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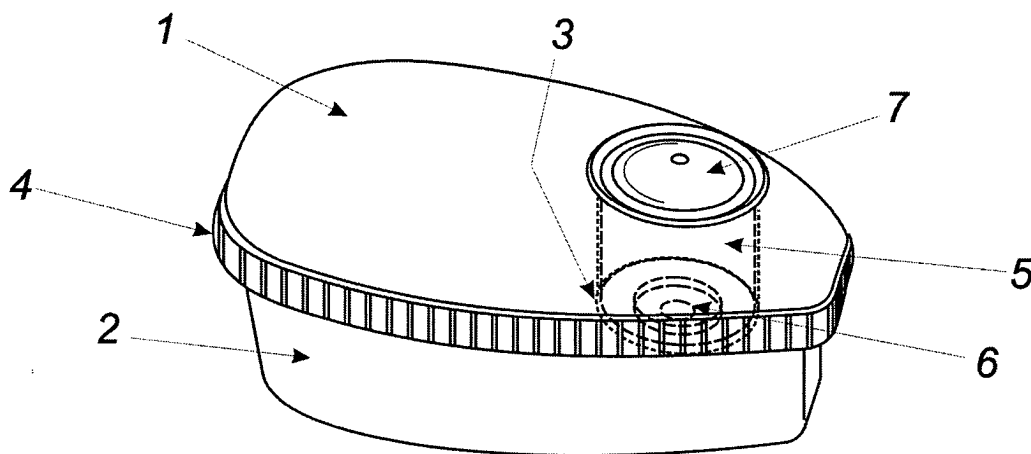
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(54) **SURFACE-POLISHING BLOCK**

(57) The invention relates to a polishing block for surfaces of the type formed of a spongy body that carries in its interior an element that contains the viscous, cleaning, repairing, polishing and/or inking to whose upper section is attached a body made of relatively rigid material that serves as grasping means. The invention is **characterized in that** it is provided with a cavity that extends through the said grasping means (4) and reach-

es the fluffy mass (2) of the polishing block (1), in which cavity is accommodated a receptacle (5) with rigid walls containing the said viscous substance, and whose upper portion, that is located in the said grasping means (4), is flexible and resilient (5), capable of being pressed by users and, the said receptacle (5) having at the lower portion thereof a valve (6) for regulating the exit the substance.

Fig. 1



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Description

FIELD OF THE INVENTION

[0001] Polishing block for surfaces of the type formed of a spongy body impregnated with a viscous, cleaning, repairing, polishing and/or inking substance, to whose upper section is attached a body made of relatively rigid material that serves as grasping means, this polishing block for surfaces having the novelty of incorporating a receptacle with a valve for the exit of the substance to be applied, the quantity of the substance applied depending on the pressure exerted by the user on the upper section of the said receptacle, which is advantageously provided with a resilient window.

BACKGROUND OF THE INVENTION

[0002] Blocks formed of a spongy body which is impregnated with a viscous, cleaning, repairing, polishing and/or inking substance for those surfaces to be cleaned, whether footwear, a sofa or any other material, are known. These spongy blocks are on occasion attached to the lids of the receptacles used to market the product, so that users can take hold of the said lid and rub the block without soiling his or her hands.

[0003] Spanish utility models nos. 223545, 256738, 260913, 265107, 237578 and 9702252 describe cleaning blocks of this type.

[0004] The disadvantage of the above-mentioned blocks is that the cleaning substance gradually dries and becomes used up rendering the block unusable even after just a few uses of same. Another known inconvenience is that the sponges cannot be excessively impregnated in order to prevent dripping, which implies that the quantity of cleaning substance with which the sponges are provided is scant.

[0005] Spanish utility model no. 8703744 incorporates in the sponge body a capsule with an additional quantity of viscous substance. This capsule becomes ruptured when some pressure is exerted thereon, thereby impregnating the spongy body again.

[0006] The disadvantage of the above solution is that it does not permit successive dosing of the cleaning substance.

[0007] Also known are cleaning sponges, typically for footwear, that are attached to a tube-shaped reservoir containing the cleaning substance. In this type of sponges the reservoir communicates with the sponge via a pipe, with or without a needle valve, thereby impregnating the sponge in a continuous way when pressure is exerted thereon.

[0008] Spanish utility models nos. 135815, 161340, 176237 and 9402010 disclose sponges of this type.

