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(54) **STORAGE BOX AND REFRIGERATOR COMPRISING THE SAME**

(57) Disclosed are a storage box (1) and a refrigerator (2) comprising the same.

The storage box (1) is comprising: a box body (11), comprising a bottom wall (11a), a side wall (11b), and an accommodating cavity (112) having an opening (111) and enclosed by the bottom wall (11a) and the side wall (11b); a cover (12), adapted for opening or closing the opening (111), a side, facing the opening (111), of the

cover (12) comprising a mounting portion (121); and a sealing member (13), sleeved on the mounting portion (121), wherein when the cover (12) closes the opening (111), the mounting portion (121) extends into the accommodating cavity (112), and the sealing member (13) comprises a sealing portion (131) located between an inner surface (113) of the side wall (11b) and the mounting portion (121).

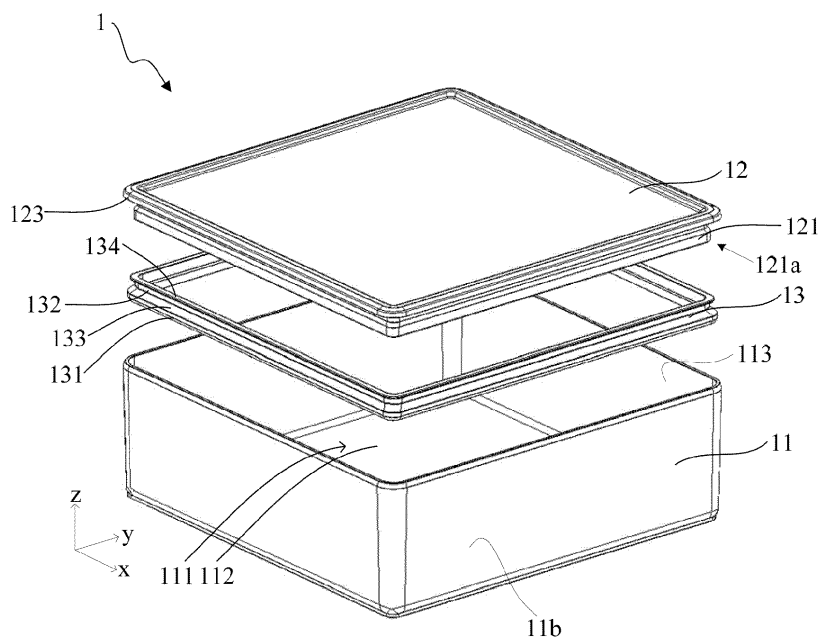


FIG. 2

Description

BACKGROUND

Technical Field

[0001] Embodiments of the present invention relate to the technical field of household appliances, and specifically, to a storage box and a refrigerator.

Related Art

[0002] A storage box with a sealing function allows a user to store materials such as food and medicine for a longer time.

[0003] In an existing commercially available storage box with a sealing function or a similar preservation function, a groove is usually provided in a cover, and a sealing member is seated in the groove. After a long time of use, dirt tends to accumulate in a gap between the groove and the sealing member. Due to the limitation of a width of the groove, it is difficult to clean the accumulated dirt. Besides, the sealing member is usually clamped in the groove with an interference fit, resulting in laborious assembly.

[0004] In another relatively common existing storage box with a sealing function, a sealing member is directly assembled on a cover. However, with such a design, when the cover is located on a box body, a part of the sealing member remains exposed, affecting the overall appearance of the storage box.

SUMMARY

[0005] An objective of embodiments of the present invention is to provide an improved storage box and a refrigerator.

[0006] Therefore, the embodiments of the present invention provide a storage box, including: a box body, including a bottom wall, a side wall, and an accommodating cavity having an opening and enclosed by the bottom wall and the side wall; a cover, adapted for opening or closing the opening, a side, facing the opening, of the cover including a mounting portion; and a sealing member, sleeved on the mounting portion, where when the cover closes the opening, the mounting portion extends into the accommodating cavity, and the sealing member includes a sealing portion located between an inner surface of the side wall and the mounting portion.

[0007] By using the solution of the embodiments, an improved storage box can be provided. The storage box provides sealing performance, and it is easy to disassemble, mount, and clean the sealing member. In addition, when the cover closes the box body, the sealing member is basically located in the box, and an overall appearance is adequate. Specifically, the sealing member and the mounting portion are sleeved, making it easy to assemble and clean. Further, when the cover closes

the opening, the mounting portion extends into the accommodating cavity, and the sealing member, especially the whole sealing portion, is located on an inner side of the box and is not directly exposed from the box body, which is conducive to the overall appearance of the product.

[0008] Optionally, the sealing portion and the side wall are in an interference fit, to achieve an adequate sealing effect.

[0009] Optionally, the sealing member is made of an elastic material, to be retained on the mounting portion through elastic deformation, to prevent the sealing member from falling off unexpectedly from the mounting portion during daily use.

[0010] Optionally, the sealing portion is sleeved on an end of the mounting portion, to effectively squeeze the inner surface of the side wall after the mounting portion extends into the accommodating cavity, thereby ensuring an adequate sealing effect.

[0011] Optionally, the sealing member includes a root portion at a spacing from the inner surface of the side wall, to appropriately reduce friction between the cover and the box body in opening the opening, and reduce resistance in removing the cover from the box body, making it more convenient to open and close the storage box. In addition, because the sealing portion is in an interference fit with the side wall when the cover closes the opening, the sealing performance is not affected.

[0012] Optionally, a step is formed between the sealing portion and the root portion, so that the sealing portion can effectively abut against the inner surface of the side wall when the cover closes the opening while the spacing is formed, to ensure a sealing effect.

