



US 20030204927A1

(19) **United States**

(12) **Patent Application Publication**

Kelly

(10) **Pub. No.: US 2003/0204927 A1**

(43) **Pub. Date: Nov. 6, 2003**

(54) **FOOT BRUSH**

Related U.S. Application Data

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(60) Provisional application No. 60/377,741, filed on May 3, 2002.

Publication Classification

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(51) **Int. Cl.⁷ A47K 7/02**

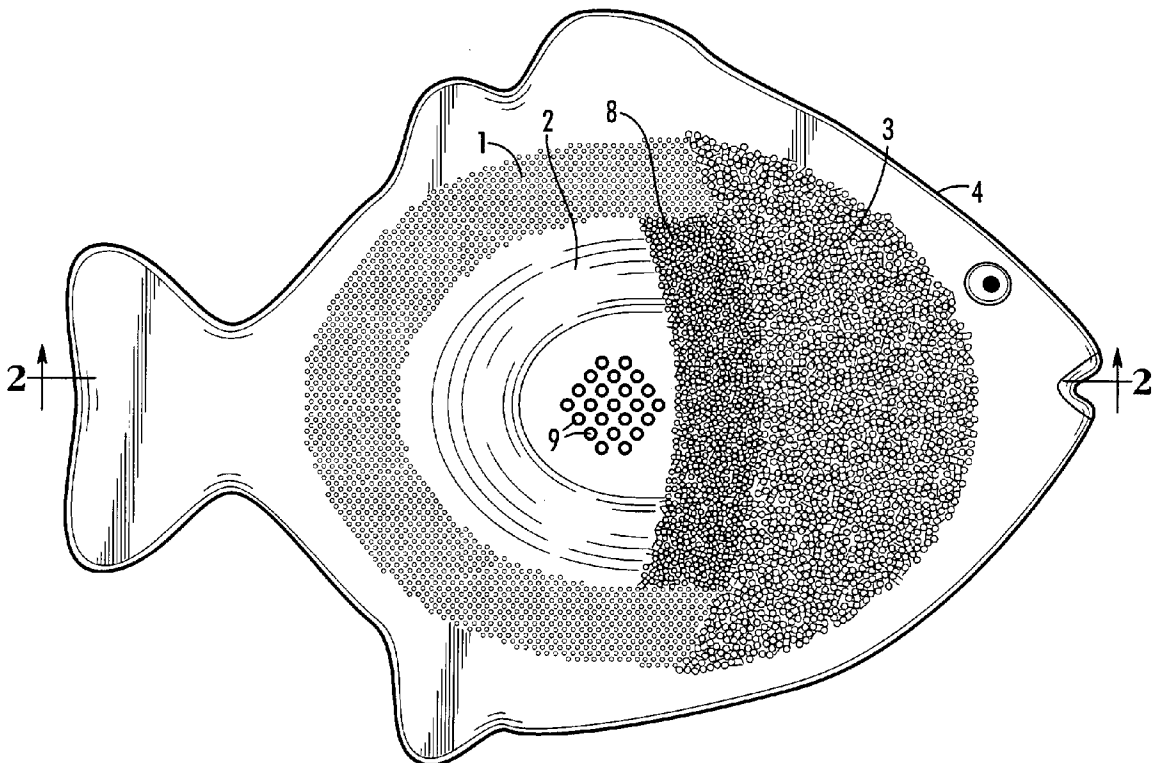
(52) **U.S. Cl. 15/160; 15/161; 4/606; 601/136**

(57) **ABSTRACT**

A foot brush comprising a base further comprising a top and a bottom. A washing region comprising first fibers is attached to the top of the base. An abrasive region comprising an abrasive surface is integral to the base and a scrubbing region comprising second fibers is also attached to the base.

