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EDGE PROFILE FOR A DOOR OF A REFRIGERATOR CABINET

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An edge profile (60A, 60B) is described for a door (20A, 20B) of a refrigerator cabinet (1), said edge profile (60A, 60B) comprising:

- a first portion (65A, 65B) of elongated shape having a prevalent dimension extending parallel to a longitudinal axis,
- a second portion (80A, 80B) of elongated shape, flanked by the first portion (65A, 65B) and having a prevalent dimension extending parallel to said longitudinal axis,
- a junction system (90A, 90B) between the first portion (65A, 65B) and the second portion (80A, 80B), which makes it possible to rotate the second portion (80A, 80B) with respect to the first portion (65A, 65B) around a pivot axis (T) parallel to said longitudinal axis, and
- a locking system (120) adapted to prevent said rotation of the second portion (80A, 80B) in multiple angular positions relative to the first portion (65A, 65B).

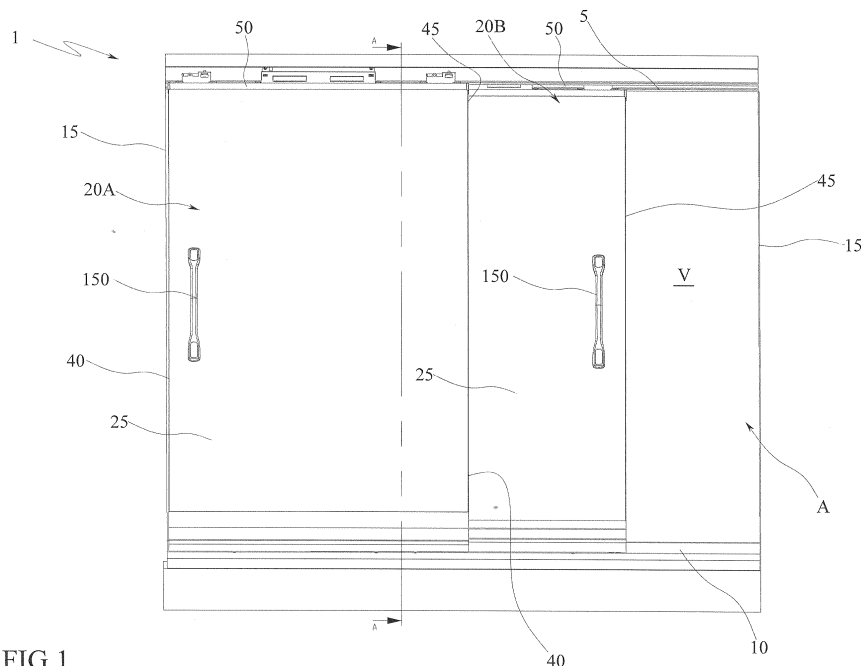


FIG.1

Description

TECHNICAL FIELD

[0001] The present invention relates to an edge profile for a door of a refrigerator cabinet, more particularly to an adjustable edge profile.

PRIOR ART

[0002] There are known refrigerator cabinets comprising: a refrigerated compartment, which has a frame defining an access opening to inside the compartment, and one or more doors adapted to selectively occlude or disengage the opening at least partially. Said doors generally comprise at least one panel in insulating and optically transparent material, for example in glass or polymeric material.

[0003] In some embodiments, in which the compartment must be accessed from the front, the doors are positioned in such a way that the respective panels are substantially vertical or oblique, or inclined both with respect to a vertical plane and with respect to a horizontal plane.

[0004] In such cases, the doors comprise a carriage fixed to an edge of the panel and adapted to slide in a first guide, which is for example created in an upper portion of the frame.

[0005] Moreover, the doors comprise an edge profile, which is fixed to an edge of the panel distal from the carriage and is associated with a second guide placed at a lower portion of the frame.

[0006] The edge profile can comprise idle wheels adapted to slide in contact with the second guide, and the second guide can also only consist of a flat plate resting on a plane parallel to the rotation axis of said wheels.

[0007] In practice, the edge profile rests by gravity, directly or through the interposition of the wheels, on the second guide, such to reduce the jamming of the door during sliding.

[0008] A known problem of this solution is that depending on the form of the cabinet, or the receiving compartment, the inclination that the panel of insulating material must have in order to cover the opening varies. As a consequence, when the inclination of the panel varies, a second guide must be prepared in order to guarantee the correct sliding of the edge profile along the second guide, with the obvious consequences in terms of costs and times related to the need to design and implement second, ad hoc guides.

[0009] An object of the present invention is therefore to overcome this drawback of the prior art, with a simple, rational and low-cost solution.

[0010] Such object is reached by the characteristics of the invention given in the independent claim. The dependent claims outline preferred and/or particularly advantageous aspects of the invention.

DISCLOSURE OF THE INVENTION

[0011] The invention provides an edge profile for a door of a refrigerator cabinet, said profile comprising:

- a first elongated portion having a prevalent dimension extending parallel to a longitudinal axis,
- a second portion of elongated shape, flanked by the first portion and having a prevalent dimension extending parallel to said longitudinal axis,
- a junction system between the first and second portion, which allows the second portion to be rotated with respect to the first portion about a pivot axis parallel to said longitudinal axis, and
- a locking system adapted to prevent said rotation of the second portion in relative multiple angular positions with respect to the first portion.

[0012] Thanks to this solution it is possible, with a single type of edge profile, to create doors that can be adapted to a plurality of refrigerated compartments of different shapes, thus allowing an optimization of the design time and production costs.

[0013] One aspect of the invention provides that the junction system can comprise a first arched surface formed in the first portion and a second arched surface conjugated to the first arched surface and formed in the second portion, the second arched surface being in direct contact with the first arched surface.

[0014] In this way, the junction system is particularly compact and at the same time precise, as it is substantially quite solid.

[0015] Another aspect of the invention provides that the locking system can comprise a clamping device adapted to selectively press the first arched surface and the second arched surface into contact.

[0016] This makes it possible to fix the edge profile in the desired angular position simply, safely and quickly.

