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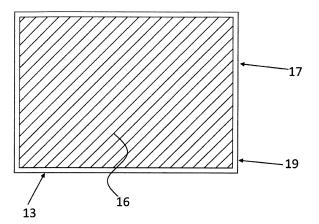
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## (54) PROCESS FOR REALIZING AN EXHIBITOR FOR ARTWORKS AND/OR DOCUMENTATION OF VARIOUS KIND AND EXHIBITOR OBTAINED THEREBY

(57) Here it is described a process for realizing an exhibitor for artworks and/or documents of various types, and an exhibitor obtained thereby.

The exhibitor is composed of a central rectangular and/or square flat element (17) and a plurality of perimeter closure elements, said element (17) being constituted by a transparent rectangular or square flat component (13), made of flexible transparent material such as for example a film, and divided into at least two parts equal to each other, which are coupled, and are suitable to contain in the interposed position between them the artwork and/or the document (16) to be displayed; said perimeter elements being constituted by strips, made of a rigid and lightweight material, such as for example polymer, or wood, or aluminium, and equal to each other in pairs, and provided on one of their side and for their entire length with at least one longitudinal groove, said strips being suitable to be joined each on a respective side of the perimeter (19) of the element (17), by accommodating by fixing joint such perimeter (19) in to said groove, in such a way that the ends of the strips might be coupled orthogonally with the ends of the strips, thus creating a robust rectangular or square frame, integral with the element (17).

FIG. 5



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**[0001]** The present invention refers to a process for realizing an exhibitor for artworks and/or documents of various kind and to an exhibitor obtained thereby, which is easy to be stored, transported and used.

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**[0002]** Currently, in order to display artworks and/or documents of various kinds, such as paintings, posters, photographs, technical drawings, writings, a flat board is used, of given shape and sizes, in wooden or polymeric material, on to which the artwork and/or the document is laid and fastened through adhesive layers, pins, staples and/or similar fasteners.

**[0003]** Hence, it is possible to put and fasten above said artwork and/or document a transparent sheet made of polymeric material or ground glass.

**[0004]** Subsequently, the so assembled system is fixed to a wall or on to a movable support, by per se known methods.

**[0005]** It is to be noted that these supports are not easy to be obtained, and cannot be stored and/or transported easily.

**[0006]** As an alternative, for documents of rectangular shape having a certain degree of stiffness, it is possible to use a rod provided with a very narrow longitudinal groove, where the upper perimeter of the same document is secured by fixed joint; hence, the rod is then fixed to a wall or on to a movable support.

**[0007]** However, with this type of supports the documents are subject to a rapid wear and tend to break themselves easily, particularly on their upper perimeter.

**[0008]** The object of the present invention is to eliminate the above described drawbacks, by means of a process for realizing an exhibitor for artworks and/or documents of various kind and it also refers to an exhibitor obtained thereby.

**[0009]** This process for realizing an exhibitor for artworks and/or documents of various kind, and the exhibitor obtained thereby, are realized in accordance with the features substantially described, with particular reference to the claims and the accompanying drawings, where:

- Fig. 1a-1c each shows a perspective view of the first three steps of the present process for realizing an exhibitor, according to the invention;
- Fig. 2 shows a perspective front view of a fourth step of the realization process;
- Fig. 3a-3d show a perspective front view of the procedural steps for obtaining a first embodiment of a first component of the exhibitor, according to the present invention;
- Fig. 4a-4c show a perspective front view of the procedural steps for obtaining a second embodiment of a first component of the exhibitor, according to the present invention;
- Fig. 5 shows a front view of a first component of the exhibitor obtained by coupling said first component

- with a second component of the same exhibitor, according to the present invention;
- Fig. 6 shows a front view of the first component of Fig. 5 together with further elements of said exhibitor, in the disassembled position thereof;
- Fig. 7 shows a front view of the elements of Fig. 6 in the assembled position, for obtaining the exhibitor, in accordance with the present invention, in the working position thereof;
- Fig 8 shows an exploded front view of the further elements of Fig. 6, in a first embodiment thereof;
  - Fig. 8a shows an exploded side view of the further elements of Fig 6, in a first embodiment thereof;
  - Fig. 9 shows the exhibitor of Fig. 8, in the assembled position thereof;
  - Fig. 9a shows a side cross-sectional view of a constructive item of the exhibitor of Fig. 9;
  - Fig. 10 shows an exploded front view of the further elements of Fig. 6, in a second embodiment thereof;
  - Fig. 10 a shows an exploded side view of the further elements of Fig. 6, in a second embodiment thereof;
  - Fig. 11 shows the exhibitor of Fig. 10, in the assembled position thereof;
  - Fig. 11a shows a side cross-sectional view of a constructive item of the exhibitor of Fig 11;
  - Figs. 12a-12g show the disassembly steps of the exhibitor of Fig 7 and the relevant assembly of the constructive elements of the same exhibitor, in the storage and/or transport position.