(21) Appl. No.: **10/428,529**

(22) Filed: **May 2, 2003**



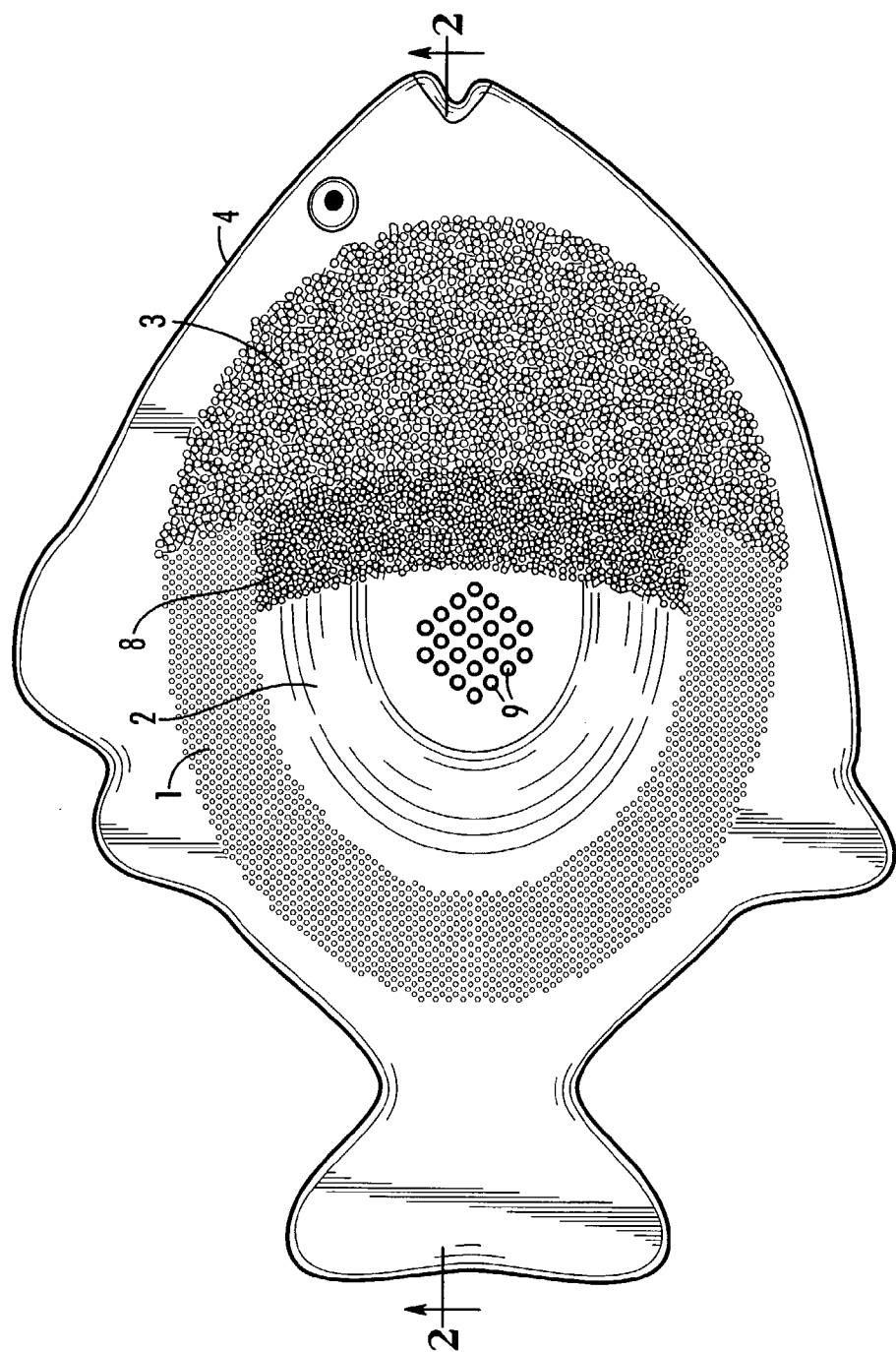
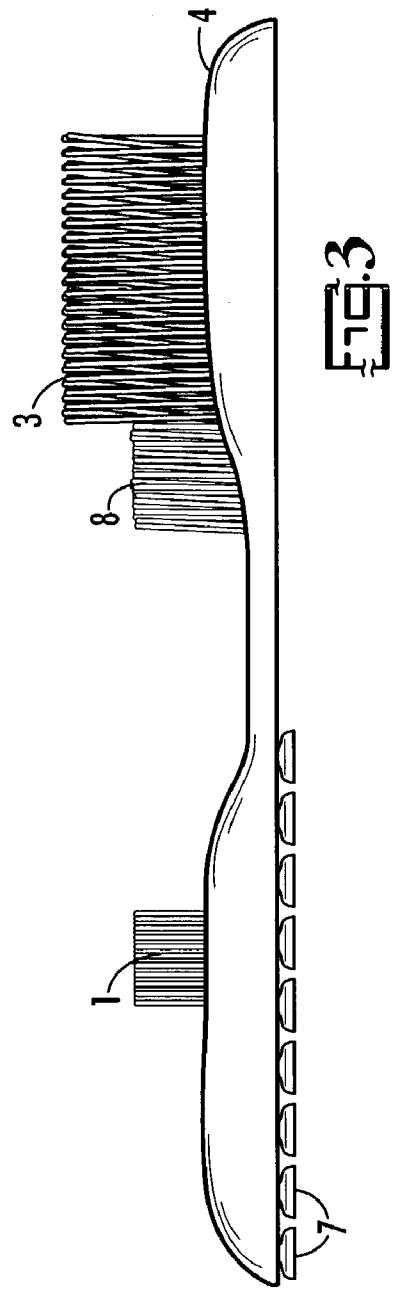
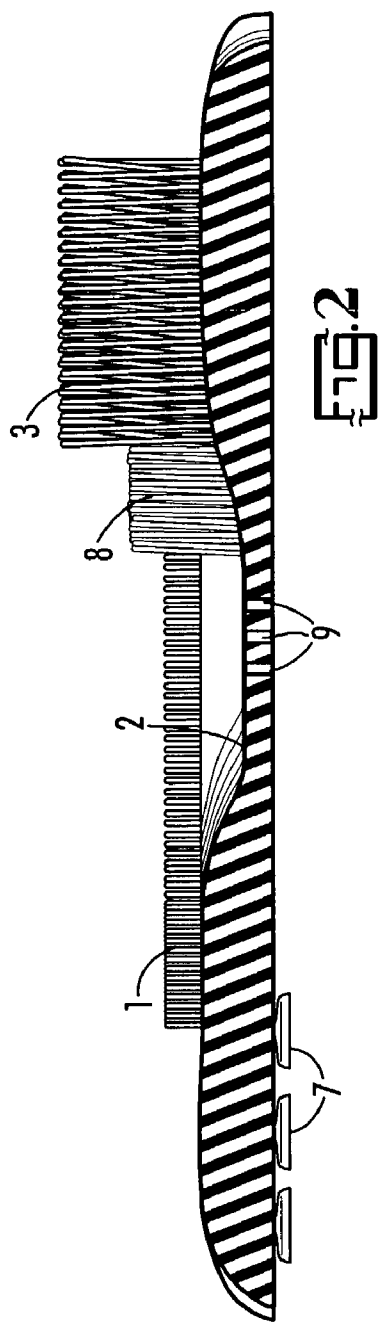


