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(54) **Cable storage system for subsequent unrolling and use**

(57) A cable storage system for subsequent unrolling and use that consists of a box (C) equipped with a duct (01,02) running through it vertically that runs into an opening (03) that connects it to the inside of the box.

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Description

[0001] The object of this invention is a system for the storage of different cable supports existing on the market using a single system which substantially improves both the transport of the said system and the work involved when the times comes to use the cables.

BACKGROUND OF THE INVENTION

[0002] This invention arose as a response to the need for a single cable support system regardless of the system used by each manufacturer, since each manufacturer uses that which best serves its purposes for the presentation of its products.

It is common in cable-laying work to have to use long lengths and different sizes and colours which need to be laid simultaneously and in the same location. This circumstance complicates the work enormously since it requires a great deal of space in order to position and use all of the rolls of cable simultaneously.

The device of this invention resolves this problem by making it possible to store and arrange the different types of cables and packaging for subsequent use, in a single system, which enormously facilitates installation in a much more productive and convenient manner since in the same space occupied by a single box we can have as many as we need.

DESCRIPTION OF THE INVENTION

[0003] The cable storage system for subsequent unrolling of the cable is composed of a box equipped with a duct running through the box from top to bottom. A spool of cable is introduced in the box (*with or without the manufacturer's packaging*) through a side door that allows the spool to be replaced once the cable is used up. The cable from the spool inside the box exits through an opening into which the duct runs.

There is an opening on the top of the box through which the excess cable can be recovered and rolled around the spool for storage.

The box is also equipped with anchors on the top and bottom to facilitate stacking.

BRIEF DESCRIPTION OF THE DRAWINGS

[0004] For a clearer understanding of the foregoing description, the enclosed drawings illustrate the cable storage system for subsequent unrolling and use.

The first sketch shows an elevation plan from the top. The second sketch shows a view of the base of the box. And the third sketch shows a side view with a perspective of the inside of the box and its communicating ducts. We have also included legends for each one of the sketches for a clearer understanding.

DETAILED DESCRIPTION OF A PREFERRED EMBODIMENT OF THE INVENTION

[0005] In accordance with the object of this invention, the cable storage and rolling system is intended to facilitate the storage of different cables (*with or without packaging*) in a single system, and to enable the user to conveniently and easily unroll each one of the different cables separately.

[0006] As can be seen in Figure 11: the cable storage system for subsequent unrolling is characterised in that it consists of a Box -C- with anchors -A- which can be stacked one on top of the other -C- as needed. Inside each one of the boxes -C-, each one of the different cables is rolled -CL- the ends of which protrude from the opening -01-. The user can pull on the end of any one of the cables as desired to unroll and use it.

Figure 2: shows the same system broken down into each one of the boxes of which it is comprised -C-. Each one of the boxes -C- houses a spool of cable -Bo- with or without packaging. It can be seen that each one of the spools -Bo- stored inside each one of the boxes protrudes from the box -C- through an opening -03- that is connected to the duct -Co- that runs through the box vertically connected opening -01- and opening -02-.

[0007] The different cables -CL- that protrude from the openings -01- of each one of the boxes -C- are introduced into the box immediately above through the opening -02-.

[0008] Said opening -02- is located on the vertical projection of the opening -01- on the lower horizontal side of each box -C-, so that the opening -01- of a box and the opening -02- of the box immediately above it are aligned. The cables introduced through the opening -02- of each box come out through opening -01- of the same box, thereby running through the box -C- through the duct -Co-.

This way, the different cables -CL- in each box -C- exit through the opening -01- of the box -C- where they are stored and rolled and introduced into the box immediately above through the opening -02- in the new box -C- (thanks to the fact that the openings are aligned despite the fact that they pertain to different boxes, since between opening -01- and

opening -02- of the same box there is a duct through which the cables are run) and so on for as many boxes as are required. All of the different cables stored and rolled in the system come out of the box through the same opening -01- of the box located on the top of the system, as seen in figure 1.

Figure 3: Each one of the boxes is equipped with a cover -TL- intended to facilitate the replacement of the spool -Bo- when the wire runs out in one of the boxes -C-, without the need to disassemble the structure previously assembled by the user to do the work.

