



US 20020117185A1

(19) **United States**

(12) **Patent Application Publication**
Simon et al.

(10) **Pub. No.: US 2002/0117185 A1**

(43) **Pub. Date: Aug. 29, 2002**

(54) **WALL MOUNTED BATH BRUSH**

Publication Classification

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(51) **Int. Cl.⁷** **A47K 7/02**

(52) **U.S. Cl.** **134/6; 15/244.1; 15/210.1;**
4/606

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(57) **ABSTRACT**

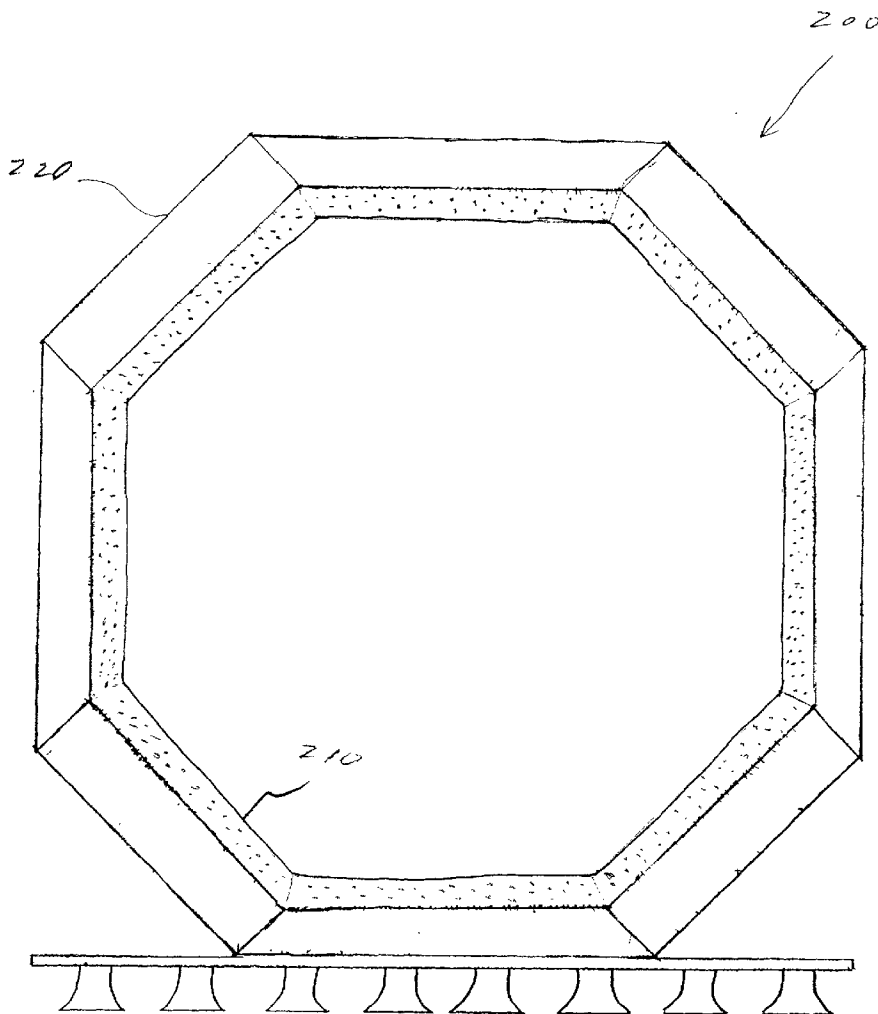
(21) Appl. No.: **10/075,859**

(22) Filed: **Feb. 12, 2002**

Related U.S. Application Data

(63) Continuation-in-part of application No. 09/490,027,
filed on Jan. 21, 2000.

A bath brush assembly is detachably mountable to a wall of a shower or bathtub. The bath brush assembly includes a frame and a bore extending therethrough. A sponge or a plurality of bristles are attached to the frame and extend into the bore such that a stroke victim or handicapped person may clean one of their appendages by moving their appendage against the sponge.



