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(54) STORAGE UNITS AND REFRIGERATORS

(57) Disclosed are a storage unit and a refrigerator. The storage unit includes: a container body (11, 21, 31, 40), and further includes a sub-storage body (12, 22, 32, 50) that is mounted to the container body (11, 21, 31, 40) in a manner of being movable between an extension position and a retraction position. At the retraction position, the storage unit includes a first main storage portion located inside the container body (11, 21, 31, 40); and at the extension position, the storage unit includes a second main storage portion located inside the container body (11, 21, 31, 40) and an extended storage portion located outside the container body (11, 21, 31, 40). In the present invention, the storage space of the storage unit is increased after the sub-storage body is disposed.

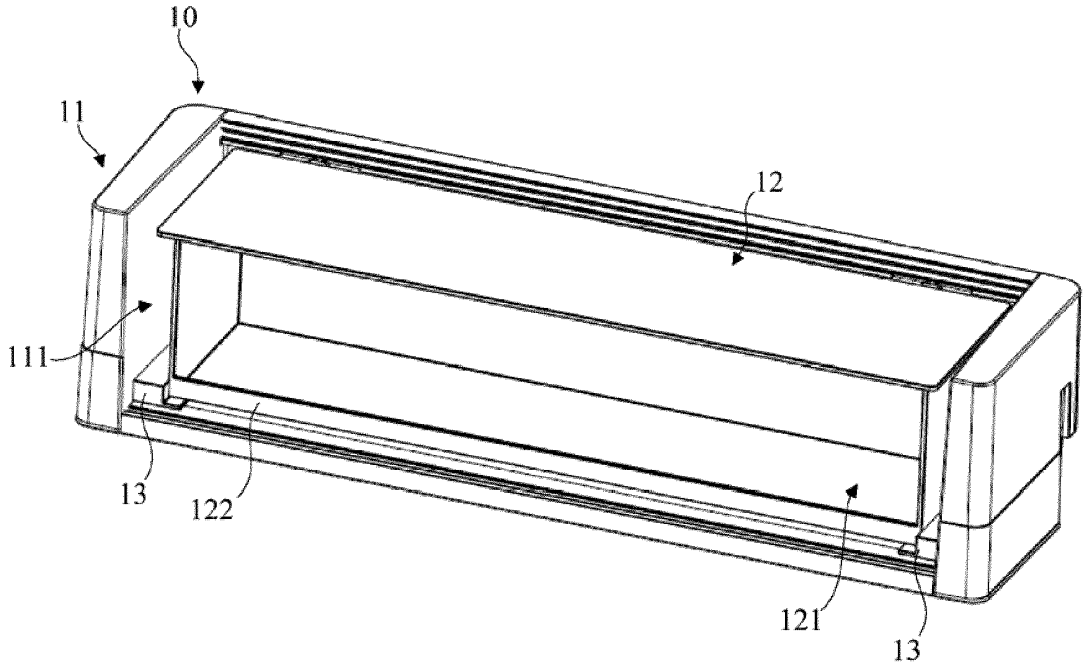

FIG. 1

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Description

BACKGROUND

Technical Field

[0001] The present invention relates to the technical field of household appliances, and in particular, to a storage unit and a refrigerator.

Related Art

[0002] In the prior art, there is a storage unit such as a cheese box in a refrigerator. The cheese box includes a box body having an inner cavity for storage, and a cover body covering the box body. The inner cavity is opened by moving or turning the cover body, so as to store an object in the inner cavity. Alternatively, the cover body is moved or turned to close the inner cavity, so as to keep out dust. It can be seen that, the cheese box in the prior art has only one inner cavity, which limits the storage space.

SUMMARY

[0003] One objective of the present invention is to provide an improved storage unit, so as to overcome the at least technical problem described above.

[0004] A storage unit of the present invention includes: a container body, and further includes: a sub-storage body that is mounted to the container body in a manner of being movable between an extension position and a retracted position, where

at the retraction position, the sub-storage body is at least partially located inside the container body, and the storage unit includes a first main storage portion located in the container body; and

at the extension position, the sub-storage body is located outside the container body, and the storage unit includes a second main storage portion located in the container body and an extended storage portion located outside the container body.

[0005] The storage unit of the present invention is provided with a sub-storage body. When the sub-storage body is at the extension position, the storage unit has the second main storage portion and the extended storage portion. Objects can be stored in the second main storage portion and the extended storage portion, and the storage space of the storage unit is increased.

[0006] Optionally, a volume of the second main storage portion is equal to or greater than a volume of the first main storage portion.

[0007] Optionally, a volume of the first main storage portion is approximate to a volume of the second main storage portion. The first main storage portion is formed by the sub-storage body, and the volume of the first main storage portion is the volume of the sub-storage body. The second main storage portion is formed by a cavity wall of a first inner cavity of the container body and part of a boundary of the sub-storage body. When the sub-storage body is located outside the container body, the volume of the second main storage portion is the volume of the first inner cavity of the container body. When the volume of the first main storage portion is more approximate to or even equal to the volume of the second main storage portion, the volume of the sub-storage body is also more approximate to volume of the first inner cavity of the container body, so that the sub-storage body has a compact structure after the storage unit is disposed, to increase the storage space of the storage unit as much as possible.

[0008] Optionally, boundaries of the first main storage portion and the second main storage portion are at least partially different. A boundary of the first main storage portion is completely defined by a boundary of the sub-storage body, and a cover of the sub-storage body forms a top wall of the first main storage portion. A boundary of the second main storage portion is defined by a cavity wall of a first inner cavity of the container body and a cover of the sub-storage body, and the cover of the sub-storage body forms a bottom wall of the second main storage portion. Except the same cover, other parts of the boundaries of the first main storage portion and the second main storage portion are different.

[0009] Optionally, at least a part of a boundary of the first main storage portion is defined by the sub-storage body.

[0010] Optionally, the container body has a first inner cavity, and the sub-storage body has a second inner cavity; and when the sub-storage body is located at the retraction position, the sub-storage body is at least partially located inside the first inner cavity and forms at least a part of a boundary of the first main storage portion. The position of the sub-storage body in the first inner cavity can be adjusted according to a need for the storage space. If a large storage space is needed, the sub-storage body can be moved towards the outside of the first inner cavity a little bit, to increase a volume of extended storage portion.

[0011] Optionally, when the sub-storage body is located at the retraction position, the first main storage portion is formed by the second inner cavity.

[0012] Optionally, the container body includes an opening cut on a side, and the sub-storage body is capable of moving into or out of the container body through the opening. The opening facilitates switching of the sub-storage body between the retraction position and the extension position.

[0013] Optionally, the sub-storage body includes a cover, and at the extension position, the cover seals the opening. The cover can partition the storage unit into a second main storage portion and an extended storage portion. Objects are stored in the second main storage portion and the extended storage portion separately. There is no contact between objects stored in different storage portions, making the stored objects clean and

tidy.

[0014] Optionally, when the sub-storage body is located at the extension position, the cover forms a bottom wall of the second main storage portion; and when the sub-storage body is located at the retraction position, the cover forms a top wall of the first main storage portion. At the extension position, the cover forms the bottom wall of the second main storage portion. At this point, the sub-storage body is located outside the container body, and the volume of the extended storage portion is the volume of the second inner cavity of the sub-storage body, increasing the storage space of the storage unit.

