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(54) **Assembly, for example a display**

(57) The present invention relates to an assembly, for instance of a transportable whole, which can serve as display in a shop. The assembly comprises a base of a disposable material, such as cardboard, to be arranged on a support. The assembly further comprises a structure of disposable material, such as cardboard. The assembly also comprises at least one attachment acting on the

base and the structure for fixedly attaching thereof to each other. According to the invention the attachment is a staple and the legs of the staple are bent at a distance from the support within a thickness of the base. The assembly can further comprise the support and/or a base with at least two layers, which can have individual properties and qualities.

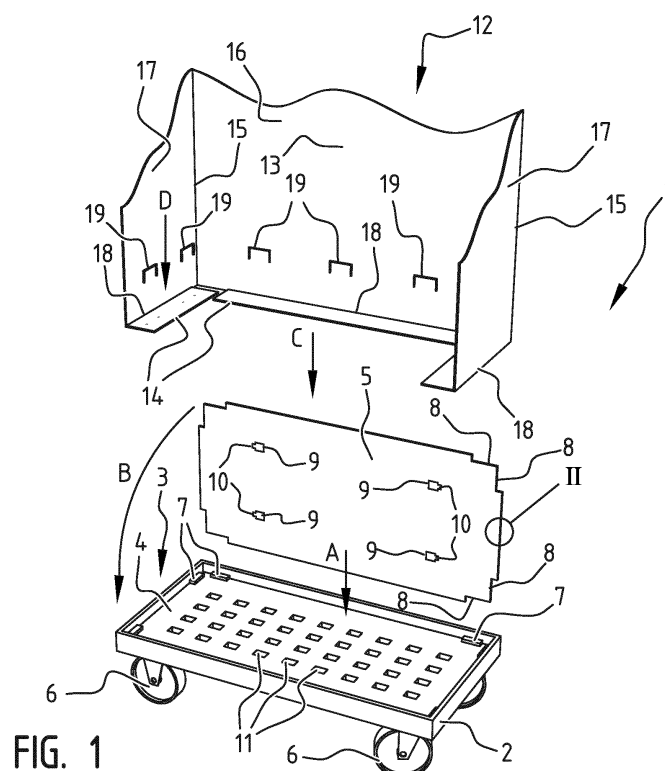


FIG. 1

Description

[0001] The present invention relates to an assembly, comprising: a structure of disposable material, such as cardboard, to be arranged on a support; and at least one attachment acting on at least the structure for fixedly attaching thereof to the support.

[0002] It is also known to make use of nails or punching staples in order to attach a structure to and on the support, although there are objections to this, particularly when the structure is to be attached to a support such as a displaceable support or a cart or trolley of a display, due to a well-founded fear of damage to the support or the cart or trolley. Reference is made here by way of example to known art, as described in US-2005/127622, which can be deemed the prior art closest to the present invention.

[0003] The invention has for its object to provide an improved assembly, this being at least partly achieved by means of an assembly which is distinguished from the known assemblies by the features (in combination) of the appended independent claims. Damage to a support, cart or trolley can hereby be prevented, even when the assembly is erected on the support or the cart or trolley.

[0004] In a preferred embodiment the assembly is such that the base comprises two layers. A grip can thus be provided for the staple. This is particularly the case when the staple comprises: bent legs in the layer of the base lying furthest from the structure. The legs do not therefore extend below or behind the base relative to the structure. In such an embodiment with two layers of the base, an assembly according to the invention can further have the feature that the base is of cardboard and at least one of the layers of the base is a coarse flute, for instance type A, B or C, and the other of the layers of the base is a fine flute, for instance type B, E, F, G or N. Such constitutions of the base provide an extremely strong and robust embodiment which enables application in for instance the field of displays. It is also possible within the scope of the invention to incorporate more than two layers in the base.

[0005] In an embodiment with finer and coarser types of flute cardboard and the bent legs of the staple in the layer of the base lying furthest from the structure it can be advantageous that the layer lying furthest from the structure is that with the fine flute. The coarser, stronger flute cardboard is then as it were embraced by the bent legs of the staple, which results in a strong attachment.

