



(12) **EUROPEAN PATENT APPLICATION**

(43) Date of publication:
27.06.2012 Bulletin 2012/26

(51) Int Cl.:
B63B 25/00 (2006.01)

(21) Application number: **11191582.3**

(22) Date of filing: **01.12.2011**

(84) Designated Contracting States:
AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR
Designated Extension States:
BA ME

(71) Applicant: **Willbitch Design**
18770 Täby (SE)

(72) Inventor: **Westin, Åsa**
187 70 TÄBY (SE)

(74) Representative: **Karlström, Lennart et al**
Noréns Patentbyrå AB
Box 10198
100 55 Stockholm (SE)

(30) Priority: **22.12.2010 SE 1051366**

(54) **Storage system**

(57) The present invention concerns a flexible storage system to be attached around an extended mast or similar, for example a mast support or other vertical tubular profiles that are present onboard sailing boats and other boats. The invention concerns in particular a stor-

age arrangement comprising a support (1) on which it is possible to attach different types of either fixture units or storage units, or both either fixture units and storage units. The storage arrangement is manufactured from a flexible material such that it can easily be attached around the mast and adapted to the thickness of the mast.

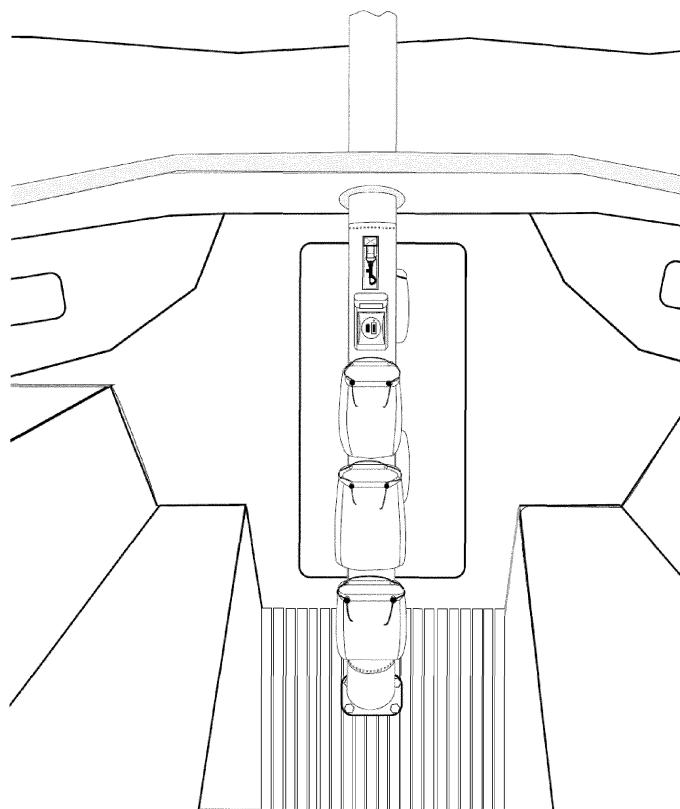


Fig. 5

Description

[0001] The present invention concerns a flexible storage system to be attached around an extended mast or similar, for example a mast support or other vertical tubular profiles that are present onboard sailing boats and other boats.

Background to the invention

[0002] Space inside a boat is very limited and it is often difficult to find space for all items. It is often difficult to find good locations to store, in particular, small items on or in.

[0003] The present invention solves this problem by using the longitudinal mast inside the boat as a flexible storage system comprising a support and an associated fixture or storage units, or fixture and storage units, that can be attached around the mast onboard the boat.

Summary of the invention

[0004] The invention concerns a storage arrangement comprising a support on which it is possible to attach different types of at least one of fixture units and storage units. The storage arrangement is manufactured from a flexible material such that it can easily be attached around the mast and adapted to the thickness of the mast. It is possible to manufacture the storage arrangement in different lengths and widths, such that it is compatible with different types of boat.

[0005] The storage units and fixture units are manufactured separately and can, according to one preferred embodiment, be attached at freely chosen locations on the support.

Brief description of the drawings

[0006]

Figure 1 shows the support in various sizes.

Figures 2A-2I show various methods of attaching the support around the mast.

Figure 3A shows the support in an open condition, in the process of being attached around the mast, and Figure 3B shows the support in a closed condition, when it has been attached around the mast.

