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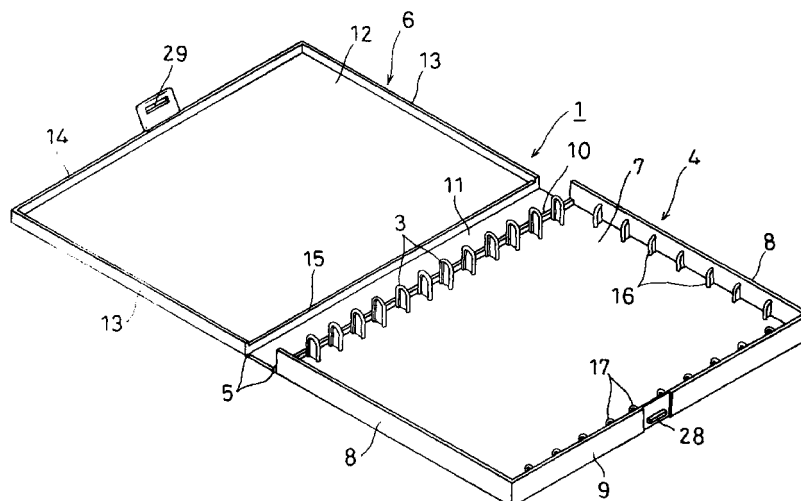
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(54) **Filing case**

(57) There is provided a plastic filing case 1 which comprises: a main body 4 having a volume sufficient to contain a multiplicity of folders 2 and including a rectangular bottom plate 7 and side plates 8, 8, 9, 10; a cover 6 for covering the main body 4; a hinge member formed integrally with the main body 4 and the cover 6 for connection to the cover 6 and the main body 4; and at least one set of engagement elements 3 each having an arcuate top edge and a proximal edge portion extending therefrom perpendicularly to the bottom plate 7, and provided on an interior surface of the bottom plate 7 at a

predetermined interval alongside of at least one of four edges of the bottom plate 7 to project upright from the interior surface of the bottom plate 7 and to be perpendicular to the one edge of the bottom plate 7; the engagement elements 3 being engageable with engagement portions 25 which are formed at a predetermined interval in an edge portion of a folder 2 for retaining therein a document and the like, each engagement portion 25 having an incision.

FIG. 1



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Description

FIELD OF THE INVENTION

[0001] The present invention relates to a filing case for filing a plurality of document folders which contain documents, business cards or the like for easy storage and transportation thereof.

BACKGROUND ART

[0002] With recent widespread use of A4-size sheets for documentation, relatively thin plastic filing cases have become commercially available which are adapted to contain A4-size documents for easy storage and transportation thereof. Examples of the commercially available filing cases include a filing case which only has the function of containing documents, and a filing case which has binding means provided therein for engagement with punch holes formed alongside of one edge of a document.

[0003] Recently, document folders have come to widespread use, which have a document retaining portion of a plastic sheet for retaining therein A4-size documents. Such a document folder can be filed in the aforesaid filing case with the binding means being engaged with punch holes formed alongside of one edge of the folder.

[0004] However, when the document folder having the document retaining portion is to be put into or taken out of the filing case, the document folder is brought into or out of engagement with the binding means with levers of the binding means being released. Therefore, the folder filing operation is troublesome.

SUMMARY OF THE INVENTION

[0005] In order to solve the aforesaid problem, it is an object of the present invention to provide a filing case which features easy engagement and disengagement of a document folder with respect to binding means provided therein.

[0006] To achieve the aforesaid object, the present invention has the following features.

[0007] In accordance with one aspect of the present invention, there is provided a plastic filing case which comprises: a main body having a volume sufficient to contain a multiplicity of folders and including a rectangular bottom plate and side plates; a cover for covering the main body; a hinge member formed integrally with the main body and the cover for connection to the cover and the main body; and at least one set of engagement elements each having an arcuate top edge and a proximal edge portion extending therefrom perpendicularly to the bottom plate, and provided on an interior surface of the bottom plate at a predetermined interval alongside of at least one of four edges of the bottom plate; the hinge member including an elongate spine plate having a

width equivalent to the thickness of the filing case and hinge portions of a smaller thickness provided along opposite longitudinal edges of the spine plate so that the main body and the cover are connected to each other via the spine plate by the hinge portions; the engagement elements each projecting upright from the interior surface of the bottom plate and being disposed perpendicularly to the one edge of the bottom plate; the engagement elements being engageable with engagement portions which are formed at the predetermined interval in an edge portion of a folder adapted to retain therein a document and the like, each engagement portion having an incision; the engagement elements each having a generally inverted-U-shape and being provided inwardly alongside of a side plate of the main body located adjacent the hinge member, the side plate having a height smaller than a height of the other side plates and than a height of the engagement elements.

[0008] The filing case may further comprise another set of engagement elements provided on the interior surface of the bottom plate inwardly alongside of any of the other side plates of the main body.

[0009] The filing case may further comprise still another set of engagement elements provided on the interior surface of the bottom plate inwardly alongside of a side plate of the main body opposed to the side plate located adjacent the hinge member for engagement with an index card.

[0010] In the filing case, the engagement elements may each be comprised of a plate portion and a flange.

[0011] In accordance with another aspect of the present invention, there is provided a plastic filing case which comprises: a main body having a volume sufficient to contain a multiplicity of folders and including a rectangular bottom plate and side plates; a cover for covering the main body; an elongate spine plate having a width equivalent to the thickness of the filing case, and formed integrally with the main body and the cover so as to be connected to the main body and the cover via hinge portions provided along opposite longitudinal edges of the spine plate; and a set of generally inverted-U-shaped engagement elements provided on an interior surface of the spine plate at a predetermined interval along the length of the spine plate; the engagement elements each projecting upright from the interior surface of the spine plate and being disposed perpendicularly to the length of the spine plate; the engagement elements being engageable with engagement portions which are formed at the predetermined interval in an edge portion of a folder for retaining a document and the like, each engagement portion having an incision.

[0012] The filing case may further comprise another set of engagement elements provided on the interior surface of the bottom plate inwardly alongside of any of the other side plates of the main body.

[0013] The filing case may further comprise still another set of engagement elements provided on an interior surface of the bottom plate inwardly alongside of

a side plate of the main body opposed to a side plate located adjacent the spine plate in order for engagement with an index card.

[0014] In the filing case, the engagement elements may each be comprised of a plate portion and an arcuate flange.

[0015] In accordance with the present invention, the folders can easily be brought into or out of engagement with the engagement elements provided inside the filing case. Therefore, the filing case is easier to handle than the conventional filing case.

BRIEF DESCRIPTION OF THE DRAWINGS

[0016]

FIG. 1 is a perspective view illustrating a filing case according to a first embodiment of the present invention with its cover being opened;

FIG. 2 is a plan view illustrating the filing case with its cover being opened;

FIG. 3 is a perspective view illustrating the filing case with a multiplicity of folders being engaged with engagement elements provided in the filing case;

FIG. 4 is a sectional view illustrating the filing case with the multiplicity of folders being engaged with the engagement elements;

FIG. 5 is a perspective view of a folder to be engaged with the engagement elements;

FIG. 6 is an enlarged plan view illustrating a major portion of the folder;

FIG. 7 is an enlarged sectional view of the folder;

FIG. 8 is a fragmentary enlarged perspective view illustrating first engagement elements of the filing case;

FIG. 9 is a fragmentary enlarged perspective view illustrating second (or third) engagement elements of the filing case;

FIG. 10 is a fragmentary enlarged perspective view illustrating the first engagement elements engaged with folders;

FIG. 11 is a fragmentary enlarged sectional view of one of the first engagement elements engaged with the folders;

FIG. 12 is a fragmentary enlarged perspective view illustrating the third engagement elements engaged with index cards;

FIG. 13 is a sectional view illustrating the filing case with its cover being closed;

FIG. 14 is a perspective view illustrating a filing case according to a second embodiment of the present invention with its cover being opened;

FIG. 15 is a plan view illustrating the filing case with its cover being opened;

FIG. 16 is a perspective view illustrating the filing case with a multiplicity of folders being engaged with engagement elements of the filing case;

FIG. 17 is a sectional view illustrating the filing case with the multiplicity of folders being engaged with the engagement elements;

FIG. 18 is a fragmentary enlarged perspective view illustrating first engagement elements of the filing case;

FIG. 19 is a fragmentary enlarged perspective view illustrating the first engagement elements engaged with the folders; and

FIG. 20 is a sectional view illustrating the filing case with its cover being closed.

DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENTS

[0017] FIGS. 1 through 13 illustrate a first embodiment of the present invention.

[0018] Referring to FIGS. 1 to 13, there is shown a transparent, translucent or opaque filing case 1 formed of a plastic material. The filing case 1 has a main body 4 capable of containing a multiplicity of folders, and a cover 6 for covering the main body 4. The cover 6 is connected to the main body 4 via a spine plate 11 and hinge portions 5 of a smaller thickness which are formed integrally with the main body 4 and the cover 6. The main body 4 is provided with first engagement elements 3 for engagement with the multiplicity of folders 2. The folders 2 to be contained in the main body 4 of the filing case 1 each have a document retaining portion formed of a plastic sheet, and are adapted to retain therein documents.

[0019] More specifically, the main body 4 has a volume sufficient to contain the multiplicity of folders engaged with the engagement elements 3, and includes a rectangular bottom plate 7, side plates 8, 8 projecting upright from opposite shorter edges of the bottom plate 7, a side plate 9 projecting upright from one of opposite longer edges of the bottom plate 7 and having the same height as the side plates 8, 8, and a side plate 10 projecting upright from the other longer edge of the bottom plate 7 and having a smaller height than the side plate 9.

