

[54] **CARPET AND RUG CLEANING IMPLEMENT**

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[58] Field of Search ..... **401/140, 268-270, 401/137, 8, 288, 291, 273, 5, 272-280; 15/180, 191 A**

[56] **References Cited**

**UNITED STATES PATENTS**

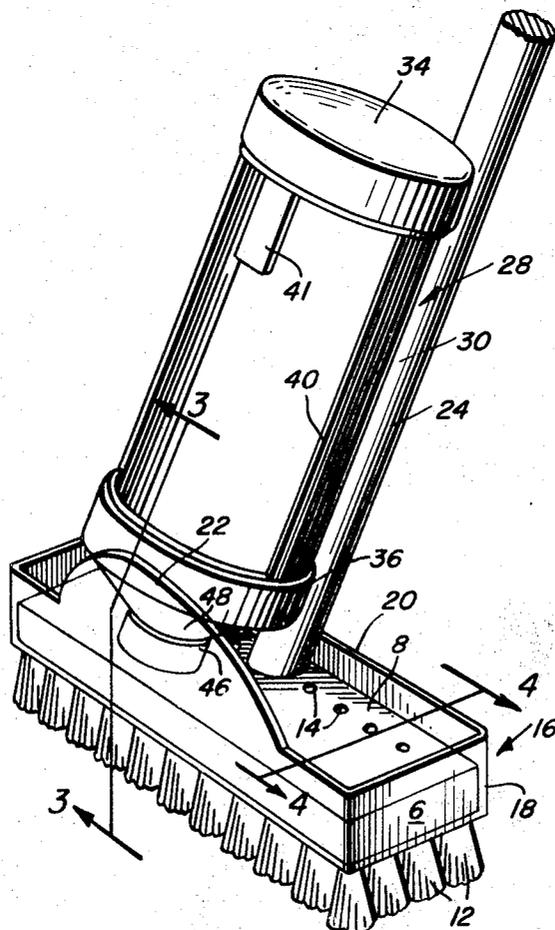
2,671,920	3/1954	Finnell .....	15/180
2,641,011	6/1953	Caronia .....	401/270 X
3,081,481	3/1963	Nohl et al. ....	401/138
2,153,207	4/1939	Petty .....	15/180

