

[54] **BOWL BRUSH ASSEMBLY**
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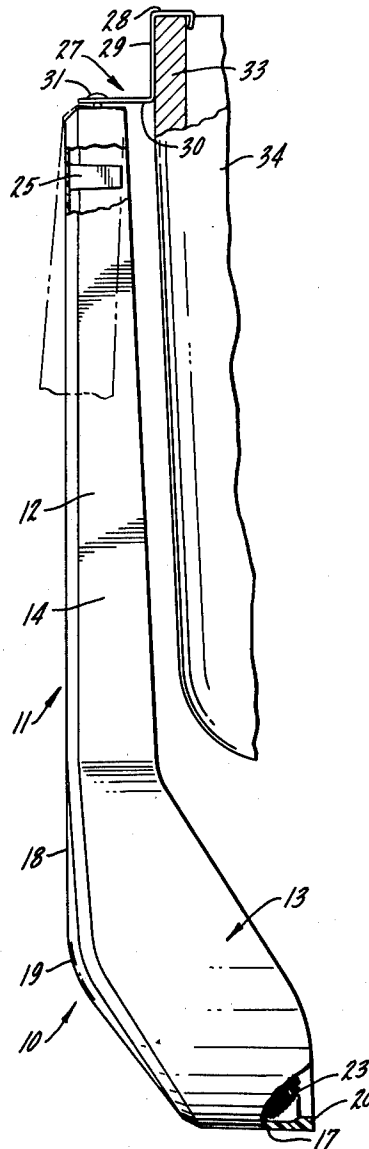
[52] **U.S. Cl.** 312/206; 206/361; 211/65
 [51] **Int. Cl.** A47g 29/08; A46b 17/00
 [58] **Field of Search** 15/258, 246, 247, 184, 15/185; 206/361; 312/206; 248/110; 211/65, 66; D6/125; D7/179; D4/6-12

[57] **ABSTRACT**

A brush and holder assembly in which the brush is held out of contact with the holder at all points except the suspension point, the holder being open and pivotable and tiltable about a suspending point whereby unobstructed access to the holder cavity is provided the user, said holder cavity having no recesses or other possible water collecting points therein which are different to maintain in a sanitary condition. The assembly may be swung out of the way when not in use to present an aesthetically pleasing appearance.

[56] **References Cited**
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4 Claims, 3 Drawing Figures



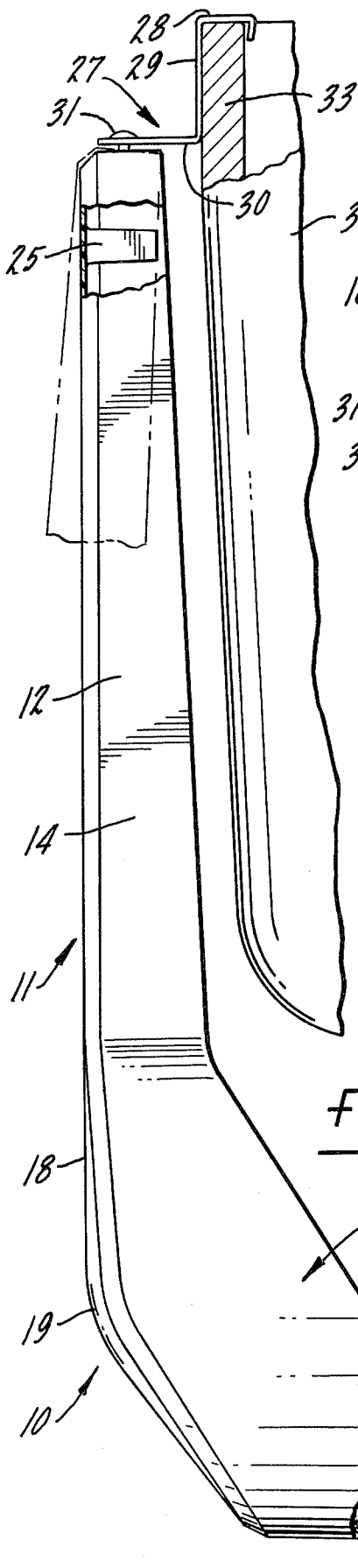


Fig. 1.

