Jan. 29, 1963 A. HABOSTAD 3,075,534

PAINT ROLLER CLEANER

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Fig.1

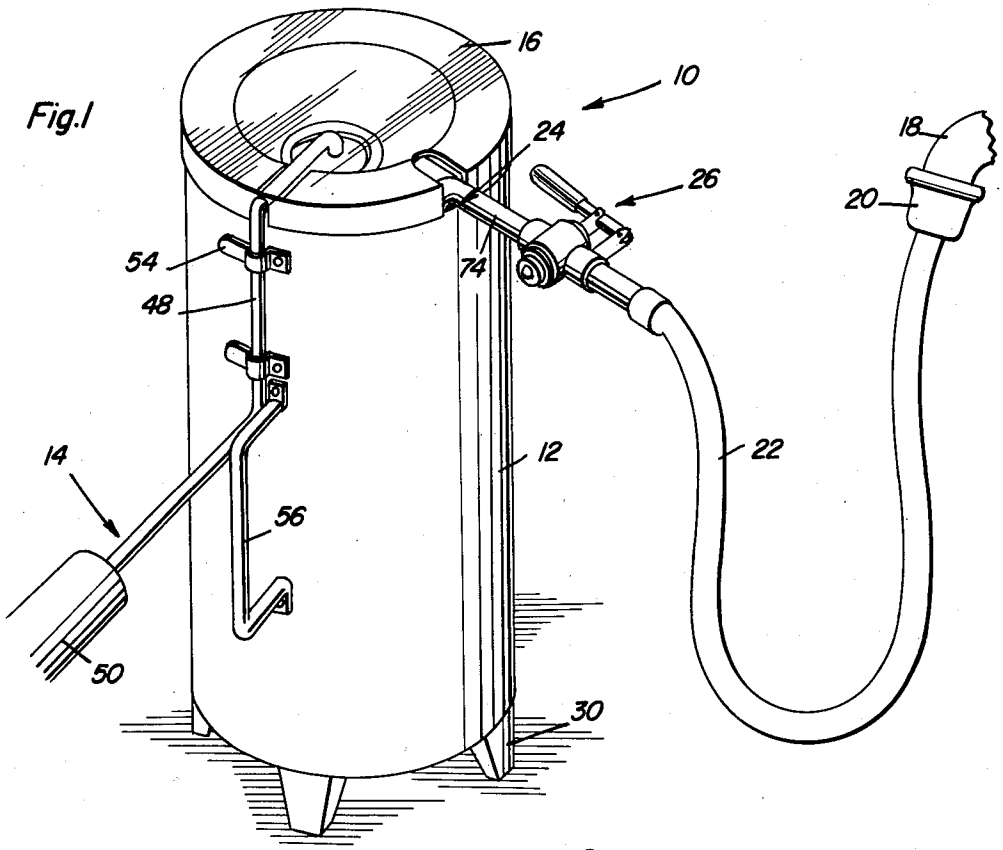
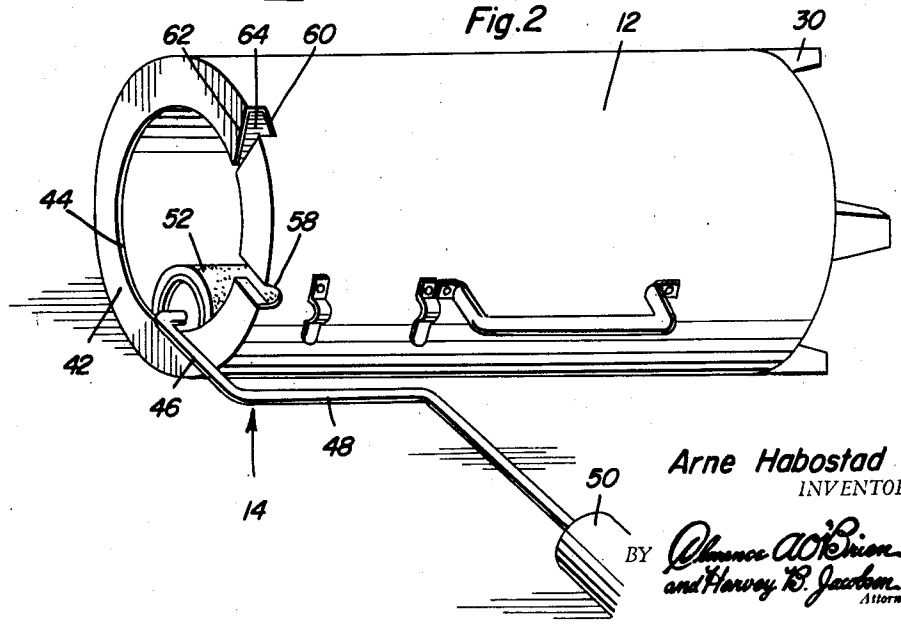


