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(54) **Holder for packaged products and method for holding together packaged products**

(57) Holder (1) for packaged products, comprising an elongate profiled beam, which beam comprises a first, substantially continuous longitudinal recess (3) in which, as seen in cross-section, an outer end (7) of at least one packaging can be fixed in form-retaining or form-fitting manner, in addition to connecting means

such as a substantially continuous longitudinal protruding part (4) and a second substantially continuous longitudinal recess (2), which protruding part (4) can, as seen in cross-section, be connected in form-retaining or form-fitting manner in the second longitudinal recess (2) of another substantially identical holder (1).

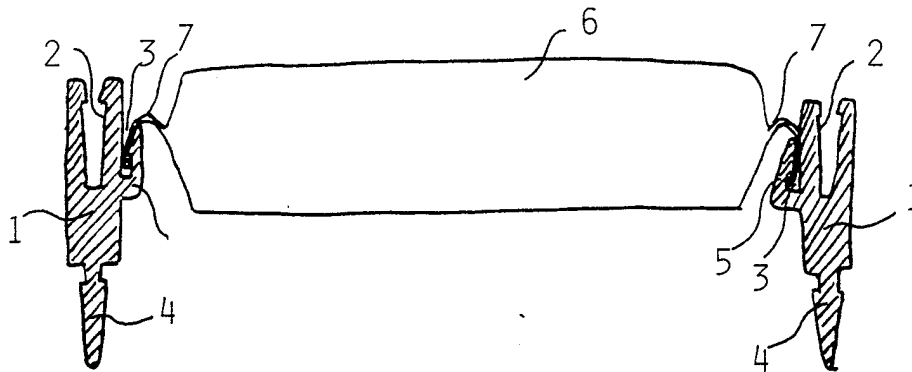


FIG. 1

Description

[0001] The invention relates to a holder for packaged products. The invention relates particularly to a holder with which packaged confectionery, such as sweets, can be transported, stored and displayed in a shop.

[0002] It has been usual heretofore to pack such packaged products, such as the known Mars® or Snickers® bars which are packed in a foil envelope, in cardboard display boxes, wherein a plurality of display boxes are then packed into a transport box for transport and storage. In this manner the product is packed in three packing layers, i.e. the product packaging, the display box and the transport box. It will be apparent that such a method of packaging requires much packing material, which is undesirable from cost and environmental considerations. Such a method of packaging is moreover relatively labour-intensive during both packing and unpacking.

[0003] The invention has for its object a system for transport, storage and sale of such packaged products which is less expensive, wherein less packing material is necessary, and/or which is less labour-intensive.

[0004] The holder according to the invention comprises for this purpose an elongate profiled beam, which beam comprises a first, substantially continuous longitudinal recess in which, as seen in cross-section, an outer end of at least one packaging can be fixed in form-retaining or form-fitting manner, in addition to connecting means with which two substantially identical, mutually parallel holders can be connected against each other.

[0005] The invention also relates to a method for holding together packaged products for transport, storage or for displaying the products at a retail outlet, wherein first outer ends of substantially identical packagings are fixed in a first holder and wherein second outer ends of the packagings are fixed in a second holder.

[0006] The connecting means preferably comprise a substantially longitudinal protruding part and a second substantially continuous longitudinal recess, which protruding part can, as seen in cross-section, be connected in form-retaining or form-fitting manner in the second longitudinal recess of another substantially identical holder. The holders can hereby slide easily in and out of each other in the longitudinal direction. Said protruding part is preferably a substantially continuous longitudinal part.

[0007] A significant advantage of such beam-shaped holders is that when they are used both the display boxes and the transport boxes are unnecessary, because the holders with the products are suitable for stacking in for instance containers during transport and storage, wherein the holders are preferably connected to each other such that the first recesses are situated on sides facing in the same direction, and such that two standing walls are formed between which the products are fixed. In order to enable the two walls to be set down stably

on a surface, the system further comprises pedestals with corresponding recesses or protrusions with which two walls can be placed at a mutual distance. This distance corresponds with the space required to fix a product between the two walls. The dimensions of the holders are preferably such that in the stacked structure the products are situated at a mutual distance, whereby the products and/or the packagings are damaged as little as possible during transport and storage.

[0008] The holders with the products can also be suspended, wherein two holders at a time are connected to each other, preferably such that the first recesses are situated on sides facing in opposite directions, and wherein the holders are mutually connected in twos such that the holders with the packagings fixed therein substantially form a flat structure.

[0009] The holders with the products can also be displayed at retail outlets, wherein the holders with the products are set down in stacked form on for instance a counter or are suspended in a rack. The holders are also very suitable for placing in a vending machine, wherein the packaged products are removed substantially one by one from the holders by means of mechanical removal means.

[0010] The holders connected to each other in the stacked form can further be readily removed in one movement, wherein the products remain behind in a compact stack, for instance in a permanent box-like container in a shop. The holders, which can for instance be made of plastic or metal, can moreover be reused. So as to stimulate this reuse, a deposit scheme can for instance be introduced herefor.

[0011] The protruding part and the second recess preferably extend on two opposite sides of the holder so that the holders can readily be placed on top of one another and connected to each other. The first recess herein preferably extends on another (third) side of the holder, wherein the opening of the first recess points substantially in the same direction as or in opposite direction to the opening of the second recess. The holders can hereby be placed in the stacked form such that the openings in which the outer ends of the products are fixed can point upward, so that the products remain suspended in the recesses by means of the force of gravity and are not easily detached by gravitation.