[0017] According to one aspect of the invention, the locking system can comprise a first notching formed in the first arched surface and a second notching formed in the second arched surface and which is adapted to engage the first notching to create a connection through the obstacle.

[0018] In this way, the locking in the desired angular position is more stable than when the first portion and the second portion are coupled along smooth arched surfaces. Moreover, this feature simplifies the assembly operations, as always with respect to smooth surfaces, the notches engaging to each other make it possible to simply position the first portion and the second portion, for example through iterative interventions, before fixing them to each other and putting the door in place.

[0019] Preferably, the edge profile can comprise a stiffening bar inserted longitudinally in the first portion of the profile itself.

[0020] According to another aspect of the invention, the clamping device can comprise an abutting element

associable to the stiffening bar and configured to clamp the first arched surface and the second arched surface between itself and the stiffening element.

[0021] In this way it is possible to achieve a secure locking of the two portions of the edge profile.

[0022] Furthermore, the edge profile can comprise a rotatable idle wheel associated with the second portion.

[0023] Thanks to this solution, the sliding of the door along the second guide is improved, thereby reducing any jamming.

[0024] Furthermore, the first portion can be provided with a seat suitable for receiving an edge of a panel of the door.

[0025] This feature makes it possible to simplify the assembly operations of the door, making these operations particularly rapid and intuitive.

[0026] Another aspect of the invention provides that the edge profile can comprise a protection system, adapted to protect the junction system and the locking system, the protection system being provided with a first fin associated with the first portion and with a second fin associated with the second portion, the fins having a length such that they always overlap each other at each relative angular position permitted by the junction system.

[0027] In this way it is possible to prevent foreign objects from accessing said systems, to prevent tampering of the same, and to create an additional barrier to improve the insulation of the refrigerator cabinet.

[0028] For the resolution of the problems described above, the invention also provides a door for a refrigerator cabinet, comprising a panel and an edge profile having at least one of the aspects described above, wherein the first portion of the profile is fixed to an edge of the panel.

[0029] Furthermore, the invention provides a refrigerator cabinet comprising:

- a refrigerated compartment,
- an access opening to the refrigerated compartment,
- an access door as described above is adapted to selectively occlude or disengage the opening at least partially,
- a first guide through which a panel of the door is slidably associated with the compartment.

BRIEF DESCRIPTION OF THE DRAWINGS

[0030] Further characteristics and advantages of the invention will become clear from reading the following description provided as a non-limiting example, with the help of the figures illustrated in the attached tables.

Figure 1 is a front view of a refrigerator cabinet provided with an edge profile according to the invention.
Figure 2 is a partial section view of figure 1, according to the plane of section II-II.
Figure 3 is an enlargement of detail III of figure 2.
Figure 4 is an enlargement of detail IV of figure 2.
Figure 5 is an isolated and enlarged detail of figure 4.

BEST WAY TO ACTUATE THE INVENTION

[0031] With particular reference to these figures, the reference number 1 globally indicates a refrigerator cabinet comprising a box-like body which defines a refrigerated compartment V, inside which the products to be refrigerated are stored.

[0032] This box-like body has a frame which defines an access opening A, for example of a rectangular shape, through which it is possible to access the compartment V from the outside.

[0033] The frame has an upper edge 5 and a lower edge 10, which is placed at a lower level with respect to the upper edge 5.

[0034] In an embodiment not shown, wherein the access opening A lies on a substantially vertical plane, the upper edge 5 can also be superimposed in plan view to the lower edge 10.

[0035] In the illustrated embodiment, the refrigerator cabinet 1 is configured in such a way that the access opening A defined by the frame rests on an oblique plane. It should be noted that oblique plane is intended as an inclined plane with respect to both a vertical plane and a horizontal plane. Accordingly, the upper edge 5 is misaligned (not overlapped) in plan view at the lower edge 10.

[0036] In particular, in the illustrated embodiment, the lower edge 10 protrudes frontally with respect to the upper edge 5.

[0037] The frame also comprises a pair of opposite side edges 15 which join the upper edge 5 to the lower edge 10.

[0038] The cabinet 1 comprises a door 20A, 20B adapted to selectively occlude or at least partially disengage the access opening A for access to the compartment V.

[0039] The door 20A, 20B is slidably associated with the box-like body according to a substantially horizontal sliding axis S, preferably parallel to a plane for positioning the access opening A.

[0040] The wing 20A, 20B comprises a panel 25, for example of a rectangular shape, made of thermally insulating material.

[0041] Preferably, the panel 25 is also made of optically transparent material, for example the panel 25 can be made of glass or polymeric material.

[0042] In the illustrated embodiment, the panel 25 is formed by a pair of sheets of insulating material between which a chamber is interposed, for example containing only rarefied gas.

[0043] The panel 25 comprises a first edge 30 (rectilinear) and a second edge 35 (rectilinear) opposite the first edge 30, for example having the same length as the first edge 30.

[0044] The wing 20A, 20B is oriented in such a way that the first edge 30 is at a higher level with respect to the second edge 35. For example, the first edge 30 is placed near an upper portion of the frame of the box-like body.

[0045] The panel 25 also comprises a third edge 40 (rectilinear) and a fourth edge 45 opposite the third edge (rectilinear), which join the first edge 30 with the second edge 35 at opposite ends.

[0046] The wing 20A, 20B comprises a coupling profile 50 fixed to an edge of a respective panel 25, for example fixed only to the first edge 30 of the respective panel 25.

[0047] The coupling profile 50 comprises at least one idle wheel R, preferably a plurality of idle wheels R. Each idle wheel R is rotatable only with respect to its own rotation axis and is arranged in such a way that said rotation axis is substantially perpendicular to a resting axis of the respective panel 25 to which the coupling profile 50 is fixed.

[0048] In the illustrated embodiment, the coupling profile 50 comprises a receiving seat 55 of the first edge 30 of the panel 25, the receiving seat 55 being for example U-shaped so as to embrace the first edge 30 both on the side facing the compartment V and on the side facing the opposite direction.

[0049] From said receiving seat 55, a supporting element for the idle wheels R extends in the opposite direction of the panel 25, to which the idle wheels R are rotatably associated with respect to their own rotation axis.

