

DESCRIPTION

Title of Invention

PACKAGING MATERIAL

5 Technical Field

[0001]

The present disclosure relates to packaging materials and, in particular, to a packaging material for a heavy object.

Background Art

10 [0002]

Hitherto, when a heavy product such as a large refrigerator is packaged, the upper part, the sides, and the top of the product are covered with packaging materials, and these packaging materials are fixed with bands. Examples of manners in which a packaging material is used for the top of such a product include a manner in which only
15 a top cushioning material is used therefor, a manner in which only a top corrugated board is used therefor, and a manner in which a top cushioning material and a top corrugated board are used therefor. In a typical manner, the sides of such a product are covered with only a side corrugated board. Examples of manners in which a packaging material is used for the bottom of such a product include a manner in which
20 only a floor cushioning material, on which the product is set, is used therefor and a manner in which a floor cushioning material and a floor corrugated board are used therefor. These packaging materials are formed to fit the shape of a product to be packaged. In some cases, such packaging materials are each formed in an oblong shape to package a household appliance such as a refrigerator. Side corrugated
25 boards, floor cushioning materials, and floor corrugated boards have hand holes for carriage. Such a hand hole is formed by pushing part of a corrugated board in. Some floor cushioning materials and floor corrugated boards have hand holes that are located in long-side edge portions thereof and that extend parallel to the long sides and hand holes that are located in short-side edge portions thereof and that extend parallel to the
30 short sides. When a plurality of operators carry a product, one operator puts their

hands on the edges of hand holes of a side corrugated board and grips the edges to carry the product, and another operator puts their hands on the edges of hand holes of a floor cushioning material or a floor corrugated board and grips the edges to carry the product.

5 [0003]

When the bottom of a product is covered with floor cushioning materials and a floor corrugated board, the floor cushioning materials may be provided on respective long-side edge portions or respective short-side edge portions of the floor corrugated board. When an operator puts their hands on the edges of hand holes formed in the edge portion of the floor corrugated board located at the side where the floor cushioning material is provided, the floor cushioning material serves as a protective material, and the hand holes are thus not damaged. However, when an operator puts their hands on the edges of hand holes formed in the edge portion of the floor corrugated board located at the side where the floor cushioning material is not provided and carries a heavy product, the hand holes and the peripheries thereof may be damaged because there is no floor cushioning material serving as a protective material on the edge portion. To avoid such hand holes and damage thereto, a configuration in which a reinforcing material is provided on a side portion where a floor cushioning material is not provided is used for a packaging board described in Patent Literature 1.

20 Citation List

Patent Literature

[0004]

Patent Literature 1: Japanese Unexamined Utility Model Registration Application

Publication No. 61-93477

25 Summary of Invention

Technical Problem

[0005]

The reinforcing material has to be provided on the packaging board in Patent Literature 1 to prevent damage to hand holes and the peripheries thereof. Thus, the

packaging board in Patent Literature 1 has a problem of increasing the number of components thereof.

[0006]

The present disclosure is made in view of such a problem and provides a packaging material having an increased strength with an increase in the number of components thereof inhibited.

Solution to Problem

[0007]

A packaging material according to an embodiment of the present disclosure configured to cover one surface of an object to be packaged includes: a case having a pair of first sides extending parallel to each other, the case being configured to be disposed along the one surface of the object to be packaged; a cushioning material having a hollow portion, the cushioning material extending parallel to the first sides and being disposed, along an edge portion of each of the first sides, on a facing surface of the case, the facing surface being configured to face the object to be packaged; and a handle provided in the case such that the handle is located in the hollow portion. The handle has a pivotable part having an outside shape formed by a cut and a support, the cut being formed in the case, the support being continuous with the facing surface. The pivotable part is capable of pivoting toward the cushioning material while the pivotable part is supported by the support. The pivotable part is configured to be in contact with an inner surface of the hollow portion when the pivotable part pivots toward the cushioning material.

Advantageous Effects of Invention

[0008]

According to the embodiment of the present disclosure, the pivotable part configured to pivot while being supported by the support is configured to be capable of being in contact with the inner surface of the hollow portion of the cushioning material. Thus, it is possible to achieve reinforcement of the handle without adding extra components other than the case and the cushioning material. That is, it is possible to

increase the strength of the packaging material with an increase in the number of components thereof inhibited.

Brief Description of Drawings

[0009]

5 [Fig. 1] Fig. 1 is a perspective view illustrating a packaging material according to Embodiment 1 of the present disclosure.

 [Fig. 2] Fig. 2 is a perspective view illustrating the packaging material according to Embodiment 1 of the present disclosure from which some components thereof are detached.

10 [Fig. 3] Fig. 3 is a plan view illustrating a floor packaging material according to Embodiment 1 of the present disclosure.

 [Fig. 4] Fig. 4 is a plan view illustrating the floor packaging material according to Embodiment 1 of the present disclosure.

15 [Fig. 5] Fig. 5 is a perspective view illustrating the floor packaging material according to Embodiment 1 of the present disclosure.

 [Fig. 6] Fig. 6 is a sectional view of the floor packaging material according to Embodiment 1 of the present disclosure.

 [Fig. 7] Fig. 7 is an enlarged plan view illustrating a first handle according to Embodiment 1 of the present disclosure.

20 [Fig. 8] Fig. 8 is a perspective view illustrating a second pivotable piece of the first handle that has pivoted.

 [Fig. 9] Fig. 9 is a perspective view illustrating a hollow portion according to a first modification example of Embodiment 1 of the present disclosure and a first pivotable piece of the first handle that has pivoted.

25 [Fig. 10] Fig. 10 is a perspective view illustrating the second pivotable piece of the first handle that has pivoted in the first modification example of Embodiment 1 of the present disclosure.

30 [Fig. 11] Fig. 11 is a perspective view illustrating the first pivotable piece and the second pivotable piece of the first handle that have pivoted in the first modification example of Embodiment 1 of the present disclosure.

[Fig. 12] Fig. 12 is an enlarged plan view illustrating a first handle according to a second modification example of Embodiment 1 of the present disclosure.

[Fig. 13] Fig. 13 is a perspective view illustrating a first pivotable piece and a third pivotable piece of the first handle according to the second modification example of Embodiment 1 of the present disclosure that have pivoted.

[Fig. 14] Fig. 14 is a perspective view illustrating a second pivotable piece and the third pivotable piece of the first handle according to the second modification example of Embodiment 1 of the present disclosure that have pivoted.

[Fig. 15] Fig. 15 is an enlarged plan view illustrating a first handle according to a third modification example of Embodiment 1 of the present disclosure.

[Fig. 16] Fig. 16 is a perspective view illustrating a first pivotable piece and a third pivotable piece of the first handle according to the third modification example of Embodiment 1 of the present disclosure that have pivoted.

[Fig. 17] Fig. 17 is a perspective view illustrating a second pivotable piece and the third pivotable piece of the first handle according to the third modification example of Embodiment 1 of the present disclosure that have pivoted.

