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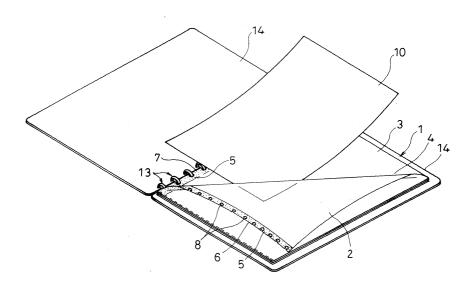
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# (54) Folder

(57) It is an object of the present invention to provide a document folder which ensures that a document can easily be inserted into and taken out of a document holding portion thereof. The present invention provides a document folder 1 for holding a document 10 or the like, which comprises: a document holding portion 4 having a rectangular plan shape and defined by a pair of sheet portions 2, 3 of a synthetic resin material which are separate from each other along one of opposite side edges of the document folder and continuous with each other

along the other side edge of the document folder; reinforcement portions 6, 7 of a plural-layer structure respectively provided in separate one-edge portions of the sheet portions along the one side edge of the document folder, and each reinforced by a multiplicity of fusion-bonded spots 5 formed therein; and binder engagement means including a plurality of engagement portions 8 formed in a properly spaced relation in the respective reinforcement portions along the one side edge of the document folder for engagement with binding hooks of a document binder.





## Description

## **TECHNICAL FIELD**

[0001] The present invention relates to document folders for holding a document, a business card and the like

# **Prior Art**

[0002] Document folders heretofore known typically have a rectangular plan shape, and include a document holding portion defined by a pair of synthetic resin sheets and having an opening formed along a top edge thereof, as viewed when the document folder is postured vertically, through which opening a document is inserted into and taken out of the document holding portion, and generally T-shaped cutaway engagement portions formed as binder engagement means along one side edge of the document folder. For reinforcement of the engagement portions, a reinforcement synthetic resin tape is interposed between the pair of synthetic resin sheets along the one side edge of the document folder and joined therewith. The engagement portions are provided in this reinforced portion.

**[0003]** However, the document folder having such a construction suffers from a usability problem such that a document or the like is inserted into and taken out of the document folder only through the opening of a limited size formed along the top edge thereof, as viewed when the document folder is postured vertically.

## **DISCLOSURE OF THE INVENTION**

**[0004]** To solve the aforesaid problem, it is an object of the present invention to provide a document folder which ensures that a document can easily be inserted into and taken out of a document holding portion (or a document pocket) thereof.

**[0005]** For achievement of the object, the present invention has the following features.

1. A document folder for holding a document or the like is provided, which comprises: a pair of sheet portions of a synthetic resin material which are separate from each other along one of opposite side edges of the document folder and continuous with each other along the other side edge of the document folder, the pair of sheet portions defining therebetween a document holding portion; reinforcement portions of a plural-layer structure respectively provided in separate one-edge portions of the sheet portions along the one side edge of the document folder, and each reinforced by a multiplicity of fusion-bonded spots formed therein; and binder engagement means including a plurality of engagement portions formed in a properly spaced relation in the respective reinforcement portions along the

one side edge of the document folder for detachably engaging with binding hooks of a document binder.

2. In the document folder having the first feature, the document holding portion has a top opening defined between top edges of the respective sheet portions, as viewed when the document folder is postured vertically, through which top opening the document is inserted into and taken out of the document holding portion, and a closed bottom edge with bottom edges of the respective sheet portions fusion-bonded to each other.

3. In the document folder having the first feature, the document holding portion has a top opening defined between top edges of the respective sheet portions, as viewed when the document folder is postured vertically, through which top opening the document is inserted into and taken out of the document holding portion, and a partially closed bottom edge with parts of bottom edges of the respective sheet portions fusion-bonded to each other and with the other unbonded parts of the bottom edges of the sheet portions having a proper length from the one side edge of the document folder.

4. In the document folder having the first feature, the document holding portion has partially closed top and bottom edges, as viewed when the document folder is postured vertically, with parts of top and bottom edges of one of the sheet portions respectively fusion-bonded to parts of top and bottom edges of the other sheet portion and with the other unbonded parts of the top and bottom edges of the sheet portions having a proper length from the one side edge of the document folder.

5. In the document folder having any of the first to fourth features, a total area of the fusion-bonded spots formed in each of the reinforcement portions accounts for 10 to 40% of an area of the reinforcement portion.

6. In the document folder having any of the first to fourth features, the fusion-bonded spots are spots formed by at least one of a ultrasonic fusion-bonding method and a thermal fusion-bonding method.

7. In the document folder having any of the first to

fourth features, the engagement portions of the binder engagement means each comprise a generally T-shaped cutaway engagement portion.

8. In the document folder having any of the first to fourth features, the engagement portions of the binder engagement means each comprise a round hole and an incision extending along a tangent line of the round hole to the one side edge of the document folder.

9. A document folder for holding therein a document or the like is provided, which comprises: a pair of sheet portions of a synthetic resin material which are separate from each other along one of opposite side edges of the document folder and continuous with each other along the other side edge of the doc-

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ument folder; reinforcement portions of a plural-layer structure respectively provided in separate oneedge portions of the sheet portions along the one side edge of the document folder, and each reinforced by a multiplicity of fusion-bonded spots formed therein; binder engagement means including a plurality of engagement portions formed in a properly spaced relation in the respective reinforcement portions along the one side edge of the document folder for detachably engaging with binding hooks of a document binder; and at least one document pocket provided on an inner side of at least one of the sheet portions, and defined by the one sheet portion and an inner sheet portion extending continuously from the corresponding one of the reinforcement portions.

10. In the document folder having the ninth feature, the one reinforcement portion of the plural-layer structure comprises two layers consisting of an inwardly folded sheet portion which is continuous from the one-edge portion of the one sheet portion to the inner sheet portion.

11. In the document folder having the tenth feature, the document pocket includes a plurality of pockets formed by heat-sealing the sheet portion and the inner sheet portion in a proper pattern, and the plurality of pockets each have an opening.

12. In the document folder having the ninth feature, the one reinforcement portion of the plural-layer structure comprises three layers consisting of the one-edge portion of the one sheet portion and an inwardly folded sheet portion of the synthetic resin material which is separate from the one sheet portion and wraps the one-edge portion of the one sheet portion, the inwardly folded sheet portion being continuous to the inner sheet portion.

13. In the document folder having the twelfth feature, the document pocket includes a plurality of pockets formed by heat-sealing the sheet portion and the inner sheet portion in a proper pattern, and the plurality of pockets each have an opening.

14. In the document folder having any of the ninth to thirteenth features, a total area of the fusion-bonded spots formed in each of the reinforcement portions accounts for 10 to 40% of an area of the reinforcement portion.

15. In the document folder having any of the ninth to thirteenth features, the fusion-bonded spots are spots formed by at least one of a ultrasonic fusion-bonding method.

16. In the document folder having any of the ninth to thirteenth features, the engagement portions of the binder engagement means each comprise a generally T-shaped cutaway portion.