**[0010]** In the above mentioned figures, the various steps of the process for realizing an exhibitor for artworks and/or documents of various kind, according to the present invention, and an exhibitor obtained thereby are initially shown, which exhibitor is easy to be stored, transported and used, while subsequently the rapid disassembly and assembly steps are shown, for storage and/or transport of the elements of the same exhibitor.

[0011] In particular, in Figs. 1a-1c, in which there are illustrated in sequence the various steps of the process for realizing the exhibitor 10, it may be noted a sheet 11, rolled up on to itself to form a reel 12, and which is made of flexible transparent material such as a film. Such sheet 11, as shown in Fig. 1b, is then unrolled, for being subsequently cut to the desired size, as shown in Fig 1c, thus obtaining a first transparent rectangular or square component 13 of the exhibitor 10, which is laid as shown in Fig 2.

**[0012]** This flat component 13 is split in such a way as to obtain two parts 14 and 15 equal to each other, which are superimposed and coupled together, to thus obtain a first central flat rectangular and/or square element 17, for containing the exhibitor 10, into which the artwork and/or the document 16 to be displayed is then inserted, as shown in Fig 5.

**[0013]** Such element 17, in a first embodiment thereof, as shown in Figs 3a-3d, is realized by identifying the median line 17 'of the flat component 13 (see Fig. 3a), and

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by folding the element 17 along this latter (see Figs. 3b-3c), thus obtaining the two equal parts 14 and 15 of the same element. Subsequently, as shown in Fig. 3d, the artwork and/or document 16 is inserted between the two parts 14 and 15, and the coupling is then closed, as shown in Fig. 5.

[0014] Such element 17, in a second embodiment thereof, as shown in Figs. 4a-4c, is realized by cutting along the median line 17 '(see Fig. 4a) of the flat component 13, and thus obtaining the two component parts 14 and 15 equal to each other, which component parts are subsequently coupled together by inserting between them the artwork and/or the document to be displayed, as shown in Figs. 4b-4c, and finally by closing the coupling as shown in Fig. 5.

**[0015]** As shown in Fig. 6, a plurality of second elongated elements 18 and 18' is joined to said element 17, each one on a side of the perimeter 19 of the element 17, in such a way that the ends 21 and 24 of such elongated elements match to create a robust frame 20 integral with said element 17, as seen in Fig. 7, thereby obtaining in a very simple manner the exhibitor 10, according to the present invention.

**[0016]** Said elongated elements 18 and 18 'are constituted by narrow strips 18 and 18' made of rigid and lightweight material, such as polymer, or wood, or aluminium, which are equal in pairs to each other, and have a length equal to or greater than the length of the side of the perimeter 19 on to which they are applied.

**[0017]** Said strips 18 and 18 'are provided on one of their side, throughout its length, with at least one longitudinal groove (not shown), suitable to accommodate by fixed joint the perimeter 19 of said first element 17.

[0018] By referring to Figs. 8-9a, in which a first embodiment of the elements 18 and 18' is shown by way of example only, it can be noted that the relevant ends 21 of the first pair of strips 18 positioned parallel to each other are each shaped with a parallelepiped-shaped central protrusion 22, and that the two side parts 23 to the latter have a sloped profile at 45°, while the ends 24 of the second pair of strips 18' positioned parallel to each other are each shaped with a central notch 22' inclined at 45°.

**[0019]** These ends 21 and 24 are dimensioned and adapted to be coupled orthogonally to each other by fixed joint, as shown in the enlarged cross- sectional view of Fig. 9a, thereby obtaining a rectangular or square frame as shown in Fig. 9.

**[0020]** With reference to Figs. 10-11a, in which a second embodiment of the elements 18 and 18' is shown by way of example only, it can be noted that the ends 25 of the first pair of strips 18, positioned parallel to each other, are each shaped with two parallelepiped protrusions 26 and 27, separated from each other, while the ends 28 of the second pair of strips 18 'positioned parallel to each other, are each shaped with two parallelepiped protrusions 29 and 30, positioned in such a way that they can be orthogonally coupled by fixed joint with the protrusions

of the ends 25 of the strips 18, as shown in the enlarged cross-sectional view in Fig. 11a, thus obtaining a frame 20, as shown in Fig. 11.

