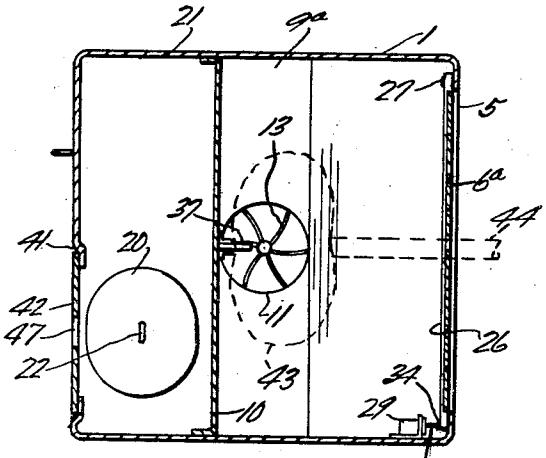


Fig. 6.

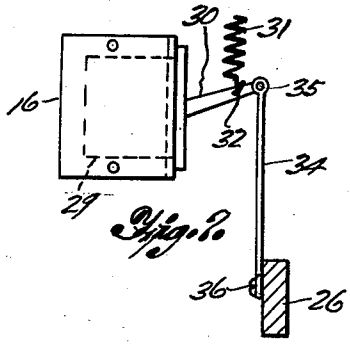


Fig. 7.

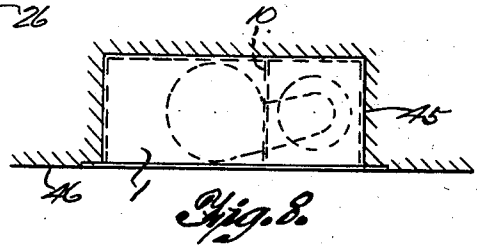


Fig. 8.

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MOP CLEANER AND DUST RECEPTACLE

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5 Claims. (Cl. 15—15)

This invention relates to mop cleaners and dust receptacles. Dust and floor mops are, of course, universally used in homes, stores and offices. In the use of such mops, it is necessary from time to time to shake out the accumulated dust. This process is commonly accomplished by shaking the mop through an open door or window, which is a very unsanitary method.

It is the prime object of the present invention to provide a container or receptacle into which the dust from a mop may be shaken, there being provided within the receptacle suction means for drawing the dust out of the mop, and means for storing that dust in a removable bag or other suitable container.

Another object is to provide in a device of the kind referred to, the combination of a suitable receptacle provided with an opening for receiving a mop, a dust container removably mounted within the receptacle, and means for drawing by suction the dust from a mop as inserted through said opening and depositing the said dust within the dust container.

Another object is to provide in combination, a receptacle having an opening for the insertion of a mop, a separate opening for the insertion of a dust bag or container, an electrically operated suction fan mounted within the receptacle, a switch disposed at the margin of the mop receiving opening, for controlling the current through the said suction fan or motor thereof, a removable dust container for mounting within the receptacle through said opening provided therefor, the said dust container being connected with the suction fan for receiving the dust passing through said fan.

With these and such other and further objects and advantages in view as may be developed in the course of the following specification, attention is now directed to the accompanying drawings constituting a part of the said specification, the same exemplifying a practical embodiment of the invention, and wherein

Figure 1 is a perspective view of the outward appearance of a form of receptacle practically adapted for housing the elements of my invention.

Figure 2 is a longitudinal sectional view on an enlarged scale, taken through the receptacle shown in Figure 1, and the interior elements housed therein, showing also in dotted lines a mop as inserted in the receptacle for the purpose of cleaning same.

Figure 3 is a section on the line 3—3 of Figure 2.

Figure 4 is a section on the line 4—4 of Figure 2.

Figure 5 is a detail of the mop agitator.

Figure 6 is a section on the line 6—6 of Figure 2.

Figure 7 is a detail of the switch mechanism.

Figure 8 is a view on a reduced scale of a modification, showing the elements of the invention seated within a wall cavity formed for the purpose.

The invention comprises a suitable receptacle 1 preferably mounted upon legs 2, the said receptacle being open at the top and provided with a lid 3 having its margins turned down as shown at 4 for frictionally engaging the upper margins of the receptacle. The front of the receptacle is cut out to provided a mop receiving opening 5, and the upper and lower margins of this opening are rolled as shown at 6 for the purpose of strengthening said margins. The opening 5 is normally closed by means of a curtain formed of a plurality of strips of leather 6a, which are hung from their upper ends from the upper margin of the opening, as shown at 7, and depending over the opening, are held in position by means of small weights 8 attached to the lower ends of these strips. The receptacle is provided with suitable handles 9. The receptacle 1 includes a bottom 9a. A partition 10 is extended transversely and longitudinally through the receptacle from top to bottom, the same being located about one-third the distance from the back towards the front of the receptacle. A fan opening 11 is formed through the large frontal part of the floor and a relatively small dust sack opening or lead 12 through the floor at the other side of the partition 10. A suction fan 13 is mounted immediately below the opening 11, the said fan being operable by an electric motor 14 controlled by a current led through the cable 15, the terminals of the lead wires of the cable entering the switch box 16 at the points 17. The sack opening 12 is provided with an upstanding nipple 18 adapted to engage the mouth 19 of the conventional dust sack 20 which is disposed within the compartment 21 formed back of the partition 10, and is supported at its closed upper end by means of a ring 22 secured in the end of the sack and hooked over a hook 23 depended from the lid 3. The mouth of the sack is releasably locked to the nipple 18 in any conventional manner, as by the bayonet lock 24. A flap valve 25 is arranged within the mouth of the sack to prevent the exist of dust after same is drawn into