17. In the document folder having any of the ninth to thirteenth features, the engagement portions of the binder engagement means each comprise a

round hole and an incision extending along a tangent line of the round hole to the one side edge of the document folder.

[0006] In accordance with the aforesaid features of the present invention, the document folders are characterized in that the engagement portions of the binder engagement means to be brought into and out of engagement with the binding hooks of the binder are provided in the reinforcement portions of the plural-layer structure which are respectively provided in the separate oneedge portions of the pair of sheet portions and each reinforced by the multiplicity of fusion-bonded spots formed therein. Thus, the binder engagement means is reinforced by the fusion-bonded spots, so that the document folder can repeatedly be brought into and out of engagement with the binding hooks of the binder and used for an extended period. Further, by disengaging an overlying one of the sheet portions from the binding hooks of the binder and opening the overlying sheet potion away from the other sheet portion with the document folder being bound in the binder, a document can be inserted into and taken out of the document holding portion of the document folder or the document pockets formed on the inner sides of the sheet portions of the document folder through a widely open portion between the sheet portions. Thus, the usability of the document folder can be improved.

# **BRIEF DESCRIPTION OF THE DRAWINGS**

# [0007]

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FIG. 1 is a perspective view illustrating a document folder according to a first embodiment of the present invention as viewed from one side thereof;

FIG. 2 is an enlarged plan view illustrating major portions of the document folder;

FIG. 3 is an enlarged sectional view taken along a line X-X in FIG. 2:

FIG. 4 is a perspective view for explaining a relationship between the document folder and a binder; FIG. 5 is a perspective view illustrating how a document is inserted into and taken out of the document folder;

FIG. 6 is a perspective view illustrating a document folder according to a second embodiment of the present invention;

FIG. 7 is a perspective view illustrating how a document is inserted into and taken out of the document folder:

FIG. 8 is a perspective view illustrating a document folder according to a third embodiment of the present invention;

FIG. 9 is a perspective view illustrating how a document is inserted into and taken out of the document folder;

FIG. 10 is an enlarged sectional view illustrating

major portions of a document folder according to a fourth embodiment of the present invention;

FIG. 11 is an enlarged sectional view illustrating major portions of a document folder according to a fifth embodiment of the present invention;

FIG. 12 is an enlarged plan view illustrating major portions of a document folder according to a sixth embodiment of the present invention;

FIG. 13 is a perspective view illustrating a document folder according to a seventh embodiment of the present invention as viewed from one side thereof; FIG. 14 is an enlarged plan view illustrating major portions of the document folder;

FIG. 15 is an enlarged sectional view taken along a line X-X in FIG. 14;

FIG. 16 is a perspective view for explaining a relationship between the document folder and a binder; FIG. 17 is a perspective view illustrating how a document is inserted into and taken out of the document folder which is bound in the binder;

FIG. 18 is a perspective view illustrating how a document is inserted into and taken out of the document folder which is not bound in the binder;

FIG. 19 is a perspective view illustrating the document folder which is used in another way;

FIG. 20 is a perspective view illustrating a document folder according to an eighth embodiment of the present invention; and

FIG. 21 is an enlarged plan view illustrating major portions of a document folder according to a ninth embodiment of the present invention.

## **DESCRIPTION OF THE EMBODIMENTS**

**[0008]** FIGs. 1 to 5 illustrate a first embodiment of the present invention.

[0009] In FIGs. 1 to 5, there is shown a document folder 1 of a rectangular plan shape, which has a document holding portion 4 defined by a pair of sheet portions 2, 3 of a synthetic resin material, and reinforcement portions 6, 7 each provided adjacent the document holding portion 4 along one of opposite side edges of the document folder 1 and reinforced by a multiplicity of ultrasonically fusion-bonded spots 5 formed therein. More specifically, the reinforcement portions 6, 7 are formed by inwardly folding separate one-edge portions of the sheet portions 2, 3 to form double-layer portions along the one side edge of the document folder 1, and ultrasonically spot-fusion-bonding the double-layer portions to form the fusion-bonded spots 5 therein. The reinforcement portions 6, 7 formed with the multiplicity of fusion-bonded spots 5 each have a plurality of generally T-shaped cutaway engagement portions 8 formed therein as binder engagement means in a properly spaced relation along the one side edge of the document folder 1. The pair of sheet portions 2, 3 are continuous with each other along the other side edge of the document folder 1. A fold line 9 located between the sheet portions 2 and 3

defines a juncture therebetween along the other side edge of the document folder 1. The document folder 1 has an opening 11 formed between the pair of sheet portions 2 and 3 along a top edge of the document holding portion 4, as viewed when the document folder 1 is postured vertically, through which opening 11 a document 10 is inserted into and taken out of the document holding portion 4. A bottom edge of the document folder 1 as viewed when the document folder 1 is postured vertically is closed by fusion-bonding bottom edges of the sheet portions 2, 3.

[0010] A document binder typically has a plurality of binding hooks 13 each having a generally annular flange 12 projecting opposite sides thereof, and a pair of covers 14 (see FIG. 4). The generally T-shaped cutaway engagement portions 8 as the binder engagement means are brought into engagement with the binding hooks 13. Thus, a multiplicity of such document folders 1 can removably be bound in the document binder. As shown in FIG. 4, the document 10 can be inserted into and taken out of the document holding portion 4 of the document folder 1 engaged with the binding hooks 13 through the opening 11. In addition, the engagement portions 8 of an overlying one 2 of the sheet portions 2, 3 can be disengaged from the binding hooks 13 to open the overlying sheet portion 2 away from the other sheet portion 3, so that the document 10 can be inserted into and taken out of the document holding portion 4 through a widely open portion between the sheet portions 2 and 3 as shown in FIG. 5.

**[0011]** An explanation will next be given to a second embodiment of the present invention shown in FIGs. 6 and 7. A document folder 1 according to the second embodiment has substantially the same construction as in the first embodiment, except that the document holding portion 4 has a partially closed bottom edge, as viewed when the document folder 1 is postured vertically, with parts of the bottom edges of the sheet portions 2, 3 fusion-bonded to each other and with the other unbonded and separate parts of the bottom edges of the sheet portions 2, 3 having a length of 5cm to 7cm from the one side edge of the document folder 1 along which the engagement portions 8 are formed.

**[0012]** With this arrangement, the overlying one 2 of the sheet portions 2, 3 can more widely be opened away from the other sheet portion 3 than in the first embodiment, as shown in FIG. 7, by disengaging the engagement portions 8 of the overlying sheet portion 2 from the binding hooks 13.

[0013] There will next be explained a third embodiment of the present invention as shown in FIGs. 8 and 9. A document folder 1 according to the third embodiment has substantially the same construction as in the first and second embodiments, except that the document holding portion 4 has partially closed top and bottom edges, as viewed when the document folder is postured vertically, with parts of the top and bottom edges of the sheet portion 2 respectively fusion-bonded to

parts of the top and bottom edges of the sheet portion 3 and with the other unbonded and separated parts of the top and bottom edges of the sheet portions 2, 3 each having a length of 5cm to 7cm from the one side edge of the document folder 1 along which the engagement portions 8 are formed.

