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(54) **ERGONOMIC TRAY**

(57) Ergonomic tray with a smooth central surface used to support and carry various items and food. The tray lip is interrupted at least on one side by an incut that constitutes the tray handle. This handle has an ergonomic rounded concave shape to allow a perfect coupling of a hand in the handle. The handle is located next to one of the rounded vertices of the tray, where the user's wrist will rest when the tray is held with the hand. Both ends of the handle are rounded ends, continuous on one end with the tray lip and on the other end with one of the vertices of the tray.

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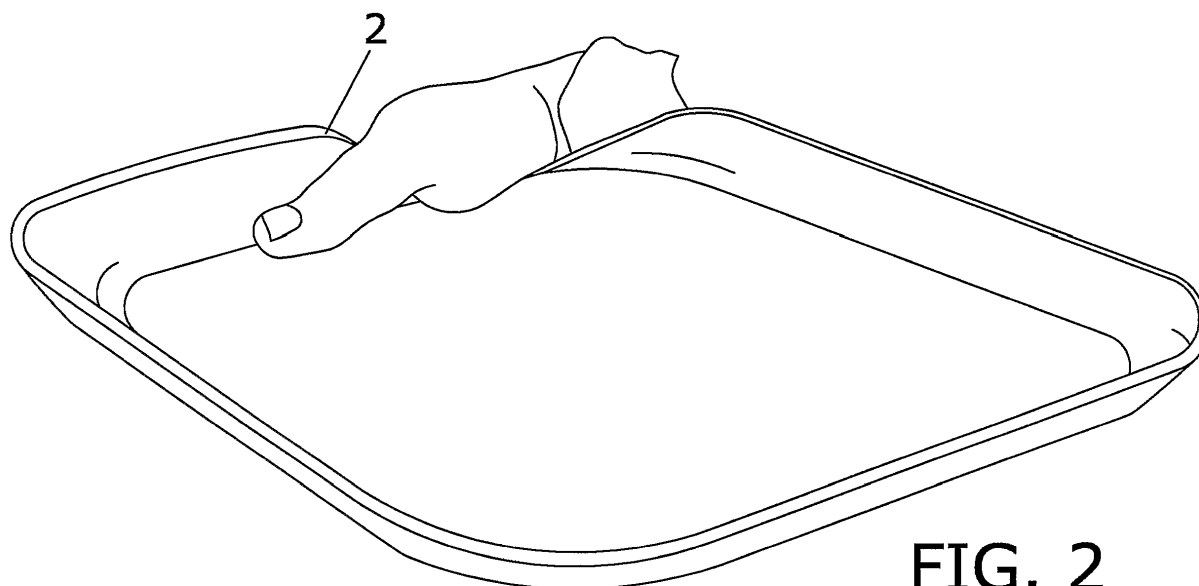


FIG. 2

Description

OBJECT OF THE INVENTION

[0001] The present invention relates to an ergonomic tray designed both to carry diverse items and to eat on it.

[0002] The tray is characterised by a handle area that makes it easier for the user to hold the tray when carrying the food and elements used to eat, such as glasses, dishes and cutlery.

[0003] The special configuration of said handle makes it easier for the user to eat from the tray.

BACKGROUND OF THE INVENTION

[0004] Many trays are known with a central smooth surface and a lip surrounding it. In certain cases the configuration of said lip makes it difficult to grip the tray, or makes it uncomfortable to eat from the tray.

[0005] Examples of trays with this type of peripheral lip surrounding the central surface are:

- The tray described in document with application number W00215757, which describes a tray with a smooth central surface and an edge surrounding it. This tray consists of two halves, an upper and a lower half, one of which at least is transparent allowing to place advertising or other messages;
- The tray described in document with European application number EP97914068, consisting of a bottom slip-proof layer that allows placing it on very smooth surfaces without it slipping. This tray also has a peripheral lip.

[0006] The tray of the present invention solves the drawbacks presented by trays having a peripheral lip related to gripping them, having at least one characteristic gripping area that also facilitates access to the food placed on the centre of the tray when eating from it.