[Fig. 18] Fig. 18 is a perspective view of a floor packaging material according to Embodiment 2 of the present disclosure.

[Fig. 19] Fig. 19 is a perspective view of a floor case according to Embodiment 2 of the present disclosure.

[Fig. 20] Fig. 20 is a plan view of a floor cushioning material according to Embodiment 2 of the present disclosure.

[Fig. 21] Fig. 21 is a plan view of a floor cushioning material according to Embodiment 2 of the present disclosure.

[Fig. 22] Fig. 22 is a plan view of a floor cushioning material according to Embodiment 2 of the present disclosure.

[Fig. 23] Fig. 23 is a diagram illustrating a manner in which a packaged object is carried.

Description of Embodiments

[0010]

Packaging materials according to embodiments of the present disclosure will be described below with reference to the drawings. The present disclosure is not limited to the following embodiments and can be variously modified without departing from the gist of the present disclosure. The present disclosure includes all feasible combinations of configurations in the following embodiments. An apparatus in an illustrated packaging material is an example of apparatuses to which a packaging material in the present disclosure is applied, and the illustrated packaging material does not limit apparatuses to which the present disclosure is applied. In the following description, terms that mean directions (for example, "up", "down", "right", "left", "forward", and "rearward") are used as appropriate to make the description easy to understand. These terms are used for description and do not limit the present disclosure. In the drawings, components having the same reference signs are the same or corresponding components, and this applies to the entire description. For example, the relative size relationships or the shapes of the components in the drawings may differ from those of actual ones.

[0011]

Embodiment 1

Fig. 1 is a perspective view illustrating a packaging material according to Embodiment 1 of the present disclosure. Fig. 2 is a perspective view illustrating the packaging material according to Embodiment 1 of the present disclosure from which some components thereof are detached. A packaging material 1 is used for packaging an object 2 to be packaged therein and includes a floor packaging material 10, a top packaging material 20, and a side packaging material 30. For example, the packaging material 1 includes paperboard such as a corrugated board. For example, the object 2 to be packaged is a heavy refrigerator. Fig. 1 illustrates the packaging material 1 viewed from a forward side of the object 2 to be packaged. Fig. 2 illustrates the packaging material 1 from which the top packaging material 20 and the side packaging material 30 are detached and that is viewed from a rearward side of the object 2 to be packaged. The floor packaging material 10 is a packaging material configured to be disposed at the bottom of the packaging material 1 and is, in other words, a packaging

material configured to cover the bottom that is a surface of the object 2 to be packaged. The floor packaging material 10 as a whole has a rectangular shape. The top packaging material 20 is a packaging material configured to be disposed at the top of the packaging material 1 and is, in other words, a packaging material configured to cover the top that is a surface of the object 2 to be packaged. The top packaging material 20 as a whole has a rectangular shape. The floor packaging material 10 and the top packaging material 20 have substantially the same shape and size. The side packaging material 30 is a packaging material configured to be disposed, between the floor packaging material 10 and the top packaging material 20, at the sides of the packaging material 1. The object 2 to be packaged is set on the floor packaging material 10. The top of the object 2 to be packaged is covered with the top packaging material 20. The sides of the object 2 to be packaged are entirely covered with the side packaging material 30. A band 40 is a binding material with which the floor packaging material 10, the top packaging material 20, and the side packaging material 30 are fixed together. Three bands 40 are provided in Embodiment 1. The bands 40 are wrapped around the floor packaging material 10, the side packaging material 30, and the top packaging material 20 to extend in the short-side direction of each of the floor packaging material 10 and the top packaging material 20 and to extend along the side packaging material 30 in an up-down direction.

[0012]

In Figs. 1 and 2, the X direction represents the short-side direction of each of the floor packaging material 10 and the top packaging material 20, the Y direction represents the long-side direction of each of the floor packaging material 10 and the top packaging material 20, and the Z direction represents the up-down direction of each of the packaging material 1 and the object 2 to be packaged. Respective directions that the X direction, the Y direction, and the Z direction represent in the other drawings used in the following description are the same as those in Figs. 1 and 2.

[0013]

As illustrated in Fig. 1, the side packaging material 30 has handles 31, on which an operator puts their hands when carrying a packaged object 2. As illustrated in Fig.

2, the object 2 to be packaged is covered with a plastic film 50, which is transparent. In addition, top cushioning materials 51 and 52 are in contact with respective edge portions of the top of the object 2 to be packaged, the edge portions extending in the long-side direction.

[0014]

Figs. 3 and 4 are plan views each illustrating a floor packaging material according to Embodiment 1 of the present disclosure. Fig. 5 is a perspective view illustrating the floor packaging material according to Embodiment 1 of the present disclosure. Fig. 6 is a sectional view of the floor packaging material according to Embodiment 1 of the present disclosure. Fig. 3 illustrates the floor packaging material 10 viewed from a position close to the side where the object 2 to be packaged in Fig. 2 is set. Fig. 4 illustrates the floor packaging material 10 viewed from the outside of the packaging material 1, that is, a position close to the side where an operator puts their hands thereon. Fig. 6 is a sectional view of the floor packaging material 10 that is taken along line A-A in Fig. 3 and that is viewed in the direction of arrows. The floor packaging material 10 includes a floor case 60, a floor cushioning material 71, and a floor cushioning material 72. For example, the floor case 60 is formed by shaping a corrugated board. The object 2 to be packaged in Fig. 2 is set on the floor case 60. In other words, the floor case 60 is disposed along the bottom of the object 2 to be packaged. The shape of the floor case 60 in plan view is a rectangular shape or, more specifically, an oblong shape. The floor case 60 has a pair of first sides 60A and 60B, which extend in the long-side direction, a pair of second sides 60C and 60D, which extend in the short-side direction and which are orthogonal to the first sides 60A and 60B, and a facing surface 60E, which is a surface configured to face the object 2 to be packaged. The first sides 60A and 60B and the second sides 60C and 60D stand orthogonally to the facing surface 60E. In Figs. 3 to 5, the direction Y corresponds to the long-side direction, and the direction X corresponds to the short-side direction.

[0015]

The floor case 60 has first handles 80 and 90, second handles 101 and 102, and third handles 103 and 104. The first handle 80 is formed close to the corner where the

first side 60A and the second side 60C intersect each other. The first handle 90 is formed close to the corner where the first side 60B and the second side 60C intersect each other. The second handles 101 and 102 are formed so as to extend parallel to the second sides 60C and 60D. The third handles 103 and 104 are formed so as to extend parallel to the first sides 60A and 60B. The second handle 101 and the third handle 103 are formed in an edge portion of the first side 60A. The second handle 102 and the third handle 104 are formed in an edge portion of the first side 60B.

[0016]

The floor cushioning materials 71 and 72 are provided on the facing surface 60E. For example, the floor cushioning materials 71 and 72 are long materials formed by shaping styrene foam, which is a synthetic resin. The floor cushioning material 71 is disposed on the edge portion of the first side 60A of the floor case 60 such that the long-side direction thereof is parallel to the first side 60A. The floor cushioning material 72 is disposed on the edge portion of the first side 60B of the floor case 60 such that the long-side direction thereof is parallel to the first side 60B.