**[0014]** With this arrangement, the overlying one 2 of the sheet portions 2, 3 can be opened away from the other sheet portion 3, as shown in FIG. 9, by disengaging the engagement portions 8 of the sheet portion 2 from the binding hooks 13. Thus, the document 10 can be inserted into and taken out of the document folder 1 through an open portion between the sheet portions 2 and 3.

[0015] In the aforesaid first to third embodiments, the separate one-edge portions of the pair of sheet portions 2, 3 are respectively inwardly folded to form the doublelayer portions, in which the multiplicity of fusion-bonded spots 5 are formed along the one side edge of the document folder 1 by the ultrasonic fusion-bonding method to form the reinforcement portions 6, 7, and the plurality of generally T-shaped cutaway engagement portions 8 are formed as the binder engagement means in a properly spaced relation along the one side edge of the document folder 1 in the respective reinforcement portions 6, 7. Where the synthetic resin sheet portions 2, 3 each have a smaller thickness, modifications may be made as follows. In a fourth embodiment of the present invention as shown in FIG. 10, the edge portion of the underlying sheet portion 3 is wrapped with a reinforcement sheet 15 of the synthetic resin material to form a triplelayer portion 16, in which a multiplicity of fusion-bonded spots are formed to form a reinforcement portion 16, and the plurality of generally T-shaped cutaway engagement portions 8 are formed as the binder engagement means in a properly spaced relation along the one side edge of the document folder 1 in the reinforcement portion 16. Further, in a fifth embodiment of the present invention as shown in FIG. 11, the one-edge portions of the pair of sheet portions 2, 3 are respectively wrapped with reinforcement sheets 15 of the synthetic resin material to form triple-layer portions, in which a multiplicity of fusion-bonded spots are formed to form reinforcement portions 16, and the plurality of the generally T-shaped cutaway engagement portions 8 are formed as the binder engagement means in a properly spaced relation along the one side edge of the document folder 1 in the reinforcement portions 16.

**[0016]** Since the engagement portions 8 of the document folder 1 are engaged with the flanges 12 of the binding hooks 13 of the binder as described above, the reinforcement portions 6, 7 formed with the engagement portions 8 are required to have a sufficient hardness for prevention of disengagement of the engagement portions 8 from the flanges 12 of the binding hooks 13. This is why the multiplicity of fusion-bonded spots 5 are formed in the reinforcement portions 6, 7 by the ultrasonic fusion-bonding method for reinforcement of the

engagement portions 8. The size of each of the fusionbonded spots 5 is properly determined depending on the size of the document folder 1, the type of the synthetic resin material for the document folder 1, and the like. In order to impart a sufficient hardness and stiffness to the reinforcement portions 6, 7, the total area of the fusionbonded spots 5 should account for 10 to 40% of the area of the reinforcement portions 6, 7. If the total area of the fusion-bonded spots 5 is less than 10% of the area of the reinforcement portions 6, 7, it is impossible to impart the reinforcement portions 6, 7 with a sufficient hardness and stiffness. If the total area of the fusion-bonded spots 5 is greater than 40%, the reinforcement portions 6, 7 have an excessively high hardness and may be impaired due to deterioration of the synthetic resin material. In the foregoing embodiments, the document folders 1 are formed of a polypropylene sheet.

[0017] In the foregoing embodiments, the generally T-shaped cutaway engagement portions 8 are provided as the binder engagement means. Alternatively, the binder engagement means may comprise a plurality of round holes 17 and incisions 18 formed in the reinforcement portions 6, 7 as extending along tangent lines of the round holes 17 to the one side edge of the document folder 1 in accordance with a sixth embodiment of the present invention as shown in FIG. 12. It is noted that the configuration of the engagement portions is not limited to those shown in the illustrated embodiments.

**[0018]** In the embodiments described above, the document folders 1 are each adapted to hold therein a document 10, but may be designed so as to hold therein business cards, photographs and the like.

[0019] The formation of the fusion-bonded spots 5 is achieved by the ultrasonic spot fusion-bonding method in the foregoing embodiments, but may be achieved by a thermal spot fusion-bonding method. Further, the ultrasonic spot fusion-bonding method and the thermal spot fusion-bonding method may be used in combination for the formation of the fusion-bonded spots 5. Where the ultrasonic spot fusion-bonding method is employed for the formation of the fusion-bonded spots 5, a frequency of 15KHz to 50KHz may be employed to apply 15,000 to 50,000 impacts per second to the folded edge portions of the sheet portions 2, 3, and the fusion-bonding speed can be controlled as desired by adjusting the frequency. Where the thermal spot fusion-bonding method is employed, a roll having a multiplicity of needles provided on its circumferential surface is heated up to a temperature at which the synthetic resin sheet material for the document folder 1 is not completely melted, and the folded edge portions are passed between the roll and a counter roll.

**[0020]** Next, an explanation will be given to embodiments of the present invention wherein document pockets are provided on inner sides of a pair of synthetic resin sheet portions.

[0021] With reference to FIGs. 13 to 19, a seventh embodiment of the present invention will be described. A

document folder 21 according to the seventh embodiment has a rectangular plan shape, and includes a pair of sheet portions 22 and 23 of a synthetic resin material, and reinforcement portions 24, 25 provided in the vicinity of separate one-edge portions of the respective sheet portions 22, 23 along one of opposite side edges of the document folder 21 and reinforced by a multiplicity of ultrasonically fusion-bonded spots formed therein. More specifically, the reinforcement portions 24, 25 are formed by inwardly folding sheet portions extending continuously from the separate edges of the respective sheet portions 22, 23 to form double-layer portions 26, 27 along the one side edge of the document folder 21, and ultrasonically spot-fusion-bonding edge portions of the double-layer portions 26, 27 along the one side edge of the document folder 21 to form the multiplicity of fusion-bonded spots therein. The reinforcement portions 24,25 formed with the multiplicity of fusion-bonded spots have a plurality of generally T-shaped cutaway engagement portions 28, 29 formed therein as binder engagement means in a properly spaced relation along the one side edge of the document folder 21. The pair of sheet portions 22, 23 are continuous with each other along the other side edge of the document folder 21. A fold line 30 located between the sheet portions 22 and 23 defines a juncture therebetween along the other side edge of the document folder 21. As described above, the reinforcement portions 24, 25 formed with the engagement portions 28, 29 are respectively provided in the edge portions of the double-layer portions 26, 27 along the one side edge of the document folder 21. The other portions of the double-layer portions 26, 27 which are respectively located inwardly of the reinforcement portions 24, 25 and continuous from the reinforcement portions 24, 25 constitute document pockets 31, 32. More specifically, the document pockets 31, 32 are respectively defined by the sheet portions 22, 23 and inner sheet portions 33, 34 of the double-layer portions 26, 27 having a width about one third the width of the sheet portions 22, 23, and top and bottom edges of the document pockets 31, 32 are closed by fusion-bonding top and bottom edges of the sheet portions 22, 23 to top and bottom edges of the inner sheet portions 33, 34, respectively, as viewed when the document folder 21 is postured vertically. Side edges of the inner sheet portions 33, 34 opposite from the one side edge of the document folder 21 are open for insertion of documents in the document pockets 31, 32. Reference numerals 35, 36 respectively denote openings defined between the sheet portions 22 and 23 and the inner sheet portions 33 and 34.

