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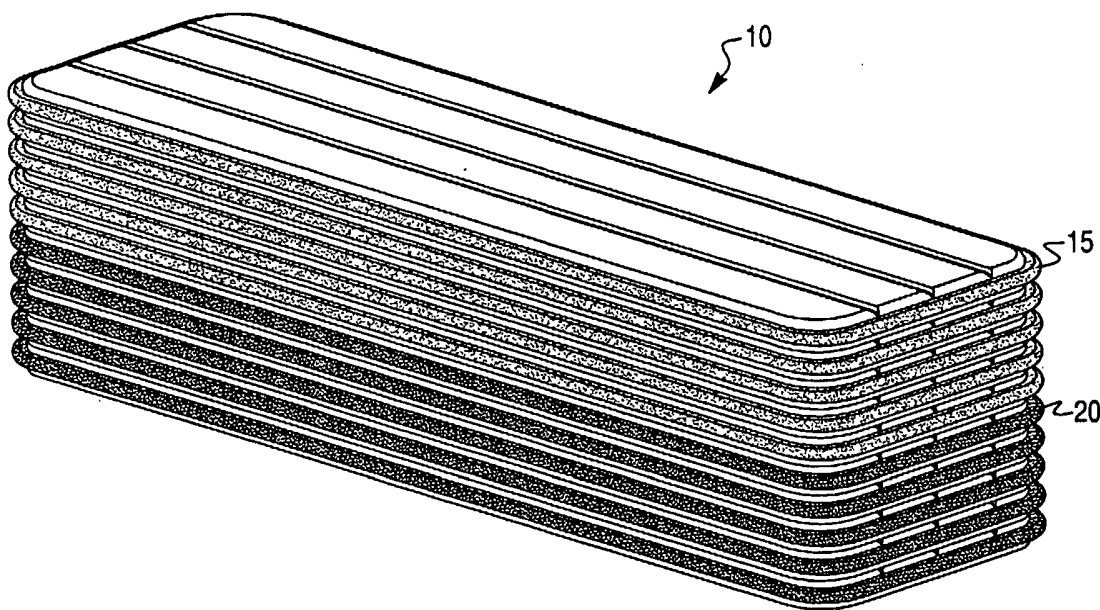
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[Continued on next page]

(54) Title: COLOR CODED MOP PADS AND METHOD OF COLOR CODING SAME



(57) Abstract: A set of color coded mop pads (10) includes a first mop pad (15) that is substantially flat, has a mop portion (21) with a periphery (22), and has a first colored piping (30) on the periphery associated with a first use, and a second mop pad (20) that is substantially flat, has a mop portion (21) with a periphery (22), and has a second colored piping (30) on the periphery associated with a second use. The color of the first colored piping is different from the color of the second colored piping and the first use is different from the second use. This configuration also provides a method for color coding mop pads.



SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

Published:

— *with international search report*

COLOR CODED MOP PADS AND METHOD OF COLOR CODING SAME
CROSS-REFERENCE TO RELATED APPLICATIONS

[0001] This application claims priority to U.S. Provisional Application Nos. 60/567,794 (filed May 5, 2004), 60/637,440 (filed December 21, 2004), and 60/646,986 (filed January 27, 2005), which are incorporated herein by reference in their entirety.

BACKGROUND

[0002] It can be desirable to designate particular mop pads, within a set of mop pads, for certain uses. It may be desirable to designate some mop pads for use in one location and other mop pads for use in another location. For example, to prevent cross-contamination, an environmental services manager may wish to ensure that mop pads used for disinfecting patient room floors in a hospital are not used in the hospital's common areas. As another example, a facility manager may wish to associate certain mop pads with specific locations to track the number of mop pads used over a time period in those locations.

[0003] It also may be desirable to designate some mop pads for one type of use and other mop pads for another type of use. As a specific example, to prevent cross-contamination, a facility manager may wish to designate certain mop pads for cleaning up hazardous materials and other mop pads for applying disinfectant.

