Oct. 2, 1956 R. GLANVILL ET AL 2,764,773

LAVATORY AND LIKE BRUSHES

Filed July 27, 1953

Fig.1.

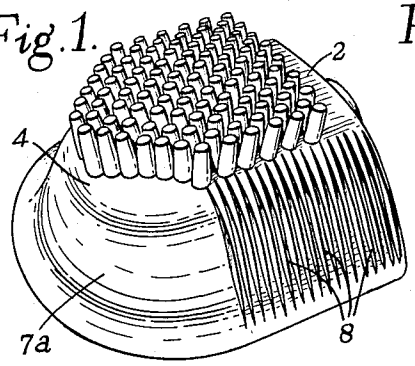


Fig.2.

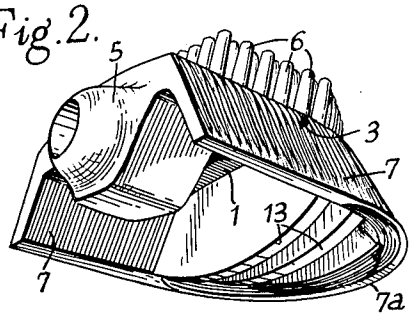


Fig.3.

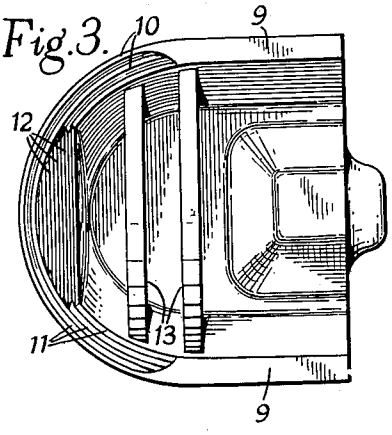


Fig.4.

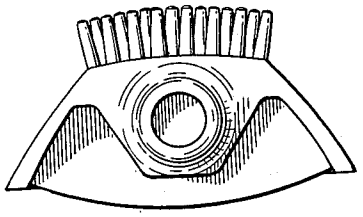


Fig.5.

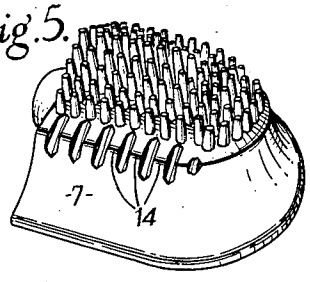
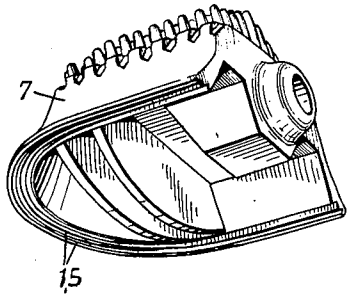


Fig.6.



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LAVATORY AND LIKE BRUSHES

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11 Claims. (Cl. 15—188)

The present invention relates to a lavatory cleaning utensil which resembles a brush. Normally, lavatory brushes comprise a bristle head which wears very quickly and is not always efficient in use. The main object of the present invention therefore is to provide a head for a lavatory brush which is more durable than known brushes and more efficient in use.

According to the present invention there is provided a head for a lavatory brush or the like consisting of a unitary member moulded of rubber or equivalent flexible material and comprising a base formed on one side with a multiplicity of projecting fingers or prongs, and on its other side or face with a skirt or flange which extends beyond the latter side of the base.

According to a preferred embodiment of the invention the skirt comprises two sides and a semi-circular part and the sides are made slightly convex and are provided with a plurality of scraper ribs which are directed from the base towards the outer edge of the skirt so as to be disposed at right angles to said edge of the skirt, the scrapers extending substantially the complete depth of the skirt. With this embodiment scrapers are provided only around the curved edge of the skirt and the straight edges are left plain. In addition the curved edge of the skirt is also formed with a number of chordal ribs of V section which constitute straight scraper ribs which extend transversely of the brush at the front thereof.

According to a modification, the side walls of the skirt may flare outwardly and the corners of the base at the straight sides of the skirt are formed with transversely directed lips which intersect the said corners and constitute scrapers. Also, the two straight edges of the skirt and the semi-circular edge may be formed with continuous ribs.

In order that the invention may be clearly understood embodiments thereof will now be described with reference to the accompanying drawings, wherein:

Figure 1 is a persepective view from above showing a preferred form of brush head.

Figure 2 is a perspective view from below.

Figure 3 is an inverted plan view.

Figure 4 is a rear view, and

Figures 5 and 6 are perspective views from above and below respectively illustrating a modification.

Referring to the drawings the brush head is a unitary member moulded of rubber or the equivalent flexible material. The head comprises a base which constitutes the back of the brush and is formed with a wall **1** on one side and a slightly domed face **2** on the other side. The base is formed with two parallel side edges **3** which terminate in a pointed or rounded end **4** while the opposite, and handle bearing end, is straight, this latter end being formed with a hollow boss **5** for the reception of a handle (not shown).