[0006] An additional or alternative embodiment of an assembly according to the invention can have the feature of a support of reusable material such as wood or plastic. This can be a displaceable and/or mobile cart or trolley as are applied in the field of displays. The assembly can here further comprise: at least one coupling acting on the base and the support for releasable coupling thereof. The base and structure can thus be easily disassembled for reuse of the support or the cart or trolley. It can be favourable here that the coupling comprises an incision defining a hinge in the base and a passage in the support

for passage of a pivoting part of the base. A very elegant and simple coupling is thus provided which, for instance in the field of displays, forms a sufficiently strong temporary coupling for the purpose of holding the base, and the structure attached thereto, on a support, cart or trolley as long as use as display is necessary and/or desired, which is often not for very long.

[0007] The staple is preferably arranged with an electrical or pneumatic staple gun with depth adjustment for the depth of the bent legs of the staple. Such staple guns exist but have not been applied in the past in a manner proposed according to the invention, i.e. in combination with a support, cart or trolley.

[0008] It is for this reason that the present invention also relates to the use of an electrical or pneumatic staple gun with depth adjustment for the depth of bent legs of a staple to be placed thereby during attachment to each other of a base of disposable material, such as cardboard, to be arranged on a support, and a structure of disposable material such as cardboard, wherein the staple is at least one of a number of attachments for the purpose of fixed mutual attachment thereof, and wherein the depth adjustment is at least adjustable for the purpose of bending the legs of the staple at a distance from the support within a thickness of the base.

[0009] It is further noted that the invention relates to a displaceable display comprising a mobile support having thereon a base and a structure with an attachment according to the invention formed by at least one staple, assembled in a manner likewise proposed according to the present invention.

[0010] The present invention will be further described hereinbelow on the basis of exemplary embodiments which are shown in the accompanying drawing but to which the present invention is by no means limited, since the definition of the scope of protection is limited to claims which are also appended, in particular the independent claims. The drawing can show diverse embodiments, wherein the same or similar reference numerals may be used for the same or similar elements, components and functionalities.

Fig. 1 is an exploded perspective view of an assembly according to the present invention;

Fig. 2 is a side view of a detail of Fig. 1;

Fig. 3 shows an alternative embodiment of an assembly according to the present invention, once again in perspective view;

Fig. 4 shows an attachment in the embodiment of Fig. 3 which is likewise applicable in the configuration according to figures 1 and 2; and

Fig. 5 is a schematic view of a manner of arranging a staple in an application according to the present invention.

[0011] Fig. 1 shows an embodiment of an assembly 1 according to the present invention. Assembly 1 comprises a mobile cart or trolley 2 with a recessed portion 4 in

upper surface 3 thereof which is shaped to receive a base board 5.

[0012] Cart or trolley 2 is made from reusable material such as plastic, wood or even metal, and on the underside thereof comprises wheels 6, several of which can also be swivel wheels.

[0013] Arranged in recessed portion 4 in upper surface 3 of trolley or cart 2 are protrusions 7 for close-fitting positioning of base board 5. Base board 5 comprises cut-away portions 8 relative to a purely rectangular shape which match protrusions 7. Base board 5 can be placed by being successively or simultaneously tilted in the direction of arrow B and placed in recessed portion 4 relative to the upper surface 3 of cart or trolley 2 in the direction of arrow A.

[0014] Base board 5 further comprises a number of incisions 9 which can be pressed out for the purpose of defining a hinge 10. Pressing out the material of base board 5 surrounded by one of the incisions 9, causes a flap defined by incisions 9 to rotate round hinge 10 so as to be received in a hole or passage 11 in recessed portion 4 relative to the upper surface of cart or trolley 2.

[0015] Recessed portion 4 is preferably embodied such that in arranged position the base board defines the same height as upper surface 3 of cart or trolley 2. In a placed position of base board 5 the flaps defined by incisions 9 can be pressed out so as to rotate around hinges 10 in order to thus form couplings for the purpose of coupling base board 5 and cart or trolley 2.