Fig.2



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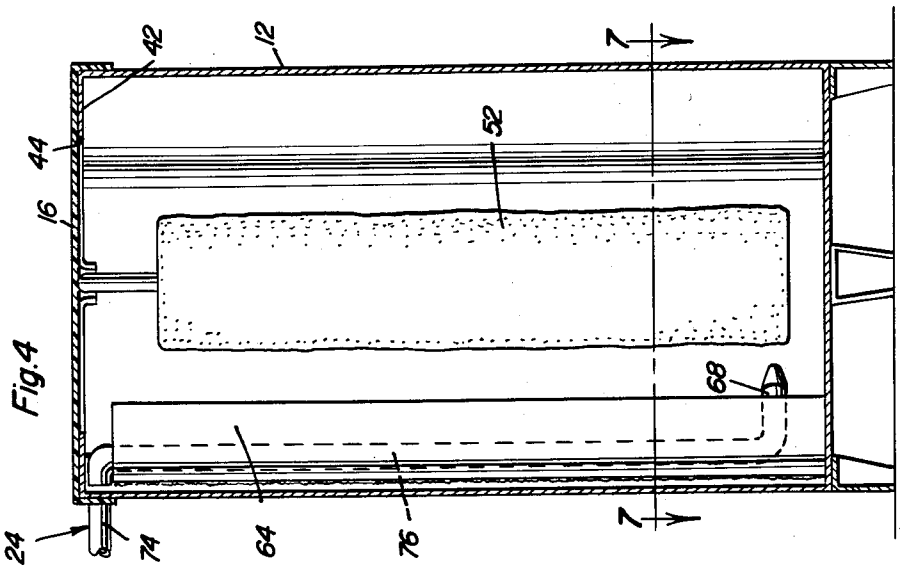