The slightly domed side of the base is formed with a multiplicity of fingers or prongs **6** which are arranged in parallel lines, the lines of fingers or prongs **6** near the pointed end **4** of the base being made progressively

shorter so that the prongs are of a pointed formation at this end (see Figure 1). The prongs **6** are longer at the front of the base than at the rear thereof and extend at right angles to the domed surface **2** of the base so that they incline slightly relatively to one another. The tips of the fingers or prongs are preferably cut square. The fingers or prongs are positioned closely together with individual fingers or prongs **6** spaced slightly apart and constituting what might be termed the bristles of the brush although they are naturally much stouter than bristles. Preferably, the diameters of the bristles vary from front to back so that they are thinnest at the front, thicker at the centre of the base and thickest at the rear. The base is formed with a skirt or flange which projects from the side **1** of the base not bearing the bristles **6** and this skirt or flange is slightly convex and extends along the two parallel sides of the base as indicated at **7** and in a semi-circular manner as shown at **7***a* around the pointed end of the base. The two sides **7** of this convex skirt, i. e. those extending only from the straight side edges **3** of the base, are formed with scraper ridges **8** which are directed from the base towards the outer edge of the skirt **7** so as to be disposed at right angles to said edge of the skirt, the scrapers **8** extending for substantially the complete depth of the skirt. The faces **9** of the two side edges of this skirt or flange **7** are flat or plain and the face of the edge of the semi-circular part **7***a* of the flange is formed with one or more continuous narrow recesses or grooves **10** which are arranged in parallelism completely around the said semi-circular part of the edge to form V section ribs **11** which act as scrapers. The inner edge of the semi-circular part of the flange is formed with five or any other desired number of chordal ribs **12** of V section which constitute straight scraper ribs which extend transversely of the brush at the front thereof.

The head finally comprises one or more but preferably two further scrapers in the form of transverse and parallel flanges **13** which bridge the straight side walls **7** of the flange and the outer edges of these latter scrapers are slightly rounded or convex longitudinally as shown in Figure 2. These latter scrapers **13** are mainly housed in a well or cavity provided by the said skirt or flange and the base.

According to a modified form of the invention as illustrated by Figures 5 and 6 of the drawings, the side walls **7** of the skirt flare outwardly instead of being made slightly convex and the corners of the base at the straight sides of the skirt are formed with transversely directed lips **14** which intersect the corners of the sides and constitute scraper elements. Also, the face of the edge of the semi-circular skirt-like part **7***a* and also the faces **9** of the two side parts **7** of the skirt may be formed with continuous narrow recesses or grooves which form V section ribs **15** which act as scrapers which extend completely around the straight sides of the skirt and also the semi-circular portion thereof.

We claim:

1. A head for a lavatory brush or the like comprising, a unitary member moulded of flexible material and including a base having two straight sides and a semi-circular front part, said base having an upper face slightly domed, a multiplicity of fingers projecting from said upper face, a skirt depending from the upper face and extending from the sides and front part beyond the latter face of the base, scraper ridges on said skirt directed from the base towards the outer edge of the skirt, and spaced apart scrapers transversely bridging the straight side walls of the skirt.

2. A head for lavatory brushes or the like, comprising, a base including, a wall, a plurality of fingers projecting away from the face of the wall, a skirt depending

from the front and opposite sides of the said wall and having a scraper face at its free edge, said skirt defining a cavity opening at the side of the wall opposite said fingers, a handle boss at the rear end of the wall and within said cavity, a series of scraper ribs at least on a portion of said scraper face, and flanges disposed transversely within the cavity connected to the inner side of the skirt and having their free edges exposed substantially at the mouth of the cavity and in the zone of said scraper face.

3. A head for lavatory brushes or the like, comprising, a base of molded flexible material, said base including, a wall having straight opposite side edges connected by an arcuate edge and a rear straight edge, a multiplicity of fiingers projecting from said wall, a skirt depending from the said opposite side edges and the arcuate front edge of said wall to provide a cavity closed at the front end and open at the rear end below said rear straight edge, said skirt having a scraper face, scraper ribs on said scraper face, and scraper flanges connected to the inner walls of the skirt and spanning the cavity formed by the skirt.

4. A head for lavatory brushes or the like, according to claim 3, wherein the side walls of the skirt flare outwardly.

5. A head for lavatory brushes or the like, according to claim 3, wherein the sides of the skirt are convex and are formed with a plurality of scraper ridges which are directed from the base towards the outer edge of the skirt.

6. A head for lavatory brushes or the like, according to claim 5, wherein said scraper ridges are disposed at right angles to the edge of the skirt and extend for substantially the complete depth of the latter.

7. A head for lavatory brushes or the like, according to claim 3, wherein the edge of the arcuate part of the skirt is formed with said scraper ribs and the straight edges of the sides of the skirt left plain.

8. A head for lavatory brushes or the like, according to claim 3, wherein the curved edge of the skirt is formed with a number of chordal ribs which constitute straight scraper ribs which extend transversely of the base at the front thereof.

9. A head for lavatory brushes or the like, according to claim 3, wherein the free edges of the flanges are convex.

10. A head for lavatory brushes or the like, according to claim 3, wherein the skirt is concave.

11. A head for lavatory brushes or the like, according to claim 3, wherein the ribs on the scraper face of the skirt are continuous throughout the extent of said face.

References Cited in the file of this patent

UNITED STATES PATENTS

1,554,510	Kirby	Sept. 22, 1925
2,029,626	Lierley	Feb. 4, 1936
2,054,233	Young	Sept. 15, 1936
2,218,072	Runnels	Oct. 15, 1940