**[0021]** The so constituted exhibitor 10 is fixed with per se known methods to walls or movable supports, in order to be able to display the desired artwork and/or document 16, the latter being easily and quickly replaceable with a similar one, since the frame 20 is fixed removably by fixed joint on to the element 17.

[0022] With reference to Figs. 12a-12g, the disassembly process of the elements of the exhibitor 10, and their subsequent arrangement for their storage and/or transport, is now described:

- First of all, the strips 18 and 18' are removed from the element 17, from which the artwork and/or the document 16 is removed for the storage where considered appropriate;
  - The strips 18 and 18' are then positioned near to each other and coupled to each other, as shown in Figs. 12a-12c;
  - The element 17 is rolled up in such a way as to create a hollow reel 31 (see Fig. 12d);
  - The strips 18 and 18' are inserted inside said hollow reel 31, as shown in Fig.12e;
  - The relevant cylindrical cap 33 and 34 is applied by fixed joint to each of the ends 32 of the reel 31, as shown in Figs. 12f-12g, thus obtaining a single body 35 of such dimensions as to include all the elements of the exhibitor 10, which can thus be transported, stored and disassembled in a simple way, for being subsequently assembled again, as previously described.

**[0023]** It is clear that the process for realizing and storing the exhibitor 10 is extremely advantageous for its simple operating steps and for the type of the used elements.

#### **Claims**

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- Process for the realization and the subsequent storage of an exhibitor (10) for artworks and/ or documents of various types (16), the exhibitor (10) being constituted by a first central element (17) and by a plurality of perimeter fastening elements (18, 18'), characterized by the following operating steps:
  - a) unrolling of a sheet (11) rolled up on to itself to form a reel (12), which sheet is made of a flexible transparent material such as for example a film;
  - b) cutting said sheet (11) to the desired size, thereby obtaining a first transparent flat rectangular or square element (13);
  - c) splitting such flat component (13) into two parts equal to each other (14 and 15), which are

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superimposed and coupled together to thus obtain said first central rectangular and/or square element (17) of the exhibitor (10), within which element (17) the artwork and/or document (16) to be displayed is inserted;

d) joining said element (17) with said plurality of second elongated elements (18 and 18 '), each one applied to one side of the perimeter (19) of the element (17), in such a way that the ends (21 and 24) of the elements (18 and 18 ') may be coupled to each other, thus creating a robust frame (20) integral with the same element (17) and thus obtaining the exhibitor (10) containing the artwork and/or document (16) to be displayed, said elongated elements (18 and 18 ') being constituted by strips (18 and 18') made of a rigid and lightweight material, such as for example polymer, or wood, or aluminium and being equal to each other in pairs, and having a length equal to or greater than the length of the side of the perimeter (19) on to which they are applied, said strips (18 and 18 ') being provided on one of their sides and for their whole length of at least one longitudinal groove, adapted to accommodate by fixed joint the perimeter (19) of said first element (17).

- 2. Process according to claim 1, characterized in that the central element (17) is realized by identifying the median line (17') of the flat component (13) and by folding such flat component (13) along the same median line, thus obtaining the two equal parts (14 and 15), between which the artwork and/or document (16) is inserted during their coupling.
- 3. Process according to claim 1, characterized in that the central element (17) is produced by cutting along the median line (17') of the flat component (13), thus obtaining the two component parts (14 and 15) equal to each other, which two parts are subsequently coupled together by interposing between them the artwork and/or the document (16).
- 4. Process according to one of the preceding claims, characterized in that for the storage of the assembled exhibitor (10), the following operative steps are provided:
  - Removal of the strips (18 and 18 ') from the element (17), from which the artwork and/or the document (16) is subsequently removed, for being stored where considered appropriate;
  - Positioning of the strips (18 and 18 ') near to one another and their consequent coupling;
  - Rolling up on itself of the element (17), in such a way as to create a hollow reel (31);
  - Insertion of the strips (18 and 18 ') within said hollow reel (31);

