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(54) WATER POWERED BACK SCRUBBER

(57) The present invention relates generally to the field of personal hygiene devices, and to a back scrubbing device for use in bathing or showering for cleaning and/or exfoliating an individual's own back. Primarily the invention provides an improved water powered back scrubber or back washing device that easily mounts in a hand shower or on wall and provides a large cleansing surface having rotating scrubber that do not require electricity and are easily adjustable so as to accommodate users

of differing heights, and is capable of regulating water pressure. The water powered back scrubber or back washing device of the current invention uses wash rag as scrubbing device and the water from the hose for continuously turning of the scrubbing device. The device consists of double ended paddle wheel shaft installed side to side by sponge covered cylinder attached to shaft with mini hooks to grab wash rags.

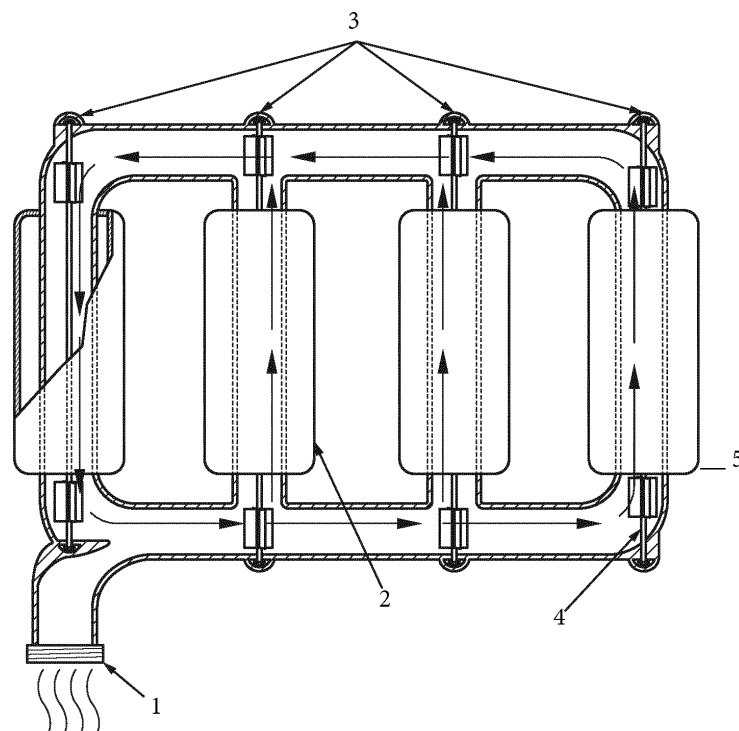


Fig. 1

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Description

FIELD OF THE INVENTION

[0001] The present invention relates generally to the field of personal hygiene devices, and to a back scrubbing device for use in bathing or showering for cleaning and/or exfoliating an individual's own back. More particularly, the invention relates to a water powered shower back scrubber and massager.

BACKGROUND OF THE INVENTION

[0002] Personal hygiene has always been a big concern for most people. One of the most difficult areas of the human body for an individual to clean his/her own back. Individuals have used various methods in the past to clean their own backs including, a back scrubbing brush, a washcloth held between both hands, and similar awkward devices. However, not one of these devices has resulted in an acceptable, efficient, solution for cleaning one's own back. In addition to this some persons find it difficult to reach portions of the body while bathing, especially so when they are showering erect. For example, persons with arthritis or orthopedic limitations or other injuries find it difficult to reach the lower extremities and the back.