[0015] Optionally, the container body has a first inner cavity, and the sub-storage body includes a bottom board and a column disposed on the bottom board; at the retraction position, the column is completely inserted into a cavity wall of the first inner cavity, the bottom board seals the opening, and the first inner cavity forms the first main storage portion; and

at the extension position, at least a part of the column extends out of the cavity wall of the first inner cavity, and the first inner cavity forms the second main storage portion.

[0016] After the whole column extends out of the cavity wall of the first inner cavity, the volume of the second main storage portion is equal to the volume of the first main storage portion, and the storage space of the storage unit is increased as much as possible.

[0017] Optionally, the storage unit further includes locking portions; at the retraction position and the extension position, the locking portions lock the sub-storage body; and when the sub-storage body switches between the extension position and the retraction position, the locking portions are separated from the sub-storage body. The locking portions can support the sub-storage body in a locking state, ensuring the stability of storage. In a movable state, the locking portions help the sub-storage body freely move into or out of the container body from the opening on the container body, so as to switch between the retraction position and the extension position.

[0018] Optionally, the container body has a first inner cavity, and the locking portions are disposed on opposite cavity walls of the first inner cavity.

[0019] Optionally, the locking portion includes a sliding portion elastically connected to the cavity wall, the sliding portion is capable of sliding towards the sub-storage body along a direction in which the cavity wall is opposite to the sub-storage body, so as to lock the sub-storage body under the action of elasticity, or sliding away from the sub-storage body, so as to separate from the sub-storage body.

[0020] Optionally, the sub-storage body includes, along a moving direction of the sub-storage body, a protruding portion and a bottom board that are disposed opposite to each other; at the retraction position, the bottom board is disposed on the sliding portions; and at the extension position, the protruding portion is placed on the sliding portion.

[0021] The present invention further provides a refrigerator, including a storage unit described in any of the foregoing items. After the storage unit is used in the refrigerator, the storage space of the refrigerator can be increased.

BRIEF DESCRIPTION OF THE DRAWINGS

[0022]

FIG. 1 is a first perspective view of a storage unit according to a first embodiment of the present invention, showing that a sub-storage body is at a retraction position;

FIG. 2 is a perspective exploded view of the storage unit according to the first embodiment of the present invention;

FIG. 3 is a second perspective view of the storage unit according to the first embodiment of the present invention, showing that the sub-storage body is at an extension position;

FIG. 4 is a perspective exploded view of a container body in the storage unit according to the first embodiment of the present invention;

FIG. 5 is a perspective view of a locking portion in the storage unit according to the first embodiment of the present invention;

FIG. 6 is a partial enlarged view of the storage unit according to the first embodiment of the present invention, showing a position relationship among a support board, a container body and a spring;

FIG. 7 is a perspective view of a support board in a storage unit according to a second embodiment of the present invention, showing that an elastic sheet is not mounted in a gap between a support board and a container body;

FIG. 8 is a partial enlarged view of the storage unit according to the second embodiment of the present invention, showing a position relationship among the support board, the container body and the elastic sheet;

FIG. 9 is a perspective view of a storage unit according to a third embodiment of the present invention, showing that a sub-storage body is at an extension position;

FIG. 10 is a perspective view of a storage unit according to a fourth embodiment of the present invention, showing that a sub-storage body is at an exten-

sion position;

FIG. 11 is a perspective view of a container body in a storage unit according to a fifth embodiment of the present invention;

FIG. 12 is a first perspective view of a sub-storage body in the storage unit according to the fifth embodiment of the present invention, showing that a second clamping block is mounted on the sub-storage body;

FIG. 13 is a second perspective view of the sub-storage body in the storage unit according to the fifth embodiment of the present invention, showing that the second clamping block is not mounted on the sub-storage body; and

FIG. 14 is a brief structural diagram of a groove for mounting the second clamping block in the storage unit according to the fifth embodiment of the present invention.

DETAILED DESCRIPTION

[0023] To make the foregoing objectives, features and advantages of the present invention more comprehensible, specific embodiments of the present invention are described in detail below with reference to the accompanying drawings.

First Embodiment

[0024] The present invention provides a storage unit 10 used in a refrigerator. Referring to FIG.1 and FIG. 2, the storage unit 10 includes a container body 11 that has a first inner cavity 111, and further includes a sub-storage body 12 that is mounted to the container body 11 in a manner of being movable between an extension position and a retraction position. The sub-storage body 12 has a second inner cavity 121. The second inner cavity 121 is formed by a cover 123 and a bottom board 122 that are arranged opposite to each other, and side walls 124 that are arranged opposite to each other. In this embodiment, the bottom of the container body 11 is further provided with an opening 112. The sub-storage body 12 can move into or out of the container body 11 through the opening 112, so as the switch between the extension position and the retraction position.

[0025] Specifically, referring to FIG. 1, the sub-storage body 12 is completely located inside the first inner cavity 111 of the container body 11, and in this case, the sub-storage body 12 is at the retraction position. Then, the first inner cavity 111 of the sub-storage body 12 forms a first main storage portion of the storage unit 10, and objects can be stored in the first storage portion. A boundary of the first main storage portion is completely defined by a boundary of the sub-storage body 12. The cover 123 of the sub-storage body 12 forms a top wall of the first main storage portion.

[0026] In another embodiment, the sub-storage body may be partially located inside the first inner cavity of the container body. In this case, the first main storage portion is formed by the cover of the sub-storage body, partial side walls located in the first inner cavity, and cavity walls of the first inner cavity of the container body. That is, when the sub-storage body is partially located inside the first inner cavity of the container body, a part of the boundary of the first main storage portion is defined by the boundary of the sub-storage body.

[0027] Referring to FIG. 3 and FIG. 2, the sub-storage body 12 moves to the outside of the container body 11 through the opening 112 on the container body 11. In this case, the sub-storage body 12 is at the extension position, and the cover 123 of the sub-storage body 12 seals the opening 112 of the container body 11. Then, cavity walls 113 of the first inner cavity 111 of the container body 11 and the cover 123 of the sub-storage body 12 form a second main storage portion of the storage unit 10. The second storage portion is located inside the container body 11. The second inner cavity 121 of the sub-storage body 12 forms an extended storage portion of the storage unit 10. The extended storage portion is located outside the container body 11. Objects can be stored in the second main storage portion and the extended storage portion, increasing the storage space of the storage unit 10.

[0028] A boundary of the second main storage portion is defined by the cavity walls 113 of the first inner cavity 111 of the container body 11 and the cover 123 of the sub-storage body 12. The cover 123 of the sub-storage body 12 forms a bottom wall of the second main storage portion. Except the same cover 123, other parts of the boundaries of the first main storage portion and the second main storage portion are different.

[0029] In addition, referring to FIG. 1, when the sub-storage body 12 is at the retraction position, a volume of the first main storage portion of the storage unit 10 is the size of the second inner cavity 121 of the sub-storage body 12. Referring to FIG. 3, when the sub-storage body 12 is at the extension position, the volume of the second main storage portion of the storage unit 10 is the size of the first inner cavity 111 of the container body 11. The volume of the first main storage portion is approximate to the volume of the second main storage portion. In this embodiment, referring to FIG. 1, the size of the second inner cavity 121 of the sub-storage body 12 is smaller than the size of the first inner cavity 111 of the container body 11, and therefore, the volume of the second main storage portion is larger than the volume of the first main storage portion.

