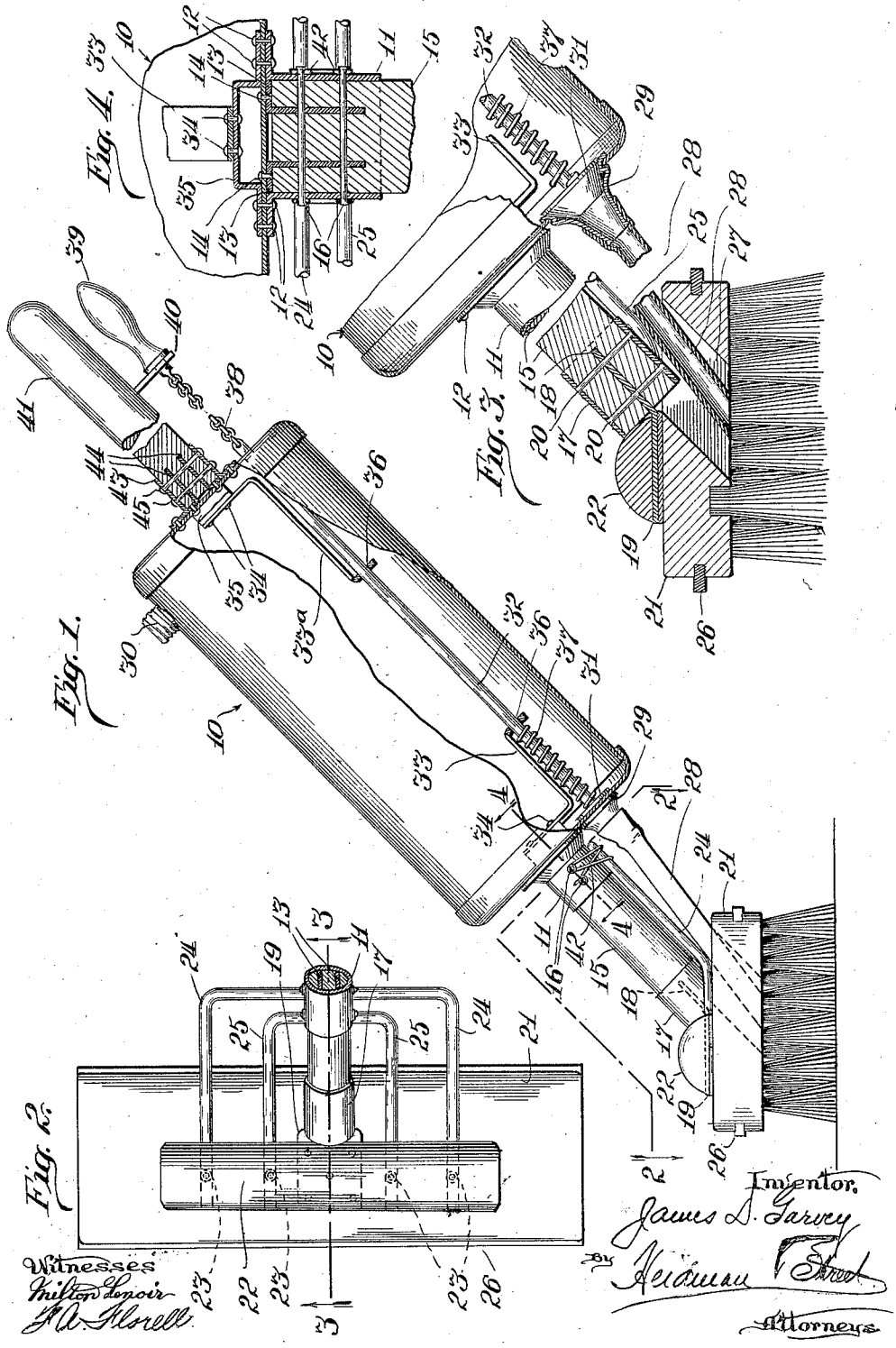
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J. D. GARVEY

BRUSH

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UNITED STATES PATENT OFFICE.

JAMES D. GARVEY, OF CHICAGO, ILLINOIS.

BRUSH.

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To all whom it may concern:

Be it known that I, JAMES D. GARVEY, a citizen of the United States, and a resident of Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Brushes, of which the following is a description, reference being had to the accompanying drawing, which forms a part of my specification.

My invention relates to improvements in brushes, known as the fountain type, wherein a liquid-containing reservoir, having a controllable outlet communicating with the brush proper, is provided; the flow of the liquid being readily controlled by the operator from a point on the handle of the brush.

The invention contemplates a construction which is especially adapted for use as a scrubbing brush which will permit the use of strong solutions without necessitating contact of the operator's hand with the brush proper and therefore with the solution.

A further object of my invention is to provide a construction having the necessary strength and rigidity and wherein the respective parts may be easily assembled and readily removed for repair as will be apparent from the detailed description of the accompanying drawing, wherein:—

Figure 1 is a partial side and longitudinal sectional view, with portions broken away, illustrating my invention.

Figure 2 is a detail cross sectional view taken substantially on the line 2—2 of Figure 1 looking in the direction of the arrows.