Figure 4 shows the front surface of the support with different types of fixture and storage arrangements attached to the support.

Figure 5 is a schematic view of the support attached to a mast onboard a boat, with examples of how the associated storage units have been placed.

Detailed description of the invention

[0007] The invention concerns a storage arrangement for mounting onto the mast in a sailing boat, or onto other

vertical tubular profiles in other boats, which storage arrangement comprises a support and at least one fixture unit or storage unit.

[0008] Figure 1 shows the support 1 in several different widths and heights, which support is manufactured from a flexible material that is arranged such that it can be bent and attached around the mast. The support has two long sides 2, 3 and two short sides 4, 5. It is preferable that the flexible material is textile such as stiff cloth, for example the cloth used for hook-and-loop cloth, or a loud-speaker cloth, or other technical material. The textile should be a flexible material such that it is easy to adapt the size around the mast by placing the cloth under tension around the mast and fixing it together.

[0009] It is possible to manufacture the support 1 in various widths and heights, in order to be compatible with various mast solutions. The support 1 is attached around the longitudinal mast inside the boat, preferably by placing it such that it overlaps itself around the mast.

[0010] In order to be able to pass the support 1 around the mast more easily, it is possible also to attach a strip 6 on one side of the cloth, which strip is inserted into the mast gutter, in order to make it easier to draw the support around the mast.

[0011] Figure 2 shows examples of various methods of attaching the support around the mast in the boat. It is possible, for example, to attach the support with hook-and-loop tape 7 attached to the inner surface along one long side of the support, as is shown in Figure 2A. Since it is preferable that the support be manufactured from the cloth used with hook-and-loop material, the hook-and-loop fitting is attached directly to the cloth and it is possible to tighten the cloth to a suitable size.

[0012] A second method of attaching the support around the mast is to use buttons and holes, as shown in Figure 2B. Button-holes are made along one long side of the support, while buttons are attached to the front surface of the second long side. The support is attached around the mast simply by buttoning the buttons.

[0013] A further method of attaching the support around the mast is with snap fasteners as is shown in Figure 2C. It is possible to use any type of snap fastener. The lower side of the snap fastener is attached to one long side of the support and the upper part of the snap fastener is attached to the second long side, such that it is easy to draw the body of the support around the mast and couple together the snap fasteners.

[0014] A further method of attaching the support around the mast is with a zip, as shown in Figure 2D. The different parts of the zip are mounted one on each long side of the support, the support is held around the mast and the zip can be closed.

[0015] A further method of attaching the support around the mast is to use at least two fixtures and two screws, as shown in Figure 2E. Threaded washers are then mounted at at least two locations in the mast gutter as counterparts, and screws are passed through a small hole in the support in order to be screwed into the thread-

ed washers. It is possible to use as many screws as required, but it should be at least two in order to be able to attach the support around the mast at its upper and lower edges.

[0016] A further method of attaching the support around the mast is to use self-adhesive tape, as is shown in Figure 2F. Self-adhesive tape is then attached to the inner surface of one long side of the support and can be attached to the front surface of the other long side of the support when it has been drawn around the mast.

[0017] A further method of attaching the support around the mast is to use glue, as is shown in Figure 2G. Glue is then applied to the inner surface of one long side of the support and can be attached to the front surface of the other long side of the support when it has been drawn around the mast. The glue should be a fabric glue.

[0018] A further method of attaching the support around the mast is to use at least two eyelets with string, as shown in Figure 2H. Eyelets are then attached along one long side of the support and the string is attached at the opposite long side of the support such that it can be threaded through the eyelets and tied together in order in this way to attach the support around the mast. It is possible to use any number of eyelets and strings, but it should be at least two in order to be able to attach the upper edge and lower edge of the support.

[0019] A further method of attaching the support around the mast is the use of magnets, as shown in Figure 2I. The magnets may be individual magnets or a magnetic strip along at least a part of the length of the support.

[0020] The embodiments described above are not to be regarded as limiting, and it is obvious to one skilled in the arts that also other methods to attach the support around the mast are possible, as long as the two long sides are held together around the mast.

[0021] In order to prevent the support from sliding downwards along the mast if, for example, several heavy objects have been attached to the support, it is possible to attach a silicone tape 8, or other type of rubber tape with fixative properties, at at least a part of one or several of the sides of the support, as shown in Figure 3A.