[0030] As described above, the sub-storage body 12 can move into or out of the container body 11 through the opening 112 of the container body 11, so as to switch between the extension position and the retraction position. Referring to FIG. 1 and FIG. 2, the storage unit 10 of the present invention further includes locking portions

13 that are disposed on opposite cavity walls 113 of the first inner cavity 111. The two cavity walls 113 are provided opposite to each other along a direction perpendicular to a moving direction of the sub-storage body 12. Referring to FIG. 4 and FIG. 5, the locking portion 13 includes: a sliding portion 131 elastically connected to the cavity wall 113 of the first inner cavity 111. The sliding portion 131 is elastically connected to the cavity wall 113 of the first inner cavity 111 by using an elastic member. The sliding portion 131 is provided with a support portion 132 that is away from the cavity wall 113 of the first inner cavity 111.

[0031] The sliding portion 131 is capable of moving towards the sub-storage body 12 along a direction in which the cavity wall 113 of the first inner cavity 111 is opposite to the sub-storage body 12, so as to be in a locking state under the action of elasticity. As shown in FIG. 1, the sub-storage body 12 is at the retraction position, and the bottom board 122 of the sub-storage body 12 is disposed on the support portions 132 of the sliding portions 131 that are arranged opposite to each other. As shown in FIG. 2 and FIG. 3, the sub-storage body 12 is at the extension position, and a protruding portion 125, which extends towards the cavity walls 113 of the first inner cavity 111, of the cover 123 of the sub-storage body 12 is placed on the support portions 132 of the sliding portions 131.

[0032] When the sub-storage body 12 needs to switch from the retraction position to the extension position or switch from the extension position to the retraction position, the sliding portion 131 can slide away from the sub-storage body 12 along the direction in which the cavity wall 113 of the first inner cavity 111 is opposite to the sub-storage body 1, so as to separate from the sub-storage body 12. Therefore, the sub-storage body 12 can move into or out of the opening 112 on the container body 11 freely, to realize switching between the retraction position and the extension position.

[0033] Referring to FIG. 6 in combination with FIG. 4 and FIG. 5, along a direction perpendicular to the moving direction of the sub-storage body 12, support boards 114 are symmetrically disposed outside the first inner cavity 111 of the container body 11, and there is a gap 114a between the container body 11 and each support board 114. When the elastic member is a spring 134, a hole 115 that communicate the gap 114a and the first inner cavity 111 is provided on the container body 11. The number of holes is not limited. Two holes 115 are shown in FIG. 4.

[0034] Referring to FIG. 4, the cavity wall 113 of the first inner cavity 111 is further provided with an insertion groove 118. The insertion groove 118 is arranged to surround the hole 115. Referring to FIG. 5, a part, which facing the support board 114, of the sliding portion 131 is provided with a protrusion 133. The number of protrusions 133 is not limited. Two protrusions 133 are shown in the figure. Each protrusion 133 is inserted in the hole 115 and extends to the gap 114a. The protrusion 133 is provided with a slot. One end of the spring 134 is disposed in the slot, and the other end abuts against the board wall of the support board 114. The sliding portion 131 is capable of moving in the insertion groove 118 under the action of an external force.

[0035] It should be noted that, the shape of the sliding portion 131 is not limited, as long as the sliding portion 131 can move in the insertion groove 118.

[0036] Referring to FIG. 4 continuously, the cavity wall 113 of the first inner cavity 111 is provided with a notch 116 at a position close to the opening 112 of the container body 11. Referring to FIG. 5, the sliding portion 131 is provided with a manipulation portion 135 at a part which is away from the first inner cavity 111. The manipulation portion 135 is located at the notch 116, and is used to be manipulated by a user so as to apply an acting force to the sliding portion 131. For example, when the sub-storage body 12 needs to switch from the retraction position to the extension position or switch from the extension position to the retraction position, the user applies an acting force to the sliding portion 131 by means of the manipulation portion 135. The spring 134 is compressed, the sliding portion 131 can move in the insertion groove 118 away from the sub-storage body 12 along the direction in which the cavity wall 113 of the first inner cavity 111 is opposite to the sub-storage body 12, so that the locking portion 13 is separated from the sub-storage body 12, achieving switching between the retraction position and the extension position.

[0037] When the manipulation portion 135 is released, no external force is applied to the sliding portion 131. Under the action of the elasticity of the spring 134, the sliding portion 131 can move in the insertion groove 118 towards the sub-storage body 12 along the direction in which the cavity wall 113 of the first inner cavity 111 is opposite to the sub-storage body 12, and the locking portion 13 is in a locking state, so as to support the sub-storage body 12.

[0038] It should be noted that, in another embodiment, the protrusion can be provided on the support board. The protrusion is provided with a slot, one end of the spring is disposed in the slot, and the other end abuts against the sliding portion.

Second Embodiment

[0039] Referring to FIG. 7 and FIG. 8 in combination with FIG. 4, in this embodiment, the elastic member in the locking portion 13 is an elastic sheet 117. The elastic sheet 117 is located in the gap 114a between the container body 11 and the support board 114. The container body 11 is provided with a hole 115 that communicates the gap 114a and the first inner cavity 111 of the container body 11. The sliding portion 131 is provided with a protrusion 133 (referring to FIG. 5) at a portion facing the support board 114. The protrusion 133 is inserted in the hole 115 and extends to the gap 114a, and abuts against the elastic sheet 117.

[0040] Similarly, a user applies an acting force to the sliding portion 131 through the manipulation portion 135 provided at the notch 116. The protrusion abuts against the elastic sheet 117. The elastic sheet 117 is compressed. The sliding portion 131 can move in the insertion groove 118 away from the sub-storage body along the direction in which the cavity wall of the first inner cavity is opposite to the sub-storage body, so that the locking portion is separated from the sub-storage body, achieving switching between the retraction position and the extension position. When the manipulation portion 135 is released, no external force is applied to the sliding portion 131. Under the action of the elasticity of the elastic sheet 117, the sliding portion 131 can move in the insertion groove 118 towards the sub-storage body along the direction in which the cavity wall of the first inner cavity is opposite to the sub-storage body, and the locking portion 13 is in a locking state, so as to support the sub-storage body.

Third Embodiment

[0041] In this embodiment, referring to FIG. 9, a container body 21 of a storage unit 20 has a first inner cavity 212. A sub-storage body 22 of the storage unit 20 includes a bottom board 221 and a column 222 disposed on the bottom board 221. The number of columns 222 is not limited. Four columns 222 disposed at intervals are shown in the figure. The four columns 222 and the bottom board 221 form a second inner cavity 223 of the sub-storage body 22. The difference from the foregoing embodiments lies in that: the four columns 222 on the sub-storage body 22 are flexibly inserted inside cavity walls 211 of the first inner cavity 212 of the container body 21.

[0042] At a retraction position, the column 222 of the sub-storage body 22 is completely inserted in the cavity wall 211 of the first inner cavity 212, the bottom board 221 seals an opening of the container body 21, and the first inner cavity 212 of the container body 21 forms a first main storage portion. At an extension position, the column 222 at least partially extends out of the cavity wall 211 of the first inner cavity 212, and the cavity walls 211 of the first inner cavity 212 of the container body 21 and the cover 224 of the sub-storage body 22 form a second main storage portion.