Figure 3 is a longitudinal sectional view, with portions broken away, of the brush proper, the lower part of the reservoir and intermediate elements and taken substantially on the line 3—3 of Figure 2.

Figure 4 is a detail sectional view taken on the line 4—4 of Figure 1 looking in the direction of the arrows.

The invention, as exemplified in the drawing, comprises a suitable fluid container or receptacle 10 of any desired capacity and preferably made cylindrical or elongated as shown. The container 10 is provided with closed ends formed to produce a fluid-tight receptacle. The lower end or bottom of the receptacle, preferably at a point in alignment with the longitudinal axis of the receptacle and to the exterior thereof is provided with a flanged ferrule or band 11; the flanged portion thereof being suitably secured to the bottom of the receptacle as for example by riveting as shown at 12, in Figure 4. Arranged within the ferrule 11 are a pair of metallic angle members or prongs 13, 13 riveted at 14 to the receptacle bottom so as to have the long leg or side of each angle member disposed lengthwise of the ferrule 11, to constitute prongs, as clearly shown in Figure 4. The elements thus far described are preferably formed of suitable metal, while the short rod or member 15 is preferably of wood and circular in cross-section. The wood member 15 is adapted to fit into the ferrule 11 and is provided with slits adapted to receive the depending sides or legs of the angle members 13, 13 in the upper end thereof. The ferrule 11, as well as the angle members 13 and the rod or member 15, are provided with registering apertures disposed transversely therethrough to receive the dowels or pins 16, 16 whereby the respective elements are secured together and maintained in proper relation with each other. The lower end of the rod or member 15 is also provided with a ferrule 17 and the lower end of the shaft or member 15 is also slit to receive the upwardly disposed portion 18 of an angle member or plate 19 formed of suitable metal; the slit and upwardly extended portion 18 being preferably arranged at right angles to or in a direction disposed at ninety degrees from the direction of the slits and angle members at the upper end of the rod or member 15. The rod or member 15 is also secured in the ferrule 17 and to the upwardly disposed portion 18 of angle member 19 by means of suitable dowels 20, 20 disposed transversely through the ferrule, lower end of the rod and the portion of the angle member, as clearly shown in Figure 3. The lower portion of angle member 19 is adapted to be secured on the back 21 of the brush proper by suitable screws or otherwise as shown in dotted lines in Figure 2.

The back 21 of the brush proper is also provided with a reenforcing and abutting member 22, preferably made substantially semi-cylindrical as shown in Figures 1 and 3 and adapted to be secured to the wood back 21 of the brush proper by suitable screws as shown in dotted lines in Figure 2 at 23; the bottom side of the member 22 being preferably socketed or grooved to re-

ceive the angle member 19 so as to permit member 22 to extend substantially flush with the brush-back.

The brush proper is also provided with a number of reenforcing brace members 24 and 25 shown in the nature of rods bent into somewhat U-shape as shown in Figure 2; the ends of the rods being bent so as to be disposed parallel with the brush-back, while the main portion of each brace is disposed upwardly at an inclination so as to extend parallel with the brush supporting or connecting rod 15, as shown in Figures 1 and 3; the lower surface of the member 22 being transversely socketed or grooved to receive the ends of the braces 24 and 25. The ends of the braces 24 and 25 are apertured for the passage of the screws 23 which pass through the member 22 and into the brush-back 21 and thereby firmly hold the brace members in place. The sides of the brush proper, that is the back 21 thereof, is preferably provided with a buffer strip 26 which may be in the nature of rubber inserted and secured in a suitable groove formed in the sides of the back 21 as shown in Figure 3.

The brush-back 21, at a point substantially intermediate of opposite ends thereof, is provided with a suitable passage or opening therethrough as indicated at 27 in Figure 3 adapted to receive the flexible tube or hose 28 whereby the liquid is conveyed to the bristles of the brush proper from the outlet in the container 10. The bottom of the container, intermediate of the ferrule 11 and the lower longitudinal side of the container 10, is provided with an outlet shown in the nature of an apertured boss 29 which is preferably properly tapered to receive the end of the conduit or hose 28; while the upper end of the container 10 is provided with a screw-cap 30 through which the container is filled. The upper end of the aperture in the boss 29 is preferably flared to provide a suitable seat for the conical valve 31 secured to the lower end of a rod or stem 32 which is disposed lengthwise through the container 10 and through the upper end thereof as shown in Figure 1.

