

July 7, 1964

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3,139,891

PAINT ROLLER CLEANER

Filed April 1, 1963

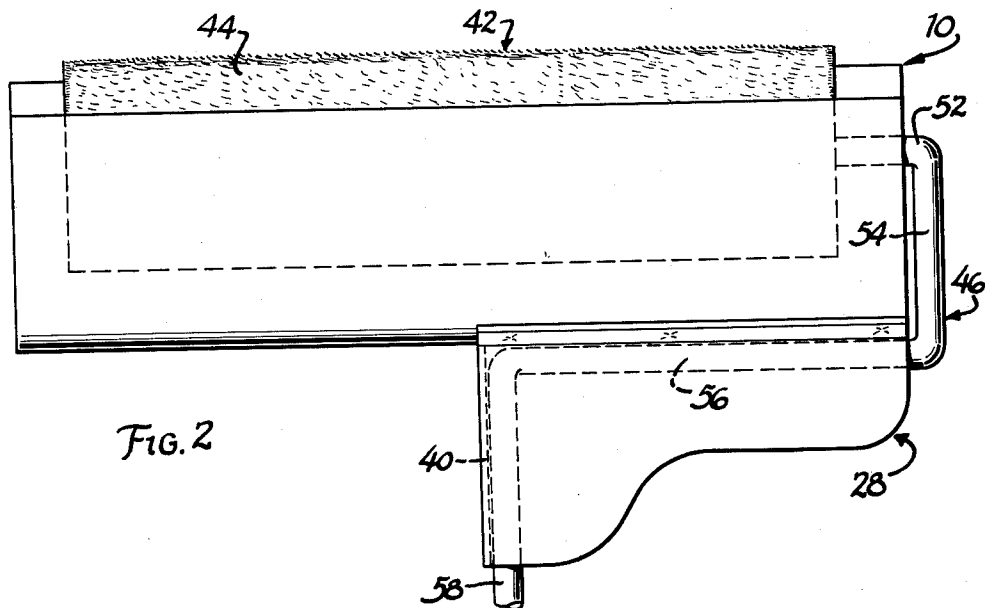


FIG. 2

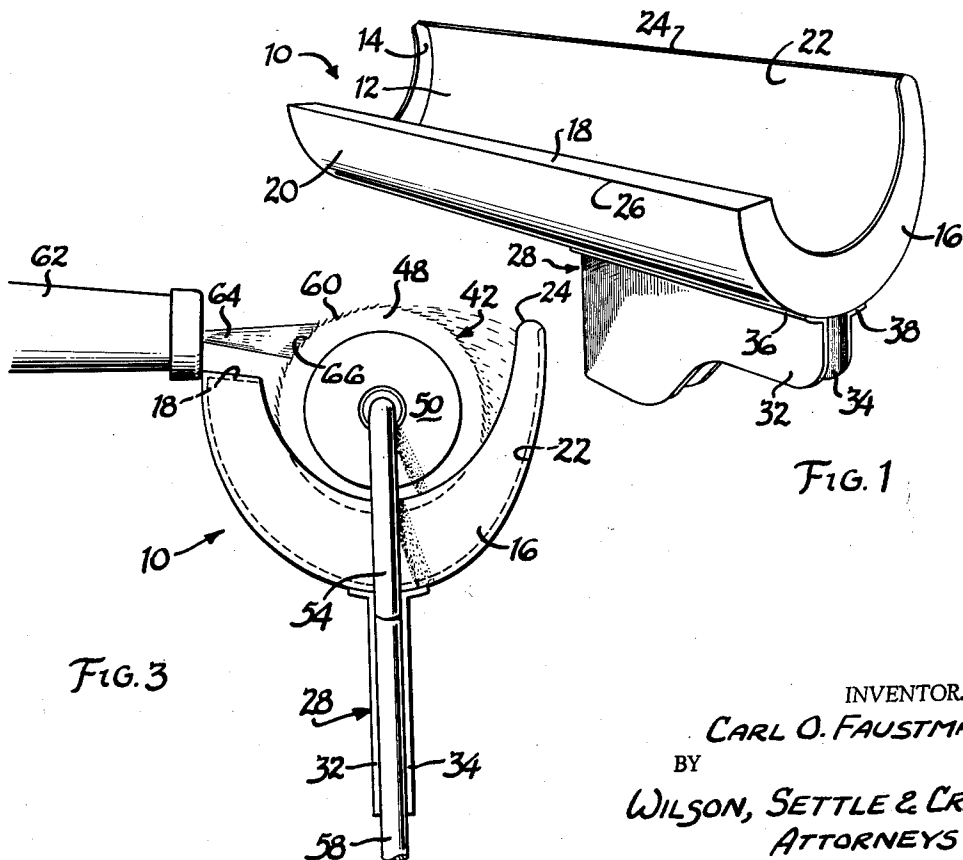


FIG. 1

FIG. 3

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3,139,891

PAINT ROLLER CLEANER

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Filed Apr. 1, 1963, Ser. No. 269,456
3 Claims. (Cl. 134—138)

This invention relates to a paint roller cleaner, and more particularly to a cleaning structure which is attachable to a paint roller while the paint roller is held in the hand, whereby the roller may be cleaned with an ordinary garden hose or indoor or outdoor water spigot without splattering paint onto the user or adjacent house structure.

