DESCRIPTION

LID, CONTAINER WITH LID, COMBINATION OF LID AND CONTAINER, AND METHOD FOR MANUFACTURING LID

Technical Field

[0001]

The present invention relates to a lid, a container with a lid, a combination of a lid and a container, and a method for manufacturing a lid.

Background Art

[0002]

It is widely practiced to provide food and drink or the like (hereinafter, also referred to as a “content”) in a state where the inside of a container is closed by housing the food and drink in the container having an opening at an upper end and attaching a lid.

[0003]

As the lid attached to the container, it is required to use a lid using a paper-based material from the viewpoint of reducing the environmental load. As a method for attaching the lid to the container, a method for joining the lid to an edge forming an outer periphery of an opening at an upper end of the container using a method such as hot pressing (sealing method) is known. As a method for taking in the contents stored in the container,

a method for removing the lid and a method for providing a tab like the lid described in Patent Literature 1 are known. In the lid disclosed in Patent Literature 1, when a user pinches and pulls up a tab, a bell-shaped or gourd-shaped hole is opened to form a straw.

[0004]

Furthermore, as a method for attaching the lid to the container, there is known a method (fitting method) of forming a state in which the lid is in contact with an edge forming an outer periphery of an opening at an upper end of the container by fitting a structure portion such as a bent part or a combination of the top surface portion and the side wall part to the edge of the container in a case where the lid has the top surface portion, the bent part, and the side wall part. As a method for forming such a lid, a method for forming the lid by shaping a blank material for forming the lid is known.

Citation List

Patent Literature

[0005]

Patent Literature 1: WO 2016/069755 A

Summary of Invention

Technical Problem

state of a longitudinal cross section taken along line J-J in Fig. 16A.

Fig. 17A is a perspective view illustrating an example of a lid according to a seventh embodiment. Fig. 17B is a cross-sectional view schematically illustrating a state of a longitudinal cross section taken along line K-K in Fig. 17A.

Fig. 18A is a plan view illustrating an example of a lid according to a first modification of the fifth embodiment. Fig. 18B is a cross-sectional view schematically illustrating a state of a longitudinal cross section taken along line L-L in Fig. 18A.

Figs. 19A and 19B are plan views illustrating an example of a blank material for a lid according to the first modification of the fifth embodiment.

Fig. 20A is a plan view illustrating an example of a lid according to a fourth modification of the fifth embodiment. Fig. 20B is a cross-sectional view schematically illustrating a state of a longitudinal cross section taken along line M-M in Fig. 20A.

Fig. 21 is a cross-sectional view illustrating an example of a container with a lid.

Description of Embodiments

[0014]

modification of the second embodiment, the structure corresponding to the receiving portion 25 is not limited to the slit portion.

[0089]

(Third Modification)

In the lid 1 according to the second embodiment, as in the second modification of the first embodiment, as illustrated in Figs. 9A, 9B, and the like, the extending portion 7 may be formed on the lid 1. This form is referred to as a third modification of the second embodiment. Fig. 9A is a plan view schematically illustrating an example of a lid according to the third modification of the second embodiment. Fig. 9B is a cross-sectional view schematically illustrating a state of a longitudinal cross section taken along line F-F in Fig. 9A. In the lid 1 of the second embodiment, the configuration of the extending portion 7 is the same as that of the second modification of the first embodiment, and thus the description thereof is omitted. Note that Fig. 9A illustrates a case where the extending portion 7 is formed in the lid 1 according to the third modification of the second embodiment.

[0090]

Note that, in the example of Fig. 9A, with respect to the formation position of the extending portion 7, the

sixth to eighth embodiments described later. In the lid 201 according to the third modification of the fifth embodiment, the configuration of the insertion port 219 may be omitted.

[0126]

(Fourth Modification of Fifth Embodiment)

In the lid 201 according to the fifth embodiment, as illustrated in Figs. 20A to 20B, the bent part 204 may be configured by a projecting portion 226. Furthermore, a protrusion 225 may be formed at or near an end portion (outer end portion 228B) closer to the side wall part 203 among the end portions (Inner end portion 228A and outer end portion 228B) of the projecting portion 226.

