

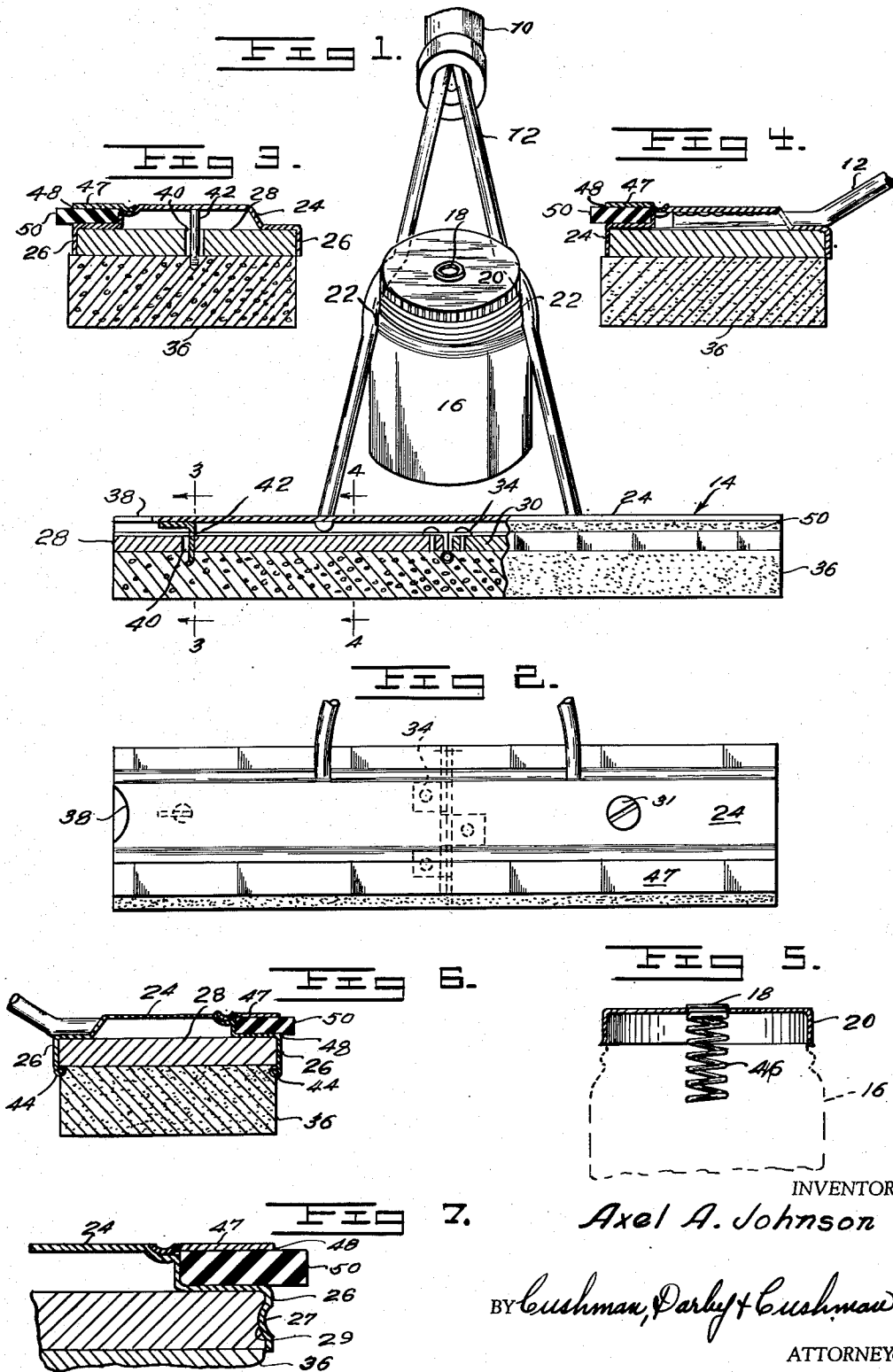
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WAX APPLICATING AND DISPENSING UNIT

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WAX APPLICATING AND DISPENSING UNIT

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13 Claims. (Cl. 15—119)

The present invention relates to a wax applying and dispensing device which may be used economically and efficiently in the treatment of floors.

It is an object of this invention to provide a wax applying and dispensing device of extremely simple design which may be manufactured efficiently and sold at low cost.