[0043] At the extension position, when the column 222 extends out of the cavity wall 211 of the first inner cavity 212 so that the sub-storage body 22 is located outside the first inner cavity 212 of the container body 21, the first inner cavity 212 of the container body 21 forms the second main storage portion, that is, a volume of the first main storage portion is equal to a volume of the second main storage portion.

[0044] In addition, at the retraction position, a boundary of the first main storage portion is defined by the cavity walls of the first inner cavity 212 of the container body 21 and the bottom board 221 of the sub-storage body 22. At the extension position, a boundary of the second main storage portion is defined by the cavity walls of the first inner cavity 212 of the container body 21 and the cover 224 of the sub-storage body 22.

Fourth Embodiment

[0045] In the first embodiment, referring to FIG. 2, the bottom of the container body 11 is provided with an opening 112, and the sub-storage body 11 can move into or out of the container body 11 through the opening 112, so as to switch between an extension position and a retraction position. In this embodiment, referring to FIG. 10, an opening is provided on a side surface of a container body 31 of a storage unit 30, and a sub-storage body 32 can move into or out of the container body 31 through the side surface, so as to switch between the extension position and the retraction position.

Fifth Embodiment

[0046] As described in the first embodiment, the sub-storage body 12 is capable of moving into or out of the container body 11 through the opening 112 on the container body 11, so as to switch between the retraction position and the extension position. In order to ensure the stability of the sub-storage body during movement, in this embodiment, referring to FIG. 11 and FIG. 12, between two support boards 42, a first clamping block 43 is disposed on a cavity wall 41 of a container body 40. The first clamping block 43 extends along a moving direction of a sub-storage body 50. The number of first clamping blocks 43 is not limited. Two first clamping blocks 43 disposed at an interval are shown in FIG. 11.

[0047] Referring to FIG. 11 and FIG. 12, the sub-storage body 50 is provided with a second clamping block 60 at a part 51 which faces the cavity wall 41 provided with the first clamping block 43 of the container body 40. The second clamping block 60 extends along the moving direction of the sub-storage body 50. The number of second clamping blocks 60 is not limited. Two second clamping blocks 60 disposed at an interval are shown in FIG. 12. The second clamping block 60 is clamped with the first clamping block 43, and the second clamping block 60 is movable with respect to the first clamping block 43 along the moving direction of the sub-storage body 50. Because the first clamping block 43 is stationary, stability of the sub-storage body 50 can be maintained during movement.

[0048] Referring to FIG. 12 and FIG. 13, in this embodiment, the second clamping block 60 is clamped on the sub-storage body 50. Referring to FIG. 13 and FIG. 14, the sub-storage body 50 is provided with a groove 52. The groove 52 includes body portions 522 that are disposed opposite to each other at an interval. Each body portion 522 is provided with a protrusion 521, and therefore is T-shaped as a whole. The protrusions 521 on the body portions 522 are also disposed opposite to each other at an interval.

[0049] Referring to FIG. 13, the second clamping block 60 includes a first groove 62 and a second groove 61 that are provided in a back-to-back manner. The first groove 62 extends along the moving direction of the sub-storage body 50, and is used for clamping with the first clamping block 43. The second groove 61 includes a first sub-groove 611 and a second sub-groove 612 that are provided in a back-to-back manner. The first sub-groove 611 and the second sub-groove 612 extend along the moving direction of the sub-storage body 50. The first sub-groove 611 and the second sub-groove 612 are separately used for clamping with each protrusion 521 on the groove 52 of the sub-storage body 50.

[0050] The second clamping block 60 is clamped at the groove 52 on the sub-storage body 50. As such, the sub-storage body 50 and the second clamping block 60 can be processed separately, facilitating molding. In another embodiment, the second clamping block and the sub-storage body may be integrally formed.

Sixth Embodiment

[0051] This embodiment provides a refrigerator, including a storage unit 10, 20, 30 according to any of the foregoing embodiments.

[0052] The embodiments in the present invention are described progressively, each embodiment focuses on a difference from preceding embodiments, and for identical parts in the embodiments, reference may be made to the preceding embodiments.

[0053] Although disclosed above, the present invention is not limited thereto. Any person skilled in the art can make various changes and modifications without departing from the spirit and 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 unit of a refrigerator, comprising a container body (11, 21, 31, 40), **characterized by** further comprising:
   a sub-storage body (12, 22, 32, 50), wherein the sub-storage body (12, 22, 32, 50) is mounted to the container body (11, 21, 31, 40) in a manner of being movable between an extension position and a retracted position; in the retracted position, the sub-storage body (12, 22, 32, 50) is at least partially located inside the container body (11, 21, 31, 40), and the storage unit comprises a first main storage portion located in the container body (11, 21, 31, 40); and at the extension position, the sub-storage body (12, 22, 32, 50) is located outside the container body (11, 21, 31, 40), and the storage unit comprises a second main storage portion located in the container body (11, 21, 31, 40) and an extended storage portion located outside the container body (11, 21, 31, 40).

2. The storage unit according to claim 1, **characterized in that** a volume of the second main storage portion is equal to or greater than a volume of the first main storage portion.

3. The storage unit according to any of the preceding claims, **characterized in that** a volume of the first main storage portion is approximate to a volume of the second main storage portion.

4. The storage unit according to any of the preceding claims, **characterized in that** boundaries of the first main storage portion and the second main storage portion are at least partially different.

5. The storage unit according to any of the preceding claims, **characterized in that** at least a part of a boundary of the first main storage portion is defined by the sub-storage body (12, 22, 32, 50).

6. The storage unit according to any of the preceding claims, **characterized in that** the container body (11, 21) has a first inner cavity (111, 212), and the sub-storage body (12, 22) has a second inner cavity (121, 223); and when the sub-storage body (12, 22) is located in the retracted position, the sub-storage body (12, 22) is at least partially located inside the first inner cavity (111, 212) and forms at least a part of a boundary of the first main storage portion.

7. The storage unit according to claim 6, **characterized in that** when the sub-storage body (12, 22) is located in the retracted position, the first main storage portion is formed by the second inner cavity (121, 223).

8. The storage unit according to any of the preceding claims, **characterized in that** the container body (11, 21) comprises an opening (112) cut on a side, and the sub-storage body (12, 22) is capable of moving into or out of the container body (11, 21) through the opening (112).

9. The storage unit according to claim 8, **characterized in that** the sub-storage body (12) comprises a cover (123), and at the extension position, the cover (123) seals the opening (112).

10. The storage unit according to claim 9, **characterized in that** when the sub-storage body (12) is located at the extension position, the cover (123) forms a bottom wall of the second main storage portion; and when the sub-storage body (12) is located in the retracted position, the cover (123) forms a top wall of the first main storage portion.

11. The storage unit according to claim 8, **characterized**

in that the container body (21) has a first inner cavity (111, 212), and the sub-storage body (12, 22) comprises a bottom board (122, 221) and a column (222) disposed on the bottom board (122, 221);
in the retracted position, the column (222) is completely inserted into a cavity wall (211) of the first inner cavity (212), the bottom board (221) seals the opening (112), and the first inner cavity (212) forms the first main storage portion; and at the extension position, at least a part of the column (222) extends out of the cavity wall (211) of the first inner cavity (212), and the first inner cavity (212) forms the second main storage portion.