[0004] Also, it may be desirable to designate mop pads for use only by particular users. The ability to correlate mop pads to users allows a facility manager to track the number of mop pads used by each user. Also, it allows the facility manager to determine whether particular users are experiencing losses of mop pads.

[0005] Mops have been designated for particular uses by color coding techniques that are less than optimal. For example, mops have been made entirely of a yarn of a particular color, and the mops are differentiated by using a different color yarn for each mop. This technique creates problems in manufacturing because large quantities of yarns of different colors must be stored, and the different yarns must be loaded on

the manufacturing equipment when switching from one color mop to another. As another example, mops have been made with stitching of a particular color, and different color stitchings are used to differentiate mops. This technique also creates problems in manufacturing because different color stitchings must be stored and loaded on the manufacturing equipment when changing from type of mop to another. In addition, the distinguishing colors can be difficult to see when the mops are stacked or in use.

SUMMARY

[0006] An aspect of the present invention relates to a method of coding mop pads. The method comprises the steps of providing a first mop pad, wherein the first mop pad is substantially flat, has a mop portion with a periphery, and has a first colored piping associated with a first use and that extends along on at least a portion of the periphery of the mop portion of the first mop pad, and providing a second mop pad, wherein the second mop pad is substantially flat, has a mop portion with a periphery, and has a second colored piping associated with a second use and that extends along at least a portion of the periphery of mop portion of the second mop pad. The color of the first colored piping is different from the color of the second colored piping and the first use is different from the second use.

[0007] Another aspect of the present invention relates to a set of color coded mop pads. The set comprises a first mop pad that is substantially flat, has a mop portion with a periphery, and has a first colored piping on the periphery associated with a first use, and a second mop pad that is substantially flat, has a mop portion with a periphery, and has a second colored piping on the periphery associated with a second use. The color of the first colored piping is different from the color of the second colored piping and the first use is different from the second use.

[0008] It is to be understood that both the foregoing general description and the following detailed description are merely exemplary of the invention, and are intended to provide an overview or framework for understanding the nature and character of the invention as it is claimed. The accompanying drawings are included to provide a further understanding of the invention, and are incorporated in and

constitute a part of this specification. The drawings illustrate various embodiments of the invention, and together with the description serve to explain the principles and operation of the invention.

BRIEF DESCRIPTION OF THE DRAWINGS

[0009] Figure 1 is a perspective view of a first embodiment of a set of mop pads according to the present invention;

[0010] Figure 2 is a cross-sectional view of a first embodiment of a mop pad according to the present invention taken along line A-A in Figure 3;

[0011] Figure 3 is a top view of the mop pad of Figure 2; and

[0012] Figure 4 is a top view of the mop pad of Figure 2, which is mounted on a mop pad support.

DETAILED DESCRIPTION

[0013] Presently preferred embodiments of the invention are illustrated in the drawings. An effort has been made to use the same or like reference numbers throughout the drawings to refer to the same or like parts.

[0014] One aspect of the present invention relates to a set of color coded mop pads. An embodiment of a set of color coded mop pads 10 is shown in Figure 1. The mop pads in that figure are stacked on top of one another. The set of mop pads 10 preferably includes at least a first mop pad 15 and a second mop pad 20. The set of mop pads shown in Figure 1 contains ten mop pads.

[0015] Each mop pad 15, 20 in the set 10 preferably is substantially identical, except for the color coding that will be described below. For ease of explanation, the specific structure of only the embodiment of the second mop pad 20 will be described, and it is to be understood that the first mop pad 15 preferably has the same structure.

[0016] The mop pad 20 preferably is substantially flat and has a mop portion 21 with a periphery 22. The mop portion 21 can include a plurality of layers 24, 26, 28. Figure 2 shows a cross-sectional view of an example of a mop pad 20 having a top layer 24, a middle layer 26, and a bottom layer 28. The top layer 24 preferably is formed of the loop side of VELCRO material. The middle layer 26 preferably is made of conventional foam used in mop pads. The bottom layer 28 preferably is

formed of a knitted microfiber material, as is conventional in the art. The layers 24, 26, 28 can be connected by stitching 29, as shown in Figure 2.