[0050] The coupling profile 50 extends along the entire length of the first edge 30 of the panel 25, i.e. the coupling profile 50 has longitudinal ends which are coplanar to the third edge and to the fourth edge, respectively.

[0051] Or further, the coupling profile 50 extends along the entire length of the panel 25 in the direction of the sliding axis S.

[0052] The door 20A, 20B also comprises an edge profile 60A, 60B fixed to an edge of the panel 25, for example fixed to the second edge 35 of the panel 25, or opposite the coupling profile 50.

[0053] The edge profile 60A, 60B extends along the entire length of the second edge 35 of the panel 25 and comprises a first portion 65A, 65B of elongated shape having its main dimension extending in the direction of a longitudinal axis. This longitudinal axis is parallel to the second edge 35, for example it is also parallel to the sliding axis S.

[0054] The first portion 65A, 65B is fixed to the second edge 35 of the panel 25, for example it is glued to the second edge 35.

[0055] In particular, the first portion 65A, 65B comprises a receiving seat 70A, 70B of the second edge 35 of the panel 25, which has a U-shaped cross section so as to embrace the said second edge 35 of the respective panel 25 both from the side facing the compartment V and the side facing the opposite direction.

[0056] The first portion 65A, 65B extends along the entire length of the second edge 35 of the panel 25, or along the entire extension of the panel 25 in the direction of the sliding axis S. That is, the longitudinal ends of the first portion 65A, 65B are coplanar at the third edge 40 and at the fourth edge 45, respectively.

[0057] The edge profile 60A, 60B comprises a stiffen-

ing bar 75 inserted longitudinally in the first portion 65A, 65B of the edge profile 60A, 60B, for example said stiffening bar 75 is embedded in the first portion 65A, 65B. The stiffening bar 75 is made of a material having an elastic modulus which is greater than that in the material with which the first portion 65A, 60B is formed.

[0058] For example, the first portion 65A, 65B is made of polymeric material and the stiffening bar 75 is made of metallic material, preferably aluminium.

[0059] The edge profile 60A, 60B comprises a second elongated portion 80A, 80B, which is flanked by the first portion 65A, 65B and has a prevalent dimension which extends parallel to the longitudinal axis of the first portion 65A, 65B. The second portion 80A, 80B has an extension in the direction of the longitudinal axis equal to the length in the same direction of the second edge 35 of the panel 25, or of the first portion 65A, 65B. That is, the longitudinal ends of the second portion 80A, 80B are coplanar at the third edge 40 and at the fourth edge 45, respectively.

[0060] The edge profile 60A, 60B comprises at least one idle wheel R2 rotatably associated with the second portion 80A, 80B (uniquely) according to its own rotation axis.

[0061] For example, the edge profile 60A, 60B also comprises at least one further idle wheel R3 rotatably associated with the second portion 80A, 80B (uniquely) according to its rotation axis, the rotation axis being perpendicular to the rotation axis of the idle wheel R2.

[0062] In particular, in the illustrated embodiment, the edge profile 60A, 60B comprises a seat 85A, 85B, formed in the second portion 80A, 80B, to receive and hold locked in position a carriage equipped with a box-like body which is rotatably associated with the idle wheel R2, for example to which the idle wheel R2 and the further idle wheel R3 are rotatably associated.

[0063] The first portion 65A, 65B and the second portion 80A, 80B are associated by means of a junction system 90A, 90B, which allows the second portion 80A, 80B to be rotated with respect to the first portion 65A, 65B around a pivot axis T, the pivot axis T being parallel to the longitudinal axes of the first portion 65A, 65B and the second portion 80A, 80B, for example also parallel to a resting plane of the panel 25.

[0064] In particular, the junction system 90A, 90B makes it possible to vary the inclination of the rotation axis of the idle wheel R2, for example also of the further idle wheel R3, with respect to a resting plane of the panel 25.

[0065] For example, the junction system 90A, 90B makes it possible to vary the inclination between the rotation axis of the idle wheel R2 and the resting plane of the panel 25 between 0° and 70°, preferably between 0° and 50°.

[0066] In the preferred embodiment, the junction system 90A, 90B comprises a first arched surface 95A, 95B formed in the first portion 65A, 65B, for example extending starting from the seat adapted to receive the second edge 35, preferably facing the compartment V of the cab-

inet.

[0067] The first arched surface 95A, 95B extends longitudinally along the entire length of the first portion 65A, 65B and has a cross section, with respect to the longitudinal axis of the first portion 65A, 65B, of circular shape and constant dimension throughout its longitudinal extension.

[0068] Moreover, said cross section has a single concavity, for example facing towards the compartment V, whose curvature axis is parallel to the longitudinal axis of the first portion 65A, 65B.

[0069] This curvature axis substantially coincides with the pivot axis T of the junction system 90A, 90B.

[0070] The first arched surface 95A, 95B is shaped as the continuation in the direction opposite the panel 25 of a flap, facing the compartment V, of the receiving seat 70A, 70B of the second edge 35.

[0071] The first arched surface 95A, 95B is placed next to the stiffening bar 75, in particular between the stiffening bar 75 and the compartment V.

[0072] The junction system 90A, 90B comprises a second arched surface 100A, 100B conjugated to the first arched surface 95A, 95B and placed in direct contact with said first arched surface 95A, 95B.

[0073] The junction system 90A, 90B is then configured to allow the variation of the angular position between the first portion 65A, 65B and the second portion 80A, 80B by means of the relative sliding between the first arched surface 95A, 95B and the second arched surface 100A, 100B.

[0074] Analogously to the first arched surface 95A, 95B, the second arched surface 100A, 100B extends longitudinally along the entire length of the second portion 80A, 80B and has a cross section, with respect to the longitudinal axis of the second portion 80A, 80B, of circular shape and constant dimension throughout its longitudinal extension.

[0075] The radius of curvature of the cross section of the second arched surface 100A, 100B is substantially equal to the radius of curvature of the cross section of the first arched surface 95A, 95B.