12. The storage unit according to any of the preceding claims, **characterized by** further comprising locking portions (13), wherein in the retracted position and the extension position, the locking portions (13) lock the sub-storage body (12, 50); and when the sub-storage body (12, 50) switches between the extension position and the retracted position, the locking portions (13) are separated from the sub-storage body (12, 50).

13. The storage unit according to any of the preceding claims 6 to 12, **characterized in that** the container body (11) has the first inner cavity (111), and the locking portions (13) are disposed on opposite cavity walls (113) of the first inner cavity (111).

14. The storage unit according to claim 13, **characterized in that** the locking portion (13) comprises a sliding portion (131) elastically connected to the cavity wall (113), the sliding portion (131) is capable of sliding towards the sub-storage body (12, 50) along a direction in which the cavity wall (113) is opposite to the sub-storage body (12, 50), so as to lock the sub-storage body (12, 50) under the action of elasticity, or sliding away from the sub-storage body (12, 50), so as to separate from the sub-storage body (12, 50).

15. The storage unit according to claim 14, **characterized in that** the sub-storage body (12, 50) comprises, along a moving direction of the sub-storage body (12, 50), a protruding portion (125) and a bottom board (122) that are disposed opposite to each other;
in the retracted position, the bottom board (122) is disposed on the sliding portions (131); and at the extension position, the protruding portion (125) is placed on the sliding portion (131).

16. A refrigerator, **characterized by** comprising the storage unit according to any one of the preceding claims.

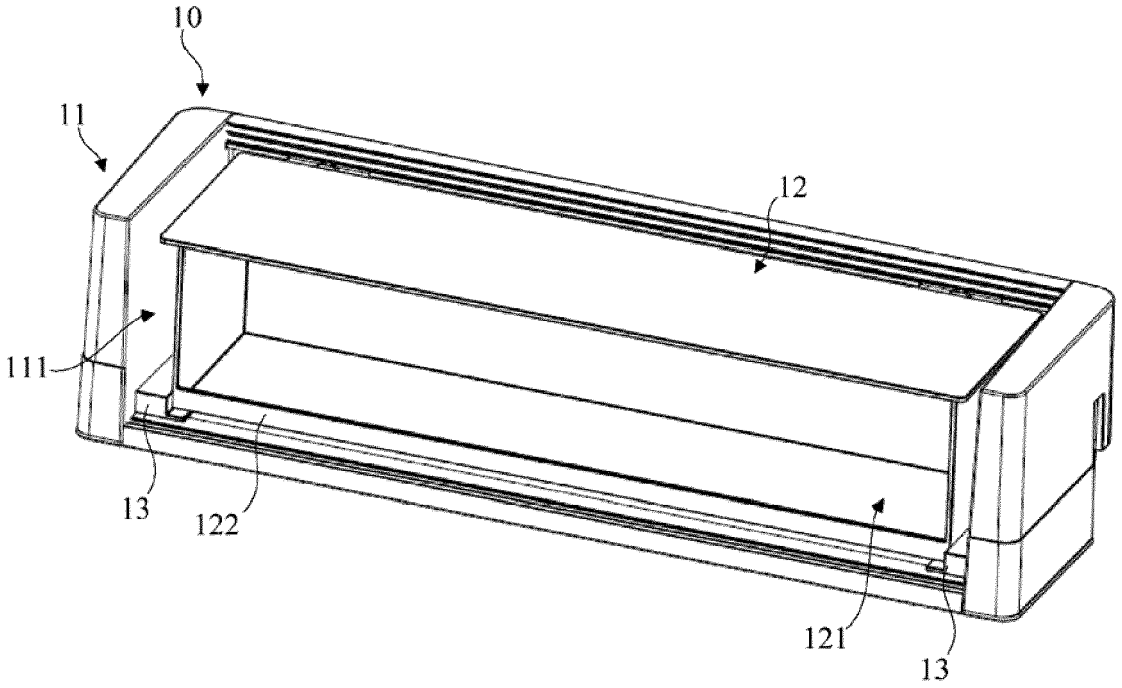
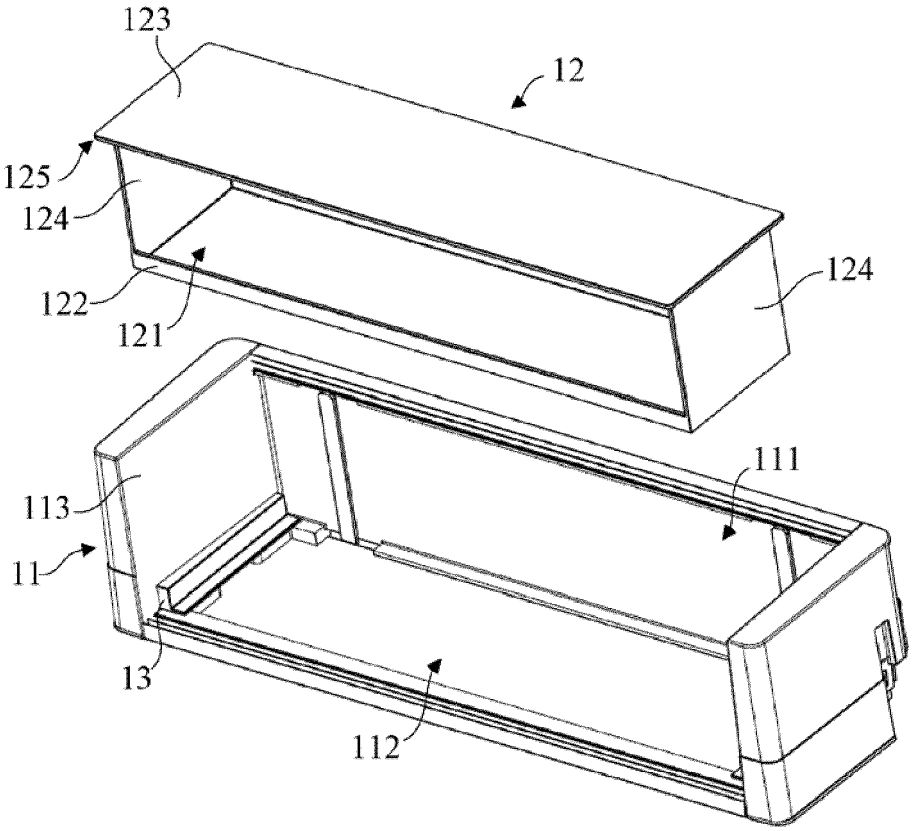


FIG. 1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12
125
124
122
121
124
111
113
11
13
112