[0013] Optionally, a thickness of the sealing portion is greater than a thickness of the root portion, so that the sealing portion can be in an interference fit with the side wall while there is a spacing between the root portion and the inner surface of the side wall. Further, a difference in thickness between the sealing portion and the root portion may gradually change.

[0014] Optionally, a side, close to an edge of the cover, of the mounting portion is recessed in a direction away from the edge to form a recessed portion, the sealing portion being located outside the recessed portion. Therefore, the design of the recessed portion is conducive to ensuring a firm combination of the sealing member and the mounting portion, and prevents the sealing member from falling off from the cover during use. Further, the sealing portion is located outside the recessed portion, to ensure an adequate sealing effect.

[0015] Optionally, there is a non-zero spacing between a part, located in the recessed portion, of the sealing member and the inner surface of the side wall. Therefore, the part, located in the recessed portion, of the sealing member forms the root portion, which is adapted for firmly fixing the sealing member to the cover in one aspect, and can reduce the resistance in opening the cover in another aspect.

[0016] Optionally, the sealing member is disposed around the mounting portion to form a closed structure, and an area of a region enclosed by a part, close to the cover, of the sealing member is less than an area of a region enclosed by the sealing portion. The closed structure is conducive to all-round sealing of the box body, to ensure the sealing effect. The part, close to the cover, of the sealing member forms the root portion. When the area of the region enclosed by the sealing member is relatively small, it means that there is a spacing between the part of the sealing member and the inner surface of the side wall, making it possible to reduce the resistance in opening the cover. When the area of the region enclosed by the sealing portion is relatively large, it means that the part of the sealing member can tightly abut against the side wall, to ensure an adequate sealing effect.

[0017] Optionally, the cover includes an abutting portion that is abutted against an upper end surface of the side wall when the cover closes the opening, there is a gap between the mounting portion and the abutting portion, and the sealing member is located in the gap. Therefore, when the cover closes the opening, the sealing member is enclosed in the box by the abutting portion and the side wall, and the whole sealing member is not exposed from the box, which is conducive to the overall appearance of the product. Because the abutting portion is adapted for being abutted against the upper end surface of the side wall, and the mounting portion extends downward from the side, facing the opening, of the cover, the gap between the mounting portion and the abutting portion is similar to an inverted L shape. The structure is simple, dirt is not likely to accumulate, and the structure is easy to clean.

[0018] Optionally, the sealing member includes a flange attached to a lower surface of the cover and extending toward the abutting portion, making it convenient to assemble the sealing member in place.

[0019] Optionally, a thickness of the sealing portion gradually increases in a direction away from the cover. Therefore, in one aspect, the sealing effect with the box body is ensured, and in another aspect, the sealing portion with a gradually increasing thickness can form a structure similar to a bell mouth, to play a particular guiding role in closing the cover.

[0020] Optionally, when the cover does not close the opening, there is an interval between the sealing portion and an end of the mounting portion. It is easier to open and close the storage box, and the sealing member can have an avoidance space during the opening and closing operations.

[0021] Optionally, an end of the mounting portion is inclined toward an edge of the cover in a direction away from the cover, to form a bell mouth to play a guiding role in closing the cover, making it more convenient to assemble the sealing member to the mounting portion.

[0022] Optionally, a thickness of the end of the mounting portion gradually decreases in the direction away

from the cover, to increase elasticity and make it convenient to mount the sealing member, and facilitate demolding during a production stage. Further, it is conducive to preventing the sealing member from sliding down.

[0023] Optionally, a slope of a side, facing the sealing portion, of the end of the mounting portion inclining toward the edge of the cover is less than a slope of a side, away from the sealing portion, of the end of the mounting portion inclining toward the edge of the cover. Therefore, when the cover closes the opening, a force on the mounting portion is smaller, which is conducive to prolonging a service life.

[0024] An embodiment of the present invention further provides a refrigerator, including: a storage chamber; and the foregoing storage box, where the storage box is placed in the storage chamber. The storage box provides sealing performance, and it is easy to disassemble, mount, and clean the sealing member. In addition, when the cover closes the box body, the sealing member is basically located in the box body, and an overall appearance is adequate. A user may take out the storage box from or put the storage box into the storage chamber as required, to prolong a storage life of stored items by taking advantage of the sealing performance of the storage box, and help avoid tainting of different odors.

BRIEF DESCRIPTION OF THE DRAWINGS

[0025]

FIG. 1 is a schematic diagram of a storage box according to an embodiment of the present invention;

FIG. 2 is an exploded view of the storage box shown in FIG. 1;

FIG. 3 is a partial cross-sectional view of a region A in FIG. 1; and

FIG. 4 is a schematic diagram of a refrigerator according to an embodiment of the present invention.

[0026] In the accompanying drawings:

1-storage box; 11-box body; 11a-bottom wall; 11b-side wall; 111-opening; 112-accommodating cavity; 113-inner surface of the side wall; 114-upper end surface of the side wall; 12-cover; 12a-lower surface of the cover; 121-mounting portion; 121a-end of the mounting portion; 122-recessed portion; 123-abutting portion; 124-gap; 125-transition portion; 126-side, facing the sealing portion, of the end of the mounting portion; 127-side, away from the sealing member, of the end of the mounting portion; 13-sealing member; 131-sealing portion; 132-root portion; 133-step; 134-flange; 135- interval; 2-refrigerator; 21-storage chamber; 22-bracket; x-length direction of the storage box; y-width direction of the storage box; and z-height direction of the storage box.

DETAILED DESCRIPTION

[0027] To make the foregoing objectives, characteristics, and advantages of the present invention clearer and easier to understand, specific embodiments of the present invention are described below in detail with reference to the accompanying drawings.