- Application by fixed joint of a relative cylindrical cap (33 and 34) to each end (32) of the reel (31), thus obtaining a single body (35) of such size as to be suitable to include all the elements of the exhibitor (10), that thus may be transported, stored and disassembled in a simple way, and re-assembled again.
- Exhibitor obtained in accordance with the process of claim 1, characterized in that it is composed of a central rectangular and /or square flat containment element (17) and by a plurality of perimeter closing elements (18, 18'), said element (17) being constituted by a transparent rectangular or square flat component (13), made of flexible transparent material such as for example a film, and divided into at least two parts (14 and 15) equal to each other, which are coupled, and are suitable to contain in the interposed position between them the artwork and/or document (16) to be displayed, said perimeter elements (18 and 18') being constituted by strips (18 and 18'), made of a rigid and lightweight material, such as for example polymer, or wood, or aluminium, and being equal to each other in pairs, and provided on one side thereof and for their entire length of at least one longitudinal groove, said strips (18 and 18 ') being suitable for being joined each on to a respective side of the perimeter (19) of the element (17), by housing by fixed joint such perimeter (19) in to said groove, in such a way that the ends (21, 25) of the strips (18) might be orthogonally coupled with the ends (24, 28) of the strips (18 '), thereby creating a robust rectangular or square frame (20), integral with the element (17).
- **6.** Exhibitor in accordance with the claim 5, **characterized in that** the two equal parts (14 and 15) are obtained by folding the flat component (13) along its median line (17').
- 7. Exhibitor in accordance with the claim 5, characterized in that the two component parts (14 and 5) are made by cutting the flat component (13) along its median line (17') and by matching each other the same parts.
- 8. Exhibitor in accordance with the claim 5, characterized in that said strips (18 and 18 ') have a length that is equal to or greater than the length of the relevant side of the perimeter (19) of the element (17) on to which they are joined.
- 9. Exhibitor in accordance with the claim 8, characterized in that the ends (21) of the first pair of strips (18) positioned parallel to each other are each shaped with a central parallelepiped protrusion (22), and the two side parts (23) have a sloped profile at 45°, while the ends (24) of the second pair of strips

(18 ') positioned parallel to each other are each shaped with a central notch (22') inclined at 45°, said ends (21 and 24) being sized and suitable to be joined together by fixed joint, thus obtaining the rectangular or square frame (20).

10. Exhibitor in accordance with the claim 8, characterized in that the ends (25) of the first pair of strips (18) positioned parallel to each other are each shaped with two parallelepiped protrusions (26 and 27) separated from one another, while the ends (28) of the second pair of strips (18') positioned parallel to each other are each shaped with two parallelepiped protrusions (29 and 30), positioned in such a way that they can be coupled by fixed joint with the protrusions of the ends (25) of the strips (18), thus obtaining the frame (20).

FIG. 1A

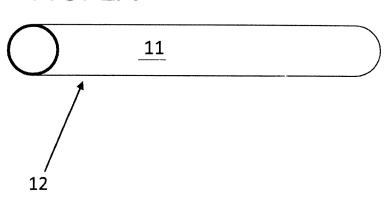
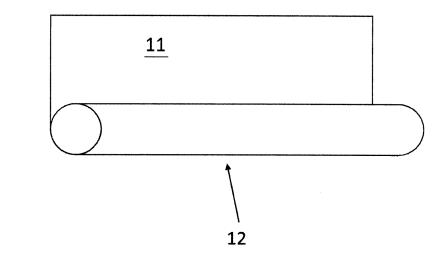


FIG. 1B



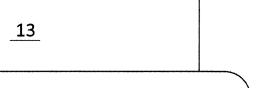
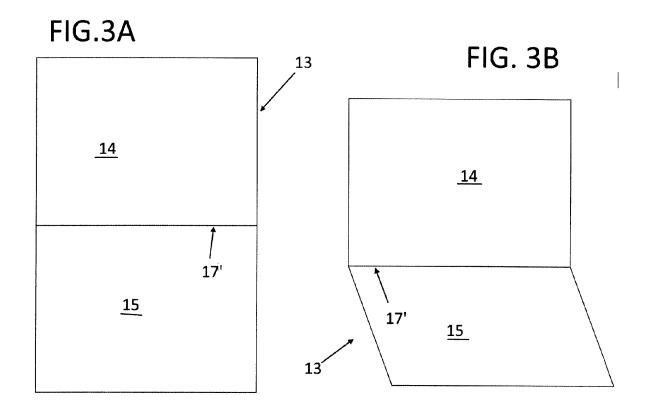
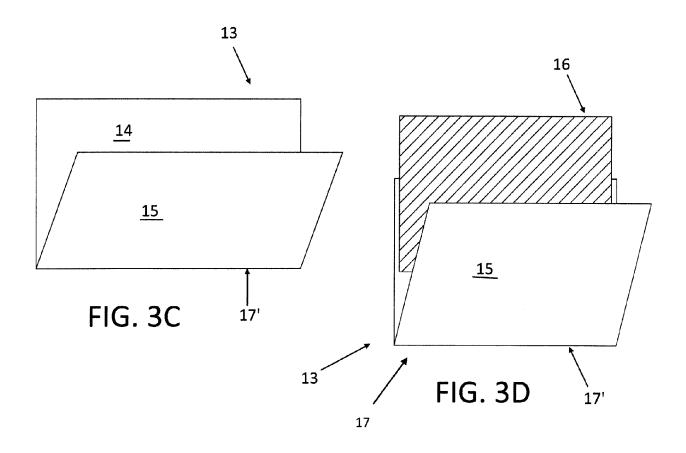