[0020] The cover 6 is connected to the other longer edge of the bottom plate 7 via the spine plate 11 which has a width equivalent to the thickness of the filing case 1, and includes a rectangular top plate 12 having the same size as the bottom plate 7 of the main body 4, side plates 13, 13 projecting upright from opposite shorter edges of the top plate 12 and each having a height smaller than the height of the side plates 8, 8, 9 of the main body 4 and greater than the height of the side plate 10, a side plate 14 projecting upright from one of opposite longer edges of the top plate 12 and having the same height as the side plates 13, 13, and a side plate 15 projecting upright from the other longer edge of the top plate 12 and having a height which is smaller than the height of the side plate 14 and is equal to the height of the side plate 10 of the main body 4. The longer edge

of the cover contiguous to the side plate 15 and the longer edge of the main body 4 contiguous to the side plate 10 are respectively connected to opposite longitudinal edges of the spine plate 11 via the thin hinge portions 5. Thus, the cover 6 can be opened and closed with respect to the main body 4.

[0021] The first engagement elements 3 are provided at a proper interval on the bottom plate 7 inwardly alongside of the side plate 10. Further, second engagement elements are provided at a proper interval on the bottom plate 7 inwardly alongside of at least one of the side plates 8, 8, and third engagement elements 17 are provided at a proper interval on the bottom plate 7 inwardly alongside of the side plate 9.

[0022] The first engagement elements 3 each have a generally inverted-U-shape, and include a plate portion 18 having an arcuate upper edge portion and a vertically extending lower portion (as viewed when the filing case 1 is placed on a desk with the bottom plate 7 of the main body 4 being kept horizontal), and a flange 19 provided on the periphery of the plate portion 18. The flange 19 has a semicircular sectional configuration with an outer diameter greater than the thickness of the plate portion 18 thereby to project from opposite surfaces of the plate portion 18 with its inward flat surfaces being generally perpendicular to the opposite surfaces of the plate portion 18. The first engagement elements 3 each have a height greater than the height of the side plate 10 of the main body 4 and equal to or slightly smaller than the height of the side plates 8, 8, 9. The plate portions 18 of the first engagement elements 3 are each disposed perpendicularly to the interior surface of the side plate 10 and to the length of the side plate 10.

[0023] The second engagement elements 16 each have a configuration such as obtained by vertically cutting the first engagement element 3 into halves, and include a plate portion 20 and a flange 21 provided on the periphery of the plate portion 20. The flange 21 has a semicircular sectional configuration with an outer diameter greater than the thickness of the plate portion 20 thereby to project from opposite surfaces of the plate portion 20 with its inward flat surfaces being generally perpendicular to the opposite surfaces of the plate portion 20. The second engagement elements 16 are provided integrally with the bottom plate 7 so as to project from an interior surface of the one side plate 8 perpendicularly to the length of the side plate 8 with the flanges 21 facing inward.

[0024] The third engagement elements 17 also each have a configuration such as obtained by vertically cutting the first engagement element 3 into halves, and include a plate portion 22 and a flange 23 provided on the periphery of the plate portion 22. The flange 23 has a semicircular sectional configuration with an outer diameter greater than the thickness of the plate portion 22 thereby to project from opposite surfaces of the plate portion 22 with its inward flat surfaces being generally perpendicular to the opposite surfaces of the plate por-

tion 22. The third engagement elements 17 are provided integrally with the bottom plate 7 so as to project from the interior surface of the side plate 9 perpendicularly to the length of the side plate 9 with the flanges 23 facing inward.

[0025] The folder 2 to be retained in the filing case 1 is rectangular in plan, and has a spot fusion area 24 provided alongside of one edge of the folder 2 and formed with a multiplicity of fusion spots by ultrasonic fusion. More specifically, the folder 2 is produced by folding an edge portion of a plastic sheet into three- or four-layer structure and then forming the spot fusion area 24 on the three- or four-layer portion. A plurality of engagement portions 25 each having a generally T-shape are provided as filing means at a proper interval in the spot fusion area 24 along the one edge of the folder 2. The folder 2 has an opening 26 formed along an upper edge thereof (as viewed when the folder 2 is vertically held) through which a document is inserted into or taken out of the document retaining portion thereof.

[0026] With the aforesaid arrangement, the multiplicity of folders 2 can be filed in the filing case 1 with the T-shaped engagement portions 25 of the folders 2 as the filing means which can be detachably engaged with the flanges 19 of the first engagement elements 3. The T-shaped engagement portions 25 of the folder 2 can easily be brought into and out of engagement with the flanges 19 of the first engagement elements 3 because of resilience of the folder 2. The number of the first engagement elements 3 is not limited to that shown in Fig. 1, but may be any desired number. The number of the engagement portions 25 of the folder 2 is determined in accordance with the number of the first engagement elements 3. The folders 2 fastened to the first engagement elements 3 can be moved along the flanges 19 with the engagement portions 25 thereof being engaged with the flanges 19 of the first engagement elements 3. That is, the folder 2 can be turned over on the cover 6 as shown in FIG. 4 when the cover is open. Since the side plates 10 and 15 each have a smaller height as shown in Fig. 4, the folders 2 are not raised with sharp inclination but rested on the side plates 10 and 15 with the folder 2 turned over on the cover 6.

[0027] The number of the second engagement elements 16 is not limited to that shown in Fig. 1, but may be any desired number. Likewise, the number of the third engagement elements 17 is not limited to that shown in Fig. 1, but may be any desired number.

[0028] The second engagement elements 16 and the third engagement elements 17 each have a configuration such as obtained by vertically cutting the first engagement element 3 into halves, as described above. Therefore, it is impossible to fully turn a folder or the like on the engagement elements 16 or 17 as those on the first engagement elements 3. Generally T-shaped engagement portions of the folder or the like can easily

be brought into or out of engagement with the flanges 21 or 23. The folder (not shown) to be engaged with the second engagement elements 16 may have substantially the same construction as the folder 2. A plurality of index cards 27 may be fastened to the third engagement elements 17 for assortment of the folders 2 fastened to the first engagement elements 3. Like the folders 2, the index cards 27 are each formed with generally T-shaped engagement portions 30, which are to be engaged with the third engagement elements 17. The plurality of index cards are provided in an offset relation with respect to each other for assortment of the multiplicity of folders 2. In this case, the index cards 27 may have different colors for easier discrimination of the assorted folders 2.

[0029] When the filing case 1 is closed, a projection 28 formed on the main body 4 is engaged with an opening 29a formed in a fastener tab 29 provided on the cover 6. With this state, the filing case 1 can be vertically placed on a desk or carried. When the cover 6 is to be opened, the fastener tab 29 is disengaged from the projection 28. The fastening means for fastening the cover 6 to the main body 4 is not limited to the combination of the fastener tab 29 and the projection 28.

[0030] Although the first engagement elements 3, the second engagement elements 16 and the third engagement elements 17 are provided alongside of three of the four edges of the bottom plate 7 of the main body 4 in accordance with the first embodiment, engagement elements may be provided alongside of at least one of the four edges of the bottom plate 7.

[0031] Next, a second embodiment of the present invention will be described with reference to FIGS. 14 through 20.

[0032] The second embodiment of the present invention shown in FIGS. 14 to 20 is different from the first embodiment in that the first engagement elements 3 are provided at a proper interval on an interior surface of the elongate spine plate 11 longitudinally thereof which connects the main body 4 to the cover 6 via the thin hinge portions 5. The first engagement elements 3 each have a generally inverted-U-shaped configuration, and include a plate portion 18 having arcuate upper corners and a vertically extending lower portion (as viewed when the filing case 1 is placed on a desk or the like with the cover 6 being opened and with the bottom plate 7 of the main body 4, the top plate 12 of the cover 6 and the spine plate 11 being kept horizontal), and a flange 19 provided on the periphery of the plate portion 18. The flange 19 has a semicircular sectional configuration with an outer diameter greater than the thickness of the plate portion 18 thereby to project from opposite surfaces of the plate portion 18 with its inward flat surfaces being generally perpendicular to the opposite surfaces of the plate portion 18. The first engagement elements 3 are each disposed perpendicularly to the interior surface of the spine plate 11 and to the length of the spine plate 11. Other features of the second embodiment is the

same as those of the first embodiment.

[0033] With this arrangement, the multiplicity of folders 2 can detachably be filed in the filing case 1 with the T-shaped engagement portions 25 of the folders 2 as the filing means which can be engaged with the flanges 19 of the first engagement elements 3. That is, the T-shaped engagement portions 25 can easily be brought into and out of engagement with the flanges 19 of the first engagement elements 3 because of resilience of the folders 2. The number of the first engagement elements 3 is not limited to that shown in Fig. 14, but may be any desired number. The number of the engagement portions of the folder 2 is determined in accordance with the number of the first engagement elements 3. The folders 2 fastened to the first engagement elements 3 can be moved along the flanges 19 with the engagement portions 25 thereof being engaged with the flanges 19. That is, when the cover is opened, the folders 2 can be turned over in either direction on the main body 4 or on the cover 6 as shown in FIG. 17. When the cover 6 is closed, the folders 2 are moved to middle portions of the flanges 19 thereby to be neatly contained in the main body 4.

[0034] In accordance with the present invention, the folders can easily be brought into or out of engagement with the engagement elements provided inside the filing case. Therefore, the filing case is easier to handle than the conventional filing case.

[0035] While the present invention has thus been described by way of the first and second embodiments thereof shown in the drawings, the invention may be embodied in any other forms. For example, the first engagement elements 3, the second engagement elements 16 and the third engagement elements 17 may be produced separately from the main body 4, and then fixed to the bottom plate 7 of the main body 4. The first, second and third engagement elements 3, 16, 17 are not necessarily required to have the plate portions 18, 20, 22, but may each be comprised of a generally inverted-U-shaped bar or pipe having a generally semi-circular cross section. The folder 2 has the generally T-shaped engagement portions 25 provided at a proper interval alongside of one edge thereof in the embodiments described above but, instead, may have round holes provided at a proper interval alongside of one edge thereof and slits (incisions) extending from the round holes to the one edge. The combination of the round holes and the slits serves as the filing means. Other than the document folders and the index cards, business card folders, photo folders and disk folders such as CD (compact disk) folders can be fastened to the first, second and third engagement elements 3, 16, 17.