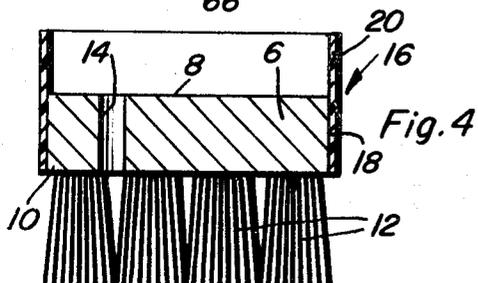
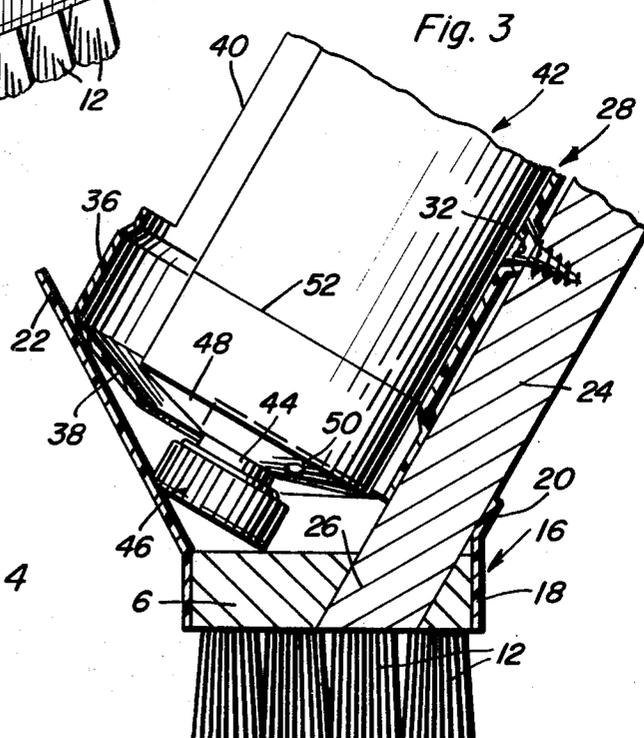
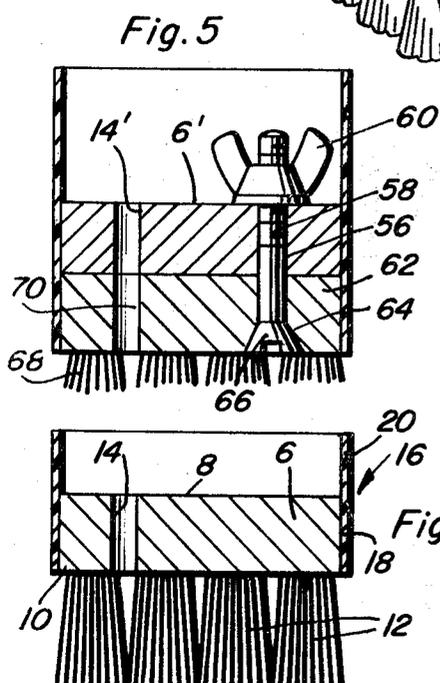
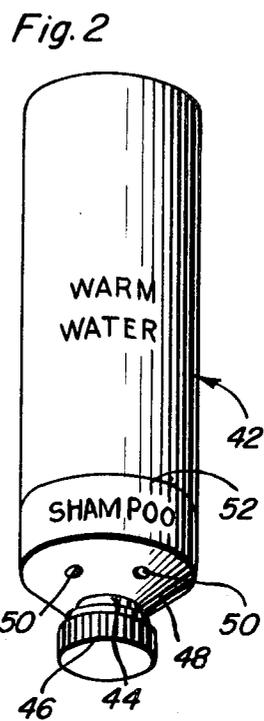
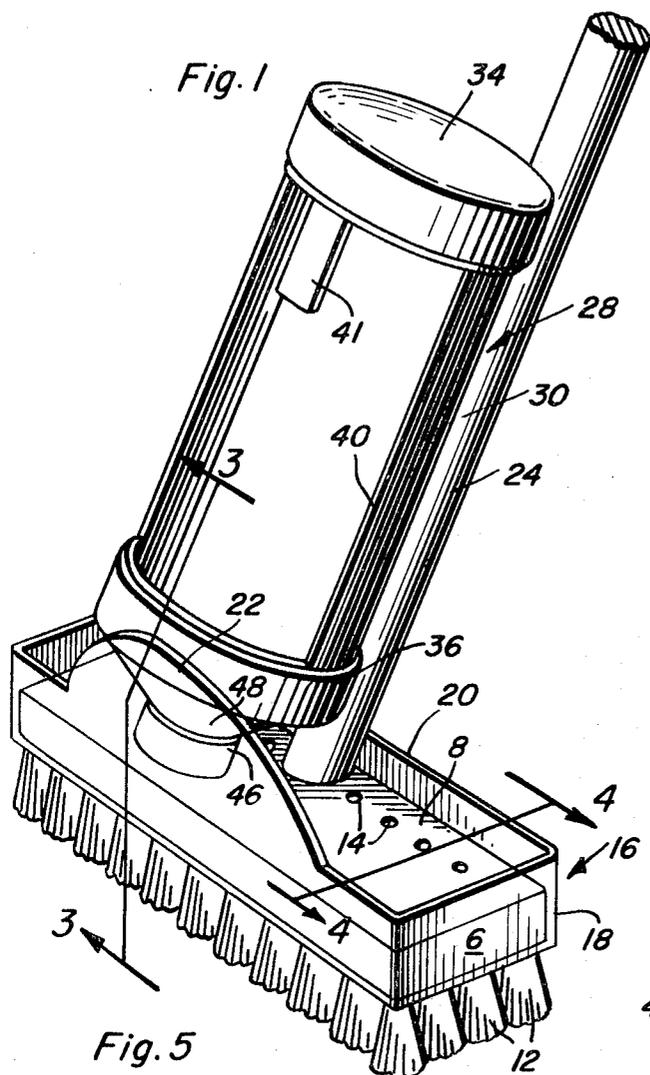
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[57] **ABSTRACT**

