July 12, 1955 J. S. LAMBERT 2,712,665

PASTE WAX APPLYING DEVICE

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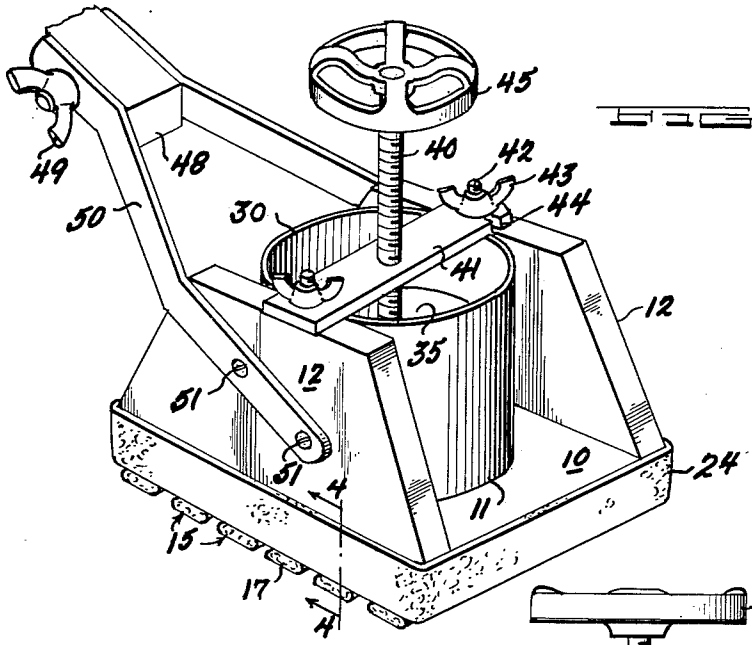


FIG. 1.

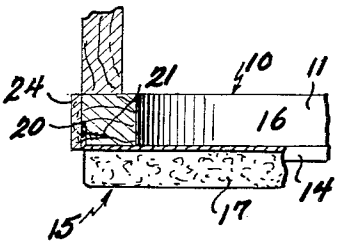


FIG. 4.

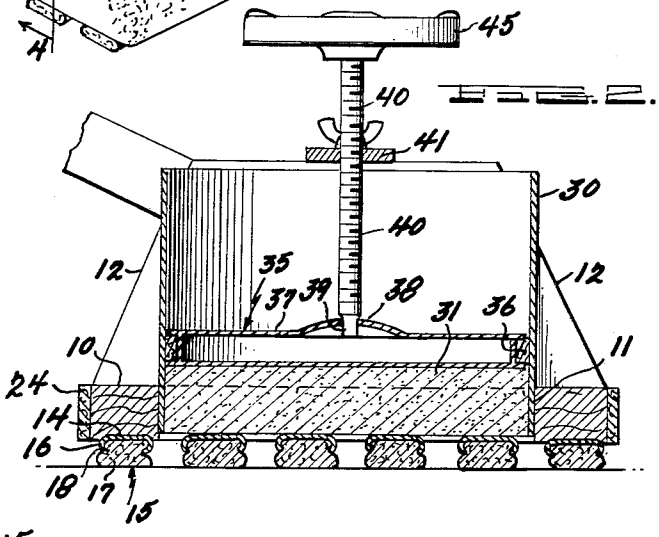


FIG. 2.

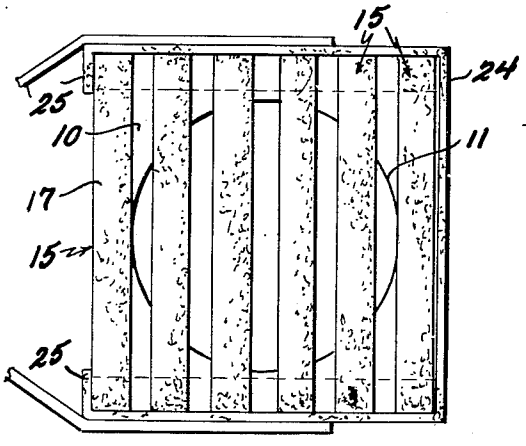


FIG. 3.

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PASTE WAX APPLYING DEVICE

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6 Claims. (Cl. 15—131)

This invention relates to a paste wax applying device, particularly for applying wax in paste form to floors prior to the polishing operation.

