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Kay

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[54] **APPARATUS FOR CLEANING PAINT ROLLER COVERS**

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[51] **Int. Cl.**.....**B08b 3/02**
[58] **Field of Search**.....134/138, 139, 149

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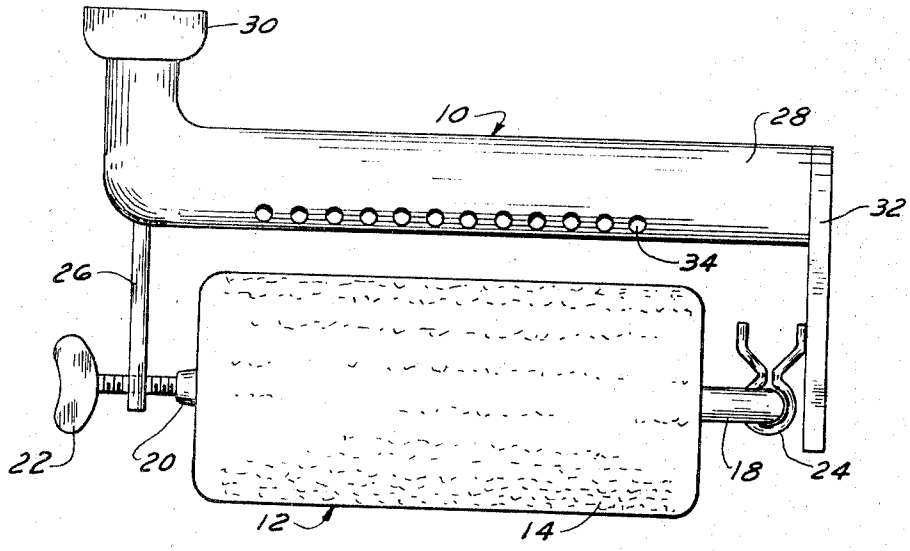
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[57] **ABSTRACT**

An apparatus and method for cleaning a paint roller cover in which a paint thinning fluid spray is directed at an angle to the paint roller and roller cover surface causing them to rotate. Paint residue on the roller cover surface is removed by the cleansing action of the fluid and the centrifugal force on the roller surface.

