

[54] PAINT ROLLER SLEEVE WASHER

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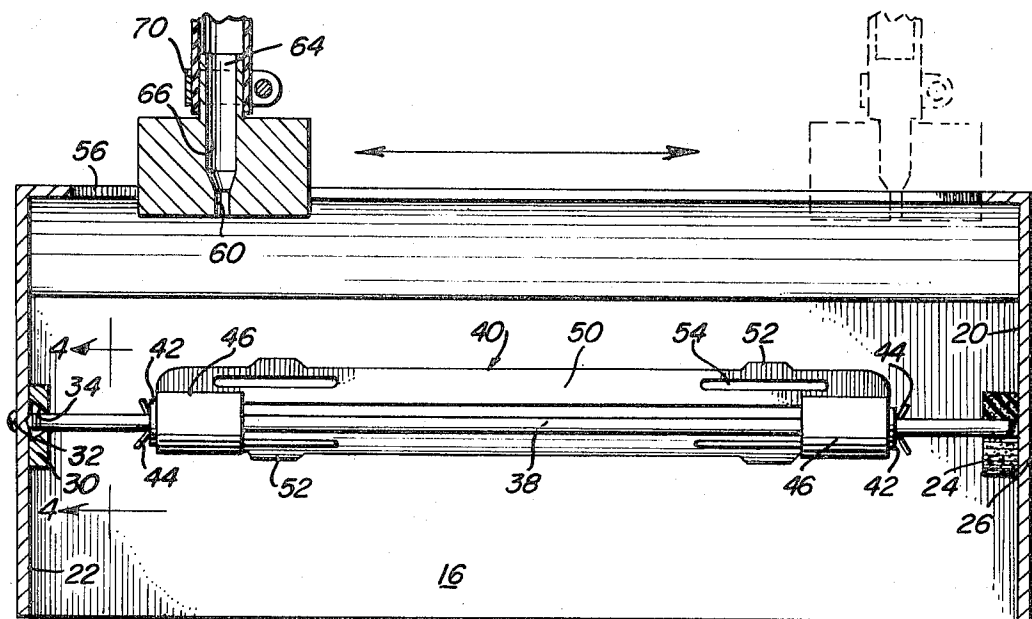
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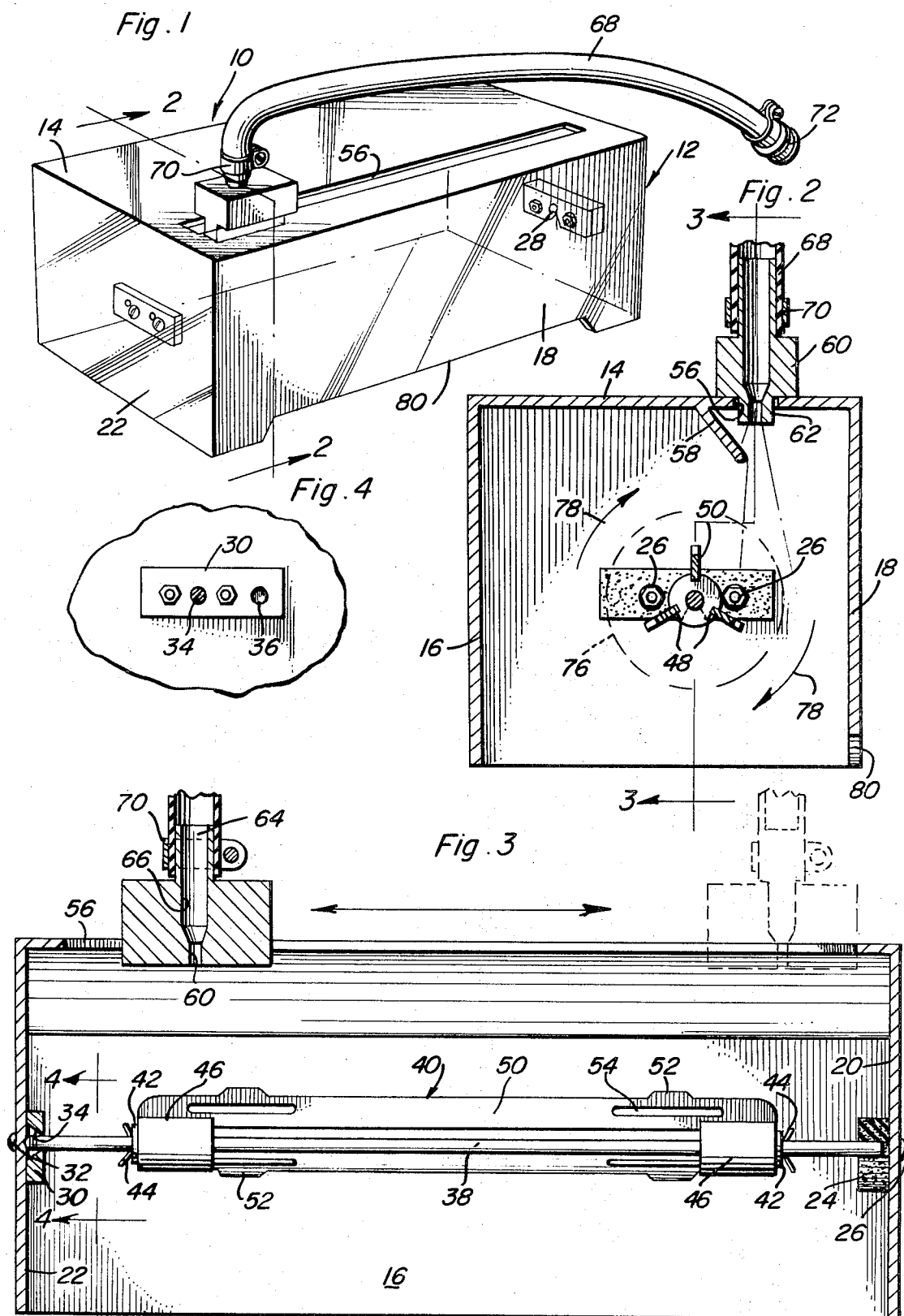
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[57] ABSTRACT