[0012] The protruding part and the second recess are preferably formed such that the protruding part of a first holder can slide in longitudinal direction into the second recess of a second holder, thereby realizing an easily releasable connection.

[0013] In a preferred embodiment the individual packagings are printed and placed in the holders such that they together form an image. This can have a surprising effect, particularly in the case of a flat, hanging structure. The packagings which are fixed to a holder can also contain different types of product, so that it is for instance possible to supply in a holder assembly combinations of Mars®, Snickers® and the like which are geared to in-

dividual wishes.

[0014] In order to clamp the outer ends of packaging into the longitudinal recesses of the holders clamping means are provided for. Such clamping means may have the form of a strip or band mounted around the perimeter of each holder.

[0015] The invention will now be further elucidated with reference to a number of embodiments shown in the figures, wherein:

Figure 1 shows a cross-sectional view of two holders in which a packaged candy-bar is fixed so as to form a stacked structure;

Figure 2 shows a partial front view of a plurality of holders and candy-bars fixed therein in a stacked structure;

Figure 3 is a partial perspective view of holders and candy-bars in a stacked structure;

Figures 4 and 7 are schematic perspective views of holders and candy-bars in a stacked structure;

Figure 5 shows a schematic perspective view of stacked candy-bars after the holders have been removed;

Figure 6 is a schematic perspective view of holders and candy-bars in a stacked structure in an alternative arrangement;

Figure 8 shows a cross-sectional view of two holders in which two candy-bars are fixed so as to form a flat structure;

Figures 9, 10 and 11 shows schematic front views of holders and candy-bars in a flat structure, and

Figure 12 shows a perspective view of two holders according to another embodiment of the invention, wherein several packaged candy bars are fixed so as to form a stacked structure;

Figure 13 corresponds to figure 12, on the understanding that the candy bars are released relative to the holders;

Figure 14 refers to two structures of figure 12 put on top of each other;

Figure 15 shows a perspective view of one holder of figure 12, wherein several packaged candy bars are fixed on one of their outer ends so as to form a suspended structure with candy bars in vertical position;

Figure 16 corresponds to figure 13, on the under-

standing that the candy bars are released in a shelf;

Figures 17, 18 and 19 relate to a perspective and cross-sectional view, respectively, of a structure with holders of figure 12 but surrounded by strips; and

Figure 20 shows a perspective view on a unit of stacked structure according to figure 12 put on top of each other and wrapped in a package.

[0016] According to figure 1 a holder 1 is formed by an elongate profiled beam or strip which is provided with continuous recesses 2, 3 and protruding parts 4, 5 in the length direction. Recess 3 is herein formed or enclosed by protruding part 5. Holder 1 can for instance be manufactured from a plastic or a metal.

[0017] In the position as shown in figure 1, the recess 2 is situated on the top side of holder 1 and the protruding part 4 is situated on the opposite underside. Protruding part 4 has a form such that it can slide in the length direction into a recess 2 of another identical holder, wherein as seen in cross-section these connect close-fittingly into each other, while the holders remain movable relative to each other in the length direction. Protruding part 4 can also be pushed in downward direction into a recess 2 of another holder, wherein the walls of recess 2 yield laterally in elastic manner and then spring back close-fittingly round protruding part 4. Several or pairs of similar holders 1 can thus be mutually connected, wherein as desired the protruding parts 5 with recesses 3 point in the same direction in each case or wherein they point in opposing directions.

[0018] Figure 1 also shows how a packaged candy-bar 6 is fixed in two recesses 3 of holders 1 placed at a mutual distance. Candy-bar 6 is packed in known manner in for instance a flow-wrap envelope of plastic foil which is sealed at both ends in a flat strip 7. Said flat strip 7 is also called an end seal or a crimped end. The flat strip is preferably widened on its outer end by for instance folding it over during sealing. This optionally widened outer end of strip 7 is slid in length direction into recess 3 of the holders, whereby it is fixed as seen in cross-section. In this embodiment the opening of recess 3 points in the same direction as the opening of recess 2, although these can also point in opposite directions, in which case the holder can be turned over as a whole during use, i.e. with both the protruding part 4 and the opening of recess 3 directed upward.

[0019] If the outer end of strip 7 is not widened, it can also be placed from above into recess 3, wherein the candy-bar remains suspended in the recess through the action of the force of gravity. Alternatively, protruding part 5 can be formed such that it pushes against the remaining part of holder 1, so that the outer end of strip 7 is clamped therebetween.

[0020] Figure 2 shows how two holders are coupled

to each other as discussed with reference to figure 1. Protruding part 4 of the lower holder is placed close to the two outer ends into two U-shaped pedestals 8, the two upward directed legs of which are provided with recesses 9 which correspond in form to recesses 2 of holders 1. Studs or wheels can be mounted under said pedestals 8. Although only two holders 1 are shown placed onto each other in this figure, it will be apparent that an unlimited number of holders 1 can be placed onto each other in this manner, whereby two walls are formed between which candy-bars 6 can be fixed. The height of holders 1 is such that candy-bars 6 placed one above another make no mutual contact here, or at least do not exert pressure on each other, so that the packaging and the product are damaged as little as possible.

[0021] Figure 3 shows an assembly of holders 1, candy-bars 6 and pedestals 8 as described above, wherein closing plates 10 are also arranged on both outer ends of the assembly. The pedestals 8 are provided for this purpose with protruding parts 11 to which a closing plate 10 can be fastened, and wherein for further fixing the closing plate 10 is provided with laterally protruding parts (not shown) which can engage in recesses 3 of the holders. In this manner the holders 1 and closing plates 10 together form a more or less closed box in which the candy-bars are adequately protected during transport and storage.