[0076] Moreover, said cross section has a single concavity, for example facing towards the compartment V, whose curvature axis is parallel to the longitudinal axis of the first portion 65A, 65B and substantially coincides with the pivot axis T of the junction system 90A, 90B.

[0077] The second arched surface 100A, 100B faces the first arched surface 95A, 95B, or in the opposite direction with respect to the compartment V of the cabinet 1.

[0078] The second arched surface 100A, 100B is located externally towards the compartment V with respect to the first arched surface 95A, 95B, i.e. the first arched surface 95A, 95B is placed between the second arched surface 100A, 100B and the stiffening bar 75.

[0079] The edge profile 60A, 60B comprises a locking system which selectively prevents the relative rotation between the first portion 65A, 65B and the second portion

80A, 80B locking them in multiple relative angular positions. That is, the locking system is able to selectively block the relative sliding between the first arched surface 95A, 95B and the second arched surface 100A, 100B.

[0080] The locking system comprises a first notching 110A, 110B, made in the first arched surface 95A, 95B and extending along the entire length of the first arched surface 95A, 95B in the direction of the longitudinal axis of the first portion 65A, 65B, and a second notching 115A, 115B, which is formed in the second arched surface 100A, 100B, which extends along the entire length of the second arched surface 100A, 100B in the direction of the longitudinal axis of the second portion 80A, 80B and engages with the first notching 110A, 110B to make a connection through the obstacle.

[0081] The first notching 110A, 110B and the second notching 115A, 115B have teeth with a triangular cross section, for example with a height comprised between 0.5 mm and 3 mm. Height is intended as the distance between the respective arched surface and the vertex of the triangle distal from it. Furthermore, the pitch between the teeth of each notching is preferably comprised between 1 mm and 3 mm.

[0082] Furthermore, the locking system comprises a clamping device adapted to selectively press into contact with each other the first arched surface 95A, 95B and the second arched surface 100A, 100B, or to keep the first notching 110A, 110B engaged with the second notching 115A, 115B.

[0083] In the illustrated embodiment, the clamping device comprises at least one threaded connecting member 120 and an abutting element, for example comprising a spacer or a washer or a head of the threaded connecting member 120 itself, such that it is possible to selectively clamp the first arched surface 95A, 95B and the second arched surface 100A, 100B.

[0084] For example, the threaded connecting member 120 is adapted to be coupled to a threaded hole formed in the stiffening bar 75, so that the first arched surface 95A, 95B and the second arched surface 100A, 100B are clamped between the stiffening bar 75 and the abutting element.

[0085] The clamping device comprises a through slot 125, obtained in the second portion 80A, 80B at the second arched surface 100A, 100B and adapted to be crossed by the threaded connecting member 120.

[0086] This slot 125 is elongated in a perpendicular direction so as not to obstruct the threaded connecting member 120.

[0087] For example, the slot 125 has a prevalent dimension in a direction perpendicular to the longitudinal axis of the second portion 80.

[0088] The edge profile 60A, 60B also comprises a protection system of the junction system 90A, 90B and of the locking system, adapted to prevent foreign objects' access to such systems, or to prevent access from outside with respect to the compartment V.

[0089] This protection system comprises a first fin

135A, 135B associated with the first portion 65A, 65B and a second fin 140A, 140B associated with the second portion 80A, 80B, the fins 135A, 135B, 140A, 140B having a length such that they always overlap each other at each relative angular position allowed by the junction system 90A, 90B.

[0090] Overlap is intended as a plane containing the pivot axis T and that intersects the first fin 135A, 135B, always also intersects the second fin 140A, 140B, independently of the relative angular position between the first portion 65A, 65B and the second portion 80A, 80B; and where the length of the fins is intended as their extension along a perpendicular direction respectively to the longitudinal axis of the first portion 65A, 65B and the longitudinal axis of the second portion 80A, 80B.

[0091] Substantially, at least 30% of the fins' extension 135A, 135B, 140A, 140B is overlapped in a direction perpendicular to the longitudinal axis.

[0092] These fins extend throughout the longitudinal length of the edge profile 60A, 60B and, for example, are curved with a radius of curvature substantially equal to that of the arched surfaces.

[0093] In the illustrated embodiment, the first fin 135A, 135B is shaped as the continuation in the opposite direction of the panel 25 of a flap, facing away from the compartment V, of the receiving seat 70A, 70B of the second edge 35.

[0094] Furthermore, in the illustrated embodiment the first portion 65A, 65B comprises a receiving cavity 145A, 145B of the second fin 140A, 140B.

[0095] A wall of said receiving cavity is formed by the first fin 135A, 135B.

[0096] The door 20A, 20B comprises a handle 150 fixed to the respective panel 25, for example to a face turned in the opposite direction of the compartment V. Preferably, the cabinet comprises two doors 20A, 20B, as described above, adapted to selectively occlude or at least partially disengage the access opening A for access to the compartment V.

[0097] The cabinet 1 can, alternatively, also comprise three or more doors, according to the longitudinal extension of the cabinet itself and to the size of each single door 20A, 20B.

[0098] In the illustrated embodiment, the cabinet comprises an external door 20A and an internal door 20B, which slide with respect to the box-like body along planes which are distinct and parallel to each other, of which the internal door 20B is at a shorter distance from the access opening A with respect to the external door 20A. When the internal door 20B and the external door 20A are placed side by side they occlude the access opening A, when they are at least partly overlapped they partially disengage the access opening A.

[0099] In the internal door 20B, the arched surfaces 95B, 100B of the edge profile have a radius of curvature which is smaller than the radius of curvature of the arched surfaces 95A, 100A of the edge profile of the external door 20A.

[0100] The cabinet 1 comprises a first guide G1 to which the coupling profile 50 of the internal door 20B is slidably associated, so as to define the sliding axis S. In particular, the cabinet 1 comprises two first guides G1, for example overlapped one with respect to the other, to which the internal door 20B and the external door 20A are associated, by means of the respective coupling profiles 50.

[0101] Each first guide G1, adapted to guiding the respective coupling profile 50 of a respective door 20A, 20B, extends along the entire extension of the frame in the direction of the sliding axis S.