A manually actuatable implement for spot cleaning rugs and carpets or for cleaning entire rugs and carpets in the form of a shower washer which does not use a faucet or valve for flow control. The implement includes a brush designed to automatically control the flow of shampoo or cleaner so that the correct amount will be applied to a predetermined area. Flow of shampoo may be stopped at any time by bodily lifting and removing the source of supply. The brush embodies a rigid head provided with brushing and scrubbing bristles. The head also has vertical bores which provide fluid distributing and gravitating passages. Plastic or equivalent wall means is attached to and surrounds the marginal edges of the head. Upper projecting portions of the wall means provide endless flanges which border and rise above the top side and coact therewith in providing a tray-like fluid pooling sump. A readily applicable and removable inverted fluid containing bottle serves to deliver the fluid into the sump. This bottle is removably mounted in the hollow portion of the holder provided therefor on a portion of the handle which is adjacent and aligned with the wall means sump.

**4 Claims, 5 Drawing Figures**





## CARPET AND RUG CLEANING IMPLEMENT

The present invention relates to certain new and useful improvements in long-handled fountain-type brushes such as serve to apply and then brush and scrub a surface cleaning liquid or fluid and has to do, more particularly, with an appropriate bristled brush and means mounted on a portion of the handle of the brush for containing and dispensing the surface cleansing fluid.

With respect to the field of invention under consideration, it can be pointed out at the outset that handle-equipped fountain brushes of many and varied styles and types have been devised to enable users thereof to cope with household chores. For background purposes, reference can be made to the patent to Frank J. Caronia, U.S. Pat. No. 2,641,011, which, as will be seen, has to do with a brush with a reservoir in the head adapted to receive cleaning fluid and which is discharged onto the bristles by the movement of the brush during the cleaning operation. A comparably similar scrubbing brush of the general character herein under consideration is shown in a patent to Jesse E. Watson, Ser. No. 879,706, and a further utility brush is shown in a patent to Julius J. Lorzing, U.S. Pat. No. 1,091,888.

An object of the present invention is to improve upon prior art fountain brushes in the field of endeavor under consideration and, in so doing, to provide a simple, practical and easy-to-use brush which has no strings to pull, buttons to push, or valves to turn off and on. In fact, the construction and adaptation is such that the right amount of shampooing foam is provided to do the job with a minimum of time and labor and which functions to brush and clean the desired rug or carpet surface without damage to the rug or carpet surface, as the case may be.

Briefly, the brush is characterized by a bristled head, more particularly, a rigid block-like back provided on a bottom side with applicator and brushing bristles and which is also provided with a row of vertical bores which open through top and bottom sides of the back and constitute fluid distributing and gravitating passages. Sheet plastic wall means surrounds and is affixed to marginal edge portions of the back and has upper endless flange portions which border and rise above the top side and coact with the top surface in providing a tray-like fluid pooling sump or trough. A push-pull handle has its lower end secured to a median portion of the back of the brush. Novel holder means is mounted on the handle and is cooperatively aligned with the receptacle portion of the sump. The holder means serves to accommodate a readily insertable and removable container and dispenser, more explicitly, a plastic bottle containing water and rug shampoo and which functions to achieve the desired end result in a novel and improved manner.

More specifically, novelty is predicated on the aforementioned upstanding encompassing flange means wherein a forward median portion of a front flange is provided with an integral upstanding sector-shaped anti-splash shield which assists in confining the trapped fluid in the receptacle portion of the sump. In addition, the holder has an open bottom provided with a ledge to support the capped end of the inverted fluid containing and dispensing bottle. The major front part of the body portion of the holder is open to provide the de-

sired ways and means of bodily inserting and removing the gravity feeding and dispensing bottle. Further, an upper end portion of the entrance opening is provided with a depending flexible tongue or tab which not only facilitates inserting and removing the dispensing bottle but functions to hold it in place once it is in its set position.

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, and in which:

FIG. 1 is a view in perspective of a carpet and rug cleaning implement constructed in accordance with the principles of the present invention with a portion of the handle broken away.

