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(54) **BASIC STRUCTURE FOR A DISPLAY STAND, DISPLAY STAND AND METHOD OF ERECTING SAID DISPLAY STAND**

(57) The invention relates to a basic structure (2) for a display. The invention also relates to a display (1) formed by such a basic structure. The invention further relates to a method for setting up a display by making use of said basic structure.

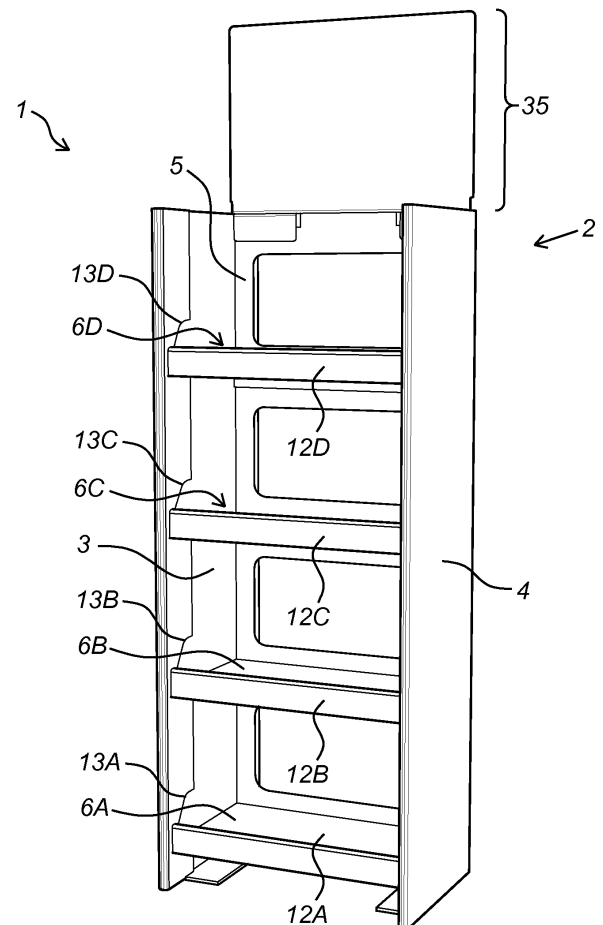


Fig. 1

Description

[0001] The invention relates to a basic structure for a display, in particular for displaying and/or presenting products. The invention also relates to a display formed by such a basic structure. The invention further relates to an assembly of blanks for manufacturing such a basic structure. The invention further relates to a method for setting up a display by making use of said basic structure.

[0002] Displays for presenting products are already available commercially in diverse types and sizes. Such displays are generally manufactured from cardboard and can take both a durable and disposable form. In the case of cardboard displays use is usually made of separate plastic clips to strengthen and stabilize the display in the erected state, this making erection of the known displays generally relatively time-consuming, laborious and more-over expensive.

[0003] The invention has for its object, while maintaining the advantage of the prior art, to provide an improved basic structure for forming a display without separate fastening elements being required for this purpose.

[0004] The invention provides for this purpose a basic structure of the type stated in the preamble, comprising: at least two side walls, at least one rear wall, at least one tray connected pivotally on its rear side to the rear wall, wherein the tray comprises a support surface, folding strips connected pivotally on either side to the support surface and at least one front wall connected pivotally to the front side of the tray, wherein the tray is configured to be enclosed between the side walls; connecting structures arranged in the side walls, wherein the connecting structures each comprise a recess and each comprise an engaging surface facing away from the opposite side wall, wherein the folding strips are configured to engage on the engaging surfaces of the connecting structures of the side walls, wherein each end surface of the front wall is configured for co-action with a first part of a peripheral edge of the recess of a side wall, and wherein the side edges of the tray are configured to support on a second part of the peripheral edge of the recess. By applying the folding strips configured to engage on engaging surfaces of the connecting structures, wherein each engaging surface faces away from an opposite side wall (and opposite connecting structure) the side walls of the display are held in position (after erection thereof), this enhancing the stability of the display. Each folding strip does in fact engage here behind a connecting structure, whereby the side wall is pulled in the direction of the opposite side wall. The tray extends here through each connecting structure, whereby co-action with the peripheral edge of the recess of each connecting structure is made possible. The side walls are held even better in position by more particularly having the front wall of each tray co-act with a first part of the peripheral wall of a recess and having (the underside of) each side edge of the tray support on a second part of the peripheral edge of the recess, this enhancing the stability of the display as such. Separate

fastening elements such as plastic clips are not necessary to set up the display in stable manner. Each connecting structure arranged in a side wall can be deemed to form part of this side wall. Said side edges of a tray are understood to mean the lateral sections of the tray, wherein each lateral section extends between the rear wall of the display and the front wall of the display. A part of the tray between the side edges and the front wall of the tray and the rear wall of the display usually takes a flat form. This central part of the tray functions as support structure or support panel for products. The standing front wall prevents products supported by a tray from being able to slide easily off the tray. A rear side - facing away from the front wall - of the tray will generally be connected, in particular glued, to the rear wall of the basic structure. The basic structure, and consequently the display to be formed on the basis thereof, is preferably manufactured substantially wholly from cardboard. Cardboard is relatively inexpensive, sufficiently strong to impart a self-supporting capability to the display and relatively environmentally-friendly compared to for instance plastic.

[0005] The second part of the peripheral edge of the recess of each connecting structure preferably forms an upper boundary of the engaging surface. Having the peripheral edge connect to the engaging surface allows the tray to engage on the engaging surface and support on the second part of the peripheral edge in relatively efficient and compact manner, this generally enhancing the stability of the display to be formed.

[0006] In a preferred embodiment the first part of the peripheral edge of the recess of at least one connecting structure comprises at least one locking nose, a stop and an undercut lying between the locking nose and stop. The undercut is configured here to receive a part of the front wall of a tray. The locking nose is configured to hold the front wall in position, or to at least be able to prevent undesirable pivoting back (inward folding) of the front wall. The stop forms a foremost boundary for the front wall of the tray. Each locking nose is therefore generally located between the stop of the connecting structure and the rear wall of the basic structure. The dimensioning of the intermediate undercut is preferably small such that the front wall has relatively little freedom of movement, and preferably none at all, as soon as a part of the front wall is positioned between the stop and the locking nose. It is preferred here that the front wall is clamped between the locking nose and the (nearby) stop. The mutual distance between the locking nose and the stop is here smaller than or substantially equal to the thickness of the front wall. Positioning a part of the front wall in the intermediate space formed by the undercut generally takes place by pivoting the front wall in upward (forward) direction away from the rear wall. During this pivoting the front wall will generally pass in forced manner over the locking nose to enable positioning of the front wall, or at least a part thereof, in the intermediate space formed by the undercut. The front wall and/or the locking nose will usually

deform temporarily here to make this passage possible. Pivoting the front wall beyond each locking nose can result in a snap connection.

[0007] The side walls are preferably manufactured from one folded board of material, in particular cardboard. Each side wall preferably takes a double-walled form. Each side wall more preferably comprises an outer wall and a folded-back inner wall. The outer wall and the inner wall are connected to each other here. The inner wall is in fact formed here by an inward folded part of the side wall. The outer wall and the (folded-back) inner wall are preferably mutually fixed, preferably by (direct or indirect) gluing of the inner wall to the outer wall. Filler material, formed for instance by one or more material layers or a block of material, can optionally be applied between the outer wall and the inner wall. This makes it possible in simplified manner to orient the inner wall substantially parallel relative to the outer wall. In this embodiment variant of the basic structure, wherein the side walls take a double-walled form, at least a part of the connecting structure generally forms part of an inner wall of the side wall. This is because the recess of the connecting structure will generally be arranged in the inner wall of the side wall, and optionally also in one or more material layers connected to the inner wall and positioned between the inner wall and outer wall of the side wall. The same is the case for a peripheral edge defining the recess and an optionally applied locking nose, stop and intermediate undercut. The engaging surface of the connecting structure will generally be located here between the inner wall and outer wall and form part of (a side facing toward the outer wall of) the inner wall and/or of one or more (filler) material layers lying between the inner wall and outer wall. This means that during forming of the display on the basis of the basic structure according to the invention each folding strip is arranged at least partially in an intermediate space located between the outer wall and inner wall of the side wall. This intermediate space is also referred to as a pocket. The folding strip here pulls the inner wall, and consequently the outer wall connected thereto, of a side wall in the direction of an opposite side wall. The mutual distance between the inward folded (folded-back) inner walls of opposite side walls is preferably smaller than the width of the tray. This has the result that the tray extends at least partially through each inner wall, and in particular the recess arranged therein. Having the tray extend through the inner walls has the result that the tray can rest (support) on an underlying part of the peripheral edge of the recess. This underlying part is also referred to in this context as the second part of the peripheral edge. The width of the tray is preferably smaller than the distance between the outer walls of the opposite side walls. This has the advantage that the outer walls can be given a substantially closed form, whereby the folding strips of the trays are not visible from a side view of the display to be formed on the basis of the basic structure. The closed form of the side walls of the basic structure (and the display) also enhances

the sturdiness of the final display. When one or more double-walled side walls are applied, it is then preferred that both the inner wall and the outer wall extend to an underside of the basic structure (and display) so that both the inner wall and the outer wall are configured to support on a ground surface, and therefore acquire a supporting function during erection of the display, this also enhancing the sturdiness and stability of the display.