[0003] Therefore the concept of back scrubbers goes back quite far in patented history, as evidenced by the 1988 U.S. Pat. No. 391,325 to Mayer. Patented efforts of twentieth century inventors are more sophisticated, and generally may be characterized as inventions having either user-powered or externally-powered mechanisms for moving a brush, sponge or other scrubbing element over the user's body. Thus, Tebo U.S. Pat. No. 1,488,076 teaches a scrubber having a brush which can be pulled by a cord passing over a cable for raising the brush. As the user pulls or releases a handle, the cord raises and lowers the brush. Briggs U.S. Pat. No. 3,078,484 discloses a back scrubbing device which is permitted to slide on a rack until it is in a position desired by the user, at which point it becomes fixed by pins anchoring it in position. A brush of the device is rotated by a spring motor. Greer U.S. Pat. No. 3,085,269 reveals a rotary shower brush which is caused to turn by a so-called water turbine unit, whereas Wurn et al U.S. Pat. No. 3,875,604 describes a back scrubber which, while being caused to rotate by water power, has a horizontal brush which can be positioned at a desired height along a pipe. Wallasch et al U.S. Pat. No. 4,356,583 improved upon that concept not only by having a horizontal brush but also by providing a rack-and-pinion arrangement so that, in response to a water-driven cylinder, the brush can be caused to travel up and down.

[0004] The prior art reveals numerous other devices designed to assist in the washing process. U.S. Pat. Nos. 5,228,165 issued to Westberry et al, 5,072,480 issued to Peters et al, 4,943,018 issued to Glaser et al, and

4,696,068 issued to Kenner all are directed to wall mounted back washing devices having fixed brushes that enable a person taking a shower or a bath to position their back against the device to assist in cleansing hard to reach areas. These devices require the user to supply any washing motion by rubbing, either side to side, or up and down, against the fixed device. U.S. Pat. Nos. 5,065,942 issued to Shannon, 4,271,543 issued to Martin, 4,228,557 issued to DeVivo et al, 4,171,094 issued to Halfen, 3,875,604 issued to Wurn et al, 3,724,760 issued to Smith, 2,697,839 issued to Jackson, and 1,758,115 issued to Kelly, are all directed to shower fixtures having either manual or automatic height adjusting features that enable the devices' cleansing means to move vertically relative to the user for cleansing hard to reach areas. U.S. Pat. No. 4,955,101 discloses a body brushing brush mounted on a wall in a shower including means for non-rotatably moving the brush in a small orbit such movement is achieved with a hydraulic drive mechanism. U.S. Pat. No. 5,345,640. This patent discloses the use of a multiple of rotary brushes mounted on a housing which can be mounted to the wall of a shower by way of suction cups. U.S. Pat. No. 5,774,907 shows a brush system which is mounted to the wall of the shower. The brush system is stationary and the bather has to provide for a relative movement against the brush. The brush element has a system whereby water sprays will emanate from the brush bristles onto the body part of the bather. U.S. Pat. No. 5,870,782 discloses a fitness-brush shower installation consisting of a rotary brush that is driven by an electric motor through various driving elements. Applicant is shying away from the use of any electric motors in any shower environment.

[0005] In general, these prior arrangements have been needlessly complicated, as well as difficult and uneconomical to produce. Further, they have generally been cumbersome or awkward to use. What is needed is a body scrubber which is inherently straightforward and economical in construction, so that it can be produced economically by mass production methods, and which is effective and easy to use.

[0006] Thus, there exists a need for an uncomplicated water powered back scrubber or back washing device that easily mounts in a hand shower or on wall and provides a large cleansing surface having rotating scrubber that do not require electricity and are easily adjustable so as to accommodate users of differing heights, and is capable of regulating water pressure. It is, therefore, to the effective resolution of the aforementioned problems and shortcomings that the present invention is directed.

[0007] More specifically, the use of water for providing rotation of the scrubber as suggested by the present invention provides a better design than the expected and obvious structural configurations, notwithstanding the myriad of designs encompassed by the crowded prior art which have been developed for the fulfillment of countless objectives and requirements.

SUMMARY OF THE INVENTION

[0008] In the view of the foregoing disadvantages inherent in the known types of back scrubbing device for use in bathing or showering now present in the prior art, the present invention provides an improved water powered shower back scrubber and massager.

[0009] As such, the general purpose of the present invention, which will be described subsequently in greater detail, is to provide a new and improved water powered back scrubbing device for use in bathing which has all the advantages of the prior art and none of the disadvantages.

