March 16, 1954 R. ZIPPERLIN 2,671,916

POT WASHER

Filed July 19, 1949 2 Sheets-Sheet 1

Fig. 1.

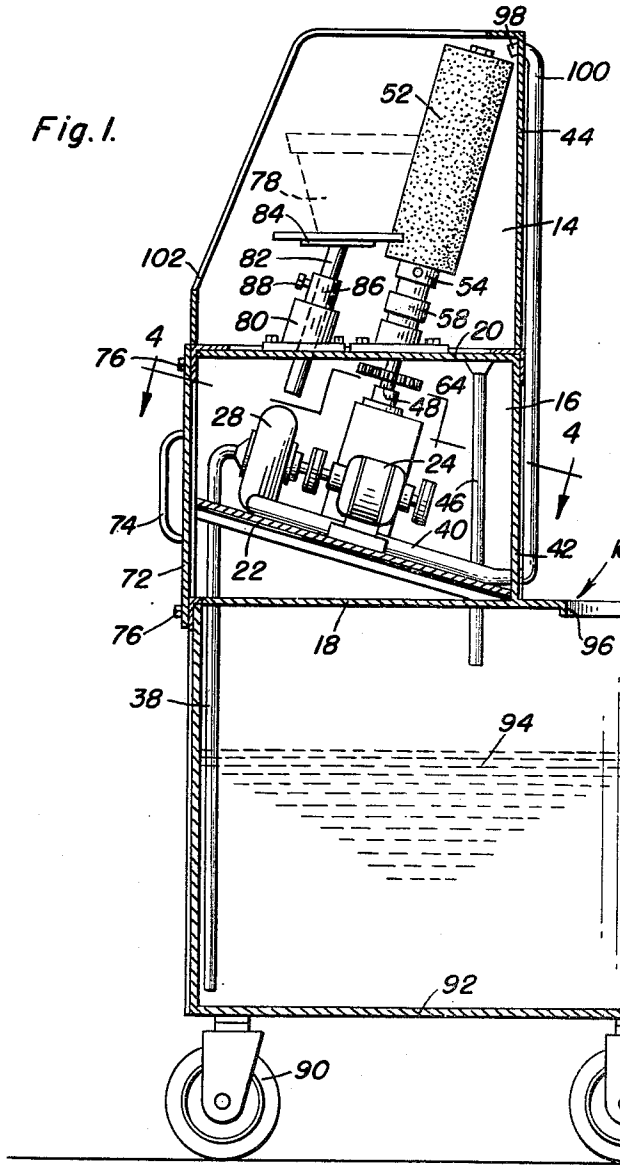
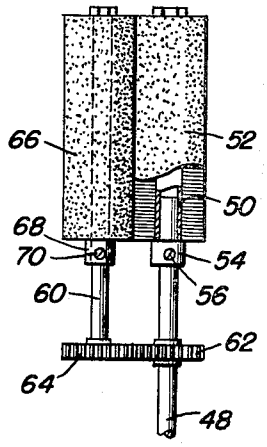


Fig. 5.



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Fig. 2.

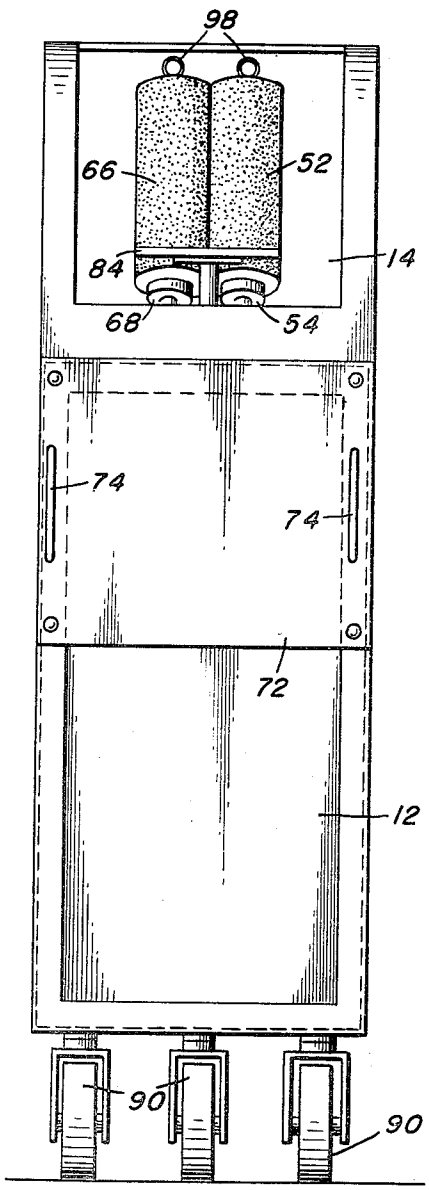


Fig. 3.