Fig. 1



FOOT BRUSH

RELATED APPLICATIONS

[0001] The present application claims priority to U.S. patent appl. No. 60/377,741 filed May 3, 2002 which is pending.

BACKGROUND OF THE INVENTION

[0002] The present invention relates to a foot brush. More specifically, the present invention relates to a therapeutic mat particularly adapted for cleaning, massaging and removing calluses from feet.

[0003] Foot comfort is a predominant aspect of total body comfort. It is well known that soothing ones feet is an ongoing desire.

[0004] Yet another well-known phenomenon is the desire to clean and remove calluses from the soles of ones feet. This is not easily accomplished for people who, due to medical conditions for example, cannot easily reach their feet with their hands.

[0005] There has been a long felt desire for a device which can be used to clean, massage and remove calluses from ones feet which is simple, effective and which can be done during the normal course of bathing and/or showering.

BRIEF SUMMARY OF THE INVENTION

[0006] Hence, it is object of the present invention to provide a foot brush which can clean feet to remove calluses without requiring the user to reach their feet with their hands.

[0007] It is another object of the present invention to provide a foot brush which can be used in a bathing fixture, such as a shower or bath tub, without modification of the bathing fixture.

[0008] A particular feature is the ability of the foot brush to self-drain thereby eliminating water from pooling.

[0009] Another particular feature is the multiplicity of regions where each region performs different functions from the other regions in an aesthetically pleasing and convenient arrangement.

[0010] These and other advantages, as would be realised to one of ordinary skill in the art, are provided in a foot brush comprising a base further comprising a top and a bottom. A washing region comprising first fibers is attached to the top of the base. An abrasive region comprising an abrasive surface is integral to the base and a scrubbing region comprising second fibers is also attached to the base.