[0008] At least one tray is preferably constructed from at least two layers of material, in particular at least two layers of cardboard, wherein at least one first layer comprises an attaching strip, in particular adhesive strip, with which the tray is attached to the rear wall of the basic structure. From the viewpoint of sturdiness it is preferred that the attaching strip extends in a downward direction. During use of the display and when the trays are loaded, a pushing force is thereby exerted on the attaching strip. The attaching strip is preferably connected pivotally to another part of the tray. During forming and use of the display the front wall of the tray extends in upward direction. At least one second layer of the tray preferably comprises the folding strips. The folding strips are generally connected pivotally to another part of the tray. The folding strips (also) extend in downward direction during forming of the display. The different layers of the tray are generally glued to each other.

[0009] The invention also relates to a display formed by a (deformed) basic structure according to the invention. As already described in the foregoing, the folding strips of each tray engage on the engaging surfaces of the connecting structures of the side walls of the display. Each tray moreover supports on the second part of the peripheral edge defining the recess of each connecting structure. Said second part of the peripheral edge generally has a substantially horizontal orientation. The front wall engages here on the first part of the peripheral wall defining the recess of each connecting structure. Said first part of the peripheral edge generally has a substantially vertical or diagonal orientation. The first part and the second part of the peripheral edge can connect to each other, although it is also possible to envisage the first part and the second part of the peripheral edge lying at a distance from each other via another part of the peripheral edge. The side walls of the display generally have a substantially parallel orientation. Each side wall preferably encloses a substantially perpendicular angle with the rear wall.

[0010] The invention further relates to an assembly of blanks, also referred to as a kit of parts, for manufacturing a basic structure according to the invention, which assembly comprises at least one first blank for forming at least one side wall of the display, with one or more connecting structures arranged in the first blank, wherein the connecting structures each comprise a recess and each an engaging surface, wherein each recess comprises a first part of a peripheral edge configured for co-action with a front wall of a tray and a second part of the peripheral edge configured to support a tray. The first part of

the peripheral edge is preferably provided with a locking nose, a preferably substantially vertically oriented stop (surface) and an intermediate undercut. The assembly generally comprises two (or more) first blanks. Each first blank is preferably provided with two substantially parallel fold lines which are generally located close to each other for the purpose of forming an outer wall and an inner wall of a side wall, which outer wall and inner wall are mutually separated by a - generally narrow - (front) end wall. The inner wall and outer wall are preferably fixed to each other, preferably by means of glue, and enclose an intermediate space, also referred to as a pocket. One or more additional material layers can optionally be applied here between the outer wall and inner wall as filler for filling a part of the intermediate space in order to strengthen the side wall. The inner wall and outer wall preferably run substantially parallel.

[0011] The assembly of blanks preferably comprises a second blank with a rear wall provided with attaching strips, in particular adhesive strips. The assembly preferably comprises at least one third blank for forming a tray. The third blank preferably comprises a support surface (or support panel), a front wall, side edges and a rear side, wherein the rear side of the support surface is configured for attachment to the attaching strips of the rear wall of the second blank, preferably by making use of glue. The front wall, side edges and rear side are preferably connected pivotally to the support surface. The side edges generally comprise folding strips configured for co-action with engaging surfaces of the first blank during setting up of the display.

[0012] The invention further relates to a method for setting up (manufacturing) a display according to the invention, comprising the steps of: A) providing a basic structure according to the invention, B) pivoting the side walls toward each other, C) pivoting the trays in the direction of a horizontal orientation, D) having the laterally extending folding strips of each tray engage on the engaging surfaces of the connecting structures, E) inserting a front wall of each tray into opposite recesses of the side walls, and F) pivoting the front wall of each tray into a standing orientation. During pivoting of the front wall of each tray into a standing orientation as according to step F) each of the opposite end surfaces of the front wall will preferably be displaced here in forward direction to a position beyond a locking nose forming part of the recess such that the front wall is substantially locked by the opposite recesses. Advantages and embodiment variants of the method according to the invention have already been described at length in the foregoing.

[0013] Preferred embodiments of the invention are set out in the below clauses:

1. A basic structure for a display, in particular for presenting products, comprising:

- at least two side walls,
- at least one rear wall connected to the side walls,

- at least one tray connected pivotally on its rear side to the rear wall,
- wherein the tray comprises a support surface, folding strips connected pivotally on either side to the support surface and at least one front wall connected pivotally to the front side of the tray,
- wherein the tray is configured to be enclosed between the side walls,
- connecting structures arranged in the side walls,
- wherein the connecting structures each comprise a recess and each comprise an engaging surface facing away from the opposite side wall,
- wherein the folding strips are configured to engage on the engaging surfaces of the connecting structures of the side walls,
- wherein end surfaces of the front wall are configured for co-action with a first part of a peripheral edge of the recess, and wherein the side edges of the tray are configured to support on a second part of the peripheral edge of the recess.

2. Basic structure according to clause 1, wherein the second part of the peripheral edge of the recess of each connecting structure forms an upper boundary of the engaging surface.

3. Basic structure according to any of the foregoing clauses, wherein the first part of the peripheral edge comprises at least one locking nose, at least one stop and an undercut positioned between the locking nose and the stop, wherein the undercut is configured as receiving space for a part of the front wall of a tray.

4. Basic structure according to any of the foregoing clauses, wherein each side wall comprises an outer wall and an inner wall connected to the outer wall, wherein the recesses of the connecting structure are arranged in the inner wall of the side walls.

5. Basic structure according to clause 4, wherein the inner wall and the outer wall of a side wall are manufactured from one folded board of material.

6. Basic structure according to clause 4 or 5, wherein the mutual distance between mutually facing inner walls of opposite side walls is smaller than the width of the tray.

7. Basic structure according to any of the clauses 4-6, wherein the outer wall and the inner wall of at least one side wall mutually enclose a receiving space for at least a part of at least one folding strip of at least one tray.

8. Basic structure according to clause 7, wherein at least one engaging surface is positioned in the receiving space enclosed by the outer wall and inner

wall of the side wall.

9. Basic structure according to any of the clauses 4-8, wherein the inner wall and the outer wall are fixed, in particular glued, via at least one intermediate material layer. 5

10. Basic structure according to clause 8 or 9, wherein at least one engaging surface forms part of at least one intermediate material layer. 10

11. Basic structure according to any of the clauses 4-10, wherein the width of the tray is smaller than the distance between the outer walls of opposite side walls. 15

12. Basic structure according to any of the foregoing clauses, wherein at least one tray comprises: a support surface for supporting products, at least one attaching strip connected pivotally to a rear side of the support surface, at least one front wall connected pivotally to a front side of the support surface, and a plurality of folding strips connected pivotally to opposite lateral sides of the support surface. 20

13. Basic structure according to any of the foregoing clauses, wherein the basic structure is manufactured substantially wholly from cardboard. 25

14. Display formed by a basic structure according to any of the foregoing clauses. 30

15. First blank for forming a side wall of a basic structure according to any of the clauses 1-13, wherein the blank is provided with at least one connecting structure, wherein the connecting structure comprises a recess and an engaging surface, wherein at least a part of the recess is defined by a first part of a peripheral edge configured for co-action with a front wall of a tray, and a second part of the peripheral edge configured to support a tray. 35

16. First blank according to clause 15, wherein the first blank is provided with two substantially parallel fold lines for forming an outer wall and an inner wall of the side wall, which outer wall and inner wall are mutually separated by an end wall. 40

17. Second blank for forming a rear wall of a basic structure according to any of the clauses 1-13, wherein the rear wall is provided with at least one substantially horizontally oriented attaching strip for attaching a tray. 45

18. Third blank for forming a tray of a basic structure according to any of the clauses 1-13, comprising: 50

- a central support surface,

- an attaching strip connected pivotally to a rear side of the support surface and configured for attachment to a rear wall of the basic structure,
- a front wall connected pivotally to a front side of the support surface, and
- folding strips connected pivotally to opposite lateral sides of the support surface.

19. Method for setting up a display according to clause 14, comprising the steps of:

- A) providing a basic structure according to any of the clauses 1-13,
- B) pivoting the side walls toward each other,
- C) pivoting the trays in the direction of a horizontal orientation,
- D) having the laterally extending folding strips of each tray engage on the engaging surfaces of the connecting structures,
- E) inserting a front wall of each tray into opposite recesses of the side walls, and
- F) pivoting the front wall of each tray into a standing orientation.

20. Method according to clause 19, wherein during pivoting of the front wall of each tray into a standing orientation each of the opposite end surfaces of the front wall is displaced in forward direction to a position beyond a locking nose forming part of the recess such that the front wall is substantially locked by the opposite recesses.

[0014] The invention will be elucidated on the basis of non-limitative exemplary embodiments shown in the following figures, in which:

- figure 1 is a schematic perspective view of a display according to an embodiment of the invention,
- figures 2A-G are schematic perspective views of successive steps for setting up a display from a basic structure according to an embodiment of the invention;
- figure 3 is a schematic top view of a blank of a first material layer of a tray for a display according to an embodiment of the invention,
- figure 4 is a schematic top view of a blank of a rear wall of a display according to an embodiment of the invention,
- figure 5 is a schematic top view of a blank of a top structure for a display according to an embodiment of the invention,
- figure 6 is a schematic top view of a blank of a set of side walls for a display according to an embodiment of the invention,
- figure 7 is a schematic top view of a blank of a set of intermediate material layers for a display according to an embodiment of the invention,
- figure 8 is a schematic top view of a blank of a second

material layer of the trays for a display according to an embodiment of the invention, and

- figure 9 is a schematic detail view in cross-section along line X in figure 2C.

[0015] Figure 1 shows a display 1 which is constructed from a basic structure 2 as described in more detail below. Display 1 comprises two side walls 3 and 4 and a rear wall 5. Positioned between side walls 3 and 4 is a number of trays 6A-D which are each provided with a front wall 12A-D. Trays 6A-D are connected respectively by means of connecting structures 13A-D to side wall 3 and by means of connecting structures 14A-D to side wall 4 as shown in more detail in figures 2A-G. Display 1 also comprises a top structure 35.