FIG. 2 is a view in perspective of the insertable and removable dispensing container or bottle.

FIG. 3 is an enlarged detailed section taken approximately on the plane of the vertical section line 3—3 of FIG. 2, looking in the direction of the indicating arrows.

FIG. 4 is a cross section taken approximately on the plane of the section line 4—4 of FIG. 1.

FIG. 5 is a cross section similar to FIG. 4 but illustrating a detachable brush head construction.

The bristled brush is, generally stated, similar to brushes which are commonly used in this field of endeavor in that it comprises an elongated block-like back or backing member which is denoted by the numeral 6. The flat top side is denoted at 8 and the flat bottom side at 10. The bottom side is provided with permanently attached suitably bunched brushing and scrubbing bristles 12. The rearward half portion of this backing member is provided with a row of bores 14 which open through the top and bottom sides of the backing member and constitute passages by way of which the cleaning fluid or liquid is discharged and fed to the bristles of the brush.

Sheet plastic wall means denoted generally by the numeral 16 is attached to and constitutes a component part of the brush unit. This is to say the plastic wall, which is preferably transparent, has a lower half portion which is here described as a flange 18 and this flange snugly surrounds and is appropriately attached to marginal edge portions of the block-like back 6. The upper half portion of the wall means also constitutes a flange 20 which is thought of as endless in form and which rises sufficiently above the top 8 to cooperate therewith in defining a fluid or liquid trapping trough or sump. This feature is also referred to as a tray-like sump and when liquid is caused to flow into the sump it is distributed over the surface 8 and flows downwardly through the passages 14 to the bristles 12 in a well known fountain-type manner. It should be noted in this connection that the height of the median front portion of the flange is increased and is substantially sector-shaped in the configuration and constitutes an anti-splash shield 22. This shield minimizes the splashing of trapped fluid onto the rug or carpet surface.

Any suitable stand-up type handle may be provided. This is a simple push-pull type handle 24 which may be four feet more or less in height. A lower end portion 26 is fitted into socket means provided therefor and is appropriately anchored in place in the manner suggested

in FIG. 3. A portion of the handle just above the trapping sump is provided with a sheet plastic holder denoted generally by the numeral 28. The holder comprises a vertically elongated cylinder 30 having portions thereof secured as at 32 to the handle (FIG. 3). An upper end portion of this cylinder is appropriately capped and closed, as at 34. The bottom portion 36 is adequately open for appropriate liquid discharge and delivery purposes and is provided with an arcuate downwardly slopping integral flange 38 which as shown in FIG. 3 constitutes a supporting ledge. The forward quarter portion 40 is open to provide an entrance opening which is of suitable width and height to permit the fluid or liquid container to be inserted and removed. This container is removably held in place by a flexible and resilient retaining tab or tongue 41 and comprises a plastic or an equivalent bottle 42 and which is shown (in FIGS. 2 and 3) in its inverted dispensing position. The filler neck 44 at one end is provided with an attachable and detachable screw cap 46. The conical connector which joins the neck with the body portion is denoted at 48 and is provided with two or more gravity discharge orifices or ports 50 by way of which the fluid is emptied from the inverted bottle into the receptacle portion of the tray or sump in the manner illustrated in FIG. 3. The numeral 52 designates an indication line which can be used as a gauge in filling the bottle in its upright (not shown) position, that is, with water and also a suitable brand of mixable shampoo.

Experimental use of a brush such as that herein shown and described has repeatedly shown that it well serves the foam carpet cleaning result for which it has been devised and successfully used. This brush functions to spot-clean rug surfaces and carpet surfaces. It serves particularly well as a labor and time saving implement for mobile home owners. It is of such construction and adaptability that virtually any brand of rug shampoo can be used therein. It is reiterated that there are no strings to pull, no buttons to push, and when once the device is set up for use as illustrated in FIG. 3, it works automatically. All that is necessary, generally stated, is to wet the brush, pour the bottle-type container 42 all but full of warm water, then pour shampoo to the top, then drop the bottle into the holder, move the brush slowly back and forth and in this manner shampoo the carpet or rug surface. Experience has shown that it is advisable to cover about 4 square feet of the cleanable surface. Then it is advisable to bodily remove the dispensing container 42 and to vigorously, but lightly, rub the surface. Usually this is done by rubbing the nap down in a single direction, after which it is allowed to dry and then promptly vacuumed. Experience has also shown that it is desirable to vacuum before the shampooing step has been initiated.

