LIQUID WAX APPLIER

Frederick K. Minerley, Evanston, Ill., assignor to Plou- air Products, Inc., Chicago, Ill., a corporation of New York

Application October 12, 1955, Serial No. 540,074

1 Claim. (Cl. 15—139)

This invention relates to liquid wax applicators and spreaders for dispensing and spreading wax on floor surfaces.

An object is to produce a new and improved liquid wax applicator, the handle of which serves as a reservoir for the wax, there being a pressure operated spring valve device, which can be operated merely by tilting or actuating the handle thereby unseating the valve so that a quantity of wax can be dispensed by gravity without the necessity of the operator bending over or manually actuating the valve. The applicer is equipped with a spreader so that the liquid wax dispensed as above indicated can be spread with ease over the floor surface.

Another object is to equip a liquid wax applicator with a new and improved device for spreading the wax and which can be simply adjusted to present one or another surface for spreading so that when one surface becomes unusable, a new surface can be made available quickly and without difficulty thereby greatly prolonging the life of the spreader unit.

A further object is to provide a liquid wax applicator with a novel control by which the flow of wax from the reservoir can be easily controlled, the same device serving as a hanger by which the applicer may be hung in a closet or out of the way when not in use.

Other objects and advantages will appear as the description proceeds, and by way of illustration but not of limitation, an embodiment of the invention is shown on the accompanying drawings in which:

Figure 1 is a top perspective view of the liquid wax applicator and spreader;

Figure 2 is an enlarged fragmentary sectional view of the lower end portion of the tool, with the spreader device removed;

Figure 3 is a perspective view of the wooden core unit over which the textile fabric applicator fits;

Figure 4 is a perspective view of the cylindrical textile fabric wax spreader which fits over the core shown in Figure 3;

Figure 5 is an enlarged fragmentary sectional view of the outer end portion of the tool; and

Figure 6 is a perspective view of the combined closure and hanger device which fits into the outer end of the handle-reservoir.

The illustrated embodiment of the invention comprises a tool for dispensing liquid wax on a floor surface and spreading the same thereover which includes an elongate handle which also constitutes a reservoir for the liquid wax as will hereinafter appear. Preferably the tube 10 is of a transparent plastic material so that the quantity of liquid wax contained therein can be readily determined. Fixed to the lower end of the tube 10 is a plastic fitting 11 having a reduced cylindrical end 12 which telescopes within the tube 10 and is suitably secured in place as by an adhesive or by a press fit. The fitting 11 has a socket 13 opening to the interior of the tube 10 and leading laterally of the fitting and extending from the socket 13 is a nipple 14 which is hollow so that the contents of the socket can pass downwardly through the nipple 14. The outer end of the nipple has an upwardly and rearwardly inclined surface against which seats a soft rubber sealing disk 15 which is carried by a spring unit 16.

The spring unit 16 is generally S-shaped and has an upper straight portion 17 which abuts flatwise against the under surface of the fitting 11, such surface being flattened in order to receive this portion of the spring. Providing a guide for the nipple 14 is a flange 18 cylindrical in form and which fits about the nipple and is integral with the spring portion 17. A screw 19 extends through the free end of the straight spring portion 17 and into the fitting 11 to secure the spring in place. Integral with the fitting 11 and disposed on opposite sides of the leaf spring portion 17 is a pair of parallel flanges or ribs 20 (only one of which is shown on the drawing), thereby to contain the end portion of the spring and hold it against lateral movements. The straight portion 17 of the spring is connected by a reversely curved portion 21 to an intermediate spring portion 22 which has a downwardly and rearwardly inclined part carrying the rubber disk 15, this part corresponding in inclination to the diagonal cutoff of the lower end of the nipple 14. Manifestly the spring normally holds the sealing disk 15 against the end of the nipple so as to prevent the contents of the handle-reservoir 10 and socket 13 from being dispensed. The intermediate portion 22 is integrally connected to a downwardly and rearwardly inclined end portion or foot 23, which in this instance has a floor engaging rubber sleeve or lip 24.

At the front end of the fitting 11 is a notch which, when viewed sidewise, is substantially L-shaped as indicated at 25 and fitting this notch is a longitudinally elongate U-shaped spring metal clamp 26. Extending through the base of the U-shaped clamp 26 and arranged centrally thereof is a screw 27 for securing the clamp to the fitting 11. The free end of the clamp may flare outwardly as indicated at 28, the upper flaring portion providing a retaining shoulder as indicated on Figure 2. The clamp 26 is to receive a wax applicator assembly which includes an elongate core piece 29 which in this instance is wooden and is square in cross section. Fitting over the core member 29 in a snug fashion is a textile fabric sleeve 30 which in this instance is of chenille. The arrangement is such that the core 29 having the sleeve 30 clipped thereover is forced between the arms of the clamp 26 and retained in place thereby as indicated on Figure 1. When one portion is unusable, the assembly is removed and turned so that another portion can be presented to the floor surface. Thus it will be manifest that four distinct applying surfaces are made available by merely removing the assembly and turning it to present successive portions. After the sleeve 30 has become unusable it may be removed and a fresh sleeve slipped into place.