[0010] The prime object of this invention is to provide an improved water powered back scrubber or back washing device that easily mounts in a hand shower or on wall and provides a large cleansing surface having rotating scrubber that do not require electricity and are easily adjustable so as to accommodate users of differing heights, and is capable of regulating water pressure.

[0011] Another object of this invention is to provide improved water powered back scrubber or back washing device that uses wash rag as scrubbing device.

[0012] Yet another object of this invention is to provide improved water powered back scrubber or back washing device that uses water from the hose for continuously turning of the scrubbing device.

[0013] Yet another object of this invention is to provide improved water powered back scrubber or back washing device that uses double ended paddle wheel shaft installed side to side by sponge covered cylinder attached to shaft with mini hooks to grab wash rags. Unit could be connected to shower walls by suction cups or with sliding tubes that allows scrubbing.

[0014] Another object of this invention is to provide improved water powered back scrubber or back washing device that is simple and inexpensive to manufacture.

[0015] Still yet another object of this invention is to provide improved water powered back scrubber or back washing device that is simple to use.

[0016] Still yet another object of this invention is to provide improved water powered back scrubber or back washing device that is plumbed directly to hot or cold water valves.

[0017] Still yet another object of this invention is to provide improved water powered back scrubber or back washing device that uses Velcro as connecting means of the scrubbing unit or grabber to the wash rag.

[0018] Yet another object of this invention is to provide improved water powered back scrubber or back washing device that is adjustable with a tube to attach to shower wall.

[0019] Yet another object of this invention is to provide improved water powered back scrubber or back washing device that is adjustable with adjusting means is a tube to attach to shower wall with a clamp on the back of the scrubbing unit.

[0020] Yet another object of this invention is to provide

improved water powered back scrubber or back washing device that is made up of molded plastic, copper and other metals and cloth or wash rag.

[0021] Yet another object of this invention is to provide improved water powered back scrubber or back washing device or unit that is connected to the shower walls by suction cups.

[0022] A final object of this invention to be specifically enumerated herein is to provide an improved back scrubbing device in accordance with the preceding objects and which will conform to conventional forms of manufacture, simple construction and provides water powered back scrubber.

[0023] These together with other objects of the invention, along with the various features of novelty which characterize the invention, are pointed out with particularity in the disclosure. For a better understanding of the invention, its operating advantages and the specific objects attained by its uses, reference should be had to the accompanying claims and descriptive matter in which there are illustrated preferred embodiments of the invention.

BRIEF DESCRIPTION OF THE DRAWINGS

[0024] To further clarify various aspects of some example embodiments of the present invention, a more particular description of the invention will be rendered by reference to specific embodiments thereof which are illustrated in the appended drawing. It is appreciated that the drawing depicts only illustrated embodiments of the invention and are therefore not to be considered limiting of its scope. The invention will be described and explained with additional specificity and detail through the use of the accompanying drawing in which:

Fig. 1 depicts the front view of the water powered scrubber according to the current invention.

Fig. 2 depicts the working model of the water powered scrubber according to the current invention.

Fig. 3 depicts the side view of the paddle wheel shaft according to the current invention.

DETAILED DESCRIPTION OF THE INVENTION

[0025] The embodiments are described in sufficient detail to enable those skilled in the art to practice the invention, and it is to be understood that the embodiments may be combined, or that other embodiments may be utilized and that structural and logical changes may be made without departing from the spirit and scope of the present invention. The following detailed description is, therefore, not to be taken in a limiting sense, and the scope of the present invention is defined by the appended claims and their equivalents.

[0026] Primarily, the invention provides an improved water powered back scrubber or back washing device

that easily mounts on a hand shower or on wall and provides a large cleansing surface having rotating scrubber, that does not require electricity and is easily adjustable so as to accommodate users of differing heights, and is capable of regulating water pressure. The water powered back scrubber or back washing device of the current invention uses wash rag as scrubbing device and the water from the hose for continuously turning of the scrubbing device. The device consists of double ended paddle wheel shaft installed side to side by sponge covered cylinder attached to shaft with mini hooks to grab wash rags. Unit could be connected to shower walls by suction cups or with sliding tubes that allow scrubbing.