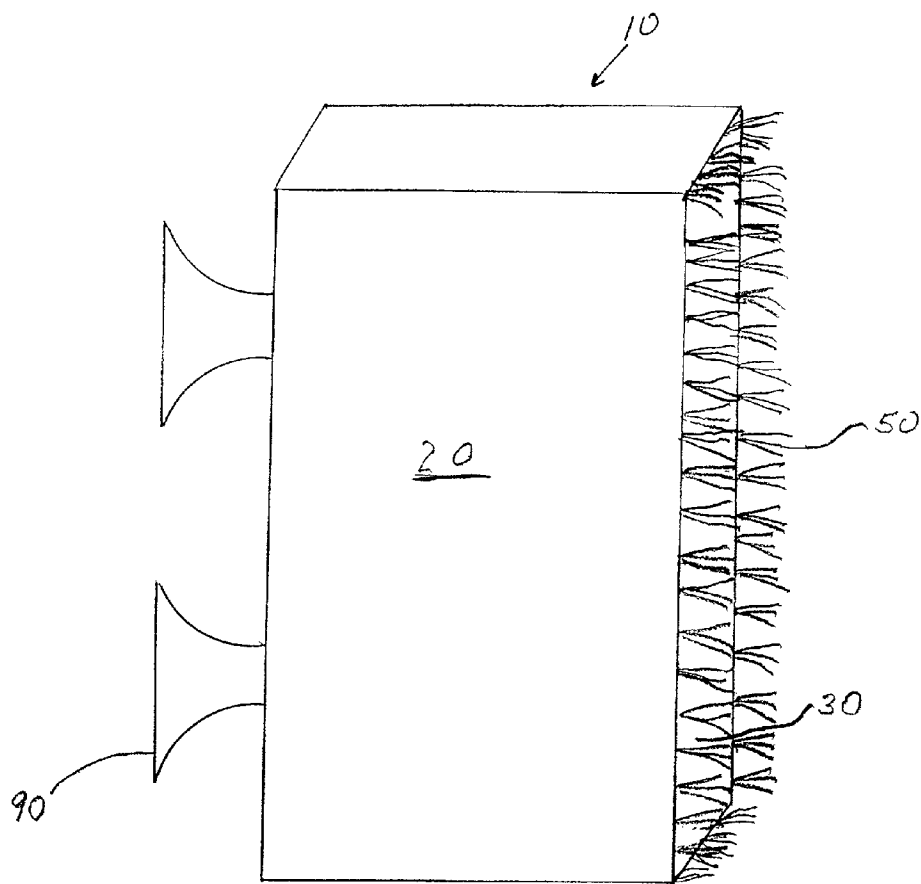


FIG. 1A