Figure 4: The system can also be equipped with a set of wheels -R- for easier movement.

Figure 5: shows that one of the accessories of the system consists of a belt -CIT- to facilitate its transportation to the work site.

The system shown can present the most pertinent configuration and components for such functions. The components described herein can be used, or any other component that is adequate for the same purpose.

The inventions, due to its simplicity, can be implemented in other ways which would only differ in terms of the details of that given by way of examples, which will also achieve the desired protection. This invention could therefore be implemented with the most suitable resources, components, replacing the constructive elements with other of a technically equivalent nature, all of which is included in the claims.

BRIEF DESCRIPTION OF THE DRAWINGS OF A PREFERRED EMBODIMENT

[0009]

Figure 1 illustrates the constitution of the invention of the system.

Figure 2 illustrates a breakdown of the system.

Figure 3 shows the cover for recharging keys.

Figure 4 shows an accessory with wheels for rolling the invention on the floor.

Figure 5 illustrates an accessory in the form of a pulley to facilitate transport.

Claims

1. The cable storage system for subsequent unrolling is composed of a box -C- equipped with a duct running through the box from top -01- to bottom -02. The cables -CL- from the other boxes on which it is stacked are run through the duct. It is **characterised in that** a spool of cable -Bo- (*with or without manufacturer's packaging*) is inserted inside the box -C- through a side door -TL- which makes it easier to replace the spool once the cable is used up. The cable on the spool -CLC- located inside the box exits through an opening -03 - that is connected to the duct. This box is equipped with an opening -Ab- on the top through which the excess cable is recovered and rolled back onto the spool for storage. Both the top and bottom of the box are equipped with anchors -A- for easy stacking.
2. The cable storage system for subsequent unrolling according to claim 1 can also be equipped with wheels onto which as many boxes can be stacked as needed in order to make it easier to move across the floor.
3. The cable storage system for subsequent unrolling according to claim 1 can also be equipped with another accessories consisting of a belt to facilitate transporting it to the work site.