Claims

1. A plastic filing case 1 comprising:

a main body 4 having a volume sufficient to contain a multiplicity of folders 2 and including a rectangular bottom plate 7 and side plates 8, 8, 9, 10;

a cover 6 for covering the main body 4;

a hinge member formed integrally with the main body 4 and the cover 6 for connection to the cover 6 and the main body 4; and

at least one set of engagement elements 3 each having an arcuate top edge and a proximal edge portion extending therefrom perpendicularly to the bottom plate 7, and provided on an interior surface of the bottom plate 7 at a predetermined interval alongside of at least one of four edges of the bottom plate 7;

wherein:

the hinge member includes an elongate spine plate 11 having a width equivalent to the thickness of the filing case 1 and hinge portions 5 of a smaller thickness provided along opposite longitudinal edges of the spine plate 11 so that the main body 4 and the cover 6 are connected to each other via the spine plate 11 by the hinge portions 5;

the engagement elements 3 each project upright from the interior surface of the bottom plate 7 and are disposed perpendicularly to the one edge of the bottom plate 7;

the engagement elements 3 are engageable with engagement portions 25 which are formed at the predetermined interval in an edge portion of a folder 2 adapted to retain therein a document and the like, each engagement portion 25 having an incision; and

the engagement elements 3 each have a generally inverted-U-shape and are provided inwardly alongside of a side plate 10 of the main body 4 located adjacent the hinge member, the side plate 10 having a height smaller than a height of the other side plates 8, 8, 9 and

2. A filing case 1 as set forth in claim 1, further comprising another set of engagement elements 16 provided on the interior surface of the bottom plate 7 inwardly alongside of any of the other side plates 8, 8 of the main body 4.

3. A filing case 1 as set forth in claim 1, further comprising still another set of engagement elements 17 provided on the interior surface of the bottom plate 7 inwardly alongside of the side plate 9 of the main body 4 opposed to the side plate 10 located adjacent the hinge member in order for engagement with an index card 27.

4. A filing case 1 as set forth in claim 2, further comprising still another set of engagement elements 17

provided on the interior surface of the bottom plate 7 inwardly alongside of the side plate 9 of the main body 4 opposed to the side plate 10 located adjacent the hinge member in order for engagement with an index card 27.

5. A filing case 1 as set forth in any of claims 1 to 4, wherein the engagement elements 3, 16, 17 are each comprised of a plate portion 18, 20, 22 and a flange 19, 21, 23.

6. A plastic filing case 1 comprising:

a main body 4 having a volume sufficient to contain a multiplicity of folders 2 and including a rectangular bottom plate 7 and side plates 8, 8, 9, 10;

a cover 6 for covering the main body 4;

an elongate spine plate 11 having a width equivalent to the thickness of the filing case 1, and formed integrally with the main body 4 and the cover 6 so as to be connected to the main body 4 and the cover 6 via hinge portions 5 provided along opposite longitudinal edges of the spine plate 11; and

a set of generally inverted-U-shaped engagement elements 3 provided on an interior surface of the spine plate 11 at a predetermined interval along the length of the spine plate 11; wherein:

the engagement elements 3 each project upright from the interior surface of the spine plate 11 and are disposed perpendicularly to the length of the spine plate 11;

the engagement elements 3 are engageable with engagement portions 25 which are formed at the predetermined interval in an edge portion of a folder 2 for retaining a document and the like; and

each engagement portion 25 has an incision.

7. A filing case 1 as set forth in claim 6, further comprising another set of engagement elements 16 provided on an interior surface of the bottom plate 7 inwardly alongside of any of the other side plates 8, 8 of the main body 4.

8. A filing case 1 as set forth in claim 6, further comprising still another set of engagement elements 17 provided on an interior surface of the bottom plate 7 inwardly alongside of the side plate 9 of the main body 4 opposed to the side plate 10 located adjacent the spine plate 11 in order for engagement with an index card 27.

9. A filing case 1 as set forth in claim 7, further comprising still another set of engagement elements 17 provided on an interior surface of the bottom plate 7

inwardly alongside of the side plate 9 of the main body 4 opposed to the side plate 10 located adjacent the spine plate 11 in order for engagement with an index card 27.

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- 10.** A filing case 1 as set forth in any of claims 6 to 9, wherein the engagement elements 3, 16, 17 are each comprised of a plate portion 18, 20, 22 and an arcuate flange 19, 21, 23.