[0028] FIG. 1 is a schematic diagram of a storage box according to an embodiment of the present invention. FIG. 2 is an exploded view of the storage box 1 shown in FIG. 1. FIG. 3 is a partial cross-sectional view of a region A in FIG. 1.

[0029] For ease of description, a length direction of the storage box 1 is referred to as a direction x, a width direction of the storage box 1 is referred to as a direction y, and a height direction of the storage box 1 is referred to as a direction z.

[0030] Specifically, referring to FIG. 1 and FIG. 2, the storage box 1 may include a box body 11. The box body 11 may include a bottom wall 11a, a side wall 11b, and an accommodating cavity 112 having an opening 111 and enclosed by the bottom wall 11a and the side wall 11b.

[0031] For example, the side wall 11b may be disposed around an edge of the bottom wall 11a to form a closed structure, and enclose the accommodating cavity 112 with the bottom wall 11a. The accommodating cavity 112 is adapted for accommodating stored items. A side, unconnected to the bottom wall 11a, of the side wall 11b encloses an opening 111. A user may place stored items into the accommodating cavity 112 through the opening 111, or take out stored items from the accommodating cavity 112 through the opening 111.

[0032] Further, the storage box 1 may further include a cover 12. The cover 12 is adapted for opening or closing the opening 111. A side, facing the opening 111, of the cover 12 includes a mounting portion 121.

[0033] For example, the mounting portion 121 may be disposed along an edge of the cover 12 and form a closed structure. In addition, the mounting portion 121 extends from a side, facing the accommodating cavity 112, of the cover 12 and extends toward the accommodating cavity 112 substantially in an opposite direction of the direction z.

[0034] The mounting portion 121 and the cover 12 may be integrally formed. Alternatively, the mounting portion 121 may be alternatively fixed to the cover 12 by bonding, splicing, tenon connection, or the like.

[0035] Further, the storage box 1 may further include a sealing member 13. The sealing member 13 is sleeved on the mounting portion 121.

[0036] For example, the sealing member 13 is sleeved on an outer side of the mounting portion 121. The outer side is a side, facing the edge of the cover 12, of the mounting portion 121.

[0037] Further, when the cover 12 closes the opening 111, the mounting portion 121 extends into the accommodating cavity 112, and the sealing member 13 includes

a sealing portion 131 located between an inner surface 113 of the side wall 11b and the mounting portion 121.

[0038] By using the solution of the embodiments, an improved storage box 1 can be provided. The storage box provides sealing performance, and it is easy to disassemble, mount, and clean the sealing member 13. In addition, when the cover 12 closes the box body 11, the sealing member 13 is basically located in the box body 11, and an overall appearance is adequate. Specifically, the sealing member 13 and the mounting portion 121 are sleeved, making it easy to assemble and clean. Further, when the cover 12 closes the opening 111, the mounting portion 121 extends into the accommodating cavity 112, and the sealing member 13, especially the whole sealing portion 131, is located on an inner side of the box body 11 and is not directly exposed from the box body 11, which is conducive to the overall appearance of the product. The inner side of the box body 11 is a side close to the accommodating cavity 112.

[0039] In an embodiment, when the cover 12 closes the box body 11, the sealing member 13 may be visible from the outer side of the storage box 1. Therefore, without opening the storage box 1, the user can determine that the storage box 1 is a storage box with a sealing function.

[0040] For this, at least one of the box body 11 and the cover 12 may be transparent. To improve the visibility of the sealing member 13, the sealing member 13 may have a color clearly distinguishable from the box body 11 or the cover 12.

[0041] It should be pointed out that although the cover 12, the box body 11, and the sealing member 13 are quadrilateral as an example in FIG. 1 to FIG. 3. During actual application, the shape of the storage box 1 may be adjusted as required, for example, may be an ellipse or a polygon.

[0042] In a specific implementation, when the cover 12 closes the opening 111, the sealing portion 131 and the side wall 11b are in an interference fit, to achieve an adequate sealing effect.

[0043] In a specific implementation, the sealing member 13 may be made of an elastic material, to be retained on the mounting portion 121 through elastic deformation, to prevent the sealing member 13 from falling off unexpectedly from the mounting portion 121 during daily use.

[0044] For example, the sealing member 13 may be made of silicone, to fix the sealing member 13 to the cover 12 by taking advantage of the easy deformation of silicone.

[0045] In a specific implementation, referring to FIG. 2 and FIG. 3, the sealing portion 131 may be sleeved on an end 121a of the mounting portion 121, to effectively squeeze the inner surface 113 of the side wall 11b after the mounting portion 121 extends into the accommodating cavity 112, thereby ensuring an adequate sealing effect. The end 121a of the mounting portion 121 is an end, away from the cover 12, of the mounting portion 121.

[0046] In a specific implementation, still referring to

FIG. 3, the sealing member 13 may include a root portion 132 at a spacing from the inner surface 113 of the side wall 11b, to appropriately reduce friction between the cover 12 and the box body 11 in opening the opening, and reduce resistance in removing the cover 12 from the box body 11, making it more convenient to open and close the storage box 1. In addition, because the sealing portion 131 is in an interference fit with the side wall 11b when the cover 12 closes the opening, the sealing performance is not affected.

[0047] Specifically, the spacing means that the root portion 132 is not in contact with the inner surface of the side wall 11b.

[0048] In a specific implementation, a step 133 may be formed between the sealing portion 131 and the root portion 132, so that the sealing portion 131 can effectively abut against the inner surface 113 of the side wall 11b when the cover 12 closes the opening 111 while the spacing is formed, to ensure a sealing effect.