[0022] Figure 3 further shows how the holders can be removed in order to display candy-bars 6 at a retail outlet. While counterpressure is applied against closing plate 10, the coupled holders 1 are pulled first on one side and then on the other side out of the pedestals 8 in the direction of arrow 12, wherein the outer ends of strips 7 slide out of recesses 3. If this takes place carefully and in controlled manner, candy-bars 6 herein remain behind in stacked formation as shown in figure 5, for instance in a permanently arranged sales display on a counter.

[0023] Figure 4 shows schematically that holders 1 with candy-bars 6 fixed therein can also be placed as a whole on a counter, wherein candy-bars 6 can be taken one by one out of holders 1. Figure 6 shows the stacked structure in a special display pedestal 13 which supports holders 1 at an angle on the surface, whereby the products are shown in a manner which is attractive to the public.

[0024] Figure 7 shows that different types of candy-bar 6 (A, B, C) can be fixed in holders 1. Different layers (X, Y) in a stacked structure can also have a different composition adapted to the demands of the customer. The different layers can slide apart in simple manner so that a stacked structure can be readily separated into a plurality of units.

[0025] Figure 8 shows an alternative method of using holders 1. Two holders 1 at a time are herein connected to each other, wherein protruding parts 5 which form recesses 3 point in different directions. The outer ends of strips 7 of the packagings of candy-bars 6 are fixed in

the holders as described above, although here a flat structure is formed as shown schematically in figure 9. This flat structure can for instance be suspended in racks, wherein for instance the upper holder 1 has a form such that it can be attached simply to the top side of the rack. Candy-bars 6 can be removed one by one from the underside. A large flat structure can also be readily separated into a plurality of smaller flat structures by sliding out of each other two holders 1 connected to each other.

[0026] Here also it is possible to fix different types of candy-bar 6 in a flat structure as shown in figure 10. Such a structure further provides the option of forming one large image using packagings specially printed for the purpose, as shown schematically in figure 11, for instance for the purpose of special advertising campaigns.

[0027] Figures 12 through 20 relate to a second embodiment of a holder 1 in accordance with the invention.

[0028] With reference to figure 12 the present holder 1 consists of a profiled beam provided with continuous longitudinal recesses 3 on opposite lateral sides of the beam. Several packaged candy bars 6 numbered A, A, B, B, C are fixed with their outer ends in the form of flat strips 7 in two recesses 3 of holders 1 by applying these flat strips 7 into these recesses 3, for example by sliding these flat strips 7 in length direction therein. The beams may vary in length in order to hold a predetermined number of candy bars 6.

[0029] By releasing the candy bars 6 relative to the holders 1 individual candy bars 6 are easily put on a shelf 14 of a retail outlet (figures 13 and 16).

[0030] Figure 14 shows how two pairs of holders 1 as shown in figure 12 are mounted on top of each other, wherein protrusions 4 extending downwardly relative to each beam of a holder 1 rest on a recess 2 of an underlying beam of another holder 1 (figure 19) thus ensuring a sturdy structure of two or more holders 1 put on top of each other.

[0031] Referring to figure 15, one or more candy bars 6 can be slid with their flat strips 7 in the recess 3 of a holder 1, while the candy bars 6 hang in a vertical position. The structure of figure 15 can be suspended in a retail outlet, so that a person visiting the shop is able to take out one or more candy bars 6 from the structure.

[0032] In figure 17 a strip 15 is wound around the perimeter of each holder 1. These strips are compressing the holders 1 to some extent in order to clamp the outer ends 7 of the candy bars 6 in the recesses 3. Figures 18 a and 19b refer to a situation wherein the strips 15 are not mounted yet, whereas figures 18b and 19a relate to compressed holders 1 wherein the outer ends 7 of the candy bars 6 are clamped in the recesses 3.

[0033] If considered expedient, several holders 1 mounted above one another are wrapped as a single structure in a package 16 of preferably transparent material or printed material, such as cardboard.

[0034] Although the invention is described above on

the basis of embodiments, the skilled person will appreciate that many variations are possible. The scope of the present invention should not therefore be limited by the details of these embodiments.