DESCRIPTION OF THE INVENTION

[0007] The present description consists of an ergonomic tray with a smooth central surface, used to support and carry various objects and foods.

[0008] The smooth central surface is continuous to a lip that provides stability to the objects placed on the centre of the tray.

[0009] The lip is interrupted at least on one side by an incut that constitutes the tray handle.

[0010] Said handle has an ergonomic rounded concave profile that allows a perfect coupling of a hand in said handle.

[0011] The handle is placed next to one of the rounded vertices of the tray, where the user's wrist is coupled when holding the tray with the hand.

[0012] Due to its special constitution, the handle of the invention provides the user eating on the tray with an

easy access to the centre of the tray, where the food is placed. The user's forearm when about to eat will rest on the handle(s), so that the tray provides an improved access to its central area.

[0013] The handle of the invention is constituted in the form of a concave incut made in the tray lip. Both ends of the handle have rounded ends continuous on one end with the tray lip and on the other with one of the tray's vertices.

[0014] The tray shows the lip in a different side according to whether it is intended for right-handed or left-handed users.

[0015] The tray can also have two symmetrically placed handles.

[0016] The tray is made of any material, whether metallic, plastic or of a natural origin.

DESCRIPTION OF THE DRAWINGS

[0017] The present descriptive memory is completed with a set of drawings meant to illustrate a preferred embodiment of the invention in a non-limiting manner.

Figure 1 shows a perspective view of the tray for right-handed users.

Figure 2 shows a perspective view of the tray for right-handed users at the time of transportation.

Figure 3 shows a perspective view of the tray for right-handed users when the user is eating.

Figure 4 shows a perspective view of the tray for left-handed users.

Figure 5 shows a perspective view of the tray with two handles.

PREFERRED EMBODIMENT OF THE INVENTION

[0018] In view of the above, the present invention consists of an ergonomic tray designed to facilitate carrying it and eating from it.

[0019] Figure 1 shows an example of the tray of the invention for right-handed users.

[0020] This tray has its handle on the right side. The handle has a rounded shape for a perfect coupling with the hand and wrist on the tray in order to facilitate carrying it.

[0021] Figure 2 shows a user holding the tray in order to carry it.

[0022] Thus, the main grip area (1), where the user will hold the tray, is concave and extends continuously until ending at a convex area (2) that ends where the tray lip begins.

[0023] On the opposite end, the main grip area (1) extends as a gentle concave line (3) that ends in a rounded vertex (4) of the tray.

[0024] The hand holding the tray is perfectly coupled to the gentle concave line (3) while the wrist will rest on the rounded vertex (4) of the tray.

[0025] Figure 3 shows a user ready to eat from the tray. The concave incut handle allows the user to access the centre of the tray surface easily, resting the forearm on the gentle concave line (3) of the handle. 5

[0026] Lastly, figure 5 shows a new example of an embodiment in which the tray has two handles opposite each other. Trays with two handles make it easier to carry heavy items. 10

[0027] The essence of this invention is not affected by variations in the materials, shape, size and arrangement of the component elements, described in a non-limiting manner, which should allow its reproduction by an expert. 15

Claims

1. Ergonomic tray from among those having a central support area surrounded by a peripheral lip, **characterised in that** it has at least one handle in the form of a concave incut which comprises the main grip area (1), which extends as a gentle concave line (3) ending at the rounded vertex (4) of the tray and on the opposite end extends as a convex area (2) that ends at the beginning of the tray lip. 20 25
2. Ergonomic tray according to claim 1, **characterised in that** it has at least one handle on the right side of the tray. 30
3. Ergonomic tray according to claim 1, **characterised in that** it has at least one handle on the left side of the tray. 35
4. Ergonomic tray according to claim 1, **characterised in that** it has two symmetrically disposed handles. 40

