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(54) **MOP WRINGER PAIL**

(57) The invention relates to a mop wringer pail. The invention consists of: a pail (1) comprising support feet (1.1), a pour spout (1.2) and two columns (1.3); a wringer (2), into which the lower ends of lever (3) arms are inserted; two lever arms (3) with opposing spaces (3.1) for

the handle of the mop; a handle (4); two columns (5) which pass through the two spaces (6.1) provided in the triangular part of a pedal 86; and a spring (7) which is inserted into a fitting (8.1) belonging to the stop element (8) of the pedal (6).

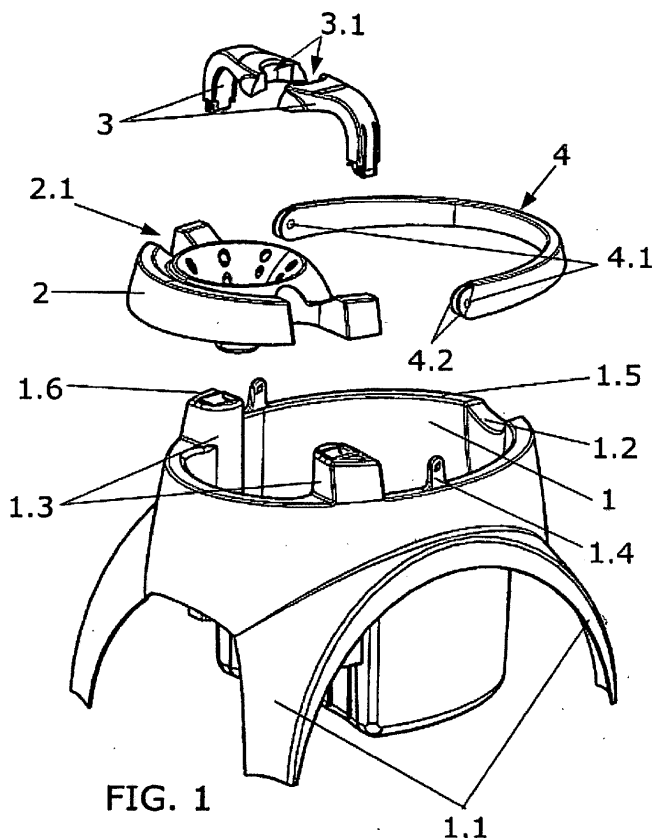


FIG. 1

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Description

[0001] The present invention relates to a mop wringer pail, from among mop pails with differentiated and independent means for wringing said mops.

[0002] The invention is characterised by a special construction of the wringer pail based on two differentiated assemblies, the pail with legs on its base, together with the wringer, the handle and a double lever arm, and the pedal assembly, which incorporates the pedal, two column arms, a spring and a stop element for the spring.

BACKGROUND OF THE INVENTION

[0003] Pails with wringers are well known and have been used for several decades, since the popularisation of mops with a handle.

[0004] Wringers are typically constructed adapted to a conventional pail in which the wringer receives the downwards force and torque produced by the user on the handle, requiring great efforts and undesired stress on the backbone.

[0005] The applicant holds a register with number ES 1023 190 U which incorporates a bottom stirrup that receives the force applied by the user's foot, thereby making slide wringing ties along guides which, although implying a great improvement by transferring to the feet the means by which pressure is exerted on the mop, does not solve nor entirely replace the need to apply torsion to complete the wringing of the mop, nor does it simplify its extraction.

[0006] The applicant is not aware of the existence of pails or wringers that solve the aforementioned problems with the simplicity and efficiency of the invention described hereinafter.

DESCRIPTION OF THE INVENTION

[0007] The present invention relates to a mop wringer pail from among mop pail provided with differentiated and independent means for holding and storing the cleaning water on one hand and for wringing the mops on the other.

[0008] This invention is characterised by a special construction of the wringer pail based on two differentiated assemblies, the pail provided with large legs on its base with an irregular rectangular ground plan with curved arches, longitudinal semicircular and broken domed transversal arches, with an irregular oval upper base having a pouring spout and two symmetrical protrusions near the end of its longitudinal axis for inserting the wringer, as well as the lower ends of the lever arms.

