March 12, 1935. A. C. JACKSON 1,994,085

FOUNTAIN BRUSH OR MOP

Filed July 27, 1933 2 Sheets-Sheet 1

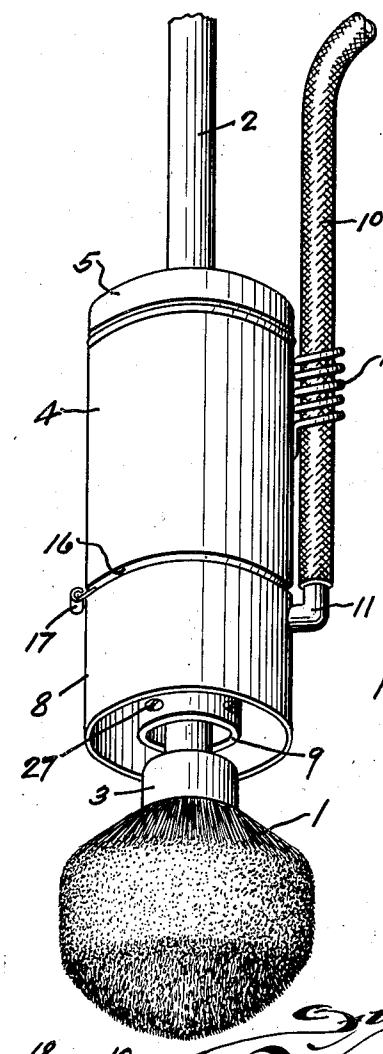


Fig. 1

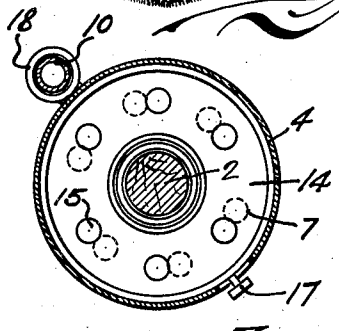


Fig. 3

