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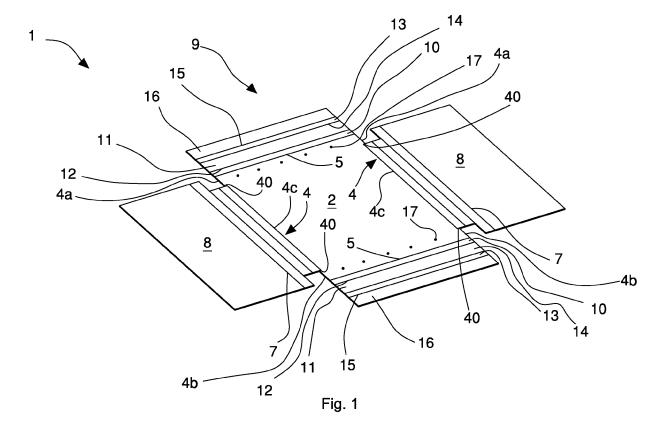
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(54) Semifinished product and packaging

(57) Semifinished product (1), comprising a first part (2) intended for constituting the bottom of a packaging (3), front wall means (9) interconnected with said first part (2) and intended for constituting front walls of said packaging (3), a second part (8), that is opposite said first part (2), and is intended for constituting a cover of

said packaging (3), said front wall means (9) defining a tubular portion (18), the semifinished product (1) further comprises side wall means (27) interconnected with said first part (2), said side wall means (27) having a thickness that is a multiple of the thickness of said first part (2) and of said second part (8), said side wall means (27) being intended for constituting side walls of said packaging (3).



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[0001] The invention relates to a semifinished product

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and a packaging obtained from said semifinished prod-

[0002] From ITMO2003A000025 a packaging is known, for example made of cardboard, for flat products, such as shelves, panels, furniture doors and the like, comprising a first part that acts as a base, front wall means interconnected with the first part, and a second part, that is opposite the first part and acts as a cover.

[0003] Each of the front wall means comprises first front wall means, that is more internal and connected to the first part by a respective transverse edge, seconds front wall means, connected to the first front wall means by an intermediate edge and third front wall means by a further intermediate edge.

[0004] Outside the third front wall means and interconnected with the latter by a still further intermediate edge, more external fourth front wall means is provided.

[0005] The arrangement of the front wall means is such that the fourth front wall means can be progressively rotated around the transverse edge in such a manner as to be able to move from an initial flat configuration to a final work configuration, in which they can be placed in contact with an internal edge zone of the first part and adhere to the latter through the effect of a glue that has been previously arranged in this edge zone.

[0006] By rotating the fourth front wall means from the initial flat configuration to the final work configuration the front wall means defines a tubular portion that extends substantially for the entire transverse extent of the packaging.

[0007] The tubular shape of the front wall means provides significant resistance to the loads that stress the packaging frontally.

[0008] A packaging as disclosed above offers, however, a limited resistance to the loads that stress the packaging laterally. In fact, the only protection provided is a longitudinal side wall connected to the first part along a respective longitudinal edge and also connected at another external edge thereof to the second part.

[0009] In order to offer resistance to the lateral stress, the above packaging could be provided with side wall means that is completely similar to the front wall means disclosed above connected to the longitudinal edge and to the external edge. Nevertheless, this would entail an excessive use of material that would entail a significant increase in packaging production costs.

[0010] One object of the invention is to improve known packagings. Another object is to improve the resistance to the lateral stress of known packagings.

[0011] A further object is to obtain a packaging that is cheap and easy to make.

[0012] According to the invention a semifinished product is provided as defined in claim 1.

[0013] Further, according to another invention a packaging as defined in claim 22 is provided.

[0014] Owing to the invention, it is possible to provide greater resistance to the loads that act in a direction that is substantially perpendicular to the side walls of the packagings, at the lowest possible production cost.

[0015] The invention can be better understood and implemented with reference to the attached drawings, which illustrate embodiments thereof by way of example, in which:

Figure 1 is a plan view of a semifinished product according to the invention in an open configuration; Figure 2 is a perspective view of a packaging according to the invention in a closed configuration;

Figure 3 is an enlarged detail of a vertex zone of the semifinished product of Figure 1;

Figure 4 is a partial and enlarged section, taken along the plane IV-IV of Figure 2;

Figure 5 is a view like the one in Figure 1 that shows front wall means of the packaging according to the invention in a final work configuration and side wall means of the packaging according to the invention in a flat start configuration;

Figure 6 is a view like the one in Figure 1, wherein the front wall means is in the final work configuration and the side wall means is in an intermediate configuration between the flat start configuration and a final work configuration;

Figure 7 is a view like the one in Figure 1, wherein both the front wall means and the side wall means are in the final work configuration;

Figure 8 is a view like the one in Figure 1, wherein a first part of semifinished product according to the invention is arranged perpendicularly to a second part of said semifinished product;

Figure 9 is a plan view of a semifinished product according to a first alternative embodiment of the invention in an open configuration;

Figure 10 is a view that shows a first folding step of the semifinished product in Figure 9, to make a packaging according to the invention;

Figure 11 is a view that shows a second folding step of the semifinished product in Figure 9, to make a packaging according to the invention;

Figure 12 is a view that shows a third folding step of the semifinished product in Figure 9, to make a packaging according to the invention;

Figure 13 is a perspective view of a finished packaging made by using the semifinished product in Fig-

Figure 14 is a plan view of a semifinished product according to a second alternative embodiment of the invention in an open configuration;

Figure 15 is a view that shows a first folding step of the semifinished product in Figure 14, to make a packaging according to the invention;

Figure 16 is a view that shows a second folding step of the semifinished product in Figure 14, to make a packaging according to the invention;

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Figure 17 is a view that shows a third folding step of the semifinished product in Figure 14, to make a packaging according to the invention;

Figure 18 is a view that shows a fourth folding step of the semifinished product in Figure 14, to make a packaging according to the invention;

Figure 19 is a perspective view of a finished packaging made by using the semifinished product in Figure 14;

Figure 20 is a plan view of a semifinished product according to a third alternative embodiment of the invention in an open configuration;

Figure 21 is an enlarged detail of Figure 20;

Figure 22 is a view that shows a first folding step of the semifinished product in Figure 20, to make a packaging according to the invention;

Figure 23 is a view that shows a second folding step of the semifinished product in Figure 20, to make a packaging according to the invention;

Figure 24 is a perspective view of a finished packaging made by using the semifinished product in Figure 20.

[0016] With reference to Figures 1 to 4, a semifinished product 1 is disclosed comprising a first part 2 that is intended for forming the bottom of a packaging 3 (Figure 2) and having a pair of longitudinal edges 4 and a pair of transverse edges 5.

[0017] Each longitudinal edge 4 comprises a first longitudinal edge part 4a, connected to a first transverse edge 5, a second longitudinal edge part 4b, connected to a second transverse edge 5, and a third longitudinal edge part 4c, connected to the first longitudinal edge part 4a and to the second longitudinal edge part 4b by a pair of linking portions 40. The first longitudinal edge part 4a and the second longitudinal edge part 4b are mutually aligned, whereas the third longitudinal edge part 4c is staggered with respect to the first longitudinal edge part 4a and to the second longitudinal edge part 4b, in particular it appears displaced towards the inside the first part 2.