[0009] As mentioned, the assembly is also provided with the wringer, which has two large diametrically opposed recesses meant for insertion in the columns of the pail protrusions; the handle with lugs meant for insertion in the respective opposing tabs of the pail edge and, finally, the double lever arm constructed as two half-bridges which at their meeting point provide opposing spaces

antagonistic of the mop handle, which they hold in place, and on their opposite end are provided with orifices in which are inserted the inner end protrusions of the arms of the pedal assembly column, generating a joint for opening and closing said half-bridges of the double lever arm.

[0010] In addition to the two column arms, the pedal assembly incorporates a spring inserted in a lug of the pedal stop element which, when stepped on, compresses the spring and brings together the columns so that when the double lever arm is closed pressure is also applied on the mop, extracting water from it, while the spring releases the two bridges, opening these arms when the pedal is released.

DESCRIPTION OF THE DRAWINGS

[0011] The present descriptive memory is completed by a set of drawings that illustrate a preferred example of the invention in a non-limiting manner.

Figure 1 is an exploded perspective view of the wringer pail assembly.

Figure 2 is another exploded perspective view of the complementary pedal assembly.

Figure 3 is an elevated cross-section of the two assemblies mounted.

Figure 4 shows several details of the two assemblies.

PREFERRED EMBODIMENT OF THE INVENTION

[0012] In view of the above, the present invention relates to a mop wringer pail from among mop pails having independent wringer means, essentially characterised by two differentiated assemblies, the pail with the wringer which incorporates a pail (1) with two or four legs (1.1) shaped as curved arches, with a pouring spout (1.2) and two inner columns (1.3) in which the wringer (2) is inserted and in which are inserted the lower ends of the lever arms (3) of the pedal assembly.

[0013] The wringer (2) has two large end diametrically opposed recesses (2.1) antagonistic of the columns (1.3) while the handle (4) has a U-shape with lugs (4.1) inside its end lips (4.2) that are inserted in corresponding opposing tabs (1.4) on the edge (1.5) of the pail (1), and each lever arm (3), with an angular construction, has opposing semi-cylindrical recesses (3.1) antagonistic of the mop handle plus some orifices (3.2) in which are inserted the inner protrusions (5.1) of the columns (5) of the pedal assembly, forming a joint for opening and closing the lever arm (3).

[0014] The columns (5) pass through corresponding recesses (6.1) of the triangular part of the pedal (6) and consist of two plates (5.2) joined by other minor plates (5.3) internally in a zigzag arrangement and are provided

with corresponding angular bases (5.4) with pins (5.5) that insert in the inner face of the pedal (6) and at least one of which incorporate an inner spring (7) inserted in a lug (8.1) of the pedal stop element (8), from which it receives the pressure that is then transmitted to the mop through the articulation of the columns (5) and the lever arms (3) until, when the pedal (6) is released, the spring (7) releases both lever arms (3) the opening range of which is limited by the protrusions of the edge (1.6) of the columns (1.3) and which are provided for turning and positioning with lower tabs (3.3).

[0015] Finally, the columns (5) have inner grooves (5.6) in which is inserted the upper base of the stop element (8), the edges of which act as guides for its protrusions (8.3).

[0016] The essence of this invention is not affected by variations in the materials, shape, size and arrangement of its component elements, described in a non-limiting manner that should allow its reproduction by an expert.

Claims

1. Mop wringer pail from among mop pails with independent wringing means, essentially **characterised by** having two differentiated assemblies:

a) The pail and wringer assembly, which includes:

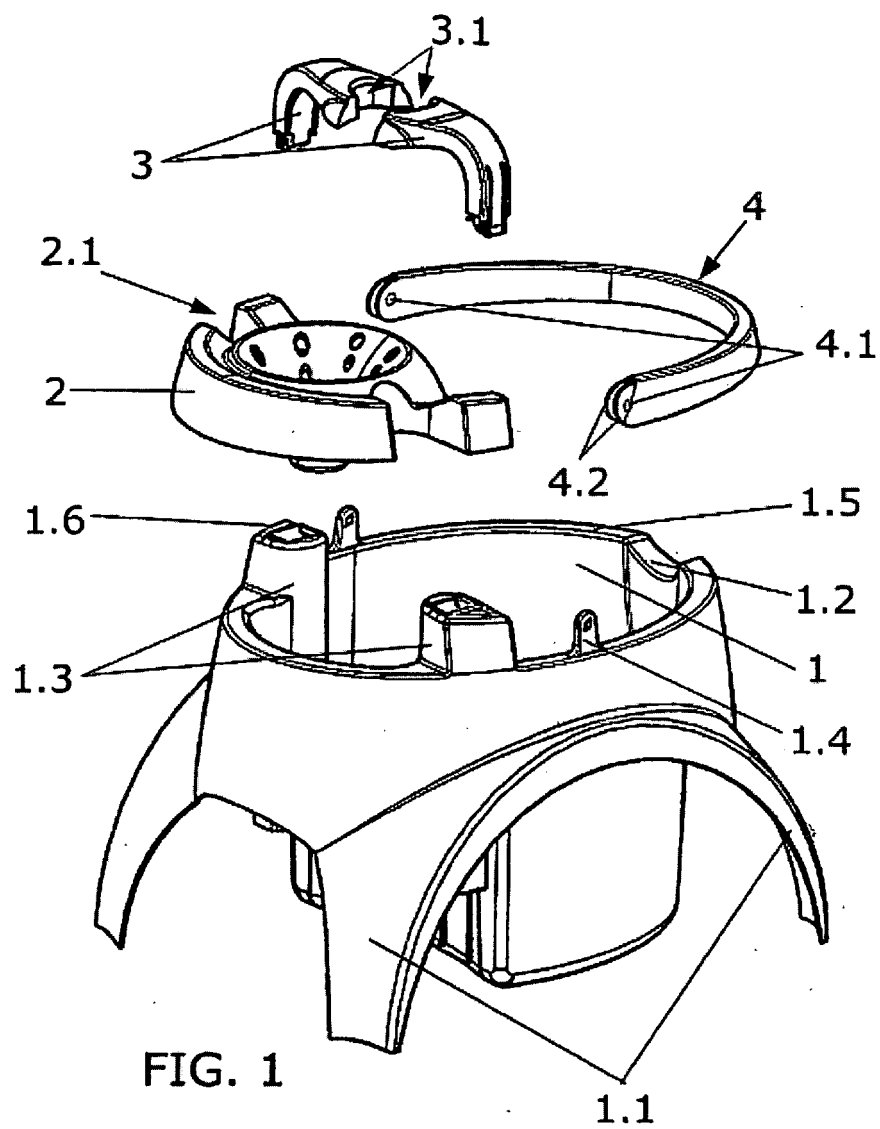
- a pail (1) with legs (1.1) shaped as curved arches, having a pouring spout (1.2) and two inner columns (1.3);
- a wringer (2) that is inserted in the pail in which are inserted the lower ends of the lever arms (3);
- two lever arms (3) with an angular construction having opposing semi-cylindrical recesses (3.1) antagonistic of the mop handle;
- a U-shaped handle (4) with lugs (4.1) inside its end lips (4.2) that are inserted in corresponding opposing tabs (1.4) on the edge (1.5) of the pail (1);