Another object of this invention is to provide an applying unit having an absorbent sponge that may be used either to apply wax to the surface of the floor or as a wet mop.

A still further object of the invention is to provide a device which has an efficient self-wringing wet mop that may be operated without soiling the user's hands.

Another object of this invention is to provide a dispensing unit for wax which will eliminate clogging valves and levers ordinarily employed in devices of this type.

A still further object of the invention is to provide a dispensing unit in which the wax will evenly flow from the unit when in the inverted or dispensing position. The invention also provides a dispenser which prevents the wax from splashing on the floor when the dispenser is in the upright non-dispensing position.

These and other objects of the invention will appear more clearly in the specification, claims and the accompanying drawings in which:

Figure 1 is a front elevation partially in cross-section of the wax applicator and dispensing device;

Figure 2 is a plan view of the top of the wax applying unit;

Figure 3 is an enlarged cross-sectional view of the latching mechanism on the line 3—3 of Figure 1;

Figure 4 is an enlarged cross-sectional view of the means for attaching the applicator to the handle and is on line 4—4 of Figure 1;

Figure 5 is an enlarged, fragmental, cross-sectional view of the dispensing unit;

Figure 6 is an enlarged end view of the applying unit showing a modified form of the latching means;

Figure 7 is an enlarged fragmental end view showing another modification of the latching means.

Referring specifically to the drawings, wherein like character or reference numerals designate like or similar parts, the wax applying and dispensing device is comprised of a handle 10 made of any suitable material, such as wood, metal or plastics, the lower end of which is attached to a bifurcated member 12. Attached to the other end of the bifurcated member 12, is an applicator 14, while intermediate of the applicator 14 and the handle 10 and carried by the bifurcated member 12 is a dispensing container 16 mounted normal to the handle 10 and in a substantially upright, non-dispensing position when the applicator is being used. It is obvious that the dispensing container 16 may be operated by merely turning the handle 10 so that it is inverted, thus letting liquid wax dispense through an aperture 18 in the cap 20.

The bifurcated member 12 is comprised of two arms rigidly connected together at one end by brazing, welding,

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soldering or the like. The other ends of the bifurcated member 12 are rigidly secured to the applicator 14 by welding or the like as shown in Figure 4. Intermediate of the ends of the bifurcated member 12 are arcuate gripping sections 22 which are adapted to hold the dispensing container 16. The dispensing container 16 may be removed by merely sliding it outwardly from the apex of the bifurcated member 12 since the arms of the bifurcated member are resilient. The resiliency of the arms also adds in holding the bifurcated member within a hole provided in the handle 10.

Applicator 14, which is of the self-wringing type, is comprised of a substantially rectangularly shaped cover plate 24 to which the ends of the bifurcated member 12 are rigidly secured as previously stated. The cover plate 24 may be made of metal, wood, Masonite or the like, however, in the preferred embodiment of the invention it is formed of metal such as aluminum. Along each longitudinal edge of the cover plate 24 are depending flanges 26 which will encase the backing plates 28 and 30 respectively as will be more fully explained later in the specification. Flanges 26 may be attached to the cover plate 24 in any suitable manner, however, in the present invention, the flanges 26 are made integral with the cover plate 24 by pressing them out of sheet material. Between the flanges 26 and in flat relationship with the cover plate 24 is mounted a backing plate 30. The backing plate 30 is rigidly held to the cover plate 24 by means of a screw 31 or the like. A second backing plate 28 is pivotally connected to the rigidly connected backing plate 30 by means of a hinge 34. It is well to note that the hinge line of the hinge 34 is on an axis transverse and adjacent to the center of the cover plate 24 in order that maximum leverage may be obtained when wringing the absorbent pad 36.

Attached to the undersurface of the backing plates is an absorbent pad such as a sponge 36 or the like. Since the backing plates 28 and 30 may be made of Masonite or oil tempered presswood it is necessary to roughen the undersurface thereof so that excellent adhesion may be obtained to the sponge 36. It is now obvious that the applicator 14 is of the self-wringing type in that the backing plate 28 may be pivoted on the hinge 34 with respect to the backing plate 30 thereby compressing the sponge and removing the liquid held therein. Since the hinge has been located transverse to the sponge, as previously stated, more leverage can be obtained on the backing plate 28 when squeezing the sponge. A finger hole 38 is provided in the cover member 24 so that access may be had to backing plate 28.