[0018] Next to each transverse edge 5 the semifinished product 1 comprises front wall means 9 connected to the first part 2 along the respective transverse edges 5. Each of the front wall means 9 comprises first front wall means 10, that is more internal and connected to the first part 2 by the respective transverse edge 5, second front wall means 11, connected to the first front wall means 10 by an intermediate edge 12 and to third front wall means 13 by a further intermediate edge 14.

[0019] Outside the third front wall means 13 and interconnected with the latter by a still further intermediate edge 15, more external fourth front wall means 16 is provided

[0020] The set of the second front wall means 11, of the intermediate edge 12, of the third front wall means 13, of the further intermediate edge 14, of the still further intermediate edge 15 constitutes connecting means con-

necting the first front wall means 10 to the fourth front wall means 16.

[0021] The arrangement of the front wall means 9 is such that the fourth front wall means 16 can be progressively rotated with respect to the transverse edge 5 such as to be able to pass from an initial flat configuration to a final work configuration, shown in detail in Figure 4, in which it is placed in contact with an internal edge zone of the first part 2 and is made to adhere to the latter through the effect of a glue 17 that has been previously applied in this edge zone.

[0022] This internal edge zone has a length that is substantially equal to the length of the first longitudinal edge part 4a and to the length of the second longitudinal edge part 4b.

[0023] By rotating the fourth front wall means 16 from the initial flat configuration to the final work configuration the front wall means 9 defines a tubular portion 18 that extends substantially for the entire transverse extent of the packaging 3.

[0024] As illustrated in Figure 4, the tubular portion 18 has the first front wall means 10 and the third front wall means 13 arranged perpendicularly to the first part 2 and to a second part 8, acting as a cover of the packaging 3, in the work configuration thereof. Accordingly, the resistance of the packaging 3 to loads oriented perpendicularly to the first front wall means 10, or to the first part 2 and to the second part 8 is significant.

[0025] Further the provision of the tubular portion 18 makes available a chamber 19 therein, which can be ample for housing inside material that is accessory to the contents of the packaging 3.

[0026] In this matter, it is noted that the packaging 3 is particularly suitable for containing flat elements, such as a panel 20, for example intended for forming a furniture wall, a door, a shelf, or the like.

[0027] In this case, each chamber 19 can contain assembly material, for example hardware.

[0028] The tubular portion 18 has a flat, substantially smooth external surface 21 of the first front wall means 10, arranged in an easily accessible and visible position. Accordingly, the external surface 21 is particularly suitable for receiving a label 22 that is applied thereto and bears information, for example technical and/or commercial information on the contents.

[0029] According to a version that is not shown, the tubular portion 18 can have a cross section that is different from the rectangular shape illustrated in Figure 4, provided that it defines a section with a closed polygonal shape. Naturally, by varying the shape of the cross section of the tubular portion 18, it varies the capacity of the chamber 19 and varies the stiffness of the tubular portion 18 and consequently the capacity of the packaging 3 to resist shocks.

[0030] Next to each third longitudinal edge part 4c the semifinished product 1 comprises side wall means 27 connected to the first part 2 along the third longitudinal edge part 4c and also connected at another external edge

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7 thereof to a portion of the second part 8.

[0031] Each of the side wall means 27 comprises a first element of said wall 28 that is more internal and connected to the first part 2 by the respective third longitudinal edge part 4c, a second side wall element 29, connected to the first side wall element 28 by an intermediate side edge 30 and to a third, more external, side wall element 31, by a further intermediate side edge 32. [0032] The first side wall element 28 and the second side wall element 29 have substantially the same length as the third longitudinal edge part 4c, i.e. a length that is substantially equal to the longitudinal dimension of the packaging 3 diminished by the space occupied by the tubular portion 18 and thus diminished by the length of the first longitudinal edge part 4a and by the length of the second longitudinal edge part 4b.

[0033] The third side wall element 31 has, on the other hand, a length that is greater than that of the first side wall element 28 and of the second side wall element 29, and substantially the same as the longitudinal dimension of the packaging 3, i.e. of the sum of the length of the first longitudinal edge part 4a, of the second longitudinal edge part 4b and of the third longitudinal edge part 4c.

[0034] The set of the second side wall element 29, of the intermediate side edge 30, and of the further intermediate side edge 32, constitutes joining means for joining the first side wall element 28 to the third side wall element 31.

[0035] The second side wall element 29 can be progressively moved to the first side wall element 28, by lifting the intermediate side edge 30 and pushing each second part 8 to the first part 2, such as to be able to move from a flat start configuration to a final folded configuration, shown in detail in Figure 7, in which a first external face 33 of the first side wall element 28 and a second external face 34 of the second side wall element 29 are placed in contact with one another and adhere through the effect of an adhesive substance, which is not shown, which has been previously applied in areas of at least said first external face 33 and/or of said second external face 34.

[0036] The first external face 33 and the second external face 34 are shown in Figure 6, which shows an intermediate transitional configuration between the flat start configuration and the final folded configuration in which the second external face 34 of the second side wall element 29 is brought up to the first external face 33 of the first side wall element 28.

[0037] In the final folded configuration, the first side wall element 28 and the second side wall element 29 make a side wall element 41 having a thickness that is double the thickness of the semifinished product 1.

[0038] In the final folded configuration, the first side wall element 28 and the second side wall element 29 are arranged substantially aligned with the ends of the tubular portions 18.

[0039] The first side wall element 28 has a pair of end edges 35 and the second side wall element 29 has a

further pair of end edges 36 each of which, in the final folded configuration, is arranged in contact with said tubular portions 18.

[0040] Also the third side wall element 31 can be brought near the second side wall element 29. In particular, a first internal face 38 of the second side wall element 29 and a second internal face 39 of the third side wall element 31 can be placed in contact with one another and be made to adhere through the effect of a further adhesive substance, which is not shown, that has been previously applied in parts of at least one of such internal faces 38, 39.

[0041] By making the first internal face 38 and the second internal face 39 meet, when the first internal face 38 is arranged substantially perpendicular to the tubular portion 18, also the second internal face 39 is substantially perpendicular to the tubular portion 18.

[0042] Although in the preceding description first the connection between the first side wall element 28 and the second side wall element 29 was described and then the connection between the second side wall element 29 and the third side wall element 31, it is clear that such connections can be temporarily reversed.

[0043] As the third side wall element 31 has a longitudinal length that is substantially the same as the longitudinal dimension of the packaging 3, when the side wall means 27 is folded to take on a configuration that is perpendicular to the tubular portions 18, the second internal face 39 of the third side wall element 31 covers the ends of each tubular portion 18 (Figure 8), such as to close each internal chamber 19.