[0017] The mop pad 20 also includes colored piping 30 disposed along at least portion of the periphery 22 of the mop portion 21. The colored piping 30 can be, for example, polyester material. As shown in Figure 3, preferably the colored piping 30 extends around the entire periphery 22 of the mop portion 21 of the mop pad 20. The colored piping 30 can be attached to a layer 24, 26, 28 in the mop portion 21 by stitching 32 (see Figure 2) that extends through the colored piping 30 and the layer 24, 26, 28. Preferably the stitching 32 extends through the top and bottom layers 24, 28, and more preferably it extends through all three layers 24, 26, 28, as shown in Figure 2. In the embodiment shown in the drawings, the layers 24, 26, 28 of the mop portion 22 are stacked on top of one another and have peripheries 22', 22'', 22''' that are coextensive to form the periphery 22 of the mop portion 21. Should the peripheries 22', 22'', 22''' of the layers 24, 26, 28 not be coextensive (not shown), the colored piping 30 could extend along at least a portion of a periphery 22', 22'', 22''' of at least one of the layers 24, 26, 28.

[0018] The first mop pad 15 in the set 10 has colored piping of a first color (e.g., blue), and the second mop pad 20 has colored piping 30 of second color (e.g., green) that is different from the first color. Preferably, the colored piping 30 on an individual mop pad 15, 20 is uniform in color. The first color is associated with a first use, and the second color is associated with a second use that is different from the first use. The first and second uses can relate to, for example, a type of use, such as picking up hazardous material (first use) and applying disinfectant (second use). As another example, the first and second uses can relate to an area of use, such as mopping a hospital patient room floor (first use) and mopping a hospital lobby or other common area (second use). As yet another example, the first and second uses can relate to a user, such as mop pads for an employee on the day shift (first use) and mop pads for an employee on the night shift (second use).

[0019] The flat mop pad 20 preferably is attached to a mop pad support 40 (see Figure 4). A preferred mop pad support 40 includes a frame 42 configured to retain a

mop pad 20, a handle 44 for maneuvering the frame 42, and a joint mechanism 46 that connects the handle 44 to the frame 42. Such a preferred mop pad support is disclosed in a patent application that is to be concurrently filed by A. Reneau Van Landingham entitled "Mop Having Ergonomic Handle and Joint" (Serial No. _____; Attorney Docket Number 086554-1179), the entire contents of which is hereby incorporated by reference. The VELCRO material layer 24 of the mop pad 20 can mate with hook side VELCRO strips (not shown) on the frame 42 of the mop pad support 40.

[0020] The mop pad can be used, for example, with a mop bucket having a foot pedal wringer mechanism and a scrub board. A preferred mop bucket is disclosed in a patent application that is to be concurrently filed by A. Reneau Van Landingham and Craig Rogers entitled "Bucket With Foot Pedal Wringer Mechanism and Scrub Board" (Serial No. _____; Attorney Docket Number 086554-1173), the entire contents of which is hereby incorporated by reference.

[0021] The mop pad also can be used, for example, with a disinfecting bucket. A disinfecting bucket is disclosed in a patent application that is to be concurrently filed by A. Reneau Van Landingham entitled "Disinfecting Bucket" (Serial No. _____; Attorney Docket Number 086554-1172), the entire contents of which is hereby incorporated by reference.

[0022] Embodiments of the set 10 of mop pads 15, 20 of the present invention can be configured to resolve problems experienced with conventional mop pads. For example, providing colored piping 30 on the periphery 22 of the mop portion 21 of the mop pad 20 decreases manufacturing problems. It is not necessary to store different color yarn and stitching used to make the mops, and reload manufacturing equipment during manufacturing runs. Instead, the yarn and stitching can be maintained uniform, and only a different colored piping 30 need be applied to the periphery 22 of the mop portion 21 of the mop pad 20. Additionally, providing colored piping 30 on the periphery 22 of the mop portion 21 of the mop pad 20 enhances the ability to differentiate between mop pads 15, 20. Unlike the use of different color stitching, which can make it difficult to distinguish between the mops

when they are stacked or in use, the mop pads 15, 20 of the present invention can be configured to provide high visibility. For example, as shown in Figure 1, the piping on the periphery of all mop pads 15, 20 in the set 10 can be readily seen. Additionally, as shown in Figure 4, the piping 30 on the periphery 22 of the mop portion 21 mop pad 20 can be readily seen even when the mop pad 20 is mounted on a mop pad support frame 42.