[0022] A document binder typically has a plurality of binding hooks 38 each having a generally annular flange 37 projecting opposite sides thereof, and a pair of covers 39 (see FIG. 16). The generally T-shaped cutaway engagement portions 28, 29 formed as the binder engagement means in the reinforcement portions 24, 25 are brought into engagement with the flanges 37 of the bind-

ing hooks 38. Thus, a multiplicity of such document folders 21 can removably be bound in the document binder. As shown in Fig. 17, documents 40 can be inserted into and taken out of the document pockets 31, 32 of the document folder 21 engaged with the binding hooks 38 by disengaging an overlying one 22 of the sheet portions 22, 23 from the binding hooks 38 and opening the sheet portion 22 away from the sheet portion 23. Alternatively, the documents 40 may be inserted into and taken out of the document pockets 31, 32 by disengaging the document folder 21 from the binding hooks 38 and opening the sheet portions 22, 23 away from each other, as shown in FIG. 18.

[0023] Although the documents 40 are respectively inserted into and taken out of the document pockets 31, 32 in the aforesaid cases, opposite edge portions of a larger document 41 spanning the sheet portions 22, 23 may be inserted into the document pockets 31, 32 with the sheet portions 22, 23 of the document folder 21 being opened away from each other.

[0024] Although the document pockets 31, 32 are provided on the inner sides of the respective sheet portions 22, 23 as extending continuously from the reinforcement portions 24, 25 in accordance with the seventh embodiment, modifications may be made as follows. In an eighth embodiment of the present invention as shown in FIG. 20, the document pocket 31 is provided on the inner side of the one sheet portion 22 as extending continuously from the reinforcement portion 24, and a plurality of pockets 43 each having an opening on one side edge thereof for holding a plurality of business cards 42, photographs, cards or the like are provided on the inner side of the other sheet portion 23 by heat-sealing an inner sheet portion 34 having a greater width and the other sheet portion 23 in a proper pattern. Similarly, a plurality of pockets each having an opening on one side edge thereof may be provided on the inner side of the one sheet portion 22 as on the inner side of the other sheet portion 23 for holding a plurality of business cards, photographs, cards or the like.

[0025] In the aforesaid sixth to eighth embodiments, the sheet portions extending from the separate oneedge portions of the sheet portions 22, 23 are inwardly folded to form the double-layer portions 26, 27, and the multiplicity of fusion-bonded spots are formed in the edge portions of the double-layer portions 26, 27 along the one side edge of the document folder 21 by the ultrasonic fusion-bonding method to form the reinforcement portions 24, 25. Alternatively, in accordance with a ninth embodiment of the present invention as shown in FIG. 21, the one-edge portions of the sheet portions 22, 23 are respectively wrapped with sheets 44, 45 of the synthetic resin material to form triple-layer portions. in which the multiplicity of fusion-bonded spots are formed along the one side edge of the document folder to form the reinforcement portions, and the engagement portions 28, 29 are formed as the binder engagement means in a properly spaced relation along the one side

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edge of the document folder in the reinforcement portions. In the ninth embodiment, the document pockets 31, 32 are respectively defined between the sheet portions 22, 23 and inner sheet portions of the sheets 44, 45 extending continuously from the reinforcement portions 24, 25 on the inner sides of the sheet portions 22, 23. The ninth embodiment may be employed in combination with the eighth embodiment. Further, the document folder 21 may be constructed such that the edge portion of one 22 of the sheet portions 22, 23 is folded to form a double-layer structure as in the seventh embodiment, and the edge portion of the other sheet portion 23 is formed into a three-layer structure as in the ninth embodiment. Although the generally T-shaped cutaway engagement portions 28, 29 are provided as the binder engagement means in the seventh to ninth embodiments, the binder engagement means may comprise a plurality of round holes 17 and incisions 18 formed in the reinforcement portions as extending along tangent lines of the round holes 17 to the one side edge of the document folder as in the sixth embodiment as shown in FIG. 12. The configuration of the engagement portions is not limited to those of the illustrated embodiments. In the seventh to ninth embodiments, the total area of the fusion-bonded spots formed in the reinforcement portions accounts for 10 to 40% of the area of the reinforcement portions, and the formation of the fusionbonded spots is achieved by employing the ultrasonic fusion-bonding method and/or the thermal fusion-bonding method as in the first to sixth embodiments.

**[0026]** Although two document pockets are respectively provided on the inner sides of the sheet portions 22, 23 in the seventh to ninth embodiments, only one document pocket may be provided on an inner side of either of the sheet portions 22, 23.

[0027] In accordance with the present invention, the document folders are characterized in that the engagement portions of the binder engagement means to be brought into and out of engagement with the binding hooks of the binder are provided in the reinforcement portions of the plural-layer structure which are respectively provided adjacent the separate one-edge portions of the pair of sheet portions along the one side edge of the document folder and each formed with the multiplicity of fusion-bonded spots. Thus, the binder engagement means is reinforced by the fusion-bonded spots, so that the document folder can repeatedly be brought into and out of engagement with the binding hooks of the binder and used for an extended period. Further, by disengaging the overlying one of the sheet portions from the binding hooks of the binder and opening the overlying sheet potion away from the other sheet portion with the document folder being bound in the binder, a document can be inserted into and taken out of the document holding portion of the document folder or the document pockets formed on the inner sides of the sheet portions of the document folder through an open portion between the sheet portions. Thus, the usability of the document

folder can be improved.

#### **Claims**

1. A document folder 1 for holding a document 10 or the like, comprising:

a pair of sheet portions of a synthetic resin ma-

terial which are separate from each other along one of opposite side edges of the document folder and continuous with each other along the other side edge of the document folder, the pair of sheet portions 2, 3 defining therebetween a document holding portion 4 having a rectangular plan shape; reinforcement portions 6, 7 of a plural-layer structure respectively provided in separate one-edge portions of the sheet portions 2, 3 along the one side edge of the document folder 1, and each reinforced by a multiplicity of fusion-bonded spots 5 formed therein; and binder engagement means including a plurality of engagement portions 8 formed in a properly spaced relation in the respective reinforcement portions 6, 7 along the one side edge of the document folder for detachably engaging with binding hooks 13 of a document binder.