[0016] A structure, which can likewise be made of cardboard or a similar material, can subsequently be arranged on base board 5 in the direction of arrow C. Staples can then be driven home, for instance using an electrical or pneumatic staple gun, to attach structure 12 to base board 5. Structure 12 comprises a single cardboard sheet with fold lines 15 for forming a back 16 of a display and side walls 17 thereof. Further arranged on the underside of structure 12 are fold lines 18 for the purpose of forming bent edges 14 which, moved in the direction of arrow C, come to rest on base board 5. Staples 19 can subsequently be driven home in the direction of arrow D into base board 5 through bent edges 14 using the above stated staple gun. Structure 12 is hereby attached to base board 5. This will be further described below with reference to Fig. 4.

[0017] Fig. 2 shows that base board 5 can be formed from two (or more) layers of cardboard with a coarse flute and a fine flute. The coarse flute can for instance be of type A, B or C, and the fine flute of for instance type B, E, F, G or N. Cardboard 20 of the base board is generally designated with reference numeral 20, the coarse flute with reference numeral 21 and the fine flute with reference numeral 22.

[0018] Fig. 3 shows an alternative embodiment of an assembly according to the present invention, comprising a structure 23 and a base board 5. Structure 23 has multiple parts, in contrast to the structure 12 in Fig. 1. A rear wall 16 and side walls 17 are defined with a single card-

board sheet with fold lines 15 therein. Provided on rear wall 16 is an edge 14 bent along a fold line 18 to enable staples 19 to be driven home into base board 15 through bent edges 14, which will be further described below with reference to Fig. 4.

[0019] Structure 23 also comprises at the bottom of side walls 17 a reinforcing board with a bent edge 14 and a fold line 24 thereon. Reinforcing board 25 can be folded back on itself round fold line 24 in the direction of arrow E so as to enclose the underside of side wall 17 of structure 23. A reinforcement of the underside of side walls 17 can thus be provided. In the embodiment shown in Fig. 3 the bent edge 14 forms part of reinforcing board 25.

[0020] As shown in Fig. 4, a bent edge 14 lying flat on base board 5 can be attached to base board 5 by means of a staple 19. Staple 19 has bent legs 26 extending in a layer lying furthest from the structure and so from bent edge 14. In the embodiment of Fig. 4 this is layer 22 with the finer flute. The straighter parts of bent legs 16 protrude here at a right angle through the bent edge 14 and the layer 21 with coarser flute. Layer 21 with coarser flute is thus as it were embraced by bent legs 26 of staple 19 for a good attachment of bent edge 14 to base board 5.

[0021] Fig. 5 shows a highly schematic view of the manner in which a staple gun can function in order to adjust the depth to which the legs 26 of a staple 19 can extend into cardboard. A staple is driven here with force into the cardboard of for instance base board 5 in the direction of arrow F. Staple 19 penetrates here through the upper-lying layer in the figure with coarser flute 21 and, having reached the underlying layer 22 with finer flute, is engaged by a guide pin or similar element in a schematically shown path 27. The guide pin or similar element moves in path 27 at a speed corresponding to the penetration of staple 19 into the cardboard of base board 5. It is the specific intention to bend precisely the tip of legs 26 of staple 19 in order to reach an end position as shown in broken lines in Fig. 5.

[0022] The path 27 of the guide pin or similar element creates holes 28 in the cardboard of base board 5, which are also shown in the view of Fig. 3. Holes 28 can however be kept so small that they have hardly any disruptive effect, which can be a consideration particularly in the case the assembly according to the present invention is used to provide or form a display.

