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Declarations under Rule 4.17:

— *as to applicant's entitlement to apply for and be granted a patent (Rule 4.17(ii))*

— *of inventorship (Rule 4.17(iv))*

Published:

— *with international search report (Art. 21(3))*

(54) Title: CARDBOARD BOX FOR STABLE STACKING WITH OTHER IDENTICAL SPECIMENS

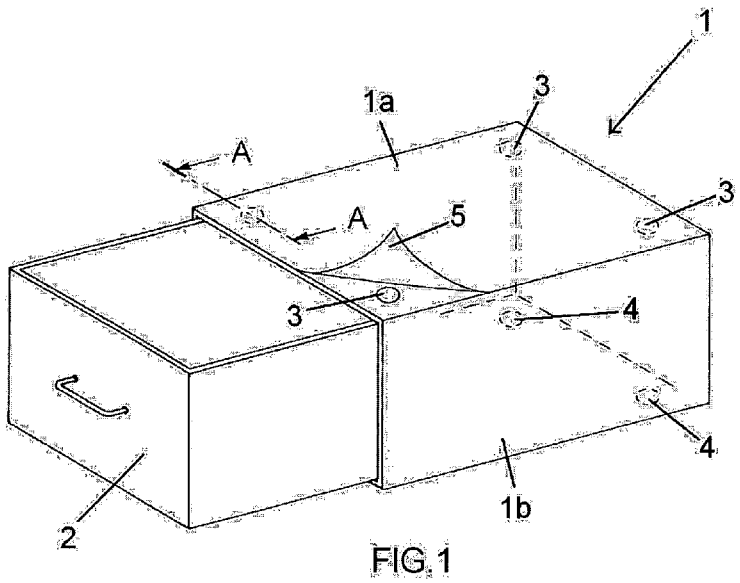


FIG.1

(57) Abstract: The present invention relates to a cardboard box (1) of the type provided with a frontally pulled-out drawer (2), which is designed for stable stacking with other identical specimens, being provided with one or more magnets (3) on one of its horizontal walls (Ia, Ib) and with one or more metal inserts on the other horizontal wall in coinciding positions.

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Description

Cardboard box for stable stacking with other identical specimens.

The present patent application relates to a cardboard box for stacking with other identical specimens.

By means of the present invention it has been possible to obtain a box characterized by high versatility, high functionality and low cost.

In fact, the box of the invention, which is of type provided with frontally pulled-out drawer, is certainly suitable to be used as a single container for objects of different kind.

However, its best practical use is to create a typical vertical drawer unit by using a plurality of identical specimens, wherein each specimen of said box is firmly coupled with the box above and below, while maintaining the possibility to be removed easily from the stack, if necessary.

In view of the above, it appears evident that the use of such a box is also advantageous for retailers, since they can store the goods without using fixed drawer units or shelves, and by using instead the "mobile" drawer units obtained by stacking multiple specimens of the box of the invention.

With reference to retailers, it can be said that the box of the invention can perform a double function, acting as “display” for the goods (since customers can easily see the contents by pulling the drawer out) and as packaging used to sell the product to buyers.

It is worthless saying that also buyers can take advantage of said double function, since they can create a practical drawer unit by means of a plurality of boxes of the invention.

The aforementioned purposes have been achieved by providing the box of the invention with one or more small magnets on its horizontal upper wall, and with a corresponding number of metal inserts in coinciding positions on its horizontal lower wall.

It is evident that by exactly overlapping two specimens of said box, the magnets provided on the horizontal upper wall of the box below can attract

the corresponding metal inserts provided in the horizontal lower wall of the box above, thus coupling the two boxes in overlapped position.

Whereas the magnetic attraction force that couples the two specimens of the box must be sufficient in order to prevent the accidental uncoupling of the boxes, it is also true that the same attraction force must be such that it can be easily overcome by the user in order to separate the two specimens of said box.

It is worthless saying that within the present inventive idea it would be possible to invert the aforementioned position of magnets and corresponding metal inserts, that is to say by providing magnets on the horizontal lower wall of the box and cooperating metal inserts on the horizontal upper wall.