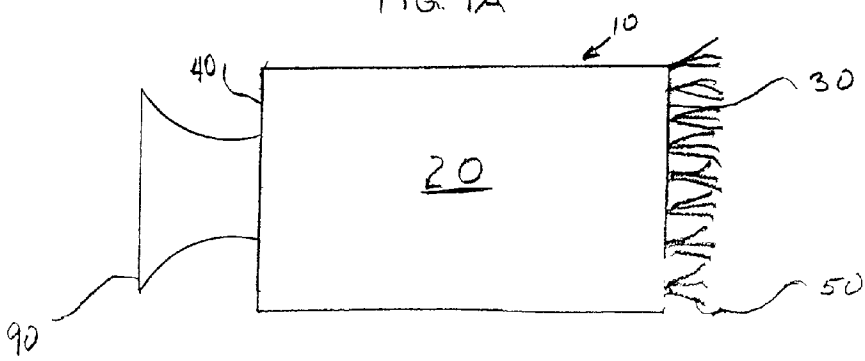
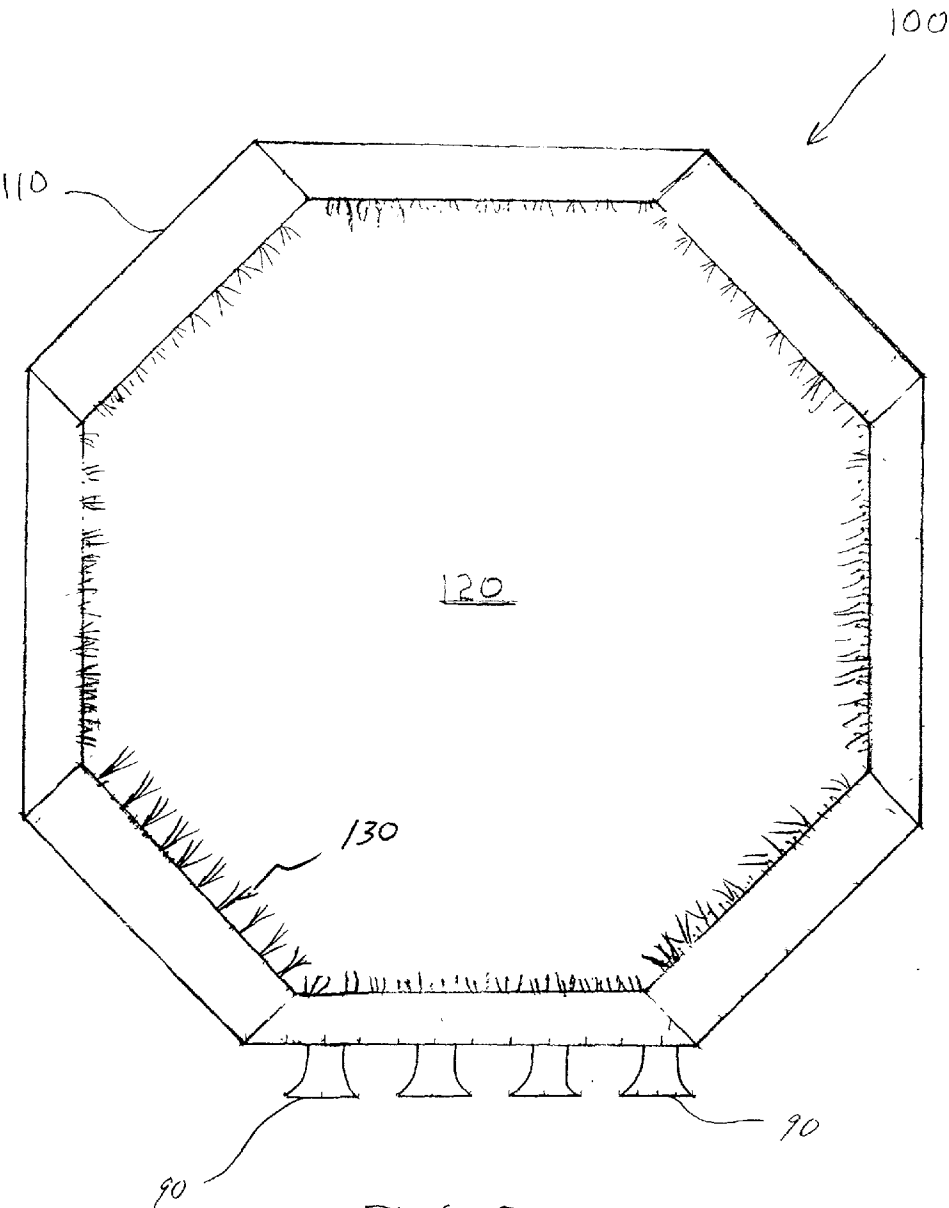