Several practicable devices have been developed for applying liquid wax to floors, the problems involved being relatively simple because of the liquid form of the polishing material. So far as I am aware, no practicable means has been developed for applying wax in paste form to floors, the problems involved being substantially different and much more difficult to solve. For example, where liquid wax can be dripped on a polish applying fabric or other porous medium, such means will not operate properly with paste wax, which will not flow through a merely porous medium unless the wax is melted. For this reason, it is the common practice in the commercial finishing of floors as well as the practice of housewives to apply paste wax by hand and spread it over a floor.

An important object of the present invention is to provide a novel and easily operated device for directly and smoothly applying paste wax to a floor, after which the wax is permitted to dry for a predetermined length of time prior to polishing, the device being capable of efficient use through the operation of a relatively long handle, thus eliminating the necessity for the operator's having to apply the wax by hand.

A further object is to provide such a device wherein the wax applying means per se permits the free flow of paste wax directly to the floor surface and which operates efficiently to spread the wax uniformly over the floor surface.

A further object is to provide such a device which employs directly as one of its operating elements the conventional can in which paste wax is purchased from stores, it being necessary merely to cut away both extremities of the can to form the latter into a cylinder for use with the present mechanism.

A further object is to provide a paste wax applicator employing a plurality of applicating elements of such nature and such arrangement relative to each other as to facilitate both the application and the uniform spreading of the wax.

A further object is to provide such a device wherein the applying elements are adapted to last in use over substantial periods of time, but wherein they are capable of easy replacement.

A further object is to provide a novel paste wax applicator wherein the conventional can containing the wax not only is adapted to be used as a component part of the mechanism, but wherein the can may be placed in position and removed with the greatest possible ease.

Other objects and advantages of the present invention will become apparent during the course of the following description.

In the drawing, I have shown one embodiment of the invention. In this showing,

Figure 1 is a perspective view of the device, the handle being broken away,

Figure 2 is a central vertical sectional view through the device, taken longitudinally thereof,

Figure 3 is a bottom plan view of the device, parts being broken away, and

Figure 4 is a fragmentary detail sectional view on line 4—4 of Figure 1.

Referring to Figure 1, the numeral **10** designates the base of the device, preferably in the form of a wooden block having a circular opening **11** cut in the center thereof for a purpose to be described. Adjacent opposite edges, the body **10** is provided with upstanding side walls **12**, also preferably formed of wood and secured to the base or body **10** in any desired manner.

The underside of the base **10** is provided with a plurality of spaced grooves **14**, parallel to each other and preferably extending throughout the width of the base **10**. Each of these grooves is adapted to receive a part of a wax applying element each of which is indicated as a whole by the numeral **15**. Each of these elements comprises a channeled metal body **16** and a paste spreading element **17** arranged in the channel, the longitudinal edges of the channels being turned inwardly as at **18** to clamp the elements **17** in position. The elements **17** may be made of any suitable material, and preferably of relatively thick felt. The paste applying elements may be secured with respect to the base **10** in any suitable manner. For example, each end of each channel **16** may be provided with an upturned lip **20** secured to the edge of the base **10** near the bottom thereof by a suitable screw **21**. The base **10** is surrounded throughout at least three sides thereof with a felt bumper **24**, the ends **25** of which may be secured against one side of the base **10** in the position shown in Figure 3. Throughout the remaining three sides of the body **10**, the bumper **24** is preferably secured to such edges of the base **10** near the top thereof, the lower edge portion of the bumper being left free of the base at least on the opposite sides of the latter to which the lips **20** are secured. Thus access may be had to the screws **21** for the removal and replacement of the spreading units **15**.

Above the base **10** is adapted to be arranged a cylinder **30** containing a body of paste wax **31**. In practice, the cylinder **30** will be the body of the tin container in which paste wax commonly is sold. Such container will have its two extremities cut therefrom, for example by means of readily available mechanical can openers which cut around a can inwardly of an end bead thereof. When the paste can is thus opened, the body of the can will be cylindrical from end to end and will be used as the cylinder **30**. The opening **11** in the base is made of the size to receive a paste can of standard size. While the can could be supported above the base **10** in communication with the opening **11**, it is preferred that it be of such size as to receive the bottom of the cylinder **30** as shown in Figure 2, the lower end of the cylinder being supported on all of the channels **16** except the end channels as viewed in Figure 2.