[0017]

Of opposite end portions of the floor cushioning material 71 in the long-side direction, the end portion located close to the second side 60C has a hollow portion 73. The hollow portion 73 is open toward the facing surface 60E of the floor case 60 and is open toward the inside of the floor case 60. Similarly, among opposite end portions of the floor cushioning material 72 in the long-side direction, the end portion located close to the second side 60C has a hollow portion 74. The hollow portion 74 is open toward the facing surface 60E of the floor case 60 and is open toward the inside of the floor case 60.

[0018]

As illustrated in Fig. 6, the hollow portion 74 is formed as a recessed portion. The hollow portion 74 has a first inner surface 74A, a second inner surface 74B, a third inner surface 74C, and a fourth inner surface 74D. The first inner surface 74A is parallel to the first side 60B illustrated in Figs. 3 to 5. The second inner surface 74B and the third inner surface 74C are parallel to the second side 60C illustrated in Figs. 3

to 5. The fourth inner surface 74D, which is the bottom of the hollow portion 74, is parallel to the facing surface 60E.

[0019]

As illustrated in Fig. 5, the hollow portion 73 is formed as a recessed portion similar to the hollow portion 74. The hollow portion 73 has a first inner surface 73A (see Fig. 8), a second inner surface 73B, a third inner surface 73C, and a fourth inner surface 73D. Although not illustrated in Fig. 5 for reasons of the angle from which the hollow portion 73 in Fig. 5 is viewed, the first inner surface 73A is parallel to the first side 60A in a similar manner in which the first inner surface 74A of the hollow portion 74 is parallel to the first side 60B. The second inner surface 73B and the third inner surface 73C are parallel to the second side 60C. The fourth inner surface 73D is parallel to the facing surface 60E.

[0020]

The first handle 80 is disposed in the hollow portion 73. In other words, the position where the hollow portion 73 is formed is set such that the first handle 80 is located in the hollow portion 73 when the floor cushioning material 71 is provided on the floor case 60. Similarly, the first handle 90 is disposed in the hollow portion 74. In other words, the position where the hollow portion 74 is formed is set such that the first handle 90 is located in the hollow portion 74 when the floor cushioning material 72 is provided on the floor case 60.

[0021]

Fig. 7 is an enlarged plan view illustrating a first handle according to Embodiment 1 of the present disclosure. Fig. 7 illustrates the first handle 80 viewed from a position close to the side where the floor cushioning material 71 is located. The first handle 80 has a pivotable part 81 and a support 82. The pivotable part 81 has a first pivotable piece 111, which extends parallel to the first side 60A (see Figs. 3 to 5), and a second pivotable piece 112, which extends parallel to the second side 60C (see Figs. 3 to 5). The support 82 has a first support 121, which is parallel to the first side 60A, and a second support 122, which is parallel to the second side 60C. That is, the first pivotable piece 111 and the first support 121 extend parallel to the long-side direction of

the floor case 60, and the second pivotable piece 112 and the second support 122 extend parallel to the short-side direction of the floor case 60.

[0022]

5 The first pivotable piece 111 has an outside shape formed by a first cut 113 and the first support 121. The first cut 113 has a first straight portion 113A, which extends parallel to the first side 60A, and a second straight portion 113B, which extends toward the first side 60A. The second straight portion 113B extends in a direction intersecting the first straight portion 113A. In the example in Fig. 7, the second straight portion 113B extends perpendicularly to the first straight portion 113A. The corner between 10 the first straight portion 113A and the second straight portion 113B is a rounded corner in Fig. 7. The first support 121 extends in a direction intersecting the second straight portion 113B.

[0023]

15 The second pivotable piece 112 has an outside shape formed by a second cut 114 and the second support 122. The second cut 114 has a third straight portion 114A, a fourth straight portion 114B, and a fifth straight portion 114C. The third straight portion 114A extends parallel to the second side 60C and is orthogonal to the first straight portion 113A of the first cut 113. The fourth straight portion 114B is continuous with one end portion of the third straight portion 114A and is located on an extension of 20 the first support 121. The fifth straight portion 114C is continuous with the other end portion of the third straight portion 114A. The second support 122 extends parallel to the second side 60C. In this manner, the first pivotable piece 111 and the second pivotable piece 112 are integrally formed with each other.

[0024]

25 The first support 121 and the second support 122 may be formed to have perforations or a crease. The first support 121 and the second support 122 having perforations or a crease can further facilitate pivoting of the first pivotable piece 111 and the second pivotable piece 112.

[0025]

The first handle 90 illustrated in Fig. 4 has a configuration similar to that of the first handle 80. The first handle 90 has a first pivotable piece 131 and a second pivotable piece 132. The first pivotable piece 131 has a shape similar to that of the first pivotable piece 111 of the first handle 80. The second pivotable piece 132 has a shape similar to that of the second pivotable piece 112 of the first handle 80. In addition, the relative positional relationship between the hollow portion 74 and both the first pivotable piece 131 and the second pivotable piece 132 is similar to the relative positional relationship between the hollow portion 73 and both the first pivotable piece 111 and the second pivotable piece 112 described above.

[0026]

As illustrated in Fig. 3, when the floor packaging material 10 is viewed in plan view from a position close to the side where the object 2 to be packaged is set, at least part of the first handle 80 overlaps the hollow portion 73, and at least part of the second handle 90 overlaps the hollow portion 74.

[0027]

Fig. 8 is a perspective view illustrating a second pivotable piece of the first handle that has pivoted. The second pivotable piece 112 is capable of pivoting toward the second inner surface 73B of the hollow portion 73 while being supported by the second support 122 in the hollow portion 73. Then, the second pivotable piece 112 is capable of being in contact with the second inner surface 73B when pivoting while being supported by the second support 122. When the second pivotable piece 112 pivots, a hand hole 402 is formed as illustrated in Fig. 8.

[0028]

The first pivotable piece 111 is capable of pivoting toward the first inner surface 73A of the hollow portion 73 while being supported by a first support 812 in the hollow portion 73. Then, the first pivotable piece 111 is capable of being in contact with the first inner surface 73A when pivoting while being supported by the first support 812.

Fig. 8 illustrates the first pivotable piece 111 that is not pivoted. As illustrated in Fig. 8, the first pivotable piece 111 that is not pivoted forms part of the facing surface 60E.

[0029]

The depth of the hollow portion 73 in a direction orthogonal to the facing surface 60E of the floor case 60 is larger than the length of a straight line that connects the first support 121 and the first straight portion 113A of the first cut 113 illustrated in Fig. 7 and that is orthogonal to the first straight portion 113A and the first support 121. In addition, the depth of the hollow portion 73 in the direction orthogonal to the facing surface 60E of the floor case 60 is larger than the length of a straight line that connects the second support 122 and a first straight portion 106A of the second cut 114 illustrated in Fig. 7 and that is orthogonal to the first straight portion 106A and the second support 122. That is, the depth of the hollow portion 73 is set to a dimension that does not prevent the first pivotable piece 111 of the pivotable part 81 from pivoting toward the first inner surface 73A and that does not prevent the second pivotable piece 112 of the pivotable part 81 from pivoting toward the second inner surface 73B.