[0027] The advantages of the water powered back scrubber or back washing device is that, it is simple and inexpensive to manufacture, and simple to use. The device of the current invention is plumbed directly to hot or cold water valves. The Velcro is used as connecting means of the scrubbing unit or grabber to the wash rag. Also, the device is adjustable with a tube to attach to shower wall. Further, this adjustment is facilitated with a tube to attach to shower wall with a clamp on the back of the scrubbing unit. The present invention is connected to the shower walls by suction cups. The invention can be used with existing hand showers or optionally be plumbed in a new construction.

[0028] The material used for the improved water powered back scrubber or back washing device of the present invention is molded plastic, copper and other metals and cloth or wash rag. The size is approximately 4 inches x 6-8 inches H, 10-12oz weight.

Now referring to the drawings, **Fig.1**, illustrates the front view of the water powered scrubber according to the current invention. The water inlet **1**, is the connection of water to the device for showers like hand showers. The device has multiple wash rag grabber **2** which are installed with attaching means, preferably Velcro. The number of wash rags used is at least two. The water once enters makes the wash rag grabber to spin for effective scrubbing of the back. The figure shows the paddle wheels **3** placed at multiple positions depending upon the height of the scrubbing unit required to be placed on the shower wall. The turnbuckle shaft **4** installed inside a cover cylinder **5**. The scrubbing unit is provided with suction cups or with sliding tubes that allows scrubbing, as second attaching means used for attaching the unit to the shower wall.

Further the **Fig.2**, illustrates the front view of the rag **6** used as scrubber according to the current invention. A special wash rag would be used which would be continuously turn being powered with water supplied by a hose similar to the currently used with hand showers. The invention can be optionally plumbed directly to the unit with hot or cold valves in case of new construction. The shown wash rag is attached to the unit of the invention with a first attaching means like Velcro.

Further the **Fig.3**, illustrates the transverse-sectional view of the paddle wheel shaft of the water powered

scrubber according to the current invention. The device of the present invention consists of double ended paddle wheel shaft **7** installed side to side by sponge covered cylinder **5** attached to turnbuckle shaft **8** with mini hooks to grab wash rags. The rags will turn with the water pressure. The unit of the invention has multiple such shafts installed from side to side with sponge covered cylinder attached to the shaft with mini hooks to grab wash rags. It is to be understood that the above description is intended to be illustrative, and not restrictive. For example, the above-discussed embodiments may be used in combination with each other. Many other embodiments will be apparent to those of skill in the art upon reviewing the above description. Many other embodiments will be apparent to those of skill in the art upon reviewing the above description.

[0029] The benefits and advantages which may be provided by the present invention have been described above with regard to specific embodiments. These benefits and advantages, and any elements or limitations that may cause them to occur or to become more pronounced are not to be construed as critical, required, or essential features of any or all of the embodiments.

[0030] Plural instances may be provided for components, operations or structures described herein as a single instance. Finally, boundaries between various components are somewhat arbitrary, and particular operations are illustrated in the context of specific illustrative configurations. Other allocations of functionality are envisioned and may fall within the scope of the inventive subject matter. In general, structures and functionality presented as separate components in the exemplary configurations may be implemented as a combined structure or component. Similarly, structures and functionality presented as a single component may be implemented as separate components. These and other variations, modifications, additions, and improvements may fall within the scope of the inventive subject matter.

Claims

1. A water powered back scrubber unit comprises:

scrubbing device;
grabber;
first attaching means;
second attaching means;
adjusting means;
paddle wheel shaft;
a tube; and
a clamp.

2. The water powered back scrubber unit of claim 1, wherein said unit is adjustable to accommodate users of differing heights, and is capable of regulating water pressure and providing a large cleansing surface.