A downwardly opening hollow housing is provided including at least interconnected top and side walls. A spindle is removably journaled between the opposite end walls and is of a diameter to snugly receive a tubular paint roller sleeve thereon. The top wall of the housing includes a longitudinal slot which is slightly laterally spaced relative to a vertical plane containing the axis of rotation of the spindle and an outlet nozzle fixture is removably slidably engaged in the slot and is adapted to have the outlet end of a flexible water supply hose connected thereto for discharging a downward jet of water from the lower end of the nozzle along a chord of a paint roller sleeve supported from the spindle for washing purposes. The top wall includes a spray deflecting baffle which projects downwardly therefrom between the slot and the aforementioned vertical plane and prevents water and water diluted paint spray from being thrown upwardly through the slot as a paint roller sleeve saturated with water and water diluted paint is spun at high speed on the spindle.

5 Claims, 4 Drawing Figures





PAINT ROLLER SLEEVE WASHER

Most paints presently being applied through the use of a roller sleeve are water soluble or water base paints and may be diluted and/or dissolved by water when wet. Although water may be utilized to dilute the paint on paint roller sleeves in many different ways, the most commonly used method involves the positioning of the roller sleeve (while mounted on the usual paint roller handle) under a stream of water such as that which may be discharged from a kitchen sink or garden hose. However, when a paint roller sleeve is rotated at high speed by this method, water and water diluted paint is spun off from the roller sleeve in all directions making the job of cleaning a roller sleeve in this manner messy.

It is accordingly the main object of this invention to provide a means for supporting a paint roller sleeve for rapid rotation about its longitudinal axis and within a confined area while still enabling a jet of water to be discharged on the periphery of the roller sleeve in a manner to cause the paint roller sleeve to rotate at high speed.

Another object of this invention, in accordance with the immediately preceding object, is to provide an apparatus for cleaning paint roller sleeves and which will enable the operator of the apparatus to readily visually ascertain when the paint roller sleeve has been cleaned of substantially all paint residue.

Another important object of this invention is to provide an apparatus in accordance with the preceding objects and which may be adjusted to rotatably support roller sleeves of different diameters and lengths.

A final object of this invention to be specifically enumerated herein is to provide a paint roller sleeve cleaner in accordance with the preceding objects and which will conform to conventional forms of manufacture, be of simple construction and easy to use so as to provide a device that will be economically feasible, long lasting and relatively trouble free in 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.

FIG. 1 is a perspective view of a paint roller cleaner constructed in accordance with the present invention;

FIG. 2 is an enlarged fragmentary transverse vertical sectional view taken substantially upon the plane indicated by the section line 2—2 of FIG. 1;

FIG. 3 is a vertical sectional view taken substantially upon the plane indicated by the section line 3—3 of FIG. 2 and with an alternate position of the water jet nozzle of the invention illustrated in phantom lines; and

FIG. 4 is a fragmentary vertical sectional view taken substantially upon the plane indicated by the section line 4—4 of FIG. 3.

Referring now more specifically to the drawings, the numeral 10 generally designates the paint roller sleeve cleaning apparatus of the instant invention. The apparatus 10 includes a housing referred to in general by the reference numeral 12 and the housing 12 includes a top wall 14, opposite side walls 16 and 18 and a pair of opposite end walls 20 and 22 interconnecting corresponding end marginal edge portions of the top and side walls.