[0016] Figure 2A shows a first step for folding a display 1 from a basic structure 2. Basic structure 2 comprises two side walls 3 and 4 which are connected pivotally to a rear wall 5 in accordance with the display of figure 1, and a number of trays 6A-D. These trays 6A-D are connected pivotally to rear wall 5 and can be folded out in the direction of the respective arrows 1A-ID. Trays 6A-D comprise respective support surfaces 7A-D which are provided with respective folding strips 8A-D and 9A-D as shown in more detail in figure 8. Folding strips 8A-D are configured to connect trays 6A-D to side wall 3 by means of connecting structures 13A-D. Folding strips 9A-D are configured to connect trays 6A-D to side wall 5 by means of connecting structures 14A-D.

[0017] Figure 2B shows a subsequent step in folding of basic structure 2 to form a display 1. The step in figure 2B follows the step of figure 2A. In this figure folding strips 8A-D and 9A-D are folded downward respectively in the direction of arrows 1IA-IIID and 1IIA-IIID. Folding strips 8A-D and 9A-D are shown in detail in the blank as illustrated in figure 8.

[0018] Figure 2C shows a subsequent step in folding of basic structure 2 to form a display 1. The step in figure 2C follows the step of figure 2B. In this figure side wall 3 is folded forward as according to arrow IV, and folding strips 8A-D are subsequently arranged in the direction of arrows VA-VD in the respective recesses 15A-D of respective connecting structures 13A-D. Recesses 15A-D are shown in more detail in the blank as illustrated in figure 6.

[0019] Figure 2D shows a subsequent step in folding of basic structure 2 to form a display 1. The step in figure 2D follows the step of figure 2C. In this figure trays 6A-D are rotated downward as according to arrows VIA-D such that folding strips 8A-D are carried out of the respective recesses 15A-D into pockets 19A-D and folding strips 9A-D are simultaneously carried out of the respective recesses 16A-D into pockets 20A-D. Folding strips 8A-D can engage here on engaging surfaces 17A-D and folding strips 9A-D can engage on surfaces 18A-D. Folding strips 8A-D and 9A-D are shown in more detail in a blank in figure 8, and pockets 19A-D and 20A-D are shown in more detail in cross-section in figure 9.

[0020] Because folding strips 8A-D and 9A-D engage on the respective engaging surfaces 17A-D and 18A-D, side walls 3 and 4 can be fixed relative to trays 6A-D, whereby a stable construction can be obtained.

5 **[0021]** Figure 2E shows a subsequent step in folding of basic structure 2 to form a display 1. The step in figure 2E follows the step of figure 2D. In this figure trays 6A-D are situated in an outward folded position, wherein the side edges on either side of trays 6A-D support at least partially on support edges 31A-D and 32A-D. Support edges 31A-D and 32A-D are shown in more detail in the blank as illustrated in figure 6.

10 **[0022]** Figure 2F shows a subsequent step in folding of basic structure 2 to form a display 1. The step in figure 2F follows the step of figure 2E. Shown in this figure is that the respective front walls 12A-D connected to trays 6A-D are tilted as according to arrows VIIA-D into a standing position. The end surfaces 33A-D and 34A-D of the respective front walls 12A-D are placed here beyond locking noses 25A-D and 26A-D in the respective recesses 15A-D and 16A-D, which are shown in more detail in figure 6. End surfaces 33A-D and 34A-D are placed here respectively in undercuts 27A-D and 28A-D against the respective stops 29A-D and 30A-D. Locking noses 25A-D and 26A-D leave a space between the rotation points of front walls 12A-D which corresponds to or is slightly smaller than the height of front walls 12A-D. During rotation of front walls 12A-D to a standing position a resistance is hereby generated which has to be overcome. Overcoming this resistance has the effect that end surfaces 33A-D and 34A-D snap into the respective undercuts 27A-D and 28A-D. End surfaces 33A-D and 34A-D are fixed in the respective recesses 15A-D and 16A-D by this snapping into place of front walls 12A-D, so that the side edges of trays 6A-D can continue to rest on support edges 31A-D and 32A-D of the respective recesses 15A-D and 16A-D and can be held in position there. Folding strips 8A-D and 9A-D can in addition be fixed durably behind the respective engaging surfaces 17A-D and 18A-D by the snap fixing of front walls 12A-D.

30 **[0023]** Figure 2G shows a subsequent step in folding of basic structure 2 to form a display 1. The step in figure 2G follows the step of figure 2F. Shown in this figure is that a top structure 35 can be placed on the upper side of display 1. Basic structure 2 has for this purpose slots 36A-B in which slots 37A-B of top structure 35 can engage. Top structure 35 is shown in more detail in the blank of figure 5.

40 **[0024]** Figure 3 shows a blank of first material layers 38A-D of trays 6A-D. Arranged in these material layers 38A-D of trays 6A-D are respective fold lines 39A-D. Fold lines 39A-D form a demarcation between the respective support surfaces 7A-D and front walls 12A-D of trays 6A-D.

55 **[0025]** Further arranged in material layers 38A-D are the double fold lines (folding edges) 40A-D along which the material can be folded double so that front walls 12A-D comprise a double-folded layer. Material layers 38A-

D are further provided with adhesive strips 41A-D with which trays 6A-D can be connected to rear wall 5 of display 1.

[0026] Figure 4 shows a blank of two rear walls 5 of basic structure 2 for display 1. Rear wall 5 can be provided with recesses 42A-D in order to optionally be able to save weight in display 1. Rear wall 5 is also provided with adhesive strips 43A-D on which trays 6A-D can be connected to rear wall 5 by means of respective adhesive strips 41A-D. Rear wall 5 is further provided with a folding strip 44 with which display 1 can be attached to a bottom structure.

[0027] Figure 5 shows a blank with two identical top structures 35. Top structure 35 is provided with slots 37A and 37B for attaching top structure 35 to respective slots 36A and 36B of rear wall 5 of display 1.

[0028] Figure 6 shows a blank with the two side walls 3 and 4. Side walls 3 and 4 are provided respectively with double fold lines 45 and 46 along which respective folding parts 21 and 22 can be folded. Each folding part 21, 22 here forms an inner wall of a side wall 3, 4. A part of each side wall 3, 4 connected to rear wall 5 forms an outer wall of side wall 3, 4. Fold lines 45 and 46 are placed per pair at a mutual distance from each other such that when folding parts 21 and 22 are folded over there remains a space for placing intermediate material layers 51-54. These intermediate material layers 51-54 can fix folding parts 21 and 22 at a determined mutual distance substantially parallel to the outer side of the respective side walls 3 and 4.

[0029] Recesses 15A-D with respective peripheral edges 23A-D are arranged in folding part 21. Peripheral edges 23A-D each comprise a first part provided with locking noses 25A-D, undercuts 27A-D and stops 29A-D. Peripheral edges 23A-D further comprise a second part with a support edge 31A-D. Recesses 16A-D with respective peripheral edges 24A-D are arranged in folding part 22. Peripheral edges 24A-D each comprise a first part provided with locking noses 26A-D, undercuts 28A-D and stops 30A-D.

[0030] Peripheral edges 24A-D further comprise a second part with a support edge 32A-D. The functions of these components have already been described in detail above in the description of figures 2A-2F.

[0031] Side walls 3 and 4 also comprise folding edges 47 and 48 along which the side walls can be pivotally connected to rear wall 5. The side walls further comprise folding strips 49 and 50 with which the side walls can optionally be attached to a bottom structure.

[0032] Figure 7 shows a blank with intermediate material layers 51, 52, 53 and 54. Intermediate material layers 51-54 can be arranged between folding parts 21 and 22 and the outer side of side walls 3 and 4. Layers 51 and 52 are connected to each other here by a semi-punched line 55 along which layer 51 can be folded against layer 52, while layers 53 and 54 can be arranged on either side of layers 51 and 52 so that a package of four material layers is created. In material layers 51-54

the locking noses, stops and undercuts are arranged similarly as in folding parts 21 and 22. Side portions 56A-D are arranged in material layers 52 and 53, while a deepened recess 57A-D is arranged in material layers 51 and 54. Deepened recesses 57A-D, side portions 56A-D and the outer material of side walls 21 and 22, when folded together and glued to each other, form the pockets 19A-D and 20A-D. Layers 51-54 can be further provided with a recess 58 to which top structure 35 can optionally be attached.

[0033] Figure 8 shows a blank of a second material layer 59A-D of trays 6A-D. The material layer of the trays comprises support surfaces 7A-D provided on either side with folding strips 8A-D and 9A-D. Material layers 59A-D can be arranged on material layers 38A-D so as to thus form trays 6A-D of two layers.

[0034] Figure 9 shows a cross-section of a part of side wall 3, wherein together with the rear side of side wall 3 the folding part 21 encloses material layers 51-54, wherein layers 51 and 52 are folded together along a semi-punched line 55 and placed between layers 53 and 54. In this view the pocket 20B can be seen which comprises a recess with a depth of two material layers 51 and 54. Side portion 56B forms the engaging surface 17B behind which folding strip 9B of tray 6B can engage.

[0035] It will be apparent that the invention is not limited to the exemplary embodiments shown and described here but that numerous variants which will be obvious to the skilled person in this field are possible within the scope of the appended claims. It is possible here to envisage that different inventive concepts and/or technical measures of the above described embodiment variants can be wholly or partially combined without departing from the inventive concept described in the appended claims.

[0036] The verb "comprise" and conjugations thereof used in this patent specification are understood to mean not only "comprise", but also the terms "consist of", "substantially consist of", "formed by" and conjugations thereof.