[0022] Figure 3A shows the support in the process of being fixed around the mast in what is known as an "open" condition, with the hook-and-loop tape 7 along one long side 2. Figure 3B shows the support in a closed condition, in which the hook-and-loop tape 7 at the long side 2 has been fixed overlapping with the long side 3.

[0023] The support may be provided also with hooks at its upper edge in order to make it possible to attach the support at the upper edge of the mast or at the ceiling of the boat.

[0024] Different types of attachment element or attachment arrangement, such as pockets, keyholders, hooks, etc., may be attached to the support.

[0025] The attachment elements and attachment arrangements may be applied by the user at freely chosen locations on the support, as required. The attachment elements and attachment arrangements can be attached

to the support with hook-and-loop tape, buttons and button-holes, snap fasteners, zips, screws and nuts, self-adhesive tape, glue, eyelets and string, or magnets, according to the embodiments that have been described above for the mounting of the support around the mast. Examples of different types of attachment elements and attachment arrangements, together with attachment means for the mounting are shown in Figure 4.

[0026] The methods of attaching the attachment elements and attachment arrangements onto the support that have been described above are not to be regarded as limiting, and it is obvious to one skilled in the arts that also other methods of attaching these to the support can be used.

[0027] Pockets may be, for example, provided with covers or with various types of strings in order to close the pocket at its upper edge. The pocket may also be adapted to contain, for example, a USB outlet for charging electronic equipment. The wires laid to the USB outlet may be, for example, behind the support or inside the mast.

[0028] It is preferable that the back surface of attachment elements and attachment arrangements are provided with hook-and-loop material that attaches directly to the support. The storage arrangement will in this way become flexible, and the user can determine how many or how few attachment elements or attachment arrangements are to be attached to the support, and the locations of the various attachment elements and attachment arrangements on the support.

Claims

1. A storage arrangement comprising a support (1) and at least one storage or fixture unit, **characterised in that** the support (1) is manufactured from a flexible material that is arranged such that it can be bent and attached around a mast in a boat, wherein the long sides of the flexible material are placed overlapping or edge-to-edge, and attached to each other in the longitudinal direction of the mast.
2. The storage arrangement according to claim 1, **characterised in that** the support (1) is arranged to be attached around the mast inside a boat with hook-and-loop material, buttons and button-holes, snap fasteners, zips, self-adhesive tape, glue, eyelets and string, or magnets, or to be screwed to the mast.
3. The storage arrangement according to claim 1 or 2, whereby the flexible material is textile.
4. The storage arrangement according to claim 3, whereby the textile is a hook-and-loop cloth.
5. The storage arrangement according to any one of the preceding claims, whereby the support compris-

es also a silicone tape (8) at at least one of the upper edge and the lower edge of the support (1).

6. The storage arrangement according to any one of the preceding claims, whereby the storage and attachment units are attached to the support (1) by hook-and-loop material, snap fasteners, buttons and button-holes, zips, glue, eyelets and string, magnets, self-adhesive tape or a click-on system.
7. The storage arrangement according to any one of the preceding claims, whereby the support (1) further comprises a strip (6) attached to one long side (3) of the support.