[0011] Another embodiment is provided in a foot brush comprising a base with a top and a bottom. An indentation is included in said base wherein the indentation comprises an abrasive and perforations. A first region is attached to the top of the base wherein the first region comprises first fibers attached to the base and the first region circumvents the indentation. A second region, also attached the top of the base is provided wherein the first region is between the second region and the indentation.

BRIEF DESCRIPTION OF THE DRAWINGS

[0012] FIG. 1 is a top-side view of an embodiment of the present invention.

[0013] FIG. 2 is a cross-sectional view taken along line 2-2 of FIG. 1.

[0014] FIG. 3 is a side view of an embodiment of the present invention.

DETAILED DESCRIPTION OF THE INVENTION

[0015] The inventors of the present application have developed, through diligent research, a foot brush providing multiple functions of cleaning, massaging and removing calluses from the feet of the user.

[0016] The invention will be described with reference to the figures forming a part of the present application. In the various figures similar elements are numbered accordingly.

[0017] FIG. 1 is a top view of an embodiment of the present invention. In FIG. 1, the foot brush comprises a base, 4, generally in the shape of a fish. The projected shape of the base is chosen for aesthetic purposes and does not alter the utility of the present invention.

[0018] FIG. 2 is a side view of an embodiment of the present invention.

[0019] FIG. 3 is partial cut-away side view of an embodiment of the present invention.

[0020] FIG. 4 is a top view of another embodiment of the present invention.

[0021] The foot brush comprises three primary regions. A wash region, 3, an abrasive region, 2, and a scrub region, 1.

[0022] The wash region, 3, comprises tall fibers attached to the base preferably by insertion into a receiving void as commonly employed by hair and tooth brushes. The wash region preferably forms an arc. The tall fibers are preferably soft and particularly suited to reach between the toes to clean the space therein. The tall fibers are preferably at least 1 inch tall to no more than about 3 inches long. Most preferably the tall fibers are about 2 inches long. Below about 1 inch long the fibers are not sufficiently long to reach between the toes and around the sides of the foot for adequate cleaning. If the fibers are longer than about 3 inches long they tend to mat easily which becomes unsightly. The fibers preferably form rows inserted into the base in a manner common to hair brushes and the like. In a particularly preferred embodiment illustrated in FIG. 3, every other row is parallel and angled in a first direction with the remaining rows being parallel and angled in a reverse direction such that the fibers cross. This alternating orientation allows for adequate scrubbing action. The fibers preferably form an angle with the base with the acute angle being between about 35° and about 90°.

[0023] The abrasive region, 2, is preferably formed into the base, 4, or stiff fibers attached to the base. The abrasive region is most preferably indented into the base. The lowest extent of the abrasive region comprises perforations, 9, to allow water to pass through thereby eliminating standing water. The perforations also form a roughened surface. The roughened surface allows for the removal of calluses on the heel by repeatedly rubbing the heel over the roughened

surface. The abrasive region preferably comprises a slope, or terraces, between the lowest extent and the upper surface of the base. The abrasiveness is created by surface undulations on the surface of the abrasive region or by stiff fibers. Moulding, ablating, or otherwise altering the surface of the material used to form the base may create the undulations. The undulations may be created by the incorporation a substance into the base material. The substance can create surface protrusions including stiff fibers. Material which can be incorporated into the base material includes sand, silica, plastics and other hard materials.

[0024] The scrubbing region, 1, comprises short stiff fibers. Short stiff fibers are particularly suitable for scrubbing and massaging the soles of the feet. The short fibers are preferably at least 0.25 inches to no more than 0.75 inches. Above 0.75 inches the fibers become to long to scrub adequately and below 0.25 inches the fibers become to short to flex adequately. The scrubbing region is rearward of the washing region and preferably forms an arc which, at least partially, circumvents the abrasive region. In one embodiment, the scrubbing region circumvents the central region.

[0025] In one embodiment, the rearward region comprises a primary scrubbing region, 1, and a secondary scrubbing region, 8. The secondary scrubbing region, 8, is preferably between the washing region and the abrasive region and may form a transition between the fibers of the primary scrubbing region and the washing region. In one embodiment the length of the fibers of the primary scrubbing region and secondary scrubbing region are substantially the same length with the stiffness of fibers in one region different from that of the other region. For example, the fibers of the secondary region may be stiffer than those of the primary region.