the sack. A mop bar 26 is pivoted at one end upon a pin 27, at one side of the mop opening 5, inside the lower margin thereof, the bar being then extended horizontally to the other side of the opening. A conventional form of toggle switch 29 is mounted within the box 16, the outer arm 30 thereof being operable in a vertical direction. A retractile spring 31 having its lower end secured at 32 to the said arm and its upper end at 33 to an upper point upon the receptacle, serves to normally hold this switch open so that no current may flow. A link 34 connecting at 35 and 36 the switch arm 30 with the mop bar 26, normally holds the bar 26 in a position elevated somewhat, the switch arm 30 being at the same time elevated by the spring 31, and the switch being, therefore, open. In other words, the spring 31 holds the switch open and at the same time holds the mop bar 26 elevated. A mop agitator 37 is secured at 38 medially upon the partition 10. A basin-like casing 39 is mounted over the fan 13 and sack opening 12, thus providing a dust channel 40 from the fan to the sack opening. An opening 41 is cut in the back of the receptacle and fitted with a removable panel 42 for the insertion and removal of the dust sack.

In operation, the mop 43 to be cleaned is thrust through the opening 5 against the agitator 37, where the mop is quickly flicked back and forth. At the same time the handle 44 is caused to bear upon the bar 26, thus closing the current through the fan 13. Thus the dust as it falls from the mop is drawn into the sack 20. It will be understood that any conventional form of dust sack, bag or container may be used in combination with the other elements of the invention.

In Figure 8 is illustrated a method of mounting the assembly within a recess 45 formed within a wall 46.

While I have herein described a certain specific manner and method of constructing and assembling the elements of my invention, it is understood that I may vary from the same in minor details, not departing from the spirit of my invention, so as best to construct a practical device for the purpose intended, as defined in the appended claims. For example, the panel 42 may be perforated as shown at 47, for the escape of air discharged through pores of the dust sack 20.

I claim:

1. In a device of the kind described, a receptacle open at the top and closed at sides and bottom except for a mop opening through one side, a sack opening through the opposite side, a fan opening through one portion of the bottom and a dust lead opening through an adjacent part of the bottom, a lid for the receptacle, a removable closure for the dust sack opening, a yieldable closure for the mop opening, a partition separating the mop opening and the fan opening from the dust sack opening and the dust lead opening, an electrically operated suction fan below the fan opening, electric conductors for the said fan, the terminals thereof being disposed at the mop opening, a casing enclosing the fan and the dust lead opening and providing communication from the fan to the dust lead opening, a dust sack mounted over the dust lead opening and removably suspended from the lid of the receptacle, a switch for the electric terminals at the mop opening, and a bar controlling the said switch and extended across the mop opening.

2. In a device of the kind described, a receptacle, a partition dividing the receptacle into a mop compartment and a dust sack compartment, there being openings for both compartments formed through the opposite sides of the receptacle and openings through the bottom at each side of the partition, a suction fan below the bottom opening adjacent the mop opening, a dust sack over the other bottom opening, a casing covering the fan and connecting same with the opening through the bottom leading to the dust sack, means for operating the suction fan, and means located at the mop opening for controlling the fan operating means.

3. In a device of the kind described, a receptacle having a mop opening, an opening for the insertion of a dust sack, a fan opening, and a dust lead opening, a dust sack mounted over the dust lead opening, a partition separating the fan opening and dust lead opening, a suction fan mounted under the fan opening and having its inlet communicating therewith, and a casing enclosing the fan and providing communication from the fan to the dust lead opening.

4. In a device of the kind described, a receptacle having a mop opening, an opening for the insertion of a dust sack, a fan opening, and a dust lead opening, a dust sack mounted over the dust lead opening, a partition separating the fan opening and dust lead opening, a suction fan mounted under the fan opening and having its inlet communicating therewith, and a casing enclosing the fan and providing communication from the fan to the dust lead opening, a motor for operating the suction fan, a motor control switch mounted adjacent the mop opening, and operating means for the switch mounted adjacent the mop opening and projecting beyond one margin thereof for engagement by a mop handle inserted through the opening.

5. In a device of the kind described, a receptacle having openings for the insertion of a mop and dust sack, and having a fan opening and a dust lead opening adjacent one another, a partition separating the mop and fan openings from the sack and dust lead openings, a dust sack mounted over the dust lead opening, a fan mounted under the fan opening and having its inlet communicating therewith, a casing enclosing the fan and providing communication from the fan to the dust lead opening, a motor for operating the fan, a toggle switch mounted adjacent the mop opening and connected to the motor, a mop bar pivoted at one end at one side of the mop opening and extended across the opening to a point adjacent the said toggle switch, and a link connecting the free end of the mop bar to the said toggle switch.

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