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H. B. PLOST

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WAX APPLICATOR

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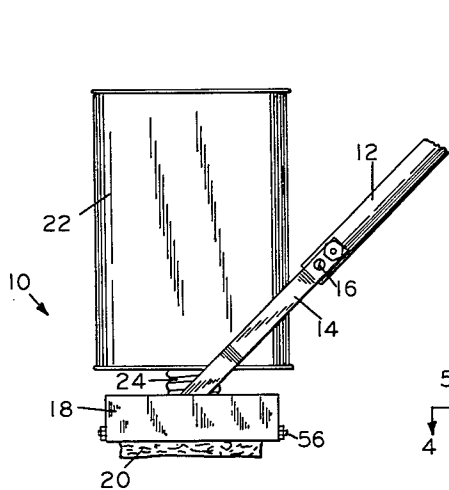


FIG. 1

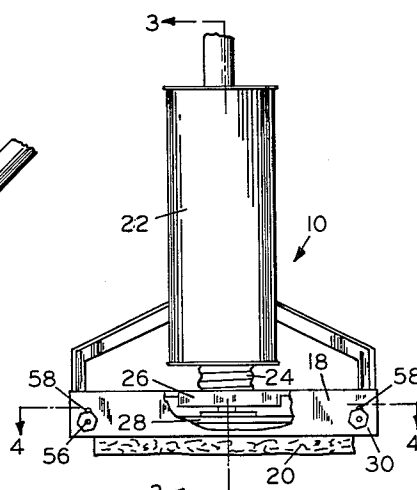


FIG. 2

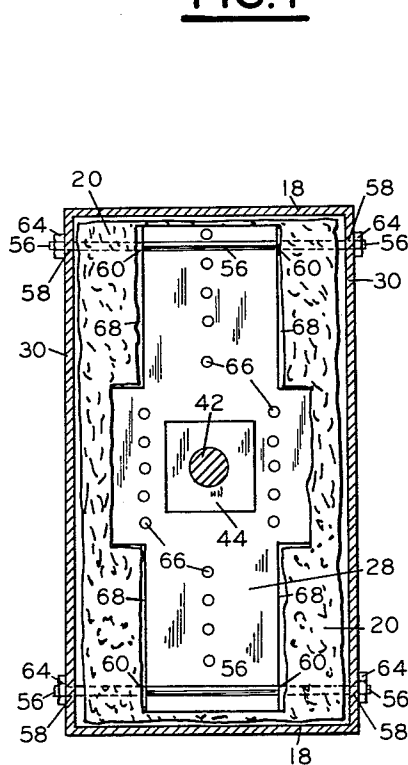


FIG. 4

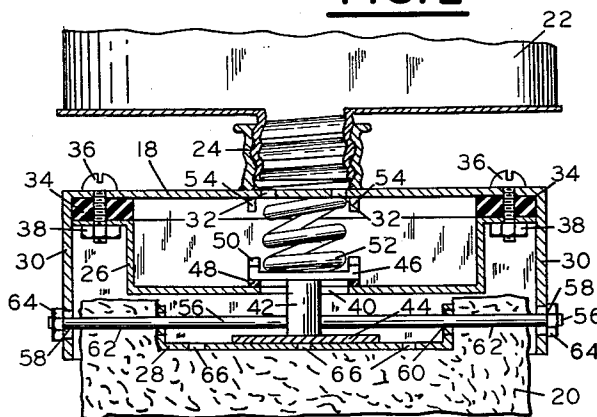


FIG. 3

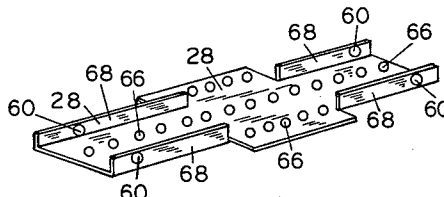


FIG. 5

INVENTOR.
HERBERT B. PLOST

BY

Head & Johnson
ATTORNEYS

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3,099,035

WAX APPLICATOR

Herbert B. Plost, 2223 S. Darlington Place, Tulsa, Okla.