In order to hold the backing plate 28 in longitudinal alignment with the rigidly secured backing plate 30, it is necessary to provide a latching means. In one form of the invention, a hole or aperture 40 is drilled through the pivotal backing plate 28 and a resilient or spring clip member is soldered or welded to the undersurface of the cover plate 24 for cooperating therewith. Frictional engagement of the spring member 42 against the wall of the aperture 40 will be sufficient to hold the backing plate 28 in longitudinal alignment with backing plate 30 as shown in Figure 1.

Figure 6 discloses a modified form of latching means for holding the backing plate 28 in longitudinal alignment with the backing plate 30. In Figure 6 the flanges 26 and cover plate 24 are provided with a longitudinal bead 44 on the inner surface thereof. The longitudinal bead 44 will snap over the edges of the backing plate 28 and thus hold it in operating position.

Another modification of the latching means for the backing plate 28 is disclosed in Figure 7 wherein the flange 26' is provided with a longitudinally extending

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concave portion 27 that is adapted to be received in a complementary longitudinally extending groove 29 in the backing plate 28. It is obvious to see that when the backing plate 28 is placed in longitudinal alignment with the backing plate 30 that the concave portion 27 of the flange 26' will snap into place within the groove 29 of the backing plate 28.

A U-shaped channel member is formed by welding a strip of metal 47 to the cover plate 24 adjacent a longitudinal edge thereof. The purpose of providing a U-shaped channel 48 is to retain a rubber scrubber strip 50 which will act as a bumper to prevent scratching or marring floor board molding and furniture when the device is used in the normal manner. The rubber scrubber strip 50 has the additional function in that it may be used to scrape stubborn dirt from the floor by inverting the unit and using the strip 50 as a scrub brush.

Figure 5 discloses the dispensing container 16 which is detachably secured to the bifurcated member 12. Dispensing container 16 contains a cap 20 having an aperture 18 therein. A helical spring 46 is mounted in the aperture 18 and it is well to note that a substantial portion thereof extends within the container. It is necessary to have the spring extend within the container so as to prevent splashing of the liquid wax when in the substantially upright non-dispensing position. The liquid wax being a very viscous liquid will splash against the sides of the spring and be retained within the container but will not splash out of the aperture 18. In the inverted position the spring allows the liquid to flow between it and out of the aperture 18 and thus all of the liquid in the dispenser 16 may be utilized, whereas, a spout extending within the container to prevent splashing would necessarily trap a portion of the liquid depending on the length of the spout. In addition to preventing splashing, the spring 46 also provides an even flow of liquid since, as previously stated, the liquid used in waxes is very viscous. Being viscous the liquid will tend to cling to the side of the spring and will flow outwardly very evenly when the container is inverted.

From the above description, it is evident that the wax applicator and dispensing unit may be disassembled by removing the handle 10 which frictionally holds the bifurcated member 12 and then removing the dispensing container 16 from the bifurcated member 12. The device will thus take up little storage space and may be sold in a knockdown condition.

To operate the device, it is merely necessary to assemble the bifurcated member 12 carrying the applicator 14 to the handle 10 and then place the dispensing container 16 in position between the arcuate gripping sections 22 of the bifurcated member 12. The unit may then be inverted when it is desirous of dispensing wax on the floor. Wax may then be spread by means of the applicator 14. When it is desired to remove the excess liquid wax in the sponge 36 of the applicator 14 it is merely necessary to rotate the backing plate 28 carrying with it the sponge 36, about the hinge 34 so as to compress the sponge against the backing plate 30. It is obvious that the applicator 36 which is primarily used for applying wax to the floor and polishing, may be used as a self-wringing wet mop in that it may be operated in the same manner for removing water as in removing excess liquid wax therefrom.

The terminology used in the specification is for the purpose of description and not for limitation, as the scope of the invention is defined by the claims.

I claim:

1. An applicator device comprising in combination a handle, a bifurcated member having resilient arms attached to said handle, the resilient arms of said bifurcated member having arcuate gripping sections for detachably holding a dispensing container, an applicator attached to the ends of said bifurcated member, said applicator comprising a rectangularly shaped cover plate, a pair of

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backing plates, one of said backing plates being rigidly secured to the underside of said cover plate, the other of said backing plates hingedly connected to said rigidly secured backing plate, said rectangularly shaped cover plate being of size to extend over and provide a backing for said pair of backing plates, an absorbent pad attached to said backing plates and latching means detachably connecting said hingedly connected backing plate to said cover plate for holding said hingedly connected backing plate in longitudinal alignment with said rigidly secured backing plate.