Fig.4

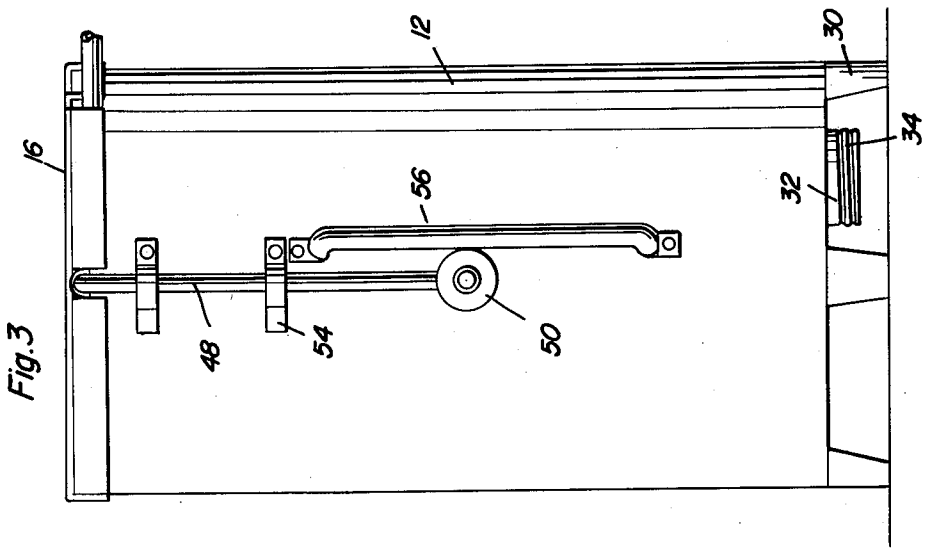


Fig.3

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PAINT ROLLER CLEANER

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Fig.6

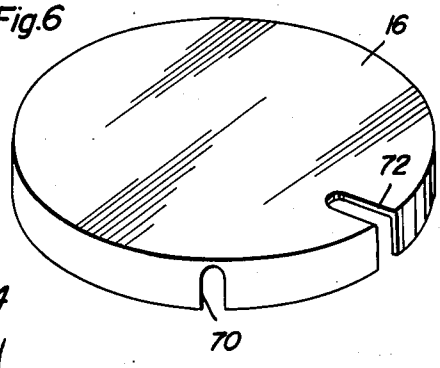


Fig.5

Fig.8

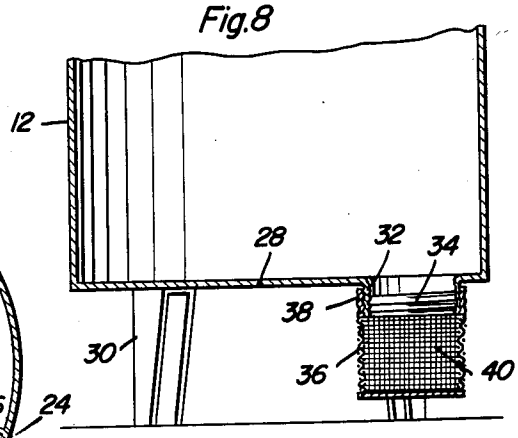
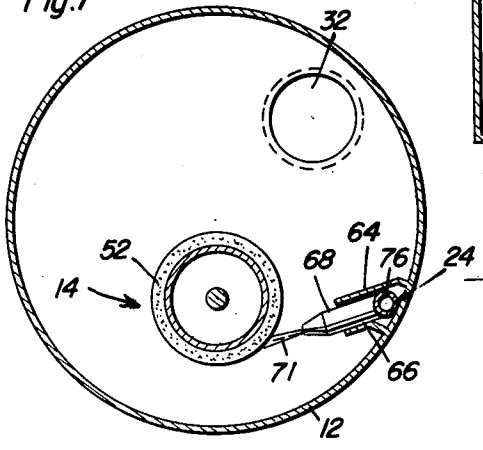


Fig.7



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PAINT ROLLER CLEANER

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13 Claims. (Cl. 134—138)

This invention relates to apparatus for cleaning paint applicators of the roller type.

It is a primary object of this invention to provide a novel and useful apparatus for the purpose of more efficiently cleaning paint roller applicators.

Another object of this invention is to provide a paint roller cleaner apparatus which may be utilized for more rapid and complete cleaning of paint rollers whether used for applying paints of the oil base type or the water soluble paints.

A further object of this invention in accordance with the preceding objects, is to provide a paint roller cleaning device especially designed for use by attachment to any household water tap for efficient cleaning of the paint roller without creating any splashing of paint or water and leaving the paint roller in a fluffy and completely cleaned condition enabling the paint roller to be reused immediately following the cleaning process.