[0102] For example, each first guide G1 comprises an elongated element having an L-shaped cross section which extends predominantly in the direction of the sliding axis S, which is provided with a first portion and a second portion, the second portion being substantially flat, perpendicular to the first portion and supporting the coupling profile section 50 below, i.e. supporting the wheels of the coupling profile 50 which are thus resting on the second portion.

[0103] The cabinet 1 comprises a second guide G2, for example parallel to the sliding axis S, adapted to guide the edge profile of the internal door 20B. This second guide G2 is located at the lower edge 10 of the frame.

[0104] This second guide G2 comprises a flat sliding surface 155 which rests on an oblique plane, i.e. a plane inclined with respect to a horizontal plane and a vertical plane, on which the edge profile 60B of the internal door 20B slides, for example on which the idle wheel R2 of the edge profile 60B of the internal door 20B rolls.

[0105] The flat sliding surface 155 extends along the entire length of the frame in the direction of the sliding axis S.

[0106] The resting plane of the sliding flat surface 155 can have an inclination with respect to a horizontal plane which is different from the inclination with respect to the same horizontal plane of the resting plane of each panel 25. The internal door 20B comprises a sliding surface, for example flat, for the edge profile of the external door 20A, for example for the idle wheels R2 of the edge profile 60A of the external door 20A, the sliding surface being formed in the second portion 80B of the edge profile of the internal door 20B. This sliding surface rests on a plane parallel to the rotation axis of the idle wheel R2, and for example perpendicular to the rotation axis of the further wheel R3, of the edge profile of the internal door 20B.

[0107] It is also facing the opposite direction of the compartment V.

[0108] In the illustrated embodiment the first guides G1 are associated at the upper portion 5 of the frame of the box-like body and the second guide G2 is formed at the lower portion 10 of the frame itself, however this does not exclude the fact that in an alternative embodiment, not illustrated, the positions of the guides G1, G2 can be reversed, without this causing the refrigerator 1 to lose its functionality and without going beyond the scope of the claims.

[0109] The operation of the invention is as follows.

[0110] During the installation of the doors 20A, 20B in the refrigerator cabinet 1, proceed with loosening the threaded connecting member 120 so as to move the second arched surface 100A, 100B away from the first arched surface 95A, 95B sufficiently so that the first notching 110A, 110B does not engage with the second notching 115A, 115B. Next rotate the second portion 80A, 80B with respect to the pivot axis T until it reaches a relative angular position between the first portion 65A, 65B and the second portion 80A, 80B such that the rotation axis of the wheel of the edge profile 60A, 60B is parallel to the resting plane of the respective supporting surface.

[0111] At that point, proceed with bringing the second arched surface 100A, 100B close to the first arched surface 95A, 95B so that the second notching 115A, 115B engages with the first notching 110A, 110B, and subsequently screws the threaded connecting member 120 with respect to the stiffening bar 75 so as to clamp the two arched surfaces.

[0112] The invention thus conceived can undergo numerous modifications and variants all of which are covered by the inventive concept.

[0113] Moreover, all of the details can be replaced by other technically equivalent elements.

[0114] In practice, the materials used, as well as the contingent shapes and sizes, can be whatever according to the requirements without for this reason departing from the scope of protection of the following claims.

Claims

1. An edge profile (60A, 60B) for a door (20A, 20B) of a refrigerator cabinet (1), said edge profile (60A, 60B) comprising:
 - a first portion (65A, 65B) of elongated shape having a prevalent dimension extending parallel to a longitudinal axis,
 - a second portion (80A, 80B) of elongated shape, flanked by the first portion (65A, 65B) and having a prevalent dimension extending parallel to said longitudinal axis,
 - a junction system (90A, 90B) between the first portion (65A, 65B) and the second portion (80A, 80B), which makes it possible to rotate the second portion (80A, 80B) with respect to the first portion (65A, 65B) around a pivot axis (T) parallel to said longitudinal axis, and
 - a locking system (120) adapted to prevent said rotation of the second portion (80A, 80B) in multiple angular positions relative to the first portion (65A, 65B).
2. The edge profile (60A, 60B) according to claim 1, wherein the junction system (90A, 90B) comprises

a first arched surface (95A, 95B) formed in the first portion (65A, 65B) and a second arched surface (100A, 100B) conjugated to the first arched surface (95A, 95B) and formed in the second portion (80A, 80B), the second arched surface (100A, 100B) being in direct contact with the first arched surface (95A, 95B).

3. The edge profile (60A, 60B) according to claim 2, wherein the locking system comprises a clamping device (120), adapted to selectively press the first arched surface (95A, 95B) and the second arched surface (100A, 100B) into contact.
4. The edge profile (60A, 60B) according to claim 2, wherein the locking system comprises a first notching (110A, 110B) formed in the first arched surface (95A, 95B) and a second notching (115A, 110B) formed in the second arched surface (100A, 100B) and which is adapted to engage the first notching (110A, 110B) to make a connection through the obstacle.
5. The edge profile (60A, 60B) according to claim 1, comprising a stiffening bar (75) inserted longitudinally into the first portion (65A, 65B) of the edge profile itself.
6. The edge profile (60A, 60B) according to claims 4 and 5, wherein the clamping device (120) comprises an abutting element associable to the stiffening bar (75) and configured to clamp the first arched surface (95A, 95B) and the second arched surface (100A, 100B) between itself and the stiffening bar (75).
7. The edge profile (60A, 60B) according to claim 1, comprising a protection system, adapted to protect the junction system (90A, 90B) and the locking system, which protection system is provided with a first fin (135A, 135B) associated with the first portion (65A, 65B) and with a second fin (140A, 140B) associated with the second portion (80A, 80B), whose fins have a length such that they always overlap each other at each relative angular position permitted by the junction system (90A, 90B).
8. The edge profile (60A, 60B) according to claim 1, comprising an idle wheel (R2) rotatably associated with the second portion (80A, 80B).
9. The edge profile (60A, 60B) according to claim 1, wherein the first portion (65A, 65B) is provided with a seat (70A, 70B) adapted to receive an edge (35) of a panel (25) of the door (20A, 20B).
10. A door (20A, 20B) for a refrigerator cabinet (1), comprising a panel (25) and an edge profile (60A, 60B) according to any one of the preceding claims, where-

in the first portion (65A, 65B) of the profile is fixed to an edge of the panel (25).