[0030]

As illustrated in Fig. 4, the second handles 101 and 102 extend along the second sides 60C and 60D. The second handle 101 is formed in the edge portion of the first side 60A. The second handle 102 is formed in the edge portion of the first side 60B. The third handles 103 and 104 extend along the first sides 60A and 60B. The third handle 103 is formed in the edge portion of the first side 60A. The third handle 104 is formed in the edge portion of the first side 60B.

[0031]

In this manner, the pivotable part 81 of the first handle 80 is configured to be capable of pivoting toward the floor cushioning material 71 while being supported by the support 82. In addition, the pivotable part 81 of the first handle 80 is configured to be capable of being in contact with inner surfaces of the hollow portion 73 when pivoting. The pivotable part 91 of the first handle 90 is configured to be capable of pivoting toward the floor cushioning material 72 while being supported by a support 92. In addition, the pivotable part 91 of the first handle 90 is configured to be capable of being in contact with inner surfaces of the hollow portion 73 when pivoting.

[0032]

Fig. 9 is a perspective view illustrating a hollow portion according to a first modification example of Embodiment 1 of the present disclosure and a first pivotable piece of the first handle that has pivoted. Fig. 10 is a perspective view illustrating the second pivotable piece of the first handle that has pivoted in the first modification example of Embodiment 1 of the present disclosure. Fig. 11 is a perspective view illustrating the first pivotable piece and the second pivotable piece of the first handle that have pivoted in the first modification example of Embodiment 1 of the present disclosure. As illustrated in Figs. 9 to 11, a hollow portion 173 of a floor cushioning material 171 in the first modification example has a first inner surface 173A, which is parallel to the first side 60A, and a second inner surface 173B and a third inner surface 173C, which are parallel to the second side 60C.

[0033]

As illustrated in Fig. 9, the first pivotable piece 111 is capable of pivoting toward the first inner surface 173A of the hollow portion 173 while being supported by the first support 121 in the hollow portion 173. Then, the first pivotable piece 111 is capable of being in contact with the first inner surface 173A when pivoting while being supported by the first support 121. When the first pivotable piece 111 pivots, a hand hole 401, which is parallel to the long-side direction of the floor case 60, is formed. In Fig. 9, the second pivotable piece 112 is not pivoted and forms part of the facing surface 60E.

[0034]

As illustrated in Fig. 10, the second pivotable piece 112 is capable of pivoting toward the second inner surface 173B of the hollow portion 173 while being supported by the second support 122 in the hollow portion 173. Then, the second pivotable piece 112 is capable of being in contact with the second inner surface 173B when pivoting while being supported by a first support 822. When the second pivotable piece 112 pivots, the hand hole 402, which is parallel to the short-side direction of the floor case 60, is formed. In Fig. 10, the first pivotable piece 111 is not pivoted and forms part of the facing surface 60E.

[0035]

As illustrated in Fig. 11, it is also possible to pivot both the first pivotable piece 111 and the second pivotable piece 112. Also in this case, the first pivotable piece 111 is capable of being in contact with the first inner surface 173A of the hollow portion 173, and the second pivotable piece 112 is capable of being in contact with the second inner surface 173B of the hollow portion 173. Then, when both the first pivotable piece 111 and the second pivotable piece 112 pivot, the hand hole 401 and the hand hole 402 are integrally formed with each other as illustrated in Fig. 11. Also in the configuration illustrated in Fig. 8, it is possible to pivot both the first pivotable piece 111 and the second pivotable piece 112.

[0036]

Fig. 23 is a diagram illustrating a manner in which a packaged object is carried. When using the first handle 80, an operator pivots one or both of the first pivotable piece 111 and the second pivotable piece 112 in the manner described above and inserts their hand or fingers into the hand hole 401 or the hand hole 402 formed by this pivoting operation. Then, in Embodiment 1 described with reference to Fig. 8, the first pivotable piece 111 is in contact with the first inner surface 73A of the hollow portion 73 of the floor cushioning material 71, and the second pivotable piece 112 is in contact with the second inner surface 73B of the hollow portion 73 of the floor cushioning material 71. Thus, the first pivotable piece 111 and the second pivotable piece 112 are supported by the floor cushioning material 71. In the first modification example of Embodiment 1 described with reference to Figs. 9 to 11, the first pivotable piece 111 is in contact with the first inner surface 173A of the hollow portion 173 of the floor cushioning material 171, and the second pivotable piece 112 is in contact with the second inner surface 173B of the hollow portion 173 of the floor cushioning material 171. Thus, the first pivotable piece 111 and the second pivotable piece 112 are supported by the floor cushioning material 171.

[0037]

Thus, even when an external force is applied to the periphery of each of the hand hole 401 and the hand hole 402, detachment of the first pivotable piece 111 and the second pivotable piece 112, damage to a peripheral portion of each of the first pivotable

piece 111 and the second pivotable piece 112, and damage to an edge portion of each of the hand hole 401 and the hand hole 402 are inhibited. That is, the floor cushioning material 71 functions as a reinforcing material for the first handle 80.

[0038]

5 The first handle 90 has a configuration similar to the configuration of the first handle 80 and thus achieves effects similar to the effects of the first handle 80 described above.

[0039]

10 In this manner, Embodiment 1 enables reinforcement of the first handles 80 and 90 to be achieved without adding extra components other than the floor case 60 and the floor cushioning materials 71 and 72, which are components with which the object 2 to be packaged is packaged. That is, Embodiment 1 enables an increase in the strength of the floor packaging material 10 with an increase in the number of components inhibited.

15 [0040]

 Since such an increase in the number of components is inhibited, it is possible to inhibit an increase in the manufacturing cost of the floor packaging material 10.

[0041]

20 It is unnecessary to add extra components other than the floor case 60 and the floor cushioning materials 71 and 72, thus avoiding difficulties in discarding a reinforcing material caused when a component made of a material different from that for each of the floor case 60 and the floor cushioning materials 71 and 72 is used as such a reinforcing material.

[0042]

25 An increase in the size of each of the hand hole extending in the long-side direction of the floor case 60 and the hand hole extending in the short-side direction of the floor case 60 results in improvement in convenience of carrying the packaged object 2. When the first pivotable piece 111 and the second pivotable piece 112 are provided to be spaced and the hand hole 401 and the hand hole 402 are formed to be spaced
30 and to have a larger size, the space therebetween is reduced, and this may result in

damage to the floor case 60. In Embodiment 1, the first pivotable piece 111, which extends parallel to the long-side direction of the floor case 60, and the second pivotable piece 112, which extends parallel to the short-side direction of the floor case 60, are integrally formed with each other. Thus, even when the size of each of the hand hole 401 and the hand hole 402 is set in consideration of convenience for an operator, it is possible to inhibit damage to the floor case 60.