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1 Claim. (Cl. 15—569)

This invention relates to a wax applicator. More particularly the invention relates to a new and novel device for applying wax to floors wherein one aspect of the invention includes means whereby the quantity of wax deposited by the applicator may be easily controlled by the user of the device without requiring the manipulation of levers, valves, knobs, and so forth.

Many types of floorings, such as linoleum, tile, wood and so forth, in order to achieve maximum wear and beauty, require frequent applications of liquid waxes. Applying the liquid wax to a floor is an onerous and time consuming task and is usually done by the use of a sponge in hand, requiring the person applying the wax to kneel on the floor. In order to obviate this disagreeable task, others have suggested wax applicators enabling the user to stand erect while the wax is being applied, but ordinarily such applicators, in order to control the quantity of wax being applied, make use of levers, dial controlled devices and so forth. Some devices have been suggested which contain a lever extending up the length of the handle which may be manipulated to control the amount of wax being applied. Such levers and the connecting mechanisms from the lever to the wax container make the handle of the device unyielding to use.

It is therefore an object of this invention to provide a wax applicator which will be easy to use and which will require a minimum of components.

Another object of this invention is to provide a wax applicator having a simple, direct and straight forward method of controlling the amount of wax being applied which does not depend upon control linkages, valves, knobs and so forth.

Another object of this invention is to provide a wax applicator adaptable for direct engagement to a can or jar in which the wax is purchased so that the problem of pouring wax from a container into an applicator is obviated.

Another object of this invention is to provide a wax applicator having an improved flow control mechanism wherein the amount of wax being applied may easily be controlled by the operator by merely pushing downwardly on the wax applicator without requiring the manipulation of any type of control device.

Another object of this invention is to provide a wax applicator utilizing a sponge and including means whereby the wax is equally distributed throughout the sponge for even distribution on the floors.

Another object of this invention is to provide a wax applicator having self-sealing means so that when the applicator is not being used the attached container is completely sealed at all times and cannot be inadvertently spilled.

Another object of this invention is to provide a wax applicator of simple design which will be more economical to produce and which can be manufactured with a minimum of expense and effort.

Another object of this invention is to provide a wax

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applicator including means whereby the applying medium, such as a sponge, may be easily and quickly replaced.

These and other objects and a better understanding of the invention may be had from the following description and claim taken in conjunction with the attached drawings, in which:

FIGURE 1 is a side view of the wax applicator of this invention.

FIGURE 2 is a front view of the wax applicator of this invention.

FIGURE 3 is a partial cross-sectional view taken along the line 3—3 of FIGURE 2.

FIGURE 4 is a cross-sectional view taken along the line 4—4 of FIGURE 2.

FIGURE 5 is an isometric view of the distribution plate of this invention.

Referring now to the drawings and first to FIGURE 1, the wax applicator of this invention is shown in a side view. The wax applicator, indicated generally by the numeral 10, is manipulated about the floor to which wax is being applied by a handle 12, shown only in partial length. Brackets 14, supported to handle 12 by bolts 16, are affixed to the wax applicator 10.

The applicator base 18 receives brackets 14, which may either be firmly or pivotally affixed to base 18. Base 18 contains a wax applying medium, such as a sponge 20, by which wax is distributed and spread upon a floor. A container 22, which, according to the novel aspects of this invention, may be the container in which liquid wax is purchased, is attached directly to applicator base 18 by an integrally formed threaded nozzle portion 24.

Referring to FIGURE 2, the front view of the wax applicator shows additional details of the construction of the applicator. Sponge 20, supported within applicator base 18, receives wax from a wax reservoir 26. Liquid wax flows from reservoir 26 onto a distribution plate 28 which distributes the wax over the upper surface of the sponge 20. The wax penetrates through the crevices and openings in sponge 20 to the lower surface where it engages the floor which is being waxed, and by manipulation of the wax applicator 10, spreads a smooth even coat of wax on the floor.