11. A refrigerator cabinet (1) comprising:

- a refrigerated compartment (V) (for receiving),
- an access opening (A) to the refrigerated compartment,
- an access door (20A, 20B) according to claim 10, adapted to selectively occlude or disengage the access opening (A) at least partially, and
- a first guide (G1) through which a panel (25) of the door (20A, 20B) is slidably associated with the compartment (V).

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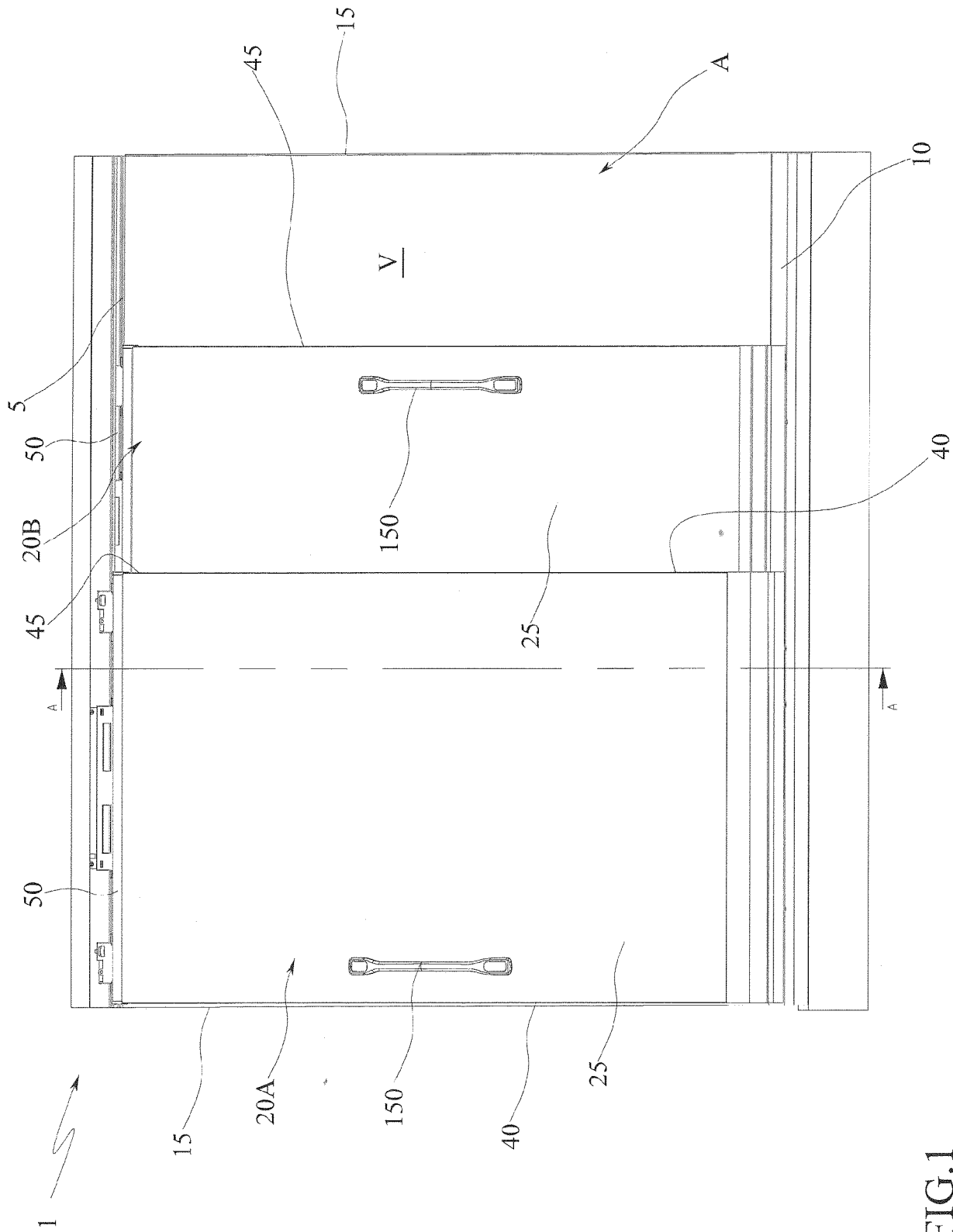