The paint roller cleaning apparatus made in accordance with this invention therefore includes a cylindrical container having a closed bottom and an open top which is formed by an inwardly extending annular rim from the top edge of the cylindrical container. The top of the container accordingly includes a pair of spaced recesses or notches for respectively receiving therein the arm of the paint roller and a water spray nozzle. The paint roller arm is thereby received within the notch to position the paint roller within the cylindrical container, the axis of said roller being offset from the axis of the cylindrical container. The roller arm is also locked in position on the container wall by yieldable clip members secured to the container wall. The water spray nozzle on the other hand is slidably received within its notch formation in the top rim of the cylindrical container, said container also including a guide for accommodating sliding movement of the water spray nozzle while directing it tangentially toward the paint roller disposed within the cylindrical container. Accordingly, the water spray nozzle may be connected to a source of water under pressure such as a kitchen water tap and controlled by a valve to selectively spray water in a jet stream on the roller, the nozzle also being vertically reciprocable in order to cover the longitudinal extent of the roller being cleaned by the jet stream of water issuing from the nozzle. The water jet also by being directed tangentially against the roller causes the roller to rotate so as to enable the water jet and centrifugal force to clean the entire surface of the roller. A transparent lid is also provided which lid will also lock the roller arm in place. The lid is preferably made of transparent material in order to enable the user to view the cleaning action and yet confine the splashing within the container. The bottom of the container is mounted on legs so that an outlet drain may be accommodated. The outlet drain may be removably capped for various purposes as for example by a collecting receptacle having wire mesh sides permitting the drainage of liquid from the container and yet retaining within the receptacle any solid matter. The cylindrical container when placed in horizontal position will also confine a predetermined amount of liquid therein below the level of the rim formed on the top of the container. Accordingly, the roller arm may be guided along the radially inner edge of the annular rim in order to soak the roller within paint remover liquid in the case of the applicator of oil base type paint by the roller applicator. After such soaking of the roller with the container in horizontal position, the apparatus may be positioned upright and the water cleaning process applied to the roller as hereinabove described. In the case of water soluble paints, of course, the roller need be cleaned without resort to the horizontal soaking operation.

These together with other objects and advantages which will become subsequently apparent reside in the details of construction and operation as more fully hereinafter described and claimed, reference being had to the accompanying drawings forming a part hereof, wherein like numerals refer to like parts throughout, and in which:

FIGURE 1 is a perspective view of the paint roller cleaning apparatus in its upright position for water spray cleaning operation.

FIGURE 2 a perspective view of the paint roller cleaning apparatus in its horizontal paint remover soaking operation.

FIGURE 3 is a side elevational view of the paint roller cleaner apparatus.

FIGURE 4 is a sectional view taken through a plane indicated by section line 4—4 in FIGURE 5.

FIGURE 5 is a top plan view of the paint roller cleaning apparatus.

FIGURE 6 is a perspective view of the container lid.

FIGURE 7 is a cross sectional view taken through a plane indicated by section line 7—7 in FIGURE 4.

FIGURE 8 is a partial sectional view illustrating the bottom of the container with the drain receptacle applied thereto.

Referring now to the drawings in detail, FIGURE 1 illustrates the paint roller cleaning apparatus generally designated by reference numeral 10. It will be observed that the apparatus includes a cylindrical container generally indicated by reference numeral 12 within which the paint roller generally indicated by reference numeral 14 is disposed. The container 12 as illustrated in FIGURE 1 is capped by the transparent positioning lid 16 and connected to a water outlet tap 18 by means of an adapter 20 which is connected by means of a flexible conduit 22 to a nozzle mechanism generally indicated by reference numeral 24. The nozzle mechanism 24 is accordingly controlled by a valve mechanism 26 by means of which the water may be controllably admitted to the nozzle 24.