ELEVATION

A.- Anchors

C.- Box

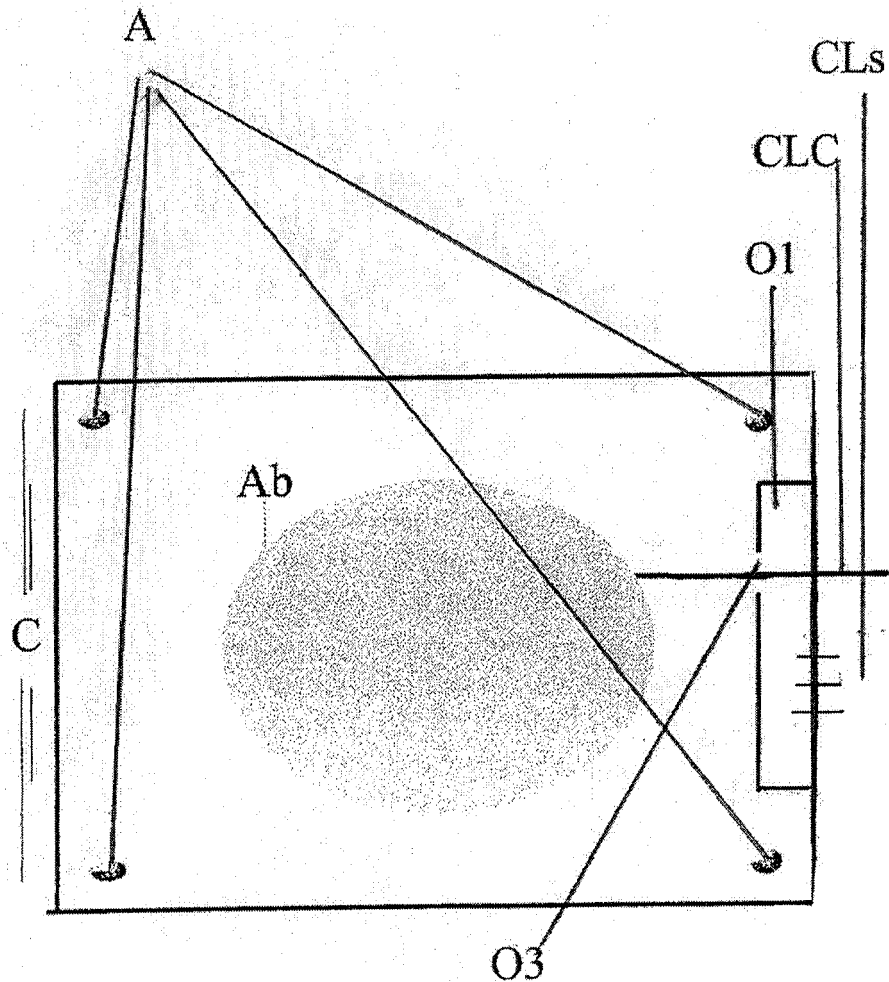
Ab.- Opening where the spool is located

O1.- Upper opening

O3.- Internal opening that connects spool, cable and O1

CLs.- Cables exiting lower boxes

CLC.- Cable exiting spool in box



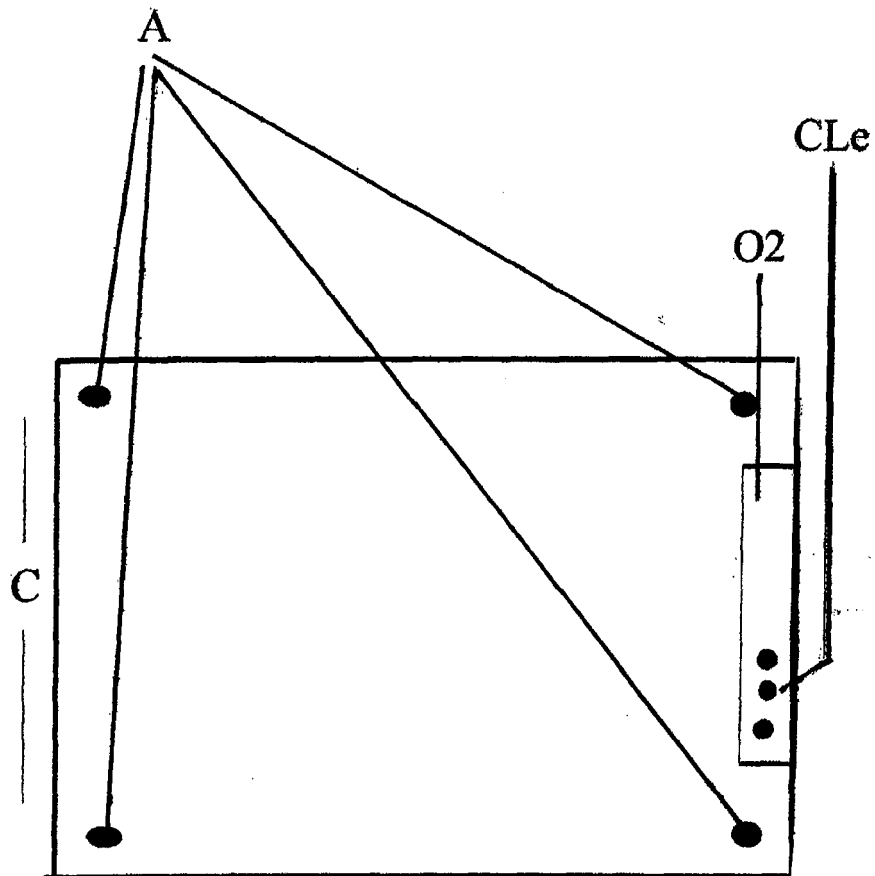
BASE

A.- Anchor

C.- Box

O2.- Lower opening (cable entrance)