Claims

1. Holder (1) for packaged products, comprising an elongate profiled beam, which beam comprises a first, substantially continuous longitudinal recess (3) in which, as seen in cross-section, an outer end (7) of at least one packaging (6) can be fixed in form-retaining or form-fitting manner, in addition to connecting means (2, 4) with which two substantially identical, mutually parallel holders (1) can be connected against each other. 5
2. Holder (1) as claimed in claim 1, wherein the connecting means (2, 4) comprise a substantially longitudinal protruding part (4) and a second substantially continuous longitudinal recess (2), which protruding part (4) can, as seen in cross-section, be connected in form-retaining or form-fitting manner in the second longitudinal recess (2) of another substantially identical holder (1). 10
3. Holder as claimed in claim 2, wherein the protruding part (4) and the second recess (2) extend on two opposite sides of the holder (1). 15
4. Holder as claimed in claim 2 or 3, wherein the first recess (3) extends on another side of the holder, wherein the opening of the first recess (3) points substantially in the same direction as or in opposite direction to the opening of the second recess (2). 20
5. Holder as claimed in claim 2, 3 or 4, wherein the protruding part (4) and the second recess (2) are formed such that the protruding part (4) of a first holder (1) can slide in longitudinal direction into the second recess (2) of a second holder (1). 25
6. Holder as claimed in any of the foregoing claims 1-5, wherein said holder comprises clamping means for clamping the outer end (17) of at least one packaging (6) in the recess (3). 30
7. Method for holding together packaged products for transport, storage or for displaying the products at a retail outlet, wherein first outer ends (7) of substantially identical packagings (6) of a product are fixed in a first holder (1) as claimed in claim 1, and wherein second outer ends (7) of the packagings (6) are fixed in a second holder (1) as claimed in claim 1. 35
8. Method as claimed in claim 7, wherein at least two (pairs of) holders (1) are connected to each other. 40
9. Method as claimed in claim 7 or 8, wherein the holders (1) are connected to each other such that the first recesses (3) are situated on sides facing in the same direction. 45
10. Method as claimed in claim 7, 8 or 9, wherein the holders (1) are connected to each other such that the holders (1) with the packagings (6) fixed therein substantially form a stacked structure. 50
11. Method as claimed in claim 10, wherein the dimensions of the holders (1) are such that in the stacked structure the products are situated at a mutual distance. 55
12. Method as claimed in claim 10 or 11, wherein the stacked structure is placed in a transporting device, a storage device or a display device.
13. Method as claimed in claim 10, 11 or 12, wherein the holders (1) connected to each other in a stacked structure are removed simultaneously in substantially one movement, such that after removal of the holders (1) the products remain lying in a compact stacked formation.
14. Method as claimed in any of the foregoing claims 7-13, wherein the holders (1) are connected to each other such that the first recesses (3) are situated on sides facing in opposite directions.
15. Method as claimed in any of the foregoing claims 7-14, wherein the holders (1) are mutually connected in twos such that the holders (1) with the packagings (6) fixed therein substantially form a flat structure.
16. Method as claimed in claim 15, wherein the flat structure is suspended in a transporting device, a storage device or a display device.
17. Method as claimed in claim 15 or 16, wherein the individual packagings (6) are printed and placed in the holders (1) such that they together form an image or characters.
18. Method as claimed in any of the foregoing claims 7-17, wherein the packagings (6) which are fixed to a holder (1) contain different types of product.
19. Method as claimed in any of the foregoing claims 7-18, wherein the packaged products are removed substantially one by one from the holder (1) by means of mechanical removal means.
20. Method as claimed in any of the foregoing claims

7-19, wherein the outer end (7) of at least one packaging (6) is clamped in the recess (3).

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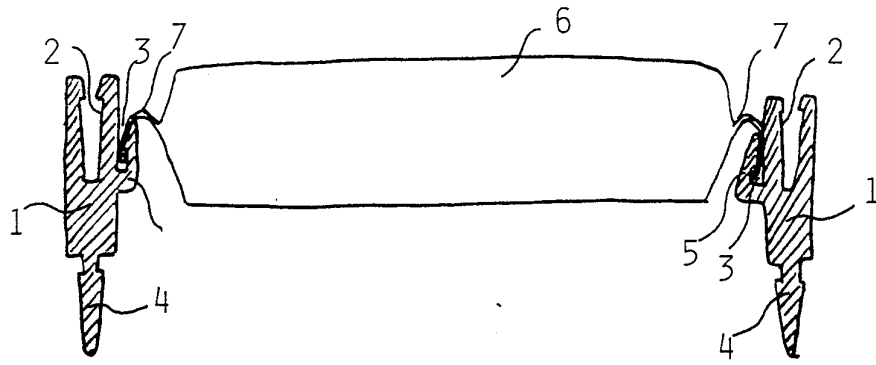