It will therefore be observed that the cylindrical container 12, as more clearly seen in FIGURE 8, includes a bottom wall 28 to which a plurality of feet 30 are connected so as to space the bottom wall above the surface upon which the cylindrical container 12 rests when in vertical upright position. Accordingly, the spacing of the bottom wall 28 accommodates an outlet drain 32 which has threads 34 thereon as also seen in FIGURE 3. Accordingly, as seen in FIGURE 8, a receptacle 36 may be removably attached to the outlet drain 32 which receptacle includes a threaded portion 38 enabling it to be removably attached to the outlet drain 32 and a wire mesh side portion 40 whereby the water may be drained out therefrom and yet the receptacle 36 will retain therein solid matter. Alternatively a non-porous cap may be used to retain liquid in container 12 for soaking purposes. Also, caps with different sized mesh may be employed so that the container may be used for such purposes as straining lumps and skin from paint.

It will also be observed in FIGURES 1, 4 and 5 that the top of the cylindrical container 12 includes an annular rim 42. It will therefore be obvious that when the cylindrical container is in a vertical upright rinsing position any liquid supplied thereto will be drained out of

the outlet drain 32. However, when the container 12 is in a horizontal soaking position as illustrated in FIGURE 2, a certain volume of liquid will be confined within the cylindrical container 12 between the bottom wall and the top rim 42 up to the level of the radially inward extension of the rim 42. Accordingly, as illustrated in FIGURE 2, the container 12 may be supplied with paint remover or thinner and the roller 14 guided by the radial inner edge 44 of the rim 42 to move the roller 14 through the paint thinner liquid for soaking thereof after the roller has been used to apply paint of the oil base type. It will therefore be observed that the roller 14 is of the conventional type and includes an arm 46 which is connected to an arm portion 48 disposed perpendicular thereto which arm portion 48 is connected to the handle 50 of the roller. The roller pad 52 itself is rotatably mounted by the arm portion 46 of the roller applicator 14.

It will therefore be observed that a pair of yieldable clip members 54 are mounted on the outer surface of the cylindrical container 12 for the purpose of yieldably engaging the arm portion 48 of the roller applicator 14 as seen in FIGURES 1, 3 and 5. It will also be observed that a handle member 56 is connected to the outer surface of the cylindrical container 12 in order to facilitate handling thereof.

Referring now to FIGURES 5 and 7 it will be observed that the roller applicator 14 when positioned within the container 12 in its vertical upright position the roller pad 52 thereof is rotatable about an axis which is offset from the axis of the cylindrical container 12. Accordingly, a roller positioning notch 58 is formed within the rim and upper edge of the container in order to receive the arm 46 of the roller applicator 14 and accordingly properly position the roller pad 52 within the container. It will also be observed that a second nozzle positioning notch 60 is formed within the container adjacent the top thereof and extending through the rim 42, said second notch 60 being circumferentially spaced from the notch 58 and having an edge 62 which is aligned with the vertical guide projection 64 as more clearly seen in FIGURE 7. The guide projection 64 cooperates with a parallel guide projection 66 also attached to the inner wall of the cylindrical container 12 for the purpose of slidably guiding the nozzle mechanism 24.

Referring therefore to FIGURES 4 and 7, it will be observed that the nozzle mechanism 24 includes a nozzle outlet portion 68 which is directed substantially tangentially relative to the roller pad 52 so that a jet stream of water 71 issuing therefrom will be directed against the roller pad 52 to cause rotation thereof in a clockwise direction as viewed in FIGURES 4 and 7 to thereby wash or clean the entire circumferential surface of the roller pad 52. In order to apply the jet stream of water to the entire axial extent of the roller pad 52, the nozzle 68 may be manually reciprocated in a vertical direction through the guide projections 64 and 66 as more clearly seen in FIGURE 4. Accordingly, a complete cleaning operation may be performed on the roller pad 52.