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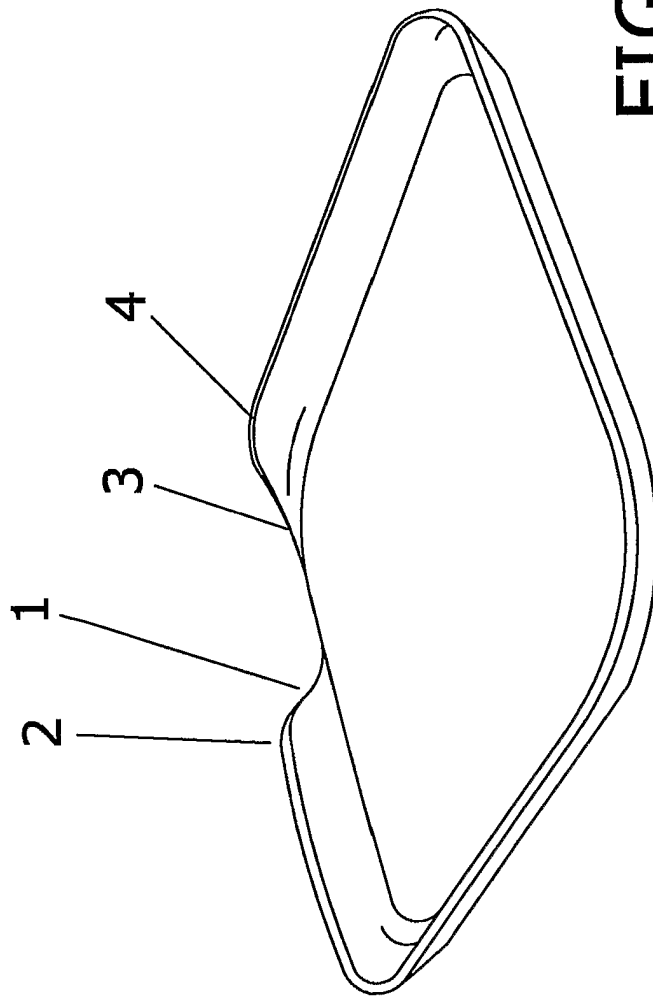


