ABRADING GLOVE WITH INTEGRATED CLEANER

Inventor: Tiffany D. Ruiz, Victorville, CA (US)

Correspondence Address:
Galasso & Associates, LP
P.O. Box 26503
Austin, TX 78755-0503 (US)

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ABSTRACT
A scrub glove for cleaning a variety of surfaces comprising two opposing sides peripherally joined to create a cavity therebetween for accommodating a human hand. The scrub glove further includes a body with a thumb compartment and four finger compartments mounted contiguous therewith. Substantially disposed on the body is an abrating surface. The abrating surface has embedded therein a surfactant. The scrub glove further includes a non-porous membrane for protection of a user’s hand from liquids and a cuff for releasably securing the glove to a user.
ABRADING GLOVE WITH INTEGRATED CLEANER

FIELD OF THE INVENTION

[0001] The present invention relates a cleaning glove, more specifically but not by way of limitation to a cleaning glove that has substantially disposed thereon an abrading surface and an embedded cleaning compound therein.

BACKGROUND

[0002] Individuals participating in industrial or domestic cleaning tasks use a variety of devices to clean surfaces or objects. While engaged in such tasks, sponges and other devices are often used to assist in cleaning the desired surface. A variety of cleaning apparatus have been used to accomplish these tasks.

[0003] While conventional cleaning gloves have been of assistance in cleaning desired surfaces, no current devices have been shown to address the need for cleaning a variety of surfaces while providing protection against prolonged exposure to cleaning solutions. Prolonged exposure to liquids softens the skin and increases the likelihood of injuries such as cuts caused by the cleaning surface.

[0004] Another problem is that many soft cleaning devices such as sponges lack sufficient abrasion power and are not capable of reaching corners, cracks and crevices. These cleaning devices are difficult to handle and the use thereof can result in damage to the user’s hand such as but not limited to broken fingernails. Items that are difficult to clean such as dried food particles on cookery have proven challenging when using conventional sponges.

[0005] A further problem with current devices is that when using these devices, a user must stop and apply a desired cleaning solution or surfactant to the device in order to properly clean and abrade the chosen surface.

[0006] Accordingly there is a need for a cleaning apparatus that provides an abrading surface suitable for cleaning a variety of surfaces and has the ability to clean difficult areas. Further the device should provide an abrading surface with a cleaning compound embedded therein.

SUMMARY OF THE INVENTION

[0007] It is an object of the present invention to provide an ambidextrous cleaning glove that can clean a variety of surfaces with an abrading surface substantially disposed thereon and the abrading surface will have a cleaning compound embedded therein.

[0008] It is another object of the present invention to provide a glove that has a flexible membrane that is impervious to liquids thus providing protection for the user’s hand.

[0009] A further object of the present invention is to provide a cleaning glove with at least two compartments to allow ergonomic use thereof for an extended period of time to reduce pain such as but not limited to muscle cramping in a user’s hand.

[0010] Yet another object of the present invention is to provide a cleaning glove that can be releasably secured to the user’s wrist.

[0011] Another object of the present invention is to provide a cleaning glove that has embedded therein a cleaning compound and is easy to use.

[0012] To the accomplishment of the above and related objects the present invention may be embodied in the form illustrated in the accompanying drawings. Attention is called to the fact that the drawings are illustrative only. Variations are contemplated as being a part of the present invention, limited only by the scope of the claims.

BRIEF DESCRIPTION OF THE DRAWING FIGURES

[0013] A more complete understanding of the present invention may be had by reference to the following Detailed Description and appended claims when taken in conjunction with the accompanying Drawings wherein:

[0014] FIG. 1 illustrates a rearward perspective view of an embodiment of the present invention;

[0015] FIG. 2 illustrates a frontal perspective view of an embodiment of the present invention; and

[0016] FIG. 3 illustrates a partial detailed enlarged view of the abrading surface of an embodiment of the present invention.

DETAILED DESCRIPTION

[0017] Referring now to the embodiments in FIGS. 1-3 and wherein the various elements depicted therein are not necessarily drawn to scale, there is illustrated a glove 100 constructed according to the principles of the present invention.