[0009] The main problem with this type of sponges stems from the fact that the dosing of the cleaning substance becomes arbitrary and uneven. The sponge dries up and tends to come off the tube. Also, the pipe

joining the sponge with the reservoir eventually becomes perforated and scratches the surface to be cleaned.

[0010] Spanish utility model no. 9801381 describes in one of its embodiments a bath sponge that incorporates in its interior a supply located inside a non-porous body having an exit valve for the substance that impregnates the sponge.

[0011] The disadvantage of the above device is that, owing to the very nature of its construction that is designed for bath sponges, it cannot successfully be applied to polishing blocks having a means or rigid upper layer for grasping like the one of the present invention, since the said polishing blocks consequently receive vertical application pressure upon the surface to be cleaned.

[0012] While in bath sponges like the ones above-described, the valve can easily be opened by compressing the sponge, in contrast, a downwardly exerted pressure, of the type used for polishing blocks, would easily obdurate the said valve due to the opposing force from the surface to be cleaned.

EXPLANATION OF THE INVENTION

[0013] The present invention describes a polishing block for surfaces which has the characteristic that the polishing block is provided with a cavity that extends through the lid or rigid layer for grasping, reaching the mass of the fluffy body that accommodates a receptacle containing the viscous, cleaning, repairing, polishing and/or inking substance and having a window to the exterior for checking the content of the receptacle, that is, whether it is full or empty, the said window being resilient and thanks to that permitting users to apply the substance since the receptacle further incorporates an exit valve for the viscous matter.

[0014] In a preferred embodiment of the invention the said exit valve is constructed by means of the engagement of a rigid plug that is coupled to the said receptacle and is provided with an interior wall and an annular ring against which it is fastened a resilient sheet that is fixed by a rigid closing wheel.

[0015] This particularly advantageous arrangement represents a significant improvement in the dosing and control of the matter used by the polishing block with respect to the usually very uneven supply of viscous substance performed by the means described in the Prior Art.

[0016] Further, users of the Prior Art are usually not aware of the quantity that is left for use for they cannot check it and in consequence whenever the supply of the substance is scant due to the above-described deficiencies of the Prior Art, users tend to assume that the product supply is exhausted and discard sponges still containing a significant quantity of cleaning matter.

[0017] The said reservoir window permits to advantageously check the quantity of viscous matter contained

in the reservoir and further permits, when pressed by the user, an absolutely discretionary and optimal dosing of the content thereof, which content is evenly distributed upon the fluffy body of the polishing block.

BRIEF DESCRIPTION OF THE DRAWINGS

[0018] Hereinbelow is described an embodiment by way of a nonlimiting example of the new block, which is accompanied by one single sheet of drawings wherein Figure 1 is a perspective view of a block according to the present invention.

[0019] Figure 2 shows a breakdown view of the valve according to the invention with its parts spaced apart and in line.

DETAILED EXPLANATION OF A PREFERRED EMBODIMENT

[0020] The invention consists of a polishing block for surfaces

(1) of the type formed of a spongy body (2) that contains the viscous, cleaning, repairing, polishing and/or inking substance. To the upper section of the block is attached a body made of relatively rigid material that serves as grasping means (4), the said block being provided with a cavity (3) that extends through the said grasping means

(4) reaching the body of the fluffy mass (2) and upon which mass a receptacle (5) is arranged, such receptacle having a resilient window (7) for showing the interior thereof and the said block having a valve (6) for the exit of the viscous matter towards the interior of the sponge body.

[0021] In the preferred embodiment of the invention the said valve (6) is formed of a plug (8) having a central orifice (11) coupled to the said receptacle (5) that is provided with an integral concentric ring (15) that accommodates a resilient sheet (9) with a central orifice (12) and a side notch (13) that gets retained thanks to the coupling of a rigid wheel (10) upon the said ring (15).

[0022] The sheet is secured in place by the central section (14) of the wheel that is consecutively fitted into the respective orifices (12 and 11) both of the sheet (9) and the plug (8).

[0023] Users who wish to make use of the block of the invention, after making sure through the resilient window (7) that there actually is cleaning substance in the receptacle (5), press the said resilient window (7) so as to get the said cleaning substance spread on the sponge of the polishing block and be able to rub the surface to be treated.

[0024] Given the fact that the sheet (9), that is made of a flexible material, such as silicone, is pressed at the central portion thereof between the plug (8) and the center section (14) of the wheel (10), the pressure ex-

erted by the user upon the resilient window (7) causes an internal overpressure in the receptacle which in turn causes the flexion of the side perimeter thereof, which enables the exit of substance through the valve (6) preferably through the region of the sheet (9) that is provided with the side notch (13), the said substance next flowing through the existing apertures between the radial arms and the circular perimeter of the wheel (10).