[0044] When the side wall means 27 is completely folded, it has a thickness that is substantially equal to three times the thickness of the semifinished product 1, i.e. triple the side walls of packagings obtained from semifinished products known from the prior art. This significantly increases resistance to lateral stress, i.e. stress that acts along a direction that is perpendicular to the side walls of the packaging 3. In an embodiment that is not shown, to increase resistance to lateral stress further, outside the third side wall element 31 and interconnected with the latter by a still further intermediate edge, further, more external, side wall elements can be provided. The quantity of material to be used can, however, be accordingly increased.

[0045] In order to promote the folding of the various parts of the front wall means 9, of the side wall means 27, and of the second parts 8 the affected edges have respective weakening zones that define lines of preferential folding of the semifinished product 1.

[0046] With reference to Figures 9 to 13, there is shown a first alternative embodiment of the semifinished product 1 according to the invention.

[0047] For the sake of clarity of the description, elements similar to those illustrated with reference to Figures 1 to 8 will be indicated in Figures 9 to 13 by the same reference numbers. Moreover, only the differences between the embodiment illustrated in Figures 1 to 8 and

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the first alternative embodiment shown in Figures 9 to 13 are shown

[0048] In the first alternative embodiment, the first front wall means 10 has a length that is greater than the second, third and fourth front wall means 11, 13 and 16, respectively, and, in particular, greater than the length of each of the transverse edges 5.

[0049] In this manner, when the fourth front wall means 16 is progressively rotated in such a manner as to define the tubular portion 18, a pair of protruding parts 42 of each of the first front wall means 10, as is visible in particular in Figure 10, protrudes beyond the ends of the respective transverse edge 5 of the bottom 2 of the packaging 3.

[0050] The dimension of each protruding part 42 is chosen in such a manner as to be equal to a multiple of the thickness of the semifinished product 1. In the embodiment in Figures 9 to 13 this dimension is triple the thickness of the semifinished product 1, i.e. equal to the sum of the thicknesses of the first side wall element 28, of the second side wall element 29 and of the third side wall element 31 that constitute the side wall means 27, but can increase if further side wall elements are present.

[0051] In the first alternative embodiment the first side wall element 28, the second side wall element 29 and the third side wall element 31 have substantially the same length, and it is substantially the same as the length of the respective longitudinal edge 4 of the bottom 2 of the packaging 3. Consequently, as shown in Figures 11 to 13, when the side wall means 27 is folded to take on a configuration that is perpendicular to the tubular portions 18, the overall dimensions thereof are contained inside the respective protruding part 42. In other words, the pair of end edges 35 of the first side wall element 28, the further pair of end edges 36 of the second side wall element 29 and a still further pair of end edges 43 of the third side wall element 31 are flush with said protruding part 42. In this case a face 44 of the first side wall element 28 covers the ends of each tubular portion 18 (Figure 12), in such a manner as to close each internal chamber 19.

[0052] With reference to Figures 14 to 19, there is shown a second alternative embodiment of the semifinished product 1 according to the invention.

[0053] Also, for the sake of clarity of the description, elements similar to those illustrated with reference to Figures 1 to 8 or 9 to 13 will be indicated in Figures 14 to 19 by the same reference numbers. Moreover, there will be indicated only the differences between the embodiment illustrated in Figures 1 a 8 and the second alternative embodiment shown in Figures 14 to 19.

[0054] In the second alternative embodiment, the first front wall means 10 each have a pair of protruding parts 42, in the same manner as the first alternative embodiment.

[0055] Unlike the preceding embodiments, however, there is only one second part 8, intended for constituting the cover of the packaging 3, which has a dimension that

is substantially the same as to the first part 2, intended for constituting the bottom of the packaging 3. In this case, a first element of said wall 28 is connected to a longitudinal edge of the bottom 2, whereas to a longitudinal edge 46 of the cover 8, placed on a side opposite the first part 2, closing side wall means 45 is connected that comprises a second side wall element 47 connected to said longitudinal edge 46, and a third side wall element 48 connected to the second side wall element 48, by an internal edge 49. The second side wall element 47 and the third side wall element 48 are intended for being coupled with the first side wall element 28.

[0056] To a longitudinal edge of the bottom 2 placed on a side opposite the first side wall element 28, side wall means 27 is connected that is the same as the side wall means of the first alternative embodiment of the semifinished product 1 according to the invention.

[0057] The second side wall element 47 has substantially the same length as the longitudinal edge 46 of the cover 8, i.e. the length of the longitudinal dimension of the packaging 3, whereas the third side wall element 48 has shorter length than that of the second side wall element 47. In particular, the difference in length between the third side wall element 48 and the second side wall element 47 is equal to the dimension of a pair of end portions 54 of the second side wall element 47, each of which corresponds substantially to the thickness, for example, of the semifinished product 1. The second side wall element 47 can be progressively moved to the third side wall element 48, by folding with respect to the internal edge 49, such that the closing side wall means 45 can move from a flat start configuration, shown in detail for example in Figure 14, to a final folded configuration, shown in detail for example in Figure 16, in which an internal face 50 of the second side wall element 47 and an internal face 51 of the third side wall element 48 are placed in contact with one another and are made to adhere through the effect of an adhesive substance, which is not shown, that has been previously applied in areas of at least one between said internal face 50 and said internal face 51.

[0058] The closing side wall means 45, in the final folded configuration is intended for being brought into contact with a face 33 of the first side wall element 28, once the latter, the closing side wall means 45 and the side wall means 27 have been taken to the respective folded configurations.

[0059] The closing side wall means 45 and said first external face 33 are made to adhere through the effect of a adhesive substance 53, shown in Figure 19, which has been previously applied in areas of at least one between said closing side wall means 45 and said first external face 33.

[0060] This adhesive substance 53 can be further applied to an upper face 64 of the second front wall means 11 and/or to suitable portions of the second part 8, such as to make the latter adhere to each tubular portion 18. [0061] Again, the dimension of each protruding part 42

of the first front wall means 10 is chosen in such a manner as to be equal to a multiple of the thickness of the semifinished product 1. In the embodiment in Figures 14 to 19 this dimension is triple the thickness of the first side wall element 28. In fact, as shown by Figures 16 to 19, when the first side wall element 28 is folded to take on a configuration that is perpendicular to the tubular portions 18, and the closing side wall means 45 is placed in contact with the first external face 33 of the first side wall element 28, the overall dimensions of the first side wall element 28 and of the closing side wall means 45 are contained inside the protruding part 42. In other words, the pair of end edges 35, and a still further pair of end edges 53 of the third side wall element 48 are arranged in contact with said protruding part 42.

[0062] In Figure 19 is shown a packaging 3 deriving from the second alternative embodiment of the invention, wherein it is clear how the second part 8 is made of a single piece and accordingly has no separating line.

[0063] With reference to Figures 20 to 24, there is shown a third alternative embodiment of the semifinished product 1 according to the invention.

[0064] Again, for the sake of clarity of the description, elements similar to those illustrated with reference to Figures 1 to 19 will be indicated in Figures 20 to 24 by the same reference numbers. Further, there will be indicated only the differences between the embodiment illustrated in Figures 1 to 8 and the third alternative embodiment shown in Figures 20 to 24.