[0043]

In addition, when the hand hole 401 and the hand hole 402 are formed to be spaced, it can be considered that the space between the first pivotable piece 111 and the second pivotable piece 112 is increased to avoid damage to the floor case 60. However, in this case, the floor case 60 may be increased in size. In Embodiment 1, the second support 122 and both the first pivotable piece 111 and the second pivotable piece 112 are integrally formed with each other. Thus, it is possible to inhibit an increase in the size of the floor case 60 and to inhibit an increase in the manufacturing cost thereof due to such an increase in the size.

[0044]

Furthermore, when the hand hole 401 and the hand hole 402 are formed to be spaced, due to design restrictions caused by the relative positional relationship between the floor cushioning material and both the hand hole 401 and the hand hole 402, it may be difficult to locate the hand hole 401 and the hand hole 402 at positions where an operator can easily hold the edges thereof. In Embodiment 1, the first handle 80 is provided in the hollow portion 73 of the floor cushioning material 71, and the first handle 90 is provided in the hollow portion 74 of the floor cushioning material 72. Thus, it is possible to set the positions of the first handle 80 and the second handle 90 to meet convenience for an operator and to set the positions of the hollow portion 73 and the hollow portion 74 depending on the positions of the first handle 80 and the second handle 90.

[0045]

To enable the position of a hand hole to be set freely to meet convenience for an operator, it can be considered that a floor packaging material is formed only by a floor

cushioning material whose inside has a recessed portion serving as a hand hole.

However, the hole is always formed in the inside of the floor packaging material. Thus, for example, insects or small animals may enter the hole. In Embodiment 1, the hand holes 401 and 402 can be formed by pivoting the first pivotable piece and the second
5 pivotable piece as necessary, and it is thus possible to inhibit entrance of foreign matter thereinto.

[0046]

In addition, when a floor packaging material is formed only by a floor cushioning material formed by shaping, for example, styrene foam, the floor cushioning material
10 may be scraped during carriage against, for example, the ground or a floor that is rough and hard and may thus be damaged. In Embodiment 1, the floor packaging material 10 includes the floor case 60, which is made of a corrugated board, the floor cushioning material 71, and a floor cushioning material 73. A corrugated board has a higher
15 resistance to scraping against, for example, the ground or a floor that is rough and hard than that of styrene foam. Thus, Embodiment 1 inhibits damage to the floor packaging material 10 during carriage.

[0047]

The depth of the hollow portion 73 is set to a dimension that does not prevent pivoting of the first pivotable piece 111 and the second pivotable piece 112 of the
20 pivotable part 81, thus, when an operator pivots the first pivotable piece 111 and the second pivotable piece 112, inhibiting the operator from feeling stress. In addition, when the first pivotable piece 111 and the second pivotable piece 112 pivot, an edge portion of each of the first pivotable piece 111 and the second pivotable piece 112 is
25 inhibited from coming into contact with the fourth inner surface 73D of the hollow portion 73. Thus, it is possible to inhibit damage to the first pivotable piece 111 and the second pivotable piece 112. Similarly, the depth of the hollow portion 74 is set to a dimension that does not prevent pivoting of the first pivotable piece 131 and the second
30 pivotable piece 132 of the pivotable part 91, thus, when an operator pivots the first pivotable piece 131 and the second pivotable piece 132, inhibiting the operator from feeling stress. In addition, when the first pivotable piece 131 and the second pivotable

piece 132 pivot, an edge portion of each of the first pivotable piece 111 and the second pivotable piece 132 is inhibited from coming into contact with the fourth inner surface 74D of the hollow portion 74. Thus, it is possible to inhibit damage to the first pivotable piece 131 and the second pivotable piece 132.

5 [0048]

In the configurations illustrated in Figs. 3, 5, and 6, the hollow portion 73 has the fourth inner surface 73D, which is the bottom thereof, and the hollow portion 74 has the fourth inner surface 74D, which is the bottom thereof. Thus, it is possible to maintain the strength of each of the floor cushioning materials 71 and 72. In addition, a side of each of the hollow portions 73 and 74 is open toward the inside of the floor case 60. Thus, it is possible to facilitate visual confirmation, from a position close to the center of the floor case 60, of the relative positional relationship between the hollow portion 73 and the first handle 80 and the relative positional relationship between the hollow portion 74 and the first handle 90. As a result, it is possible to facilitate positioning of the floor cushioning materials 71 and 72.

15 [0049]

In the configurations illustrated in Figs. 9 and 10, the hollow portion 173 only has the first inner surface 173A, the second inner surface 173B, and the third inner surface 173C, which are orthogonal to the facing surface 60E of the floor case 60. Thus, it is possible to facilitate visual confirmation of the relative positional relationship between the hollow portion 173 and the first handle 80 when the floor packaging material 10 is viewed from a position close to the facing surface 60E of the floor case 60. As a result, it is possible to facilitate positioning of the floor cushioning material 71.

25 [0050]

Fig. 12 is an enlarged plan view illustrating a first handle according to a second modification example of Embodiment 1 of the present disclosure. Fig. 12 illustrates a first handle 280 viewed from a position close to the side where the floor cushioning material 171 is located. The first handle 280 has a pivotable part 281 and a support 282. The pivotable part 281 has a first pivotable piece 211, which extends parallel to the first side 60A (see Figs. 3 to 5), a second pivotable piece 212, which extends

parallel to the second side 60C (see Figs. 3 to 5), and a third pivotable piece 213. The support 282 has a first support 221, which is parallel to the first side 60A, a second support 222, which is parallel to the second side 60C, and a third support 223.

[0051]

5 The first pivotable piece 211 has an outside shape formed by a first cut 215 and the first support 221. The first cut has a first straight portion 215A, which extends parallel to the first side 60A (see Figs. 3 to 5), and a second straight portion 215B, which extends toward the first side 60A. The second straight portion 215B extends in a direction intersecting the first straight portion 215A. In the example in Fig. 12, the
10 second straight portion 215B extends perpendicularly to the first straight portion 215A. The corner between the first straight portion 215A and the second straight portion 215B is a rounded corner in Fig. 12. The first support 221 extends parallel to the first side 60A and extends in a direction intersecting the second straight portion 215B.

[0052]

15 The second pivotable piece 212 has an outside shape formed by a second cut 216 and the second support 222. The second cut 216 has a third straight portion 216A and a fourth straight portion 216B. The third straight portion 216A extends parallel to the second side 60C (see Figs. 3 to 5). The third straight portion 216A is orthogonal to and intersects the first straight portion 215A. The fourth straight portion 216B is
20 continuous with one end portion of the third straight portion 216A and extends parallel to the first side 60A. The second support 222 extends parallel to the second side 60C and is orthogonal to the fourth straight portion 216B.