FIG. 1

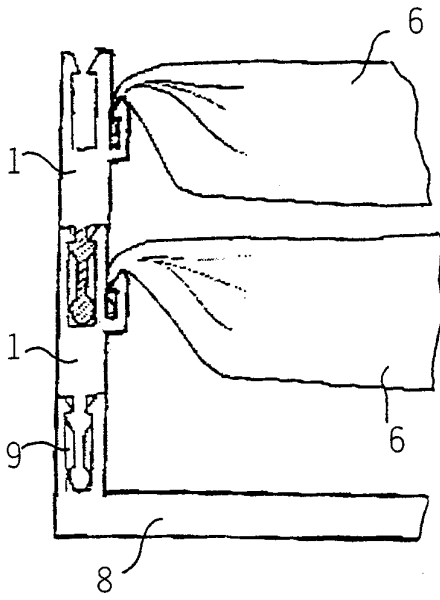


FIG. 2

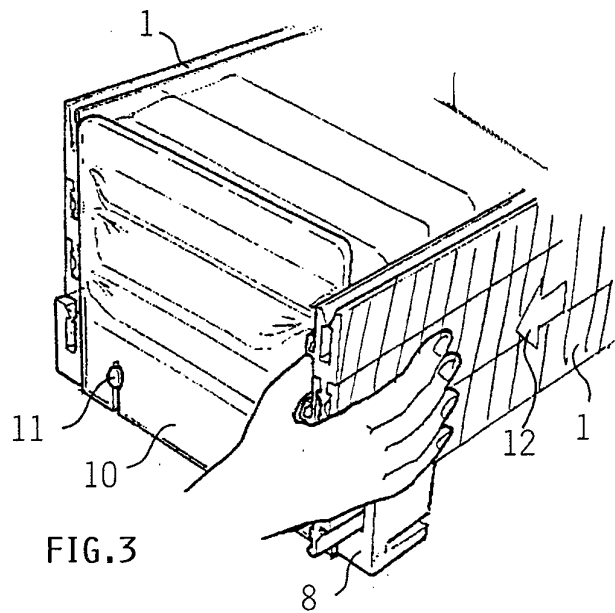
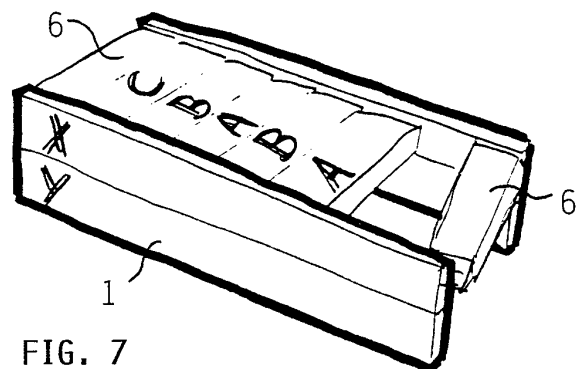
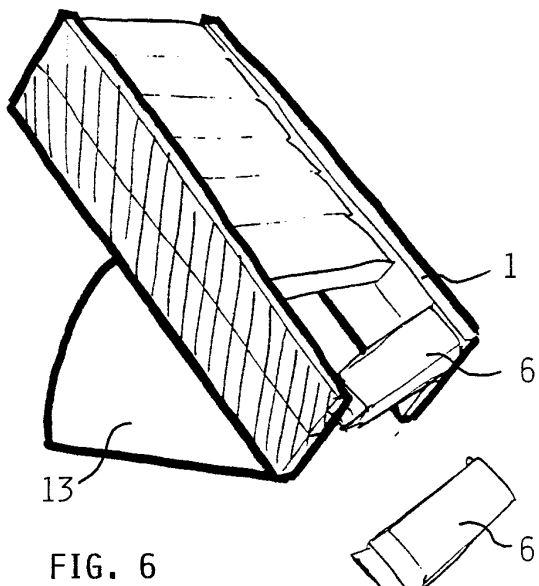
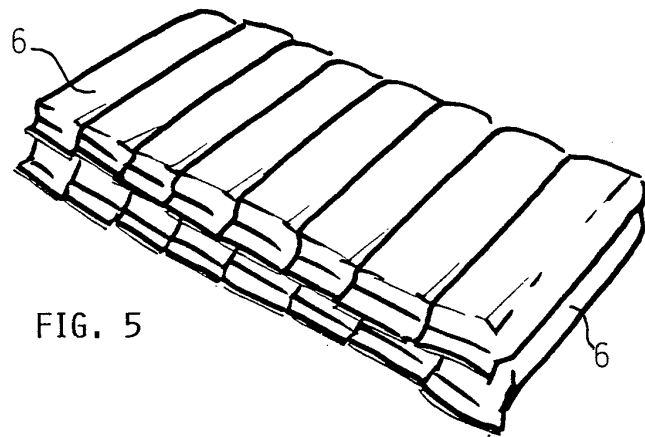
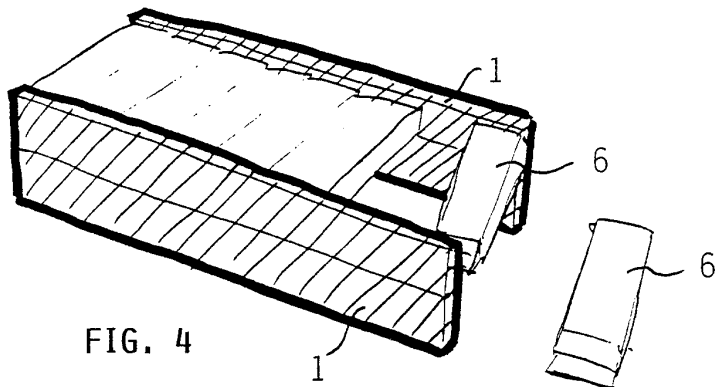