[0065] In the third alternative embodiment, the side wall means 27 comprises a single respective side wall element 55 that is connected to the first part 2 along the longitudinal edge 4c and to the second part 8 along the external edge 7.

[0066] The side wall means 27 further comprises a reinforcing element 56 made of shockproof material and shaped in the form of a splint.

[0067] In particular, the reinforcing element 56 is made to adhere to the respective single side wall element 55. [0068] The shockproof material is able to absorb blows and stress and thus protect the sheet-shaped objects contained the packaging 3 ensuring the integrity thereof. [0069] In the third embodiment of the packaging according to the invention, each reinforcing element 56 comprises a plurality of overlapping flaps 57, as shown, in particular, in Figure 21.

[0070] The reinforcing elements 56 can be made of cardboard. Alternatively, the reinforcing elements 56 can be made of expanded polystyrene.

[0071] As shown in Figure 20, each reinforcing element 56 has substantially the same length of the third longitudinal edge part 4c, i.e. a length diminished by the space occupied by the tubular portion 18 and thus diminished by the length of the first longitudinal edge part 4a and by the length of the second longitudinal edge part 4b.

[0072] When the side wall element 55 is taken to the folded configuration, such that it is substantially perpendicular to the first part 2, it is substantially perpendicular

to the tubular portion 18 and covers the ends of each tubular portion 18 (Figure 25), such as to close each internal chamber 19.

[0073] In the folded configuration, each reinforcing element 56 is rotated in turn inasmuch as it is made to adhere to the respective side wall element 55 by the adhesive substance, until a side portion 58 of each reinforcing element 56 abuts on the first part 2.

[0074] In this manner the reinforcing element offers significant resistance to lateral stress and to stress from above to which the packaging 3 may be subjected.

[0075] Although the reinforcing elements 56 have been disclosed with reference to the third alternative embodiment of the semifinished product 1 according to the invention, they can also be used in the other embodiments of the semifinished product 1.

Claims

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- 1. Semifinished product (1), comprising a first part (2) intended for constituting the bottom of a packaging (3), front wall means (9) interconnected with said first part (2) and intended for constituting front walls of said packaging (3), a second part (8) that is opposite said first part (2) and is intended for constituting a cover of said packaging (3), said front wall means (9) defining a tubular portion (18), characterised in that it further comprises side wall means (27) interconnected with said first part (2), said side wall means (27) having a thickness that is a multiple of the thickness of said first part (2) and of said second part (8), said side wall means (27) being intended for constituting side walls of said packaging (3).
- 2. Semifinished product (1) according to claim 1, wherein said side wall means (27) comprises a first side wall element (28) connected to said first part (2) by a longitudinal edge (4c).
- 3. Semifinished product (1) according to claim 2, and further comprising a second side wall element (29) connected to said first side wall element (28) by an intermediate side edge (30) and arranged such that a first external face (33) of said first side wall element (28) faces a second external face (34) of said second side wall element (29).
- **4.** Semifinished product (1) according to claim 3, wherein said first side wall element (28) and said second side wall element (29) are arranged aligned with ends of said tubular portion (18).
- 5. Semifinished product (1) according to claim 3 or 4, and further comprising a third side wall element (31) connected to said second side wall element (29) by a further intermediate side edge (32) and arranged such that a first internal face (38) of said second side

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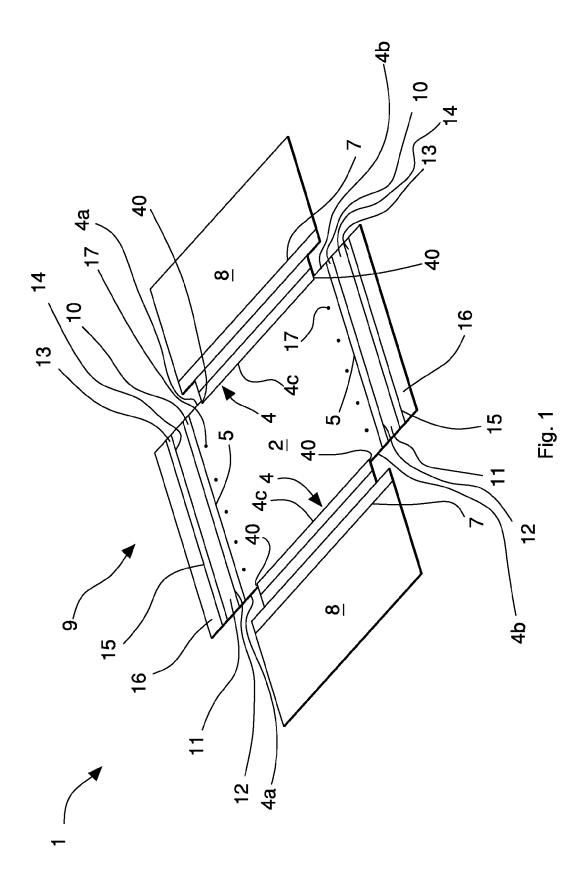
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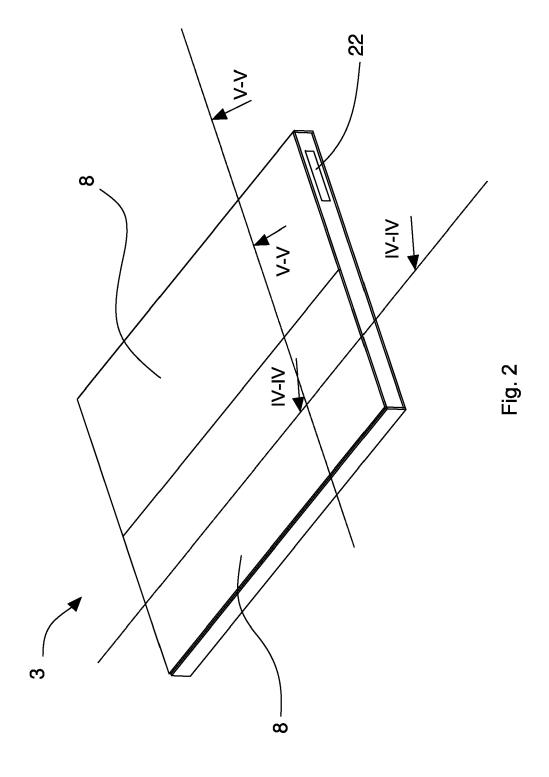
wall element (29) faces a second internal face (39) of said third side wall element (31).