[0053]

25 The third pivotable piece 213 has an outside shape formed by a third cut 217 and the third support 223. The third cut 217 has a fifth straight portion 217A, a sixth straight portion 217B, and a seventh straight portion 217C. The fifth straight portion 217A extends on an extension of the third straight portion 216A toward the first side 60A. The sixth straight portion 217B extends on an extension of the first support 221 toward the second side 60C. The seventh straight portion 217C extends on an
30 extension of the second support 222 toward the first side 60A. The third support 223

extends on an extension of the first straight portion 215A toward the second side 60C. The second pivotable piece 212 and the third pivotable piece 213 are continuous with each other via the third support 223.

[0054]

5 That is, the first pivotable piece 211, the second pivotable piece 212, and the third pivotable piece 213 are integrally formed with each other.

[0055]

Fig. 13 is a perspective view illustrating a first pivotable piece and a third pivotable piece of the first handle according to the second modification example of Embodiment 1 of the present disclosure that have pivoted. The first pivotable piece 10 211 is capable of pivoting toward the first inner surface 173A of the hollow portion 173 while being supported by the first support 221 in the hollow portion 173. Then, the first pivotable piece 211 is capable of being in contact with the first inner surface 173A when pivoting while being supported by the first support 221. The third pivotable piece 213 15 is capable of pivoting in the direction opposite to the direction in which the first pivotable piece 211 pivots along the first side 60A while being supported by the third support 223. When the first pivotable piece 211 and the third pivotable piece 213 pivot, the hand hole 401, which extends parallel to the first side 60A, is formed.

[0056]

Fig. 14 is a perspective view illustrating a second pivotable piece and the third pivotable piece of the first handle according to the second modification example of Embodiment 1 of the present disclosure that have pivoted. The second pivotable piece 212 is capable of pivoting toward the second inner surface 173B of the hollow portion 173 while being supported by the second support 222. Then, the second pivotable 25 piece 212 is capable of being in contact with the second inner surface 173B when pivoting while being supported by the second support 222. The third pivotable piece 213 is continuous with the second pivotable piece 212 via the third support 223. Thus, the third pivotable piece 213, together with the second pivotable piece 212, is capable of pivoting toward the second inner surface 173B of the hollow portion 173. Then, 30 when the third pivotable piece 213 pivots, the third pivotable piece 213 is capable of

being in contact with the second inner surface 173B. When the second pivotable piece 212 and the third pivotable piece 213 pivot, the hand hole 402 is formed.

[0057]

The first pivotable piece 211 is configured to be in contact with the first inner surface 173A of the hollow portion 173 of the floor cushioning material 71, and the second pivotable piece 212 and the third pivotable piece 213 are configured to be in contact with the second inner surface 173B of the hollow portion 173 of the floor cushioning material 171. Thus, the first pivotable piece 211, the second pivotable piece 212, and the third pivotable piece 213 are configured to be supported by the floor cushioning material 71. As a result, it is thus possible to achieve effects similar to those described above.

[0058]

Fig. 15 is an enlarged plan view illustrating a first handle according to a third modification example of Embodiment 1 of the present disclosure. Fig. 15 illustrates a first handle 380 viewed from a position close to the side where the floor cushioning material 171 is located. The first handle 380 has a pivotable part 381 and a support 382. The pivotable part 381 has a first pivotable piece 311, which extends parallel to the first side 60A (see Figs. 3 to 5) of the floor case 60, a second pivotable piece 312, which extends parallel to the second side 60C (see Figs. 3 to 5) of the floor case 60, and a third pivotable piece 313. The support 382 has a first support 321, which is parallel to the first side 60A, and a second support 322 and a third support 323, which are parallel to the second side 60C.

[0059]

The first pivotable piece 311 has an outside shape formed by a first cut 315 and the first support 321. The first cut 315 has a first straight portion 315A, which extends parallel to the first side 60A of the floor case 60, and a second straight portion 315B. The second straight portion 315B extends in a direction intersecting the first straight portion 315A. In the example in Fig. 15, the second straight portion 315B extends perpendicularly to the first straight portion 315A. The corner between the first straight

portion 315A and the second straight portion 315B is a rounded corner in Fig. 12. The first support 321 extends in a direction intersecting the second straight portion 315B.
[0060]

The second pivotable piece 312 has an outside shape formed by a second cut 316 and the second support 322. The second cut 316 has a third straight portion 316A and a fourth straight portion 316B. The third straight portion 316A extends parallel to the second side 60C of the floor case 60 and is orthogonal to the first straight portion 315A of the first cut 315. The fourth straight portion 316B is continuous with one end portion of the third straight portion 316A and extends parallel to the first side 60A of the floor case 60.

[0061]

The third pivotable piece 313 has an outside shape formed by a third cut 317 and the third support 323. The third support 323 is located on an extension of the second support 322 toward the first side 60A of the floor case 60. The third cut 317 has a fifth straight portion 317A, a sixth straight portion 317B, and a seventh straight portion 317C. The fifth straight portion 317A extends on an extension of the third straight portion 316A toward the first side 60A of the floor case 60. The sixth straight portion 317B extends on an extension of the first support 321 toward the second side 60C of the floor case 60. The seventh straight portion 317C extends on an extension of the first straight portion 315A toward the second side 60C of the floor case 60. The third support 323 extends on an extension of the second support 322 toward the first side 60A of the floor case 60 and is orthogonal to the sixth straight portion 317B and the seventh straight portion 317C.

[0062]

Fig. 16 is a perspective view illustrating a first pivotable piece and a third pivotable piece of the first handle according to the third modification example of Embodiment 1 of the present disclosure that have pivoted. The first pivotable piece 311 is capable of pivoting toward the first inner surface 173A of the hollow portion 173 while being supported by the first support 321 in the hollow portion 173. Then, the first pivotable piece 311 is capable of being in contact with the first inner surface 173A when

pivoting while being supported by the first support 321. The third pivotable piece 313 is capable of pivoting toward the second inner surface 173B of the hollow portion 173 while being supported by the third support 323. Then, the third pivotable piece 313 is capable of being in contact with the second inner surface 173B when pivoting while
5 being supported by the third support 323. When the first pivotable piece 311 and the third pivotable piece 313 pivot, the hand hole 401, which extends parallel to the first side 60A, is formed. In Fig. 16, the second pivotable piece 312 is not pivoted and forms part of the facing surface 60E of the floor case 60.

[0063]

10 Fig. 17 is a perspective view illustrating a second pivotable piece and the third pivotable piece of the first handle according to the third modification example of Embodiment 1 of the present disclosure that have pivoted. The second pivotable piece 312 is capable of pivoting toward the second inner surface 173B of the hollow portion 173 while being supported by the second support 322. Then, the second pivotable
15 piece 312 is capable of being in contact with the second inner surface 173B when pivoting while being supported by the second support 322. The third pivotable piece 313 is capable of pivoting toward the second inner surface 173B of the hollow portion 173 while being supported by the third support 323. Then, the third pivotable piece 313 is capable of being in contact with the second inner surface 173B when pivoting
20 while being supported by the third support 323. When the second pivotable piece 312 and the third pivotable piece 313 pivot, the hand hole 402, which extends parallel to the second side 60C, is formed. In Fig. 17, the first pivotable piece 311 is not pivoted and forms part of the facing surface 60E of the floor case 60.

