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Cleaning and drying apparatus for a paint roller

Abstract

A cleaning apparatus for both cleaning and drying a paint roller with streams of water directed at the paint roller includes a main tube and a spray head attached to one end of the main tube. The paint roller is attachable to the main tube via a roller holder which is slidable along the main tube. The paint roller is positionable so that the spray head directs fluid toward a roller cover of the paint roller. A secondary tube is in fluid communication with the main tube and is oriented to direct fluid against the roller cover such that the roller cover is urged to rotate by fluid flowing through the secondary tube.

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References Cited

U.S. PATENT DOCUMENTS

Patent No.	Issued Date	Patentee Name	U.S. Cl.	CPC
4765353	12/1987	Rhoades	N/A	N/A
5033491	12/1990	Middleton	N/A	N/A
D342356	12/1992	Gratopp	N/A	N/A
5614021	12/1996	Catlin	134/900	B44D 3/006
5626158	12/1996	Gratopp	134/900	B44D 3/006
6116255	12/1999	Walter	N/A	N/A
6408862	12/2001	van Rooyen	N/A	N/A
7435030	12/2007	Atterbury	N/A	N/A
8505562	12/2012	McPhee, III	N/A	N/A
8973592	12/2014	Suydam	N/A	N/A
9834033	12/2016	Egan	N/A	B44D 3/006
2008/0035185	12/2007	Baratta	N/A	N/A
2008/0078429	12/2007	Hoffmann	134/178	B44D 3/006

FOREIGN PATENT DOCUMENTS

Patent No.	Application Date	Country	CPC
WO2006107743	12/2005	WO	N/A

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Background/Summary

CROSS-REFERENCE TO RELATED APPLICATIONS
(1) Not Applicable
STATEMENT REGARDING FEDERALLY SPONSORED RESEARCH OR DEVELOPMENT
(2) Not Applicable
THE NAMES OF THE PARTIES TO A JOINT RESEARCH AGREEMENT
(3) Not Applicable
INCORPORATION-BY-REFERENCE OF MATERIAL SUBMITTED ON A COMPACT DISC OR AS A TEXT FILE VIA THE OFFICE ELECTRONIC FILING SYSTEM
(4) Not Applicable
STATEMENT REGARDING PRIOR DISCLOSURES BY THE INVENTOR OR JOINT INVENTOR
(5) Not Applicable
BACKGROUND OF THE INVENTION
(1) Field of the Invention
(6) The disclosure relates to paint roller cleaning apparatuses and more particularly pertains to a new paint roller cleaning apparatus for both cleaning and drying a paint roller with streams of water directed at the paint roller.
(2) Description of Related Art Including Information Disclosed Under 37 CFR 1.97 and 1.98
(7) The prior art describes myriad apparatuses which clean a roller cover of a paint roller by

directing streams of water or other cleaning fluid at the roller cover. However, the prior art does not describe such a device which also at least partially dries the roller cover using a stream of water. A stream of water may be used to partially dry the roller by configuring the stream of water to have a width significantly smaller than the roller cover and to cause the stream to have enough inertia to cause the roller cover to spin such that water collected on the roller cover is projected off of the roller cover via a centrifugal force.

(8) The portion of the roller cover which is impacted by the stream of water will be particularly likely to remain wet. But a majority of the roller cover may be partially dried by such an apparatus. Such an apparatus would be advantageous in that a user would be able to at least partially dry the roller cover by turning a valve immediately after washing the roller cover with the same device. The device may also limit interacting directly with the roller cover when the roller cover is soaking wet, which can transfer water uncomfortably onto the user.

BRIEF SUMMARY OF THE INVENTION

(9) An embodiment of the disclosure meets the needs presented above by generally comprising a main tube is elongated between a first end and a second end of the main tube. The main tube has a first side and a second side each extending between the first end and the second end. A spray head is coupled to the first end of the main tube and is in fluid communication with the main tube. The spray head has a plurality of nozzles extending therein. Each nozzle of the plurality of nozzles faces away from the first side of the main tube and is configured to direct a fluid out of the spray head away from the main tube. A roller holder is coupled to the main tube and is configured for holding a paint roller such that a roller cover of the paint roller is positioned in a flow path of the fluid extending away from the plurality of nozzles. The roller holder is movable longitudinally with respect to the main tube to position the paint roller in a desired position.