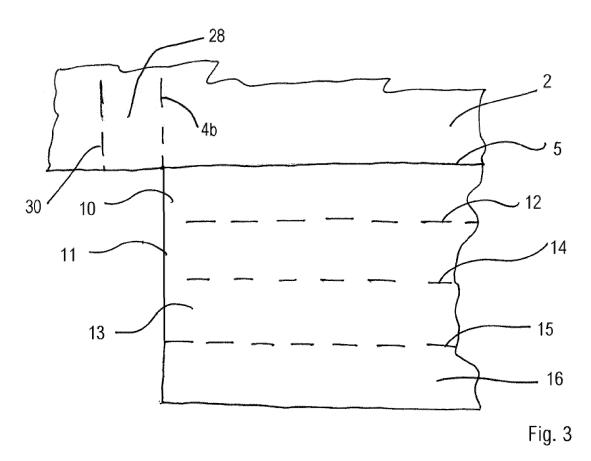
- **6.** Semifinished product (1) according to claim 5, wherein said second internal face (39) closes an internal chamber (19) of said tubular portion (18).
- 7. Semifinished product according to claim 5 or 6, and further comprising a further first side wall element connected to said second side wall element (29) by another intermediate side edge and a further second side wall element connected to said third side wall element (31) by a still further intermediate side edge.
- 8. Semifinished product (1) according to any one of claims 1 to 7, wherein said first front wall means (10) comprises a pair of protruding parts (42) that protrude beyond the ends of the respective transverse edge (5) of said first part (2) of said packaging (3).
- **9.** Semifinished product (1) according to claim 8, wherein the dimension of each of said protruding part (42) is equal to a multiple of the thickness of said first part (2) and of said second part (8).
- 10. Semifinished product (1) according to claim 8 or 9, wherein said first side wall element (28), said second side wall element (29) and said third side wall element (31) are arranged aligned with each of said protruding parts (42).
- Semifinished product (1) according to any one of claims 8 to 10, wherein said first side wall element (28) comprises a third internal face (44) that closes an internal chamber (19) of said tubular portion (18).
- **12.** Semifinished product (1) according to any preceding claim, and further comprising closing side wall means (45) interconnected with said second part (8).
- **13.** Semifinished product (1) according to claim 12, wherein said closing side wall means (45) comprises a second side wall element (47) connected to said second part (8) by an end edge (46).
- 14. Semifinished product (1) according to claim 13, wherein said closing side wall means (45) further comprises a third side wall element (48) connected to said second side wall element (47) by an internal edge (49) and comprising an internal face (51) arranged for being placed in contact with an internal face (50) of said first side wall element (28) and an external face (52) arranged for being placed in contact with said first external face (33) of said first side wall element (28).
- **15.** Semifinished product (1) according to any one of claims 12 to 14, wherein said second closing side

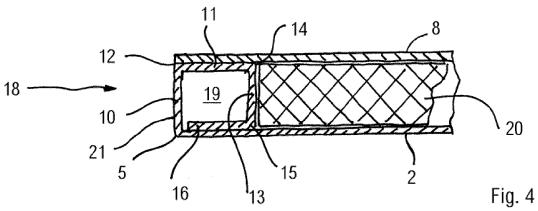
- wall element (47) comprises a pair of end portions (54), arranged for abutting against an end part of each protruding part (42).
- 16. Semifinished product (1) according to any preceding claim, and further comprising a reinforcing element (56) made of shockproof material and shaped in the form of a splint.
- 70 17. Semifinished product (1) according to claim 16, wherein said reinforcing element (56) comprises a plurality of overlapping flaps (57) made of shockproof material.
- 5 18. Semifinished product (1) according to claim 16 or 17, wherein said reinforcing element (56) is connected to said side wall means (27).
 - 19. Semifinished product (1) according to any one of claims 16 to 18, wherein said reinforcing element (56) substantially has a length that is equal to said third longitudinal edge part (4c).
 - **20.** Semifinished product (1) according to any one of claims 16 to 19, wherein said reinforcing element (56) has a thickness that is a multiple of the thickness of said first part (2) and of said second part (8).
 - **21.** Semifinished product (1) according to any one of claims 18 to 20, wherein said side wall means (27) comprises a single side wall element (55).
 - **22.** Packaging (3), in particular for sheet-shaped elements, **characterised in that** it is made with a semifinished product according to any one of claims 1 to 21.

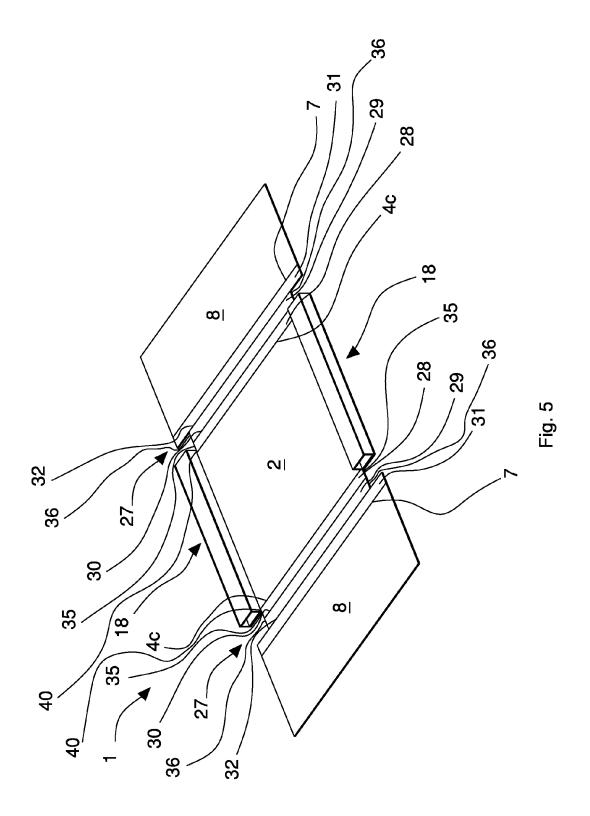
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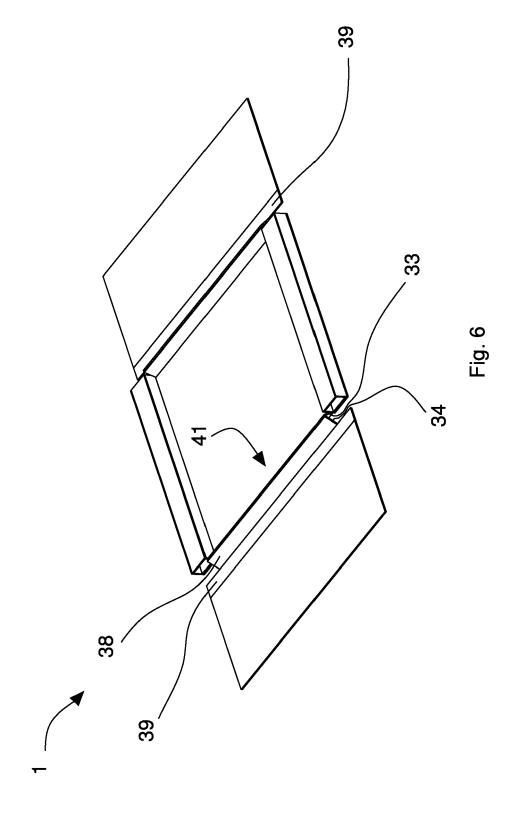