2 Claims, 3 Drawing Figures



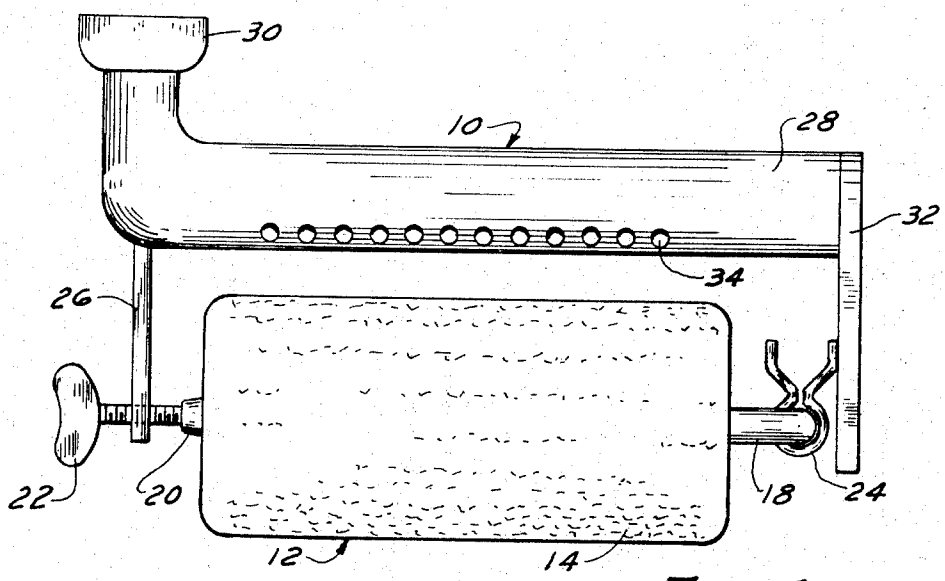


FIG. 1

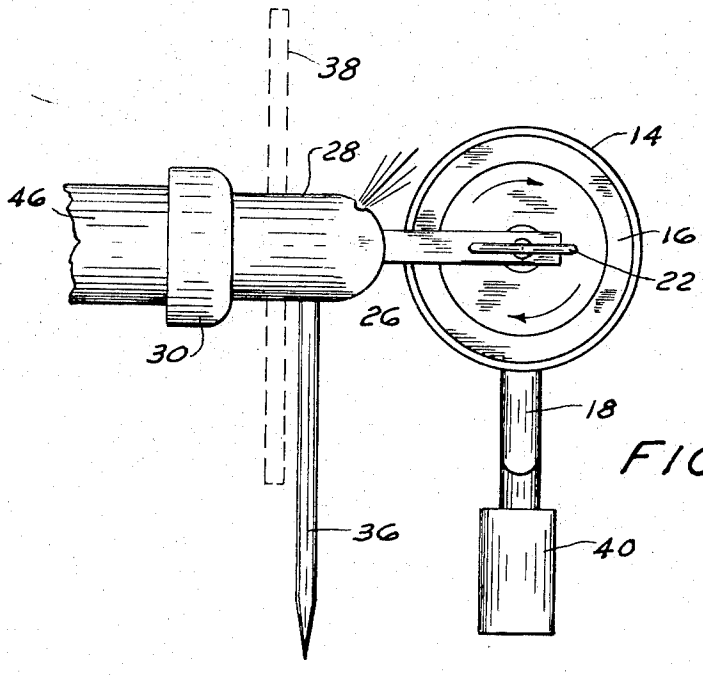


FIG. 2

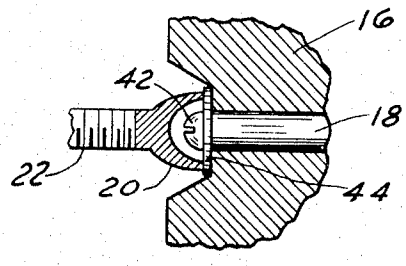


FIG. 3

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APPARATUS FOR CLEANING PAINT ROLLER COVERS

BACKGROUND OF THE INVENTION

This invention relates generally to the cleaning of painting implements such as are used for the painting of buildings, walls and the like and specifically for a device and method of removing paint residue from a paint roller cover so that the cover may be used over and over without losing its adsorbing and resilient surface characteristics. To preserve the resiliency of the roller cover, it is essential that all paint be removed before it is allowed to dry on the roller cover surface. In the past removing paint from the roller surface was time consuming, messy and awkward because of the roller shape and the difficulty of removing the roller cover when it is covered with paint. Applicant's invention provides a non-complex cleaning device in which the roller cover is cleaned while on the roller while requiring no complex machinery.

BRIEF DESCRIPTION OF THE INVENTION

An apparatus and method for removing paint from a paint roller cover comprising a fluid spraying means, means for removeably clamping said paint roller axial holding member adjacent said fluid spraying means in a position relative to said fluid spray such that said fluid spray when applied is directed at an angle to said roller cover surface in a direction to cause rotation of said roller, and a means for coupling said fluid spraying means to a fluid source. The fluid spray causes the paint roller cylinder and cover to rotate rapidly about the roller axis while simultaneously striking the roller cover surface and diluting paint residue on the surface. Centrifugal force on the rotating roller cover surface acts to dislodge and remove the paint residue and fluid spray mixture. The fluid spray is continued until all paint residue is removed from the roller cover. The fluid may be water or a paint thinning composition, depending upon whether the paint on the roller cover is water-based or oil-based, respectively. The device may be hand-held with a shield (provided to prevent splashing the party holding the device) or ground-supported by a frame member.

It is an object of this invention to provide a paint roller cover cleaning device.

It is another object of this invention to provide a paint roller cover cleaning device in which the cover does not have to be removed from the roller cylinder during the cleaning operation.

It is yet another object of this invention to provide a fluid spray, centrifugally actuated paint roller cover cleaning device.

And still yet another object of this invention is to provide a paint roller cover cleaning device requiring no moving parts.

And further yet, another object of this invention is to provide a method for cleaning paint roller covers.

In accordance with these and other objects which will be apparent hereinafter, the instant invention will now be described with particular reference to the accompanying drawings.

BRIEF DESCRIPTION OF THE DRAWINGS

FIG. 1 is a top view of applicant's invention with q paint roller coupled to it.

FIG. 2 is a side view of applicant's invention including a paint roller and roller cover.

FIG. 3 is a close up view of a portion of the coupling means utilized in applicant's invention.