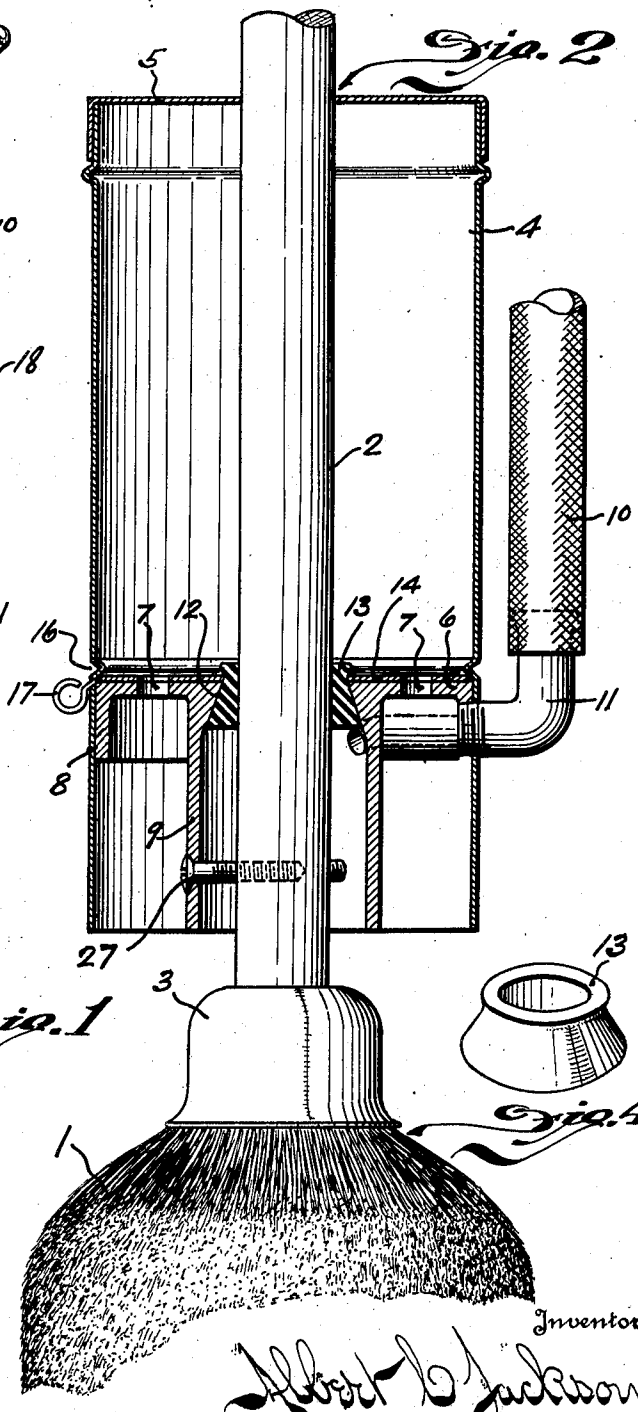


Fig. 2

Fig. 4

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FOUNTAIN BRUSH OR MOP

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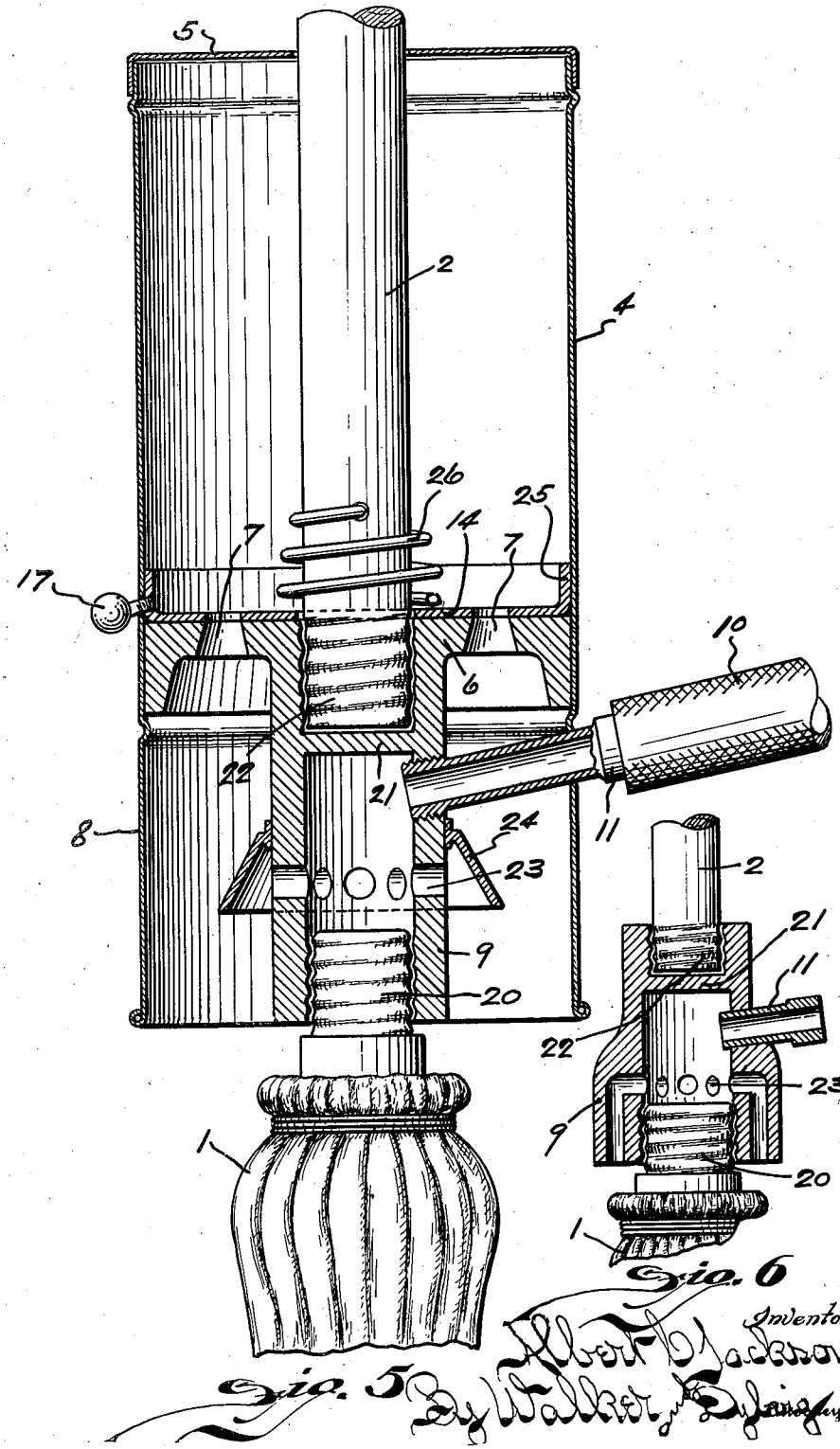