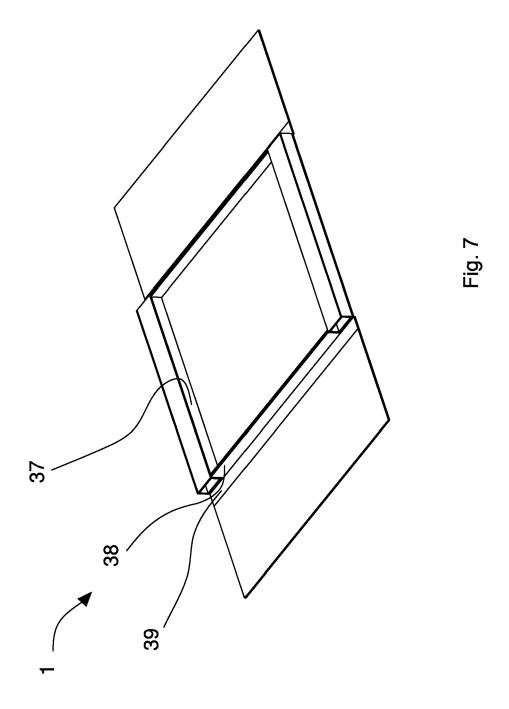


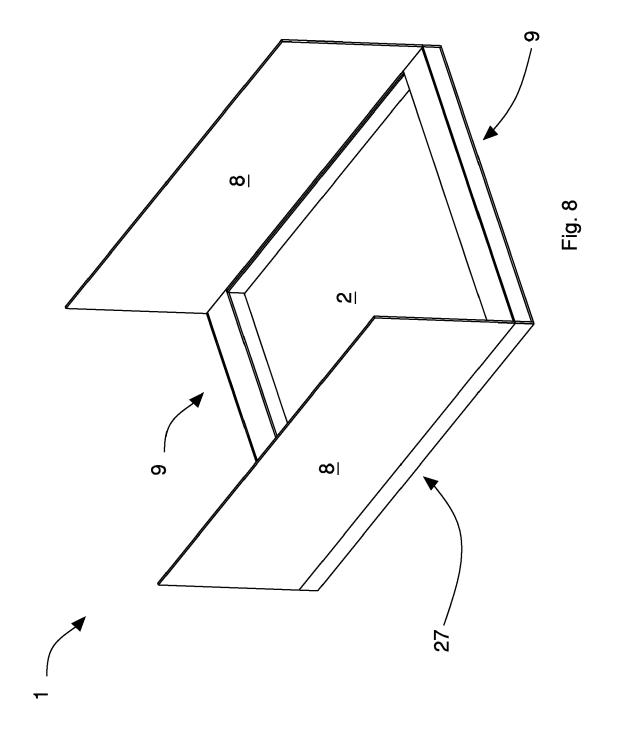


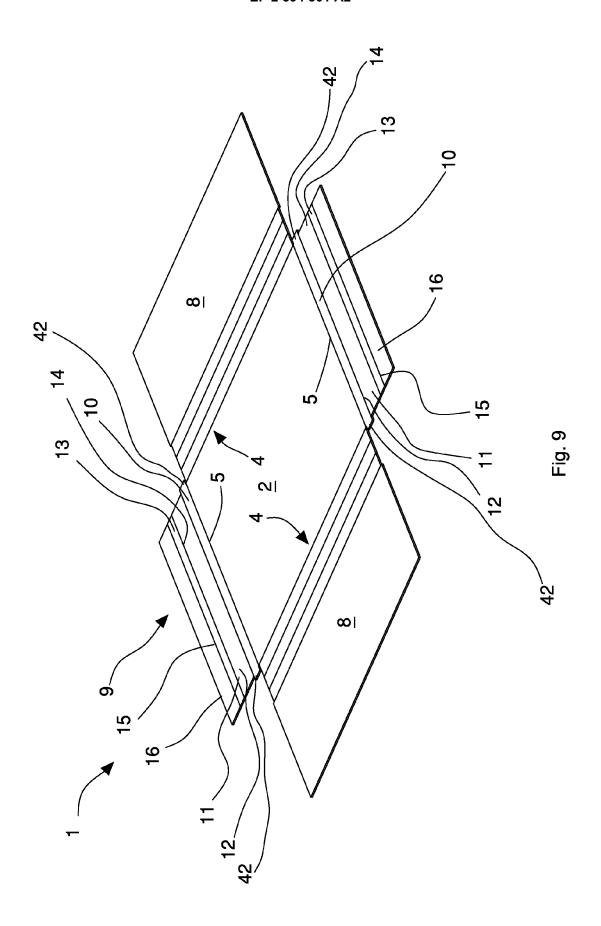


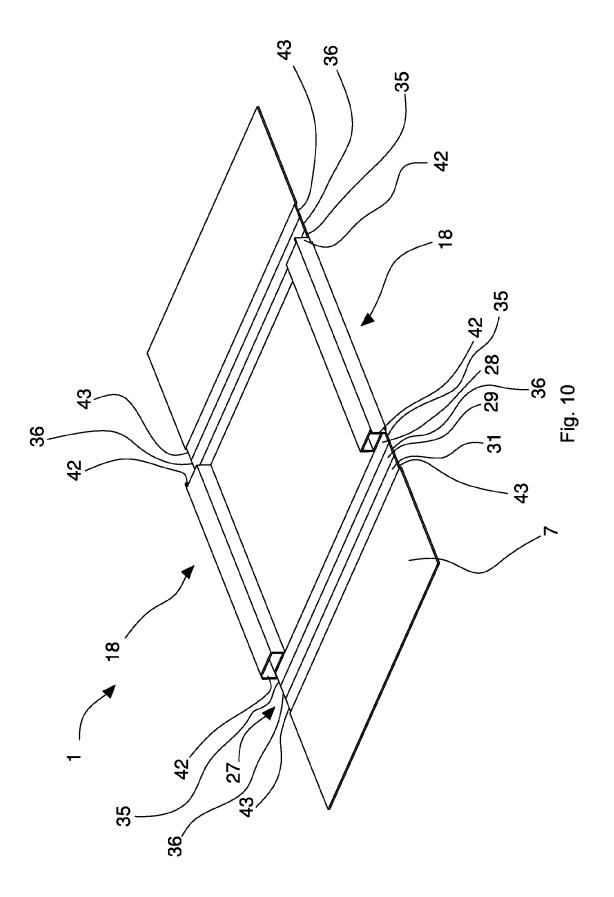


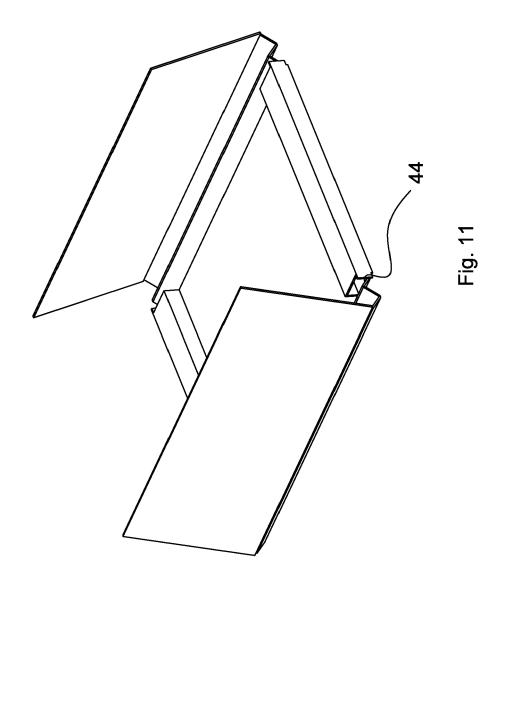


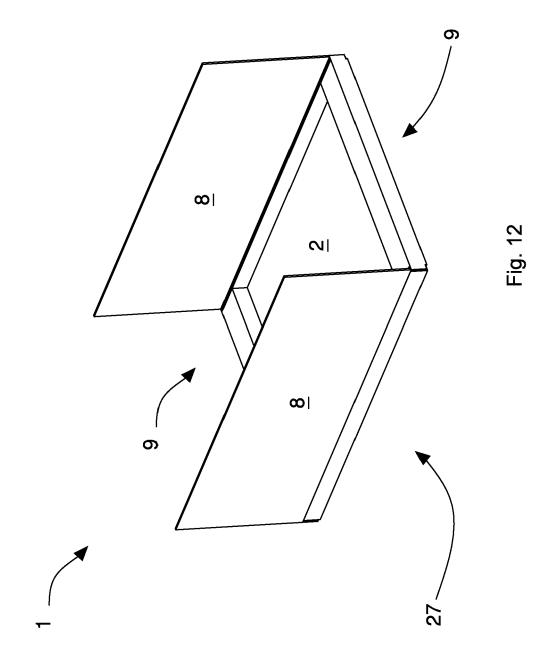


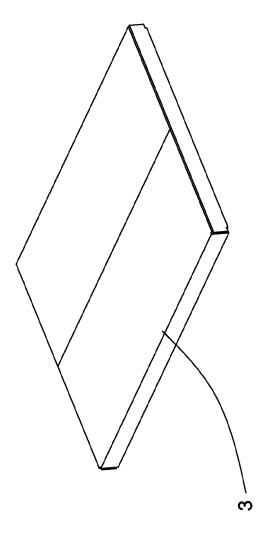






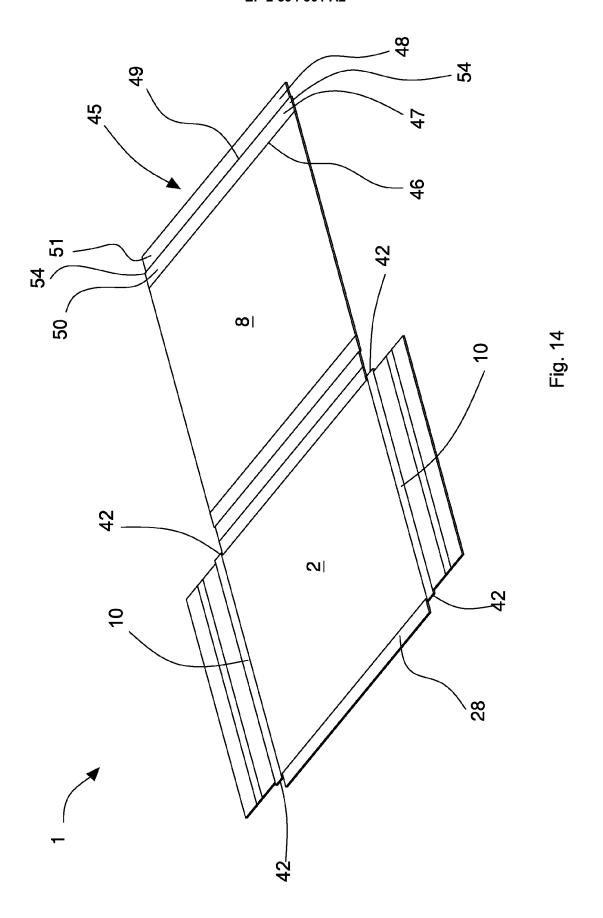