Referring to FIGURE 3, the details of the construction of the wax applicator is best shown. Nozzle 24 supports container 22 to applicator base 18. Applicator base 18 is of a rectangular configuration having downwardly extending sides 30 forming an inverted container with the bottom opened to receive sponge 20 and with the top closed except for small openings 32 within nozzle portion 24.

A rectangular shaped reservoir 26 engages the upper surface of applicator base 18 and is sealed to applicator base 18 by gaskets 34. Reservoir 26 is supported to applicator base 18 by bolts 36 and nuts 38. Reservoir 26 has an opening 40 in the lower surface thereof providing a means whereby wax may escape from within reservoir 26 to be deposited on distribution plate 28.

A valve actuator rod 42 is supported to a base 44 which engages distribution plate 28. Rod 42 extends through opening 40 to engage a valve flapper 46. Valve flapper 46, which has gasket 48 affixed thereto, completely covers opening 40 and when pressed downwardly against the bottom of reservoir 26 seals opening 40 so that wax which

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may be within reservoir 26 cannot deposit onto distribution plate 28. Upwardly extending sides 50 of flapper 46 support a spring 52 which compressively extends from flapper 46 to the inside upper surface of applicator base 18. A circular downward extending flange 54 affixed to inside upper surface of applicator base 18 maintains spring 52 in its proper position.

Holding rods 56 extend through elongated openings 58 in sides 30 of applicator base 18 and likewise extend through openings 60 of distribution plate 28 and through openings 62 in sponge 20 to flexibly support the distribution plate 28 and sponge 20 to applicator base 18. Nuts 64 retain holding rods 56 in position so that sponge 20 will not become dislodged during use of the device. New sponges 20 may be replaced by removing nuts 64. In practice, nuts 64 are normally wing-type nuts ready for easy manual removal.

In an alternate arrangement, the holding rods 56 are permanently affixed to distribution plate 28 so that sponge 20 and distribution plate 28 may be inserted into base 18 through openings 58 on one side of base 18 and the sponges on this side compressed and the other end of the holding rods 56 then inserted into openings 58 on the other side of base 18. In this manner rods 56 will be of an extra length so that in normal use the rods will protrude through openings 58 on both sides of base 18. Other means of supporting the sponge 20 and distribution plate 28 to base 18 will readily suggest themselves.

FIGURE 4 is a cross-sectional view taken along the line 4—4 of FIGURE 2 and shows more distinctly the configuration of the sponge 20 and the relative positioning of distribution plate 28 on sponge 20.

FIGURE 5 shows isometrically one configuration of distribution plate 28. A multitude of openings 66 are formed in distribution plate 28 whereby wax may flow out onto distribution plate 28 and through openings 66 onto sponge 20. The upwardly curved side portions 68 of distribution plate 28 provide means whereby openings 60 may be formed to receive holding rods 56. The length of distribution plate 28 is slightly less than the overall interior length of applicator base 18 so that the sponge 20 is firmly supported by applicator base 18 to apply pressure equally over substantially the full area of sponge 20 to the floor to which wax is being applied.

Operation

When it is desired to wax a floor utilizing the novel wax applicator of this invention, a container 22 having a quantity of wax therein, is secured to applicator base 18 by threading container 22 to threaded nozzle portion 24. Container 22 may be of the type in which liquid wax is normally sold. Thus, the applicator of this invention does not require the pouring of wax from one container to another, eliminating a messy step ordinarily involved in the application of waxes in known types of applicators.

With container 22 affixed to wax applicator base 18 and the wax applicator base 18 turned downwardly so that sponge 20 would be in position to engage the floor to which wax is to be applied, wax will run from container 22 through nozzle 24 and openings 32 into reservoir 26, filling reservoir 26. Spring 52, however, exerts a downward force on flapper 46 and causes flapper 46 and gasket 48 to seal opening 40 so that no wax can discharge from reservoir 26. Thus, even with container 22 applied, it is still hermetically sealed and no evaporation or contamination of the liquid contents of container 22 can occur.