List of reference numerals

[0037]

1. Display
2. Basic structure
3. Side wall
4. Side wall
5. Rear wall
- 6A-D. Tray
- 7A-D. Support surface
- 8A-D. Folding strip
- 9A-D. Folding strip
- 10A-D. Front side
- 11A-D. Rear side
- 12A-D. Front wall
- 13A-D. Connecting structure

14A-D. Connecting structure
 15A-D. Recess
 16A-D. Recess
 17A-D. Engaging surface
 18A-D. Engaging surface
 19A-D. Pocket
 20A-D. Pocket
 21. Folding part
 22. Folding part
 23A-D. Peripheral edge
 24A-D. Peripheral edge
 25A-D. Locking nose
 26A-D. Locking nose
 27A-D. Undercut
 28A-D. Undercut
 29A-D. Stop
 30A-D. Stop
 31A-D. Support edge
 32A-D. Support edge
 33A-D. End surface
 34A-D. End surface
 35. Top structure
 36A-B. Slots
 37A-B. Slots
 38A-D. Material layer
 39A-D. Fold lines
 40A-D. Fold lines
 41A-D. Adhesive strips
 42A-D. Recesses
 43A-D. Adhesive strips
 44. Folding strip
 45. Double fold line
 46. Double fold line
 47. Fold line
 48. Fold line
 49. Folding strip
 50. Folding strip
 51. Material layer
 52. Material layer
 53. Material layer
 54. Material layer
 55. Semi-punched line
 56A-D. Side portions
 57A-D. Deepened recess
 58. Recess
 59A-D. Material layer
 IA-D. Arrows
 IIA-D. Arrows
 IIIA-D. Arrows
 IV. Arrow
 VA-D. Arrows
 VIA-D. Arrows
 VIIA-D. Arrows
 X. Cross-sectional plane

Claims

1. A basic structure for a display, in particular for presenting products, comprising:
 - 5 - at least two side walls,
 - at least one rear wall connected to the side walls,
 - at least one tray connected pivotally on its rear side to the rear wall,
 - wherein the tray comprises a support surface, folding strips connected pivotally on either side to the support surface and at least one front wall connected pivotally to the front side of the tray,
 - wherein the tray is configured to be enclosed between the side walls,
 - connecting structures arranged in the side walls,
 - wherein the connecting structures each comprise a recess and each comprise an engaging surface facing away from the opposite side wall,
 - wherein the folding strips are configured to engage on the engaging surfaces of the connecting structures of the side walls,
 - wherein end surfaces of the front wall are configured for co-action with a first part of a peripheral edge of the recess, and wherein the side edges of the tray are configured to support on a second part of the peripheral edge of the recess.
2. Basic structure as claimed in claim 1, wherein the second part of the peripheral edge of the recess of each connecting structure forms an upper boundary of the engaging surface.
3. Basic structure as claimed in any of the foregoing claims, wherein the first part of the peripheral edge comprises at least one locking nose, at least one stop and an undercut positioned between the locking nose and the stop, wherein the undercut is configured as receiving space for a part of the front wall of a tray.
4. Basic structure as claimed in any of the foregoing claims, wherein each side wall comprises an outer wall and an inner wall connected to the outer wall, wherein the recesses of the connecting structure are arranged in the inner wall of the side walls, wherein the inner wall and the outer wall of a side wall are preferably manufactured from one folded board of material.
5. Basic structure as claimed in claim 4, wherein the mutual distance between mutually facing inner walls of opposite side walls is smaller than the width of the tray.
6. Basic structure as claimed in any of the claims 4-5,

wherein the outer wall and the inner wall of at least one side wall mutually enclose a receiving space for at least a part of at least one folding strip of at least one tray, wherein at least one engaging surface is preferably positioned in the receiving space enclosed by the outer wall and inner wall of the side wall.

7. Basic structure as claimed in any of the foregoing claims, wherein at least one tray comprises: a support surface for supporting products, at least one attaching strip connected pivotally to a rear side of the support surface, at least one front wall connected pivotally to a front side of the support surface, and a plurality of folding strips connected pivotally to opposite lateral sides of the support surface. 5
8. Display formed by a basic structure as claimed in any of the foregoing claims. 10
9. First blank for forming a side wall of a basic structure as claimed in any of the claims 1-7, wherein the blank is provided with at least one connecting structure, wherein the connecting structure comprises a recess and an engaging surface, wherein at least a part of the recess is defined by a first part of a peripheral edge configured for co-action with a front wall of a tray, and a second part of the peripheral edge configured to support a tray. 15
10. First blank as claimed in claim 9, wherein the first blank is provided with two substantially parallel fold lines for forming an outer wall and an inner wall of the side wall, which outer wall and inner wall are mutually separated by an end wall. 20
11. Second blank for forming a rear wall of a basic structure as claimed in any of the claims 1-7, wherein the rear wall is provided with at least one substantially horizontally oriented attaching strip for attaching a tray. 25
12. Third blank for forming a tray of a basic structure as claimed in any of the claims 1-7, comprising: 30
 - a central support surface, 35
 - an attaching strip connected pivotally to a rear side of the support surface and configured for attachment to a rear wall of the basic structure,
 - a front wall connected pivotally to a front side of the support surface, and 40
 - folding strips connected pivotally to opposite lateral sides of the support surface. 45
13. Kit of parts, comprising a first blank according to one of claims 9-10, a second blank according to claim 11, and a third blank according to claim 12. 50
14. Method for setting up a display as claimed in claim 55

8, comprising the steps of:

- A) providing a basic structure according to any of the claims 1-7,
- B) pivoting the side walls toward each other,
- C) pivoting the trays in the direction of a horizontal orientation,
- D) having the laterally extending folding strips of each tray engage on the engaging surfaces of the connecting structures,
- E) inserting a front wall of each tray into opposite recesses of the side walls, and
- F) pivoting the front wall of each tray into a standing orientation.

15. Method as claimed in claim 14, wherein during pivoting of the front wall of each tray into a standing orientation each of the opposite end surfaces of the front wall is displaced in forward direction to a position beyond a locking nose forming part of the recess such that the front wall is substantially locked by the opposite recesses.