[0018] Referring now in particular to FIGS. 1 and 2, the glove 100 comprises of a body member 10 having two generally opposing sides 12 and 14. The opposing sides are joined peripherally at a center seam 20 to form a one-piece assembly. The opposing sides 12 and 14 are configured in a substantially planar manner and form a cavity 30 therebetween. The cavity 30 is of sufficient size and configured for receipt of a human hand therein.

[0019] Each of the opposing sides 12 and 14 of the body member 10 consists of an abrading surface 70 and a non-porous membrane 80. As illustrated in FIG. 3, the abrading surface 70 is constructed of a suitable abrasive material such as but not limited to minerals secured by conventional methods to a flexible backing. It is contemplated within the scope of the present invention that the abrading surface 70 could be comprised of numerous suitable abrasive materials. More specifically but not by way of limitation, the abrading surface 70 could be manufactured from nylon or polyester batting. Furthermore, the abrading surface 70 could contain a plurality of plastic bristles to aid the user in cleaning difficult surfaces. The abrading surface 70 is bonded to the non-porous membrane 80 by conventional methods such as but not limited to chemical adhesion and is substantially disposed on both opposing sides of the body member 10.

[0020] The abrading surface 70 has embedded therein a suitable surfactant or cleaning compound such as but not limited to calcium hypochlorite to facilitate the cleaning of the desired surface. The embedded surfactant or cleaning compound could consist of numerous different solid cleaning materials that would gradually disperse each time the glove 100 was used to clean a desired surface. Those skilled in the art will recognize that numerous methods could be used for securing the abrading surface 70 to the body member 10. Further, those skilled in the art will recognize that the abrading surface 70 could be disposed on all or part of the body member 10 as desired in order for the glove 100 to be adapted to clean a plurality of surfaces or objects.

[0021] Still referring to FIGS. 1 and 2, integrally mounted with the body member 10 is a thumb compartment 50. The
thumb compartment 50 is generally cylindrical in shape and of sufficient length to accommodate a thumb of a user's hand. The thumb compartment 50 provides enhanced dexterity when using the glove 100. The abrading surface 70 is also substantially disposed thereon the thumb compartment 50.

[0022] Contiguous with the top portion 85 of the body member 10 are a plurality of finger compartments 40. The finger compartments 40 are generally parallel with each other and extend outward from the body member 10 and also have substantially disposed thereon, the abrading surface 70. Although it is shown in the illustrated embodiment of the present invention that four finger compartments 40 are desirable, it is contemplated within the scope of the present invention that one large finger compartment 40 could be utilized to receive therein the fingers of a user's hand such.

[0023] Referring still to FIGS. 1 and 2, contiguous with the bottom portion 90 of the body member 10 and generally extending downward is the cuff member 60. The cuff member 60 is designed to releasably secure the glove 100 to the user's hand during the cleaning process. The cuff member 60 also provides protection to the user's wrist and forearm area from exposure to cleaning solutions. The cuff member 60 has integrated therewith an opening 95 distally located with respect to the body member 10 allowing access of the user's hand into the cavity 30. Although in a preferred embodiment the cuff member 60 is manufactured from latex rubber, it is contemplated within the scope of the present invention that the cuff member 60 could be manufactured from numerous materials to achieve the described functionality. More specifically but not by way of limitation, the cuff member 60 could be manufactured from expandable waterproof cloth. While no specific measurements of the cuff member 60 are required, good results have been shown to be achieved with a cuff member that is six inches in length.

[0024] The glove 100 is manufactured by conventional blow-molding process as a one-piece assembly forming a flexible non-porous membrane 80. The non-porous membrane 80 inhibits penetration of cleaning solutions into the cavity 30 thus preventing contacting the user's hand. The non-porous membrane 80 is made from conventional materials such as rubber. Those skilled in the art will recognize that numerous materials could be used in place of and/or in conjunction with rubber to manufacture the non-porous membrane 80. More specifically but not by way of limitation, the non-porous membrane 80 could be manufactured from butyl or nitrile rubber. Although good results have been achieved with a glove 100 that is twelve inches in length, it is contemplated that the size could be varied to accommodate and match different sized hands.