[0049] Specifically, the step 133 may extend obliquely to an opposite direction of the direction z and the direction x, as shown in FIG. 3.

[0050] Alternatively, the step 133 may be alternatively a platform extending in the direction x.

[0051] In a specific implementation, a thickness of the sealing portion 131 may be greater than a thickness of the root portion 132, so that the sealing portion 131 can be in an interference fit with the side wall 11b while there is a spacing between the root portion 132 and the inner surface 113 of the side wall 11b. The thickness of the sealing portion 131 is a width of the sealing portion 131 in the direction x. The thickness of the root portion 132 is a width of the root portion 132 in the direction x.

[0052] Further, a difference in thickness between the sealing portion 131 and the root portion 132 may gradually change. That is, from the root portion 132 to the sealing portion 131, the thickness of the sealing member 13 gradually increases, as shown in FIG. 3, so that there is a smooth transition from the root portion 132 to the sealing portion 131.

[0053] In a specific implementation, still referring to FIG. 2 and FIG. 3, a side, close to an edge of the cover 12, of the mounting portion 121 is recessed in a direction away from the edge to form a recessed portion 122, the sealing portion 131 being located outside the recessed portion 122. Therefore, the design of the recessed portion 122 is conducive to ensuring a firm combination of the sealing member 13 and the mounting portion 121, and prevents the sealing member 13 from falling off from the cover 12 during use. Further, the sealing portion 131 is located outside the recessed portion 122, to ensure an adequate sealing effect.

[0054] Specifically, the recessed portion 122 may be formed merely by a side, close to the edge of the cover 12, of the mounting portion 121. That is, for a part, connected to the cover 12, of the mounting portion 121, a side, facing a center of the cover 12, of the part of the mounting portion 121 extends in the direction z, and a

side, facing the edge of the cover 12, of the part of the mounting portion 121 is recessed inward to form the recessed portion 122.

[0055] Alternatively, the recessed portion 122 may be formed by recessing the whole portion where the mounting portion 121 is connected to the cover 12 toward the center of the cover 12.

[0056] Further, the root portion 132 may be sleeved on the recessed portion 122 with interference, to ensure that the sealing member 13 is firmly mounted on the cover 12.

[0057] In a specific implementation, there is a non-zero spacing between a part, located in the recessed portion 122, of the sealing member 13 and the inner surface 113 of the side wall 11b. Therefore, the part, located in the recessed portion 122, of the sealing member 13 forms the root portion 132, which is adapted for firmly fixing the sealing member 13 to the cover 12 in one aspect, and can reduce the resistance in opening the cover 12 in another aspect.

[0058] In a specific implementation, the sealing member 13 is disposed around the mounting portion 121 to form a closed structure, and an area of a region enclosed by a part, close to the cover 12, of the sealing member 13 is less than an area of a region enclosed by the sealing portion 131.

[0059] Specifically, the closed structure is conducive to all-round sealing of the box body 11, to ensure the sealing effect. The part, close to the cover 12, of the sealing member 13 forms the root portion 132. When the area of the region enclosed by the sealing member is relatively small, it means that there is a spacing between the part of the sealing member 13 and the inner surface of the side wall 11b, making it possible to reduce the resistance in opening the cover 12. When the area of the region enclosed by the sealing portion 131 is relatively large, it means that the part of the sealing member 13 can tightly abut against the side wall 11b, to ensure an adequate sealing effect.

[0060] For the area of the region enclosed by the part, close to the cover 12, of the sealing member 13, reference may be made to an area of the part of structure in a plane formed in the direction x and the direction y. Similarly, for the area of the region enclosed by the sealing portion 131, reference may be made to an area of the sealing member 13 in the plane formed by the direction x and the direction y.

[0061] In a specific implementation, the cover 12 may include an abutting portion 123 that is abutted against an upper end surface 114 of the side wall 11b when the cover 12 closes the opening 111. The upper end surface 114 of the side wall 11b is an end surface of a side, unconnected to the bottom wall 11a, of the side wall 11b.

[0062] Specifically, the abutting portion 123 may substantially cover the upper end surface 114 of the side wall 11b, to achieve an effect of insulating air to a particular extent.

[0063] For example, the abutting portion 123 may be formed by slightly bending the edge of the cover 12 in an

opposite direction of the direction z. Further, there is a gap 124 between the mounting portion 121 and the abutting portion 123, and the sealing member 13 is located in the gap 124.

[0064] Therefore, when the cover 12 closes the opening 111, the sealing member 13 is enclosed in the box body 11 by the abutting portion 123 and the side wall 11b, and the whole sealing member 13 is not exposed from the box body 11, which is conducive to the overall appearance of the product. Because the abutting portion 123 is adapted for being abutted against the upper end surface 114 of the side wall 11b, and the mounting portion 121 extends downward from the side, facing the opening 111, of the cover 12, the gap 124 between the mounting portion 121 and the abutting portion 123 is similar to an inverted L shape. The structure is simple, dirt is not likely to accumulate, and the structure is easy to clean.

[0065] In a specific implementation, the sealing member 13 may include a flange 134 attached to a lower surface 12a of the cover 12 and extending toward the abutting portion 123, making it convenient to assemble the sealing member 13 in place.

[0066] Specifically, the lower surface 12a of the cover 12 is a side, facing the opening 111, of the cover 12, that is, a side provided with the mounting portion 121.

[0067] For example, during assembly, the root portion 132 is sleeved on the recessed portion 122, and it is ensured that the flange 134 is attached to the lower surface 12a of the cover 12. In this case, the sealing portion 131 located outside the recessed portion 122 can be in an interference fit with the inner surface of the side wall 11b when the cover 12 closes the opening 111, to achieve a sealing effect.