On the upper end of the handle-reservoir tube 10 is a funnel-like fitting 31 also of plastic and which has a cylindrical extension fitting inside of the tube 10 and retained in place either by a press fit or by suitable adhesive. Fitting into the cylindrical portion of the funnel-like fitting 31 is a tubular plug 32 which has a closed outer end 33 provided with a central inwardly extending cylindrical flange 34. Integral with the outer edge portion of the plug 32 is relatively narrow plastic ribbon 35 in loop form having an integral tapered plug 36 to fit and close the opening in the flange 34. When the tool is in use, the plug 36 is removed from the flange or tube 34 to admit air to the interior of the tube 10 so that the liquid wax therein can flow by gravity from the socket 13 when the
3. What I claim is:

A wax applier comprising an elongate tubular handle open at the outer end and closed at the inner end thereby to provide a reservoir for liquid wax or the like, a head on the inner end of said handle providing the closure for same, said head having a socket communicating with the interior of the handle and having a solid portion in advance thereof, said solid portion being formed with a transversely extending notch substantially L-shaped in cross section, a transversely arranged U-shaped spring clamp fitting said notch, a fastener securing said clamp to said head, a spreading sleeve and core fitting said clamp so that a portion thereof projects therefrom for engagement with the floor surface, the core being polygonal in cross section and the sleeve being of fabric slipped over the core endwise, a downwardly extending spout on the head communicating with the socketed interior thereof and having a mouth cut off at an incline, a one-piece S-shaped leaf spring fixed at one end to said head in the region of said spout, the free end of said leaf spring being inclined downwardly and rearwardly providing a foot for floor engagement, an intermediate portion of the leaf spring being downwardly and forwardly inclined, and a rubber pad on said inclined spring portion normally to abut against and close the angular mouth of the spout, whereby the spout may be uncovered by pressing the foot of the spring against the floor surface and separate surfaces of the sleeve may be presented for use by removing the core and sleeve assembly, partially turning and reclamping same.

References Cited in the file of this patent

UNITED STATES PATENTS

<table>
<thead>
<tr>
<th>Patent Number</th>
<th>Inventor</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>395,121</td>
<td>Clemmons</td>
<td>Dec. 25, 1888</td>
</tr>
<tr>
<td>1,283,175</td>
<td>Heller</td>
<td>Oct. 29, 1918</td>
</tr>
<tr>
<td>1,472,240</td>
<td>Chiron</td>
<td>Oct. 30, 1923</td>
</tr>
<tr>
<td>1,499,563</td>
<td>Tyler</td>
<td>July 1, 1924</td>
</tr>
<tr>
<td>2,106,280</td>
<td>Sandhap</td>
<td>Jan. 25, 1938</td>
</tr>
</tbody>
</table>

FOREIGN PATENTS

<table>
<thead>
<tr>
<th>Patent Number</th>
<th>Country</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>194,148</td>
<td>Switzerland</td>
<td>Feb. 1, 1938</td>
</tr>
<tr>
<td>808,148</td>
<td>Germany</td>
<td>July 12, 1951</td>
</tr>
</tbody>
</table>

valve disk 15 is moved away from the nipple 14. This is accomplished by pressing the tip 24 against the floor surface by action of the handle tube 10 so as to rock the rubber disk 15 away from the nipple 14. When this is done, the wax from the tube-reservoir 10 will flow by gravity upon the floor surface and this will continue until the spring 16 is released to enable the rubber disk 15 to snap back in place against the nipple 14. Manifestly after sufficient amount of liquid wax has been dispensed, then the tube can be used as a spreader and in this operation, the spring 16 does not in any way interfere with the to and fro movement effected in the wax spreading operation.

After the waxing operation has been completed, then the tapered plug 36 is forced into the tube or flange 34 and this effective in mitigating against further wax being dispensed from the tool. Also when the plug 36 is in the position shown in Figure 5, then the loop formed by the ribbon 35 enables the tool to be hung from a hook in a closet or the like until its use is again desired.

From the above description, it will be manifest that I have produced an exceedingly inexpensive and simple wax applying and spreading tool. The entire tool can be produced at a relatively low cost and has the important advantage of not only providing a reservoir for containing the liquid wax so that it is always ready when a waxing operation is desired but also the adjustibility of the spreader unit greatly prolongs the period during which the tool can be effectively used and before it is necessary to replace the textile fabric cylinder 30. However, when it becomes necessary to replace the fabric cylinder 30, this can be accomplished quickly without difficulty and at a low cost. However since the tool can be rotated so as to present four different surfaces for wax spreading operations, it will be seen that the period during which the tool can be used without replacing the fabric cylinder, is greatly increased.

Numerous changes in details of construction, arrangement and choice of materials may be effected without departing from the spirit of the invention, especially as defined in the appended claim.