[0025] Referring in particular to the drawings submitted herewith, a description of the operation of the glove 100 is as follows. In use, a user inserts a desired hand, as the glove 100 is manufactured to promote ambidextrous use thereof, into the cavity 30 through the opening 95 in the cuff member 60. The user then engages their thumb and fingers into the thumb compartment 50 and the external compartments 40 respectively. The cuff member 60 releasably secures the glove 100 to the user's hand and provides protection thereof from cleaning solutions. The glove 100 can be placed in water to soften the embedded surfactant in the abrading surface 70. The user's hand is protected by the non-porous membrane 80. The user then places the glove 100 onto the desired surface engaging the abrading surface 70 and the cleaning compound embedded therein. The user then applies enough force to effectively clean and abrade the chosen surface.

[0026] In the preceding detailed description, reference has been made to the accompanying drawings that form a part hereof, and in which are shown by way of illustration specific embodiments in which the invention may be practiced. These embodiments, and certain variants thereof, have been described in sufficient detail to enable those skilled in the art to practice the invention. It is to be understood that other suitable embodiments may be utilized and that logical changes may be made without departing from the spirit or scope of the invention. The description may omit certain information known to those skilled in the art. The preceding detailed description is, therefore, not intended to be limited to the specific forms set forth herein, but on the contrary, it is intended to cover such alternatives, modifications, and equivalents, as can be reasonably included within the spirit and scope of the appended claims.

What is claimed is:

1. An apparatus for cleaning comprising:
   a body, said body having opposing sides joined peripherally to form a cavity therebetween, said cavity having an open end;
   a cuff connected to said body proximate to said cavity, said cuff for releasably securing the apparatus to a user;
   and a non-porous membrane attached to at least a portion of said body, said membrane for inhibiting liquids from propagating into said cavity.

2. The apparatus as recited in claim 1, wherein said cavity includes at least two compartments.

3. The apparatus as recited in claim 2, and further including an abrading surface, said abrading surface substantially disposed on said body.

4. The apparatus as recited in claim 3, wherein said abrading surface further includes a surfactant embedded therein.

5. The apparatus as recited in claim 4, wherein said abrading surface is manufactured from nylon batting.

6. The apparatus as recited in claim 5, wherein said surfactant is calcium hypochlorite.

7. A scrub glove for cleaning a variety of surfaces comprising:
   a body, said body consisting of first and second opposing sides, said opposing sides configured in substantially a planar manner and joined peripherally to form a cavity therebetween, said cavity having an opening being of sufficient size to accommodate a human hand;
   a cuff connected to said body contiguous with said opening, said cuff for releasably securing said scrub glove to a user;
   a non-porous membrane disposed on said body between said body and said cavity, said non-porous membrane for inhibiting liquids from propagating into said cavity; and
   an abrading surface, said abrading surface substantially disposed on said body.

8. The scrub glove as recited in claim 7, wherein said cavity being configured to include one thumb compartment to receive a user's thumb.

9. The scrub glove as recited in claim 8, wherein said cavity being configured to include a plurality of compartments with each of said plurality of compartments to receive a fingers of a user's hand.

10. The scrub glove as recited in claim 9, wherein said abrading surface is manufactured from nylon batting.
11. The scrub glove as recited in claim 10, wherein said abrading surface has embedded therein calcium hypochlorite.

12. The scrub glove as recited in claim 11, wherein said glove is manufactured from nitrile rubber.

13. A scrub glove for cleaning a plurality of surfaces comprising:

   a body, said body having a first and a second side with each of said first and second sides being configured in a substantially planar manner and further being joined peripherally to form a cavity therebetween, said cavity having an open end and being of sufficient size to accommodate a human hand;

   a cuff connected to said body contiguous with said open end, said cuff for releasably securing said scrub glove to a user;

   a non-porous membrane disposed between said first and second sides of said body and said cavity, said membrane for inhibiting liquids from propagating into said cavity; and

   an abrading surface, said abrading surface substantially disposed on said body.

14. The scrub glove as recited in claim 13, wherein said cavity being configured with five compartments for receipt therein of a user’s thumb and fingers.

15. The scrub glove as recited in claim 14, wherein said abrading surface further includes calcium hypochlorite embedded therein.

16. The scrub glove as recited in claim 15, wherein said abrading surface is manufactured from polyester batting.

17. The scrub glove as recited in claim 16, wherein said glove is twelve inches in length.

18. The scrub glove as recited in claim 17, wherein said glove is manufactured from nitrile rubber.

19. The scrub glove as recited in claim 18, wherein said cuff member is six inches in length.

20. The scrub glove as recited in claim 19, wherein said abrading surface further includes plastic bristles.