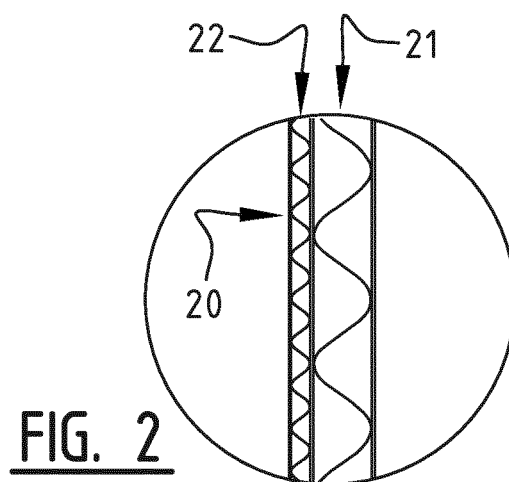
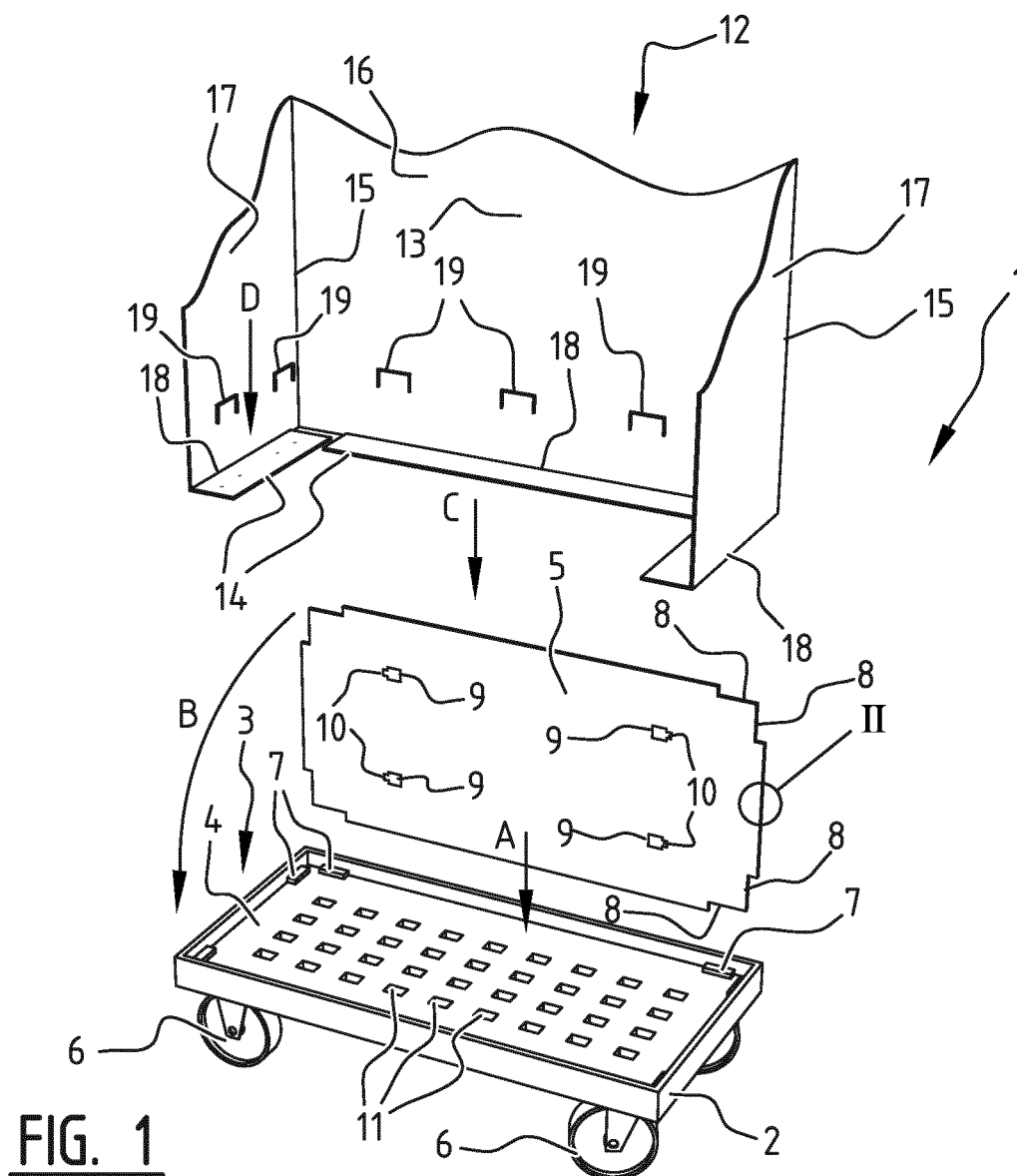
[0023] After examination of the foregoing disclosure of diverse embodiments according to the present invention many additional and alternative embodiments, options and alternatives will occur to the skilled person which all lie within the scope of protection of the present invention as defined in the appended claims.