Likewise, it would also be possible to magnetize said metal inserts with charge of opposite sign with respect to said cooperating magnets.

Of course, this would guarantee a higher adhesion force between two identical boxes in overlapped position.

For purposes of clarity, the description of the invention continues with reference to the enclosed drawing, which is intended for purposes of illustration only and not in a limiting sense, wherein:

- figure 1 is an axonometric view of the box of the invention, with partially pulled-out drawer;

figure 2 is an enlarged cross-sectional view of a detail of fig. 1 with plane A-A.

Referring to fig. 1, the box of the invention (1) is made of cardboard and belongs to the traditional type of parallelepiped boxes with drawer (2) that can be pulled out by means of sliding.

As mentioned above, the peculiarity of said box (1) consists in the fact that it is provided with four small magnets (3) basically positioned in the four corners of the horizontal upper wall (1a), in correspondence with four metal inserts (4) positioned in the four corners of the horizontal lower wall (1b).

As shown in fig. 2, the magnets (3) – as well as the corresponding metal inserts (4) – are incorporated into the cardboard layer (S) that is used to make the box, in correspondence with suitable through holes.

In any case, both the magnets (3) and metal inserts (4) are held inside

said holes by the same paper sheets (5) that are used to cover the walls of the box (1) both externally and internally.

In this way, the magnets (3) and metal inserts (4) are not externally visible.

In view of the above, the presence of magnets (3) and inserts (4) does not impair the general aesthetics of the box (1), which maintains an unchanged appearance in spite of such a provision.

It is understood that, without leaving the scope of the present inventive idea, the same box can be made of materials other than cardboard (such as plastics) as long as they are suitable for the specific use.

Likewise, instead of being covered with paper sheets (5), the same box (1) could be covered with thin plastic sheets or pieces of fabric.

Claims

1) Box of the type provided with a frontally pulled-out drawer (2), characterized in that it is provided with one or more magnets (3) on one of its horizontal walls and with one or more metal inserts (4) on the other horizontal wall in coinciding positions.

2) Box as claimed in claim 1, characterized in that said one or more metal inserts (4) are magnetized with charge of opposite sign with respect to the charge of said magnets (3).

3) Box as claimed in claim 1, characterized in that said one or more magnets (3) and said one or more metal inserts (4) are incorporated in the thickness of the cardboard used to make the box (1).

3) Box as claimed in claim 3, characterized in that said one or more magnets (3) and said one or more metal inserts (4) are exactly inserted into through holes obtained on the cardboard used to make the box (1).

5) Box as claimed in one or more of the above claims, characterized in that said one or more magnets (3) and said one or more metal inserts (4) are covered and contained by the thin coating layer (5) applied on the walls of the box (1).

6) Box as claimed in one or more of the above claims, characterized by the fact that it has a parallelepiped shape.

7) Box as claimed in one or more of the above claims, characterized in that it is made of cardboard.

8) Box as claimed in one or more of claims 1 to 7, characterized in that it is made of plastics.

9) Box as claimed in one or more of the above claims, characterized in that said thin coating layer (5) is made of paper.

10) Box as claimed in one or more of claims 1 to 8, characterized in that said thin coating layer (5) is made of plastics.

11) Box as claimed in one or more of claims 1 to 8, characterized in that said thin coating layer (5) is made of fabric.