A follower **35** is operable in the cylinder **30** to displace paste wax therefrom. This follower may be of any desired construction and includes a preferable felt packing **36** to wipe down the sides of the cylinder **30** as paste is displaced therefrom. The follower includes a top plate **37** apertured as at **38** to receive the reduced lower end **39** of a screw stem **40** threaded in a cross member **41**. This cross member engages the top edges of the uprights **12**, the latter carrying screws **42** on which are threaded nuts **43**, and preferably wing nuts as shown in Figure 1. The screws **42** extend through suitable apertures in the cross member **41**, one of these apertures being a slot **44** opening through the edge of the cross member **41**, as shown in Figure 1, for a purpose to be described. The threaded

stem is provided at its upper end with an operating handle 45.

As previously stated, the present device is of such character that it can be operated by a long handle, thus eliminating the necessity for the operator's having to work on hands and knees. To this end, the device is provided with a handle 48 preferably of substantial length and secured at its lower end as at 49 to yoke members 50, the lower ends of which are secured as at 51 to the outer faces of the uprights 12.

Operation

When the device is to be used, a can of paste wax has the ends cut therefrom adjacent the beads of the can. The paste is in solid form, of course, and will remain in the can until forced therefrom under pressure, as described below. Both wing nuts 43 are loosened, and with the stem 40 turned to its uppermost position with the lower extremity of the threads of the stem adjacent the cross member 41, such cross member may be swung out of position pivoting on the screw 42 opposite the slot 44. The can or cylinder 30 is then inserted in position in the opening 11, whereupon the follower 35 is placed in the cylinder 30 on the top of the wax therein. The cross member 41 is then swung back to normal position, the reduced stem end 39 inserted in the opening 38, and the wing nuts 43 both tightened.

The operator will now turn the handle 45 to lower the stem 40 and force the follower 35 downwardly. This operation is carried on until a sufficient initial quantity of wax is available in contact with the floor surface. The operator, grasping the upper end of the handle 48, then moves the device over the floor, the handle 45 being given a turn from time to time to force more paste wax into contact with the floor surface. The base 10 is preferably square or rectangular, thus permitting the device to be moved into corners of a room to apply paste wax throughout the floor area. After the entire floor surface has been covered, the wax is permitted to dry for a predetermined length of time, usually at least twenty minutes, whereupon suitable buffing means is employed for polishing the wax.

Particular attention is invited to the fact that the applicator means of the present device comprises a plurality of spaced units, and the spaces between such units permit the wax in relatively thick paste form to be forced into direct contact with the floor. The wax is not applied by the felt elements 17, but rather through the action of the follower 35, the felt members serving rather to spread the wax evenly over the floor surface. It will be noted in Figure 2 that the units 15 are preferably substantial in number and that two of these units are arranged beyond the limits of the cylinder 30. Thus wax forced from the limits of the can or cylinder 30 at opposite sides thereof adjacent the remote units 15 will be contacted by the felts 17 of such units to be evenly spread over the floor surface.

The felt units 17 last through substantial periods of time, and when they are too badly worn for further use, they readily may be replaced. This may be done merely by lifting the lower edges of the bumper 24 at opposite sides of the base 10 to provide access to the screws 21. These screws are removed, whereupon the units 15 may be pulled from the bottom of the device and replaced with new units, after which the screws 21 are replaced. Particular attention is invited to the fact that the screws 21 carry the weight of the applicator units 15, when the device is not on the floor, and the screws 21 of all except the outermost units 15 carry the load imposed on their associated channels 16 due to the downward pressure exerted by the follower 35. The screws 21, however, do not absorb lateral horizontal forces due to movement of the device over the floor. All horizontal components of movement are taken care of by the arrangement of the channels 16 in the grooves 14 and by engagement of the lips 20 against opposite edges of the base 10. This fact, together with the weight of the device, prevents any rocking movement of the units 15 or any displacement of such units in the operation of the device.