- 30 2. A document folder as set forth in claim 1, wherein the document holding portion 4 has a top opening 11 defined between top edges of the respective sheet portions 2, 3, as viewed when the document folder 1 is postured vertically, through which top opening the document 10 is inserted into and taken out of the document holding portion 4, and a closed bottom edge with bottom edges of the respective sheet portions 2, 3 fusion-bonded to each other.
- 40 3. A document folder as set forth in claim 1, wherein the document holding portion 4 has a top opening 11 defined between top edges of the respective sheet portions, as viewed when the document folder 1 is postured vertically, through which top opening 11 the document is inserted into and taken out of the document holding portion 4, and a partially closed bottom edge with parts of bottom edges of the respective sheet portions 2, 3 fusion-bonded to each other and with the other unbonded parts of the bottom edges of the sheet portions having a proper length from the one side edge of the document folder 1.
  - 4. A document folder 1 as set forth in claim 1, wherein the document holding portion 4 has partially closed top and bottom edges, as viewed when the document folder 1 is postured vertically, with parts of top and bottom edges of one of the sheet portions 2, 3

respectively fusion-bonded to parts of top and bottom edges of the other sheet portion and with the other unbonded parts of the top and bottom edges of the sheet portions 2, 3 having a proper length from the one side edge of the document folder.

- 5. A document folder as set forth in any of claims 1 to 4, wherein a total area of the fusion-bonded spots 5 formed in each of the reinforcement portions accounts for 10 to 40% of an area of the reinforcement portion.
- **6.** A document folder as set forth in any of claims 1 to 4, wherein the fusion-bonded spots 5 are spots formed by at least one of a ultrasonic fusion-bonding method and a thermal fusion-bonding method.
- A document folder as set forth in any of claims 1 to 4, wherein the engagement portions 8 of the binder engagement means each comprise a generally Tshaped cutaway engagement portion.
- 8. A document folder as set forth in any of claims 1 to 4, wherein the engagement portions 8 of the binder engagement means each comprise a round hole 17 and an incision 18 extending along a tangent line of the round hole to the one side edge of the document folder.
- **9.** A document folder 21 for holding therein a document 40 or the like, comprising:

a pair of sheet portions 22, 23 of a synthetic resin material which are separate from each other along one of opposite side edges of the document folder and continuous with each other along the other side edge of the document folder:

reinforcement portions 24, 25 of a plural-layer structure respectively provided in separate one-edge portions of the sheet portions along the one side edge of the document folder 21, and each reinforced by a multiplicity of fusion-bonded spots formed therein;

binder engagement means including a plurality of engagement portions 28, 29 formed in a properly spaced relation in the respective reinforcement portions 24, 25 along the one side edge of the document folder for detachably engaging with binding hooks of a document binder; and

at least one document pocket 31, 32 provided on an inner side of at least one of the sheet portions 22, 23, and defined by the one sheet portion and an inner sheet portion 33, 34 extending continuously from the corresponding one of the reinforcement portions 24, 25.

- 10. A document folder 21 as set forth in claim 9, wherein the one reinforcement portion of the plural-layer structure comprises two layers consisting of an inwardly folded sheet portion which is continuous from the one-edge portion of the one sheet portion to the inner sheet portion.
- 11. A document folder as set forth in claim 10, wherein the document pocket includes a plurality of pockets 31, 32 formed by heat-sealing the sheet portion and the inner sheet portion in a proper pattern, and the plurality of pockets each have an opening 35, 36.
- 12. A document folder as set forth in claim 9, wherein the one reinforcement portion 24, 25 of the plural-layer structure comprises three layers consisting of the one-edge portion of the one sheet portion and an inwardly folded sheet portion of the synthetic resin material which is separate from the one sheet portion and wraps the one-edge portion of the one sheet portion, the inwardly folded sheet portion being continuous to the inner sheet portion.
- 13. A document folder as set forth in claim 12, wherein the document pocket includes a plurality of pockets formed by heat-sealing the sheet portion and the inner sheet portion in a proper pattern, and the plurality of pockets each have an opening.
- 14. A document folder as set forth in any of claims 9 to 13, wherein a total area of the fusion-bonded spots formed in each of the reinforcement portions 24, 25 accounts for 10 to 40% of an area of the reinforcement portion.
  - **15.** A document folder as set forth in any of claims 9 to 13, wherein the fusion-bonded spots are spots formed by at least one of a ultrasonic fusion-bonding method and a thermal fusion-bonding method.
  - 16. A document folder as set forth in any of claims 9 to 13, wherein the engagement portions of the binder engagement means each comprise a generally Tshaped cutaway portion 28, 29.
  - 17. A document folder as set forth in any of claims 9 to 13, wherein the engagement portions of the binder engagement means each comprise a round hole 17 and an incision 18 extending along a tangent line of the round hole 17 to the one side edge of the document folder.

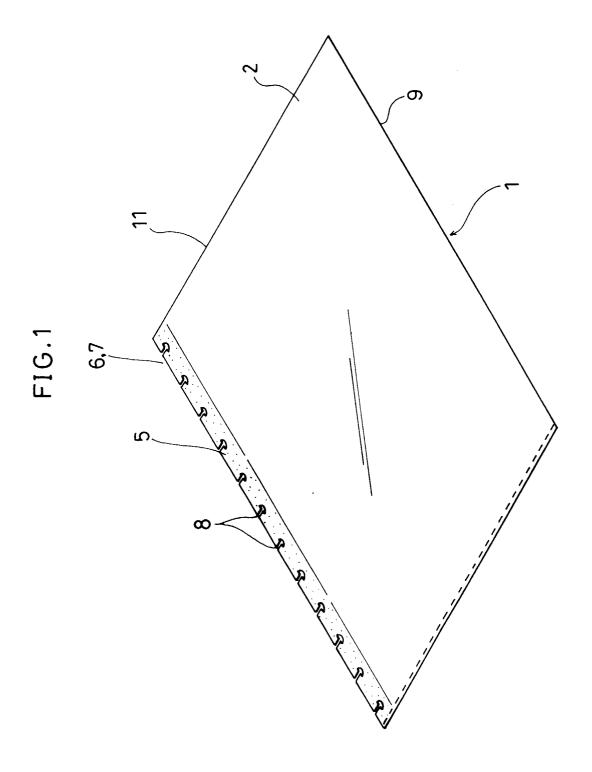
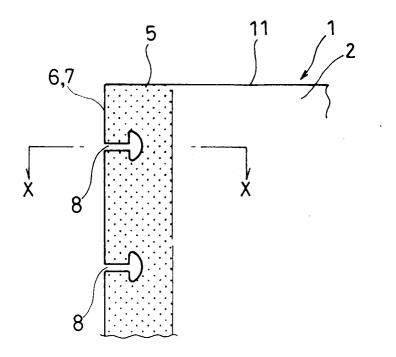
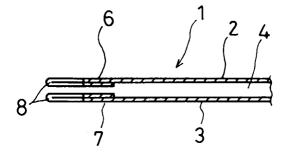
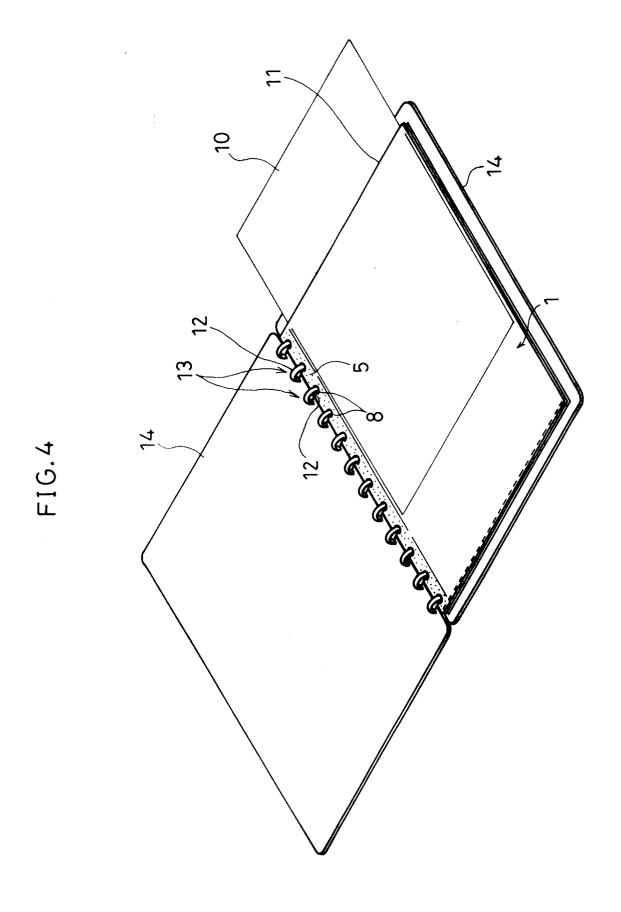