10

15

20

25

30

35

40

45

50

55

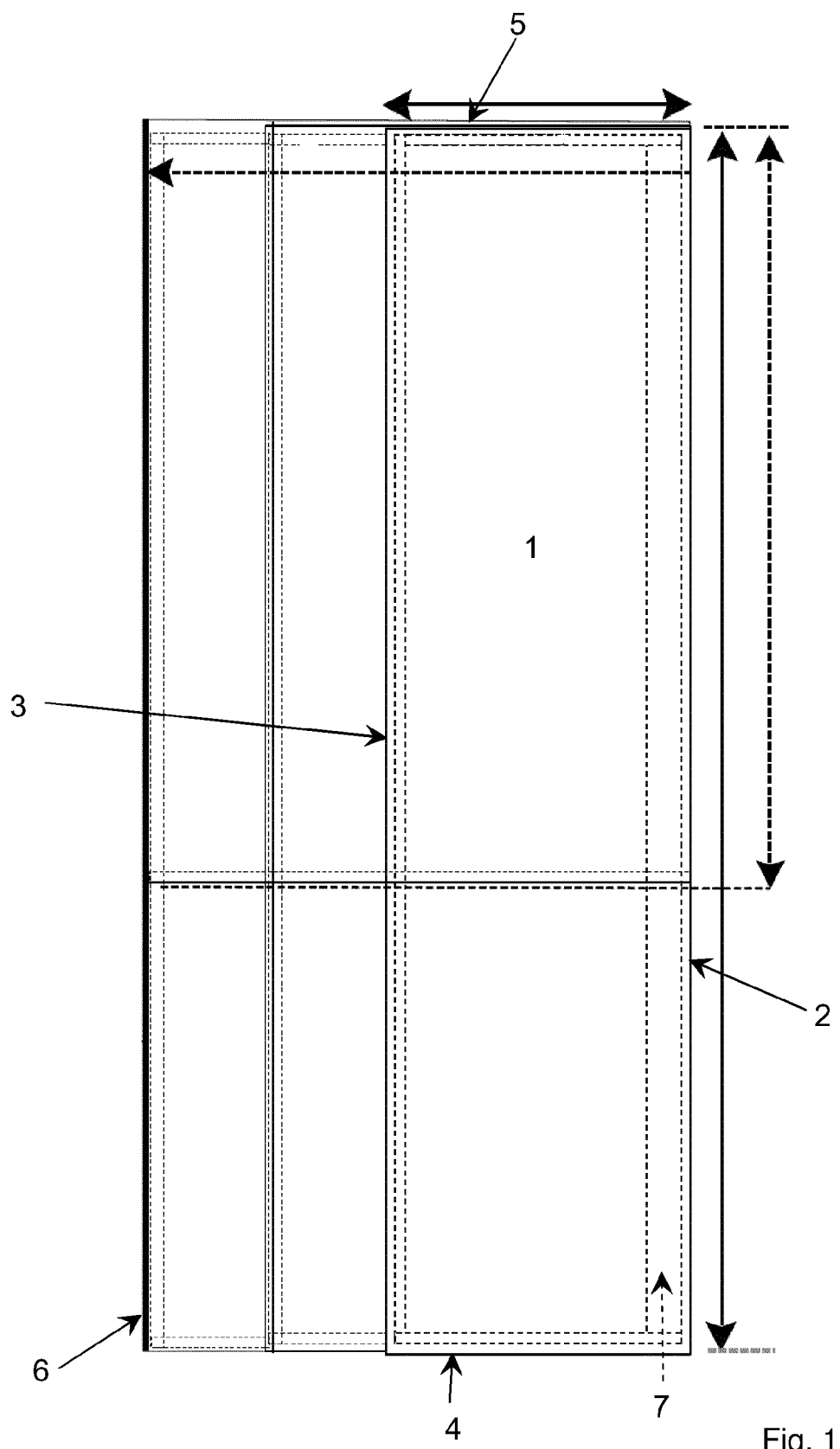


Fig. 1

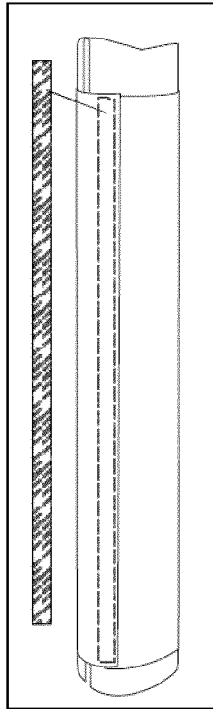


Fig. 2A

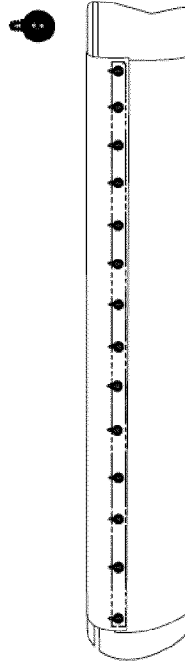


Fig. 2B

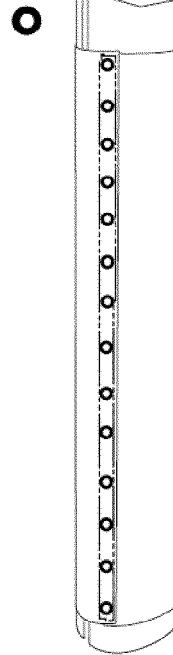


Fig. 2C

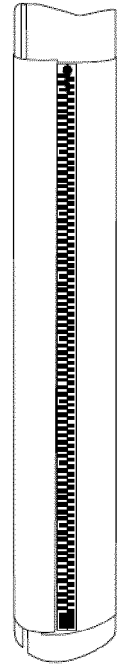


Fig. 2D

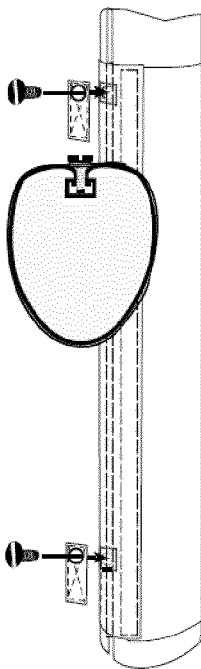


Fig. 2E

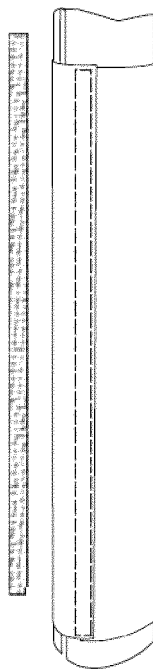


Fig. 2F

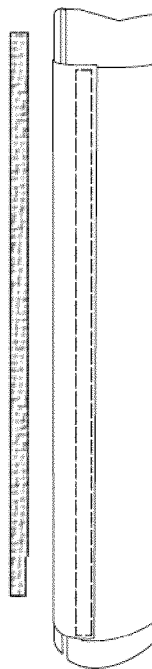


Fig. 2G

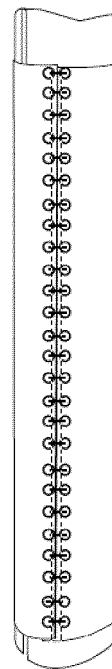