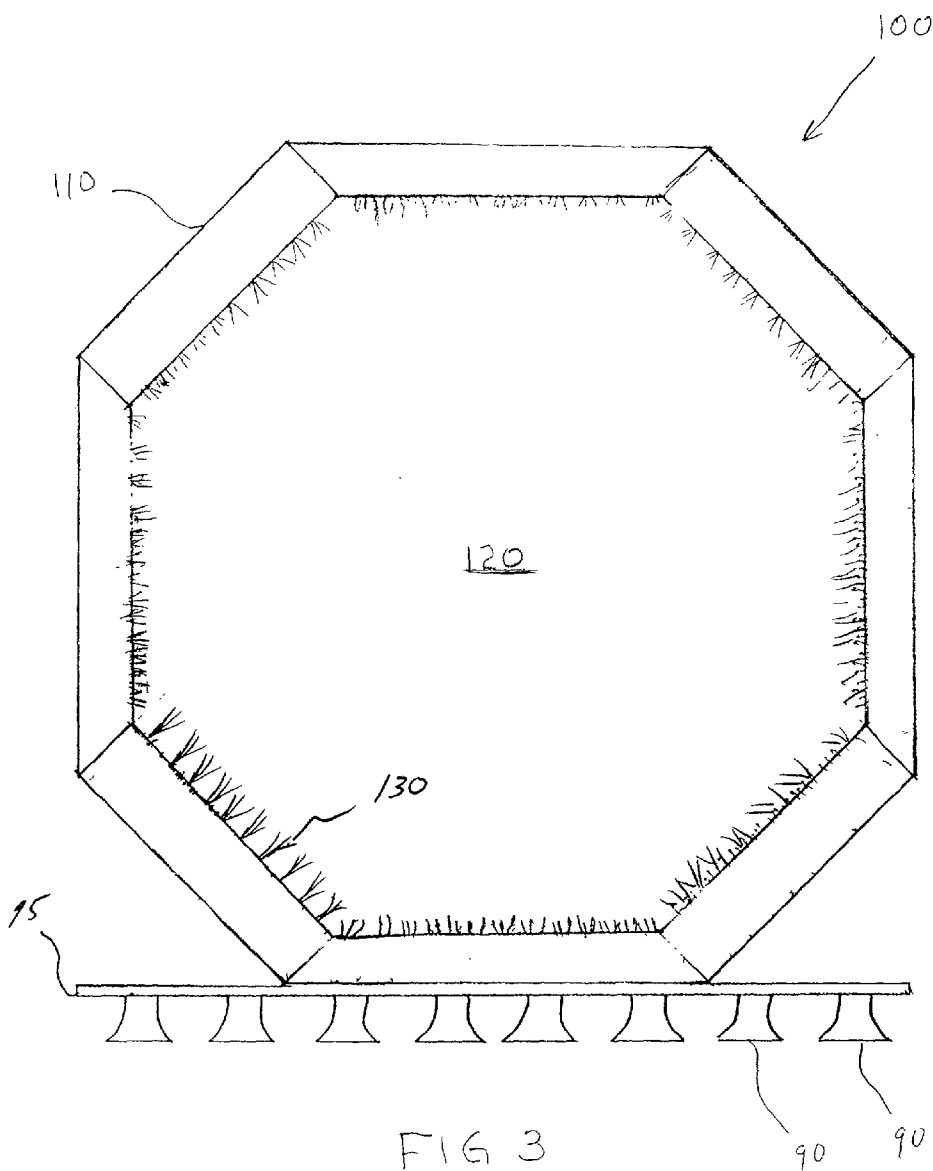