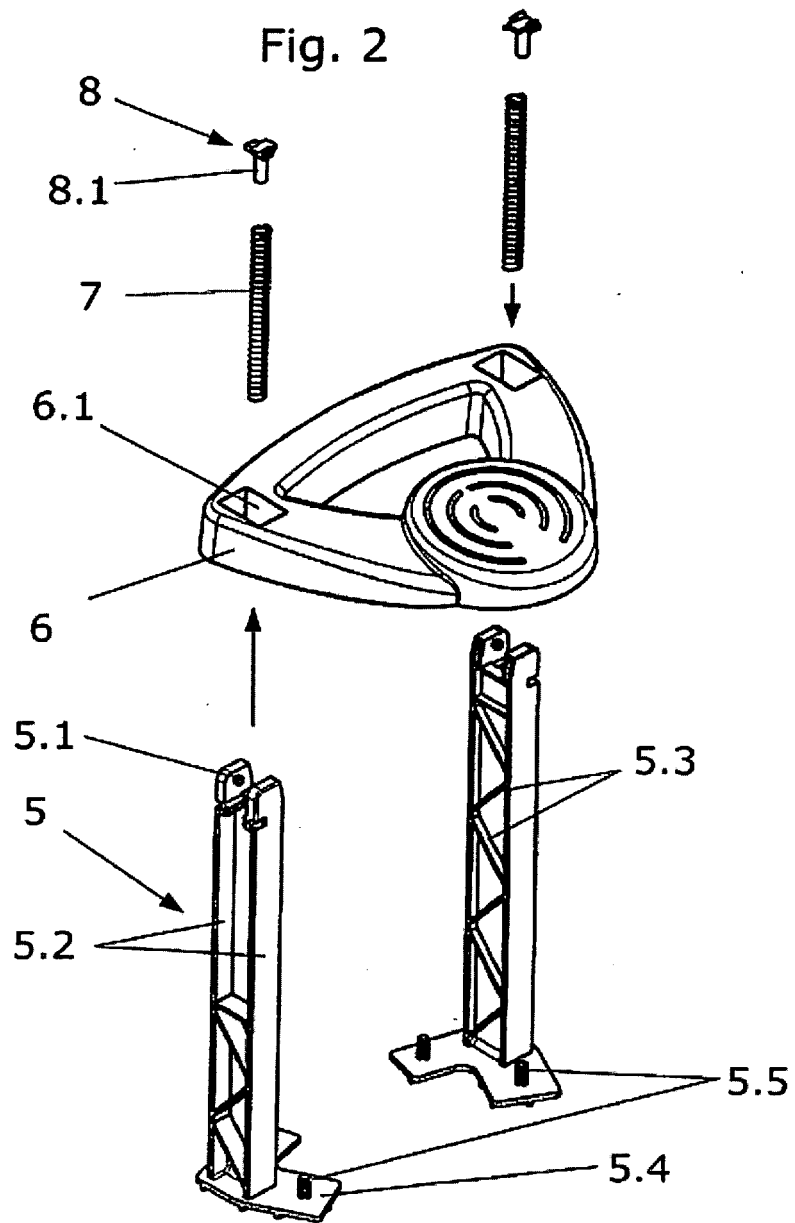
b) The pedal assembly, which includes:

- two columns (5) that pass through corresponding recesses (6.1) of the triangular part of the pedal (6);
- a pedal (6);
- a spring (7) inserted in a lug (8.1) of the stop element (8) of the pedal (6), from which it receives the pressure that is in turn transmitted to the mop through the articulation of the columns (5) and the lever arms (3) until, when the pedal (6) is released, the spring (7) releases both lever arms (3); and finally

- the stop element (8).

2. Mop wringer pail according to the previous claim, **characterised in that** the wringer (2) has two large end diametrically opposed recesses (2.1) antagonistic of the columns (1.3).
3. Mop wringer pail according to claim 1, **characterised in that** each lever arm (3) has orifices (3.2) in which are inserted the inner protrusions (5.1) of the columns (5) of the pedal assembly, to establish an articulation for opening and closing of the lever arm (3).
4. Mop wringer pail according to claim 1, **characterised in that** the columns (5) consist of two plates (5.2) joined by other internal minor plates (5.3) with a zigzag arrangement and are provided with corresponding angular bases (5.4) with pins (5.5) that insert in the inner face of the pedal (6).
5. Mop wringer pail according to claims 1 and 4, **characterised in that** at least one of the columns (5) incorporates the spring (7).
6. Mop wringer pail according to claims 1, 4 and 5, **characterised in that** the columns (5) have internal grooves (5.6) for inserting the upper base of the stop element (8), the edges of which act as guides for the protrusions (8.3) of said stop element.
7. Mop wringer pail according to claims 1 and 3, **characterised in that** the lever arms (3) have an opening range limited by the edge protrusions (1.6) of the columns (1.3) and are provided with lower tabs (3.3) for turning and positioning.