A resilient block 24 is secured to the central portion of the inner surface of the end wall 20 by means of suitable fasteners 26 secured through the end wall 20 and the block 24. The block 24 includes a downwardly opening keyhole slot 28 and it is to be noted that the block 24 is constructed of deformable and resilient material.

The end wall 22 has a second block 30 secured to its inner surface by means of fasteners 32 secured through the side wall 22 and the block 30 and the latter includes a horizontal conical bore 34 formed therein opening toward and aligned with the keyhole slot 28.

The end walls 20 and 22 each have two pairs of bores 36 formed therethrough and the corresponding blocks 24 and 30 each have a single pair of corresponding bores formed therethrough through which the fasteners 26 and 32 are secured. Accordingly, each of the blocks 24 and 30 may be laterally shifted between two positions thereof.

An elongated spindle shaft 38 is provided and one end of the shaft 38 is rotatably and slidably received in the conical bore 34 formed in the block 30 and the other end of shaft 38 is removably frictionally retained in the keyhole slot 28 the bore 34 being conical to allow angular displacement of the shaft 38 during lateral displacement of the remote end of shaft 38 into and out of the keyhole slot 28. The midportion of the shaft 38 has a support member referred to in general by the reference numeral 40 journaled thereon between thrust washers 42 rotatably and slidably disposed on the shaft 38 and retained against movement away from each other by cotter pins 44 secured through the shaft 38 immediately outwardly of the thrust washers 42. The support member 40 includes cylindrical opposite end sleeves 46 which are each provided with radially outwardly opening and longitudinally extending grooves 48 in which radially outwardly projecting and longitudinally extending fins 50 are secured. There are three fins 50 and they are angularly displaced 120 degrees apart about the sleeves 46. In addition, the opposite end portions of the outer marginal edges of the fins 50 include slight outward projections 52 and each of the fins 50 is provided with longitudinal slots 54 spaced immediately inwardly of the corresponding extensions 52. The fins 50 are constructed of stiff but somewhat resilient material and accordingly, the extensions 52 may be slightly radially inwardly displaced.

The top wall 14 of the housing 12 includes a longitudinal slot 56 spaced slightly toward the front side wall 18 from a vertical plane containing the shaft 38. Also, the top wall 14 includes a longitudinally extending forwardly and downwardly inclined depending baffle 58 disposed between the aforementioned vertical plane and a second vertical plane extending through the center of the slot 56.

A nozzle body 60 is provided and comprises an elongated body having a central depending and longitudinally extending extension 62 which is slidably received in the slot 56. In addition, the body 60 includes a central upstanding hollow neck 64 and the lower end of the neck 64 opens downwardly into an upstanding counter-bore 66 formed in the body 60 and in turn terminating downwardly in a bore 68 opening downwardly through the center portion of the extension 62.

A section of flexible hose 68 is provided and one end of the hose 68 is secured to the neck 64 by means of a suitable clamp 70. The other end of the hose 68 in-

cludes a suitable fitting 72 for connection with a garden hose or the outlet end of a sink faucet.

In operation, the fitting 72 is operatively connected to a garden hose or sink faucet and the spindle or shaft 38 is removed by pulling downwardly on the end thereof supported from the block 24 and thereafter withdrawing the opposite end from the bore 34. Thereafter, the paint roller sleeve to be cleaned is slipped over the roller support body 40 and centered with respect thereto. Thereafter, the shaft 38 is replaced so as to be supported from the blocks 24 and 30 and water under pressure is caused to flow through the hose 68 after the nozzle body 60 has been engaged with the slot 56. It will be noted from FIG. 2 of the drawings that the downward jet of water from the nozzle body 60 is directed upon the right hand periphery of the paint roller sleeve designated by the reference numeral 76 with the result that the roller sleeve 76 will be spun at reasonably high speed in the direction indicated by the arrows 78. As the roller sleeve is rotated on the spindle shaft 38 by means of the downward jet of water acting thereon the body 60 is slowly moved back and forth along the slot 56 with the result that the paint residue on the roller is continuously diluted with water and spun off of the roller sleeve due to its high speed of rotation. After continuing this operation for a short period the water being spun off of the roller sleeve will be substantially clear indicating that there is no paint residue remaining on the nap of the roller sleeve 76. At this time, the block 60 is slid toward one end of the slot 56 and the pressure of water discharge may be increased so that the roller sleeve will be spun at higher speeds in order to "spin dry" all of the roller sleeve except the end portion thereof upon which the water jet is acting. Then, the flow of water to the nozzle 60 may be terminated and the momentum of the spinning roller and support 40 will continue to rotate the roller at reasonable speeds for a sufficient period to substantially "spin dry" the end of the roller sleeve last acted upon by the water being discharged from the nozzle body 60.