(10) A secondary tube is in fluid communication with the main tube. An outlet portion of the secondary tube is positioned such that the secondary tube is configured to direct the fluid from the main tube against the roller cover to urge the roller cover to rotate with respect to the roller frame of the paint roller. A sprayer valve is coupled to the main tube. The sprayer valve is moveable between an open position and a closed position, and the sprayer valve is configured to permit the fluid through the main tube toward the spray head only when open.

(11) There has thus been outlined, rather broadly, the more important features of the disclosure in order that the detailed description thereof that follows may be better understood, and in order that the present contribution to the art may be better appreciated. There are additional features of the disclosure that will be described hereinafter and which will form the subject matter of the claims appended hereto.

(12) The objects of the disclosure, along with the various features of novelty which characterize the disclosure, are pointed out with particularity in the claims annexed to and forming a part of this disclosure.

Description

BRIEF DESCRIPTION OF SEVERAL VIEWS OF THE DRAWING(S)

(1) The disclosure will be better understood and objects other than those set forth above will become apparent when consideration is given to the following detailed description thereof. Such description makes reference to the annexed drawings wherein:

(2) FIG. **1** is a top view of a cleaning apparatus according to an embodiment of the disclosure.

(3) FIG. **2** is a bottom view of an embodiment of the disclosure.

(4) FIG. **3** is a front view of an embodiment of the disclosure.

(5) FIG. **4** is a rear view of an embodiment of the disclosure.

(6) FIG. **5** is a first side view of an embodiment of the disclosure.

(7) FIG. **6** is a second side in-use view of an embodiment of the disclosure.

DETAILED DESCRIPTION OF THE INVENTION

(8) With reference now to the drawings, and in particular to FIGS. **1** through **6** thereof, a new paint roller cleaning apparatus embodying the principles and concepts of an embodiment of the disclosure and generally designated by the reference numeral **10** will be described.

(9) As best illustrated in FIGS. **1** through **6**, the cleaning apparatus **10** generally comprises a main tube **12** which is elongated between a first end **14** and a second end **16** of the main tube **12** and has a first side **18** and a second side **20** which each extend between the first end **14** and the second end **16**. A spray head **22** is coupled to the first end **14** of the main tube **12** and is in fluid communication with the main tube **12**. The spray head **22** has a plurality of nozzles **24** extending therein. The plurality of nozzles **24** is arranged along a sprayer plane which is oriented perpendicularly to a longitudinal axis of the main tube **12**. Each nozzle **24** of the plurality of nozzles **24** face away from the first side **18** of the main tube **12** and is configured to direct a fluid out of the spray head **22** away from the main tube **12**. A roller holder **26** is coupled to the main tube **12** and is configured for holding a paint roller **74** such that a roller cover **78** of the paint roller **74** is positioned in a flow path of the fluid extending away from the plurality of nozzles **24**. The roller holder **26** is movable longitudinally with respect to the main tube **12** to position the paint roller **74** in a desired position.

(10) The roller holder **26** comprises a base **28** which is slidably coupled to the main tube **12** and a sleeve **32** which is coupled to the base **28**. The sleeve **32** defines a channel **34** which extends parallel to the longitudinal axis of the main tube **12** and is configured to contain a handle **76** of the paint roller **74** and position the roller cover **78** of the paint roller **74** in the flow path of the fluid. The base **28** defines a conduit **30** that extends through the base **28** and receives the main tube **12**. The roller holder **26** further comprises a brace **38** which is coupled to the base **28** and is spaced from the sleeve **32** in a direction toward the spray head **22**. The brace **38** has a pair of engagement members **40** which each have a concavely arcuate surface **42** facing away from the first side **18** of the main tube **12**. The concavely arcuate surface **42** of each engagement member **40** of the pair of engagement members **40** is configured to engage a frame of the paint roller **74** when the handle **76** is contained in the sleeve **32** to inhibit a movement of the paint roller **74** with respect to the main tube **12**.