FIG. 1C

FIG. 2

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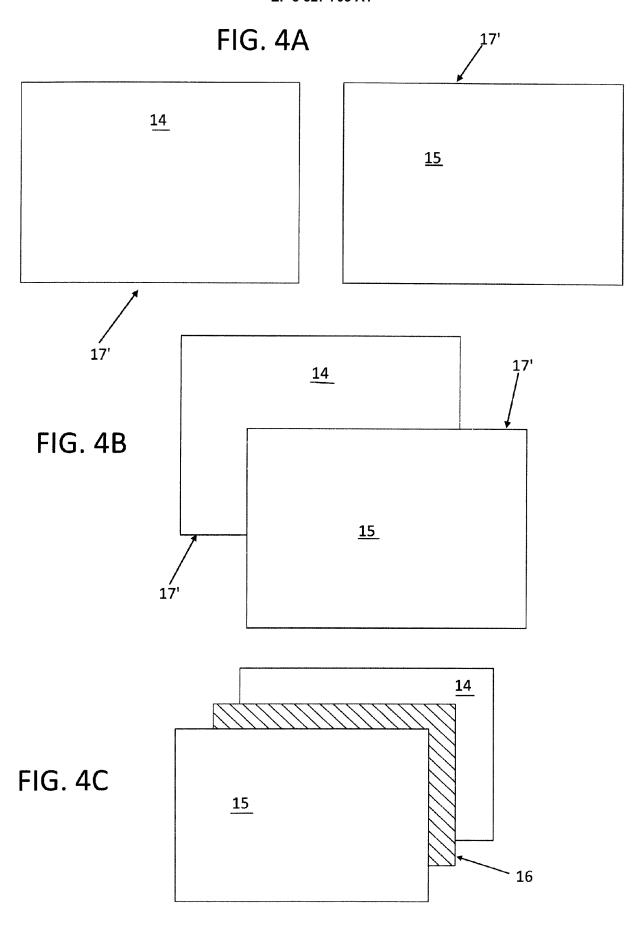
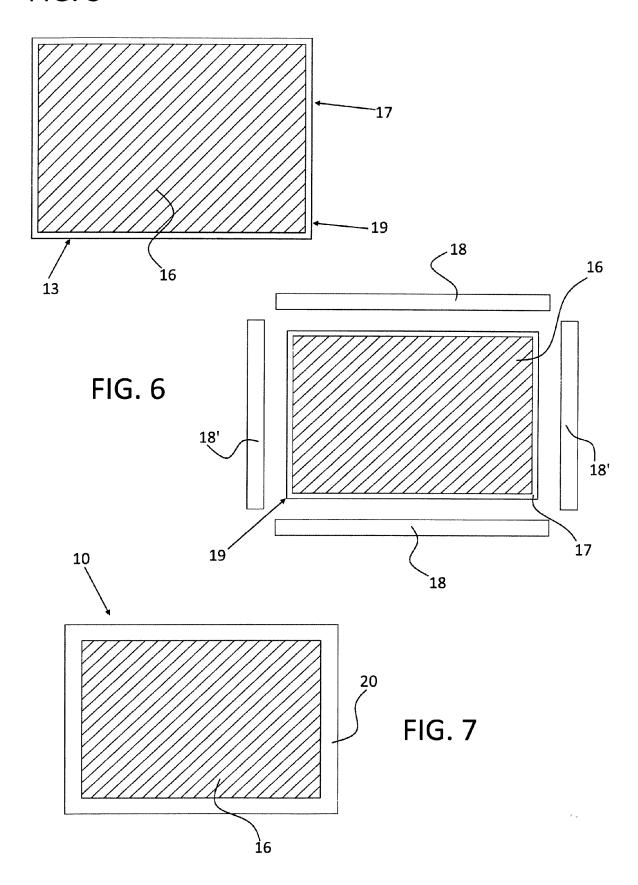
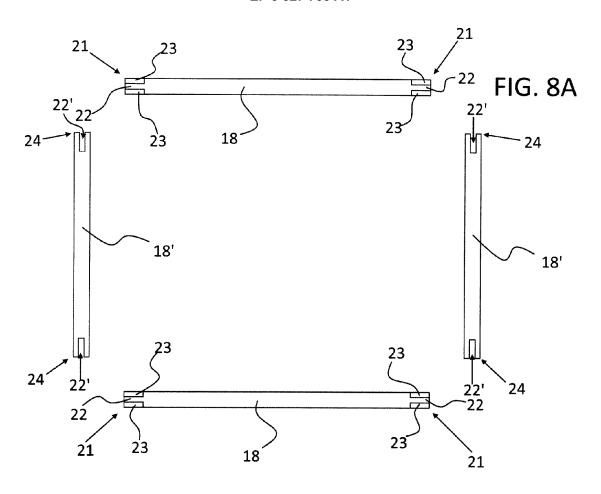
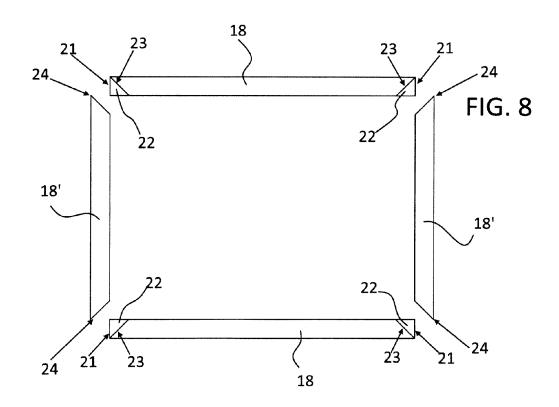