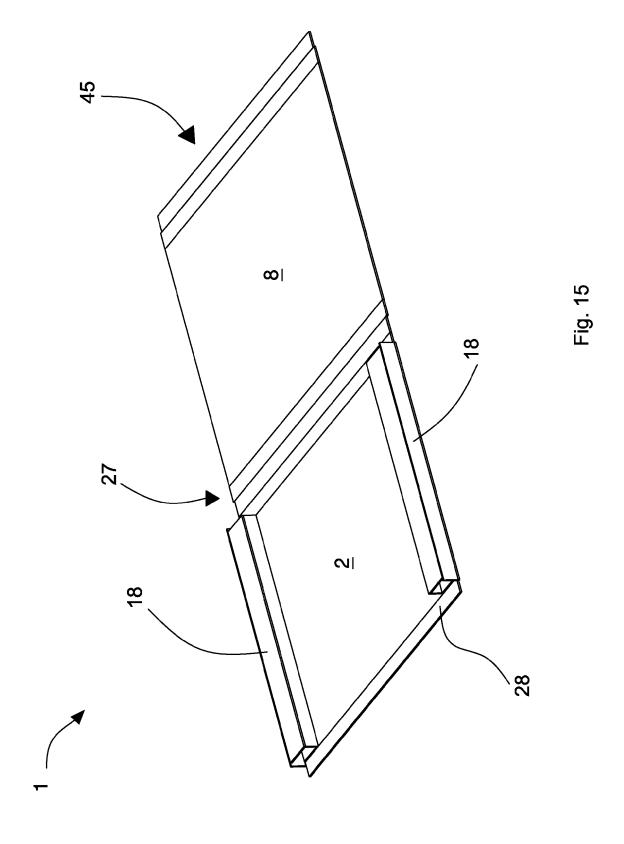


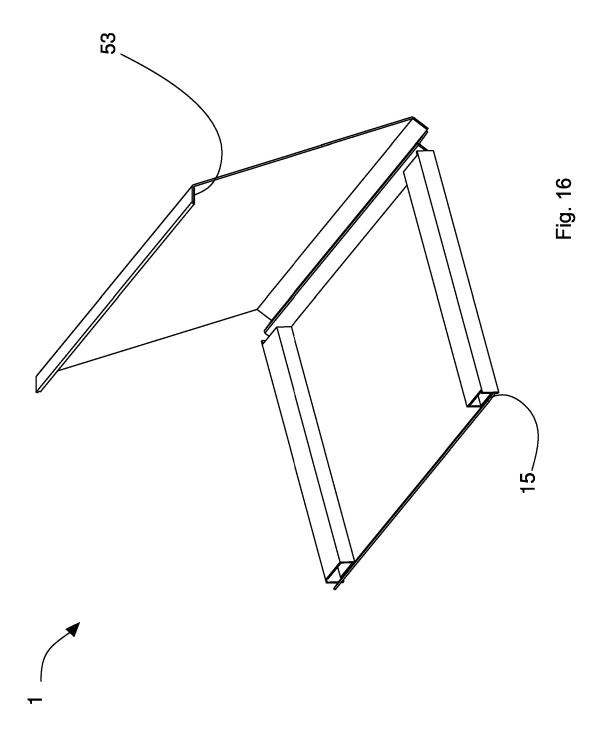


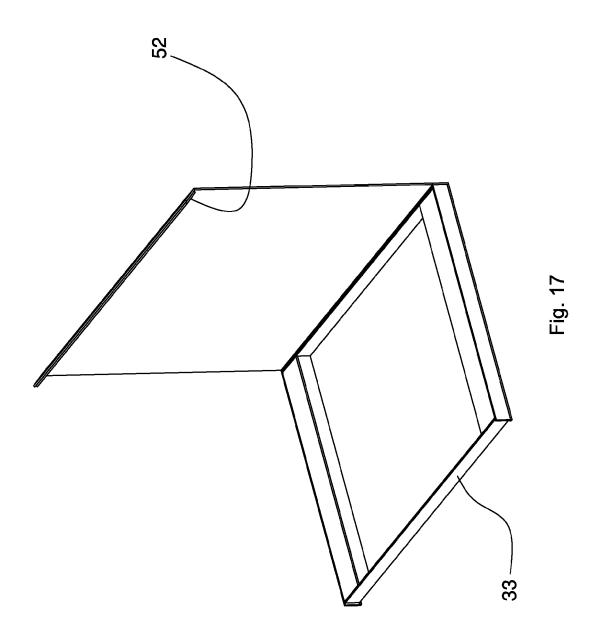




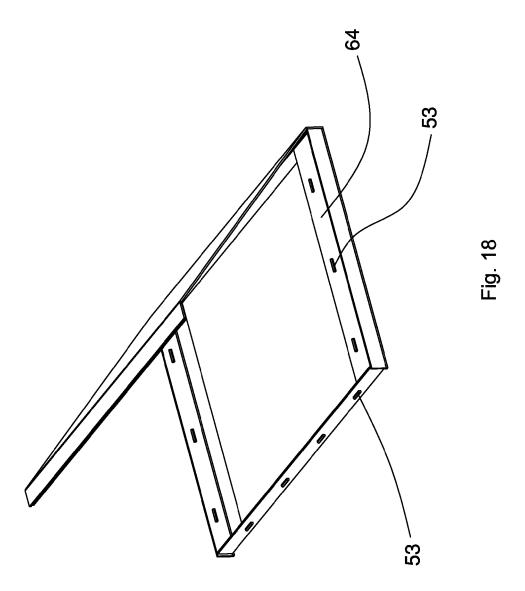














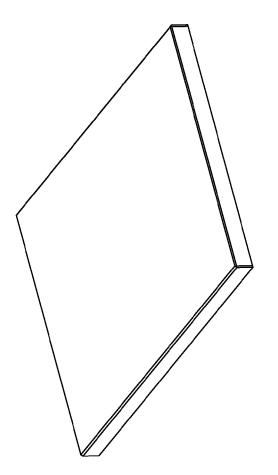
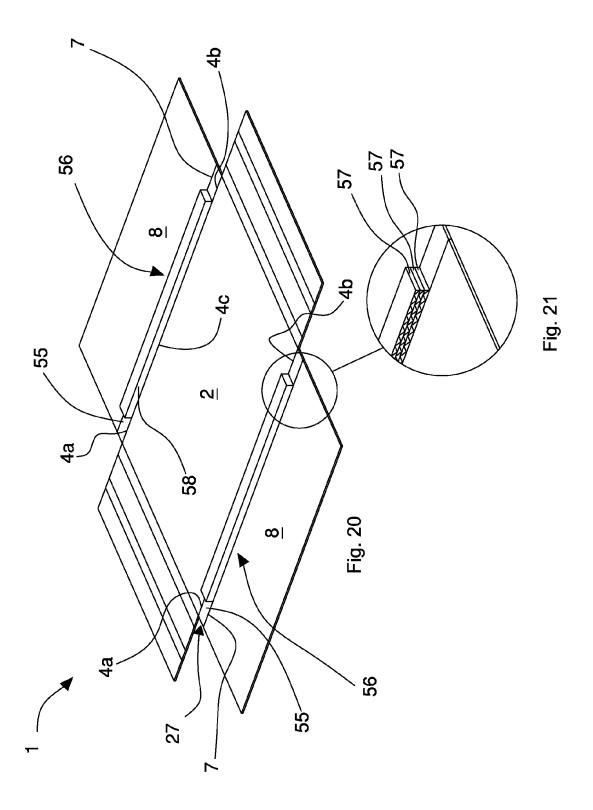


Fig. 19





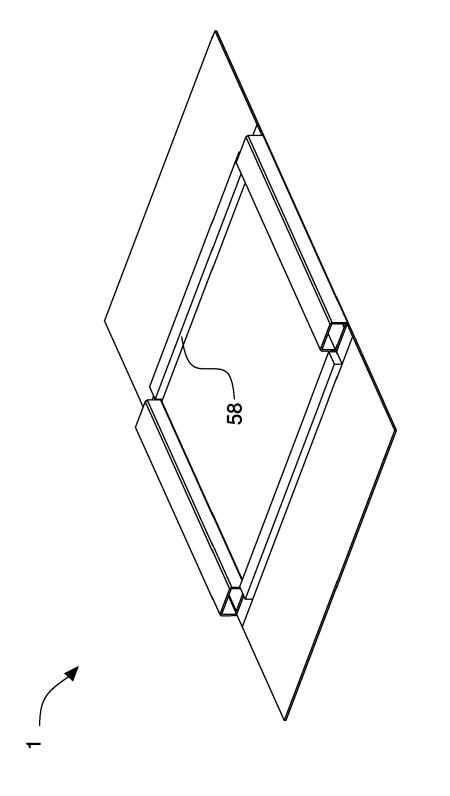


Fig. 22