(11) The roller holder **26** additionally comprises a holder retainer **44** and a roller retainer **48**. The holder retainer **44** is coupled to the base **28** for retaining the roller holder **26** in a desired position along the main tube **12**. The holder retainer **44** comprises a holder set screw **46** but may comprise a locking pin, another conventional clamping means, or the like. The roller retainer **48** is coupled to the sleeve **32** and is configured to secure the handle **76** of the paint roller **74** to the sleeve **32**. The roller retainer **48** comprises a roller set screw **50** but may comprise a locking pin, another conventional clamping means, or the like.

(12) A secondary tube **52** is in fluid communication with the main tube **12**. An outlet portion **54** of the secondary tube **52** is positioned such that the secondary tube **52** is configured to direct the fluid from the main tube **12** against the roller cover **78** to urge the roller cover **78** to rotate with respect to the roller frame **80** of the paint roller **74**. An inner dimension of the secondary tube **52** is sized such that a secondary flow of fluid extending from the outlet portion **54** of the secondary tube **52** to the roller cover **78** strikes less than 15.0 percent of a surface area of the roller cover **78**. A sprayer valve **56** is coupled to the main tube **12**. The sprayer valve **56** is moveable between an open position and a closed position and is configured to permit the fluid through the main tube **12** toward the spray head **22** only when open. A rotator valve **58** is coupled to the secondary tube **52**. The rotator valve **58** is movable between an open position and a closed position and is configured to permit the fluid through the secondary tube **52** toward the outlet portion **54** of the secondary tube **52** only when open. The sprayer valve **56** is positioned between the rotator valve **58** and the spray head **22**. In some embodiments, a single control valve is provided which directs the fluid alternately toward the spray head **22** or through the secondary tube **52**. The single control valve may also be operable to

prevent the fluid from flowing through the main tube **12** at all.
(13) A spray shield **60** is coupled to the spray head **22**. The spray shield **60** has a panel **62** which is positionable in a use position **66**, wherein a shielding surface **64** of the panel **62** faces the plurality of nozzles **24** and the panel **62** is extends at least partially around the roller cover **78** when the roller cover **78** is positioned in the flow path of the fluid. The spray shield **60** is pivotally coupled to the spray head **22** such that the spray shield **60** is pivotable alternately toward and away from the first side **18** of the main tube **12**. Moving the spray shield **60** away from the first side **18** of the main tube **12** provides space to install the paint roller **74** into the roller holder **26**. A connector **68** is coupled to the second end **16** of the main tube **12**. The connector **68** comprises a collar **70** with internal threads which are engageable with external threads of a hose **72** to couple the hose **72** to the main tube **12**.
(14) The cleaning apparatus **10** is configured for accommodating paint rollers **74** with various dimensions. For example, the roller retainer **48** is moveable with respect to the sleeve **32** of the roller holder **26** to interchangeably engage differently sized and shaped handles **76** of various paint rollers **74**. The roller holder **26** is movable longitudinally with respect to the main tube **12** such that the roller cover **78** may be positioned as desired in the flow path of the fluid. And the spray shield **60** is pivotable to accommodate for differently sized and shaped roller frames **80** of the various paint rollers **74** while substantially shielding a surrounding environment from overspray from the spray head **22**.
(15) In use, the paint roller **74** is installed in the roller holder **26** and the roller cover **78** of the paint roller **74** is positioned in the flow path of the fluid. Fluid is directed through the main tube **12** and out of the plurality of nozzles **24** of the spray head **22** to clean paint or other materials off of the roller cover **78**. The roller cover **78** may be positioned such that the flow of fluid from the spray head **22** also causes the roller cover **78** to rotate, which allows for all sides of the roller cover **78** to be cleaned. The rotator valve **58** may also be operated to direct some of the fluid through the secondary tube **52** to rotate the roller. The fluid may be water, a cleaning solution, or some other fluid which may urge the paint off of the roller cover **78**.
(16) To at least partially dry the roller cover **78**, the sprayer valve **56** is closed and the rotator valve **58** is opened. The secondary flow of fluid then urges the roller cover **78** to rotate such that fluid adhered to the roller cover **78** is projected outwardly from the roller cover **78** via a centrifugal force. During this process, a portion of the roller cover **78** may accumulate more fluid via the secondary tube **52**, but the overall effect of this drying process described is to remove more fluid from the roller cover **78** than is added thereto.
(17) With respect to the above description then, it is to be realized that the optimum dimensional relationships for the parts of an embodiment enabled by the disclosure, to include variations in size, materials, shape, form, function and manner of operation, assembly and use, are deemed readily apparent and obvious to one skilled in the art, and all equivalent relationships to those illustrated in the drawings and described in the specification are intended to be encompassed by an embodiment of the disclosure.
(18) Therefore, the foregoing is considered as illustrative only of the principles of the disclosure. Further, since numerous modifications and changes will readily occur to those skilled in the art, it is not desired to limit the disclosure 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 disclosure. In this patent document, the word “comprising” is used in its non-limiting sense to mean that items following the word are included, but items not specifically mentioned are not excluded. A reference to an element by the indefinite article “a” does not exclude the possibility that more than one of the element is present, unless the context clearly requires that there be only one of the elements.