FIG. 1B





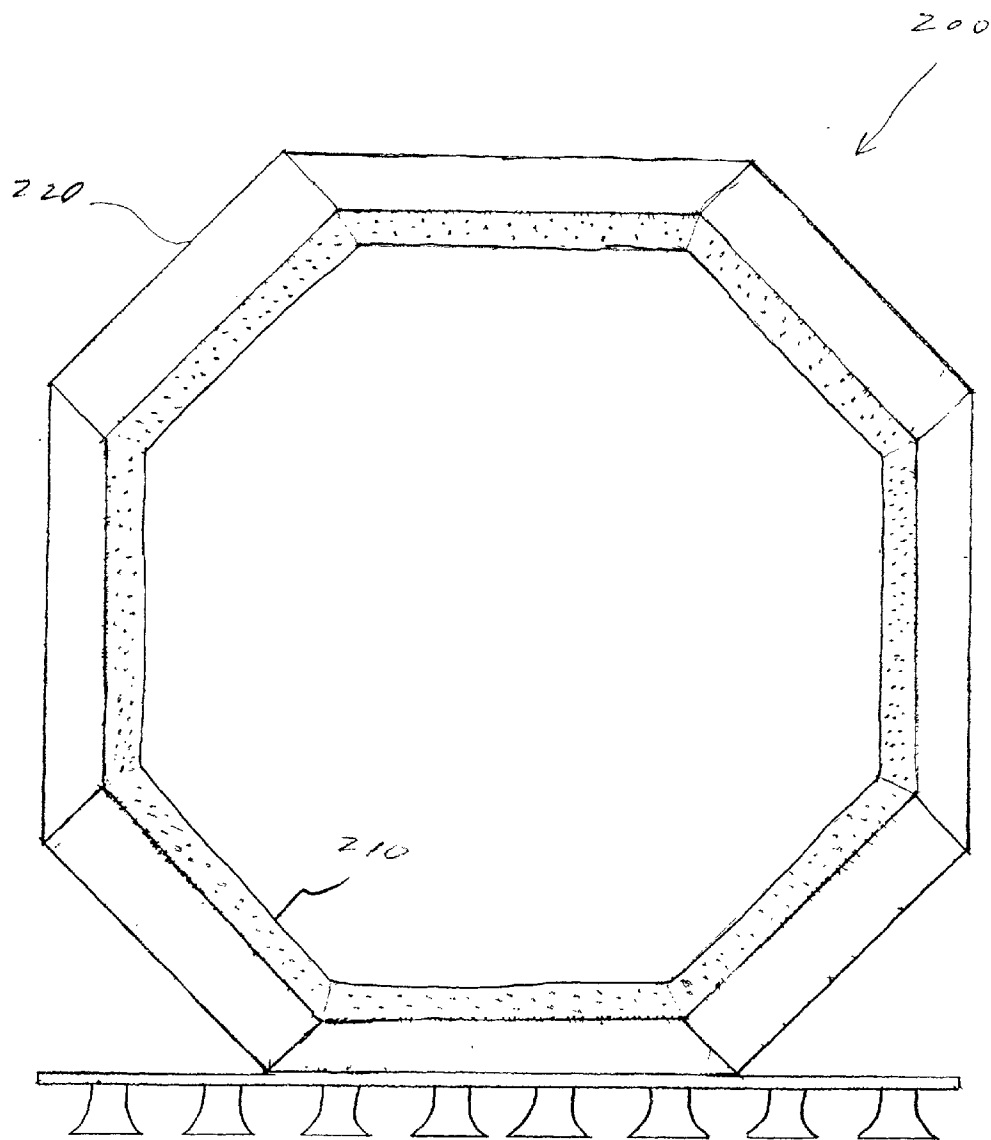


FIG. 4

WALL MOUNTED BATH BRUSH

RELATED APPLICATIONS

[0001] This application is a continuation-in-part of U.S. Ser. No. 09/490,027 filed Jan. 21, 2000, entitled "Wall Mounted Bath Brush".

TECHNICAL FIELD

[0002] The present invention is directed to wall mounted bath brush assemblies and methods and in particular to wall mounted bath brush assemblies comprising at least one sponge.

BACKGROUND ART

[0003] Various brushes exist for bathing the human body. A number of those brushes are wall mounted and removably attachable. One such brush assembly is disclosed in U.S. Pat. No. 4,759,091 to Kiss. The brush assembly of the '091 Patent is attachable to a wall and has a pair of spaced-apart elongated brushes mounted on a base. A hanger engages a bath or shower wall member and includes a hook for insertion within an opening in the base. Wall attachment is by suction cups on the rear side of the base with a lever provided for urging the base away from the supporting wall surface and facilitating return of the brush assembly to a stowed position. A double-sided adhesive may be used to permanently secure the base to a wall surface.

[0004] Another wall mounted bath brush and method is disclosed in U.S. Pat. No. 5,228,165 to Westberry et al. The '165 Patent discloses a brush for scrubbing and scratching the human body. The '165 brush includes a plate portion having a front face and a rear face, a plurality of bristles extending from the front face, and an attachment mechanism for attaching the brush to a wall. The attachment mechanism preferably provides removable attachment to a wall, and may be a plurality of suction cups. The front face of the plate portion preferably has essentially the same surface area as an average person's back and its outer edges of the front face optionally have the essential outline of the upper human torso. The bristles, provided in clusters, optionally have a stiffness and end roundable suitable for comfortably scratching a person's back when dry.

[0005] U.S. Pat. No. 5,277,389 discloses a shower back scrubber having a holder which adheres to the shower wall using suction cups. Mounted on the holder is a sponge which can be quickly replaced or used.

[0006] Other wall attachable brushes and sponges are disclosed in U.S. Pat. Nos. 4,417,362; 4,020,519; 3,631,560 and 3,750,226. Apparently, for one or more reasons, the disclosed arrangements have not found wide acceptance with the public as they do not appear to be readily available in retail establishments. None of the references appear to disclose a bath brush having a central bore with a plurality of bristles extending therein.

[0007] It is an advantage of the present invention to provide a bath brush which does not require the bather to twist and contort to scrub.

[0008] It is another advantage of the present invention to provide such a bath brush which can be detachably fixed to a shower wall.

[0009] It is still another advantage of the present invention to provide such a brush that is adapted to wash an arm of a handicapped person or stroke victim who lacks the use of both arms.

[0010] It is still another advantage of the present invention to provide such a brush which is simple, durable and inexpensive to produce.