[0064]

25 The first pivotable piece 311 is configured to be in contact with the first inner surface 173A of the hollow portion 173 of the floor cushioning material 71, and the second pivotable piece 312 and the third pivotable piece 313 are configured to be in contact with the second inner surface 173B of the hollow portion 173 of the floor cushioning material 171. Thus, the first pivotable piece 311, the second pivotable
30 piece 312, and the third pivotable piece 313 are configured to be supported by the floor

cushioning material 71. As a result, it is thus possible to achieve effects similar to those described above.

[0065]

Embodiment 2

5 Fig. 18 is a perspective view of a floor packaging material according to Embodiment 2 of the present disclosure. Fig. 19 is a perspective view of a floor case according to Embodiment 2 of the present disclosure. Fig. 20 is a plan view of a floor cushioning material according to Embodiment 2 of the present disclosure. Figs. 18 to 20 each illustrate a floor packaging material 410 viewed from a position close to the side where the object 2 to be packaged is set. Only the difference between the floor packaging material 410 and the floor packaging material 10 in Embodiment 1 described above will be described with reference to Figs. 18 to 20. A first side 460A of a floor case 460 has an opening 411. A first side 460B of the floor case 460 has an opening 412. A side 472A of a floor cushioning material 472, the side 472A being in contact with the first side 460B, has a projection 472B. The projection 472B is fitted into the opening 411. A side 472C of the floor cushioning material 472, the side 472C being in contact with a second side 460D of the floor case 460, has a projection 472D. The projection 472D is fitted into an opening that is not illustrated and that is formed in the second side 460D. A surface of a floor cushioning material 471, the surface facing the first side 60A of the floor case 460, has a projection similar to the projection 472B of the floor cushioning material 472. The projection provided on the floor cushioning material 471 is fitted into the opening 411. A surface of the floor cushioning material 471, the surface facing the first side 60A of the floor case 460, has a projection similar to the projection 472D of the floor cushioning material 472. This projection is fitted into an opening 461, which is formed in the second side 460D of the floor case 460.

[0066]

According to Embodiment 2, the floor case 460 and the floor cushioning material 471 are configured such that the projection of the floor cushioning material 471 is fitted into the opening of the floor case 460. In addition, the floor case 460 and the floor cushioning material 472 are configured such that the projection 472B of the floor

cushioning material 472 is fitted into the opening of the floor case 460. Thus, it is possible to facilitate positioning of the floor cushioning materials 471 and 472.

[0067]

Figs. 21 and 22 are plan views of floor cushioning materials according to modification examples of Embodiment 2 of the present disclosure. Fig. 21 illustrates a floor cushioning material 571 viewed from a position close to the side facing the floor case 460. Fig. 22 illustrates a floor cushioning material 671 viewed from a position close to the side facing the floor case 460. A side 571A of the floor cushioning material 571 in Fig. 21, the side 571A being configured to be in contact with the first side 460A (see Fig. 19) of the floor case 460, has a projection 571B. In addition, the floor cushioning material 571 has hollow portions 571C, 571D, and 571E, which are three recessed portions. Only respective sides of the hollow portions 571C, 571D, and 571E, the sides facing the floor case 460, are open. A side 671A of the floor cushioning material 671 in Fig. 22, the side 671A being configured to be in contact with the first side 460A of the floor case 460, has a projection 671B. In addition, the floor cushioning material 671 has hollow portions 671C, 671D, and 671E, which are three recessed portions. Sides of the hollow portion 671C, the sides being a side facing the center of the floor case 460 and a side facing the floor case, are open. Only respective sides of the hollow portions 671D and 671E, the sides facing the floor case 460, are open. As illustrated in Fig. 21, the projection 571B, which is configured to be fitted into an opening of the floor case 460, may be provided close to an end portion of the floor cushioning material 571. As illustrated in Fig. 22, the projection 671B, which is configured to be fitted into an opening of the floor case, may be provided close to an end portion of the floor cushioning material 671.

[0068]

In Embodiments 1 and 2, the configuration of the floor packaging material 10 has been described, but the present disclosure is not limited thereto. The configurations of Embodiments 1 and 2 may also be applied to the top packaging material 20.

Reference Signs List

[0069]

1: packaging material, 2: object to be packaged, 10: floor packaging material, 20: top packaging material, 30: side packaging material, 31: handle, 40: band, 50: plastic film, 51: top cushioning material, 52: top cushioning material, 60: floor case, 60A: first side, 60B: first side, 60C: second side, 60D: second side, 60E: facing surface, 71: floor cushioning material, 72: floor cushioning material, 73: hollow portion, 73A: first inner surface, 73B: second inner surface, 73C: third inner surface, 73D: fourth inner surface, 74: hollow portion, 74A: first inner surface, 74B: second inner surface, 74C: third inner surface, 74D: fourth inner surface, 80: first handle 80, 81: pivotable part, 82: support, 90: first handle, 91: pivotable part, 92: support, 101: second handle, 102: second handle, 103: third handle, 104: third handle, 106A: first straight portion, 111: first pivotable piece, 112: second pivotable piece, 113: first cut 113, 113A: first straight portion, 113B: second straight portion, 114: second cut, 114A: third straight portion, 114B: fourth straight portion, 114C: fifth straight portion, 121: first support, 122: second support, 131: first pivotable piece, 132: second pivotable piece, 171: floor cushioning material, 173: hollow portion, 173A: first inner surface, 173B: second inner surface, 173C: third inner surface, 211: first pivotable piece, 212: second pivotable piece, 213: third pivotable piece, 215: first cut, 215A: first straight portion, 215B: second straight portion, 216: second cut, 216A: third straight portion, 216B: fourth straight portion, 217: third cut, 217A: fifth straight portion, 217B: sixth straight portion, 217C: seventh straight portion, 221: first support, 222: second support, 223: third support, 280: first handle, 281: pivotable part, 282: support, 311: first pivotable piece, 312: second pivotable piece, 313: third pivotable piece, 315: first cut, 315A: first straight portion, 315B: second straight portion, 316: second cut, 316A: third straight portion, 316B: fourth straight portion, 317: third cut, 317A: fifth straight portion, 317B: sixth straight portion, 317C: seventh straight portion, 321: first support, 322: second support, 323: third support, 380: first handle, 381: pivotable part, 382: support, 401: hand hole, 402: hand hole, 410: floor packaging material, 411: opening, 412: opening, 460: floor case, 460A: first side, 460B: first side, 460D: second side, 461: opening, 471: floor cushioning material, 472: floor cushioning material, 472A: side, 472B: projection, 472C: side, 472D: projection, 571: floor cushioning material, 571A: side, 571B: projection, 571C: hollow portion, 571D:

hollow portion, 671: floor cushioning material, 671A: side, 671B: projection, 671C:
hollow portion, 671D: hollow portion, 812: first support, 822: first support

CLAIMS

[Claim 1]

A packaging material configured to cover one surface of an object to be packaged, the packaging material comprising:

5 a case having a pair of first sides extending parallel to each other, the case being configured to be disposed along the one surface of the object to be packaged;

 a cushioning material having a hollow portion, the cushioning material extending parallel to the first sides and being disposed, along an edge portion of each of the first sides, on a facing surface of the case, the facing surface being configured to face the
10 object to be packaged; and

 a handle provided in the case such that the handle is located in the hollow portion, wherein

 the handle has a pivotable part having an outside shape formed by a cut and a support, the cut being formed in the case, the support being continuous with the facing
15 surface,

 the pivotable part is capable of pivoting toward the cushioning material while the pivotable part is supported by the support, and

 the pivotable part is configured to be in contact with an inner surface of the hollow portion when the pivotable part pivots toward the cushioning material.