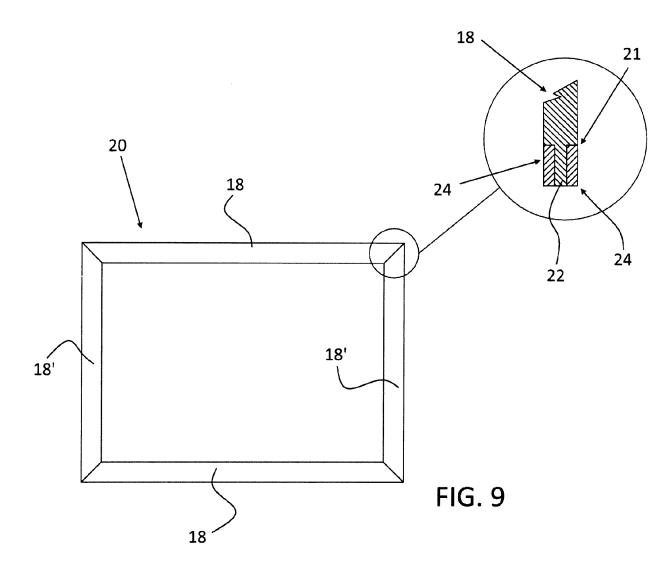
FIG. 5

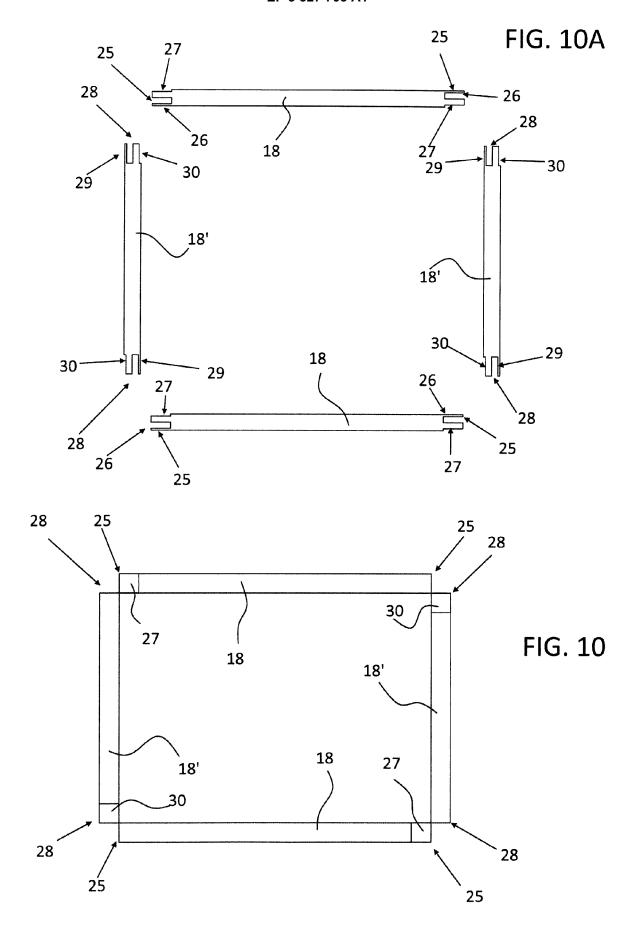


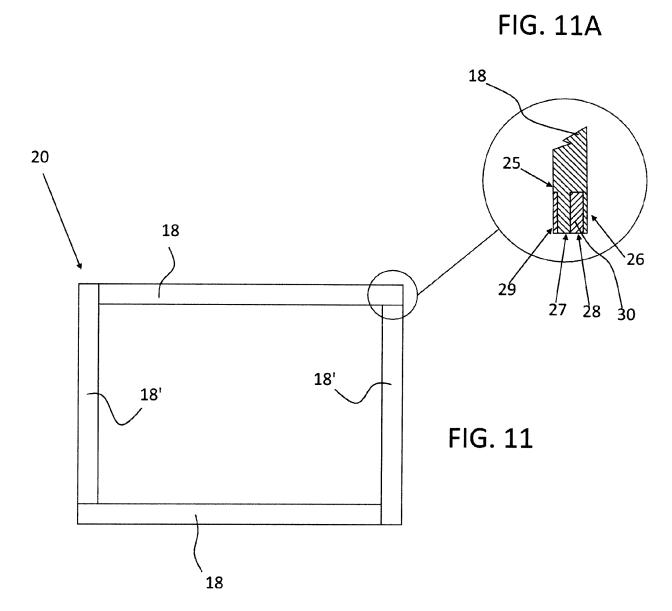


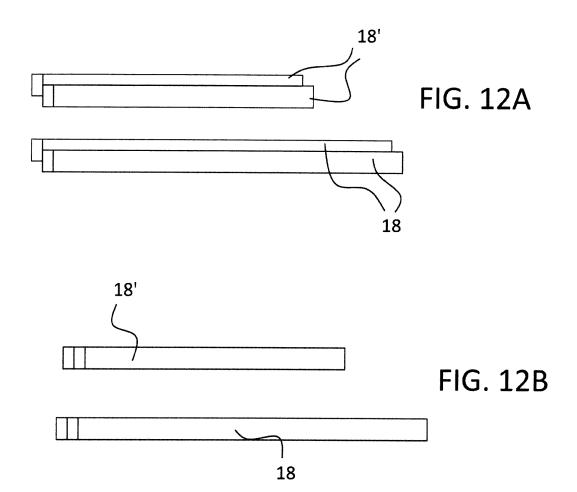


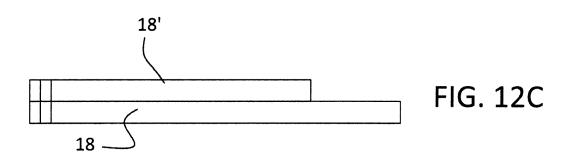
# FIG. 9A

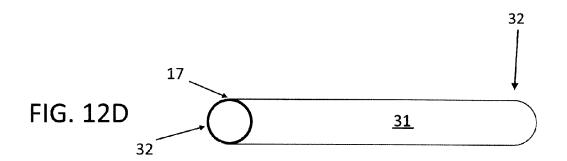


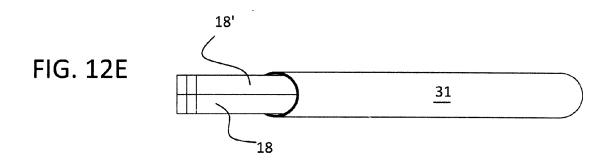


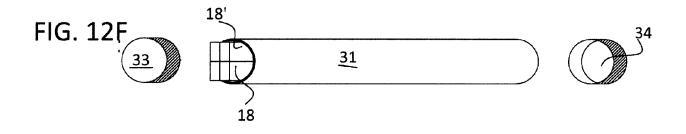


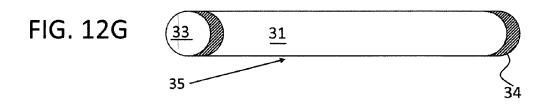














### **EUROPEAN SEARCH REPORT**

Application Number EP 16 42 5109

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|    |                                   | DOCUMENTS CONSID  | ERED TO BE RELEVANT   |                                |  |  |  |  |
|----|-----------------------------------|---|---|--------------------------------|--|--|--|--|
|    | Category                          | Citation of document with it  | ndication, where appropriate,   | Relevant<br>to claim           | CLASSIFICATION OF THE APPLICATION (IPC)            |  |  |  |
| 10 | X                                 | GB 2 337 004 A (WEI<br>10 November 1999 (1<br>* page 9, line 14 -<br>* page 10, line 9 -<br>* page 12, line 2 -<br>* claims 1,10,11 *<br>* figures *  | 1999-11-10)<br>· line 16 *<br>· line 35 *   | 1,2,4-6,<br>8,10<br>3,9        | INV.<br>G09F1/12<br>A47G1/06                       |  |  |  |
| 20 | X<br>Y<br>A                       | US 2006/021273 A1 (2 February 2006 (20 * paragraphs [0018] [0022] * figures *   |   | 5,7,8<br>3<br>1,2,4,6,<br>9,10 |  |  |  |  |
| 25 | X<br>A                            | US 3 877 572 A (WIE<br>15 April 1975 (1975<br>* column 4, line 49<br>* figures *  |   | 1,5<br>2-4,6-10                |  |  |  |  |