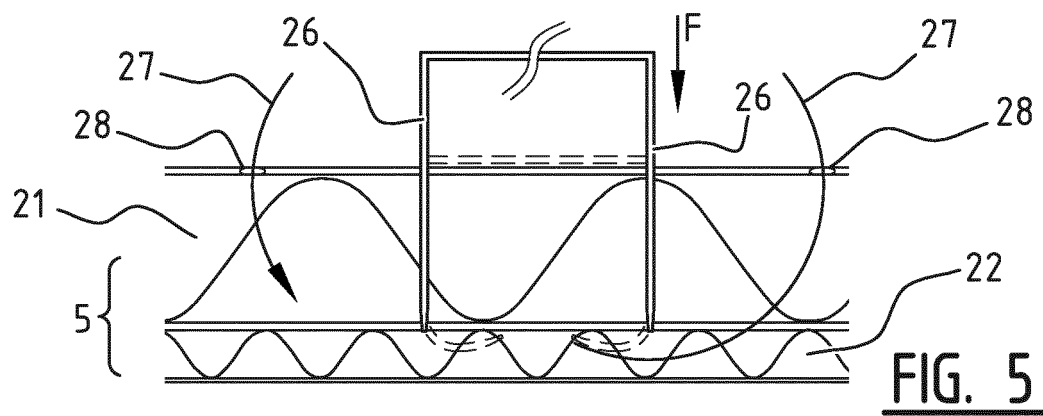
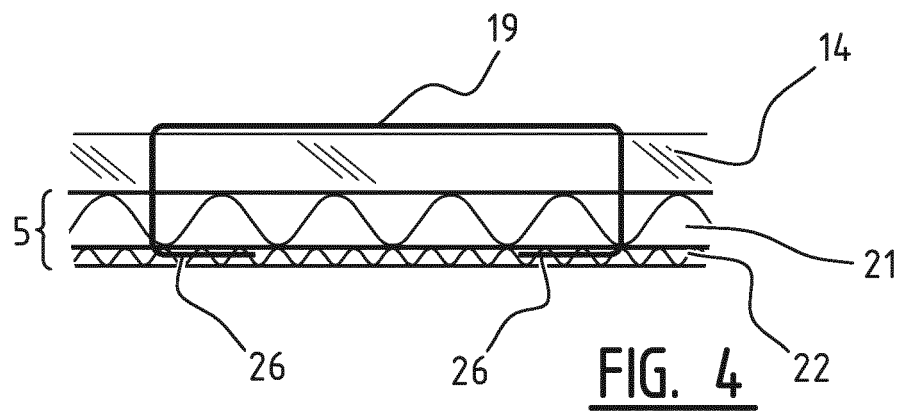
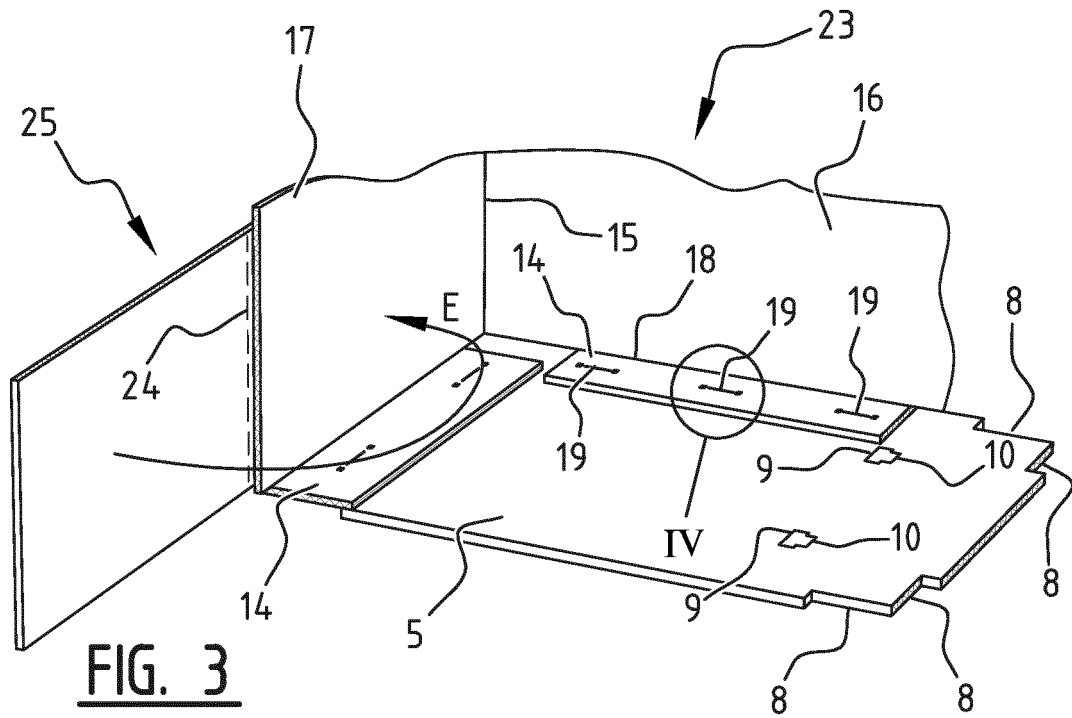
Claims