SUMMARY OF THE PRESENT INVENTION

[0011] A bath brush assembly and method for cleaning an appendage, such as a limb, of a handicapped person or stroke victim. The bath brush assembly is wall-mounted and has a frame with a bore extending therethrough. At least one sponge is mounted to the frame within the bore. The frame may have various shapes and be formed of modular components. Joined to the frame are a number of suction cups which provide a detachable connection to the wall of a shower or bathtub.

BRIEF DESCRIPTION OF THE DRAWINGS

[0012] Various other features and advantages of the invention will become apparent to those skilled in the art from the following discussion taken in conjunction with the following drawings, in which:

[0013] **FIG. 1A** is a perspective view of a bath brush in accordance with the present invention;

[0014] **FIG. 1B** is a top view of the embodiment shown in **FIG. 1A**;

[0015] **FIG. 2** is a top view of another embodiment of the present invention;

[0016] **FIG. 3** is a top view of another embodiment of the present invention;

[0017] **FIG. 4** is a top or side view of another embodiment of the present invention having a plurality of sponges.

DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENTS

[0018] Referring to **FIG. 1A**, a bath brush **10** is disclosed. Bath brush **10** has a cartridge **20**. The cartridge **20** of bath brush **10** has a front surface **30** as well as a rear surface **40** (**FIG. 1B**). The cartridge **20** is preferably made of a polymeric material.

[0019] As shown in **FIG. 1**, the cartridge **20** has a flat cubical or rectangular shape. The cartridge **20**, however, may have other shapes including, for example, a semi-spherical or dome shape. Additionally, the front surface **30** is not required to be flat. The front surface may have, for example, a concave, convex, or other shape (not shown).

[0020] Referring to **FIG. 1A**, a plurality of bristles **50** are shown extending from the front surface **30**. The bristles may be, for example, a polymer fiber, or other material suitable for bath brushes. The bristles **50** may be attached to the front surface **30** by, for example, adhesives, heat bonds, epoxy, or press-fitting.

[0021] The bath brush of **FIG. 1A** also shows two suction cups **90** extending from the rear surface **40** for gripping or fastening to a wall of the shower or bath tub. Although only two suction cups are shown, more may be employed. The

number and size of the suction cups may be increased to ensure that the brush assembly stays affixed to the wall during use. The suction cups **90** may be joined to the rear surface **40** using adhesives, screws, or ties such as, for example, a wire tie.

[0022] FIG. 2 shows another bath brush assembly in accordance with the present invention. The bath brush assembly **100** has a frame **110**. The bath brush assembly **100** further comprises a bore **120** extending through the frame **110**. Extending into the bore **120** are a plurality of bristles **130**. The bristles **130** are the same as those described in the previous embodiments and extend from an inner surface of the frame **110**.

[0023] The frame **110** is preferably made of plastic. The frame **110** may be integral or be composed of modular components. If the frame **110** is comprised of modular components, the modular components may be identical to one another and glued together using, for example, an adhesive or epoxy.

[0024] FIG. 3 shows another aspect of a bath brush assembly in accordance with the present invention. In FIG. 3, a support member **95** is shown joined to frame **110**. The support member **95** provides a larger surface for the suction cups **90**. Thus, more suction cups **90** may be employed in the bath brush assembly **100** of FIG. 3 than the bath brush assembly of FIG. 2. The additional suction cups provide enhanced gripping force and ensure that the bath brush assembly will stay affixed during operation.

[0025] The support member may be made of, for example, plastic. The support member may be attached to the frame **110**, for example, using various bonding or fastening techniques. Examples of bonding techniques are adhesive bonds or heat bonds. Alternatively, the support member may be attached to frame **110** with a fastener such as, for example, screws or rivets.

[0026] In operation, the bath brush assembly **100** may be used for bathing and scrubbing an appendage such as a leg or arm of a handicapped person or stroke victim. A handicapped person, for example, simply inserts her arm through the bore **120**. The handicapped person moves her arm against the bristles **130** to scrub her arm. In this manner, a handicapped person with use of only one arm may clean her arm without assistance.

[0027] FIG. 4 illustrates another bath brush assembly in accordance with the present invention. The bath brush assembly **200** shown in FIG. 4, unlike the variations described above, includes a plurality of sponges **210** mounted to the inside of the frame **220**. The sponges **210** are within the bore formed by the frame **220**. The sponges are particularly well suited for soaping and cleaning the skin.