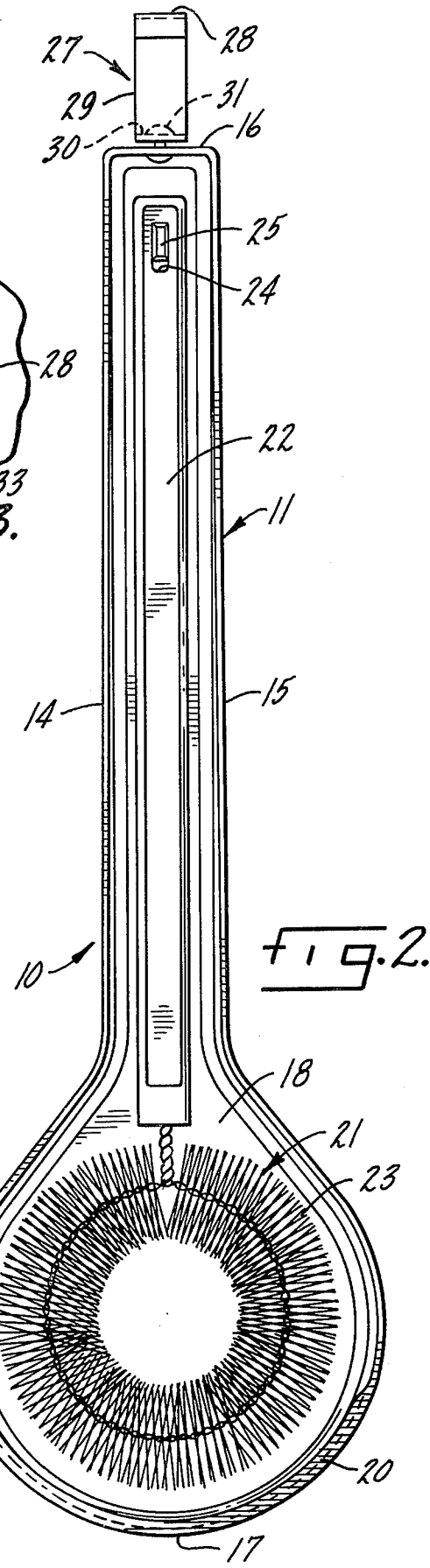


Fig. 2.

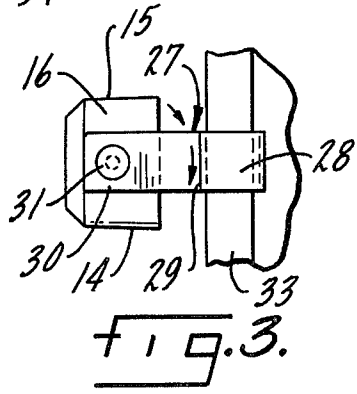


Fig. 3.

BOWL BRUSH ASSEMBLY

This invention relates generally to brush and holder sets, and specifically to a brush and holder set designed for water closet use, which is practical, unobtrusive, and to the extent it is used in an exposed location, aesthetically pleasing to the eye.

BACKGROUND OF THE INVENTION

Brush and holder sets of the general type described above are often unsightly and all too frequently unsanitary. Thus water closet bowl cleaning brushes are conventionally designed with a generally round, exploded bristle construction which, though efficient in use, has the undesirable features of retaining water and other fine sediments which may be present in the water upon withdrawal from the bowl; some of the water and sediments, if present, may even remain on the brush after shaking or hitting against a solid surface after use. Should such a brush be placed on the floor with the bristles in contact therewith after use, a pool of water may be formed which is susceptible of tracking throughout the immediate area. Hence it is very desirable to house the brush in a container or holder which holds the brush away from the floor.

Even when the brush is in a holder it is possible for odors to develop and an unsightly appearance to result due to the fact that the bristles at the extremity of the brush come in contact with the holder. Thus, if the brush when in the holder rests on the bottom of a receiving pocket, there is a tendency for water and sediment to run from the exposed bristles into the pocket. Alternate moistening and drying of a few drops after each use may cause a build-up of residue and the consequent creation of an undesirable odor.