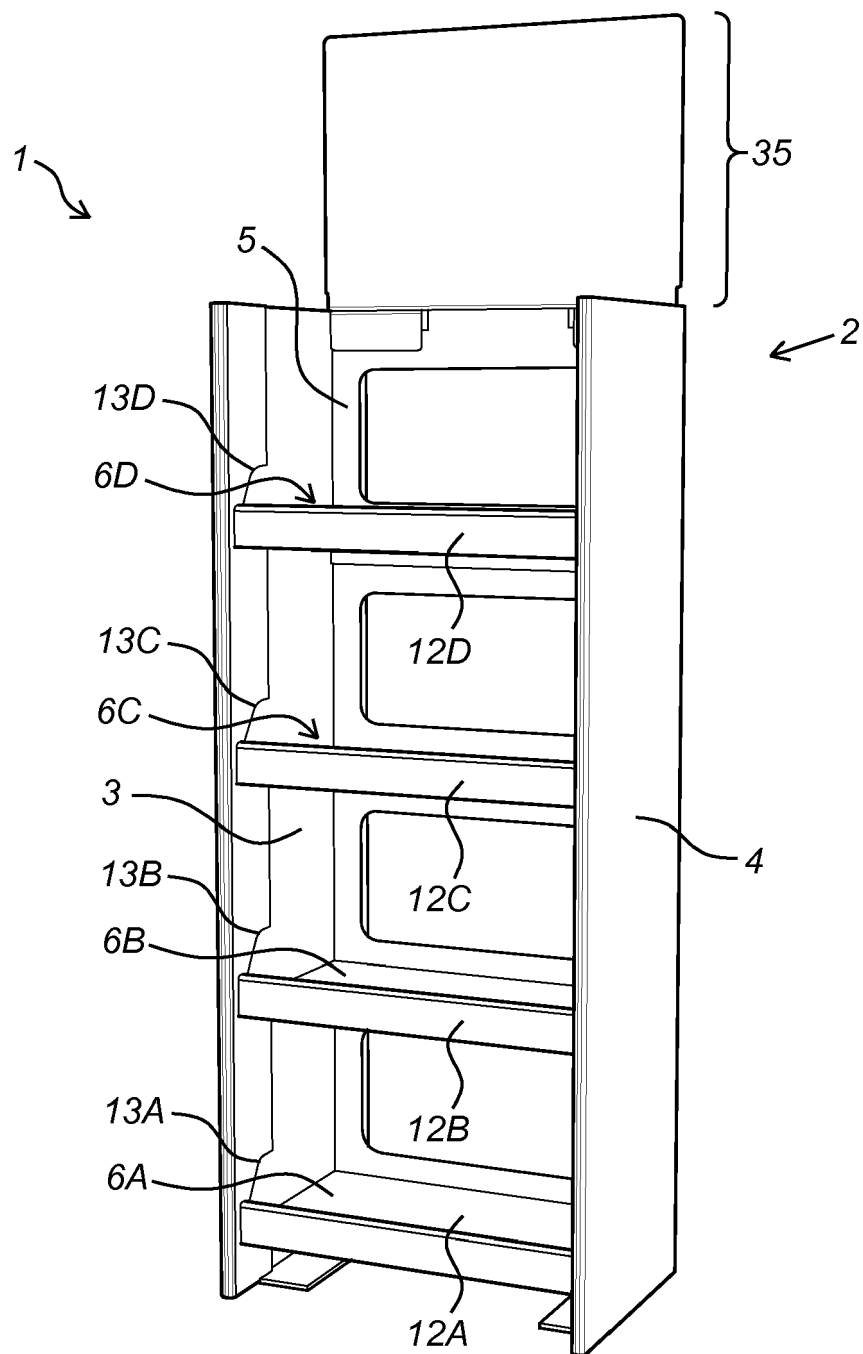


Fig. 1

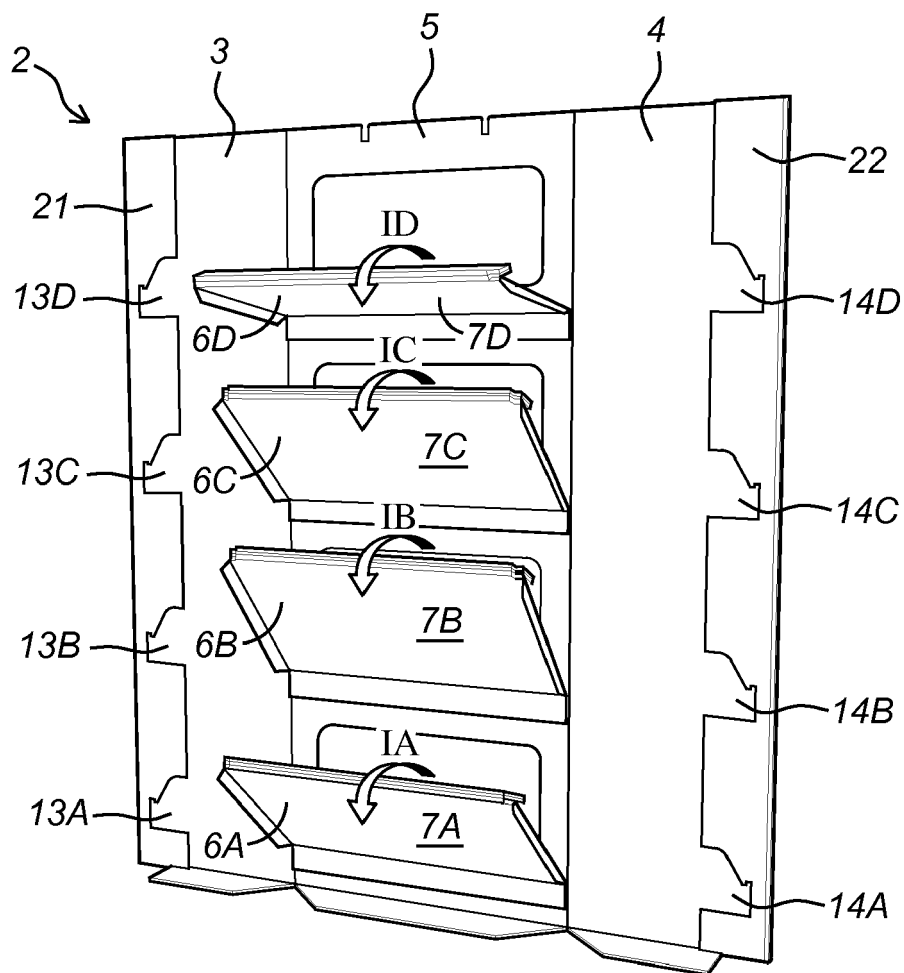


Fig. 2A

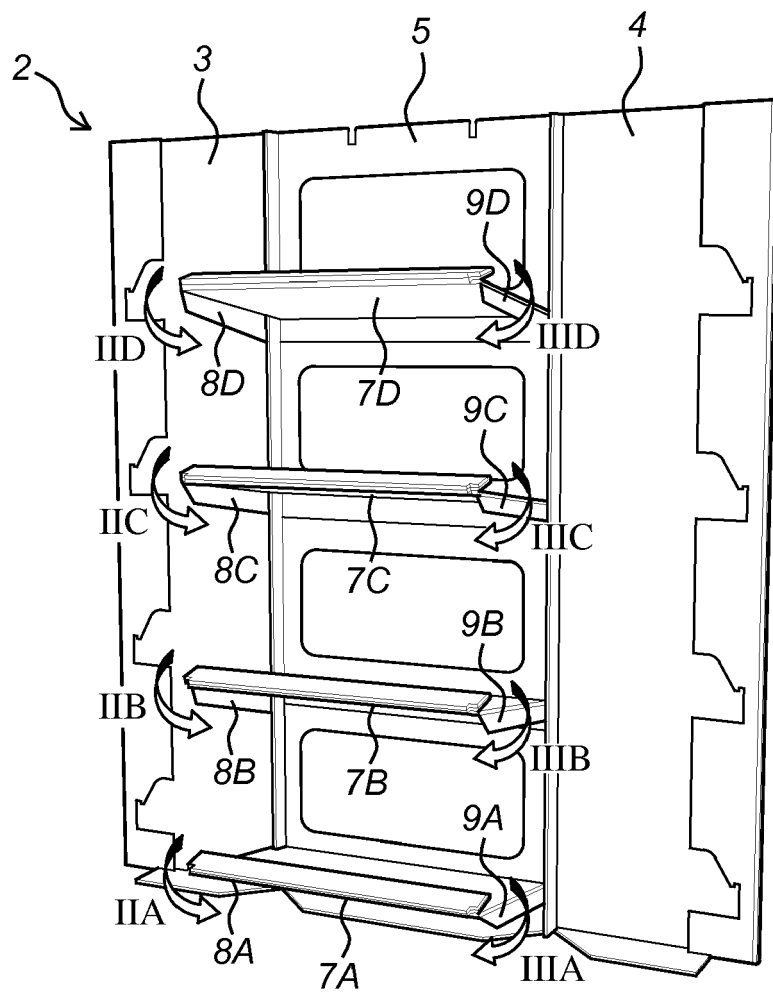


Fig. 2B