Fig. 6

Fig. 5

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FOUNTAIN BRUSH OR MOP

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Application July 27, 1933, Serial No. 682,417

23 Claims. (Cl. 15—129)

This invention relates to brushing and mopping, and more particularly to a fountain scrub brush or mop having associated therewith a reservoir for dry detergent material.

In the preferred embodiment of the invention a water supply conduit discharges onto the brush or mop head, above which is located a shaker type of dispensing reservoir for cleansing material, and having regulatory means controlling the discharge, the water and cleanser supplies being discharged separately and intermixed upon the brush head or upon the adjacent surface being cleaned.

The object of the invention is to improve the construction as well as the means and mode of operation of such scrubbing devices whereby they will not only be cheap in construction and capable of being economically manufactured, but will be more efficient in use, uniform in operation, adapted to discharge cleansing material substantially automatically in approximately measured quantity, and unlikely to get out of repair.

A further object of the invention is to provide a scrubbing device which will be convenient for the housewife, and will discharge the water supply and cleanser supply close to the point of operation, enabling the housewife to manipulate the water supply, the cleanser supply and the scrubbing brush itself all with one hand operation.

A further object of the invention is to provide the cleanser reservoir in such relation to the brush that the material will be uniformly distributed over the brush and adjacent surface being cleaned.

A further object of the invention is to provide a supply reservoir for the cleanser from which the material may be automatically discharged by the to and fro movement of the device during operation, or may be intermittently discharged as required.

A further object of the invention is to provide a combination device of convenient shape, compact form, and light weight, which may be easily manipulated.

A further object of the invention is to provide an improved form of discharge nozzle for the water supply.

A further object of the invention is to provide means for discharging the water supply and the cleanser supply concentrically with each other and with the brush.

A further object of the invention is to provide means for distributing the water supply and also distributing the cleanser supply uniformly about the brush.

A further object of the invention is to provide a balanced combination device which may be operated in any direction with equal facility.

A further object of the invention is to provide a unitary device wherein the supply reservoir is concentrically disposed with the brush or mop head.

A further object is to provide a combined fountain brush and cleanser reservoir embodying the structural characteristics and features of advantage herein disclosed.

With the above primary and other incidental objects in view, as will more fully appear in the specification, the invention consists of the features of construction, the parts and combinations thereof, and the mode of operation, or their equivalents, as hereinafter described and set forth in the claims.

Referring to the accompanying drawings, wherein is shown the preferred but obviously not necessarily the only forms of embodiment of the invention, Fig. 1 is a perspective view of the assembled scrubbing device, forming the subject matter hereof. Fig. 2 is a vertical sectional view. Fig. 3 is a transverse sectional plan view. Fig. 4 is a detail perspective view of a sealing collar. Fig. 5 is a vertical sectional view of a modification. Fig. 6 is a detail sectional view, illustrating a further modification.

Like parts are indicated by similar characters of reference throughout the several views.

In the drawings, 1 indicates a scrubbing or applicator head which may be either a scrubbing brush or a mop which is provided with an axially aligned handle shaft 2. The top of the brush or mop head 1 is preferably provided with a metal cap 3 which directs the water discharge outwardly onto the brush or mop head. Surrounding the handle shaft 2 is a reservoir or container 4 for dry cleansing material having a removable top or cover 5. The cleanser reservoir 4 is provided with a shaker bottom comprising a head 6 having therein an annular series of holes 7 through which the contents of the reservoir 4 may be discharged downwardly onto the brush head or mop 1 and onto the surface adjacent thereto to be cleansed. The discharge of dry cleansing powder or other material is confined and directed by a dependent skirt 8, forming a continuation of the wall of the reservoir 4 projecting below the head 6 and forming a discharge nozzle for the cleansing material surrounding the handle shaft 2 in concentric relation.