The central portion of the lower marginal edge portion of the front side wall 18 is provided with a relieved area 80 in order that the housing 12 may be placed in a kitchen sink or the like over the drain and the water and diluted paint being spun off of the roller 76 will be allowed to flow down into the drain of the sink. The relieved area 80 may also be used in order to drain water from the interior of the housing 12 should it be used in cleaning a paint roller sleeve and yet not directly positioned over a drain, but rather on any suitable flat surface.

Due to the direction of rotation of the paint roller sleeve 76 while being acted upon by the jet of water being discharged from the body 60, the spray of water being spun off of the roller sleeve 76 will be blocked by the partition or flange 58 from passing outwardly through the housing 12 by means of the slot 56. Accordingly, the task of cleaning a paint roller sleeve by utilizing the apparatus of the instant invention is not messy. Also, as the water being used to clean the roller sleeve flows clear underneath the relieved area 80 it may be determined that the roller sleeve has had substantially all of the paint flushed therefrom.

The apparatus may be constructed of any suitable material and will be of such a weight and size as to be readily handled.

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.

What is claimed as new is as follows:

1. A paint roller sleeve washer comprising an elongated housing including at least longitudinal opposite side walls and a longitudinal top wall extending between and interconnecting the upper marginal portions of said side walls, support means carried by said housing for removably supporting a paint roller sleeve within said housing for free rotation about its center axis and with the latter extending longitudinally of said housing, one of said walls having a longitudinal slot formed therein, a nozzle body removably slidably engaged in said slot for guided movement therealong and including a liquid passage therethrough with an inlet end accessible from the exterior of said housing and adapted to have the discharge end of a liquid pressure supply line coupled thereto and an outlet end oriented relative to said axis so as to be adapted to discharge a jet of liquid along a path lying on a chord of a paint roller sleeve supported on said support means, said support means including a shaft, an elongated support member journaled on said shaft and adapted to have a paint roller sleeve telescoped thereover for support therefrom, the end portions of said shaft and said housing including first and second coacting means removably supporting said support member in said housing, said housing including opposite end walls from which said support means are supported, said second coacting means being carried by the inner surfaces of said end walls, said second coacting means comprising a pair of support blocks supported from said end walls, one of said blocks having a bore formed therein opening toward the other block and the other block being constructed of resilient material and having a keyhole opening formed therein whose lower portion opens downwardly through the lower marginal portion of said resilient block, said first coacting means including end portions on said shaft seatingly receivable in said bore and keyhole opening.

2. The combination of claim 1 wherein said one wall includes a longitudinally extending inwardly projecting baffle extending along said slot and shielding the latter from liquid spray spun off said roller sleeve.

3. The combination of claim 1 wherein said support member defines a center axis and including longitudinally extending and generally radially outwardly projecting ribs spaced thereabout, the opposite end portions of the outer marginal edge portions of said ribs including outwardly projecting extensions, said ribs being constructed of stiff but bendable and at least somewhat resilient material the outer marginal edge portions of said ribs being provided with longitudinal slots closely adjacent and inwardly of said extensions with said extensions being registered with portions of the corresponding slots intermediate their opposite ends.

4. The combination of claim 1 including a length of flexible hose, one end of said hose being communicated with the inlet end of said liquid passage and the other end of said hose including means for removable con-

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nection with an outlet for a supply of water under pressure.

5. A paint roller sleeve washer comprising an elongated downwardly opening housing including an elongated top wall extending between and interconnecting the upper marginal portions of depending opposite side walls, support means carried by said housing for removably supporting a paint roller sleeve between said side walls and below said top wall for free rotation about its center axis and with the latter extending longitudinally of said housing, one of said walls having a longitudinal slot formed therein, nozzle body for traversing said slot and including a liquid passage therethrough with an inlet end adapted to have the discharge end of a liquid pressure supply line coupled thereto and an outlet end for discharging a spray of liquid along a path lying on a chord of a paint roller sleeve supported on said support means, said support means including a shaft and

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means journaled on the shaft adapted to have a paint roller sleeve supported therefrom with said sleeve concentrically disposed relative to said shaft, the end portions of said shaft and said housing including first and second coaxing means removably supporting said shaft in said housing, said second coaxing means comprising a pair of support blocks supported in spaced relation below the opposite end portions of said top wall, one of said blocks defining a bore opening toward the other block and the other block being constructed of resilient material and having a keyhole opening formed therein whose lower portion opens downwardly through the lower marginal portion of said resilient block, said first coaxing means including end portions of said shaft means seatingly receivable in said bore and keyhole opening.

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