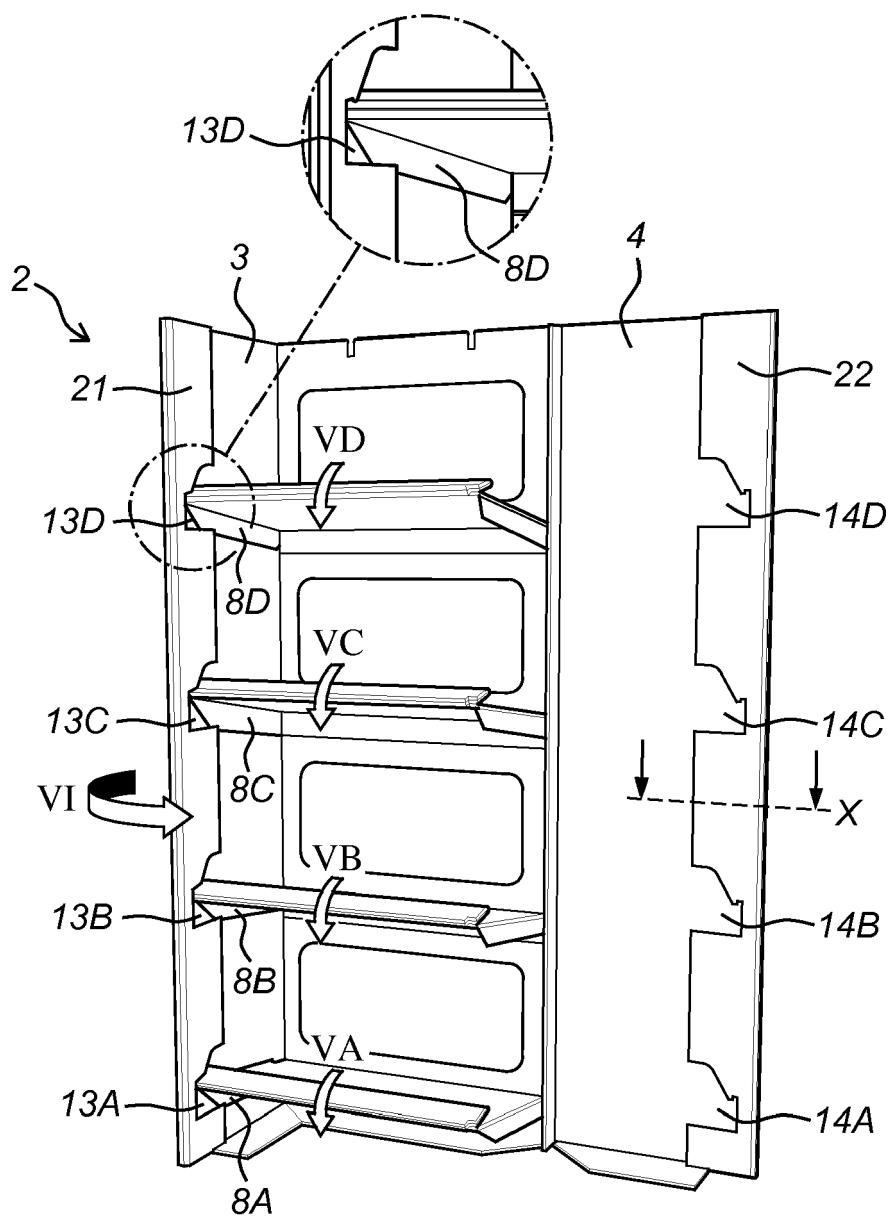


Fig. 2C

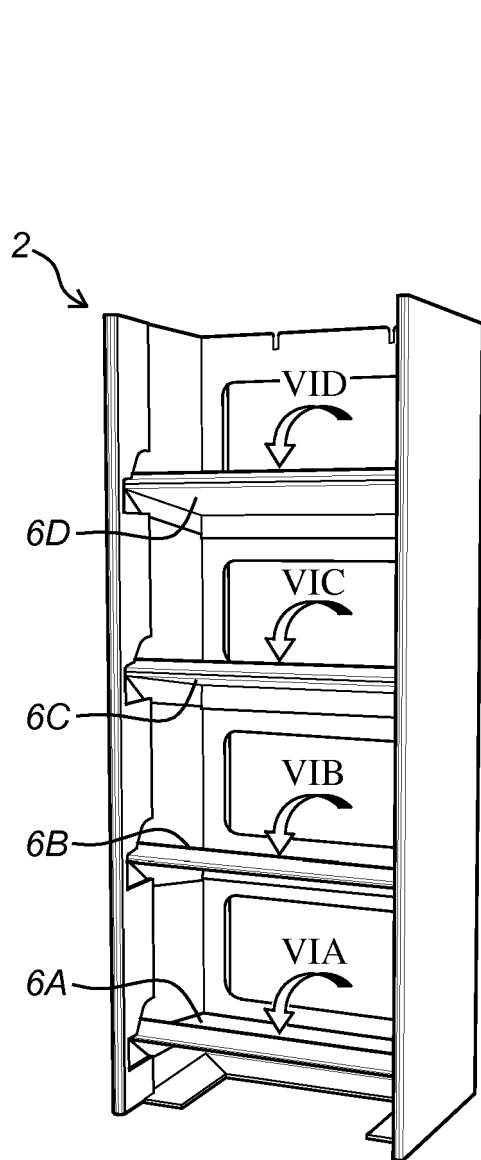


Fig. 2D

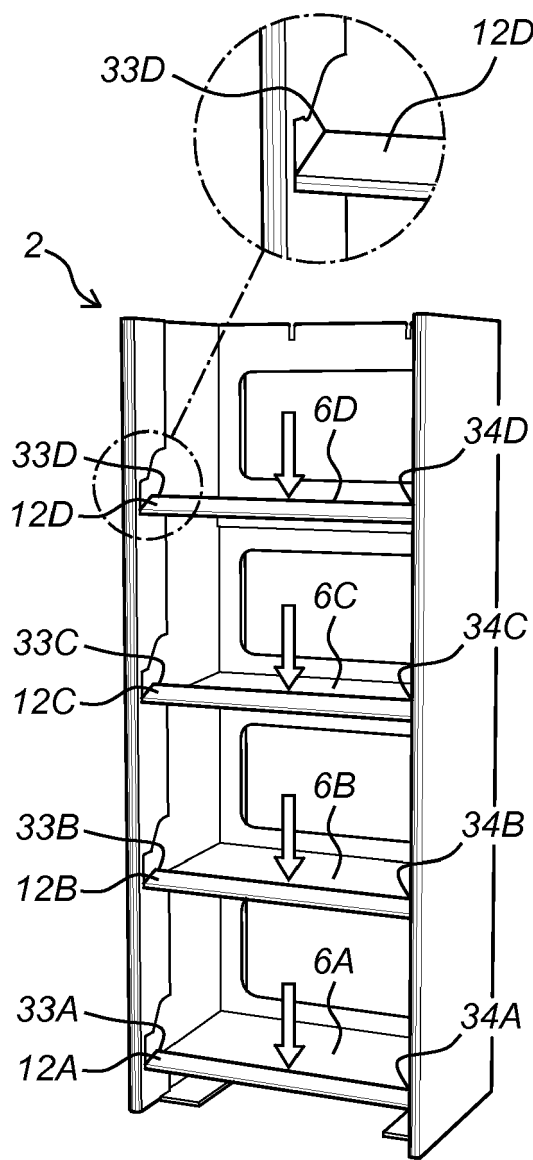


Fig. 2E

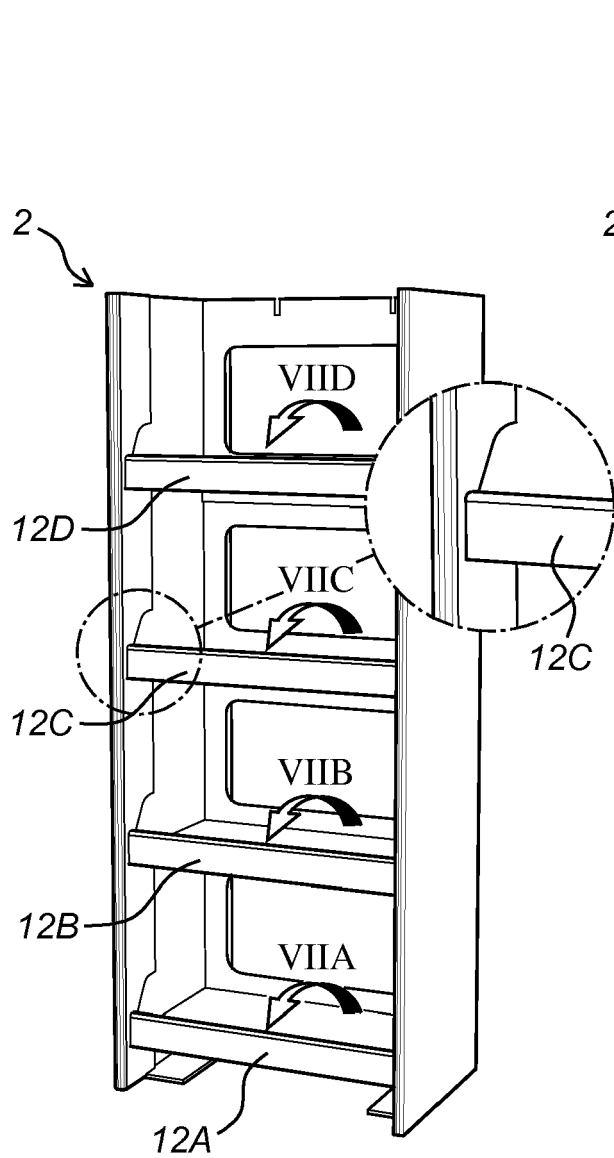