Claims

1. A cleaning apparatus for a paint roller, the cleaning apparatus comprising: a main tube being elongated between a first end and a second end of the main tube, the main tube having a first side and a second side each extending between the first end and the second end; a spray head being coupled to the first end of the main tube, the spray head being in fluid communication with the main tube, the spray head having a plurality of nozzles extending therein, each nozzle of the plurality of nozzles facing away from the first side of the main tube, the plurality of nozzles being configured to direct a fluid out of the spray head away from the main tube; a roller holder being coupled to the main tube, the roller holder being configured for holding the paint roller such that a roller cover of the paint roller is positioned in a flow path of the fluid extending away from the plurality of nozzles, the roller holder being movable longitudinally with respect to the main tube to position the paint roller in a desired position; a secondary tube being in fluid communication with the main tube, an outlet portion of the secondary tube being positioned such that the secondary tube is configured to direct the fluid from the main tube against the roller cover to urge the roller cover to rotate with respect to the roller frame of the paint roller; a sprayer valve being coupled to the main tube, the sprayer valve being moveable between an open position and a closed position, the sprayer valve being configured to permit the fluid through the main tube toward the spray head only when open; and wherein the roller holder comprises a base being coupled to the main tube, the base being slidably coupled to the main tube, and a sleeve being coupled to and extending from an outer surface of the base. the sleeve defining a channel which extends parallel to the longitudinal axis of the main tube, the sleeve being configured to contain a handle of the paint roller and position the roller cover in the flow path of the fluid.

2. The apparatus of claim 1, wherein the plurality of nozzles is arranged along a sprayer plane which is oriented perpendicularly to a longitudinal axis of the main tube.

3. The apparatus of claim 1, wherein the base defines a conduit extending therethrough which receives the main tube.

4. The apparatus of claim 1, wherein the roller holder further comprises a brace being coupled to the base and being spaced from the sleeve in a direction toward the spray head, the brace having an engagement member having a concavely arcuate surface facing away from the first side of the main tube, the concavely arcuate surface being configured to engage a frame of the paint roller when the handle is contained in the sleeve to inhibit a movement of the paint roller with respect to the main tube.

5. The apparatus of claim 1, wherein the roller holder further comprises a holder retainer being coupled to the base for retaining the roller holder in a desired position along the main tube.

6. The apparatus of claim 1, wherein the roller holder further comprises a roller retainer being coupled to the sleeve, the roller retainer being configured to secure the handle of the paint roller to the sleeve.