| 30 | Y<br>A                            | US 6 962 017 B1 (PC<br>8 November 2005 (20<br>* column 2, line 42<br>* column 3, line 27<br>* figures 1-11 *  | ? - line 55 *   | 9                              | TECHNICAL FIELDS<br>SEARCHED (IPC)<br>G09F<br>A47G |  |  |  |
| 35 | A                                 | EP 2 119 379 A1 (QU 18 November 2009 (2 * paragraphs [0060] * paragraphs [0068] * figures *   | - [0065] *  | 1-10                           |  |  |  |  |
| 40 |                                   |   |   |                                |  |  |  |  |
| 45 |                                   |   |   |                                |  |  |  |  |
| 50 | Place of search                   |   | been drawn up for all claims  Date of completion of the search  24 April 2017  T: theory or principle | underlying the ir              |  |  |  |  |
| 55 | Y:par<br>doc<br>A:teol<br>C O:nor | X: particularly relevant if taken alone Y: 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  E: earlier patent document, but published on, or after the filing date C: document cited in the application L: document cited for other reasons E: earlier patent document, but published on, or after the filing date C: document cited in the application C: document cited for other reasons E: earlier patent document, but published on, or after the filing date C: document cited in the application C: document cited for other reasons E: earlier patent document, but published on, or after the filing date C: document cited in the application C: document cited for other reasons C: member of the same patent family, corresponding document |   |                                |  |  |  |  |

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

EP 16 42 5109

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24-04-2017

| 10    | Patent document cited in search report |    | Publication<br>date | Patent family<br>member(s) |   | Publication<br>date                                  |
|-------|--|----|---------------------|----------------------------|---|--|
|       | GB 2337004                             | Α  | 10-11-1999          | NONE                       |   |  |
| 15    | US 2006021273                          | A1 | 02-02-2006          | NONE                       |   |  |
| 70    | US 3877572                             | A  | 15-04-1975          | NONE                       |   |  |
|       | US 6962017                             | B1 | 08-11-2005          | NONE                       |   |  |
| 20    | EP 2119379                             | A1 | 18-11-2009          | BR<br>CN<br>EP<br>JP       | PI0901708 A2<br>101664256 A<br>2119379 A1<br>2009273887 A | 27-03-2012<br>10-03-2010<br>18-11-2009<br>26-11-2009 |
| 25    |  |    |                     |                            |   |  |
| 30    |  |    |                     |                            |   |  |
| 35    |  |    |                     |                            |   |  |
| 40    |  |    |                     |                            |   |  |
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| 50    |  |    |                     |                            |   |  |
| 55 OG |  |    |                     |                            |   |  |

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