1. An assembly, comprising:

- a base of a disposable material, such as card-

- board, to be arranged on a support;
 - a structure of disposable material, such as cardboard; and
 - at least one attachment acting on the base and the structure for fixedly attaching thereof to each other,
 wherein the attachment is a staple and the legs of the staple are bent at a distance from the support within a thickness of the base.
2. The assembly as claimed in claim 1, wherein the base comprises two layers.
3. The assembly as claimed in claim 2, wherein the staple comprises: bent legs in the layer of the base lying furthest from the structure.
4. The assembly as claimed in claim 2 or 3, wherein the base is of cardboard and at least one of the layers of the base is a coarse flute, for instance type A, B or C, and the other of the layers of the base is a fine flute, for instance type B, E, F, G or N.
5. The assembly as claimed in claims 3 and 4, wherein the layer lying furthest from the structure is that with the fine flute.
6. The assembly as claimed in at least one of the foregoing claims, further comprising a support of reusable material such as wood or plastic.
7. The assembly as claimed in claim 6, further comprising at least one coupling acting on the base and the support for releasable coupling thereof.
8. The assembly as claimed in claim 7, wherein the coupling comprises an incision defining a hinge in the base and a passage in the support for passage of a pivoting part of the base.
9. The assembly as claimed in at least one of the foregoing claims, wherein the staple is arranged with an electrical or pneumatic staple gun with depth adjustment for the depth of the bent legs of the staple.
10. The use of an electrical or pneumatic staple gun with depth adjustment for the depth of bent legs of a staple to be placed thereby during attachment to each other of a base of disposable material, such as cardboard, to be arranged on a support, and a structure of disposable material such as cardboard, wherein the staple is at least one of a number of attachments for the purpose of fixed mutual attachment thereof, and wherein the depth adjustment is at least adjustable for the purpose of bending the legs of the staple at a distance from the support within a thickness of the base.
11. A displaceable display, comprising a mobile support having thereon a base and a structure with an attachment as claimed in at least one of the claims 1-9 formed by at least one staple, assembled as claimed in claim 10.







EUROPEAN SEARCH REPORT

Application Number
EP 13 16 5429

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,D	US 2005/127622 A1 (BEYER WILLIAM R [US]) 16 June 2005 (2005-06-16) * the whole document *	1-11	INV. G09F21/00 G09F23/06 G09F1/10
A	US 2 791 049 A (BERGER SOL J ET AL) 7 May 1957 (1957-05-07) * the whole document *	1-11	
A	US 2008/179371 A1 (GARDNER MICHAEL [US] ET AL) 31 July 2008 (2008-07-31) * the whole document *	10	
			TECHNICAL FIELDS SEARCHED (IPC)
			G09F
The present search report has been drawn up for all claims			
Place of search The Hague		Date of completion of the search 13 September 2013	Examiner Demoor, Kristoffel
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 (P04001)

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

EP 13 16 5429

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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13-09-2013

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REFERENCES CITED IN THE DESCRIPTION

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