FIG. 1

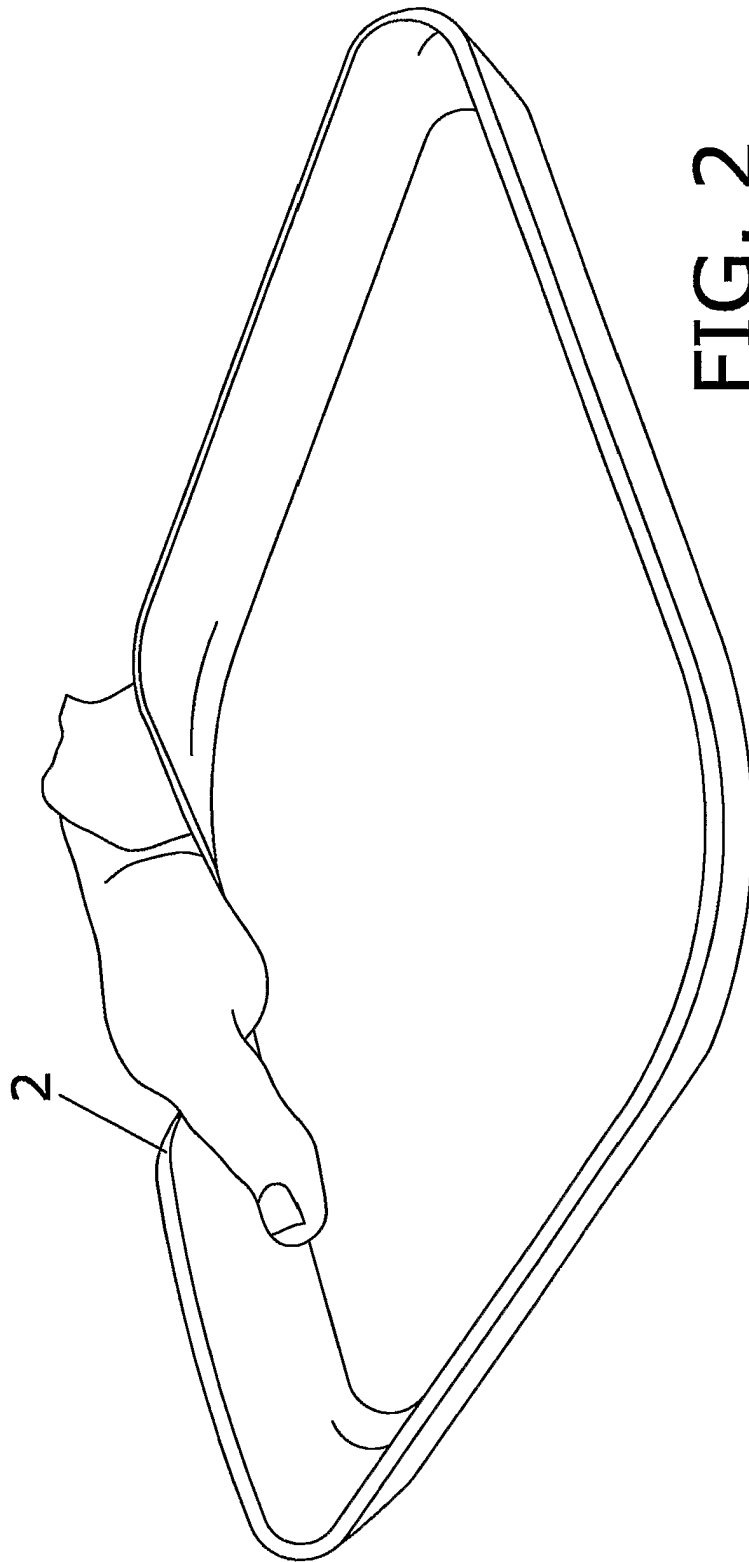


FIG. 2

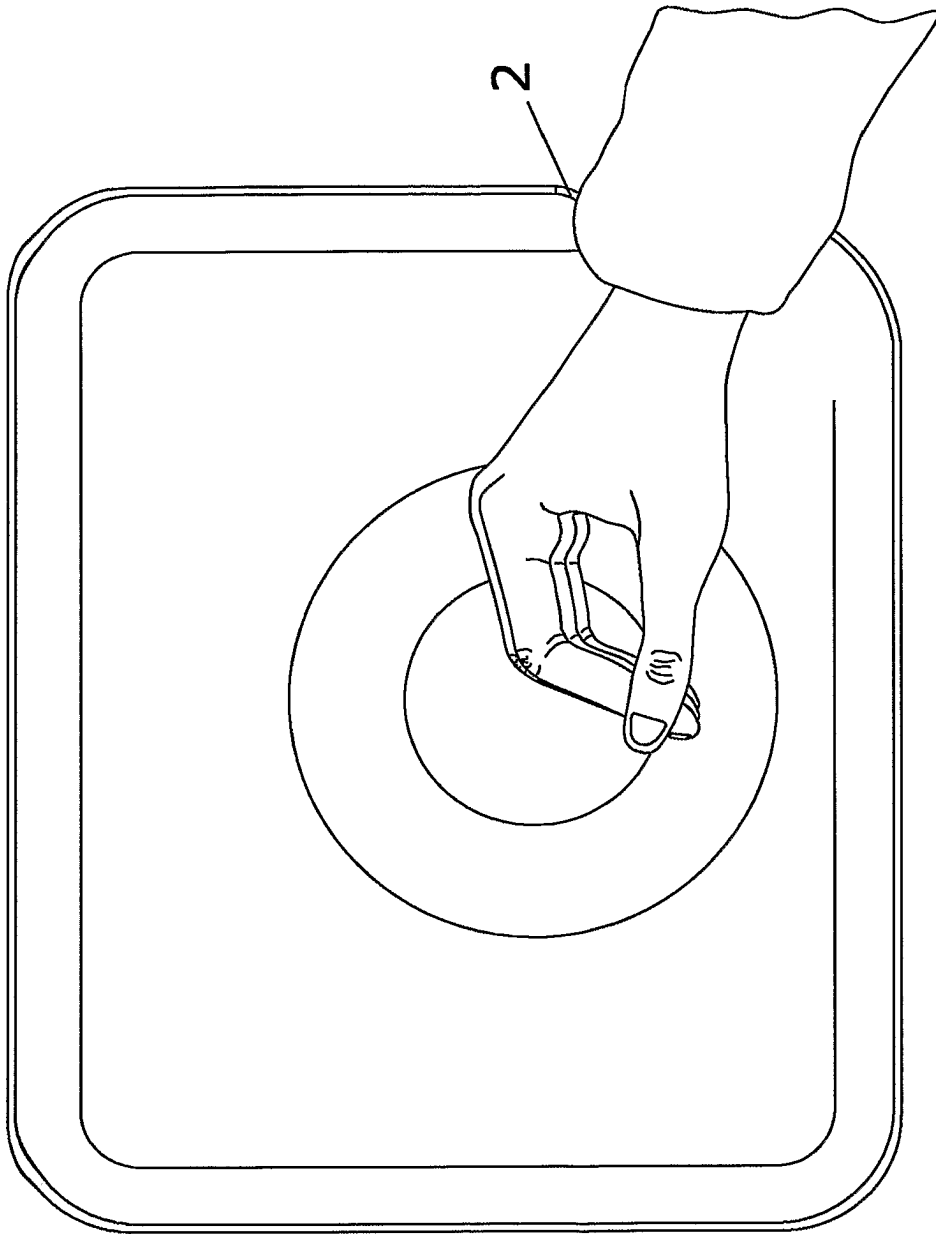


FIG. 3

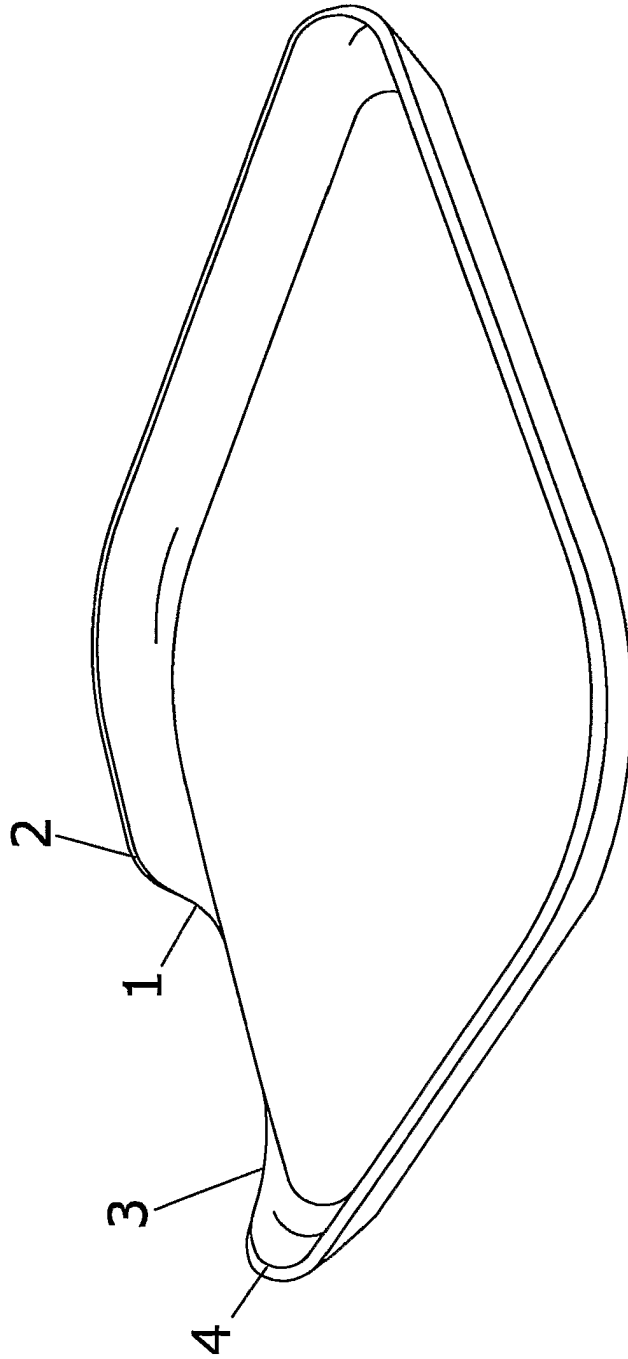


FIG. 4

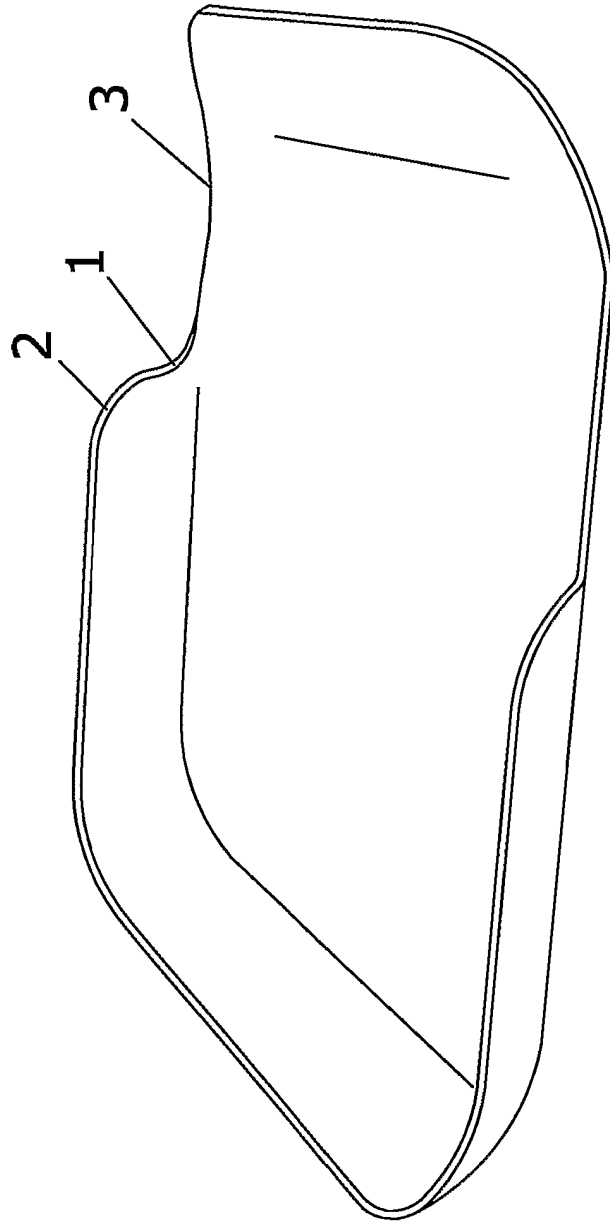


FIG. 5

INTERNATIONAL SEARCH REPORT

International application No.

PCT/ ES 2004/070092

A. CLASSIFICATION OF SUBJECT MATTER		
IPC⁷ A47G 23/06 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 A47G		
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.WPL OEPMPAT		
C. DOCUMENTS CONSIDERED TO BE RELEVANT		
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	FR 2532833 A (SOCIÉTÉ BREMO S.A.) 16.03.1984. The whole document , especially Figures 1,4,5,16,18-20,22,23,25.	1-4
A	US 4966297 (ROBERT W.DOTY) 30.10.1990. The whole document.	1
A	US 3941286 (JOHN W. PERKINSON) 02.03.1976. The whole document.	1
A	ES 1037383 U (ASSEGRAF ARTS GRÁFIQUES, S.L.) 16.02.1998 The whole document.	1
A	ES 1043404 U (FRIDA ALIMENTARIA S.A.) 16.12.1999. 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		Date of mailing of the international search report
20 January 2005 (20.01.2005)		07 Feb 2005 (07.02.2005)
Name and mailing address of the ISA/ SPTO		Authorized officer
Facsimile No.		Telephone No.

INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/ ES 2004/070092

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
FR2532833 A 1	16.03.1984	NONE	-----
US 4966297 A	30.10.1990	CA 2023182 A1	15.08.1991
US3941286 A	02.03.1976	NONE	-----
ES 1037383 U	16.02.1998	NONE	-----
ES 1043404 U	16.12.1999	NONE	-----