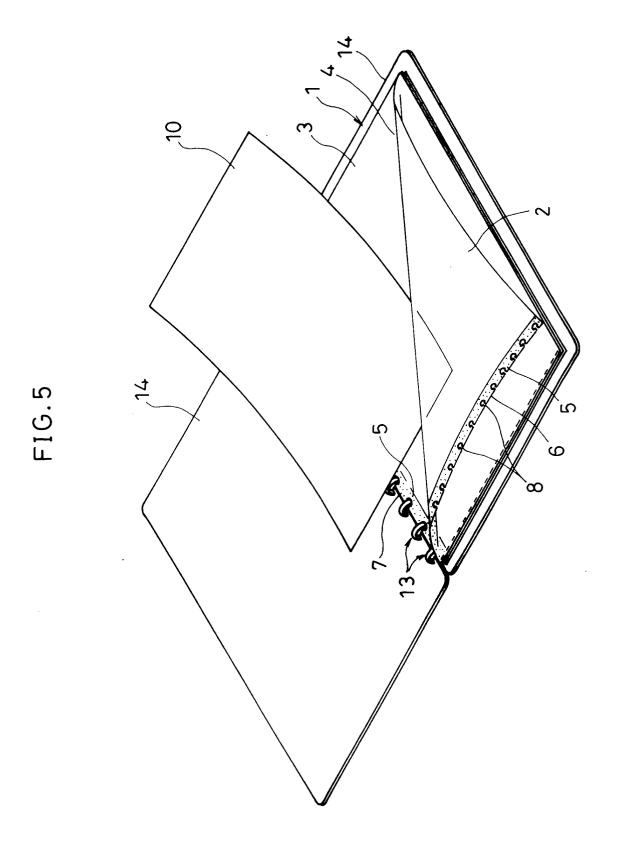
FIG.2

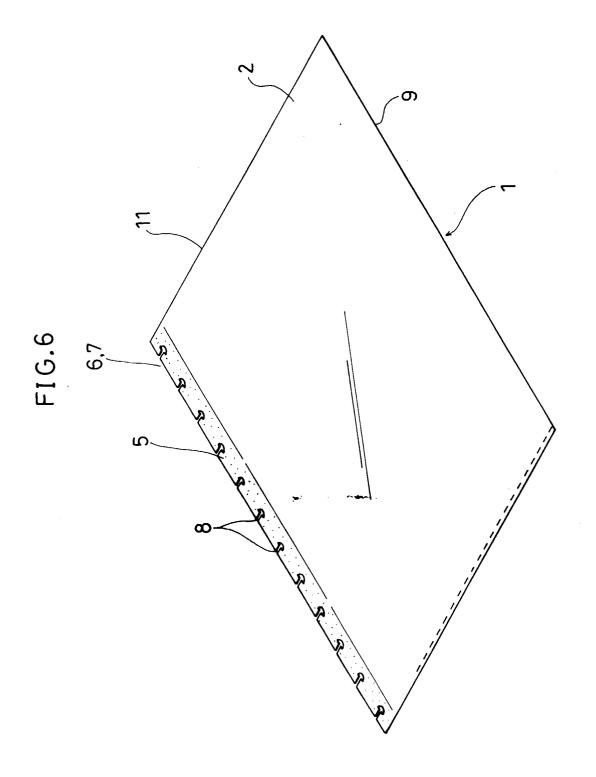


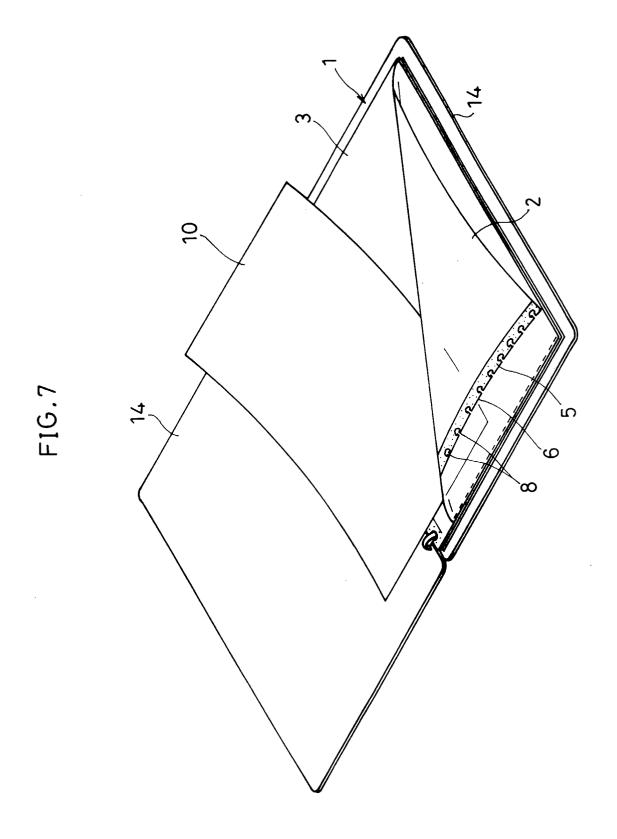
# FIG.3

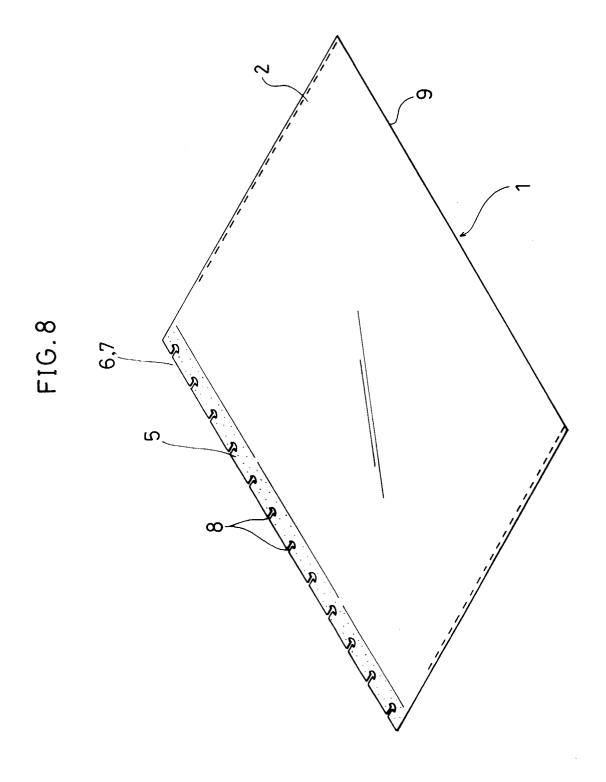












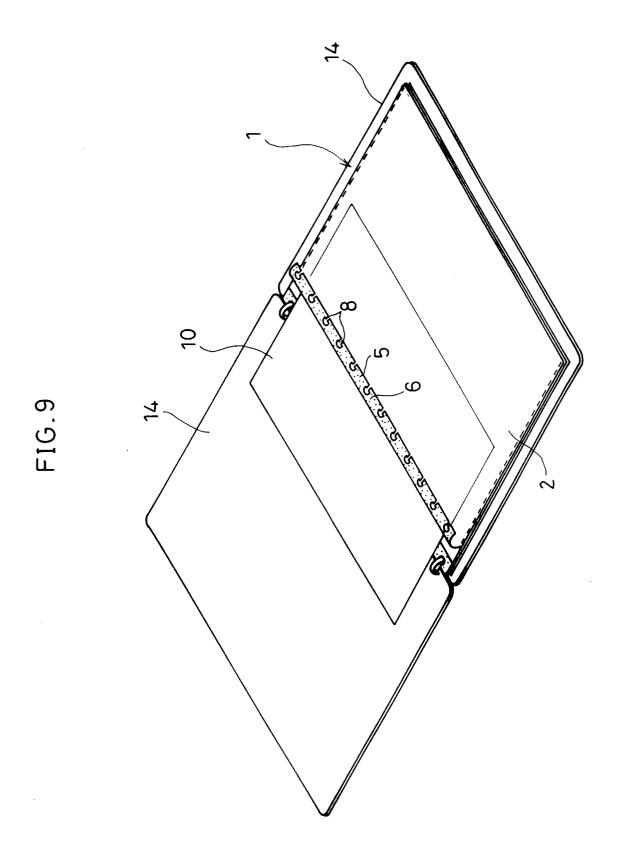


FIG.10

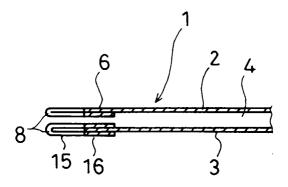


FIG.11

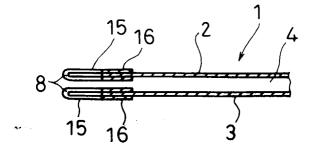
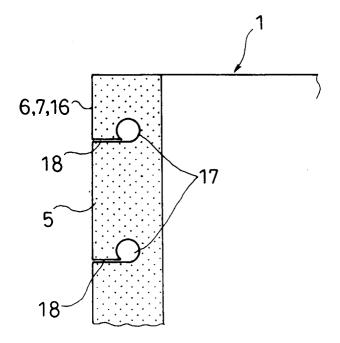