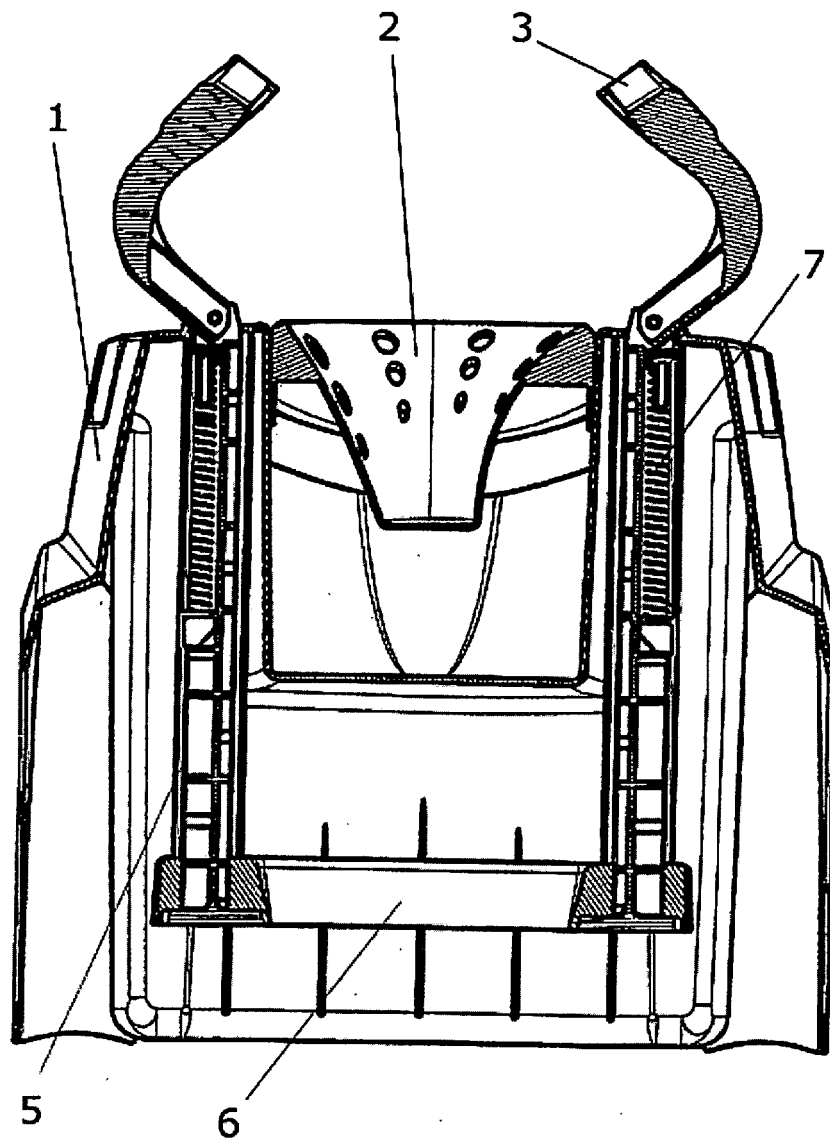
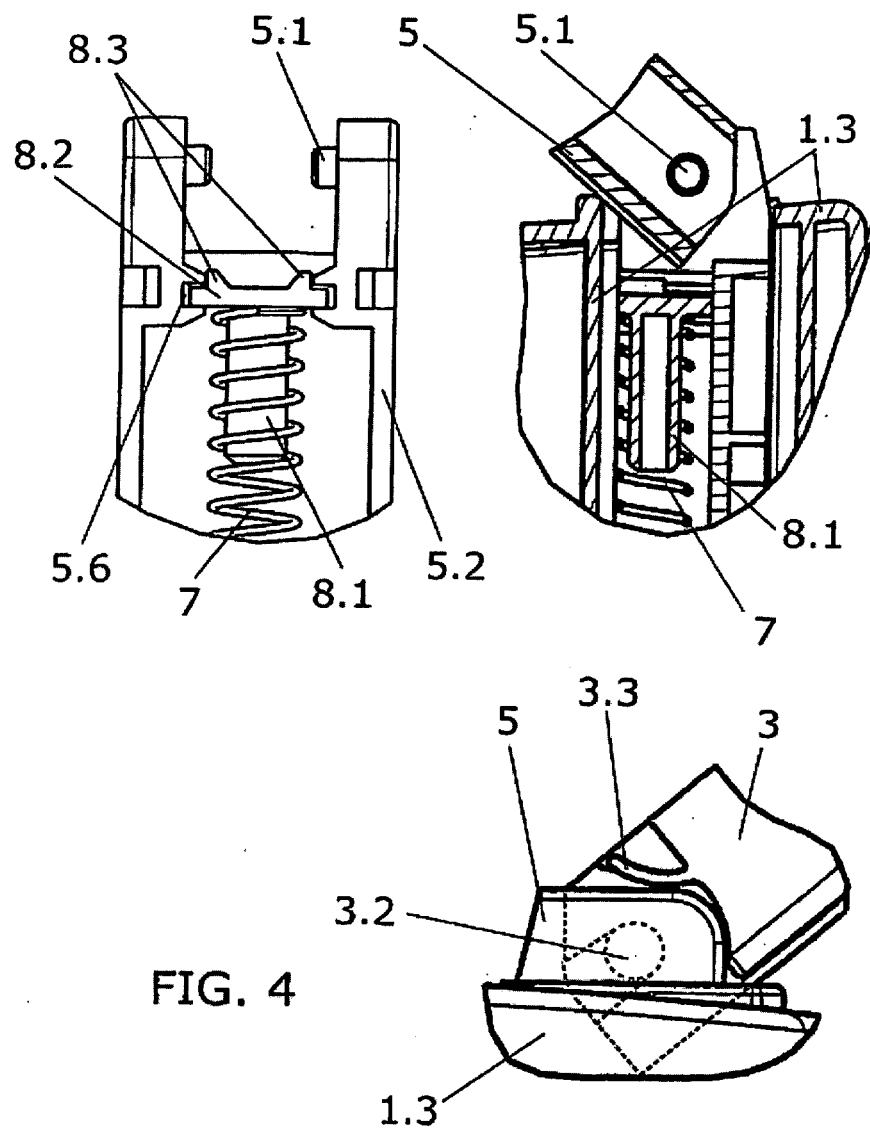