Further, many of the brush and holder sets now in use, including those constructed to be suspended from an elevated location, such as the upper edge of the sidewall of a water tank, are difficult and awkward to use due to suspension arrangements which preclude easy manipulation. And finally, many present brush and holder assemblies are unsightly and not particularly pleasing to the eye when in place.

SUMMARY OF THE INVENTION

Accordingly a primary object of the invention is to provide a combination water closet brush and holder assembly which may be suspended from an elevated, out-of-the-way position, including the top edge of the water tank, and when so suspended, is unobtrusive yet easily accessible for use.

Another object is to provide a brush and holder combination as above described in which the portion of the brush exposed to water in the toilet bowl is held out of contact with any adjacent surface following use whereby water run-off and collection, and consequent opportunity for undesirable odor generation, is minimized.

The foregoing and other objects will become apparent from the detailed description of the invention which follows.

The invention is illustrated more or less diagrammatically in the accompanying figures, wherein:

FIG. 1 is a side elevation with portions broken away for clarity of the brush and holder assembly of the invention suspended in place between use from the upper edge of a vertical wall of a toilet tank;

FIG. 2 is a front view of the holder and brush assembly of the invention; and

FIG. 3 is a top plan view of the upper end portion, including the suspension means, of the brush and holder assembly of this invention.

Like reference numerals will be used to refer to like parts from Figure to Figure in the following description of the drawing.

Referring first to FIG. 1, the brush and holder assembly of the invention is illustrated generally at 10. Holder 11 includes an elongated handle or shank portion 12 and a head portion 13. The head portion 13 is laterally offset with respect to handle portion 12 as best seen in FIG. 1. Holder 11 includes side walls 14, 15, and an upper end wall 16. In this instance the lower end wall is indicated generally at 17, this wall being formed by the converging portions of side walls 14 and 15 where they form the head portion 13. The back wall is indicated at 18. If desired, this wall can be modified to include additional angular surfaces, such as surface 19, which will give a pleasing aesthetic appearance to the outer exposed surface of the holder.

As best seen in FIG. 2, the inner or front side of the holder is open to provide easy access.

It will be noted from FIG. 1 that lower end wall 17 is formed at a slight downward angle when the holder is suspended vertically, and that all interior surfaces beneath upper end wall 16 except the drip barrier member 20 slope uninterruptedly downwardly. Although the drip barrier member 20 is shown as a smooth raised edge or bead formed from the same material as the holder, it will be understood that other configurations and materials, including a strip of sponge like material, may be employed; it is essential, however, that the drip barrier member be so contoured that it does not form a pocket which would easily entrap moisture and sediment and facilitate build-up of sediment and consequent generation of undesirable odors.

A conventional water closet bowl brush is indicated generally at 21 in FIG. 2. The brush includes a handle portion 22 and a bristle section 23 which has been shown, in this instance, as of the exploded bristle type. The upper end of handle portion 22 is apertured as at 24 so that the brush can be suspended from a projection 25 formed integrally with holder 11. This means of suspension enables the brush to be suspended within the holder out of contact with all adjacent surfaces.

Means for connecting the brush and holder assembly to an anchor location, such as a vertical surface, are illustrated best at the upper end of FIGS. 1 and 2, and in FIG. 3. The connecting means includes, in this instance, a hanger 27 having an upper hook section 28, a downwardly depending shank portion 29, and a transversely outwardly extending portion 30. A fastener, in this instance a rivet type structure, is indicated at 31. The rivet shank passes through a hole in transverse section 30 of the hanger, the diameter of the hole being substantially larger than the diameter of the rivet shank so as to enable the holder to be easily rotated and tilted with respect to the vertical axis of the aperture. The hook section 28 of the hanger is shown attached to the upper edge of a side wall 33 of a water closet tank 34.

From the relative position of the parts in FIG. 1 it will be noted that the head portion 13 of the brush and holder assembly, when at rest, extends laterally inwardly, that is, toward the water tank, which thereby

makes possible the tucking of the holder under the tank and minimizes its projection into the room.

The use and operation of the invention are as follows.