7. The apparatus of claim 1, further comprising a rotator valve being coupled to the secondary tube, the rotator valve being movable between an open position and a closed position, the rotator valve being configured to permit the fluid through the secondary tube toward the outlet portion of the secondary tube only when open, the sprayer valve being positioned between the rotator valve and the spray head.

8. The apparatus of claim 1, further comprising a spray shield being coupled to the spray head, the spray shield having a panel which is positionable in a use position, the panel having a shielding surface facing the plurality of nozzles when the panel is positioned in the use position, the panel being configured to extend partially around the roller cover when the roller cover is positioned in the flow path of the fluid and the panel is positioned in the use position.

9. The apparatus of claim 8, wherein the spray shield is pivotally coupled to the spray head such

that the spray shield is pivotable alternately toward and away from the first side of the main tube.

10. The apparatus of claim 1, further comprising a connector being coupled to the second end of the main tube, the connector comprising a collar with internal threads, the internal threads of the collar being configured for engaging external threads of a hose to couple the hose to the main tube.

11. A cleaning apparatus for a paint roller, the cleaning apparatus comprising: a main tube being elongated between a first end and a second end of the main tube, the main tube having a first side and a second side each extending between the first end and the second end; a spray head being coupled to the first end of the main tube, the spray head being in fluid communication with the main tube, the spray head having a plurality of nozzles extending therein, the plurality of nozzles being arranged along a sprayer plane which is oriented perpendicularly to a longitudinal axis of the main tube, each nozzle of the plurality of nozzles facing away from the first side of the main tube, the plurality of nozzles being configured to direct a fluid out of the spray head away from the main tube; a roller holder being coupled to the main tube, the roller holder comprising: a base being coupled to the main tube, the base being slidably coupled to the main tube, the base defining a conduit extending therethrough which receives the main tube; a sleeve being coupled to and extending from an outer surface of the base the base, the sleeve defining a channel which extends parallel to the longitudinal axis of the main tube, the sleeve being configured to contain a handle of the paint roller and position a roller cover of the paint roller in a flow path of the fluid extending away from the plurality of nozzles; a brace being coupled to the base and being spaced from the sleeve in a direction toward the spray head, the brace having a pair of engagement members each having a concavely arcuate surface facing away from the first side of the main tube, the concavely arcuate surface of each engagement member of the pair of engagement members being configured to engage a frame of the paint roller when the handle is contained in the sleeve to inhibit a movement of the paint roller with respect to the main tube; a holder retainer being coupled to the base for retaining the roller holder in a desired position along the main tube, the holder retainer comprising a holder set screw; and a roller retainer being coupled to the sleeve, the roller retainer being configured to secure the handle of the paint roller to the sleeve, the roller retainer comprising a roller set screw; a secondary tube being in fluid communication with the main tube, an outlet portion of the secondary tube being positioned such that the secondary tube is configured to direct the fluid from the main tube against the roller cover to urge the roller cover to rotate with respect to the roller frame of the paint roller; a sprayer valve being coupled to the main tube, the sprayer valve being moveable between an open position and a closed position, the sprayer valve being configured to permit the fluid through the main tube toward the spray head only when open; a rotator valve being coupled to the secondary tube, the rotator valve being movable between an open position and a closed position, the rotator valve being configured to permit the fluid through the secondary tube toward the outlet portion of the secondary tube only when open, the sprayer valve being positioned between the rotator valve and the spray head; a spray shield being coupled to the spray head, the spray shield having a panel which is positionable in a use position, the panel having a shielding surface facing the plurality of nozzles when the panel is positioned in the use position, the panel being configured to extend partially around the roller cover when the roller cover is positioned in the flow path of the fluid and the panel is positioned in the use position, the spray shield being pivotally coupled to the spray head such that the spray shield is pivotable alternately toward and away from the first side of the main tube; and a connector being coupled to the second end of the main tube, the connector comprising a collar with internal threads, the internal threads of the collar being configured for engaging external threads of a hose to couple the hose to the main tube.