FIG. 3



INTERNATIONAL SEARCH REPORT

International application No.

PCT/ ES 2003/000606

A. CLASSIFICATION OF SUBJECT MATTER		
IPC7 A47L 13/14, 13/59		
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)		
IPC7 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)		
WPIL, EPOQUE, MISTRAL		
C. DOCUMENTS CONSIDERED TO BE RELEVANT		
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	ES 1023190 U (BARBA PÉREZ, F.) 16.06.1993. The whole document.	1-7
A	ES 2138897 A1 (MARTÍNEZ IGLESIAS, A.) 16.01.2000. Column 3, line 22 - column 4, line 33, figures.	1,2,7
A	ES 2139508 A1 (PULL TAP'S, S.L.) 01.02.2000. Column 3, 4; figures.	1
A	ES 1032875 U (MARTÍNEZ IGLESIAS, A.) 01.07.1996. Column 3, line 18 - column 4, line 27; figures.	1
A	DE 19503572 C (VILEDA GmbH) 25.07.1996. Abstract; figures.	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		Date of mailing of the international search report
18 May 2004 (18.05.04)		02 June 2004 (02.06.04)
Name and mailing address of the ISA/ S.P.T.O.		Authorized officer
Facsimile No.		Telephone No.

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INTERNATIONAL SEARCH REPORT

International application No.

PCT/ ES 2003/000606

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 672873 A (RUSSELL WALLACE) 28.05.1952. The whole document.	1
A	US 4716619 A (YOUNG) 05.01.1988	

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INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/ ES 2003/000606

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
ES 1023190 U	16.06.1993	NONE	
ES 2138897 A1	16.01.2000	WO 9836676 A	28.08.1998
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		EP 207641 A	07.01.1987
		AT 51507 T	15.04.1990
		DE 3669991 D	10.05.1990

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