[0025] The existence of an orifice (12) in the sheet (9) facilitates the return of air to the receptacle (5), since when the pressure exerted by the user upon the resilient window (7) ceases, the sheet (9) then returns to its original position thereby closing the aperture previously created when the said aperture became abutted against the central surface of the plug (8), and a slight depression equivalent to volume of liquid that has been previously expelled is produced in the interior of the reservoir (5), the sheet then (9) flexes in the opposite direction, opening a passage between the central portion of the wheel (14) and the above-mentioned orifice (12) through which the air can enter the interior of the reservoir (5) until balancing the external and internal pressures occurs; at which point the sheet (9) stays at the original rest position and closes again both orifices (11 and 12) owing to the fact that it fits both to the member (8) and to the protuberance (14) of the wheel (10), which permits subsequent uses of the substance contained in the receptacle (5) and prevents the resilient window (7) from being deformed after the applications for failing to compensate the internal depression upon the exit of some volume of liquid from the reservoir (5).

[0026] The above arrangement works as a bidirectional valve that, while at rest, keeps the liquid contained from spilling off the receptacle, but in contrast, when pressure is exerted upon the window (7) causes the exit of some liquid to the exterior of the receptacle and, when this pressure ceases, permits the entry of air from the exterior through orifice (12) to the interior of the receptacle until pressure balance is obtained, after which it returns to the rest position.

[0027] Furthermore, it is evident that different materials can be used both for the resilient window (7), which window can be more or less translucent, and for the receptacle body (5). Also, different materials can be used to form the rigid parts of the valve (6), which can be constructed with variable hardness and rigidity, such as for instance with rigid plastic material that can also have a certain degree of flexibility, or with any material that enables secure mutual coupling by means of any conventional method.

[0028] The polishing block of the invention can be arranged in any type of already known embodiments, such as in a block with several strata of different hardness and properties, with rigid lids of different flexibility and assembled in body-lid assemblies that provide a more or less impervious closure or packaging of the assembly without substantially altering the invention.

[0029] It is understood that in the present case any

changes regarding details of construction and finish may be resorted to provided they do not depart from the spirit of the invention.

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Claims

1. POLISHING BLOCK FOR SURFACES of the type formed of a spongy body that carries in its interior an element that contains the viscous, cleaning, repairing, polishing and/or inking to whose upper section is attached a body made of relatively rigid material that serves as grasping means, **CHARACTERIZED in that** it is provided with a cavity that extends through the said grasping means (4) and reaches the fluffy mass (2) of the polishing block (1), in which cavity is accommodated a receptacle (5) with rigid walls containing the said viscous substance, and whose upper portion, that is located in the said grasping means (4), is flexible and resilient (5), capable of being pressed by users and, the said receptacle (5) having at the lower portion thereof a valve (6) for regulating the exit the substance. 10 15 20
2. POLISHING BLOCK FOR SURFACES according to claim 1, **CHARACTERIZED in that** the said valve (6) is provided in a plug (8) having a central orifice (11) attached to the said receptacle (5) that has an integral concentric ring (15) which accommodates a resilient sheet (9) having a central orifice (12) and a side notch (13) that is retained through coupling upon the said ring (15) of a rigid wheel (10) thereby allowing the central protuberance (14) to close the orifice (12). 25 30 35
3. POLISHING BLOCK FOR SURFACES, according to the preceding claims, **characterized in that** the upper portion of the receptacle (5) is made of either transparent or translucent material that is capable of showing the interior thereof. 40