FIG. 2

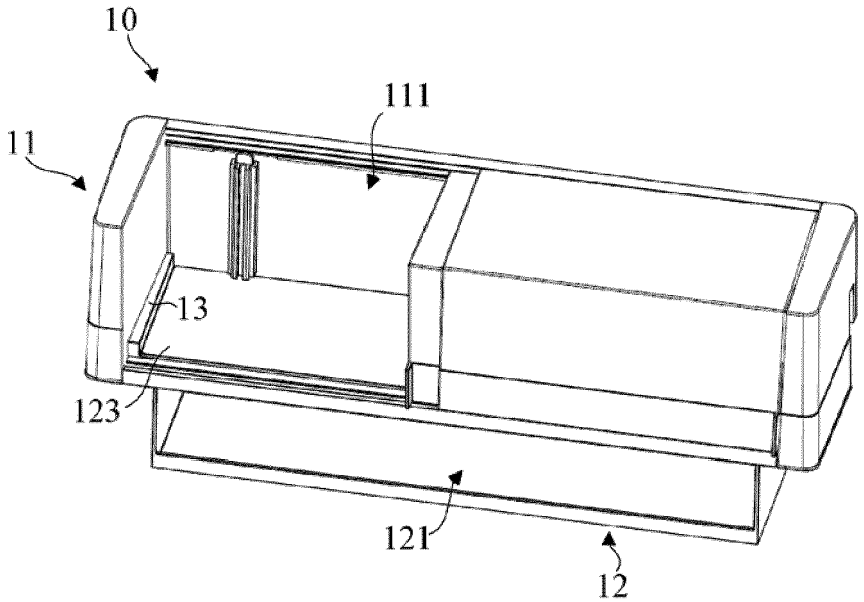
10
111
11
13
123
121
12

FIG. 3

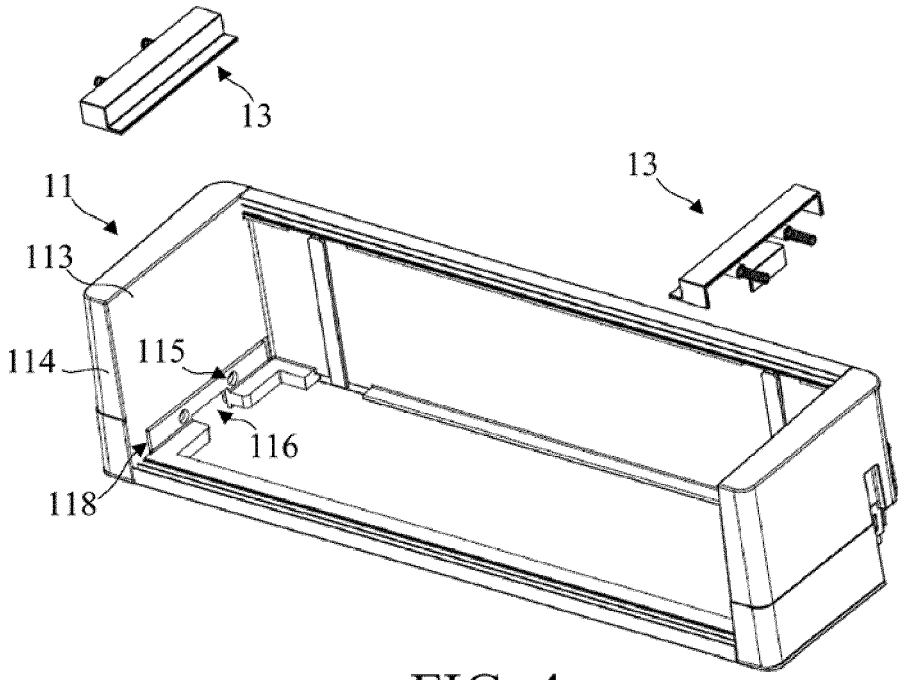

FIG. 4

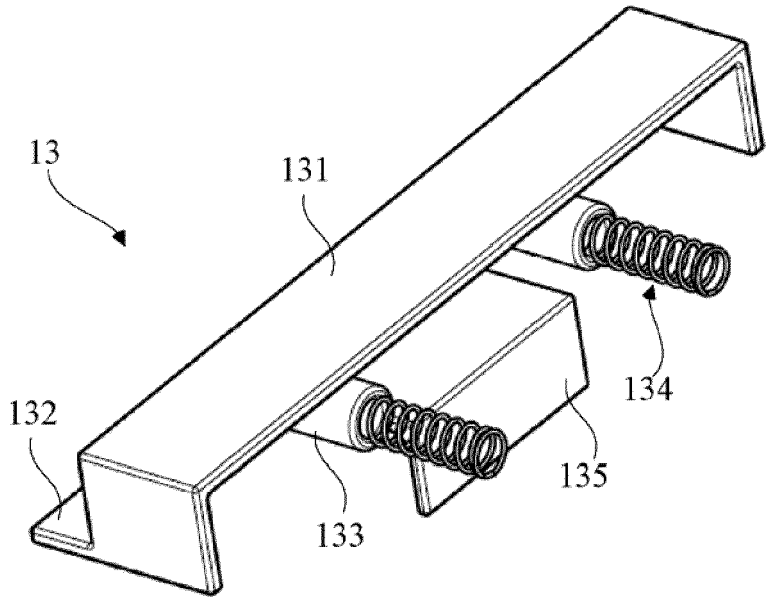

FIG. 5

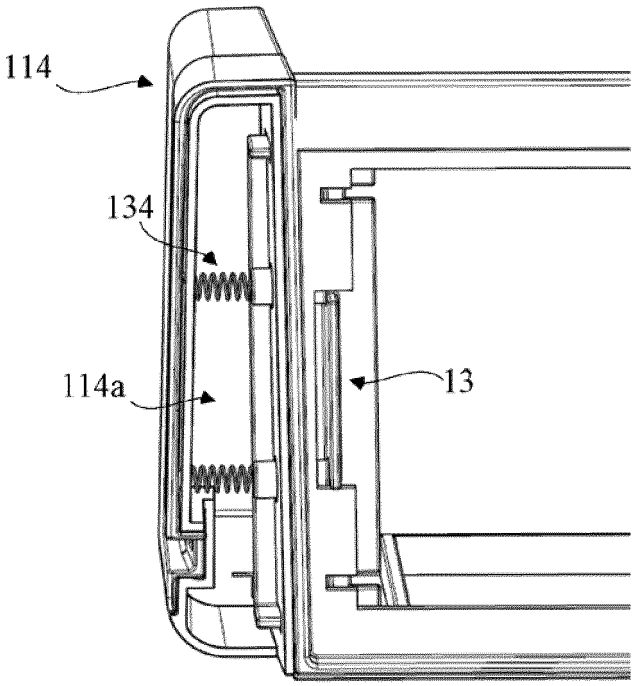

FIG. 6

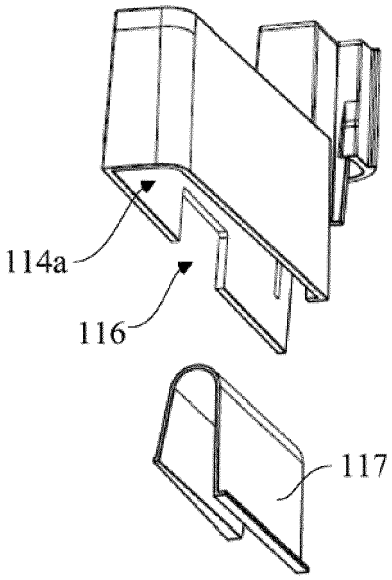

FIG. 7

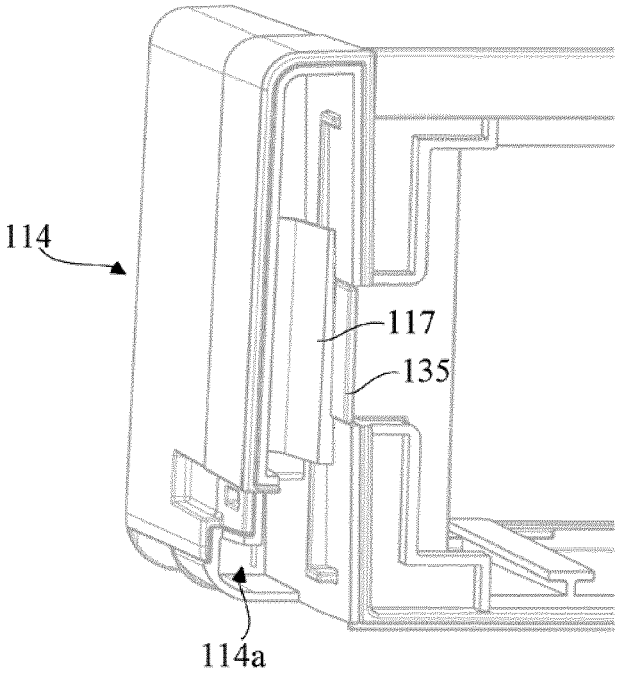

FIG. 8

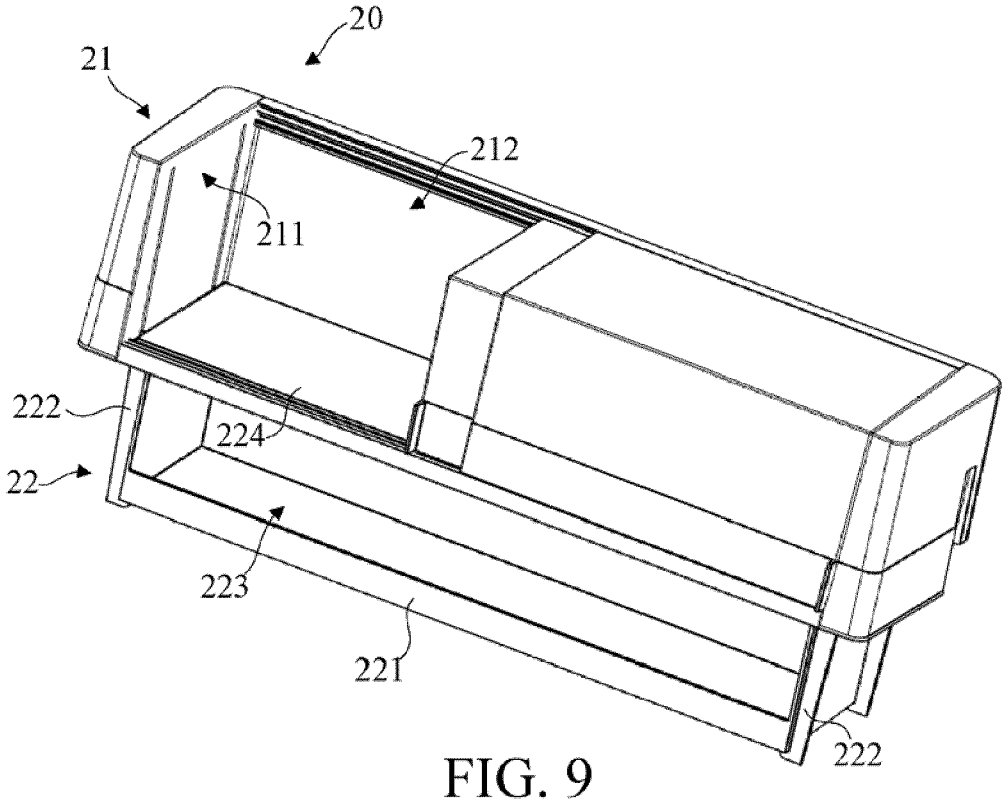

FIG. 9

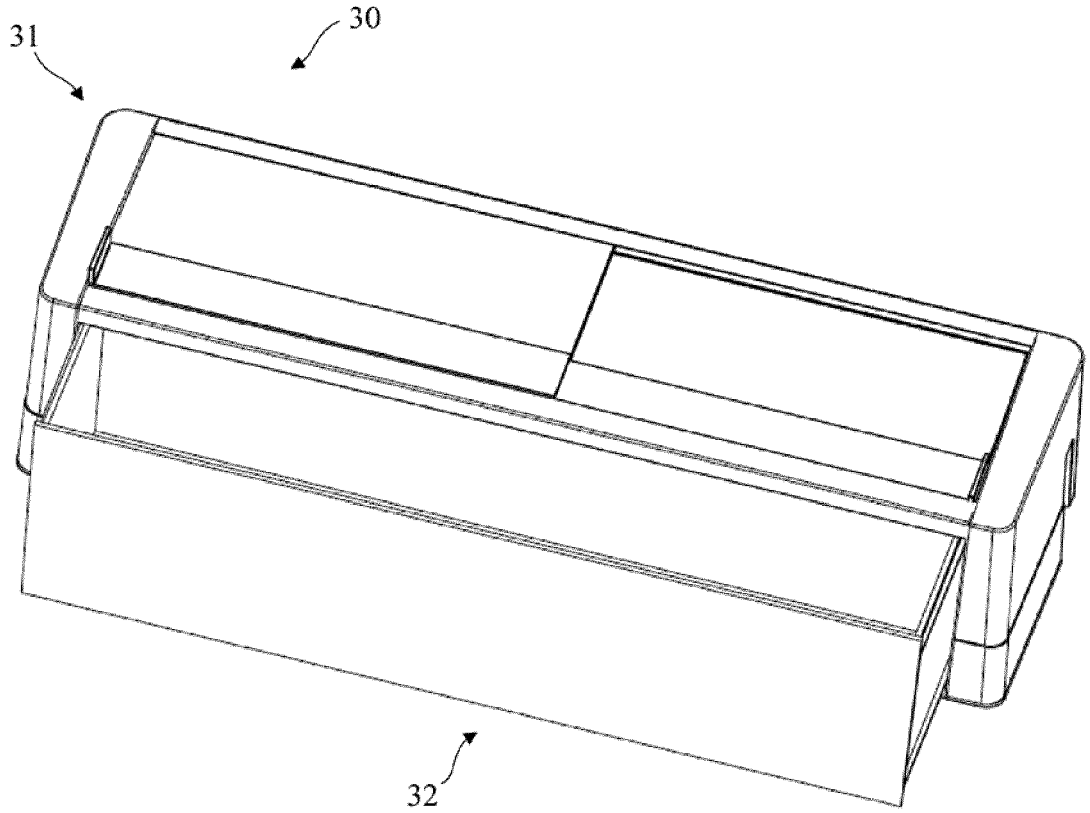

FIG. 10

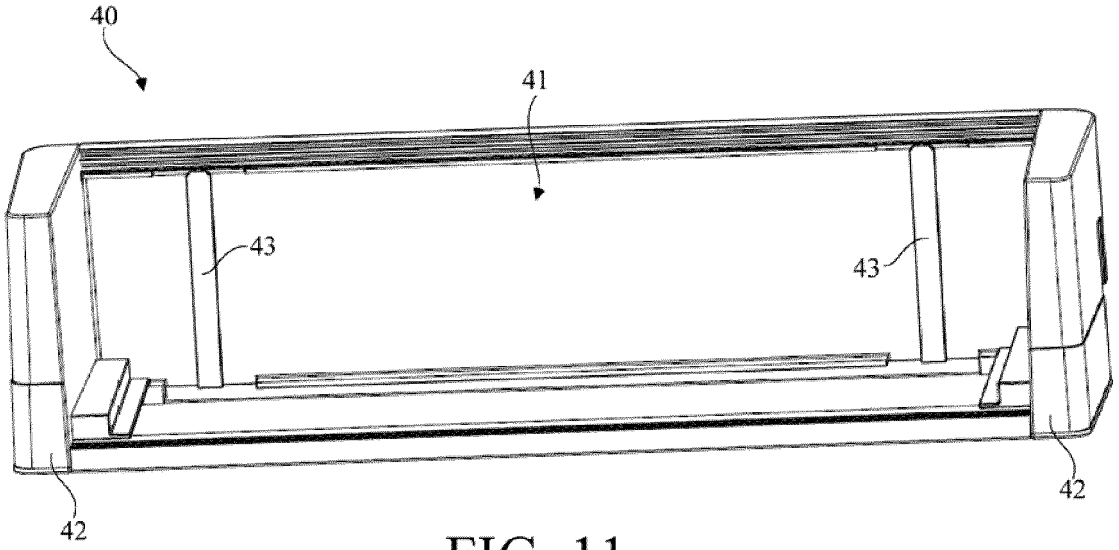

FIG. 11

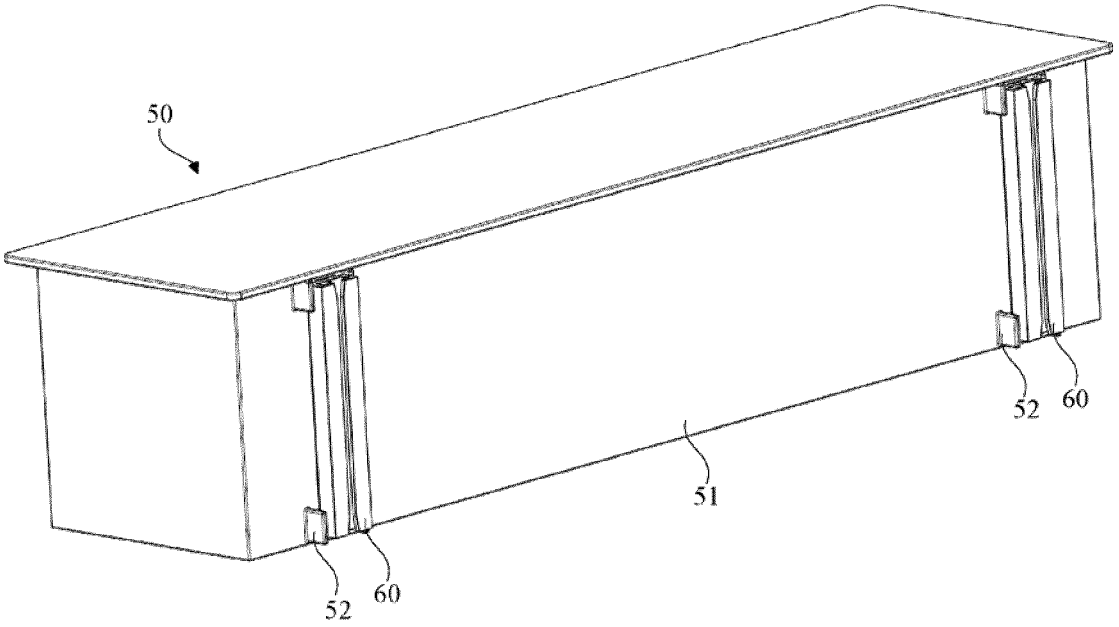

FIG. 12