[0023] It will be apparent to those skilled in the art that various modifications and variations can be made to the present invention without departing from the spirit and scope of the invention. Thus, it is intended that the present invention cover the modifications and variations of this invention provided they come within the scope of the appended claims and their equivalents.

What is claimed is:

1. A method of coding mop pads, the method comprising the steps of:
providing a first mop pad, wherein the first mop pad is substantially flat, has a mop portion with a periphery, and has a first colored piping associated with a first use and that extends along on at least a portion of the periphery of the mop portion of the first mop pad; and
providing a second mop pad, wherein the second mop pad is substantially flat, has a mop portion with a periphery, and has a second colored piping associated with a second use and that extends along at least a portion of the periphery of mop portion of the second mop pad,
wherein the color of the first colored piping is different from the color of the second colored piping and the first use is different from the second use.
2. The method of claim 1, wherein the first and second colored pipings are each uniform in color.
3. The method of claim 1, wherein the first colored piping extends around the entire periphery of the mop portion of the first mop pad and the second colored piping extends around the entire periphery of the mop portion of the second mop pad.
4. The method of claim 1, wherein the mop portion of the first mop pad includes at least a top layer of material and a bottom layer of material having substantially coextensive peripheries and the first colored piping extends along at least portion of the peripheries of the top and bottom layers of material, and the mop portion of the second mop pad includes at least a top layer of material and a bottom layer of material having substantially coextensive peripheries and the second colored piping extends along at least portion of the peripheries of the top and bottom layers of material.
5. The method of claim 1, wherein the mop portion of the first mop pad includes at least a top layer of material and a bottom layer of material and the first colored piping is attached to the top and bottom layers by stitching that extends through the top and bottom layers, and the mop portion of the second mop pad includes at least a top layer of material and a bottom layer of material and the second colored piping is

attached to the top and bottom layers by stitching that extends through the top and bottom layers.

6. The method of claim 1, wherein the first and second uses are each at least one of a type of use, an area of use, and a user.

7. A set of color coded mop pads, the set comprising:

a first mop pad that is substantially flat, has a mop portion with a periphery, and has a first colored piping on the periphery associated with a first use; and

a second mop pad that is substantially flat, has a mop portion with a periphery, and has a second colored piping on the periphery associated with a second use,

wherein the color of the first colored piping is different from the color of the second colored piping and the first use is different from the second use.

8. The set of color coded mop pads of claim 7, wherein the first and second colored pipings are each uniform in color.

9. The set of color coded mop pads of claim 7, wherein the first colored piping extends around the entire periphery of the mop portion of the first mop pad and the second colored piping extends around the entire periphery of the mop portion of the second mop pad.

10. The set of color coded mop pads of claim 7, wherein the mop portion of the first mop pad includes at least a top layer of material and a bottom layer of material having substantially coextensive peripheries and the first colored piping extends along at least portion of the peripheries of the top and bottom layers of material, and the mop portion of the second mop pad includes at least a top layer of material and a bottom layer of material having substantially coextensive peripheries and the second colored piping extends along at least portion of the peripheries of the top and bottom layers of material.

11. The set of color coded mop pads of claim 7, wherein the mop portion of the first mop pad includes at least a top layer of material and a bottom layer of material and the first colored piping is attached to the top and bottom layers by stitching that extends through the top and bottom layers, and the mop portion of the second mop pad includes at least a top layer of material and a bottom layer of material and the

second colored piping is attached to the top and bottom layers by stitching that extends through the top and bottom layers.

12. The set of color coded mop pads of claim 7, wherein the first and second uses are each at least one of a type of use, an area of use, and a user.