FIG. 3



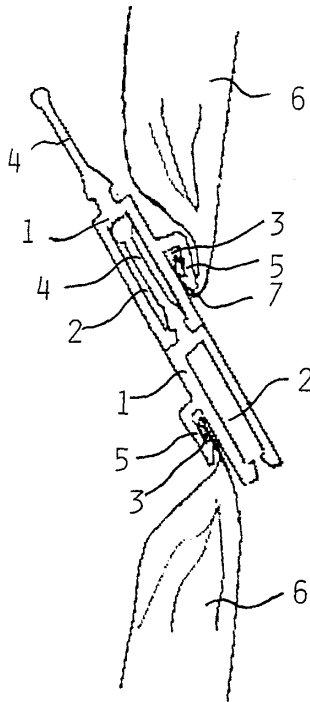


FIG. 8

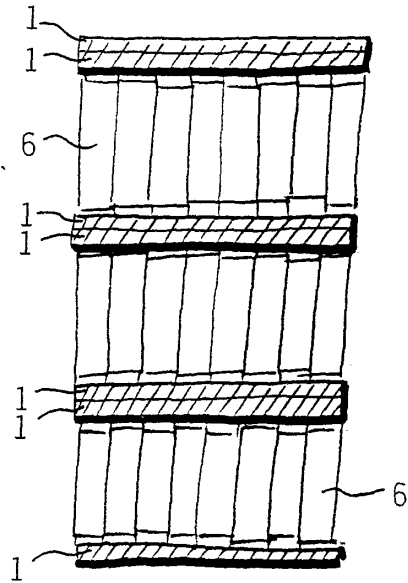


FIG. 9

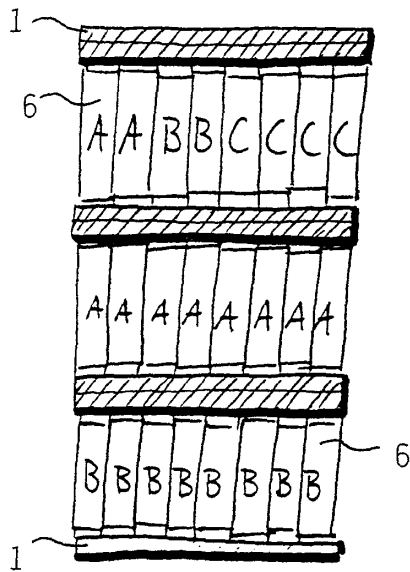


FIG. 10

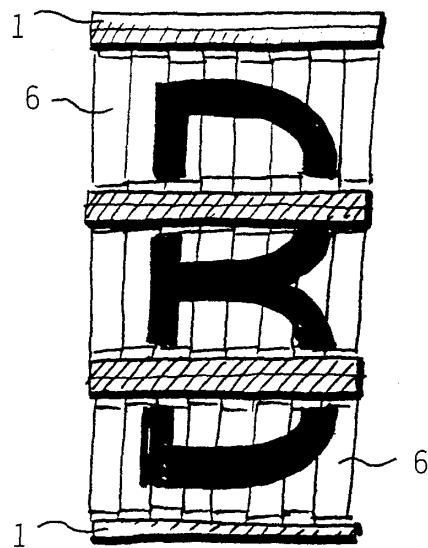
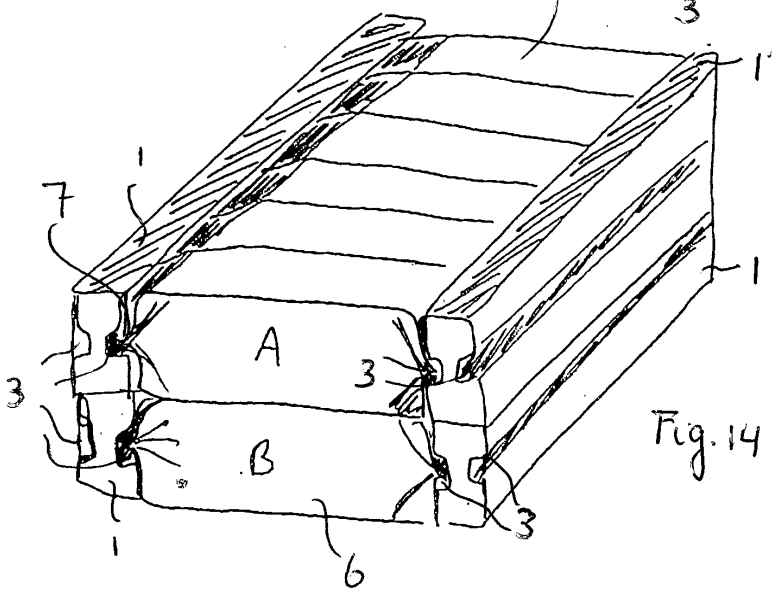
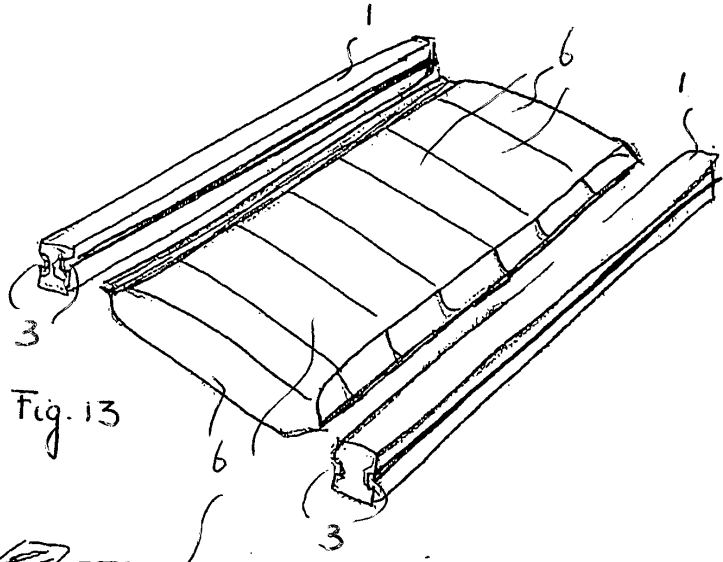
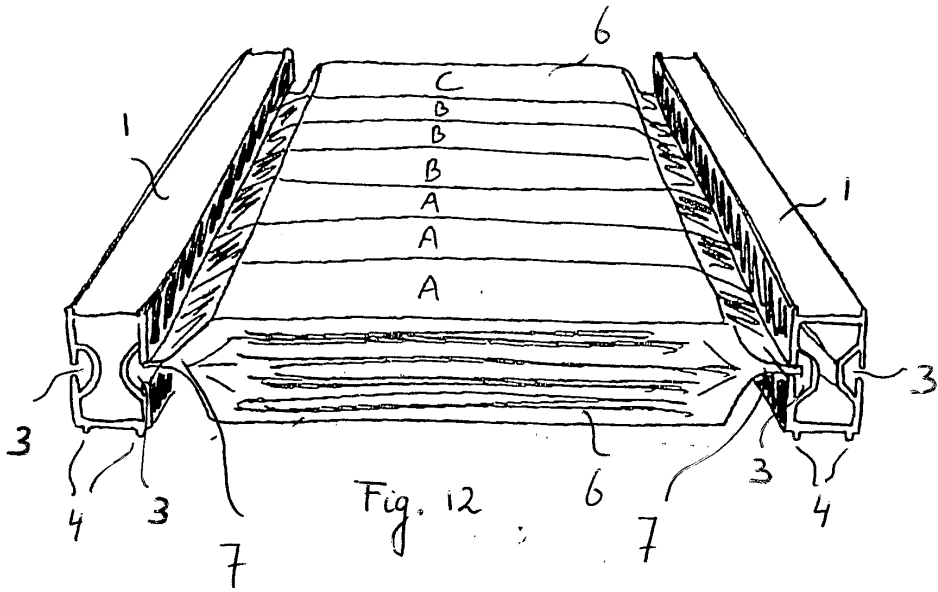
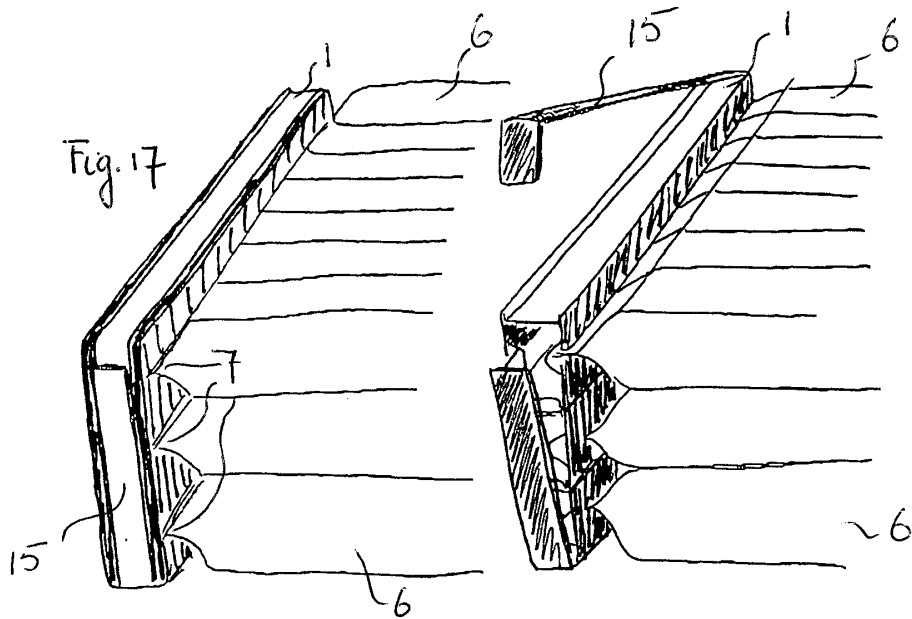
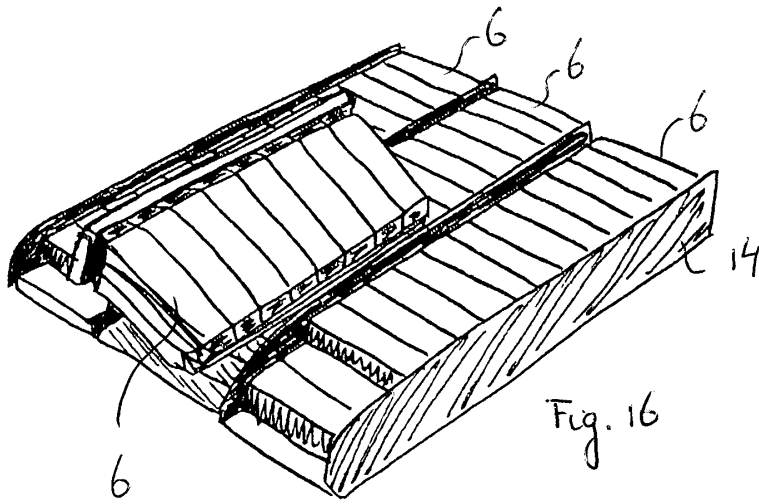
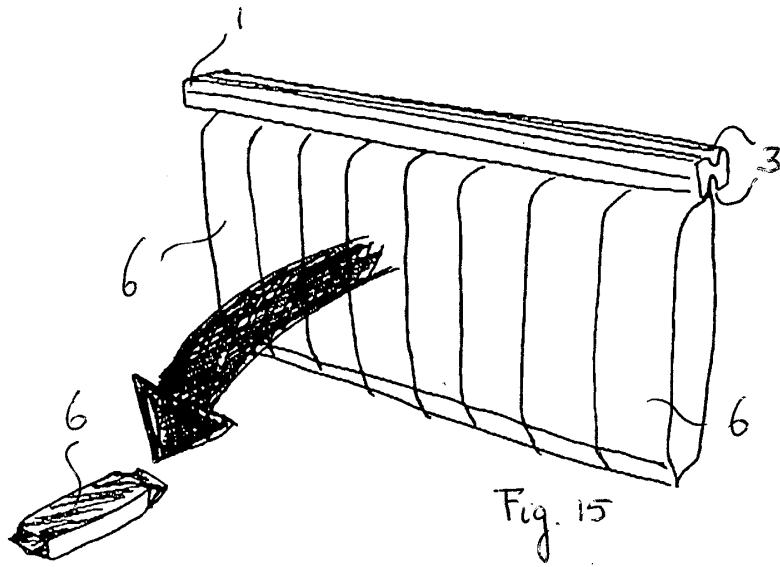