20 [Claim 2]

 The packaging material of claim 1, wherein

 the hollow portion is formed as a recessed portion that is open toward the facing surface of the case and that is open toward an inside of the case,

 the hollow portion has

25 a first inner surface parallel to the first sides, the first inner surface standing perpendicularly to the facing surface of the case,

 a second inner surface orthogonal to one end portion of the first inner surface, the second inner surface being parallel to a second side of the case, the second side being orthogonal to the first sides,

a third inner surface orthogonal to an other end portion of the first inner surface, the third inner surface being parallel to the second side of the case, the second side being orthogonal to the first sides, and

a fourth inner surface parallel to the facing surface of the case, and

5 a depth of the hollow portion in a direction orthogonal to the facing surface is set to a dimension that does not prevent pivoting of the pivotable part.

[Claim 3]

The packaging material of claim 1, wherein

the hollow portion is a recessed portion and has

10 a first inner surface parallel to the first sides, the first inner surface standing perpendicularly to the facing surface of the case,

a second inner surface orthogonal to one end portion of the first inner surface, the second inner surface being parallel to a second side of the case, the second side being orthogonal to the first sides, and

15 a third inner surface orthogonal to an other end portion of the first inner surface, the third inner surface being parallel to the second side of the case, the second side being orthogonal to the first sides.

[Claim 4]

The packaging material of claim 2 or 3, wherein

20 the pivotable part has

a first pivotable piece configured to be capable of pivoting toward the first inner surface in the hollow portion and configured to be capable of being in contact with the first inner surface, and

25 a second pivotable piece configured to be capable of pivoting toward the second inner surface in the hollow portion and configured to be capable of being in contact with the second inner surface.

[Claim 5]

The packaging material of claim 4, wherein

30 the first pivotable piece has an outside shape formed by a first cut and a first support,

the second pivotable piece has an outside shape formed by a second cut and a second support,

the first cut has

a first straight portion extending parallel to the first sides, and

a second straight portion extending in a direction intersecting the first straight portion, the second straight portion extending toward one of the first sides,

the first support extends parallel to the first sides and extends in a direction intersecting the second straight portion,

the second cut has

a third straight portion extending parallel to the second side of the case, the third straight portion being orthogonal to the first straight portion of the first cut,

a fourth straight portion continuous with one end portion of the third straight portion, the fourth straight portion being located on an extension of the first support, and

a fifth straight portion continuous with an other end portion of the third straight portion, and

the second support extends parallel to the second side.

[Claim 6]

The packaging material of claim 2 or 3, wherein

the pivotable part has

a first pivotable piece configured to be capable of pivoting toward the first inner surface in the hollow portion and configured to be capable of being in contact with the first inner surface,

a second pivotable piece configured to be capable of pivoting toward the second inner surface in the hollow portion and configured to be capable of being in contact with the second inner surface, and

a third pivotable piece configured to be capable of pivoting toward the second inner surface and capable of pivoting in a direction away from the first inner surface, the third pivotable piece being configured to be capable of being in contact with the second inner surface.

[Claim 7]

The packaging material of claim 6, wherein
the first pivotable piece has an outside shape formed by a first cut and a first support,

the second pivotable piece has an outside shape formed by a second cut and a
5 second support,

the third pivotable piece has an outside shape formed by a third cut and a third support,

the first cut has

a first straight portion extending parallel to the first sides, and

10 a second straight portion extending in a direction intersecting the first straight portion, the second straight portion extending toward one of the first sides,

the first support extends parallel to the first sides and extends in a direction intersecting the second straight portion,

the second cut has

15 a third straight portion extending parallel to the second side of the case, the third straight portion being orthogonal to the first straight portion of the first cut, and

a fourth straight portion continuous with one end portion of the third straight portion, the fourth straight portion extending parallel to the first sides,

the second support extends parallel to the second side and is orthogonal to the
20 fourth straight portion,

the third cut has

a fifth straight portion extending on an extension of the third straight portion toward the one of the first sides,

a sixth straight portion extending on an extension of the first support toward
25 the second side, and

a seventh straight portion extending on an extension of the second support toward the one of the first sides,

the third support extends on an extension of the first straight portion toward the second side, and

the second pivotable piece and the third pivotable piece are continuous with each other via the third support.

[Claim 8]

The packaging material of claim 2 or 3, wherein

the pivotable part has

a first pivotable piece configured to be capable of pivoting toward the first inner surface in the hollow portion and configured to be capable of being in contact with the first inner surface,

a second pivotable piece configured to be capable of pivoting toward the second inner surface in the hollow portion and configured to be capable of being in contact with the second inner surface, and

a third pivotable piece configured to be capable of pivoting toward the second inner surface and configured to be capable of being in contact with the second inner surface.

[Claim 9]

The packaging material of claim 8, wherein

the first pivotable piece has an outside shape formed by a first cut and a first support,

the second pivotable piece has an outside shape formed by a second cut and a second support,

the third pivotable piece has an outside shape formed by a third cut and a third support,

the first cut has

a first straight portion extending parallel to the first sides, and

a second straight portion extending in a direction intersecting the first straight portion, the second straight portion extending toward one of the first sides,

the first support extends parallel to the first sides and extends in a direction intersecting the second straight portion,

the second cut has

a third straight portion extending parallel to the second side of the case, the third straight portion being orthogonal to the first straight portion of the first cut, and

a fourth straight portion continuous with one end portion of the third straight portion, the fourth straight portion extending parallel to the first sides,

5 the third cut has

a fifth straight portion extending on an extension of the third straight portion toward the one of the first sides,

a sixth straight portion extending on an extension of the first support toward the second side, and

10 a seventh straight portion extending on an extension of the first straight portion toward the second side, and

the third support extends on an extension of the second support toward the one of the first sides and is orthogonal to the sixth straight portion and the seventh straight portion.

15 [Claim 10]

The packaging material of any one of claims 1 to 9, wherein
a surface of the cushioning material, the surface of the cushioning material being in contact with one of the first sides, has a projection, and

20 the projection is fitted into an opening formed in the one of the first sides of the case.