Spring 52 is of a proper tension so that with the wax applicator 10 having a full container 22 resting on a floor, the compressive tension of spring 52 is such that flapper 46 nevertheless remains sealed, preventing wax from flowing through opening 40. In the normal reciprocal movements with which the wax applicator will be used to apply wax to a floor, the weight on sponge 20 still does not overcome the compressive tension of spring 52. When the operator desires wax to be applied to sponge 20, or

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during the process of applying wax to the floor when it is desired that additional wax be applied to sponge 20, the operator merely pushes downwardly on handle 12. This downward force is conveyed to wax applicator base 18 and forces sponge 20 and therefore distribution plate 28 upwardly. This upward movement of distribution plate 28 is transferred by base 44 and valve actuating rod 42 to move flapper 46 upwardly, displacing it from engagement with the area surrounding opening 40 and thereby permitting wax to run from reservoir 26 onto distribution plate 28. Wax depositing on the distribution plate 28 flows over the area of distribution plate 28 and through openings 66 onto sponge 20.

Thus, in the normal application of liquid waxes, the operator need take no additional steps and, in fact, does not even need to alter his working motion of handle 12 to control the amount of wax required. When additional wax is needed the operator merely exerts an increased downward force on handle 12 as he continues the reciprocal and circulatory motion ordinarily used in applying a sponge to the floor and this downward force compresses spring 52 and allows additional wax to flow onto the sponge 20. When no additional wax is required the operator merely restrains from excess downward force on handle 12 and the sponge 20 can be used in the usual manner.

This invention, although relatively simple, provides a means which saves housewives and others who must apply wax to floors frequently, many hours of hard and unsavory work and further provides a means whereby a wax applicator can be maintained in a position ready for immediate service whenever wax is required to be applied to a floor.

The invention has been described using liquid wax as an example of a material which may be readily applied by the device. Any other liquid, such as detergents, disinfectants, and so forth, may likewise be used in the applicator. The liquid applying medium has been identified as a sponge 20. The term sponge is used to include any type of absorbent material usable to receive and distribute liquids on a surface.

Although the invention has been described with a certain degree of particularity, it is manifested that many changes may be made in the details of construction and the arrangement of components without departing from the spirit and scope of this disclosure.

I claim:

- A wax applying device adaptable to receive and support a container of liquid wax and adaptable to receive a handle whereby said applicator may be manipulated about a floor or other flat surface, comprising, in combination;
 - a rectangular applicator base having an upper substantially flat surface and downwardly extending sides;
 - a nozzle portion integrally formed in said upper flat surface adaptable to threadably receive said container of liquid wax, said upper flat surface having at least one opening therein communicating with said nozzle portion;
 - a reservoir sealably supported to the lower side of said upper surface of said applicator base adaptable to receive and contain liquid wax from said openings in said upper flat surface, said reservoir having an opening in the lower portion thereof;
 - a valve flapper within said reservoir and resiliently biased over said opening to normally close said opening;
 - a rectangular sponge removably positioned in said applicator base below said reservoir, the upper portion of said sponge encompassed by said downwardly extending sides of said applicator base;
 - a perforated distribution plate recessed within the top of said sponge to receive and distribute liquid wax over a substantial portion of said upper surface of said sponge;
 - means connecting said sponge and said distribution

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plate to said downwardly extending sides of said applicator base, said means allowing said distribution plate and said sponge vertical and horizontal movement with respect to said reservoir;

- a valve actuator rod having a flat upper end surface which is normally in contact with the bottom of said normally closed valve flapper, said rod extending downward through said opening and terminating its lower end with a substantially flat base member in contact with the upper side of said distribution plate, said rod and base movable relative to said reservoir within the limitations of said opening whereby said

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valve can be opened to admit wax from said reservoir unto said distribution plate upon any relatively vertical movement of said distribution plate with respect to said reservoir.

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