Fig. 2F

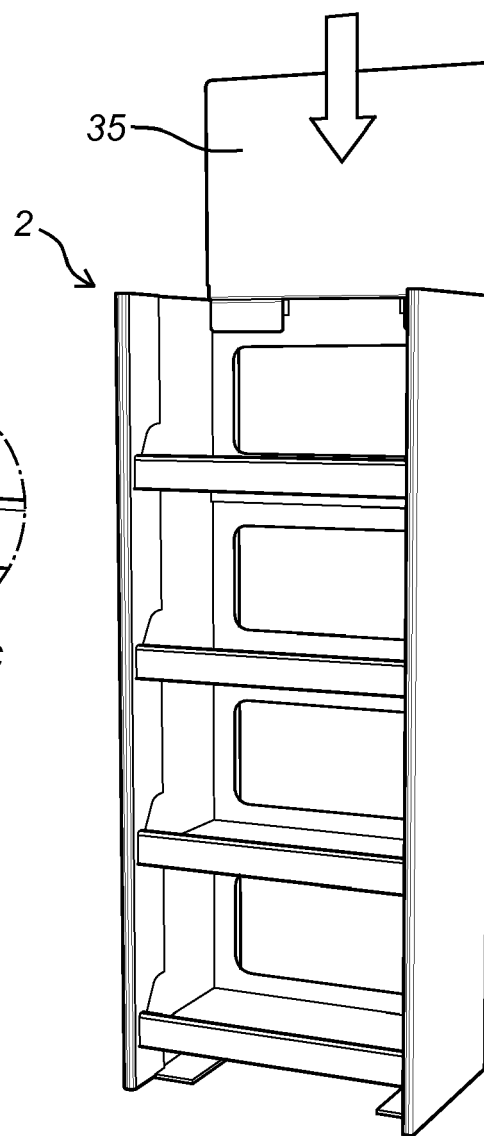


Fig. 2G

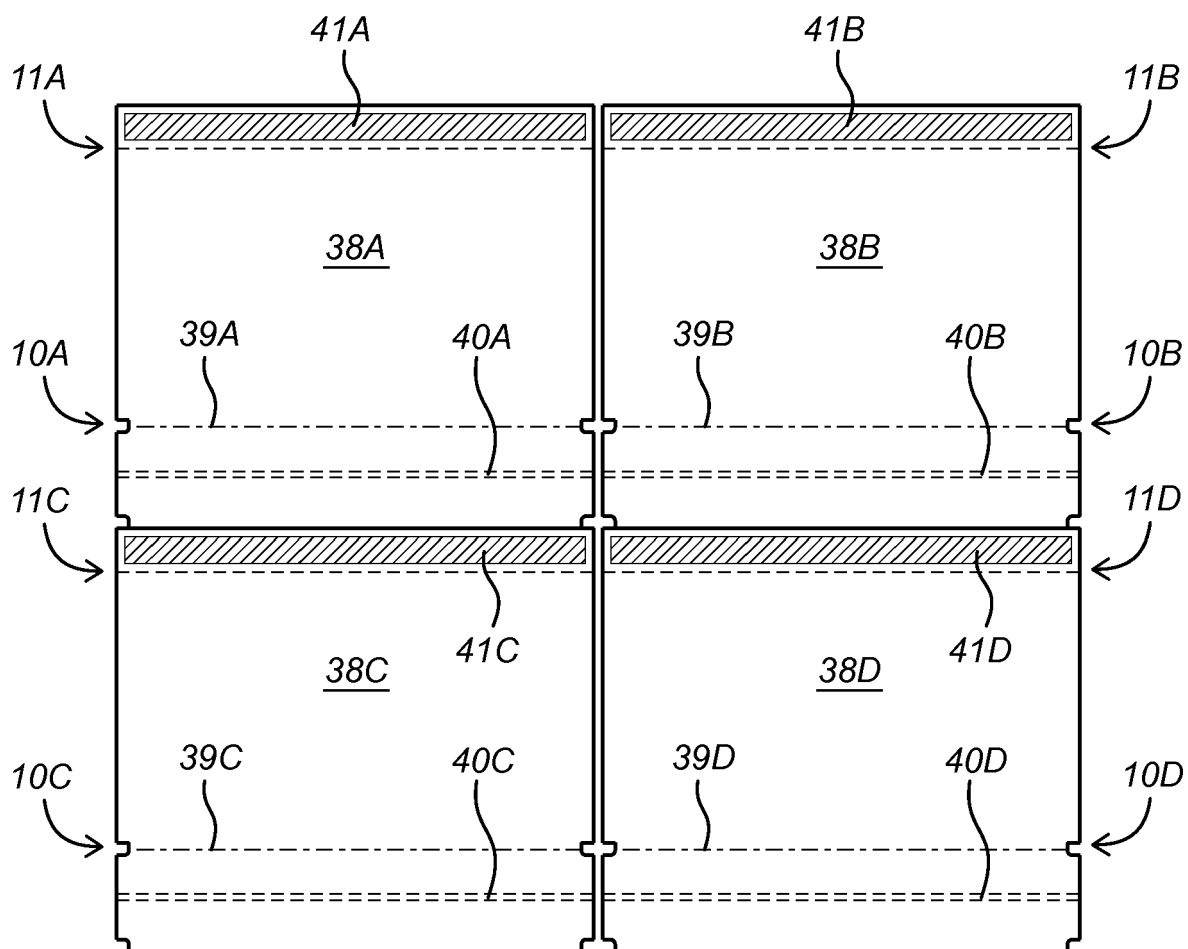
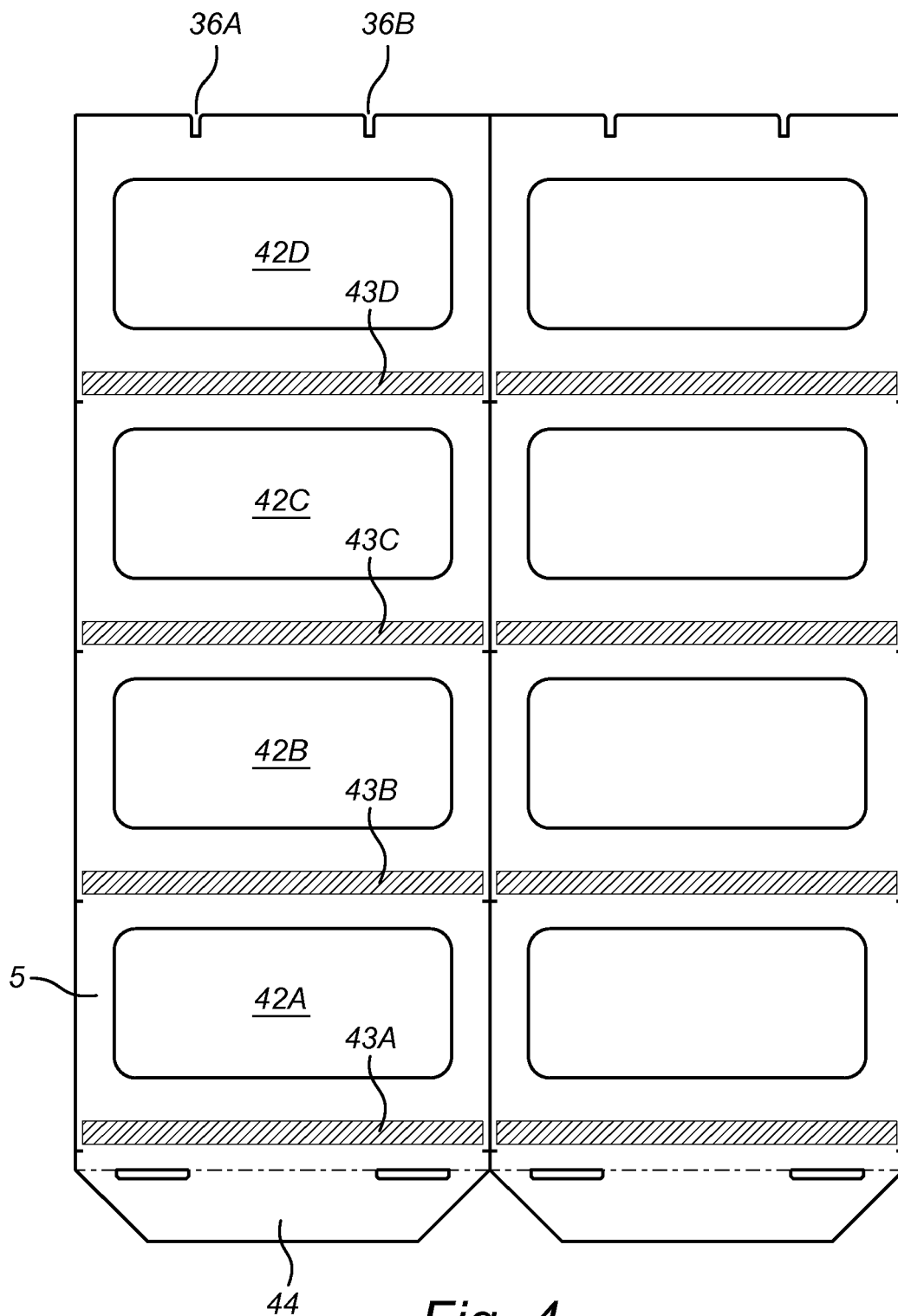