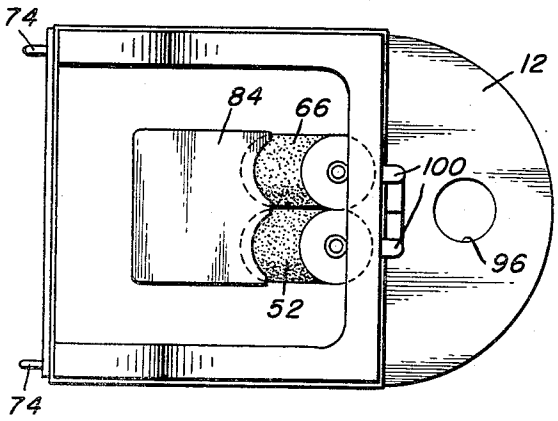
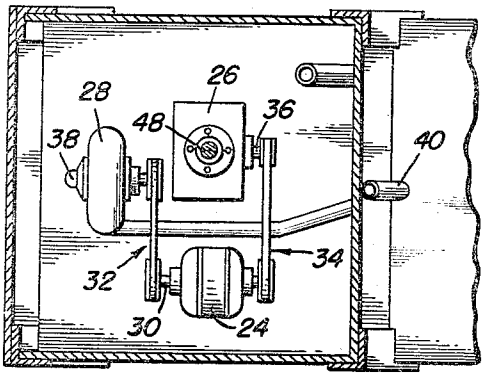


Fig. 4.



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Patented Mar. 16, 1954 2,671,916

UNITED STATES PATENT OFFICE

2,671,916

POT WASHER

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Application July 19, 1949, Serial No. 105,473

5 Claims. (Cl. 15—56)

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This invention relates to new and useful improvements in washing machines and the primary object of the present invention is to provide a machine for washing and cleaning flower pots.

Another important object of the present invention is to provide a pot washing machine carrying its own water supply and means for directing the water to a plurality of rotatable cleaning members or brushes.

Yet another important object of the present invention is to provide a flower pot washing machine including a plurality of rotary cleaning members or brushes that will rotate at a relatively low speed so as to obviate the splashing of water or a cleaning medium from the machine.

A further object of the present invention is to provide a portable flower pot washing machine mounted on wheels so that the same can be quickly and readily moved to a convenient location for the washing of flower pots.

A still further aim of the present invention is to provide a machine for removing moss and dirt crusts on flower pots that is simple and practical in construction, strong and reliable in use, small and compact in structure, neat and attractive in appearance, relatively inexpensive to manufacture, efficient and durable in operation, and otherwise well adapted for the purposes for which the same is intended.

Other objects and advantages reside in the details of construction and operation as more fully hereinafter described and claimed, reference being had to the accompanying drawings forming part hereof, wherein like numerals refer to like parts throughout, and in which:

Figure 1 is a longitudinal vertical sectional view of the present flower pot washing machine and showing a pot, in dotted lines, in contact with the rotary brushes;

Figure 2 is a front elevational view of the present flower pot washing machine;

Figure 3 is a top plan view of Figure 2;

Figure 4 is a transverse sectional view taken substantially on the plane of section line 4—4 of Figure 1; and

Figure 5 is an enlarged detail view partly in section and partly in elevation, showing the manner in which the rotary brushes are secured together for rotation in opposite directions.

Referring now to the drawings in detail, wherein for the purpose of illustration there is disclosed a preferred embodiment of the present invention, the numeral 10 represents a wheeled support generally including a lower compartment or reservoir 12, an upper compartment 14 and

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an intermediate compartment 16. The upper wall 18 of the lower compartment 12 also constitutes the bottom wall for the intermediate compartment 16, and the upper wall 20 of the intermediate compartment 16 also constitutes the bottom wall for the upper compartment 14.