FIG.1

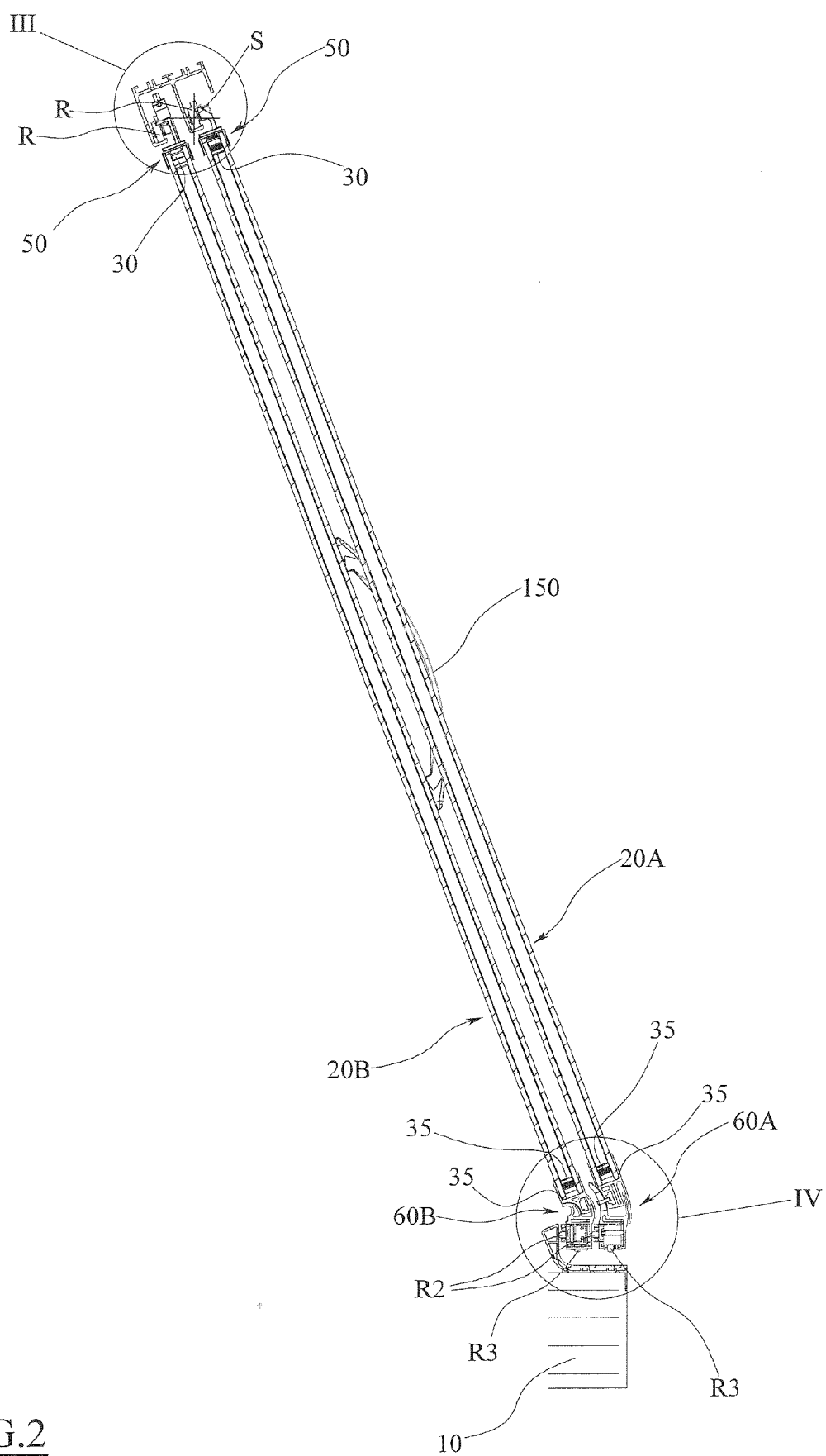
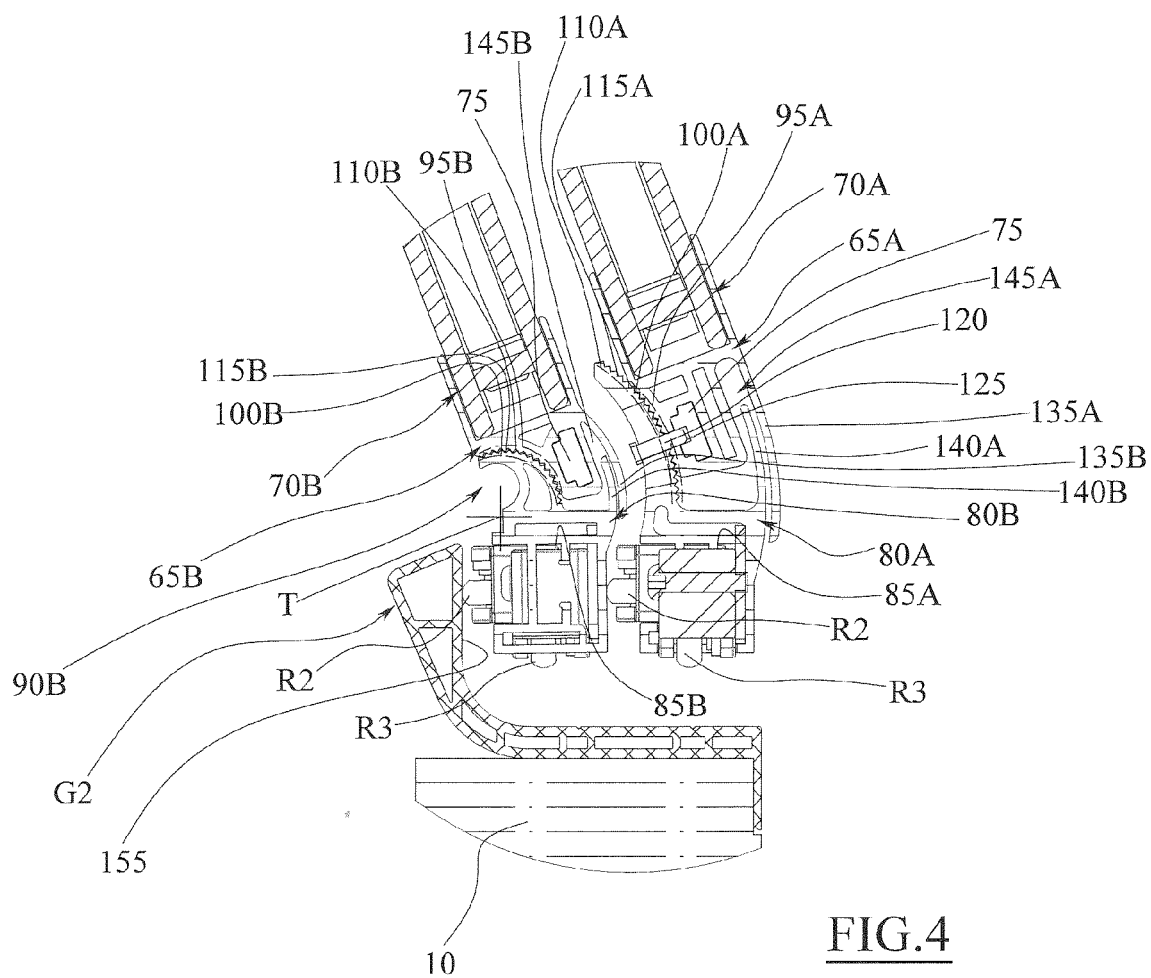
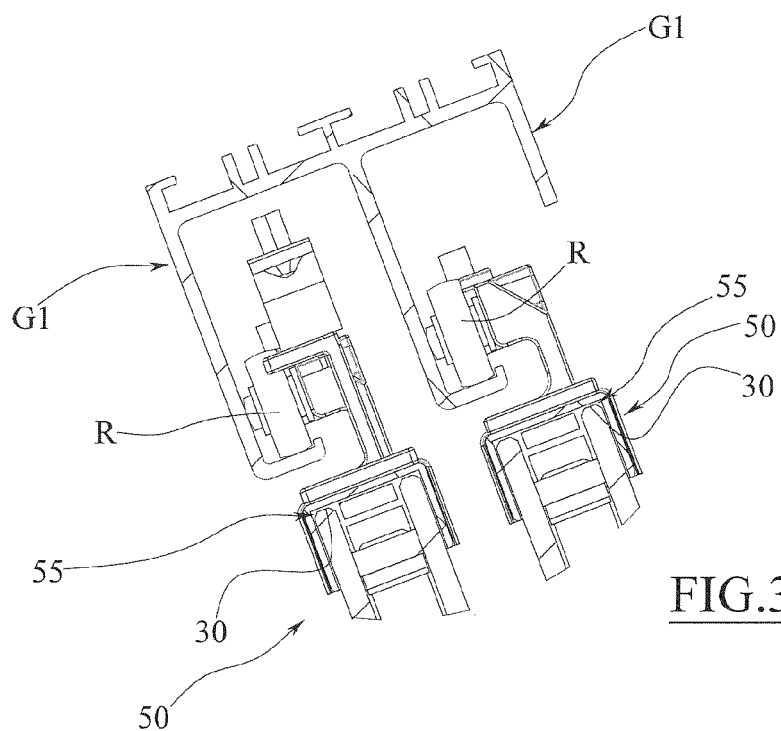