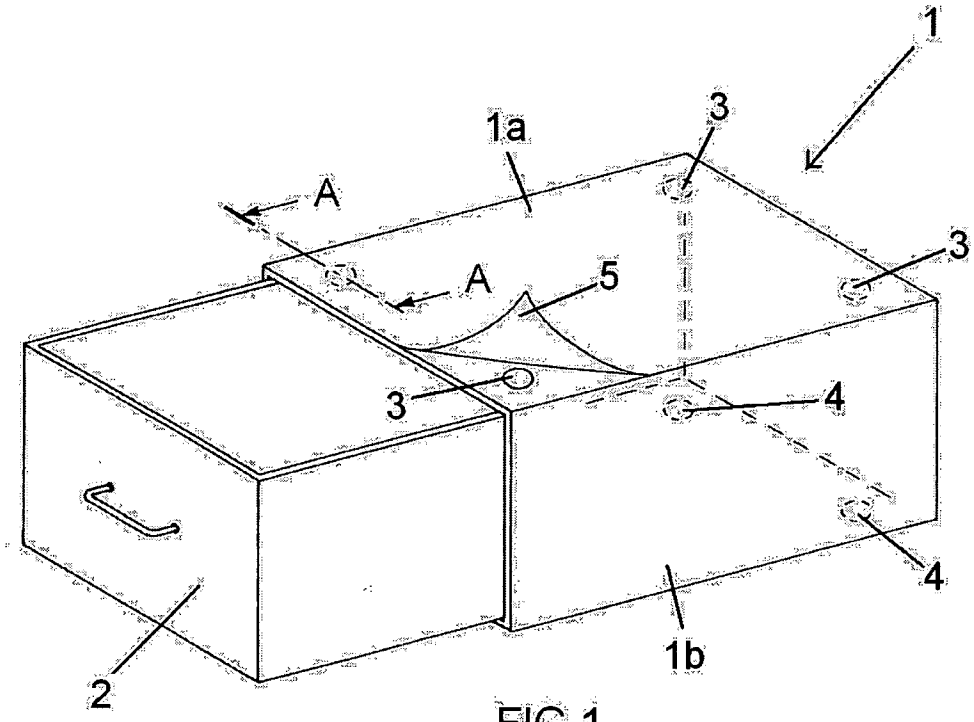


FIG.1

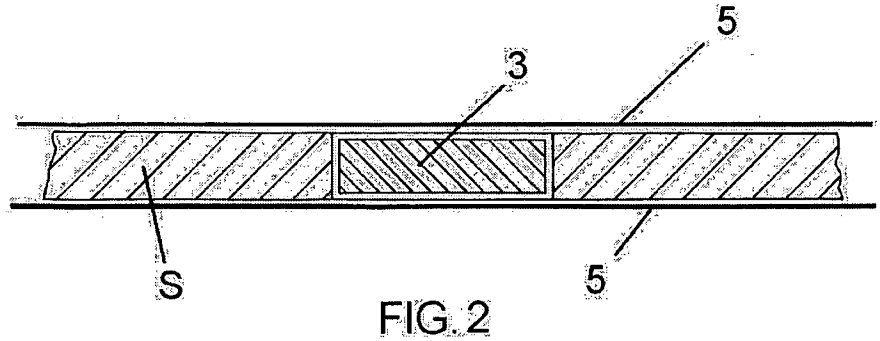


FIG.2

INTERNATIONAL SEARCH REPORT

International application No
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A. CLASSIFICATION OF SUBJECT MATTER
INV. B65D21/02 B65D5/38 B65D6/06
ADD.

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)
B65D

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 practical, search terms used)
EPO-Internal, WPI Data

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	GB 1 002 071 A (PHILIPS ELECTRONIC ASSOCIATED) 25 August 1965 (1965-08-25) claims; figures	1-11
Y	WO 2007/033723 A1 (HENKEL KGAA [DE]; WACQUEZ ANNE-LAURE [FR]; SCHAAL DOROTHEE [DE]; PETER) 29 March 2007 (2007-03-29) page 11 - page 12; figures	1-11
A	GB 1 539 870 A (NAGATA T) 7 February 1979 (1979-02-07) figures	1-11
A	GB 2 261 648 A (GD SPA [IT]) 26 May 1993 (1993-05-26) * abstract; figures	1-11

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[X] Further documents are listed in the continuation of Box C.

[X] See patent family annex.

* Special categories of cited documents :

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"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 January 2011	26/01/2011

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INTERNATIONAL SEARCH REPORT

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C(Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	EP 2 112 082 A1 (EVOLUZIONE SRL [IT]) 28 October 2009 (2009-10-28) figures -----	1-11

INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No
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Patent document cited in search report	Publication date	Patent family member(s)	Publication date
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WO 2007033723 A1	29-03-2007	NONE	
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EP 2112082 A1	28-10-2009	NONE	