Fig. 2H



Fig. 2I

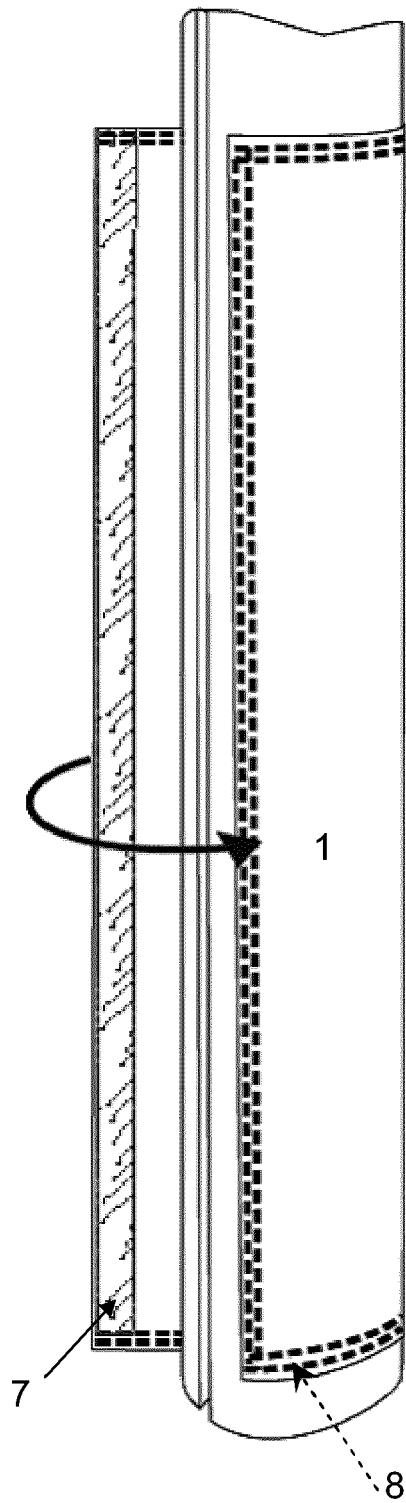


Fig. 3A

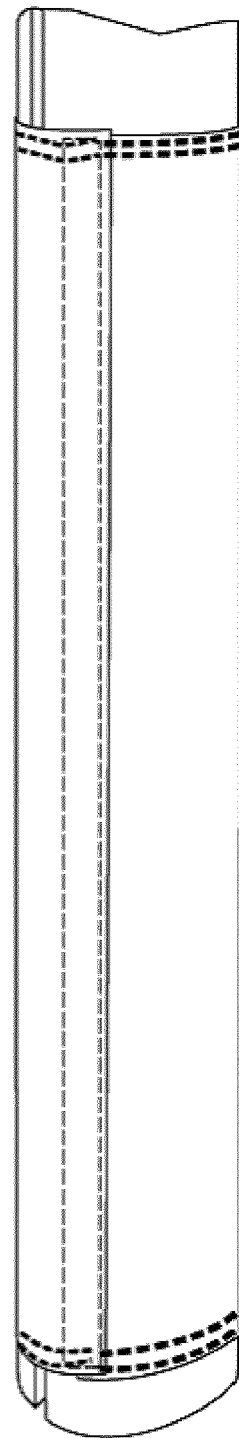


Fig. 3B

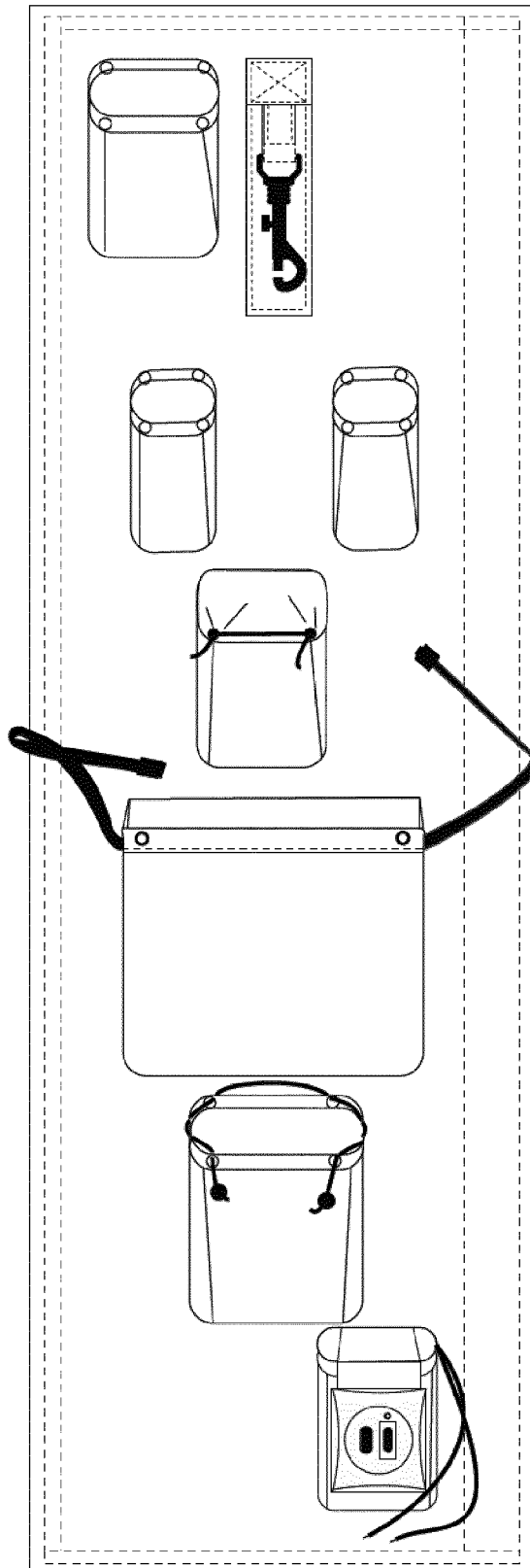


Fig. 4

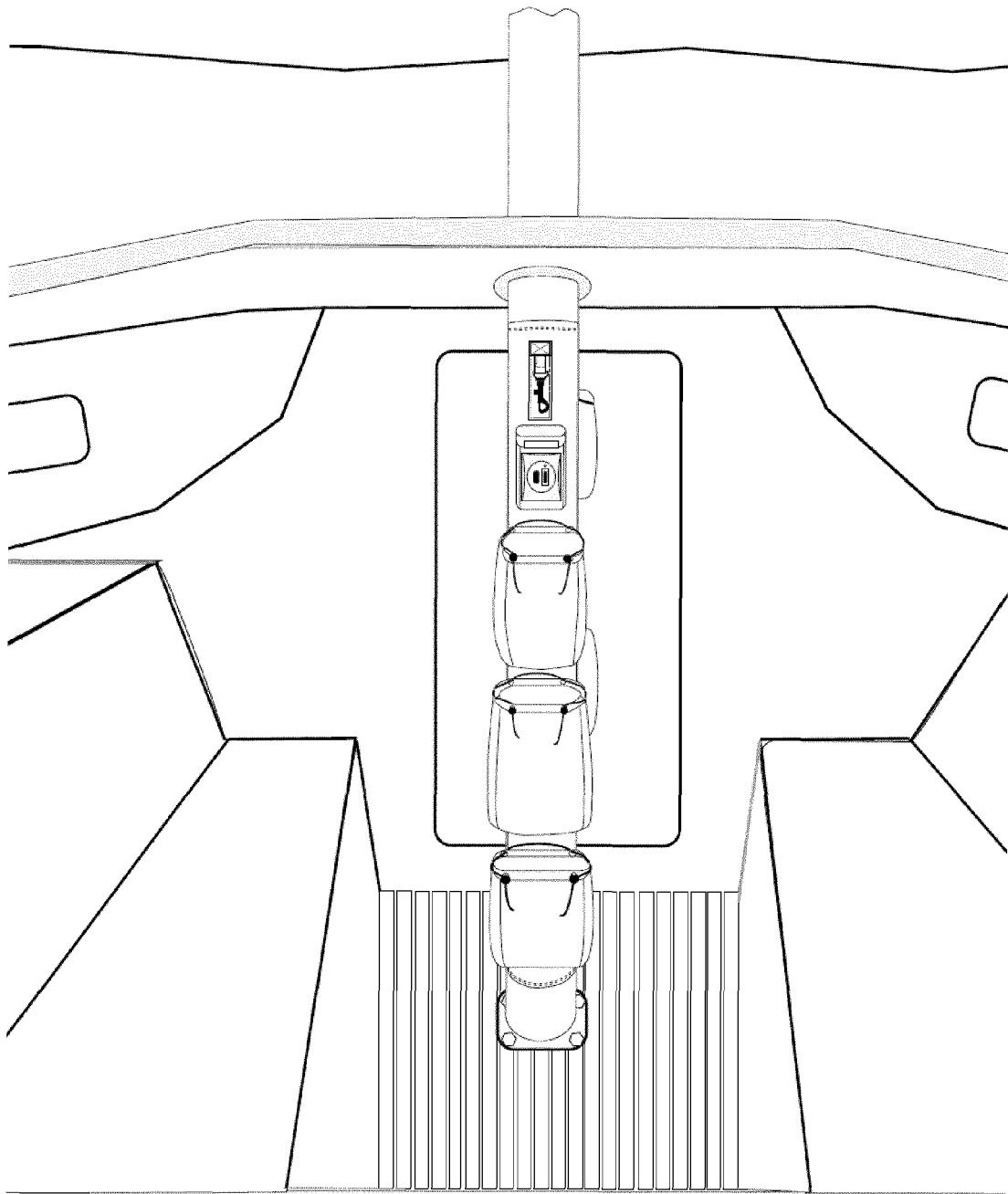


Fig. 5



EUROPEAN SEARCH REPORT

Application Number
EP 11 19 1582

DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (IPC)
X	US 4 079 767 A (HOWARD LANGHORNE M) 21 March 1978 (1978-03-21) * column 1, line 17 - line 23 * * figure 5 *	1	INV. B63B25/00
A	----- US 2005/166828 A1 (JOHNSON CATHY [US] ET AL) 4 August 2005 (2005-08-04) * paragraph [0039] * * figures *	1,5	
A	----- US 4 724 791 A (MCSORLEY JOHN P [US]) 16 February 1988 (1988-02-16) * figure 5 * -----	1,7	
The present search report has been drawn up for all claims			TECHNICAL FIELDS SEARCHED (IPC)
			B63B
Place of search		Date of completion of the search	Examiner
The Hague		7 March 2012	Gardel, Antony
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			

1
EPO FORM 1503 03.02 (P04C01)

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

EP 11 19 1582

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
The European Patent Office is in no way liable for these particulars which are merely given for the purpose of information.

07-03-2012

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
US 4079767	A	21-03-1978	NONE

US 2005166828	A1	04-08-2005	US 2005166828 A1 04-08-2005
		WO 2005077744 A1	25-08-2005

US 4724791	A	16-02-1988	NONE