The container interior is provided with a pair of metallic guide members 33, 33ª, the ends whereof are preferably bent at right angles as shown in Figure 1; member 33 being secured to and disposed upwardly from the bottom of the container while member 33ª is secured to and depends from the top of the container; one end of each member 33 and 33ª being riveted or otherwise secured, as at 34 in Figure 4, to bracket members 35 which are riveted or otherwise properly secured to the lower and upper walls of the container and on the interior thereof as shown in Figures 1 and 4. The ends of the members 33 and 33ª are formed so as to have the major portions thereof disposed in proximity to and parallel with the rod or stem 32 of the valve 31. The opposing and free ends of members 33 and 33ª are bent into the path of the valve-stem 32 and are each apertured for the passage of the valve stem as shown at 36. The valve-stem or rod 32 is shown provided with a suitable coil spring 37, one end whereof abuts against the valve 31 while the other end thereof abuts against and is held under compression by the member 33, see Figure 1. With this construction, it is apparent that the valve 31 will be forced toward and maintained on its seat through the action of the spring while easy assembling or removal of the various parts is permitted. The valve 31 is controlled by means of a chain or other suitable flexible element 38, secured to the upper end of the stem or rod 32; the outer end of element 38 being provided with a handle 39, the shank whereof passes through an eyelet or ring 40 secured to the main handle or rod 41 of the fountain brush. The valve-operating handle 39 is arranged at a point adjacent to the upper end of the main brush-handle 41 in order that the valve may be easily operated without change of position or special effort on the part of the operator. The length of the flexible connection or chain 38 is preferably just sufficient to extend from the end of the valve-stem or rod 32 to the shank of the handle 39 when the latter is seated against the holding ring or eyelet 40, at which time the valve 31 is in closed position.

The brace members 24 and 25 for the brush proper are preferably removably secured to the side of the ferrule 11 in any suitable manner, as for example by means of wires or cords which are shown threaded or laced about the intermediate portions of the brace members 24 and 25 and about the extended ends of the dowels or pins 16, as shown at 42 in Figure 1; the wire or cord being passed about the end or through apertures in the ends of the dowel-pins and wrapped about the brace members 24 and 25. This construction permits the ready removal of the brush proper for replacement or repair and obviates the necessity for replacing the entire fountain brush when merely the brush proper becomes worn.

The main handle 41 is preferably secured to the upper end of the container 10 in a manner similar to the short rod or member 15 at the lower end of the container; that is the upper end of the container 10 is provided with a flanged ferrule 43 which is riveted to the upper end of the container and is disposed about a pair of metallic angle irons or prongs 44 which are likewise secured to the container-top so as to have one side of each angle member disposed lengthwise of the ferrule 43. The handle 41 is preferably of wood and has the

lower end thereof slit at suitable points to receive the upwardly disposed ends of the angle members 44; and the ferrule member 43, angle members 44 and the handle 41 are provided with registering apertures to receive the transversely disposed dowels or pins 45 whereby the respective elements are secured together and maintained in place. The dowels are preferably made to extend slightly beyond the sides of the ferrule, with the outer ends of the dowels apertured for the passage of cotter-pins therethrough. With this construction, like the construction at the bottom of the container, it is apparent that the fountain brush may be quickly dismembered or assembled and parts thereof readily renewed or replaced when occasion requires.

The operation of my improved brush is readily apparent and is accomplished by filling the container or receptacle 10 with water or any other desired fluid. The fluid may be of any suitable temperature and provided with a strong lye solution or disinfectant, because of the fact that the operator's hands do not come into contact with the fluid while using my improved brush. The fluid will flow by gravity from receptacle 10 through the conduit or hose 28 whenever the valve 31 has been moved off its seat through an upward pull exerted by the operator on the valve-stem through the medium of handle 39; while the valve, after sufficient fluid has passed to the bristles of the brush proper for the immediate purpose, will be forced to its seat by spring 37 when the handle 39 is released. Furthermore, it is evident that the flow of fluid from the container 10 is at all times under the control of the operator so that either a continuous flow in small or large quantities may be had or an intermittent flow if desired. My improved construction permits a ready assembling of the various elements or parts of the fountain brush, as the brace members, valve and operating mechanisms may all be quickly removed or put into place by the operator.

I have shown and described what I believe to be a simple embodiment of my invention, but alterations may be made in certain details of construction without, however, departing from the spirit of my invention.

What I claim is:—

1. In a device of the character described, a fluid container, a brush having a wood back provided with an opening therethrough, an angle member secured to the brush-back so as to provide an upwardly inclining projection, a reenforcing member secured to the brush and across said angle member, a supporting stem or rod intermediate of the lower end of the container and the brush-back, the end of said supporting stem or rod being slotted to receive the upwardly extended projection of said angle member, and pins disposed transversely through the supporting stem or rod and the upwardly extended projection whereby the brush is secured to said supporting stem or rod.

2. In a device of the character described, a container having closed ends, a ferrule member secured to the lower end of said container, members secured to said end of the container and provided with downwardly disposed flanges arranged within the ferrule member, a supporting rod, one end whereof is adapted to enter said ferrule and slotted to receive the flanges of the members secured to the container-bottom, means whereby the supporting rod and the flange portions of the members are secured together, and a brush secured to the lower end of said rod.

3. In a device of the character described, provided with a fluid holding container the lower end whereof is provided with a valved outlet, a brush provided with an opening in the back thereof, a supporting rod intermediate of the lower end of the container and the brush-back, means whereby the rod is secured to the container and the brush-back, brace members secured in spaced relation to the brush-back and arranged parallel with said supporting rod and secured thereto, and a conduit leading from the valved outlet in the container to the aperture in the brush-back.

JAMES D. GARVEY.

Witnesses:
DAVID D. BURRIS,
GEORGE W. PRYOR.