2. The applicator device of claim 1, wherein said latching means include an aperture in said pivotal backing plate and a resilient spring member in said cover for cooperating with said aperture.

3. The applicator device of claim 1, wherein said latching means includes a downwardly extending flange along each longitudinal edge of said cover plate having an inwardly projecting portion in latching engagement with said pivotal backing plate.

4. The applicator device of claim 3, wherein said inwardly projecting portion includes a longitudinally extending bead on the inner surface of said flange.

5. The applicator device of claim 3, wherein said inwardly projecting portion includes a longitudinally extending concave portion on said flange, the longitudinally extending edge surface of said backing plate defining a longitudinally extending groove complementary in configuration to the concave portion of said flange, whereby the concave portion is received within the groove to latch the pivotal backing plate in longitudinal alignment with said rigidly secured backing plate.

6. An applicator device comprising a handle, a bifurcated member having resilient arms attached to said handle, the resilient arms of said bifurcated member having arcuate gripping sections for detachably holding a dispensing container, an applicator attached to the ends of said bifurcated member, said applicator comprising a rectangularly shaped cover plate having a downwardly extending side flange along each longitudinal edge thereof, a backing plate rigidly secured to said cover plate and within said side flanges, a second backing plate pivotally connected to said rigidly secured backing plate on a transverse axis adjacent the center of said cover plate, said second backing plate being normally positioned coplanar with said rigidly secured backing plate and within said side flanges of said cover plate, latching means detachably connecting said second backing plate to said cover plate, and an absorbent pad mounted on both of said backing plates which will compress when said backing plates are pivoted with respect to each other.

7. A mopping device comprising in combination a handle, an applicator attached to said handle, said applicator comprising a substantially rectangularly shaped cover plate, a pair of backing plates, one of said backing plates being rigidly secured to the underside of said cover plate and covering a portion of the same, the other of said backing plates hingedly connected to said rigidly secured backing plate on an axis transverse to the longitudinal axis of and adjacent the center of said cover plate, said cover plate being of size to extend over and provide a backing for said pair of backing plates, an absorbent pad attached to both of said backing plates, and latching means detachably connecting said hingedly connected backing plate to said cover plate for holding the hingedly connected backing plate in longitudinal, coplanar alignment with said rigidly secured backing plate.

8. A mopping device of claim 7 wherein said latching means include an aperture in said pivotal backing plate and a resilient spring member in said cover for frictionally cooperating with said aperture.

9. A mopping device of claim 7 wherein said latching means include a downwardly extending flange along each longitudinal edge of said cover plate having inwardly

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projecting portions in latching engagement with said pivotal backing plate.

10. A mopping device of claim 9 wherein said inwardly projecting portion includes a longitudinally extending bead on the inner surface of said flange.

11. A mopping device of claim 9 wherein said inwardly projecting portion includes a longitudinally extending concave portion on said flange, the longitudinally extending edge surface of said backing plate defining a longitudinally extending groove complementary in configuration to the concave portion of said flange whereby the concave portion is received within the groove to latch the pivotal backing plate in longitudinal alignment with said rigidly secured backing plate.

12. A mopping device of claim 11 wherein a U-shaped channel member is rigidly attached to the upper surface of said cover member, said U-shaped channel member frictionally receiving a rubber scrubber strip.

13. A mop head of the character described comprising a rectangular cover plate having a downwardly extending flange along each longitudinal edge thereof, a backing plate rigidly secured to said cover plate and between said side flanges, said rigidly secured backing plate having one edge thereof positioned adjacent the transverse cen-

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ter line of said cover plate, a second backing plate pivotally connected along the edge of said rigidly secured backing plate which is adjacent the transverse center line of said cover plate, said second backing plate being pivotal on an axis transverse to said cover plate, an absorbent pad mounted on both of said backing plates which will compress when said backing plates are pivoted with respect to each other, and means to detachably secure said second backing plate between the side flanges of said cover plate in longitudinal co-planar alignment with said rigidly secured backing plate.

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