[0028] The sponges may be attached to the frame alone or in combination with the bristles. The sponges may be permanently or removable mounted to the frame. For example, the sponges may be mounted using an adhesive substance. Also, the frame may contain a recess to receive and hold the sponges. The sponges are inserted into the recess and remain fixed during washing. However, the sponges may be removed if pulled perpendicularly from the frame. Other mechanical and non-mechanical means may be used to connect the sponge to the frame as is known to those of skill in the art.

[0029] A wide variety of sponges may be used to carry out the present invention including natural and synthetic sponges. Examples of sponges include porous plastics, rubber, cellulose and other porous absorbent materials. Also, in one particular variation the absorbent skeleton of certain types of sponges (the marine invertebrate animal) can be used to carry out the present invention. In each variation, however, the sponges are absorbent and perhaps highly absorbent holding upwards of 10 times their own weight when wet. The sponges typically can have pores and the pore size may be that found in conventional sponges including pore sizes as low as 200 microns. See, for example, RAMERFOAM®. The pore size may be uniform or non-uniform throughout the sponge.

[0030] The sponges may have various shapes including spherical, rectangular, and cubic shapes. However, other shapes may be suitable for certain applications. For example, a hollow elongate cylindrical sponge may be constructed to line the frame **220** instead of a plurality of cubic sponges.

[0031] Accordingly, the present invention provides a convenient method and assembly for a handicapped person to sponge bath. The sponges, unlike bristles, can provide a soft absorbent water rinse and remain moistened. The person inserts their arm, for example, through the bore contacting the sponges. As the person moves their arm forward and back, the arm is cleaned. In a variation, the sponge is rough and not soft.

[0032] While the invention has been described, disclosed, illustrated and shown in various terms for certain embodiments or modifications which it has assumed in practice, the scope of the invention is not intended to be, nor should it be deemed to be, limited thereby, and such other modifications or embodiments as may be suggested by the teachings herein are particularly reserved, especially as they fall within the breadth and scope here appended.

[0033] All publications, patent applications, patents, and other references mentioned herein are incorporated by reference in their entirety. To the extent there is a conflict in a meaning of a term, or otherwise, the present application will control.

1. A bath brush assembly for use in a shower or bath tub comprising:

a frame detachably affixable to a wall in the shower or bath tub, the frame defining a bore extending there-through; and

at least one sponge attached to the frame and located inside the bore whereby a stroke victim or handicapped person may clean an appendage by moving said appendage in the bore.

2. The bath brush assembly as recited in claim 1 wherein the sponge is highly absorbent.

3. The bath brush assembly as recited in claim 1 wherein the sponge has at least one pore 200 microns in diameter.

4. The bath brush assembly as recited in claim 1 wherein the sponge is rough.

5. The bath brush assembly as recited in claim 1 wherein the sponge is shaped like a hollow cylinder.

6. The bath brush assembly as recited in claim 1 wherein the sponge has a shape selected from the group consisting of rectangular, cubic, spherical, and oval.

7. The bath brush assembly as recited in claim 1 wherein the sponge is natural.

8. The bath brush assembly as recited in claim 1 wherein the sponge is made from a synthetic porous material.

9. The bath brush assembly as recited in claim 1 wherein the frame is shaped like a ring.

10. The bath brush assembly as recited in claim 1 wherein the frame is shaped like a polygon.

11. The bath brush assembly as recited in claim 1 wherein the frame is integral.

12. The bath brush assembly as recited in claim 1 wherein the frame is modular comprising a plurality of components joined together.

13. The bath brush assembly as recited in claim 12 wherein the components are joined using an adhesive.

14. The bath brush assembly as recited in claim 1 further comprising a plurality of bristles attached to the frame and extending into the bore.

15. A bath brush assembly for use in a shower or bath tub comprising:

a ring-shaped frame having a bore extending there-through, said frame being formed of modular components;

a support member joined to an outer surface of the frame, said support member including at least one suction cup for detachably connecting said bath brush assembly to the wall of the shower or bath tub; and

at least one highly absorbent sponge attached to the frame and inside the bore whereby a stroke victim or handicapped person may clean an appendage by moving said appendage in the bore.

16. A method for cleaning an appendage comprising the steps of:

inserting said appendage into a bath brush assembly as recited in claim 1; and

moving said appendage within said assembly such that said appendage contacts said at least one sponge.

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