FIG.12



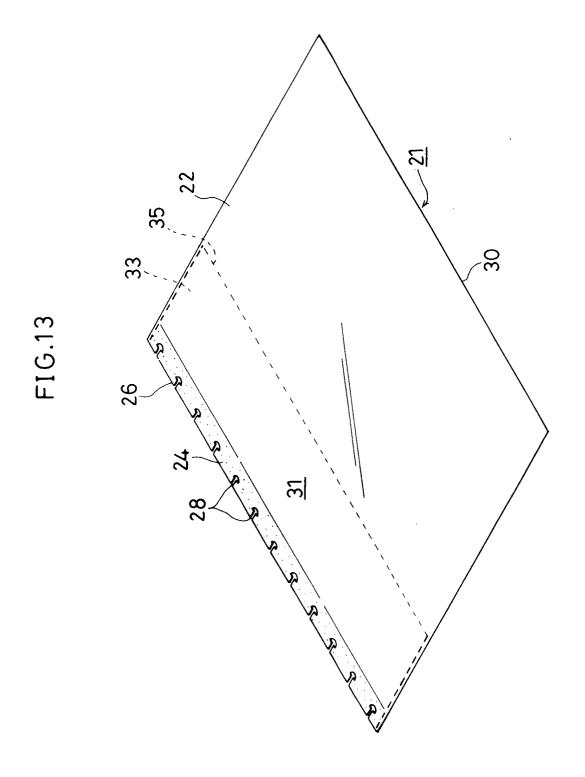


FIG.14

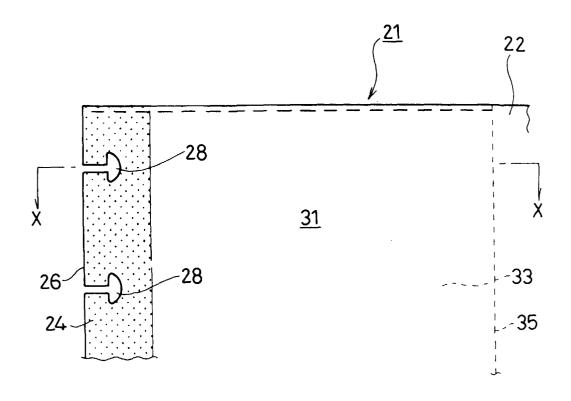
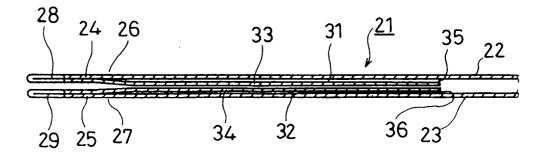
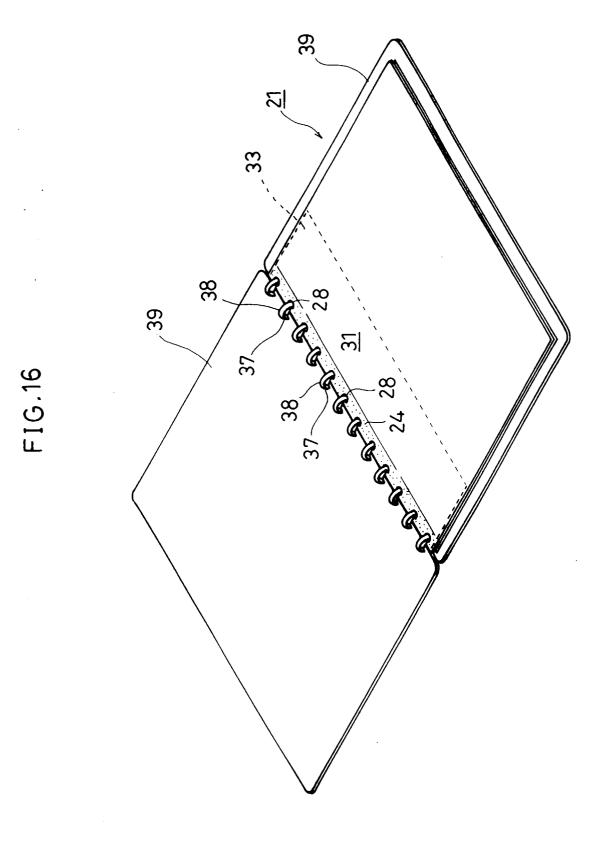