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FIG.1

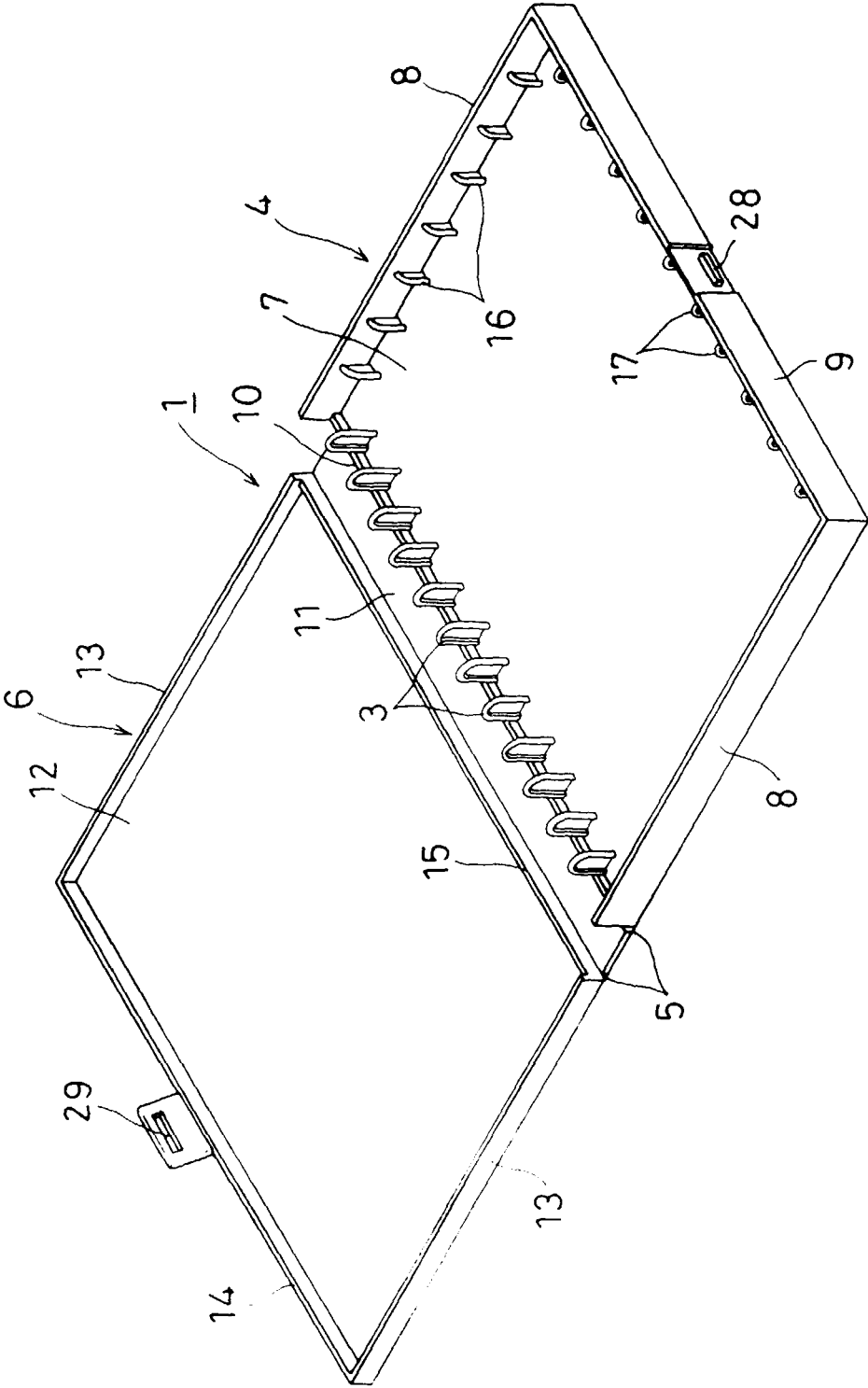


FIG.2

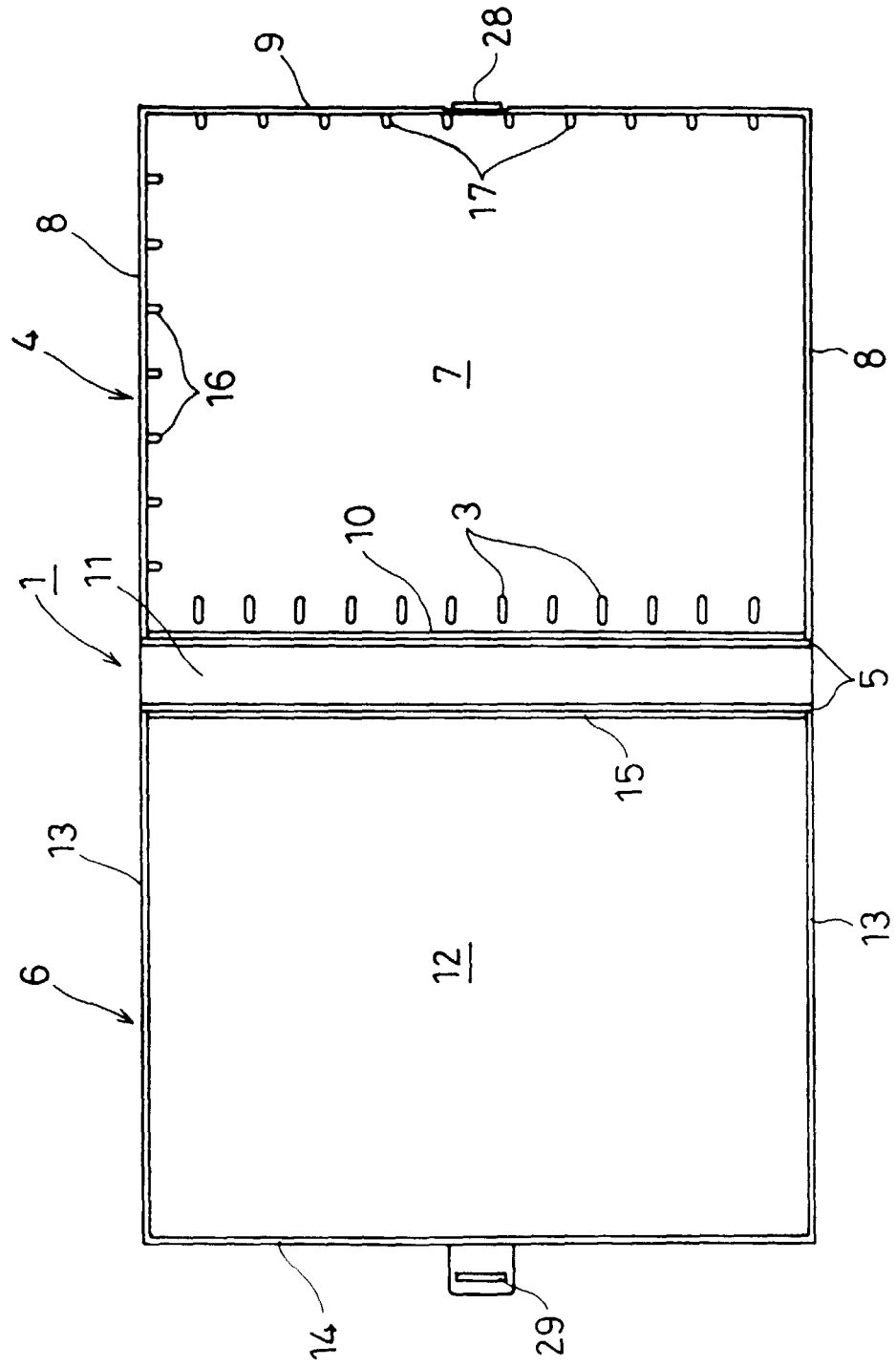


FIG. 3

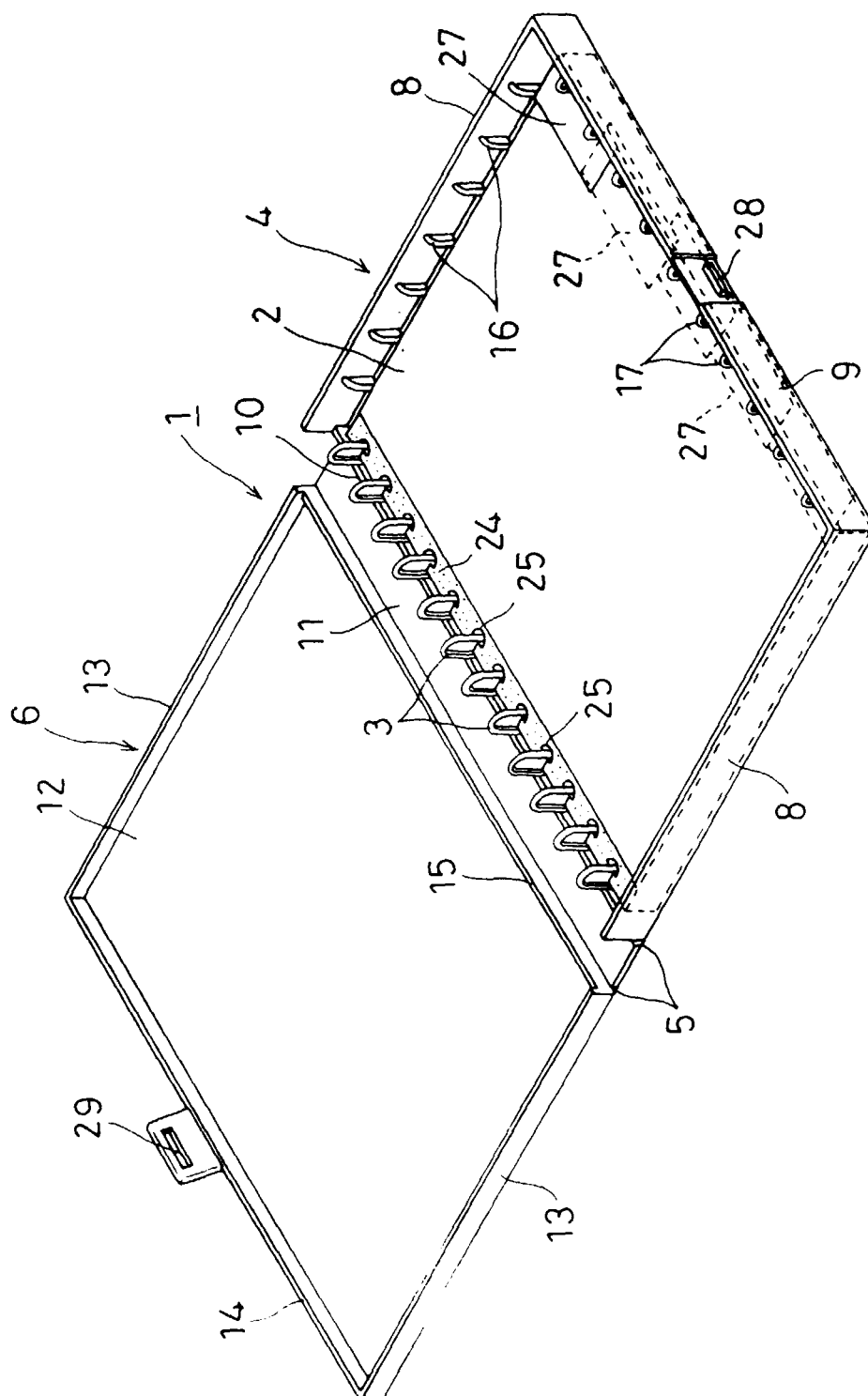