It will be appreciated, however, that the water splashings occurring within the container must be retained therein in order to avoid the inconvenience of paint stained water splashings. Accordingly, the positioning lid 16 is provided, which lid as more clearly seen in FIGURE 6 is transparent in order to enable the user to observe the cleaning operations. The lid also includes a notch 70 cooperating with positioning notch 58 by means of which the arm 46 of the paint applicator 14 may be accommodated and retained on the container wall. A second notch 72 cooperating with positioning notch 60 is also provided in the lid 16 for accommodating the inlet conduit 74 of the nozzle mechanism 24, which inlet conduit 74 is connected to the nozzle outlet portion 68 by means of the vertical portion 76 more clearly seen in FIGURE 4. Accordingly, the water spray mechanism 24 may be supplied by the inlet conduit 74 from the flexible hose conduit 22 through the manually operable valve mechanism 26.

From the foregoing description, operation and use of the paint roller cleaning apparatus will be apparent. It will therefore be appreciated that paint roller applicators may be conveniently and rapidly and completely cleaned to an extent or degree not possible heretofore. It will also be appreciated that the cleaning operations made possible by means of the apparatus enables one to clean paint roller applicators used either for oil base type paints or water soluble paints.

The foregoing is considered as illustrative only of the principles of the invention. Further, since numerous modifications and changes will readily occur to those skilled in the art, it is not desired to limit the invention to the exact construction and operation shown and described, and accordingly all suitable modifications and equivalents may be resorted to, falling within the scope of the invention as claimed.

What is claimed as new is as follows:

1. A paint roller cleaner for paint applicator rollers comprising, container means having a closed bottom and an open top portion, rim means connected to said top portion for confining a predetermined volume of liquid in the container when in horizontal position, notch means formed in said rim means and top portion for receiving a paint roller mounting arm to position the roller within the container means, nozzle means slidably and removably disposed within said container means, recess means formed in said rim means and top portion of the container means contiguous thereto and spaced from said notch means for slidably receiving said nozzle means and tangentially directing it toward the roller, removable lid means enclosing the top of the container means to hold the roller arm in said notch means and accommodate slidable movement of the nobble means, valve-controlled inlet means connected to said nozzle means for supplying liquid under pressure thereto and drain means connected to the bottom of the container means for draining liquid from the container means when in a vertical position.

2. The combination as defined in claim 1, including yieldable clip means mounted on the container means and engageable with the roller arm for holding the roller in position within the container means.

3. The combination as defined in claim 2, wherein said lid means is transparent.

4. The combination as defined in claim 3, wherein said container means is cylindrical and axially offset from the axis of the roller positioned within the container means.

5. The combination as defined in claim 4, wherein said rim means comprises an annular part extending radially inward from a top edge of the container means for guiding the roller arm to enable the roller to be soaked in liquid confined within the container means in horizontal position only.

6. The combination as defined in claim 5, including handle means attached to said container.

7. The combination as defined in claim 1, wherein said container means is cylindrical and axially offset from the axis of the roller positioned within the container means.

8. The combination as defined in claim 1, wherein said rim means comprises an annular part extending radially inward from a top edge of the container means for guiding the roller arm to enable the roller to be soaked in liquid confined within the container means in horizontal position only.

9. The combination as defined in claim 1, wherein said drain means includes a removable cap.

10. The combination as defined in claim 1, wherein said drain means includes a removable porous cap.

11. The combination as defined in claim 1, wherein said drain means includes a removable porous receptacle.

12. A paint roller cleaner for paint applicator rollers

comprising, container means having a closed bottom and an open top portion, rim means connected to said top portion for confining a predetermined volume of liquid in the container when in horizontal position, notch means formed in said rim means and top portion for receiving a paint roller mounting arm to position the roller within the container means, nozzle means removably disposed within said container means, recess means formed in said rim means and top portion of the container means contiguous thereto and spaced from said notch means for slidably receiving said nozzle means and for directing it toward the roller, removable lid means enclosing the top of the container means to hold the roller arm in said notch means and accommodate slidable movement of the nozzle means and drain means connected to the container means.

13. The combination of claim 12, including yieldable clip means mounted on the container means and engageable with the roller arm for holding the roller in position within the container means.

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