[0068] In a specific implementation, the thickness of the sealing portion 131 gradually increases in a direction (that is, the opposite direction of the direction z in the figure) away from the cover 12. Therefore, in one aspect, the sealing effect with the box body 12 is ensured, and in another aspect, the sealing portion 131 with a gradually increasing thickness can form a structure similar to a bell mouth, to play a particular guiding role in closing the cover 12.

[0069] For example, in this embodiment, the end 121a of the mounting portion 121 may extend in the direction z, and the sealing portion 131 with a gradually increasing thickness ensures an interference fit with the side wall 11b.

[0070] In a specific implementation, when the cover 12 does not close the opening 111, there may be an interval 135 between the sealing portion 131 and an end 121a of the mounting portion 121. It is easier to open and close the storage box 1, and the sealing member 13 can have an avoidance space during the opening and closing operations.

[0071] For example, in this embodiment, a structure that is tight at the top and becomes increasingly loose toward the bottom is used between the sealing member 13 and the mounting portion 121, the root portion 132 is

sleeved on the recessed portion 122 with interference, and the sealing portion 131 extending below is loosely sleeved on an outer side of the end 121a of the mounting portion 121. When the cover 12 closes the opening 111, the sealing member 13 extends into the box body 11 with the mounting portion 121. In the extending process, the sealing portion 131 slightly moves toward the mounting portion 121 under squeezing of the side wall 11b of the box body 11, until the abutting portion 123 is abutted against the upper end surface 114 of the side wall 11b. In this case, the sealing portion 131 is squeezed between the end 121a of the mounting portion 121 and the inner surface 113 of the side wall 11b, and is squeezed to be deformed, to perform a sealing function.

[0072] When the cover 12 closes the opening 111, the interval 135 between the sealing portion 131 and the end 121a of the mounting portion 121 may disappear.

[0073] In a specific implementation, the end 121a of the mounting portion 121 is inclined toward the edge of the cover 12 in the direction (that is, the opposite direction of the direction z in the figure) away from the cover 12, to form a bell mouth to play a guiding role in closing the cover 12, making it more convenient to assemble the sealing member 13 to the mounting portion 121.

[0074] For example, when extending from the lower surface 12a of the cover 12 in the opposite direction of the direction z, the mounting portion 121 first extends downward by a particular distance, and then continues to extend downward while being appropriately bent in the direction toward the edge of the cover 12, to form a bell mouth structure at the end 121a of the mounting portion 121.

[0075] In a specific implementation, the thickness of the end 121a of the mounting portion 121 gradually decreases in the direction (that is, the opposite direction of the direction z in the figure) away from the cover, to increase elasticity and make it convenient to mount the sealing member 13, and facilitate demolding during a production stage. Further, it is conducive to preventing the sealing member 13 from sliding down.

[0076] In a specific implementation, a slope of a side 126, facing the sealing portion 131, of the end 121a of the mounting portion 121 inclining toward the edge of the cover 12 may be less than a slope of a side 127, away from the sealing portion 131, of the end 121a of the mounting portion 121 inclining toward the edge of the cover 12. Therefore, when the cover 12 closes the opening 111, a force on the mounting portion 121 is smaller, which is conducive to prolonging a service life. In addition, the design with different slopes on the two sides can also achieve the effect of gradually reducing the thickness of the end 121a of the mounting portion 121.

[0077] In a specific implementation, for the side 126, facing the sealing portion 131, of the end 121a of the mounting portion 121, the slope of a part, in contact with the step 133 of the sealing member 13, of the end 121a of the mounting portion 121 may be substantially parallel to the extending direction of the step 133, so that the

structure of the mounting portion 121 and the structure of the sealing member 13 basically fit.

[0078] Further, for the side 126, facing the sealing portion 131, of the end 121a of the mounting portion 121, the part, in contact with the sealing portion 131, of the end 121a of the mounting portion 121 may extend in the opposite direction of the direction z. Therefore, when the cover 12 closes the opening 111, the sealing portion 131 is squeezed by the end 121a of the mounting portion 121 and the inner surface 113 of the side wall 11b in a large area, to obtain a better sealing effect.

[0079] Further, in the opposite direction of the direction z, the side 127, away from the sealing member 13, of the end 121a of the mounting portion 121 may remain inclined toward the edge of the cover 12, and the slope remains unchanged.

[0080] In a specific implementation, referring to FIG. 4, the storage box 1 may be applied to a refrigerator 2 and other refrigeration and freezing storage scenarios. The storage box 1 provides sealing performance, and it is easy to disassemble, mount, and clean the sealing member 13. In addition, when the cover 12 closes the box body 11, the sealing member 13 is basically located in the box body 11, and an overall appearance is adequate.

[0081] Specifically, the refrigerator 2 may include a storage chamber 21. The user may take out the storage box 1 from or put the storage box into the storage chamber 21 as required, to prolong a storage life of stored items by taking advantage of the sealing performance of the storage box 1, and help avoid tainting of different odors.

[0082] Further, the refrigerator 2 may be provided with one or more brackets 22. The storage box 1 may be carried in the storage chamber 1 through the brackets 22, to make full use of the storage space in the storage chamber 21.

[0083] Further, there may be a plurality of storage boxes 1 placed in the refrigerator 2. Moreover, sizes and volumes of the plurality of storage boxes 1 may be different, to meet the diversified storage needs of the user.

[0084] Further, the refrigerator 2 may further include a door body (not shown in the figure), for exposing or closing the storage chamber 21.