Cleaning of paint rollers has presented a vexatious problem. A number of different structures for cleaning paint rollers has been proposed. Many of these structures will perform satisfactorily. However, the proposed structures have been relatively complicated thus involving a substantial cost and the proposed structures have been cumbersome, making them somewhat difficult to use.

The present invention provides a paint roller cleaner which has a very simple construction but which is effective in use and easily operated by the painter.

It is, therefore, an object of the invention to provide a paint roller cleaner.

Another object of the invention is to provide a paint roller cleaner having a simple and durable construction.

A still further object of the invention is to provide a paint roller cleaner which will accommodate various sized paint rollers.

A further object of the invention is to provide a paint roller cleaner which is attached directly to the paint roller while the roller is held in the hand of the painter, thus facilitating the paint cleaning operation.

Another object of the invention is to provide a structure which partially surrounds the roller element of a paint roller, permitting a stream of water to be tangentially impinged upon a portion of the roller but which prevents splashing of paint back onto the painter or onto adjacent structure.

Other objects of this invention will appear in the following description and appended claims, reference being had to the accompanying drawing forming a part of this specification wherein like reference characters designate corresponding parts in the several views.

In the drawing:

FIGURE 1 is a view in perspective of a paint roller cleaner forming one embodiment of the present invention;

FIGURE 2 is a front elevational view of the paint roller cleaner of FIGURE 1 with a paint roller mounted thereon; and

FIGURE 3 is an end elevational view of a structure shown in FIGURE 2 illustrating the method of applying a stream of water to the roller element for cleaning thereof.

Before explaining the present invention in detail, it is to be understood that the invention is not limited in its application to the details of construction and arrangement of parts illustrated in the accompanying drawing, since the invention is capable of other embodiments and of being practiced or carried out in various ways. Also, it is to be understood that the phraseology or terminology employed herein is for the purpose of description and not of limitation.

Referring to the drawing, it will be noted that the paint cleaner structure 10 comprises a trough-like element 12. Moon-shaped end pieces 14, 16 are provided at each end of the trough 12. The end pieces serve to reinforce the element 12 and prevent its being spread apart.

The wall portion 20 of the trough may be considered

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to be the front wall and the wall portion 22 may be considered to be the back wall. The upper edge 26 of the front wall is lower than the upper edge 24 of the back wall for a purpose to be later described. A flange 18 extends radially inwardly from the edge 26 of the front wall. The flange 18 extends between the end pieces 14, 16.

A structure 28 is provided on the underside of the trough 12 for attachment to the handle of a conventional paint roller. The attaching structure 28 is a one piece structure comprising a pair of spaced apart parallel plate members 32, 34 which are secured to the underside of the trough by flanges 36, 38. The plates 32, 34 extend from one end of the trough to approximately the midpoint thereof. A wall 40 extends between the plates at the inner edges of the plates.

Referring to FIGURES 2 and 3, it will be seen that a paint roller 42 is illustratively mounted in the cleaner structure 10. The paint roller 42 is of conventional structure and comprises an elongated roller element 44 rotatably secured to a handle 46. The roller element 44 consists of a fibrous outer covering 48 adapted to absorb a quantity of paint for application to a wall surface. The fibrous covering 48 is mounted on a central support roller 50. The central support roller 50 is rotatably mounted on the handle 46 whereby the handle 46 may be held in the hand and the roller 44 rolled along a wall surface to apply paint thereto.

As is conventional, the handle 46 comprises a rod member having a first portion 52 which extends axially outwardly from the roller 44. A second portion 54 extends at right angles from the portion 52 and terminates a short distance beyond the outer periphery of the roller 44. A third portion 56 extends back towards the center of the roller 44 at substantially right angles to the portion 54. At approximately the midpoint of the roller 44, the rod is again bent at right angles and portion 58 extends away from the roller 44. Conventionally, a wooden hand grip member (not shown) is attached to the outer end of the portion 58 for manual grasping.

It will be noted that the paint cleaner structure 10 is designed to accept the conventional paint roller which has been illustrated. The paint roller 42 is mounted in the structure 10 by inserting the handle portion 54, 56 into the space between the plates 32, 34. The plates 32, 34 are spaced apart a distance slightly less than the diameter of the handle. Thus the plates frictionally grip the handle to hold the paint roller in place.

The handle is inserted between the plates until the portion 58 abuts against the wall 40. When this occurs, the roller element 44 is properly centered within the trough 12. As will be appreciated, rollers which vary in size somewhat from the one illustrated may also be received by the structure 10. Sufficient clearance is maintained between the roller 44 and the surface of the trough 12 so that a roller having, for example, a shorter handle portion 54 may be inserted into the trough. When the roller element is of less length, and a shorter handle portion 56 is provided, the handle may be only partially inserted into the space between the plates 32, 34.