FIG. 4

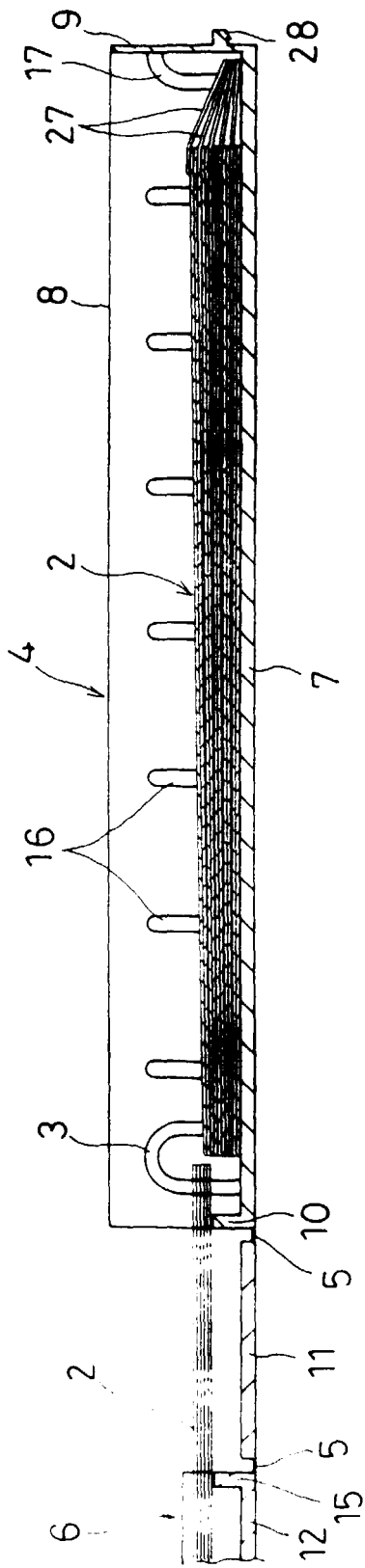


FIG.5

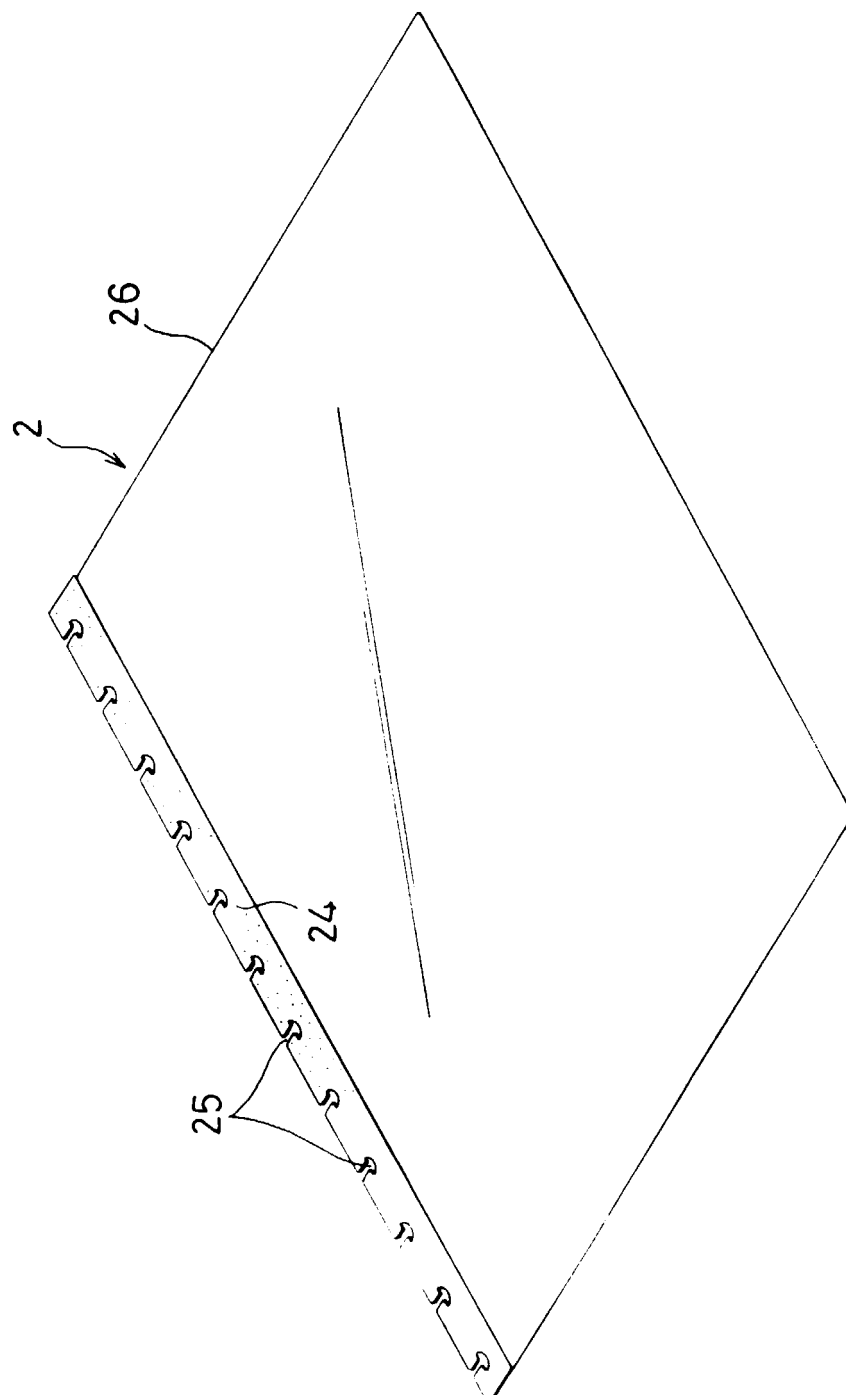


FIG.6

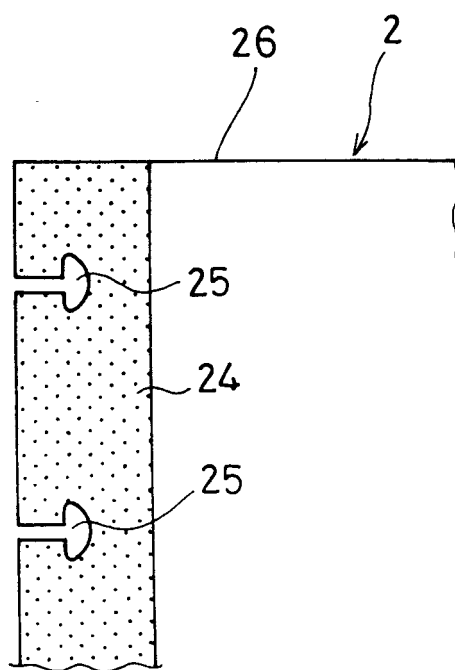


FIG. 7

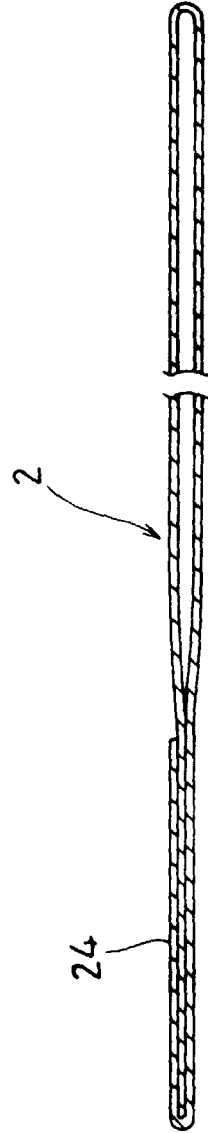


FIG.8