3. The water powered back scrubber unit of claim 1,
wherein said scrubbing device is attached to said
grabber using said first attaching means.
4. The water powered back scrubber unit of claim 1, 5
wherein said first attaching means is Velcro.
5. The water powered back scrubber unit of claim 1,
wherein said paddle wheel shaft is a double ended
paddle wheel shaft installed side to side by sponge 10
covered cylinder attached to shaft.
6. The water powered back scrubber unit of claim 1,
wherein said unit is connected to shower walls sec-
ond attaching means. 15
7. The water powered back scrubber unit of claim 1,
wherein said second attaching means is suction
cups or sliding tubes that allows scrubbing. 20
8. The water powered back scrubber unit of claim 1,
wherein said unit is plumbed directly to hot or cold
water valves.
9. The water powered back scrubber unit of claim 1, 25
wherein said adjusting means is a tube to attach to
shower wall with a clamp on the back of the scrubbing
unit.
10. The water powered back scrubber unit of claim 1, 30
wherein said scrubbing device is a wash rag.
11. The water powered back scrubber unit of claim 10,
wherein said wash rag is at least two in number. 35
12. The water powered back scrubber unit of claim 10,
wherein said wash rag turning with the water pres-
sure.
13. The water powered back scrubber unit of claim 10, 40
wherein said paddle wheel shaft is attached using
mini hooks to grab said wash rags.

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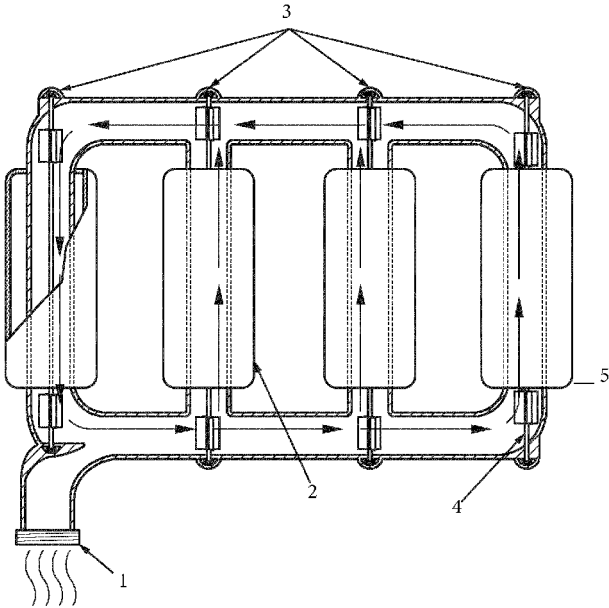


Fig. 1

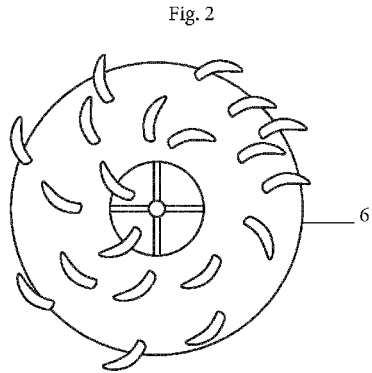


Fig. 2

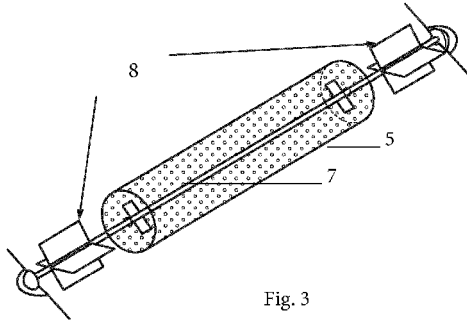


Fig. 3



EUROPEAN SEARCH REPORT

Application Number
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The present search report has been drawn up for all claims			
Place of search The Hague		Date of completion of the search 4 January 2017	Examiner Zuurveld, Gerben
CATEGORY OF CITED DOCUMENTS X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document		T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document	

**ANNEX TO THE EUROPEAN SEARCH REPORT
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For more details about this annex : see Official Journal of the European Patent Office, No. 12/82

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