FIG.2



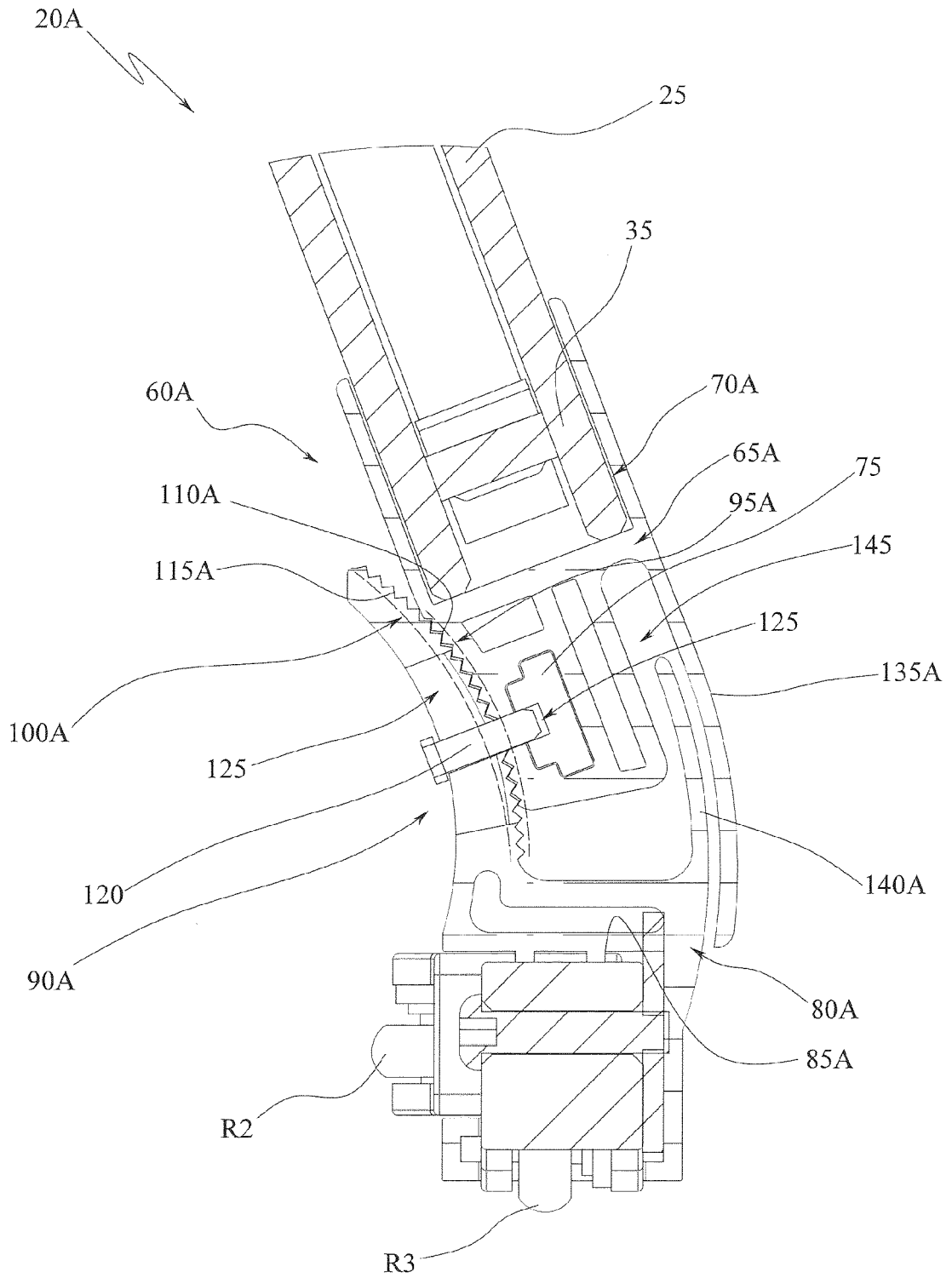


FIG.5



EUROPEAN SEARCH REPORT

 Application Number
 EP 19 20 0754

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The present search report has been drawn up for all claims			
Place of search The Hague		Date of completion of the search 5 February 2020	Examiner Vigilante, Marco
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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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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