[0085] Although specific implementations have been described above, these implementations are not intended to limit the scope of the present disclosure, even if only one implementation is described with respect to specific features. The feature example provided in the present disclosure is intended to illustrate, but not limit, unless otherwise stated. In specific embodiments, the technical features of one or more dependent claims may be combined with the technical features of the independent claims, and the technical features from the corresponding independent claims may be combined in any appropriate manner, rather than only in the specific combinations listed in the claims.

[0086] Although the present invention is disclosed

above, the present invention is not limited thereto. A person skilled in the art can make various changes and modifications without departing from the spirit and the scope of the present invention. Therefore, the protection scope of the present invention should be subject to the scope defined by the claims.

Claims

1. A storage box (1), **characterized by** comprising:

a box body (11), comprising a bottom wall (11a), a side wall (11b), and an accommodating cavity (112) having an opening (111) and enclosed by the bottom wall (11a) and the side wall (11b);
a cover (12), adapted for opening or closing the opening (111), a side, facing the opening (111), of the cover (12) comprising a mounting portion (121); and
a sealing member (13), sleeved on the mounting portion (121), wherein
when the cover (12) closes the opening (111), the mounting portion (121) extends into the accommodating cavity (112), and the sealing member (13) comprises a sealing portion (131) located between an inner surface (113) of the side wall (11b) and the mounting portion (121).

2. The storage box (1) according to claim 1, **characterized in that** the sealing portion (131) and the side wall (11b) are in an interference fit.

3. The storage box according to one or more of claims 1 to 2, **characterized in that** the sealing member (13) is made of an elastic material, to be retained on the mounting portion (121) through elastic deformation; and/or that the sealing portion (131) is sleeved on an end (121a) of the mounting portion (121).

4. The storage box (1) according to one or more of claims 1 to 3, **characterized in that** the sealing member (13) comprises a root portion (132) at a spacing from the inner surface (113) of the side wall (11b).

5. The storage box (1) according to claim 4, **characterized in that** a step (133) is formed between the sealing portion (131) and the root portion (132); and/or that a thickness of the sealing portion (131) is greater than a thickness of the root portion (132).

6. The storage box (1) according to one or more of claims 1 to 5, **characterized in that** a side, close to an edge of the cover (12), of the mounting portion (121) is recessed in a direction away from the edge to form a recessed portion (122), the sealing portion (131) being located outside the recessed portion

(122).

7. The storage box (1) according to claim 6, **characterized in that** there is a non-zero spacing between a part, located in the recessed portion (122), of the sealing member (13) and the inner surface (113) of the side wall (11b). 5
8. The storage box (1) according to one or more of claims 1 to 7, **characterized in that** the sealing member (13) is disposed around the mounting portion (121) to form a closed structure, and an area of a region enclosed by a part, close to the cover (12), of the sealing member (13) is less than an area of a region enclosed by the sealing portion (131). 10 15
9. The storage box (1) according to one or more of claims 1 to 8, **characterized in that** the cover (12) comprises an abutting portion (123) that is abutted against an upper end surface (114) of the side wall (11b) when the cover (12) closes the opening (111), there is a gap (124) between the mounting portion (121) and the abutting portion (123), and the sealing member (13) is located in the gap (124). 20 25
10. The storage box (1) according to one or more of claims 9, **characterized in that** the sealing member (13) comprises a flange (134) attached to a lower surface (12a) of the cover (12) and extending toward the abutting portion (123). 30
11. The storage box (1) according to one or more of claims 1 to 10, **characterized in that** a thickness of the sealing portion (131) gradually increases in a direction away from the cover (12); and/or, wherein when the cover (12) does not close the opening (111), there is an interval (135) between the sealing portion (131) and an end (121a) of the mounting portion (121). 35 40
12. The storage box (1) according to one or more of claims 1 to 11, **characterized in that** an end (121a) of the mounting portion (121) is inclined toward an edge of the cover (12) in a direction away from the cover (12). 45
13. The storage box (1) according to claim 1 or 12, **characterized in that** a thickness of the end (121a) of the mounting portion (121) gradually decreases in the direction away from the cover (12). 50
14. The storage box (1) according to claim 1 or 16, **characterized in that** a slope of a side (126), facing the sealing portion (131), of the end (121a) of the mounting portion (121) inclining toward the edge of the cover (12) is less than a slope of a side (127), away from the sealing portion (131), of the end (121a) of the mounting portion (121) inclining toward the edge of 55

the cover (12).

15. A refrigerator (2), **characterized by** comprising:
a storage chamber (21); and
the storage box (1) according to any one of claims 1 to 14, wherein the storage box (1) is placed in the storage chamber (21).