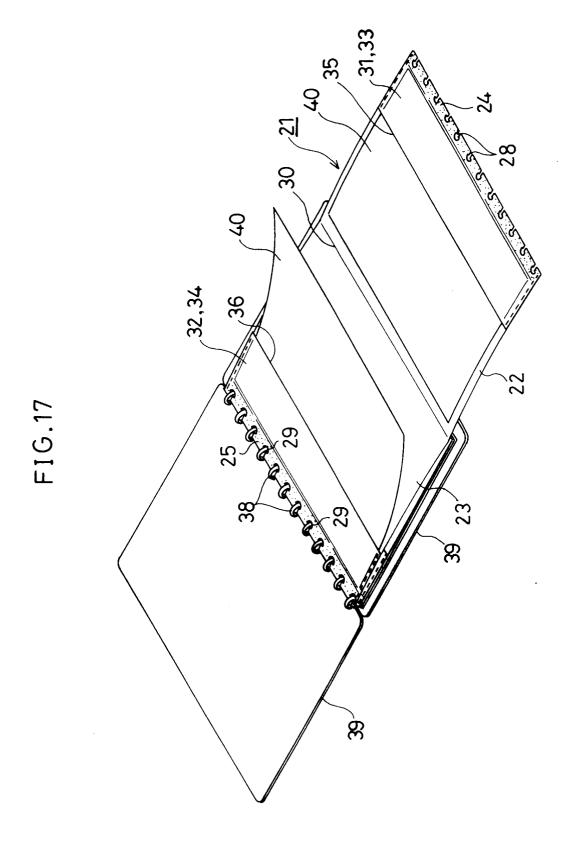
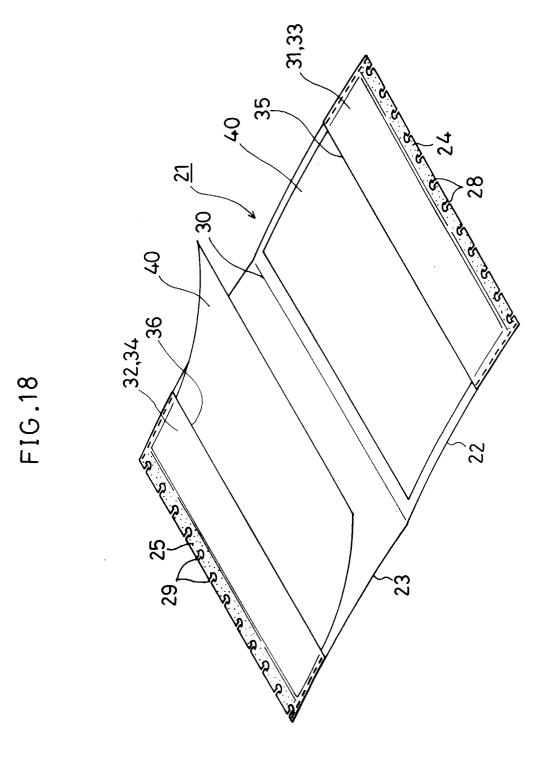


FIG.15

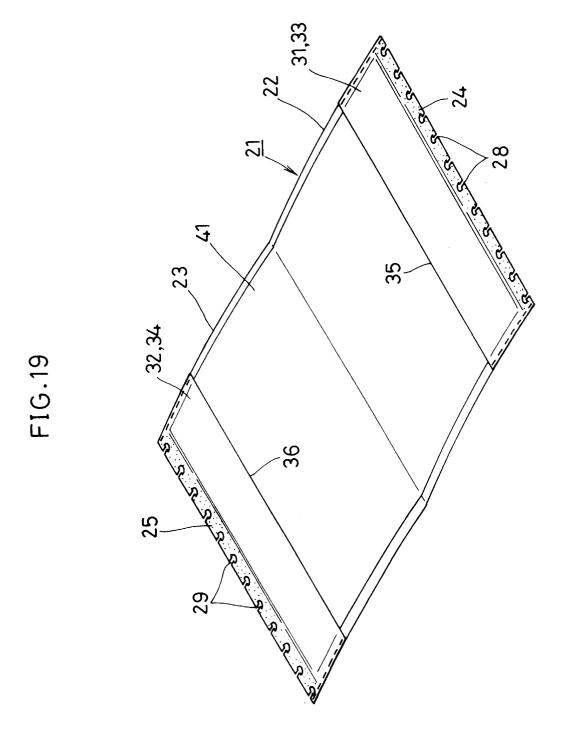








25



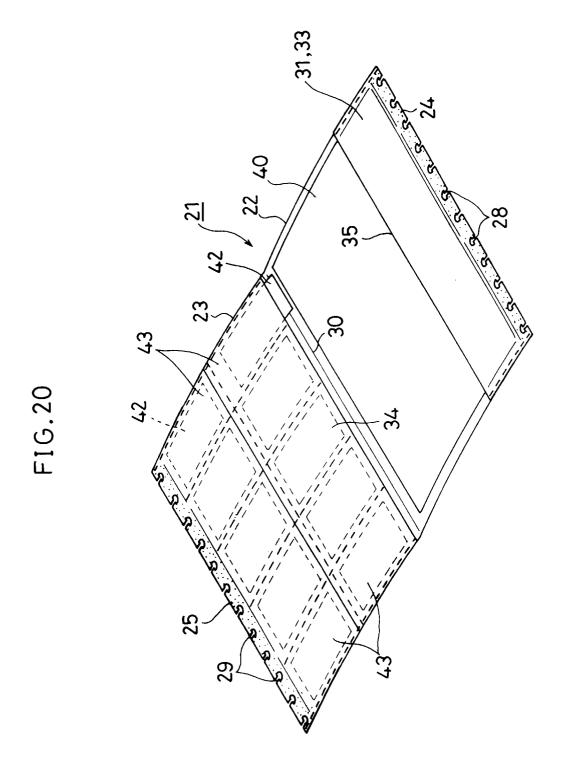


FIG.21