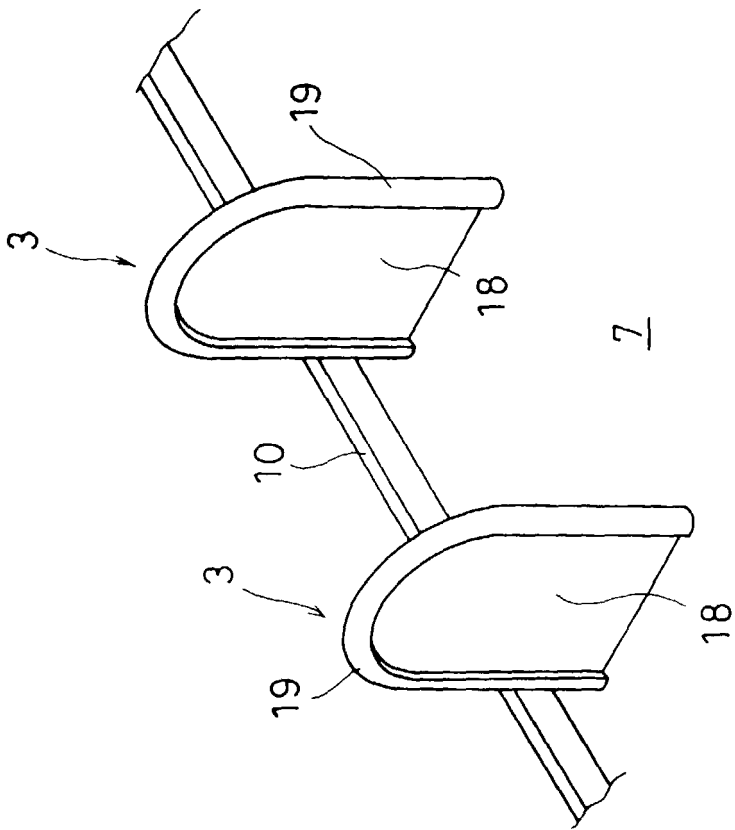


FIG. 9

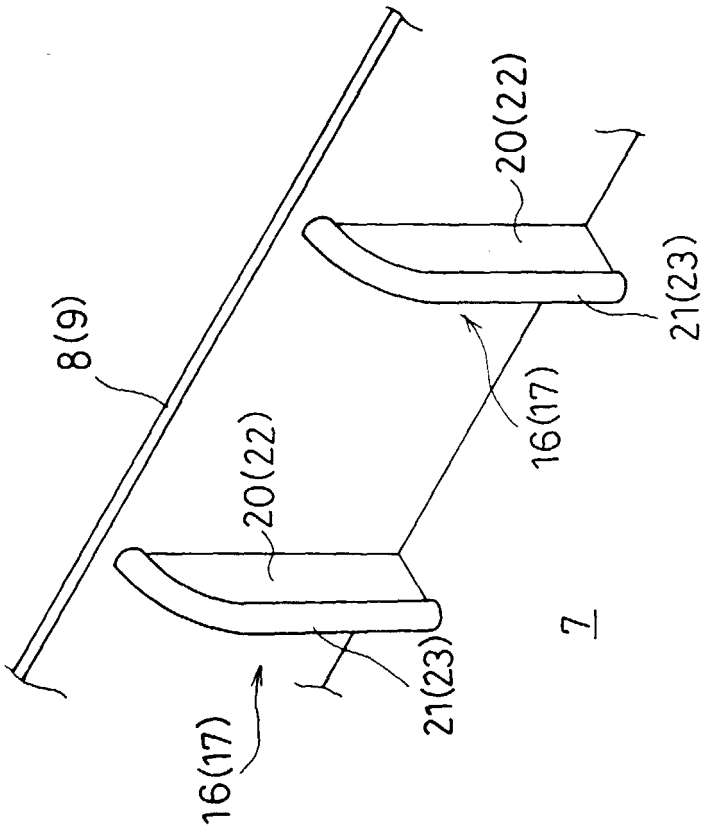


FIG.10

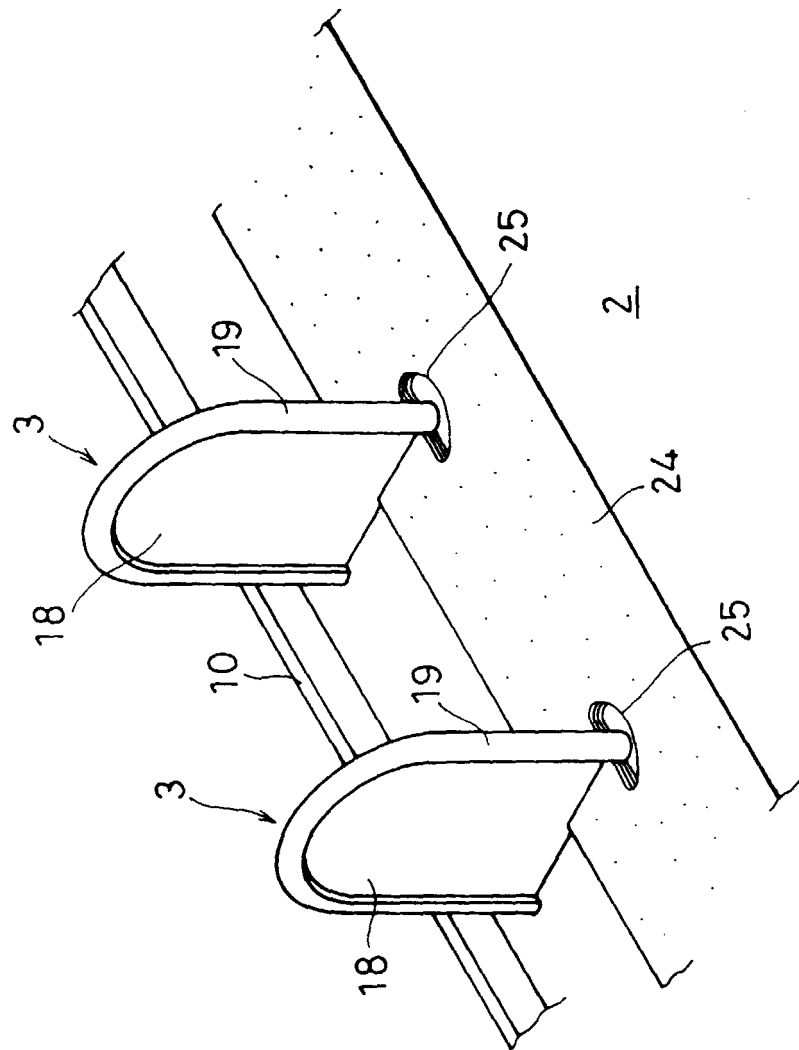


FIG.11

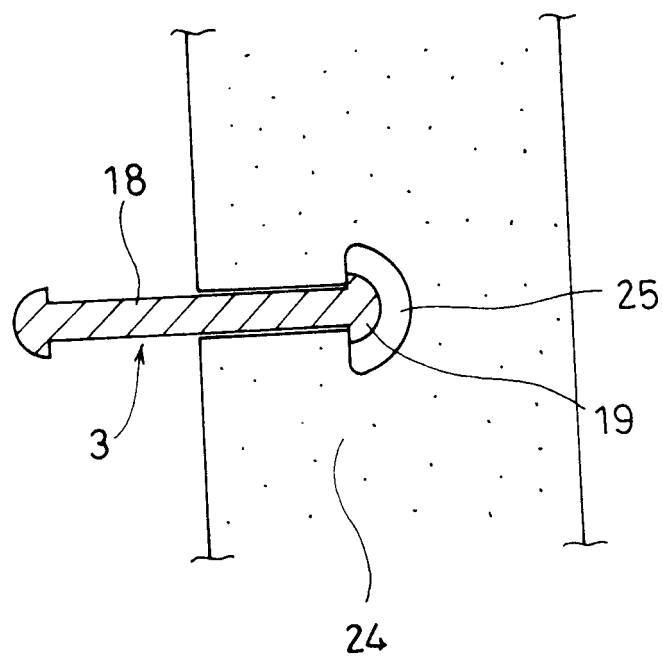


FIG. 12