Accordingly, it will be apparent that the present device is extremely simple in operation and provides for the efficient application of paste wax to a floor surface and the uniform spreading of the wax over such surface. The units 15 are simple in construction and relatively cheap to manufacture. These units last for long periods of time and are capable of easy replacement at a moderate cost. It is unnecessary to use any special container as the cylinder 30, and it is unnecessary to use any special securing means for fixing such cylinder in position. This cylinder is maintained in position merely through its reception in the opening 11, and the cylinder cannot be displaced vertically since its upward movement is limited by the cross member 41.

When a cylinder 30 is empty, a new container may be placed in position merely by screwing the stem 40 upwardly, loosening the wing nuts 43, swinging the cross member out of alignment with the cylinder 30, and lifting the cylinder 30 and replacing it with a fresh cylinder. When a container is empty, the follower 35 will be at the bottom thereof, and after the empty can is removed from the device, the follower may be pushed from the bottom of the can. The follower is then placed in the top of a fresh can, which is inserted in the device in the manner described above.

I claim:

1. A paste wax applying device comprising a base having an opening therethrough, means for supporting over the opening in said base an open-ended paste wax container, means operable in the container for displacing wax from the bottom thereof through said opening, the bottom of said base being provided with a plurality of spaced parallel grooves, and a plurality of spaced parallel spreading units extending across the bottom of said base, each spreading unit comprising an upper inverted channel arranged in one of said grooves and having depending spaced flanges, and a lower soft spreading element carried by such channel between the flanges thereof, the spaces between said units being open to communication with the container through said opening, each channel being provided at its ends with upwardly extending lips detachably secured to the adjacent edge of said base.

2. A paste wax applying device comprising a flat base member having a cylindrical opening therethrough, a cylinder adapted to contain paste and having an opening in its lower end, said cylinder being of a size no larger than said first opening and having its lower end mounted therein, paste spreading means fixed with respect to said base and extending across the bottom thereof, said spreading means having spaces for the passage therethrough of paste from the bottom of said container, said spreading means engaging and supporting the lower edge of said container, and means for forcing said paste downwardly for discharge through said spreading means.

3. A paste wax applying device comprising a flat base member having a cylindrical opening therethrough, a cylinder adapted to contain paste and having an opening in its lower end, said cylinder being of a size no larger than said first opening and having its lower end mounted therein, and a plurality of spreading units extending across the bottom of said base and fixed with respect thereto, said units engaging the lower edge of said cylinder to support the latter and being spaced from each other for the passage of paste therebetween, and means for forcing paste in said cylinder downwardly for discharge between said units.

4. A paste wax applying device comprising a flat base member having a cylindrical opening therethrough, a cylinder adapted to contain paste and having an opening in its lower end, said cylinder being of a size no larger than said first opening and having its lower end mounted therein, a plurality of spreading units extending across the bottom of said base, each unit comprising an upper

supporting channel having depending flanges and a lower soft spreading element carried by such channel between said flanges, the ends of said channels having means for securing them against opposite edges of said base to fix them with respect thereto, the two outermost channels being arranged outwardly of the limits of said cylinder and the next adjacent channels having portions of their remote edges inwardly of the circumference of said cylinder, said spreading units being parallel to and spaced from each other for the passage therebetween of wax from said container, and means for forcing wax downwardly in said cylinder for discharge between said channels.

5. A paste wax applying device comprising a base having a circular opening therethrough, a cylinder generally corresponding in size to said opening and having its lower end mounted therein, spreading means secured to and extending across the bottom of said base, said spreading means comprising a plurality of spaced parallel units certain of which engage the lower edge of said cylinder to serve as a supporting means therefor, said units being parallel to each other and spaced for the passage therebetween of wax from the bottom of said cylinder, each unit comprising an upper supporting channel having depending flanges and a lower soft spreading element carried by such channel between said flanges, uprights carried by said base adjacent opposite edges thereof and arranged

on opposite sides of said cylinder, a cross member carried by the upper edges of said uprights, a stem threaded through said cross member, a follower engaged by the lower end of said stem and operable in said cylinder to displace wax through said spreading means upon rotation of said stem, and means for connecting said cross member to the tops of said uprights, such means comprising a quick detachable connection for one end of said cross member and a pivotal connection for the other end of said cross member whereby the latter is adapted to be swung wholly out of position over said cylinder.

6. A device of the type set forth in claim 5 wherein the bottom of said base is grooved for the reception of said channels to fix them against lateral movement relative to each other.

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