[0127]

(Projecting Portion)

In an example of the lid 201 according to the modification of the fifth embodiment illustrated in Figs. 20A and 20B, the projecting portion 226 is formed as a structure in which a predetermined region on the outer peripheral end side of the top lid part 202 protrudes obliquely upward (projecting structure), but the projecting direction of the projecting portion 226 may be the upward direction or the lateral direction (planar direction of the top lid part 202). Furthermore, an inner surface 226A side of the projecting portion 226 is an immersed portion

(immersion portion 227). The shape of the immersion portion 227 is a shape corresponding to the shape of the projecting portion 226. This can be realized according to the shape of the mold when the lid 201 is formed from the blank material 250. The size of the immersion portion 227 is preferably such a size that the edge 103 of the container 101 can be fitted. In a case where the size of the immersion portion 227 is such a size, and the lid 201 is used as the container with a lid 150, the edge 103 generally enters the immersion portion 227, it is possible to bring an outer end portion of the edge 103 (an outer peripheral surface portion 111 of the edge 103 in the example of Fig. 20) into surface contact with the immersion portion 227, and it is easy to firmly attach the lid 201 at the edge 103 of the container 101.

[0128]

(Protrusion)

As illustrated in the examples of Figs. 20A to 20B, a protrusion 225 may be formed on the side wall part 203. For example, the protrusion 225 is defined as a portion protruding inward (center CT direction, direction from the outer peripheral surface 203B of the side wall part 203 toward the inner peripheral surface 203A) at a predetermined position of the side wall part 203. The protrusion 225 is preferably a protrusion formed in a strip

Note that, in the production of the lid 201, it is preferable to use the above-described annular body formed of the second blank material. The lower end of the joining margin 230 (second portion 232) of the top lid part forming member 222 is aligned with a boundary position between the lower forming portion and the upper forming portion (a boundary position between an upper wall 205 and the lower wall 206) on the inner peripheral surface of the annular body, and the joining margin 230 faces the inner peripheral surface of the annular body. Moreover, as described above, the joining margin 230 is covered from the upper end side by folding back the portion on the upper end side of the annular body inward at the position corresponding to the continuous portion 235 in the annular body. Then, the joining margin 230 is joined to the annular body to be the side wall part forming member 223 so as to be sandwiched between the first contact wall portion 233 and the second contact wall portion 234. Therefore, the side wall part forming member 223 is formed, and the lid 201 is obtained.

[0139]

[6-2 Operation and Effect]

In the lid 201 according to the sixth embodiment, as in the fifth embodiment, it is possible to suppress the possibility of returning to the shape after the shape deformation (shaping) when the lid 201 is obtained by

In the seventh embodiment, as shown in the first modification of the fifth embodiment and the sixth embodiment, the top lid part 202 and the side wall part 203 are formed as separate members. In the example of Figs. 17A and 17B, the lid 201 includes the top lid part forming member 222 and the side wall part forming member 223 as the above-described separate members, and includes a joining portion that joins the top lid part forming member 222 and the side wall part forming member 223.

[0142]

(Top lid part Forming Member)

The top lid part forming member 222 has a first portion (the first portion 231 of the top lid part forming member 222) corresponding to the top lid part 202 and a second portion (the second portion 232 of the top lid part forming member 222) extending from an outer peripheral end of the first portion 231, and the second portion 232 is the joining margin 230 shown in the first modification of the fifth embodiment. In the example of Fig. 17A, the second portion of the top lid part forming member 222 is a portion (hanging portion) extending obliquely downward or downward from the outer peripheral end of the first portion 231, and in a state where the second portion 232 is joined to the side wall part forming member 223, the second portion 232 is a part of the side wall part 203.

material is exposed on at least a part of the cross section.

[E4] The lid according to [E3], including: an inclined portion that has the peripheral surface portion of the penetrating portion as an end portion and inclined upward in a direction away from the end portion.

[E5] The lid according to [E3] or [E4], in which a density of the fibers constituting the fiber sheet in the inclined portion is higher at a position closer to the end portion of the inclined portion.

[E6] The lid according to any one of "[E3] to [E5]" dependent on [E2], in which the lid region corresponding portion is provided with a weakened portion that guides a division position in the lid region corresponding portion, and the weakened portion includes a plurality of the penetrating portions and at least one continuous portion formed between at least two of the penetrating portions.

[E7] The lid according to [E6], in which the continuous portion has a half-cut structure.

[E8] The lid according to [E6] or [E7], in which the weakened portion radially forms the plurality of penetrating portions around the continuous portion.

[E9] The lid according to any one of "[E3] to [E8]" dependent on [E2], in which the lid region corresponding portion includes a base portion having a small opening