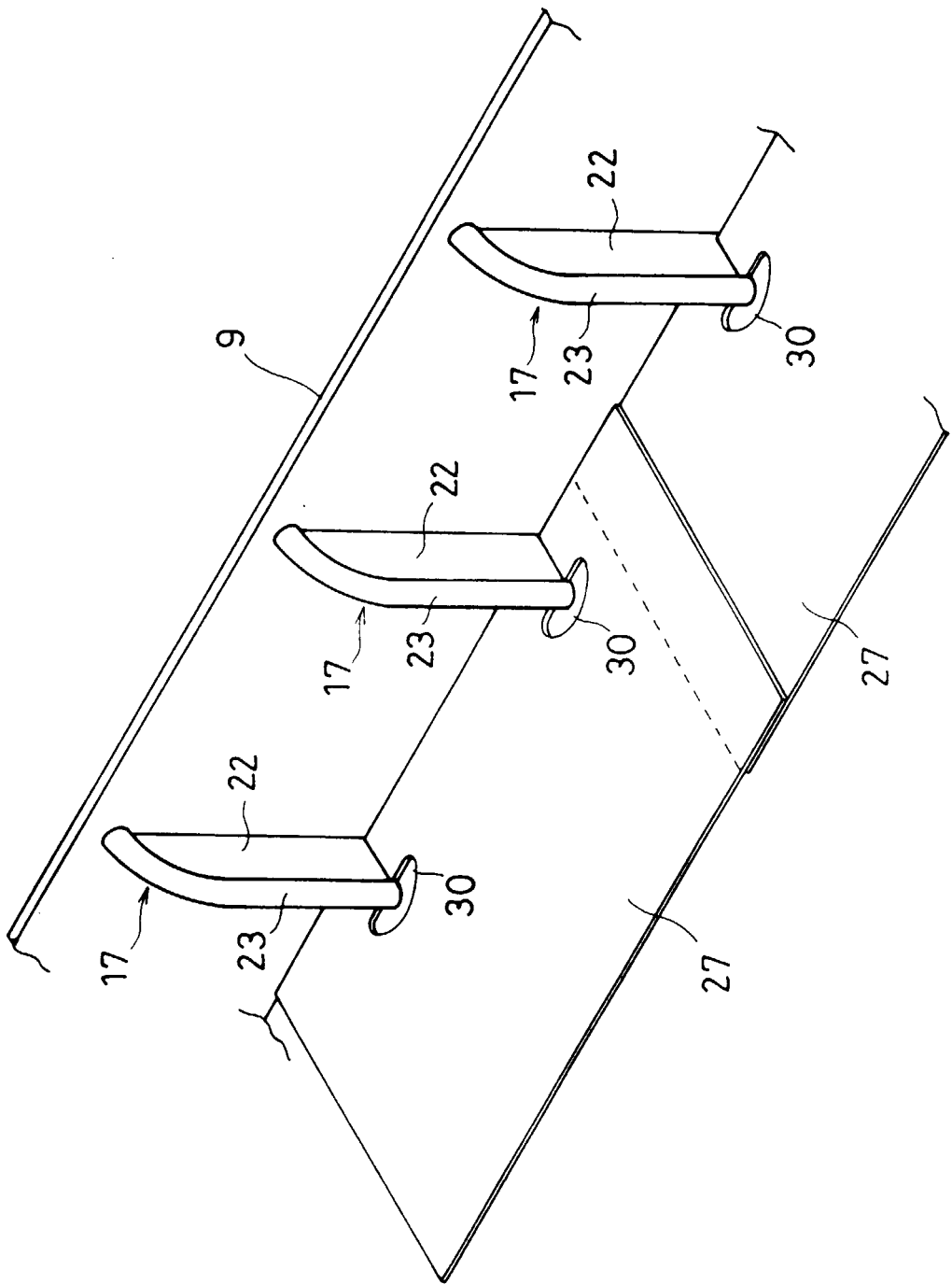


FIG.13

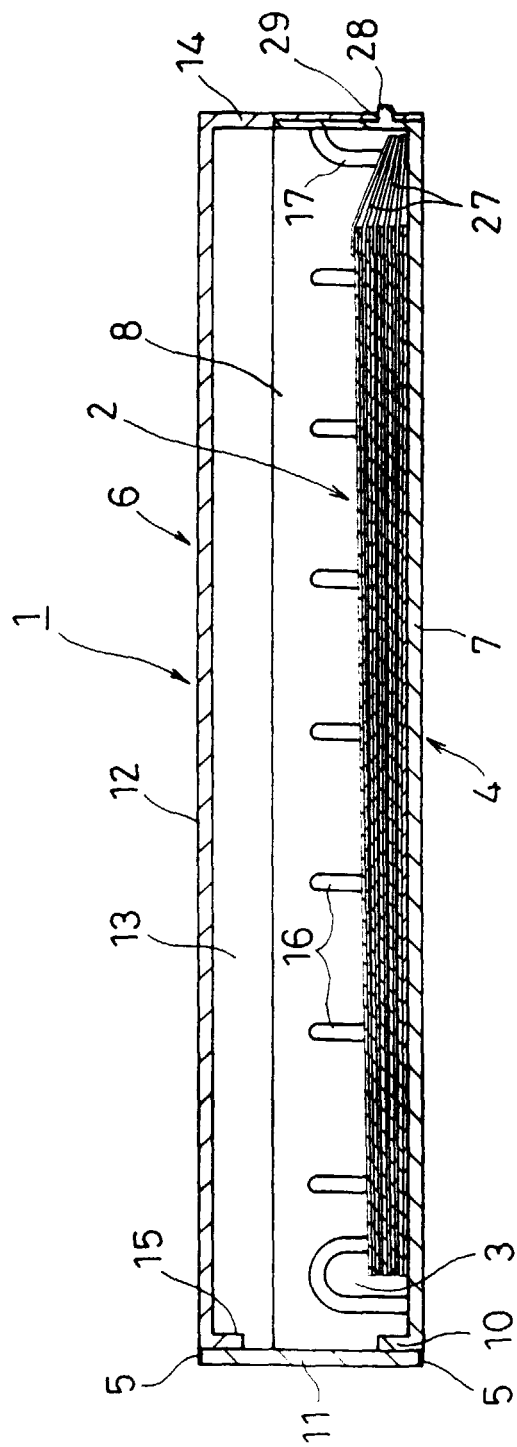


FIG. 14

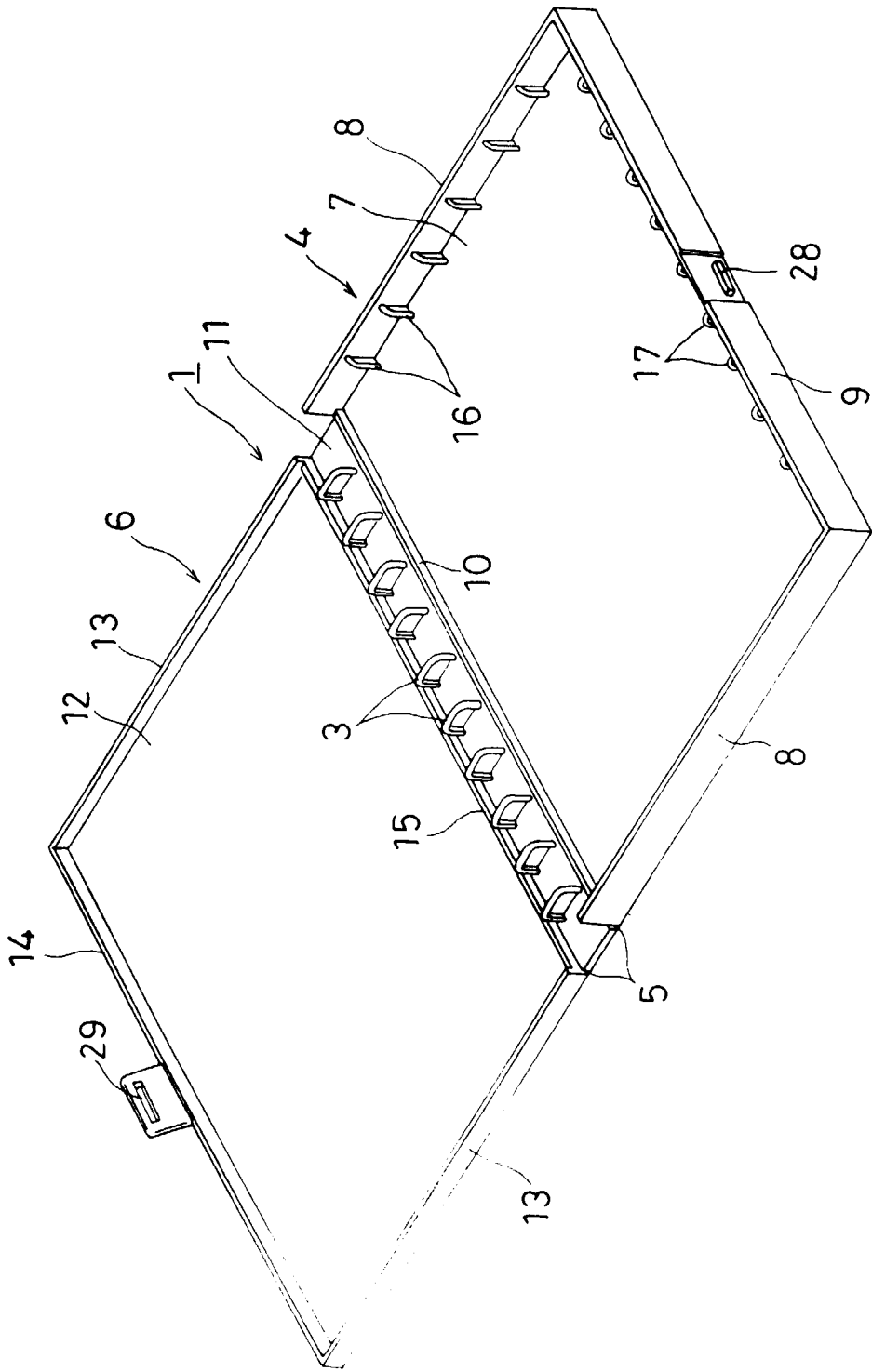


FIG. 15

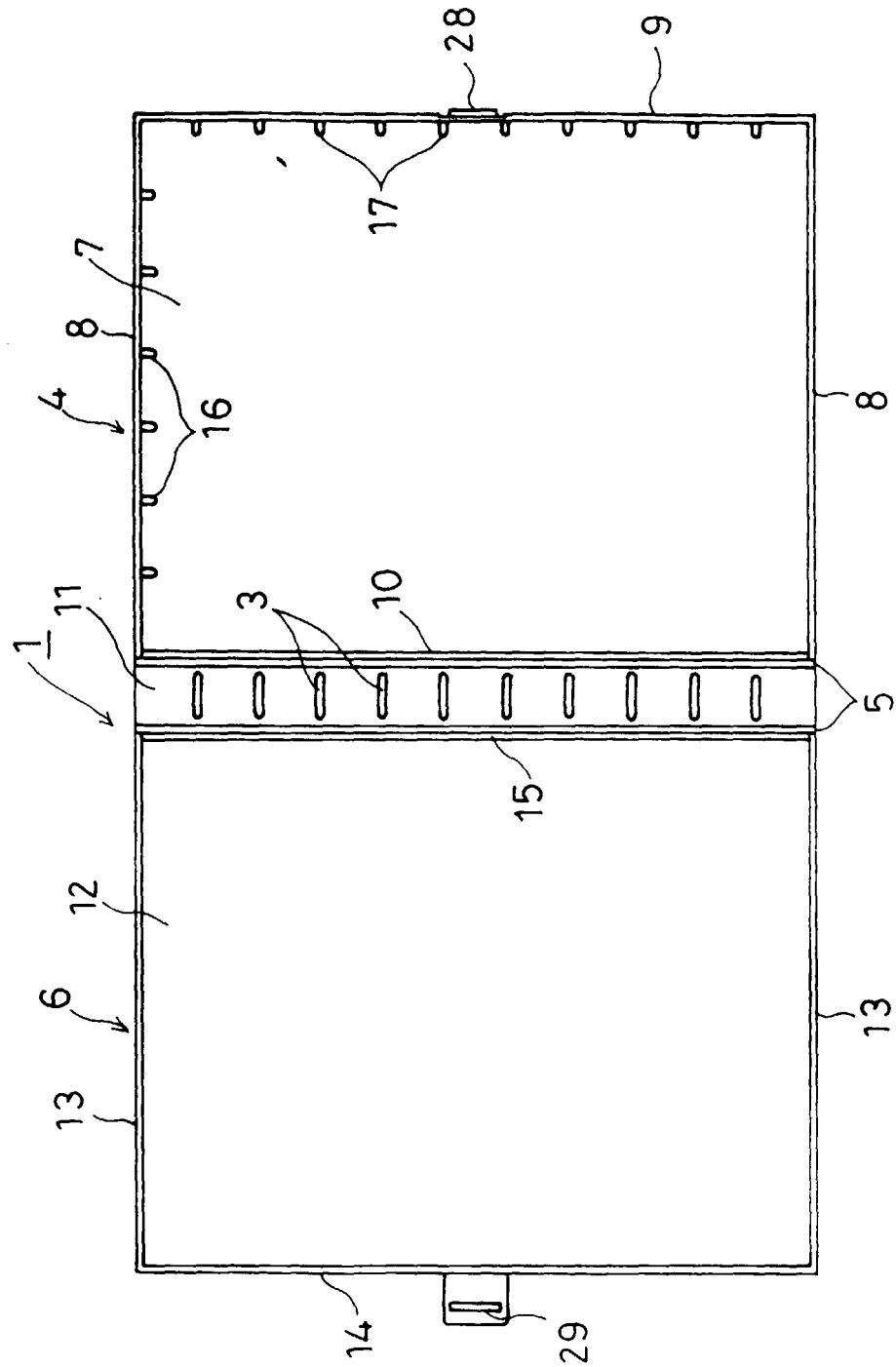


FIG.16