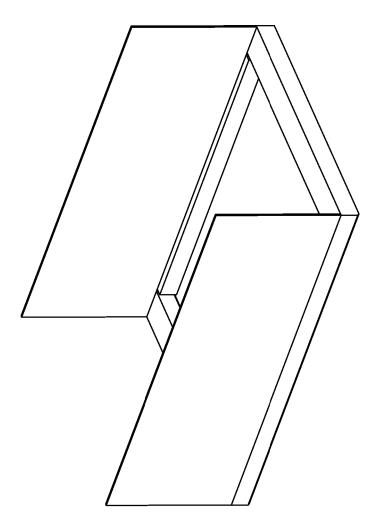


Fig. 23



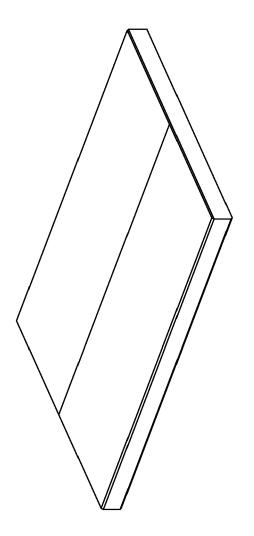


Fig. 24



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REFERENCES CITED IN THE DESCRIPTION

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Patent documents cited in the description

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