Interiorly of the cleansing material discharge nozzle, formed by the dependent skirt 8 of the reservoir, is a dependent tubular neck 9 disposed in concentric relation with the handle shaft 2 and forming thereabout a discharge nozzle for water, to which leads a water supply conduit 10 connected by a suitable fitting 11. At its upper end the neck or water nozzle portion 9 is convergent or inwardly tapered at 12, thus forming a tapered seat for a sealing collar 13 of rubber, which being forced tightly within the tapered seat and about the handle shaft 2, prevents any back pressure from the concentric water discharge nozzle 9 into the reservoir 4. The sealing collar 13 is preferably of rubber and is of sufficient length to project slightly beyond the head 6 into the interior of the reservoir 4 where it expands slightly beyond the head to resist displacement.

Interiorly of the reservoir 4 and resting upon the perforated head 6 is an annular closure plate 14 capable of limited rotary adjustment by which a series of holes 15 therein are moved into and out of registry with the holes 7 of the shaker head 6. This closure plate 14 is confined by a peripheral bead 16 in the side wall of the reservoir 4 overhanging the closure plate, and is provided with a finger extension 17 projecting through a suitable slot in the side wall of the reservoir by which the plate may be manually adjusted to open and close the discharge openings 7 to greater or less degree. A helical coil 18, attached to the side of the reservoir 4, surrounds the water supply conduit 10 and prevents kinks at its connection with the fitting 11.

In Figure 5 there is shown a modification wherein the brush or mop head 1 and the handle shaft 2 are not directly connected, as shown in Fig. 2, but are coupled together by the water discharge nozzle 9 dependent from the shaker head 6 of the cleanser reservoir. The mop or brush head 1 is formed with a short screw threaded stub end 20 having screw threaded engagement in the dependent hollow concentric water discharge portion 9. The discharge nozzle 9 is provided with a transverse wall or head 21 adjacent to its upper end, above which there is formed a screw threaded socket 22 in which is received the lower end of the handle shaft 2. The water discharge nozzle 9 being closed at its end by the inserted stub end of the applicator head is provided with laterally disposed discharge orifices 23, overhanging which is an outwardly and downwardly inclined deflector hood 24 which directs the water discharge downwardly onto the brush or mop head and also directs the discharged cleanser material falling from the opening 7 in the shaker head 6 so that the cleanser material and water do not intermix to any great extent until they reach the brush head or mop. In this form of device a fitting 11 extends laterally through the dependent skirt 8 of the reservoir and through the wall of the water discharge nozzle 9 to which is connected a hose or other water supply conduit 10. The closure plate, located interiorly of the reservoir 4 and having holes moved into and out of registry with the discharge holes 7, as before described, is provided with an upstanding marginal flange 25 contacting the interior wall of the reservoir and the closure plate is held in close contact engagement with the perforated shaker head 6 by means of a helical expansion spring 26, surrounding the handle shaft 2, one end of which is directly connected with the handle shaft, while the other end bears yieldingly upon the adjustable closure plate.

In Fig. 6, there is shown a further modification wherein the hood or overhanging deflector portion is extended straight downwardly in concentric relation about the brush or mop head receiving end of the nozzle. It is obvious that such construction is usable with a fountain brush or mop, either with or without the addition of the cleanser dispensing reservoir. Radially disposed screws 27 extend through the dependent water discharge nozzle 9 into engagement with the handle shaft 2, as shown particularly in Figs. 1 and 2.

From the above description it will be apparent that there is thus provided a device of the character described possessing the particular features of advantage before enumerated as desirable, but which obviously is susceptible of modification in its form, proportions, detail construction and arrangement of parts without departing from the principle involved or sacrificing any of its advantages.