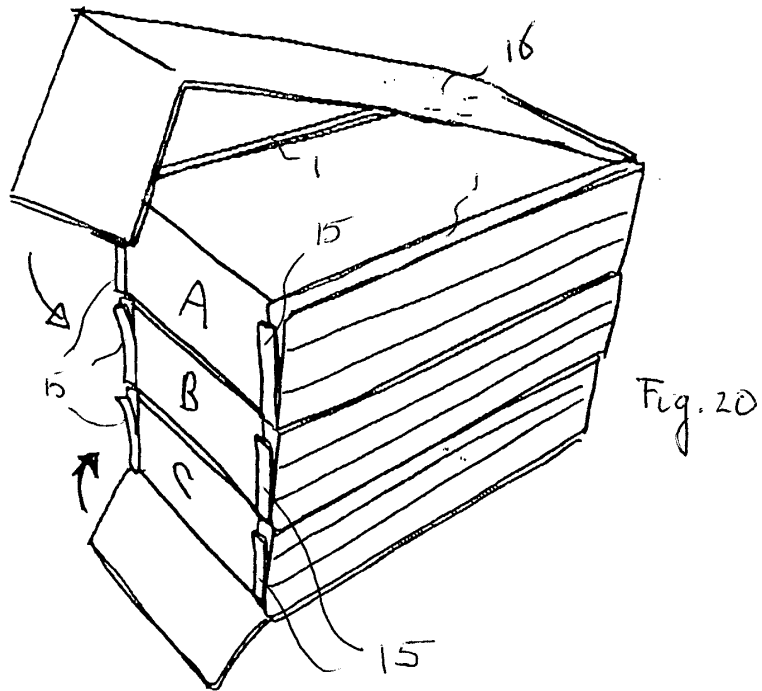
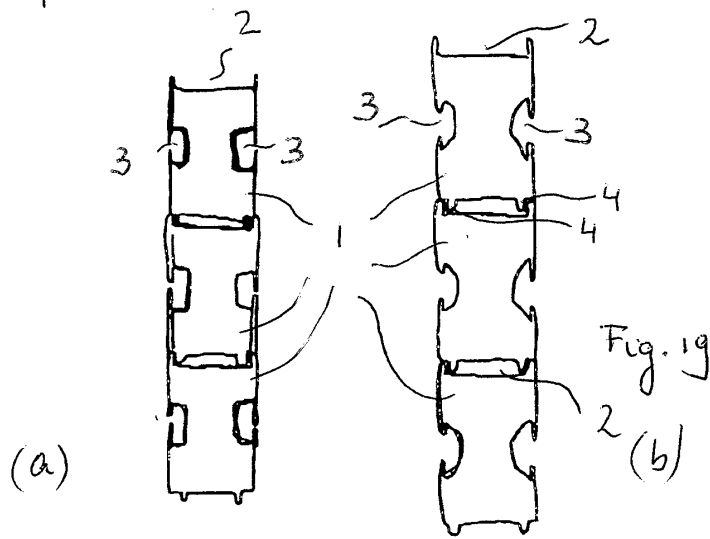
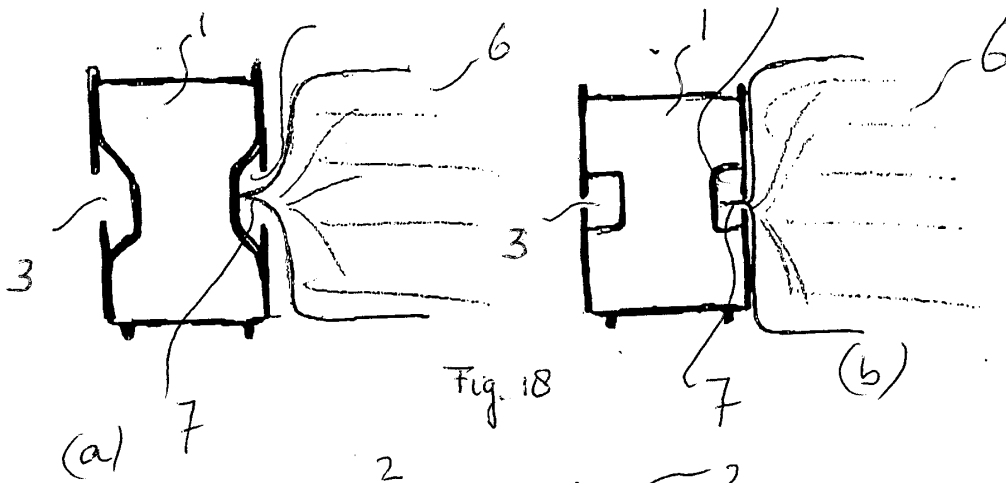


FIG. 11









European Patent
Office

EUROPEAN SEARCH REPORT

Application Number
EP 03 10 0296

DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int.Cl.7)
A	DE 296 20 338 U (GONGEA ADRIAN) 23 January 1997 (1997-01-23) * page 4, line 24-37 * * figures 1,4 * ---	1,7	B65D71/50
A	NL 9 101 139 A (WAVIN BV) 1 February 1993 (1993-02-01) * page 3, line 20 - page 4, line 25 * * figures 3-6 * -----	1,7	
The present search report has been drawn up for all claims			TECHNICAL FIELDS SEARCHED (Int.Cl.7)
			B65D A45F A47F
Place of search	Date of completion of the search	Examiner	
BERLIN	18 July 2003	Kakoullis, M	
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ON EUROPEAN PATENT APPLICATION NO.**

EP 03 10 0296

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