Referring to FIGURE 3, it will be noted that the outer periphery of the roller 44 is spaced from the inner surface of the trough 12 so that the roller is free to revolve. Additionally, attention is directed to the fact that the upper-most point 60 of the roller element 44 is spaced above the flange 18 and is approximately level with the upper edge 24 of the back wall 22.

In operation, the entire structure, that is the paint roller 42 and attached paint cleaner structure 10, is held in one hand. A garden hose 62 or water spigot is turned on to emit a stream 64 of water under relatively high pressure. This stream is directed over the flange 18

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against an upper portion 66 of the roller element 44. The stream of water thus impinges approximately tangentially against the roller, causing the roller to spin. As the result of the spinning, water on the roller is tangentially thrown off by centrifugal action. This water will carry with it the paint on the roller which has been loosened and dissolved by the stream 64. As a result of the configuration of the structure 10, the greater portion of the water thrown off the spinning roller will strike the inner surface of the trough 12 and will spill from the trough away from any adjacent building or the painter. In this respect, the device should be held with the back wall 22 inclined toward the horizontal to facilitate spilling of the water therefrom. The flange 18 prevents the paint and water mixture from being thrown against a building wall or into the face of the operator. It is, of course, recommended that the cleaning operation be performed outdoors such as in a backyard, however the operation may be performed in an indoor sink or laundry tub. The stream of water is moved axially up and down the length of the roller element 44 a few times after which the paint roller is substantially clean and may be stored for subsequent use or may be used immediately for a different colored paint.

Having thus described my invention, I claim:

1. A paint roller cleaner for cleaning paint rollers of the type having a roller element rotatably secured at one end to a handle, the handle extending around the end of the roller, thence parallel with the longitudinal axis of the roller and thence outwardly from the roller to form a hand-grippable element, said paint roller cleaner comprising a trough-shaped enclosure to receive the roller element, said trough-shaped enclosure defining front and back wall portions, the front wall portion of the enclosure being receivable between the roller element and the portion of the handle extending parallel thereto, gripping means on the exterior of the enclosure for engaging the paint roller handle in a position to maintain the roller element in spaced apart relationship with respect to the interior surface of the enclosure, and a longitudinally extending flange projecting inwardly from one longitudinal edge of the trough-shaped enclosure, the upper edge of the front wall portion being lower than the upper edge of the back wall portion so that the outer periphery of the roller element extends beyond the upper edge of the front wall portion and said flange to permit impingement of a water spray over said flange tangentially onto the roller element to cause rotation of the roller element while this element is being sprayed with water for cleansing purposes, said flange acting as a guard to catch any fluid which is thrown off the roller and towards the flange.

2. A paint roller cleaner for cleaning paint rollers of the type having a roller element rotatably secured at one end to a handle, the handle extending around the end of the roller, thence parallel with the longitudinal axis of the roller, and thence outwardly from the roller to form a

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hand-grippable element, said paint roller cleaner comprising a trough-shaped enclosure to receive the roller element, said trough-shaped enclosure defining front and back wall portions, the front wall portion of the enclosure being receivable between the roller element and the portion of the handle extending parallel thereto, gripping means on the exterior of the enclosure for engaging the paint roller handle in a position to maintain the roller element in spaced apart relationship with respect to the interior surface of the enclosure, a radially inwardly extending flange on at least one longitudinal end of the enclosure and a longitudinally extending flange projecting inwardly from one longitudinal edge of the trough-shaped enclosure, the upper edge of the front wall portion being lower than the upper edge of the back wall portion so that the outer periphery of the roller element extends beyond the upper edge of the front wall portion and said flange to permit impingement of a water spray over said flange tangentially onto the roller element to cause rotation of the roller element while this element is being sprayed with water for cleansing purposes, said longitudinally extending flange acting as a guard to catch any fluid which is thrown off the roller and towards the flange.

3. A paint roller cleaner for cleaning paint rollers of the type having a roller element rotatably secured at one end to a handle, the handle extending around the end of the roller, thence parallel with the longitudinal axis of the roller and thence outwardly from the roller to form a hand-grippable element, said paint roller cleaner comprising a trough-shaped enclosure to receive the roller element, said trough-shaped enclosure defining front and back wall portions, the front wall portion of the enclosure being receivable between the roller element and the portion of the handle extending parallel thereto, parallel spaced apart gripping elements on the exterior of the enclosure for engaging the paint roller handle in a position to maintain the roller element in spaced apart relationship with respect to the interior surface of the enclosure, and a longitudinally extending flange projecting inwardly from one longitudinal edge of the trough-shaped enclosure, the upper edge of the front wall portion being lower than the upper edge of the back wall portion so that the outer periphery of the roller element extends beyond the upper edge of the front wall portion and said flange to permit impingement of a water spray over said flange tangentially onto the roller element to cause rotation of the roller element while this element is being sprayed with water for cleansing purposes, said flange acting as a guard to catch any fluid which is thrown off the roller and towards the flange.

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