Fig. 1

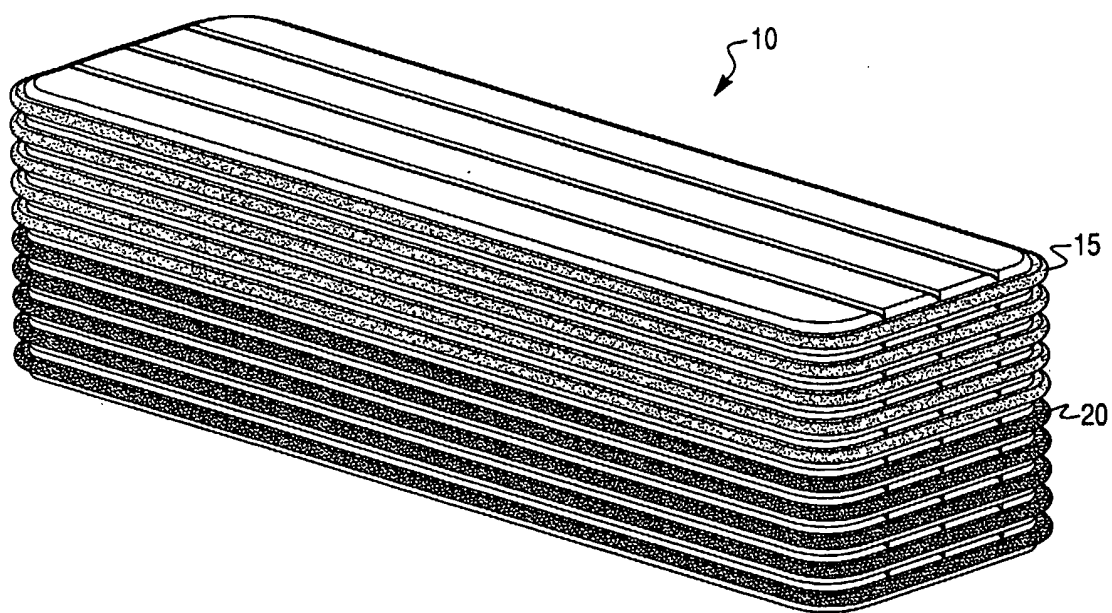


Fig. 2

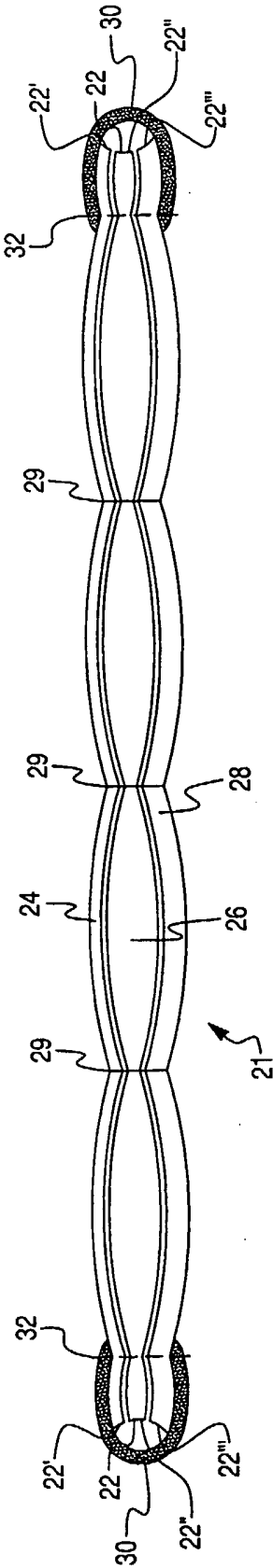


Fig. 3

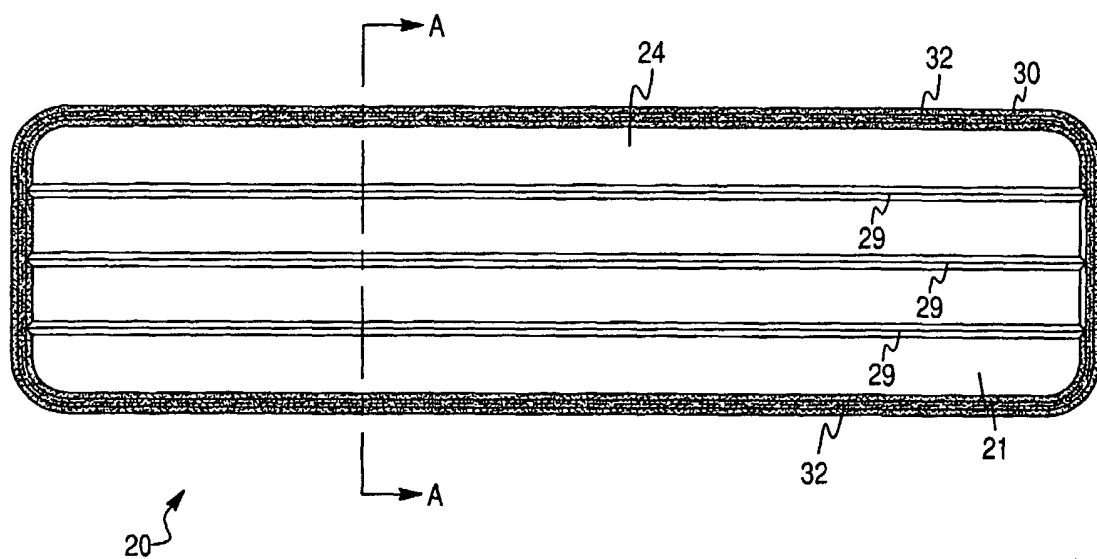
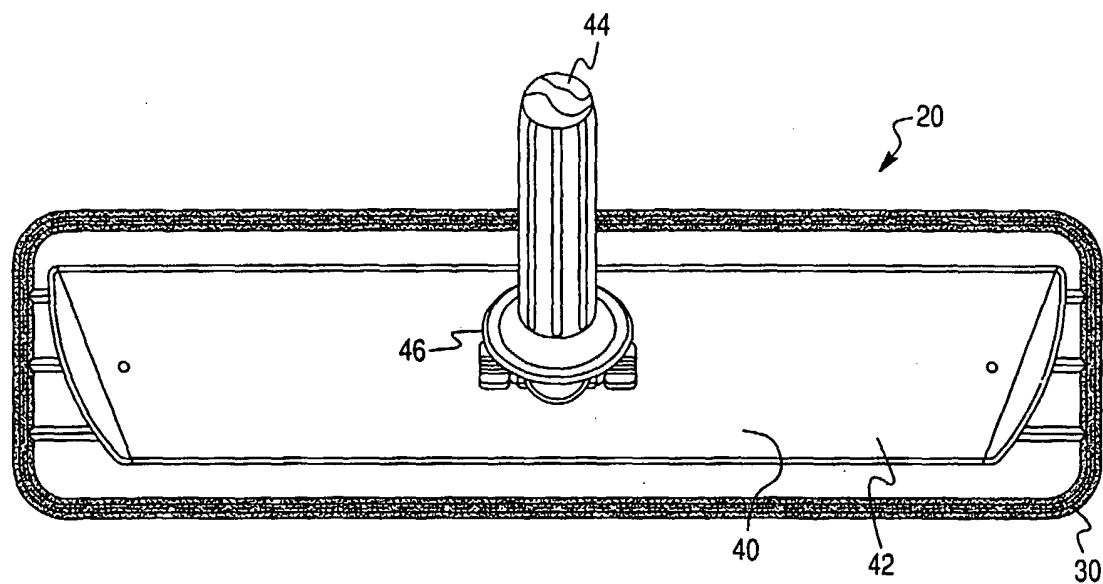


Fig. 4



INTERNATIONAL SEARCH REPORT

Intern~~ational~~ Application No

PCT/US2005/015731

A. CLASSIFICATION OF SUBJECT MATTER
 IPC 7 A47L13/20

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
 IPC 7 A47L

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 6 141 820 A (SCHMIEDHOFF ET AL) 7 November 2000 (2000-11-07) claims 1,2	7-12
A	----- US 4 811 990 A (QUEARRY ET AL) 14 March 1989 (1989-03-14) column 5, line 41 - line 43; figures 1,4	1,6
A	----- US 4 829 622 A (O'SULLIVAN ET AL) 16 May 1989 (1989-05-16) column 3, line 65 - line 67; figures	1,6
A	----- US 5 109 637 A (CALAFUT ET AL) 5 May 1992 (1992-05-05) column 3, line 10 - line 13; figures	1,6



Further documents are listed in the continuation of box C.