[0026] The base is preferably formed of a flexible material, most preferably, rubber. The base is most preferably about 0.25 to about 0.75 inches thick with about 0.5 inches thick most preferred. The base is preferably substantially planar on the lower side with suction cups secured to the lower side. The suction cups are most preferably integral to the base and formed as part of the base. Suction cups reversibly attach to the surface of a bath-tub or shower by excluding air to from a slight negative pressure relative to atmospheric pressure. The suction cups prohibit the foot brush from sliding. It is preferred that the top surface of the base be contoured with no non-perforated depressions. Most preferred is a base with a top surface that is contoured such that water will not accumulate except that which enters the central region. As described previously, the central region is perforated to allow water to pass through without accumulating. The base is therefore self-draining which reduces the possibility of water pooling and prohibit bacteria growth in the pools of water.

[0027] The size of the base is chosen to be sufficiently large to perform the intended function but not so large as to be obtrusive. A base no longer than about 12 inches in any direction is particularly preferred. A base with a long axis and a short axis is preferred with the short axis being preferably no more than about 10 inches in length. It is most preferred that the short axis be at least about 4 inches long and the long axis be at least 5 inches long. A foot brush with a base of approximately 8 inches by 10 inches is particularly preferred.

[0028] Various embodiments are provided in the illustrations. In FIGS. 1 and 2 a foot brush is illustrated wherein the scrubbing region circumvents the abrasive region. In this embodiment the washing region may comprise a primary scrubbing region, 1, and a secondary scrubbing region, 8, which is distinct from the primary scrubbing region. In another embodiment the primary scrubbing region and secondary scrubbing region may be indistinguishable.

[0029] An embodiment is illustrated in FIG. 3 wherein the primary scrubbing region, 1, and secondary scrubbing region, 8, are distinct and separated. The primary and secondary scrubbing regions may comprise identical fibers or the fibers of the two regions may differ in length, thickness or stiffness. The secondary scrubbing region is optional but preferred.

[0030] The fibers are preferably manufactured from an anti-bacterial material.

[0031] The foot brush can be used dry or wet. In a particularly preferred embodiment the foot brush is secured to the floor, or wall, of a bath tub or shower. The foot brush can be used with, or without, soaps or oils.

[0032] The invention has been described with particular emphasis on the preferred embodiments. It would be realized from the teachings herein that other embodiments, alterations, and configurations could be employed without departing from the scope of the invention which is more specifically set forth in the claims which are appended hereto.

1. A foot brush comprising:

a base comprising a top and a bottom;

a washing region comprising first fibers attached to said top of said base;

an abrasive region comprising an abrasive surface; and

a scrubbing region comprising second fibers attached to said base.

2. The foot brush of claim 1 wherein said first fibers are at least about 1 inch long to no more than about 3 inches long.

3. The foot brush of claim 1 wherein said first fibers are arranged in rows and attached to said base to protrude therefrom at an angle.

4. The foot brush of claim 3 wherein said rows comprise a first row and a second row and wherein said first row protrudes from said base at an angle of between about 35° to less than 90° and said second row protrudes from said base at an angle opposite to said first row between about 35° to less than 90°.

5. The foot brush of claim 1 wherein said second fibers are at least 0.25 inches long to no more than 0.75 inches long.

6. The foot brush of claim 1 wherein said abrasive region is a depression in said base.

7. The foot brush of claim 6 wherein said depression comprises perforations.

8. The foot brush of claim 1 wherein said bottom of said base comprises suction cups.

9. A foot brush comprising:

a base comprising a top and a bottom;

an indentation in said base wherein said indentation comprises an abrasive and perforations;

a first region attached to said top of said base wherein said first region comprises first fibers attached to said base and said region circumvents said indentation;

a second region attached to said top of said base wherein said first region is between said second region and said indentation.

10. The foot brush of claim 9 wherein said first region comprises a primary region and a secondary region and said

primary region comprises said first fiber and said secondary region comprises a third fiber.

11. The foot brush of claim 9 wherein said first region comprises a primary region and a secondary region and said secondary region is between said indentation and said second region.

12. The foot brush of claim 9 wherein said top of said base is contoured such that water cannot accumulate.

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