It also may be added that hooked and braided rugs had best be cleaned by hand to prevent damage to the surface. On the other hand, to clean shag rugs and carpets, the device herein shown and the method described is applicable for use. However, it is desirable to use dry foam somewhat in the following manner. This is to say it is desirable to pour the container 42 full of warm water and to wet the brush first. Dry foam is blown into the carpet surface. The surface is brushed over lightly after which the dispensing container is bodily removed. The nap of the rug or carpet is brushed one way, is allowed to dry and is then vacuumed.

When it is desired or necessary to replace the brush with a new brush or with a brush having different bristle characteristics, the structure illustrated in FIG. 5 may be employed. The block 6' is provided with vertical bores 56 which receive fastener bolts 58 having a wing nut 60 threaded onto the upper end thereof. The brush head 62 has countersunk bores 64 therein receiving the tapered head 66 on the bolt 58 and the brush head 62 also has bristles 68 thereon and is provided with bores 70 aligned with bores 14' in block 6'.

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 manually usable and actuatable implement for shampooing, brushing and cleaning rugs and carpets comprising: a brush embodying a rigid elongated back having top and bottom sides, said bottom side being provided with applicator and brushing bristles, said back also having a plurality of vertical bores opening through said top and bottom sides and constituting fluid distributing and gravitating passages, wall means encompassing and affixed to marginal edges of said back and having upper endless flange portions bordering, rising above said top side and providing a tray-like fluid trapping and pooling sump, a vertically elongated push-pull handle having a lower end secured to a median portion of said back, and a holder mounted on said handle adjacent and cooperatively aligned with the receptacle portion of said sump, said top side being horizontally elongated and flat, said holder comprising a hollow vertically fixed enclosure having a partly open bottom portion partially surrounded by a lateral turned-in downwardly sloping lip-like flange, said flange being arcuate and underlying said bottom portion and providing a support ledge for a dispensing container, said enclosure also having a closed top and a front inlet and discharge opening, and a bodily insertable and removable fluid container and dispenser fitted into and retentively enclosed in the hollow portion of said holder by way of said inlet and discharge opening, said container-dispenser comprising a bottle having a pouring neck provided with a removable closing cap and cooperatively adjacent discharge ports which are adapted to empty the fluid by way of said open bottom portion into said sump for distributive use.

2. The implement defined in and according to claim 1, and wherein a median front portion of the aforementioned endless flange is provided with an upstanding sector-shaped anti-splash shield cooperatively aligned with said handle and also said holder.

3. A manually usable and actuatable implement for shampooing, brushing and cleaning rug surfaces and carpet surfaces comprising a brush embodying a rigid block-like back having a bottom side provided with depending applicator and brushing bristles, also provided with a row of longitudinally spaced vertical bores opening through top and bottom sides of said back and constituting fluid distributing and gravitating passages, transparent plastic wall means having a bottom portion conformingly encompassing and affixed to companion marginal edges of said back and having upstanding end-

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less flange means bordering and rising above the plane of said top side and coordinating therewith and providing a tray-like fluid trapping and pooling sump, a vertical upstanding push-pull handle having a lower end secured to a median portion of said back, a bodily attachable and detachable invertible bottle-type fluid container and dispenser, and holder means mounted on a lower end portion of said handle, said holder means operatively mounted on the lower end of said handle being aligned with the receptacle portion of said sump and enclosing and cooperatively supporting said container, said holder comprising a cylindrical enclosure closed at the top and provided with a supporting ledge

at the bottom, having a vertically elongated open front and being provided at the upper end of the open front with a centralized flexibly resilient container positioning and retaining tongue.

4. The implement as defined in claim 3 wherein said back embodies upper and lower aligned blocks, the upper block being connected to the handle and the underneath side of the lower block having bristles thereon, and means detachably securing said blocks together to enable replacement of the bristle-equipped lower block.

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