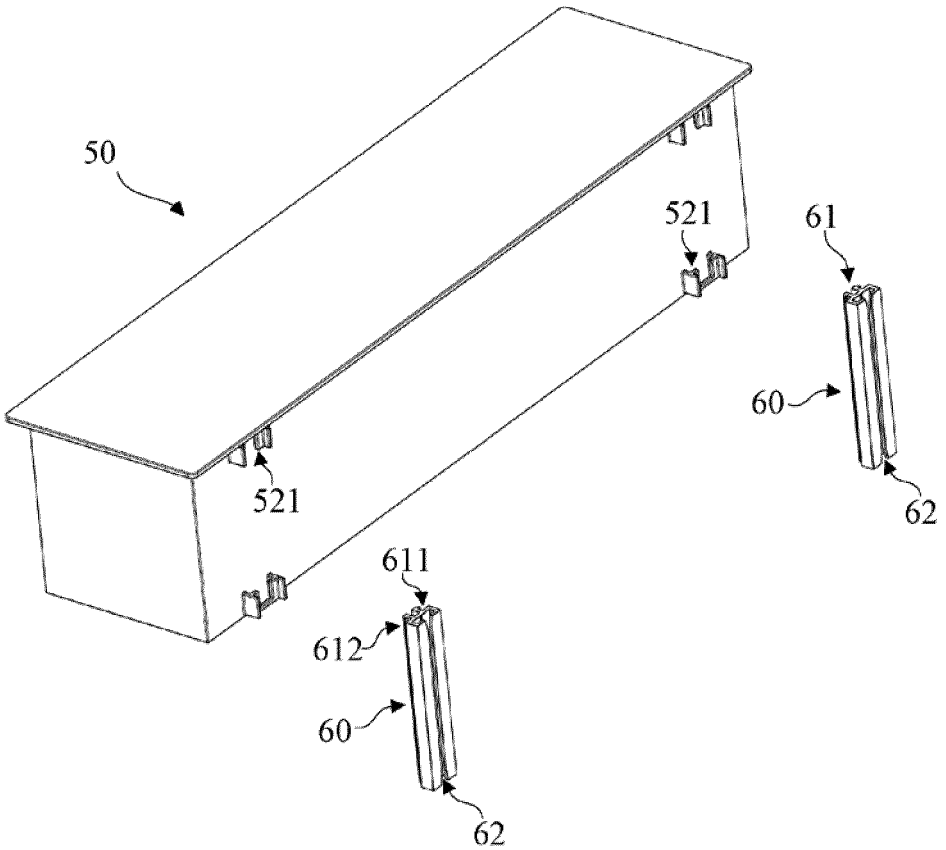

FIG. 13

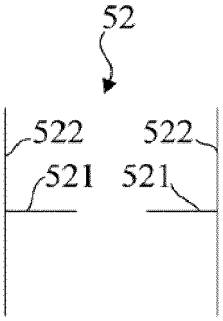

FIG. 14

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EUROPEAN SEARCH REPORT

Application Number
EP 18 17 7746

DOCUMENTS CONSIDERED TO BE RELEVANT

Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (IPC)
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X	CN 201 555 417 U (KAIFENG SHEN) 18 August 2010 (2010-08-18) * figures *	1	
X	US 2015/198365 A1 (CHELLAPPAN BAGAWATHKUMAR [US] ET AL) 16 July 2015 (2015-07-16) * paragraphs [0036] - [0041]; figures *	1	
X	US 2007/228908 A1 (EVELAND MICHAEL J [US] ET AL) 4 October 2007 (2007-10-04) * figures *	1	
X,P	WO 2018/099673 A1 (ARCELIK AS [TR]) 7 June 2018 (2018-06-07) * abstract; figures *	1	

TECHNICAL FIELDS SEARCHED (IPC)

F25D
A47B

The present search report has been drawn up for all claims

Place of search	Date of completion of the search	Examiner
The Hague	15 October 2018	Vigilante, Marco

CATEGORY OF CITED DOCUMENTS

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15-10-2018

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