An upwardly and forwardly inclined supporting platform or wall 22 is suitably fixed within the intermediate compartment 16 and supports a motor 24, a reduction gear housing 26 and a pump unit 28. The ends of the drive shaft 30, for the motor 24, are connected by suitable drives 32 and 34, respectively, to the drive shaft of the pump unit 28 and to the drive shaft 36 of the reduction gear housing 26.

The intake side of the pump unit 28 is provided with an inlet conduit 38 that extends through the wall 18 and into the lower compartment 12. The outlet side of the pump unit 28 is provided with a supply or outlet conduit 40 that extends through the rear wall 42 of the intermediate compartment 16 and which extends upwardly to enter the rear wall 44 of the upper compartment 14. A drain pipe 46 depends from the upper wall 20, extends through the upper wall 18 of the lower compartment 12 and the upper end of the drain pipe 46 is concentric with a suitable opening provided in the wall 20 so that a cleaning medium or solution collecting in the upper compartment 14 can pass through the drain pipe 46 and into the reservoir or lower compartment 12.

A shaft 48 rises from the reduction gear housing 26 and receives the lower end of a core 50 for a cleaning member or brush 52. A collar 54 is secured to the lower end of the core 50 and a set screw 56 threaded to the collar 54 is adjustable to bear against the shaft 48 and hence retain the brush 52 adjusted longitudinally upon the shaft 48. The shaft 48 is journaled for rotation in suitable bearings 58 mounted on the wall 20 and positioned within the upper compartment 14. A further shaft 60 is also journaled in suitable bearings, such as 58, mounted on the wall 20 and disposed within the upper compartment 14 and this latest shaft, 60, is spaced parallel to the shaft 48. The shaft 48 supports a gear 62 that meshes with a further gear 64 secured upon the shaft 60 whereby the shaft 60 will be rotated during the rotation of the shaft 48 and in a direction opposite to the directional rotation of the shaft 48. The shaft 60 is received in the core of a brush head or cleaning member 66 and a collar 68 is secured to the lower end of the core for the brush 66. This collar 68 carries a set screw 70 that will bear against the shaft

60 in order to retain the brush 66 adjusted longitudinally upon the shaft 60.

In order to service the elements within the intermediate compartment 16, the compartment 16 is provided with a removable forward wall or closure 72 having hand-grips 74 mounted thereon. By removing the fasteners 76 securing the closure 72 to the support 10, an opening, sufficiently large as to permit manipulation of tools within the compartment 16 for adjusting or servicing the various parts located therein, will be present in the compartment 16.

Means is provided for holding a flower pot, such as 78, in position to be engaged by the rotary brushes or cleaning members 52 and 66. This means comprises a sleeve or bearing 80 that is detachably secured to the wall 20 and which is disposed in the upper compartment 14. The bearing 80 slidably receives a post or arm 82 the upper end of which supports a pedestal or base 84, it being understood that the bearing 80 and post 82 extend upwardly and rearwardly from the wall 20 and are spaced parallel to the axes of the brushes 52 and 66 whereas the pedestal 84 is disposed in a substantially horizontal plane in order that the conical surface of the flower pot 78 can be contacted by the upwardly and rearwardly extending brushes 52 and 66. A collar 86 is adjustable on the post 82 by a set screw 88 and the collar 86 will bear upon the upper end of the bearing 80 in order to retain the pedestal 84 in a selected adjusted position, depending, of course, upon the size of the flower pot that is to be supported upon the pedestal 84.

Any suitable number of casters 90, preferably of the ball bearing type, are secured to the bottom wall 92 of the lower compartment 12 in order that the structure 10 can be moved from one location to another in a convenient manner.

In practical use of the present invention, a suitable cleaning medium or solution 94 is placed within the lower compartment 12 through an inlet opening 96 formed in the upper wall 18. When the motor 24 is in operation, the cleaning medium 94 will be raised in the conduit 38 and forced through the conduit 40 to the upper outlet end 98 of branch pipe 100 extending from the conduit 40. The outlet ends 98 are disposed directly above the upper ends of the brushes or cleaning members 52 and 66.