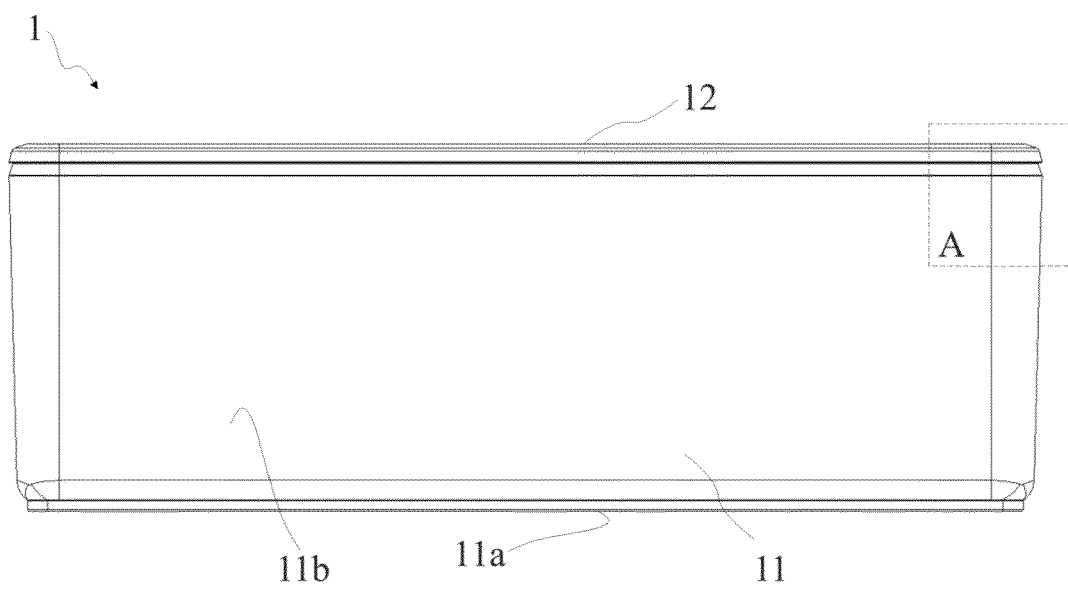


FIG. 1

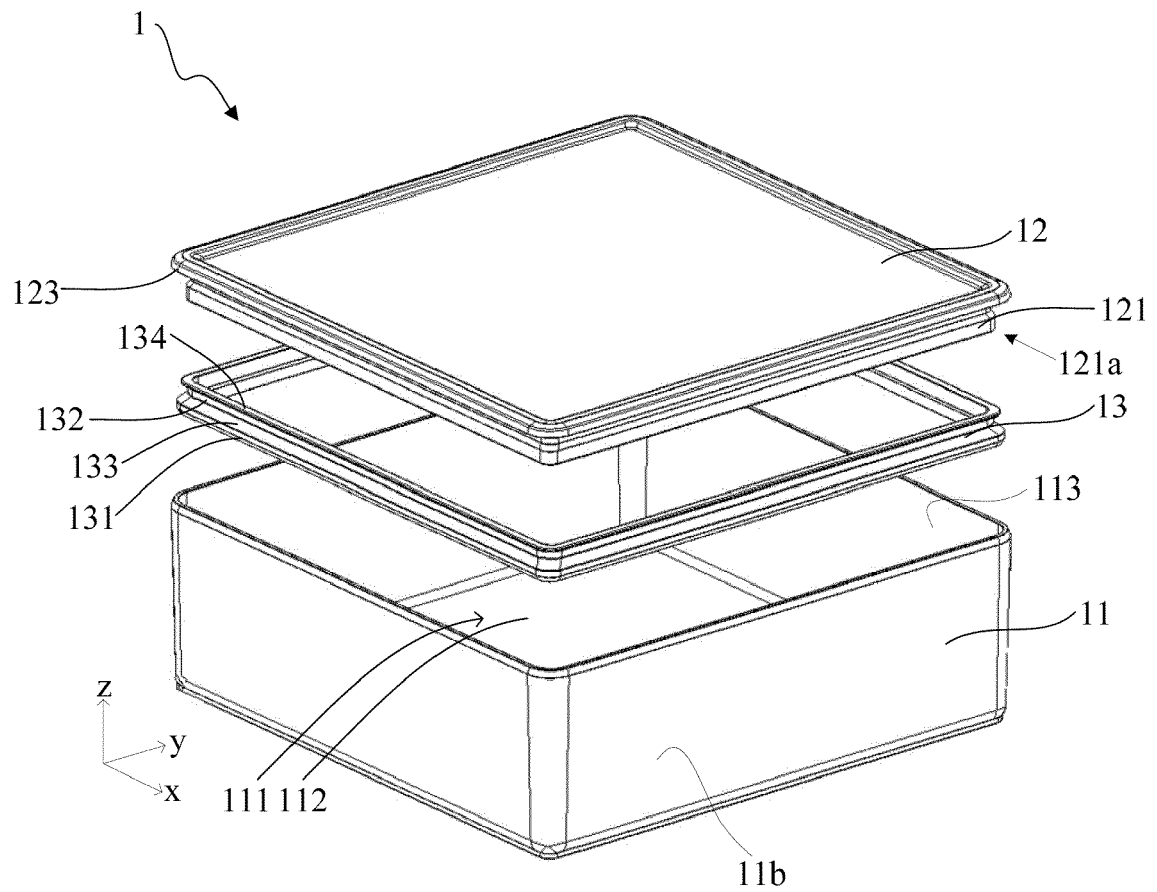


FIG. 2

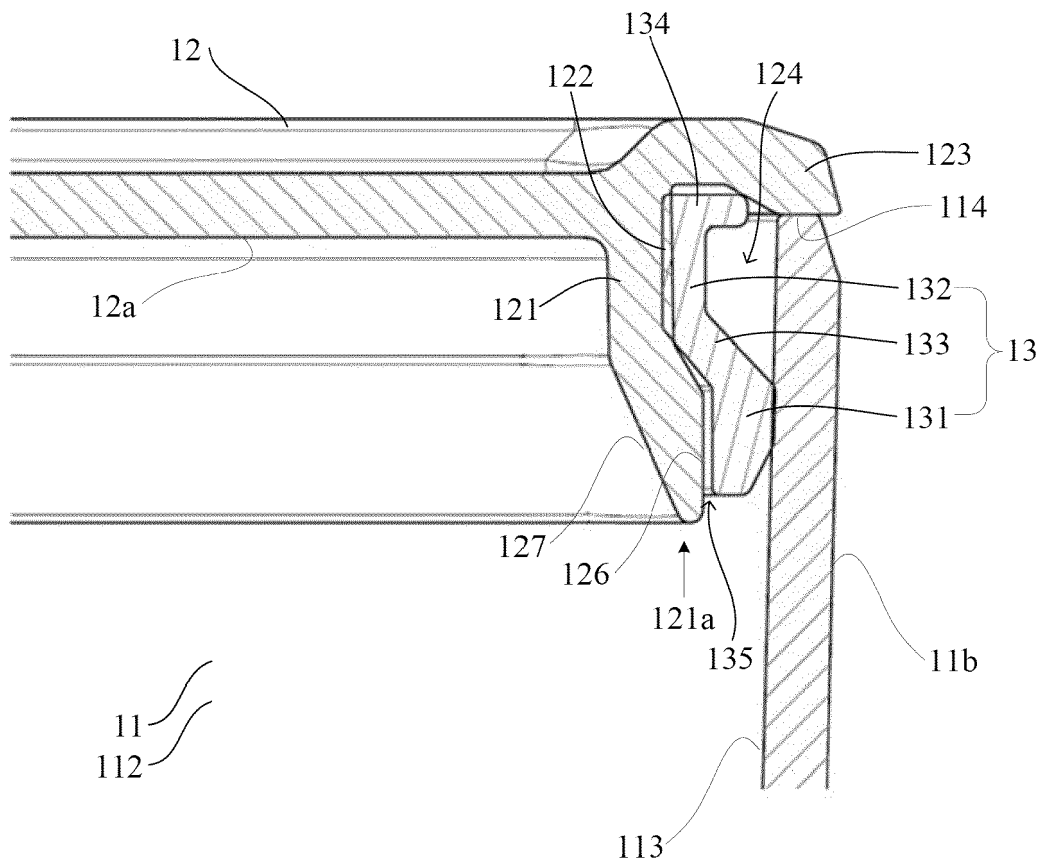


FIG. 3

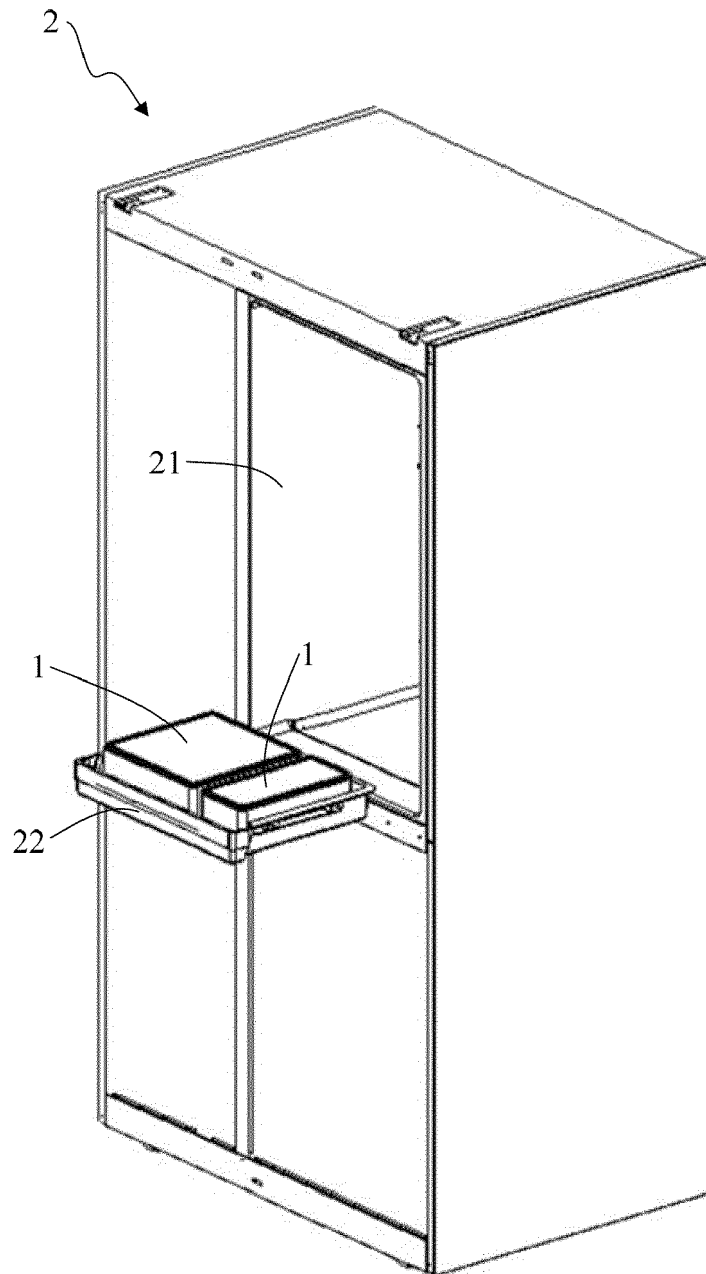


FIG. 4



EUROPEAN SEARCH REPORT

Application Number
EP 21 16 4898

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DOCUMENTS CONSIDERED TO BE RELEVANT			
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X	----- CN 108 592 509 A (HISENSE SHANDONG REFRIGERATOR CO LTD) 28 September 2018 (2018-09-28) * paragraph [0034] - paragraph [0065]; figures 1-22 *	1-7,11, 12,15	
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			F25D B25H A47B
Place of search		Date of completion of the search	Examiner
The Hague		1 September 2021	Kolev, Ivelin
CATEGORY OF CITED DOCUMENTS X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document			

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**ANNEX TO THE EUROPEAN SEARCH REPORT
ON EUROPEAN PATENT APPLICATION NO.**

EP 21 16 4898

5 This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report.
The members are as contained in the European Patent Office EDP file on
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01-09-2021

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For more details about this annex : see Official Journal of the European Patent Office, No. 12/82