Patent family members are listed in annex.

* Special categories of cited documents:

- *A* document defining the general state of the art which is not considered to be of particular relevance
- *E* earlier document but published on or after the international filing date
- *L* document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- *O* document referring to an oral disclosure, use, exhibition or other means
- *P* document published prior to the international filing date but later than the priority date claimed

- *T* later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
- *X* document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- *Y* document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.
- *G* document member of the same patent family

Date of the actual completion of the international search

19 August 2005

Date of mailing of the international search report

29/08/2005

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INTERNATIONAL SEARCH REPORT

International application No.
PCT/US2005/015731

Box II Observations where certain claims were found unsearchable (Continuation of item 2 of first sheet)

This International Search Report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☐ Claims Nos.:
because they relate to subject matter not required to be searched by this Authority, namely:
2. ☒ Claims Nos.: 7, 12
because they relate to parts of the International Application that do not comply with the prescribed requirements to such an extent that no meaningful International Search can be carried out, specifically:
see FURTHER INFORMATION sheet PCT/ISA/210
3. ☐ Claims Nos.:
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

Box III Observations where unity of invention is lacking (Continuation of item 3 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

1. ☐ As all required additional search fees were timely paid by the applicant, this International Search Report covers all searchable claims.
2. ☐ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3. ☐ As only some of the required additional search fees were timely paid by the applicant, this International Search Report covers only those claims for which fees were paid, specifically claims Nos.:
4. ☐ No required additional search fees were timely paid by the applicant. Consequently, this International Search Report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

Remark on Protest

- ☐ The additional search fees were accompanied by the applicant's protest.
- ☐ No protest accompanied the payment of additional search fees.

Continuation of Box II.2

Claims Nos.: 7,12

Although claims 7 and 12 are addressed to a product (a set of mop pads), the following features contained in said claims relate to the way in which the mop pads are intended to be used, rather than defining the product in terms of its technical features:

a) in independent claim 7:

- The mop pads are color coded,
- the first color piping is associated with a first use,
- the second piping is associated with a second use, and
- the first use is different from the second use.

b) in dependent claim 12:

- the first and second uses are each at least one of a type of use, an area of use, and a user.

As a consequence, the limitations intended to be defined by these features are not clear and independent product claim 7 and dependent claim 12 do not fulfill the clarity requirements of Article 6 PCT to such an extent that it is not possible to carry out a meaningful search into the state of the art for said claims.

Consequently, the search for these claims has been carried out for those parts which appear to be clear, namely the following:

a) independent claim 7:

a set of pads comprising:

- a first mop pad that is substantially flat, has a mop portion with a periphery and has a first colored piping on the periphery, and,
- a second mop pad that is substantially flat, has a mop portion with a periphery and has a second colored piping on the periphery, wherein,
- the color of the first colored piping is different from the color of the second colored piping.

b) dependent claim 12 has not been searched, since none of the limitations that it contains defining the product in term of its technical features.

The applicant's attention is drawn to the fact that claims relating to inventions in respect of which no international search report has been established need not be the subject of an international preliminary examination (Rule 66.1(e) PCT). The applicant is advised that the EPO policy when acting as an International Preliminary Examining Authority is normally not to carry out a preliminary examination on matter which has not been searched. This is the case irrespective of whether or not the claims are amended following receipt of the search report or during any Chapter II procedure. If the application proceeds into the regional phase before the EPO, the applicant is reminded that a search may be carried out during examination before the EPO (see EPO Guideline C-VI, 8.5), should the problems which led to the Article 17(2) declaration be overcome.

Information on patent family members

International Application No

PCT/US2005/015731

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
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