The forward wall of the upper compartment 14 is formed with an entrance opening 102 and the upper wall of the upper compartment 14 is likewise formed with an opening so that the flower pot 78 can be placed upon the pedestal 84.

As the motor 24 rotates the shaft 48 the brushes 52 and 66 will rotate to clean moss or dirt crusts from the outer surface of the flower pot 78.

In view of the foregoing description taken in conjunction with the accompanying drawings it is believed that a clear understanding of the construction, operation and advantages of the device will be quite apparent to those skilled in this art. A more detailed description is accordingly deemed unnecessary.

It is to be understood, however, that even though there is herein shown and described a preferred embodiment of the invention the same is susceptible to certain changes fully comprehended by the spirit of the invention as herein described and the scope of the appended claims.

Having described the invention, what is claimed as new is:

1. A flower pot washing machine comprising a wheeled support including a reservoir and an upper compartment supported in juxtaposition over the reservoir and having a forward wall with a pot receiving opening therein, a pair of oppositely rotating spaced parallel upwardly and rearwardly extending rotary cleaning members in said compartment behind the opening, means operatively connected to the members for rotating the members, means for supplying a cleaning medium in the reservoir to the cleaning members and including discharge conduits having discharge ends overlying the members, and a vertically adjustable horizontal platform disposed behind the opening and in front of the cleaning members, whereby a pot may be manually moved on the platform into engagement with the cleaning members.

2. A flower pot washing machine comprising a wheeled support including a reservoir and an upper compartment supported in juxtaposition over the reservoir and having a forward wall with a pot receiving opening therein, a pair of oppositely rotating spaced parallel upwardly and rearwardly extending rotary cleaning members in said compartment behind the opening, means operatively connected to the members for rotating the members, means for supplying a cleaning medium in the reservoir to the cleaning members and including discharge conduits having discharge ends overlying the members, and a vertically adjustable horizontal platform disposed behind the opening and in front of the cleaning members, whereby a pot may be manually moved on the platform into engagement with the cleaning members, said means for supplying a cleaning medium in the reservoir to the cleaning members including a pump operated by the same means that rotates the cleaning members.

3. A flower pot washing machine comprising a wheeled support including an upper compartment having a forward wall with a pot receiving opening, a lower compartment and an intermediate compartment, a plurality of upwardly and rearwardly extending spaced parallel rotary cleaning members mounted within the upper compartment behind the opening, a vertically adjustable horizontal platform disposed in the upper compartment in front of the cleaning members for holding a flower pot in position to be engaged by the cleaning members, said lower compartment constituting a reservoir, means associated with each of the compartments for supplying the cleaning members with a cleaning solution from the lower compartment, and means disposed in the intermediate compartment for rotating the cleaning members.

4. A flower pot washing machine comprising a wheeled support including an upper compartment having a forward wall with a pot receiving opening, a lower compartment and an intermediate compartment, a plurality of upwardly and rearwardly extending spaced parallel rotary cleaning members mounted within the upper compartment behind the opening, a vertically adjustable horizontal platform disposed in the upper compartment in front of the cleaning members for holding a flower pot in position to be engaged by the cleaning members, said lower compartment constituting a reservoir, a pump housed in said intermediate compartment and having an intake conduit and an outlet conduit, the inlet conduit extending into the lower compartment, the outlet conduit entering the upper compartment for supplying a cleaning medium to the cleaning members, a common power means

for rotating said cleaning members and for operating said pump, and a downwardly and rearwardly extending wall mounted in said intermediate compartment and supporting said power means and said pump.

5. A flower pot washing machine comprising a wheeled support including an upper compartment having a forward wall with a pot receiving opening, a lower compartment and an intermediate compartment, a plurality of upwardly and rearwardly extending spaced parallel rotary cleaning members mounted within the upper compartment behind the opening, a vertically adjustable horizontal platform disposed in the upper compartment in front of the cleaning members for holding a flower pot in position to be engaged by the cleaning members, said lower compartment constituting a reservoir, a pump housed in said intermediate compartment and having an intake conduit and outlet conduit, the inlet conduit extending into the lower compartment, the outlet conduit entering the upper compartment for supplying a cleaning medium to the cleaning members, a common power means for

rotating said cleaning members and for operating said pump, and a drain pipe extending from the upper compartment through the intermediate compartment and into the lower compartment.

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