Fig. 3



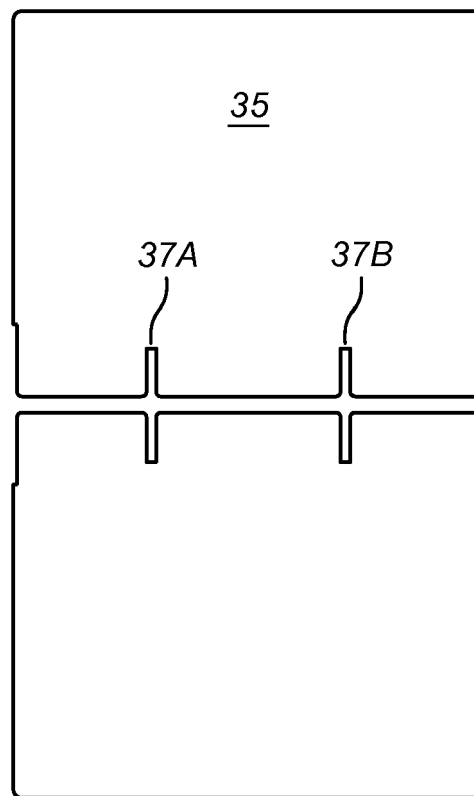


Fig. 5

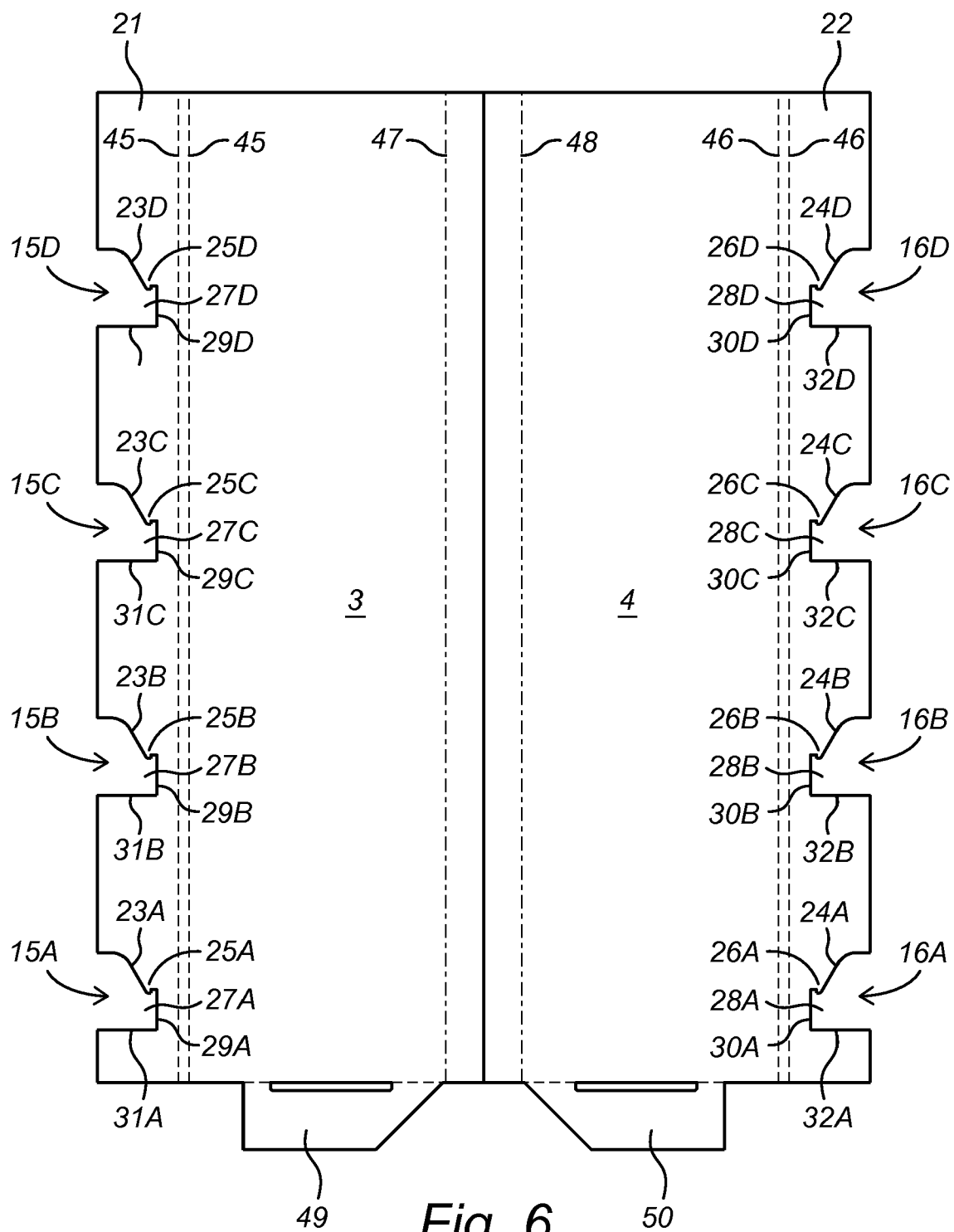


Fig. 6

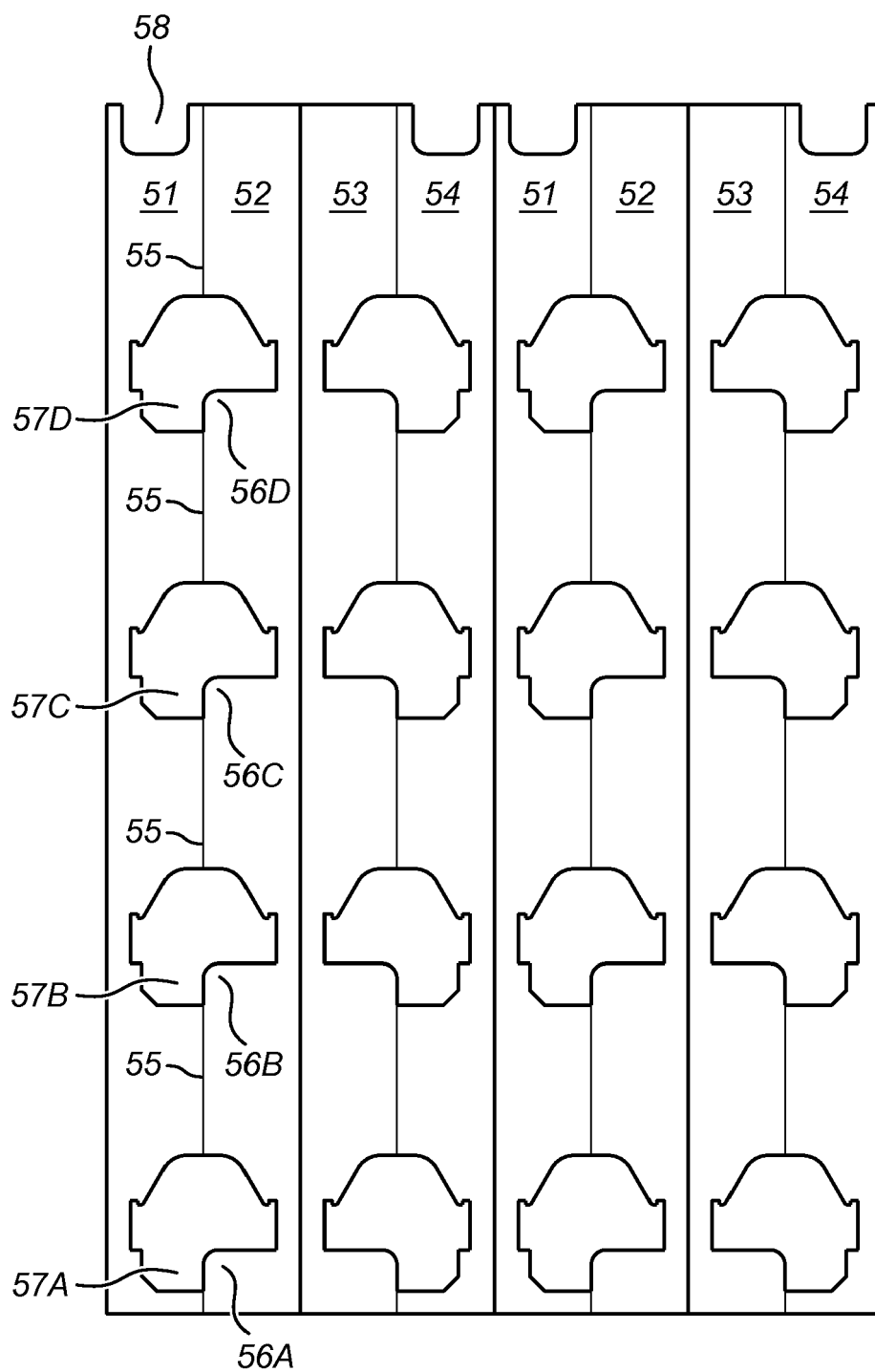


Fig. 7

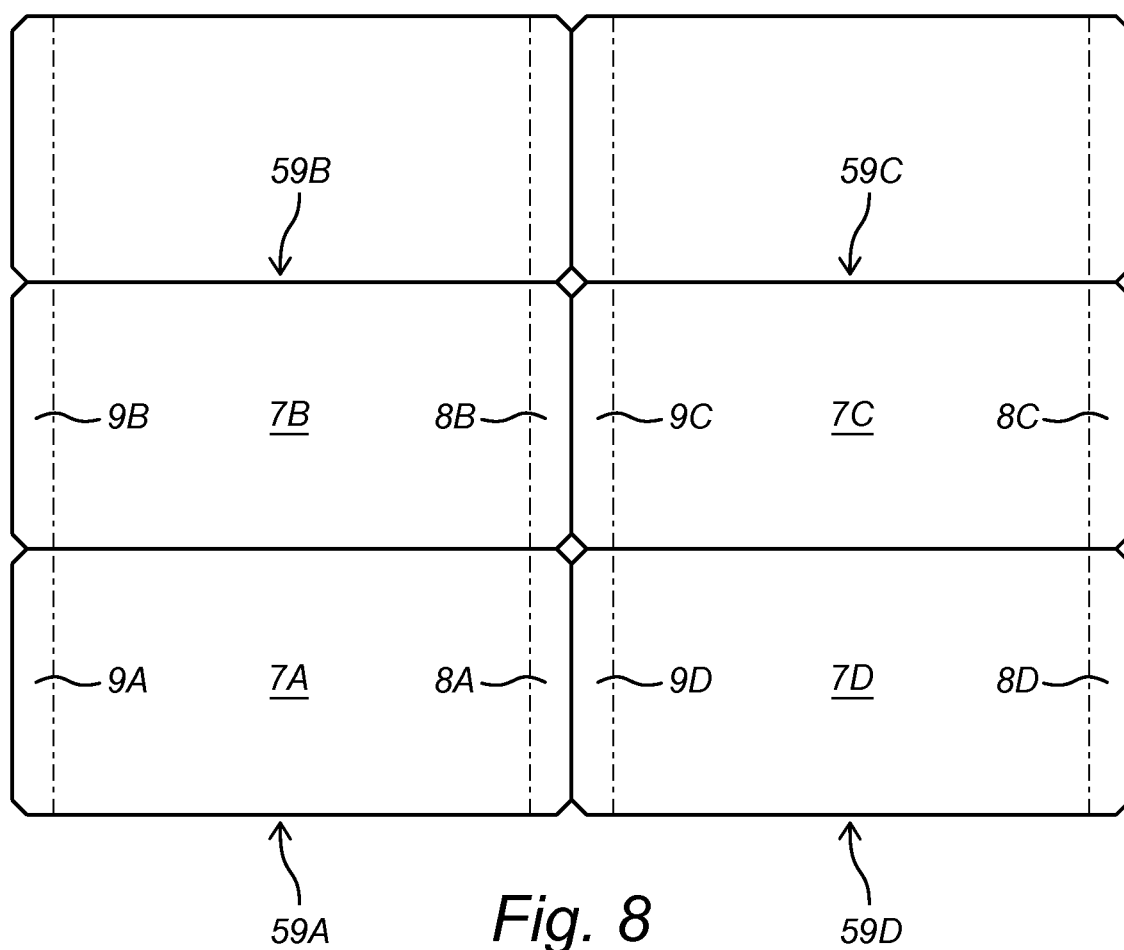


Fig. 8

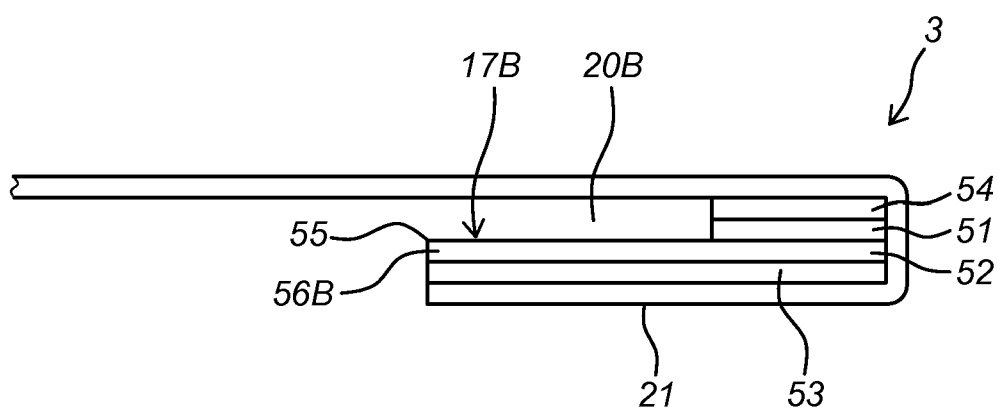


Fig. 9