In the condition of rest, represented by the solid line positions in FIGS. 1, 2 and 3, the brush 21 is suspended from projection 25 formed in holder 11. The parts are so dimensioned that brush 21, when suspended from projection 25, is out of contact with all internal surfaces of holder 11. Thus, although moisture may collect in drops on handle portion 22 of the brush and the bristles 23, the tendency for the droplets to coalesce and run down the bristles due to engagement of the bristles with one another and an internal surface of the holder is minimized with the result that collection of a pool of droplets from the bristles in a location remote from the bristles is minimized. Further, since all internal surfaces of holder 11, except drip barrier member 20, slope uninterruptedly downwardly, including the lower end wall 17, no recessed pocket is formed within the holder which would entrap water and sediment from the bristles and facilitate build-up of sediment and the consequent generation of odors. The open wall feature also facilitates internal cleaning of the holder, the smooth edge bead 20 which prevents the occasionally deposited drop of water from running onto the floor presenting no obstacle to a wiping action.

In use, the user merely grasps the outside of holder 11, and rotates it in an appropriate direction, such as the direction of the arrows of FIG. 3. At the same time, in view of the loose fit between the shank portion of rivet 26 and the receiving aperture in transverse section 30 of the hanger 27, the brush and holder assembly may be tilted into the dotted line position of FIG. 1. Since no mechanical restraining element is employed to hold the brush 21 onto projection 25, tilting of the assembly will cause the brush to hang vertically downwardly, and be displaced relatively outwardly from its nested position of FIG. 2, thus facilitating easy grasping of the brush by the user.

After use the brush is merely placed back onto projection 25. The holder, during use, may be located at any angular position which deviates from the position shown in FIGS. 1, 2 and 3. Assuming the holder is rotated 90° from the FIG. 3 position during use, the user merely rotates the holder with the suspended brush back to the FIG. 3 position whereby the assembly is returned to its unobstrusive position shown in FIG. 1.

Since the inner side of the holder 11 is open and unobstructed throughout the vertical distance spanned by the brush, maximum ease of access, during both retrieval and placement of the brush, has been provided.

Other objects and advantages of the invention will become obvious to those skilled in the art upon a review of the foregoing description. Accordingly, it is intended that the scope of the invention be limited not by the scope of the foregoing description, but solely by the scope of the hereafter appended claims when interpreted in light of the pertinent prior art.

I claim:

1. A brush and holder assembly, said assembly in-

cluding, in combination,

a brush having an elongated handle and a bristle portion at one end thereof,

a holder for said brush,

said holder being formed generally in the shape of said brush and having an open, unobstructed entry side,

means for suspending the brush in the holder from a support location integral with the holder which maintains the bristle portion out of contact with the holder, and

means for connecting said brush and holder assembly from an anchor location which enables said assembly, when not in use, to be disposed with the open, unobstructed entry side of the holder facing an adjacent vertical surface, such as the vertical wall of a water closet tank to which the assembly is anchored,

said connecting means further enabling the brush and holder assembly to be unrestrainedly rotated and tilted with respect to the adjacent vertical surface whereby the brush may be freely inserted into, and removed from, the holder, and the holder disposed in a position in which the open entry side faces the adjacent vertical surface.

2. The brush and holder assembly of claim 1 further characterized in that

the holder is so formed and contoured that when suspended vertically all internal surfaces at all levels which may become wet during use, except a smoothly contoured drip barrier member located at substantially the lowest elevation of the assembly, slope downwardly.

3. The brush and holder assembly of claim 1 further characterized in that the

suspension means includes a projection integrally formed with the holder, said projection being arranged to co-act with receptacle means on the brush.

4. The brush and holder assembly of claim 1 further characterized in that the connecting means for the brush and holder assembly includes

a first member constructed and arranged to be secured to an anchor point, such as the upper edge of a water tank,

a second member which extends generally transversely outwardly from the anchor point, and a fastener which connects the upper end portion of the holder to said second member,

said fastener providing rotational and vertically tiltable movement of the holder with respect to the adjacent vertical surface,

said means for suspending the brush in the holder providing relative vertical displacement between the brush and the holder whereby the brush, upon vertically tilting the holder, will separate from the holder so that the brush may be grasped and removed from the holder.

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