While in order to comply with the statute, the invention has been described in language more or less specific as to structural features, it is to be understood that the invention is not limited to the specific features shown, but that the means and construction herein disclosed comprise the preferred form of several modes of putting the invention into effect, and the invention is therefore claimed in any of its forms or modifications within the legitimate and valid scope of the appended claims.

Having thus described my invention I claim:

1. In a fountain scrubbing device, an applicator head, a handle shaft, a reservoir for cleansing material concentrically disposed with the handle shaft, a water nozzle concentric with the handle shaft intermediate the cleanser reservoir and the applicator, a water supply conduit leading to the nozzle, a shaker bottom for the reservoir located in elevated relation above the water nozzle and discharging upon the applicator concentrically with the water nozzle and a regulator for the shaker bottom.

2. In a fountain scrubbing device a scrubbing head, a water discharge nozzle concentrically disposed relative thereto, a cleanser discharge device associated therewith for separately discharging dry cleanser material coincident with the area supplied with water from said nozzle, and means for simultaneously supplying water and cleansing material.

3. In a fountain scrubbing device, a scrubbing head, a cleanser discharge means concentrically disposed relative thereto for discharging dry cleanser material, a concentric water discharge nozzle directing a water supply onto the area supplied with cleanser material, the water and cleanser material being discharged separately and apart from each other, and means for simultaneously supplying water and cleanser material.

4. In a cleaning device, an applicator head, a handle shaft, a reservoir for dry cleanser material disposed concentrically of the handle shaft above the applicator head, a sifter bottom for the reservoir discharging onto the applicator head, and a regulator for the sifter bottom.

5. In a scrubbing device, an applicator head, an axial shaft, a reservoir for dry cleanser material surrounding the shaft, a bottom member for said reservoir including an integral dependent concentric hollow neck, a water supply conduit leading thereto, a series of sifter holes in the bottom member, outside said neck a rotary closure having holes movable into and out of reg-

istry with those of the bottom for regulating the discharge of cleanser.

6. In a scrubbing device, an applicator head, an axial shaft, a reservoir for dry cleanser material surrounding the shaft, a bottom member for the reservoir having discharge openings therein for the dry cleanser material and including a central tubular neck portion of larger interior diameter than the handle shaft through which the handle shaft extends, said neck being interiorly tapered, a sealing bushing surrounding the handle shaft and compressed in the tapered portion of the neck, a water supply conduit leading to said neck.

7. In a scrubbing device, an applicator head, a handle shaft, a reservoir for dry cleanser material surrounding the handle shaft in elevated relation above the head and a sifter bottom for the reservoir having outlet orifices disposed in radially offset relation with the handle shaft for discharging cleanser material upon the applicator.

8. In a scrubbing device, an applicator head, a handle shaft, a reservoir for dry cleanser material surrounding the handle shaft in elevated relation above the head, a sifter bottom for the reservoir having outlet orifices disposed in radially offset relation with the handle shaft for discharging cleanser material upon the applicator, a water discharge nozzle concentric with the handle shaft, and a water supply conduit leading thereto.

9. In a scrubbing device, an applicator head, a handle shaft, a reservoir for dry cleanser material through which the handle shaft extends, a perforated bottom for the reservoir, and a dependent skirt upon the reservoir extending below the perforated bottom confining the discharge of cleanser material and directing same onto the applicator head.

10. In a scrubbing device, an applicator head, a handle shaft, a pair of concentric relatively spaced dependent tubular extensions surrounding the handle shaft in spaced relation with each other and with the handle shaft, supply means discharging dry cleanser material through one of the extensions and supply means discharging water through the other extension.

11. In a scrubbing device, an applicator head, a handle shaft aligned therewith, discharge nozzles for water and dry cleanser material peripherally surrounding the shaft, and means for separately supplying water and cleanser material thereto.

12. In a scrubbing device, an applicator head, a handle shaft aligned therewith, a water discharge nozzle having an annular discharge outlet surrounding the handle shaft and discharging exteriorly thereof onto the head, a lateral water supply conduit communicating with the discharge nozzle and a closure for the upper end of said nozzle.