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Fig. 1

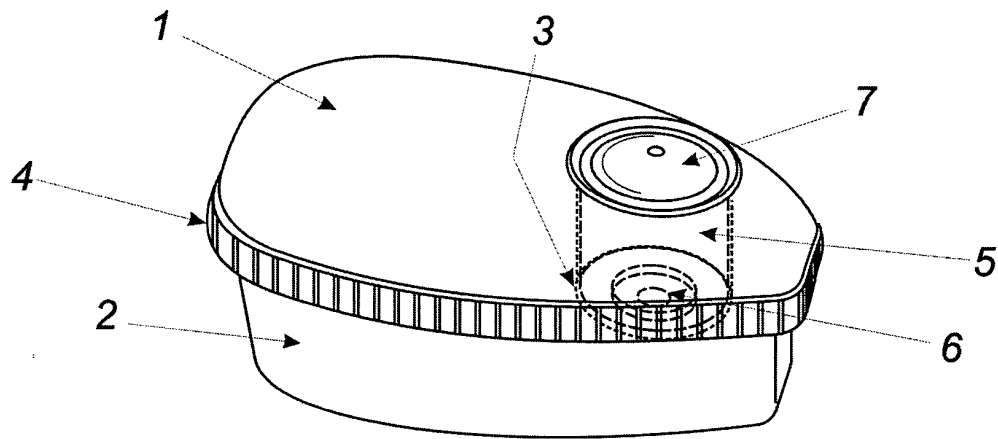
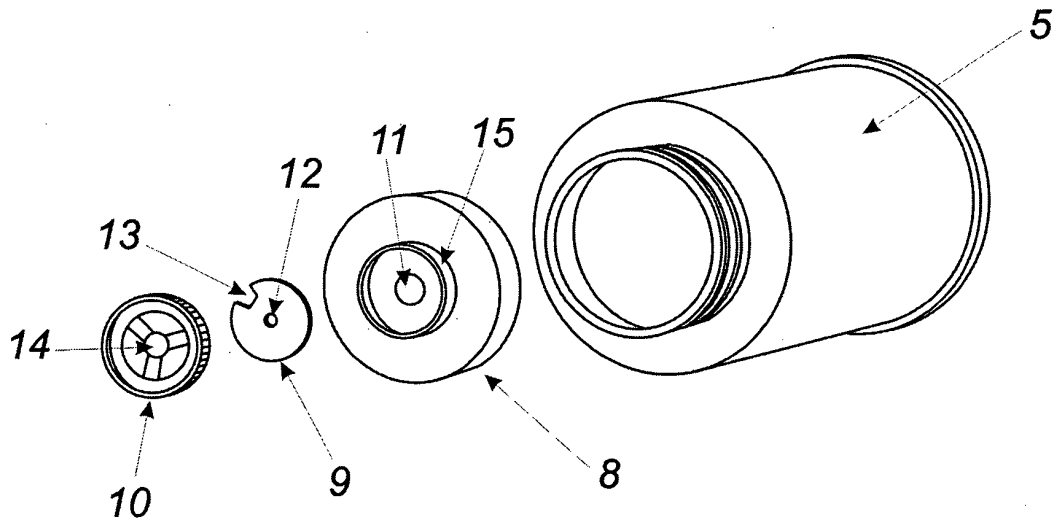


Fig. 2



INTERNATIONAL SEARCH REPORT

International application No.

PCT/ES 03/00614

A. CLASSIFICATION OF SUBJECT MATTER		
IPC ⁷ A47L 23/05 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 practicable, search terms used)		
CIBEPAT, EPODOC, WPI, PAJ		
C. DOCUMENTS CONSIDERED TO BE RELEVANT		
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
P, X	US 2003152416 A (FAROOQUI MOE A) 14.08.2003; the whole document	1
A	ES 2005666 A (BENCKISER S.A.) 16.03.1989; column 2, line 20- column 3, line 2; drawings	1,2
A	ES 263062 U (ANGELO LOSA et al) 01.08.1982; the whole document	1
A	WO 9501121 A (FRIEDRICH SANNER GMBH & CO KG) 12.01.1995; abstract; drawings	1,2
A	US 5213430 A (THOMAS A. PANDOLA) 25.05.1993; column 2, line 52-column 3, line 30; drawings	1
A	US 2426738 A (GEORGE M. KENDALL) 02.09.1947; the whole document	1
☒ Further documents are listed in the continuation of Box C. ☒ See patent family 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 "&" document member of the same patent family		
Date of the actual completion of the international search 27 January 2004 (27.01.04)		Date of mailing of the international search report 06 February 2004 (06.02.04)
Name and mailing address of the ISA/ SPO C/Panamá 1, 28071 Madrid, España. Facsimile No. n° de fax +34 91 3495304		Authorized office María del Mar Colomer Nieves Telephone No. n° de teléfono + 34 91 349 54 91

Form PCT/ISA/210 (second sheet) (July 1992)

INTERNATIONAL SEARCH REPORT

International application No.
PCT/ES 03/00614

C (Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT		
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	GB 2233886 A (CMB FOODCAN PIC) 23.01.1991; page 3, line 1- page 4, line 1; page 6, line 2- page 6, línea 14; drawings 5.	1

Form PCT/ISA/210 (continuation of second sheet) (July 1992)

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 Information on patent family members

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