CLe.- Cables entering from box below



LATERAL VIEW WITHOUT COVER

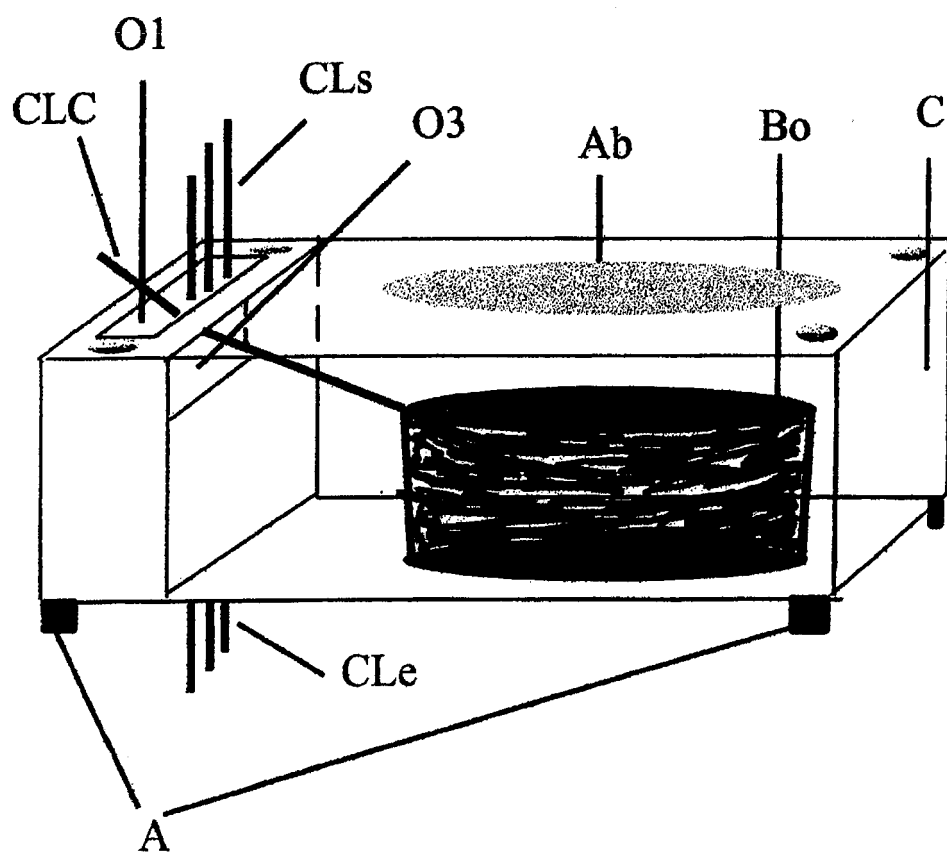


FIG 1

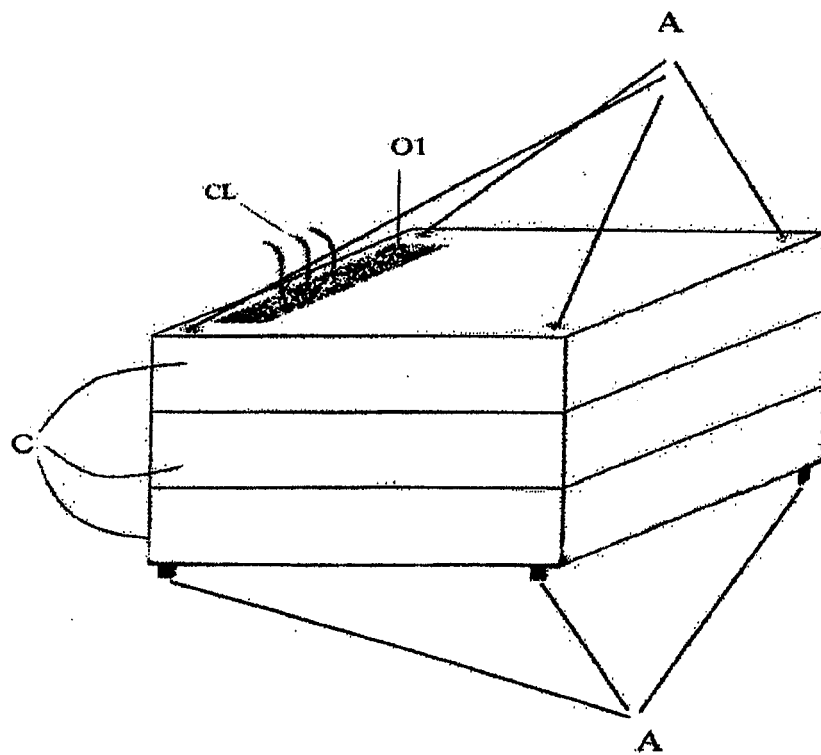


FIG 2

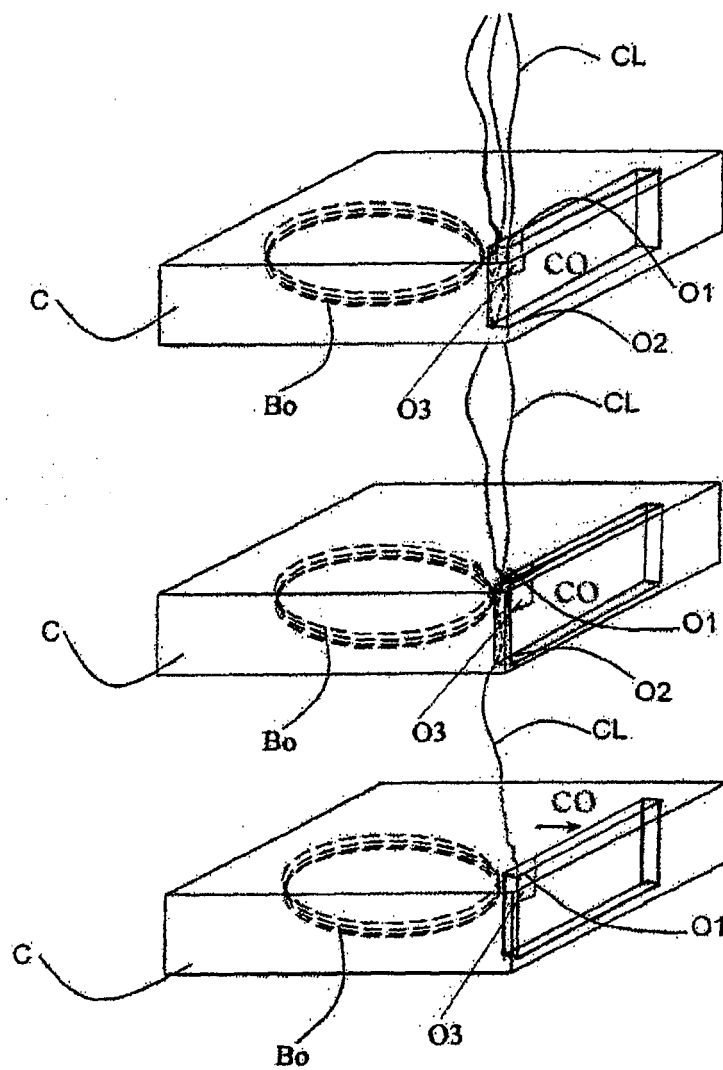


FIG 3

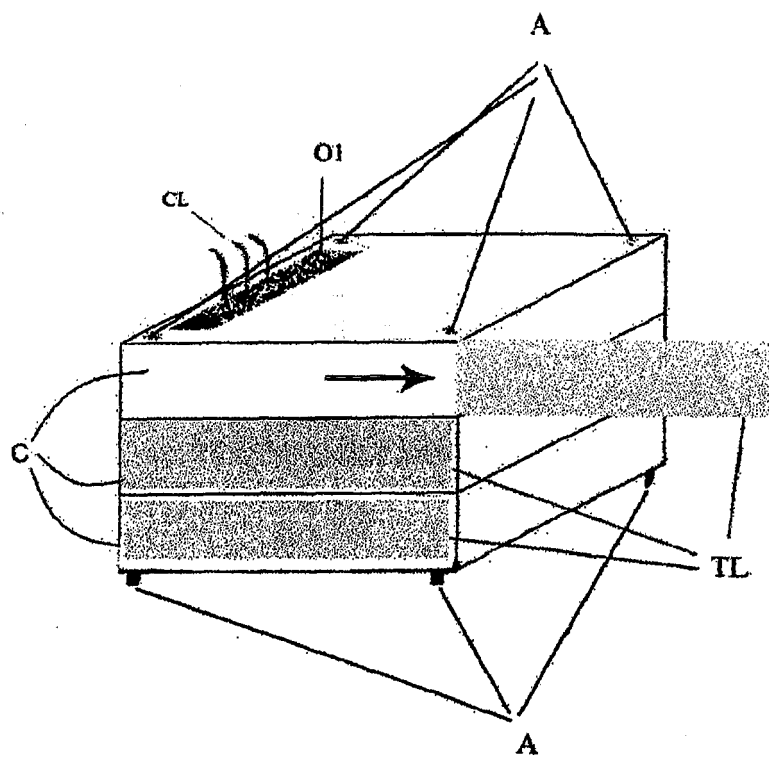


FIG 4

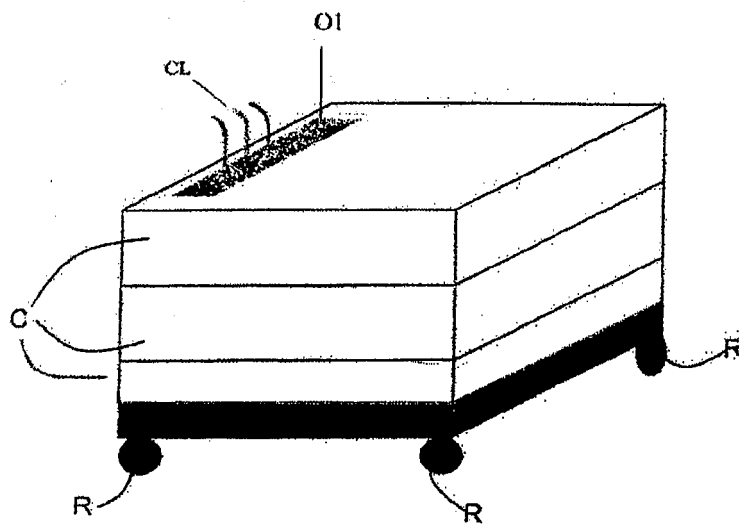
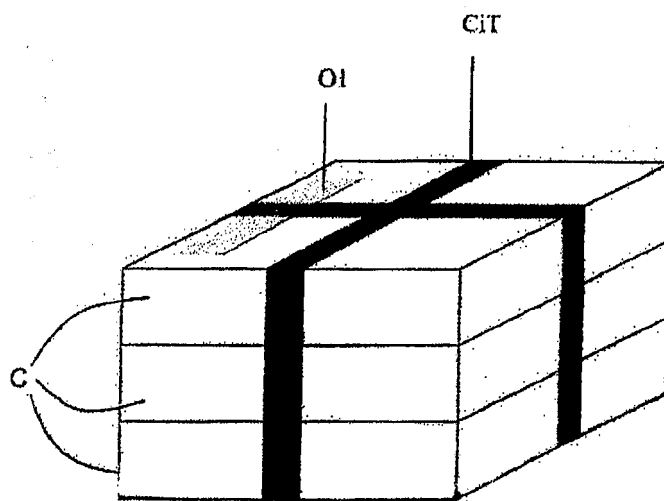


FIG 5





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EUROPEAN SEARCH REPORT

Application Number
EP 06 11 0989

DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (IPC)
A	DE 201 09 162 U1 (DROST-EICHER, ELFRIEDE) 30 August 2001 (2001-08-30) * figure 1 *	1	INV. B65H49/32 B65D85/672 H02G11/02
A	----- US 5 029 704 A (STILLINGER ET AL) 9 July 1991 (1991-07-09) * figure 2 *	1	
A	----- US 2004/104037 A1 (SOLET J0) 3 June 2004 (2004-06-03) * figure 1 *	1,2	
			TECHNICAL FIELDS SEARCHED (IPC)
			B65H B65D H02G
The present search report has been drawn up for all claims			
Place of search Munich		Date of completion of the search 12 May 2006	Examiner Kising, A
CATEGORY OF CITED DOCUMENTS X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document			

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EPO FORM 1503 03.82 (P04C01)

**ANNEX TO THE EUROPEAN SEARCH REPORT
ON EUROPEAN PATENT APPLICATION NO.**

EP 06 11 0989

This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report.
The members are as contained in the European Patent Office EDP file on
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12-05-2006

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
DE 20109162	U1	30-08-2001	NONE
US 5029704	A	09-07-1991	NONE
US 2004104037	A1	03-06-2004	NONE