13. In a scrubbing device, an applicator head, a shaft therefor, a reservoir for dry cleansing material surrounding the handle shaft, a shaker bottom for the reservoir having a plurality of discharge openings arranged in radially offset relation with the shaft to discharge the cleanser material concentrically with the applicator head, and an adjustable control device for the shaker bottom.

14. In a scrubbing device, an applicator head, a handle shaft therefor, a reservoir for dry cleanser material surrounding the handle shaft, a discharge nozzle for the dry material peripherally surrounding the shaft in relation concentric with the applicator head, and control means for regulating the discharge.

15. In a scrubbing device, an applicator head, a handle shaft therefor, a reservoir for dry cleansing material located in spaced relation above the applicator head and surrounding the shaft through and beyond which the handle shaft extends and having a discharge outlet in its bottom in radially offset relation with the handle shaft, an adjustable control plate concentrically mounted in contiguous relation to the bottom of the reservoir for regulating the discharge, an extension on said plate extending through a slot in the reservoir wall by which the plate may be rotatively adjusted, and means for holding the plate in close relation with the bottom of the reservoir while permitting relative rotary adjustment thereof.

16. In a scrubbing device, an applicator head, a handle shaft therefor, a reservoir for dry cleansing material surrounding the shaft and having a discharge outlet in its bottom, an adjustable control plate concentrically mounted in contiguous relation to the bottom of the reservoir for regulating the discharge, an internal peripheral bead formed in the wall of the reservoir overhanging the margin of the control plate for retaining the plate in close relation with the bottom of the reservoir, and means for manually adjusting the plate.

17. In a scrubbing device, an applicator head, a handle shaft therefor a reservoir for dry cleansing material surrounding the shaft and having a discharge outlet in its bottom, an adjustable control plate concentrically mounted in contiguous relation to the bottom of the reservoir for regulating the discharge, an expansion spring having one end attached to the handle shaft and its opposite end bearing upon said control plate for yieldingly holding the plate in close relation with the bottom of the reservoir, and means for manually adjusting the plate.

18. In a scrubbing device, an applicator head, a handle shaft therefor, a reservoir for dry cleansing material surrounding the shaft and having a discharge outlet in its bottom, an adjustable control plate concentrically mounted in contiguous relation to the bottom of the reservoir for regulating the discharge, a resilient member mounted within the reservoir and exerting pressure upon said control plate for yieldingly holding the plate in close relation with the bottom of the reservoir, and means for manually adjusting the plate.

19. In a fountain scrubbing device, an applicator head, an axial shaft upon which the head is carried, a water discharge nozzle surrounding the shaft and discharging exteriorly thereof onto the applicator head, and a reservoir for cleansing material also surrounding the applicator shaft and having a discharge outlet exteriorly of the water discharge nozzle discharging cleansing material onto the applicator head independently of the water supply.

20. In a fountain scrubbing device, an applicator head, a handle shaft upon which the head is carried, a water discharge nozzle through which the handle shaft extends in concentric relation therewith and discharging onto the head exteriorly of the handle shaft in radially offset relation therewith.

21. In a fountain scrubbing device, an applicator head, an axial shaft by which the head is carried, a sleeve through which the shaft extends in concentric spaced relation, and a water supply

conduit discharging through said sleeve exteriorly of the shaft onto the applicator head.

22. In a fountain scrubbing device, an applicator head, an axial shaft by which the head is carried, a sleeve surrounding the shaft in concentric spaced relation through which water is discharged exteriorly of the shaft onto the applicator head, a water supply conduit leading thereto, and a cleanser supply reservoir surrounding the shaft and having an outlet orifice discharging cleansing material onto the applicator head exteriorly of the water discharge sleeve and separately from the water discharge.

23. A scrubbing device including a scrubbing head, a wooden handle shaft to which the scrubbing head is directly connected, a tubular water discharge sleeve through which the wooden handle shaft extends in spaced relation with the tubular wall thereof with the scrubbing head projecting beyond one extremity of the tubular sleeve and the hand grasp portion of the shaft projecting beyond the opposite extremity of the said sleeve, the latter end of the sleeve being sealed about the shaft, and a water supply connection communicating with the space intermediate the shaft and the sleeve.

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