PREFERRED EMBODIMENT OF THE INVENTION

Referring now to the drawings, and in particular to FIG. 1, Applicant's invention generally at **10** is shown coupled to a paint roller **12** having a roller cover **14** encompassing the cylindrical roller housing **16** (FIG. 2) rotatably coupled along its cylindrical axis to the roller axis member **18**. The paint roller assembly **12** is firmly but removeably coupled to the roller cleaning device **10** by retaining clip **24** and retaining cup **20**, the distance between which are adjustable by rotating threaded key **22** joined to cup **20**. The clip **24** is contoured to receive the roller axial frame support member **18** and to hold it with spring tension between the clip ends. Clip **24** is fixed to clip support **32** while key **22** is threadably engaged to key support **26**. The supports **32** and **26** extend outwardly from and are rigidly fixed to a receiving chamber **28** which is axially parallel to the roller cylindrical axis, and has a plurality of spray apertures **34** in line through the chamber surface in an axial direction. The apertures **34** are positioned to face in the direction of the roller cover **14** but substantially tangentially to a portion of the roller cover surface. Receiving chamber **28** is essentially a hollow tube closed at one end and coupled to a circular female connecting member **30** at the other end. Connecting member **30** is threaded inside to receive a threaded male connecting member such as is found at the end of a garden hose.

FIG. **2** shows the roller cover cleaning device **10** spraying fluid from apertures **34** in a direction tangential to an upper portion of roller cover surface **14** causing the roller cylinder **16** and roller cover **14** to rotate in the direction of the arrows. A shield **38** (dotted lines) may be fixed to the fluid receiving chamber **28** so that anyone holding the device **10** will not be splattered with paint residue. Also a ground support member **36** is fixed to chamber exterior and has a pointed end portion for driving the member **36** into the earth in order to support the device **10** above ground level. The paint roller handle **40** hangs below the device **10** and may be used to further support the entire assemblage above the ground.

In operation, a paint thinning or dissolving fluid source **46** under pressure is coupled to connecting member **30**. If a water-based paint is used the home water supply may be utilized by coupling the device **10** with a garden hose to the water pipe system. The device **10** is either hand-held or supported in the ground. The paint roller axial member **18** is positioned into retaining clip **24**. Key **22** is rotated until the cup **20** is tightly held against the roller cylinder retaining screw **42** and washer **44**. The water source is opened so that water under pressure flows into the conduit member **28**, filling the entire chamber. Water is forced under pressure out of the apertures **34** in a spray directed toward the roller cover surface **14**. FIG. **2** shows the spray striking the roller cover at an angle substantially tangential to a portion of the roller cover **14**. The spray action thus imparts rotation movement to the roller cylinder **16** and the roller cover **14** in the direction of the arrows around the longitudinal cylindrical axis of

the roller. This rotational movement imparts a centrifugal force to paint residue and water on and adsorbed in the roller cover surface, thus causing it to fly radially away from the roller paint cover, cleaning the cover. The spray is continued until the entire roller cover is free of paint residue.

FIG. 3 shows a close-up view of the cup 20 engagement witH axial retaining washer 44 and retaining screw 42. Cup 20 fits over the screw 42 and rests against washer 44 thus allowing roller cylinder 16 to rotate freely. Any engaging means which firmly holds the roller assemblage 12 adjacent the spray apertures while simultaneously permitting roller rotation would be suitable.

Although shown with a water source for use in cleaning water-based paint from the roller surface, oil-based paint thinners and cleaners such as turpentine may be forced through the conduit member and sprayed onto the roller cover surface. Air under pressure may be forced out of the apertures to dry the roller cover after it has been cleaned.

The instant invention has been shown and described herein in what is considered to be the most practical and preferred embodiment. It is recognized, however, that departures may be made therefrom within the scope of the invention and that obvious modifications will occur to a person skilled in the art.

What I claim is:

1. An apparatus for cleaning a paint roller comprising:

an elongated, hollow fluid chamber having an inlet end opening, a distal end, and a plurality of apertures linearly arranged along the elongated axial direction;

distal end support member connected perpendicularly to the distal end of said fluid chamber;

flexible spring clip coupled to said distal end support;

inlet end support member connected perpendicularly to said chamber adjacent said inlet end, said inlet support member having a threaded aperture therethrough;

threaded screw rotatably connected through said inlet support member aperture, said screw having a cupped-shaped end for engaging said roller; and

water source coupling means connected to said inlet end opening;

said chamber, said inlet support member and said distal support member lying substantially in the same plane, and

said chamber apertures disposed angularly to said plane containing said chamber, said inlet support member, and said distal support member.

2. An apparatus for cleaning a paint roller, as in claim 1, including:

elongated tapered spike connected to said chamber, substantially perpendicular to said plane containing said chamber, said inlet support member, and said distal support member.

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