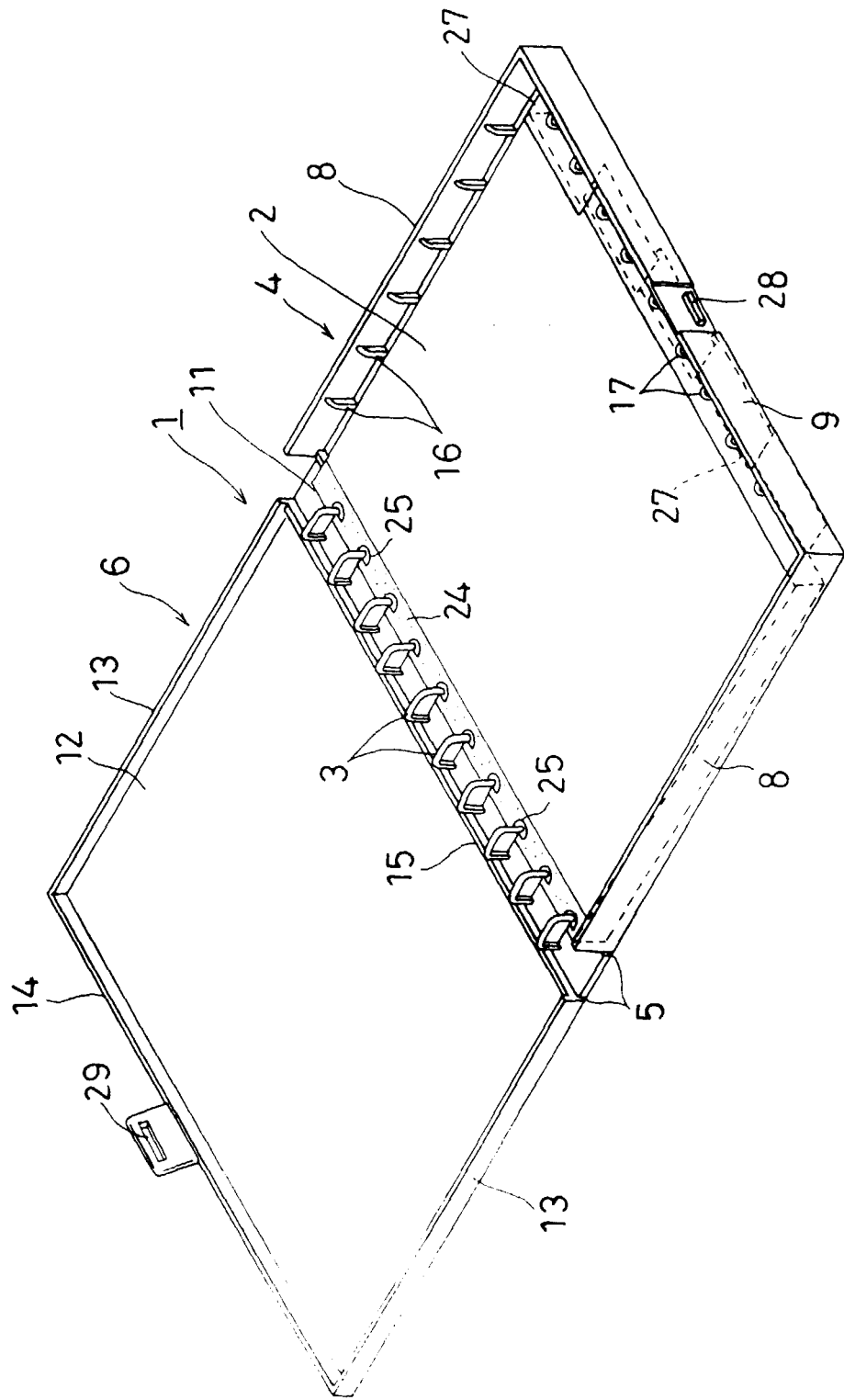


FIG.17

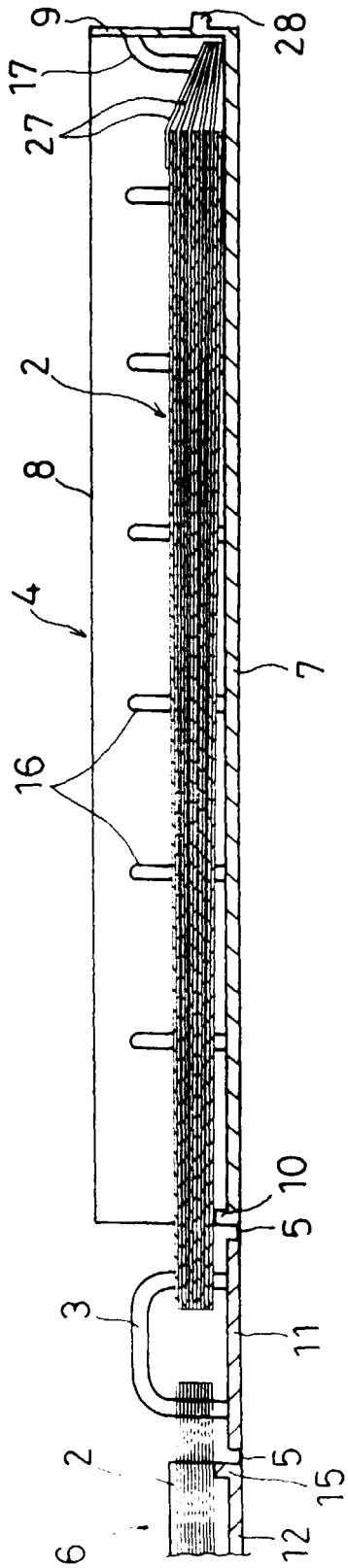


FIG. 18

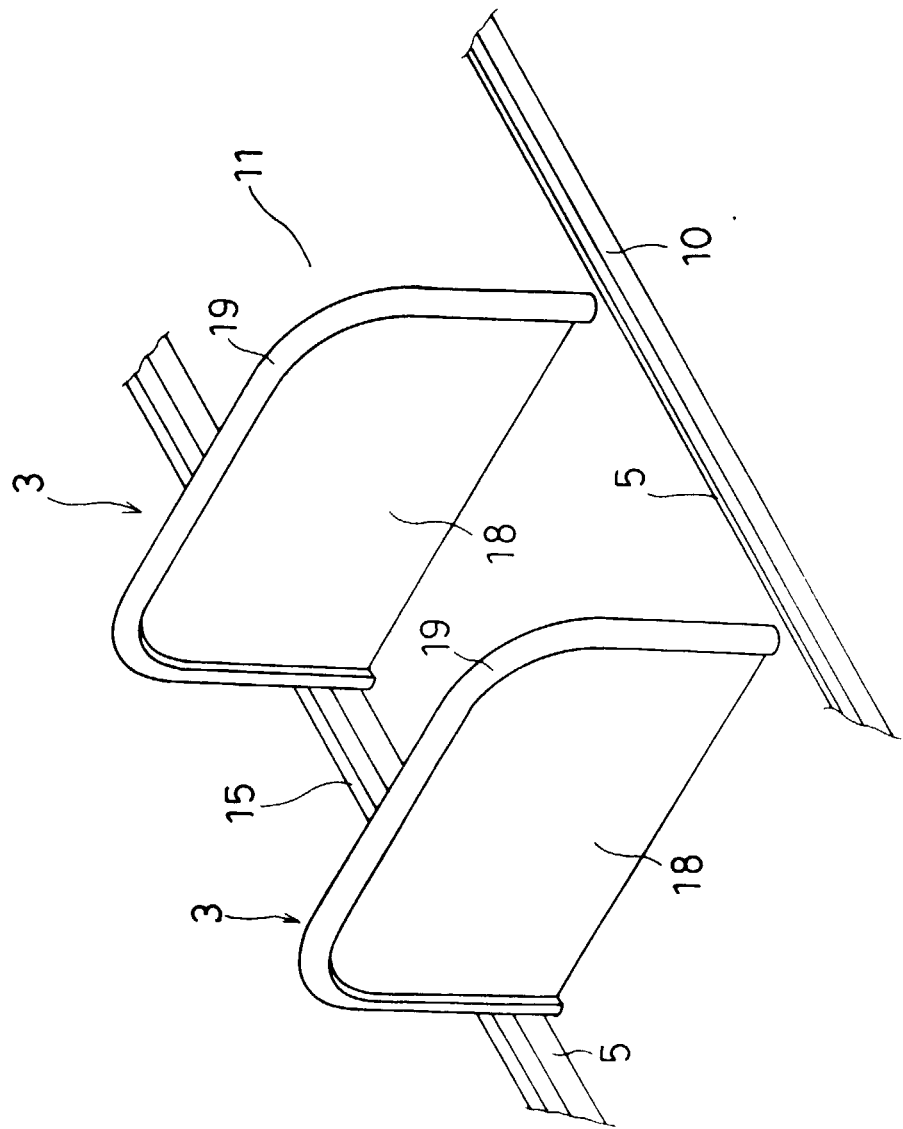


FIG.19

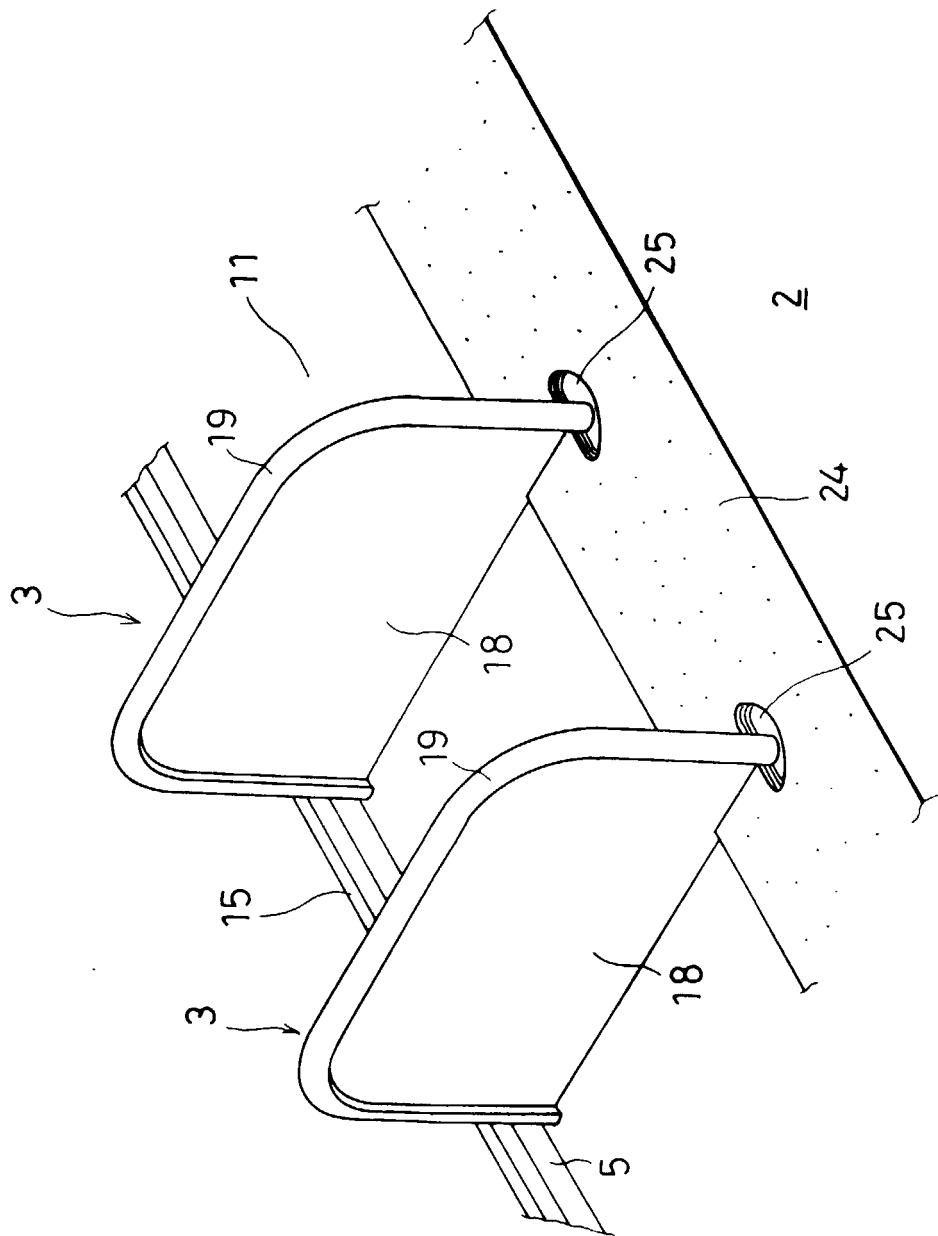


FIG. 20

