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(54) **A SCREEN SYSTEM AND A VERANDA COMPRISING THE SCREEN SYSTEM**

(57) A screen system and a veranda comprising the screen system, wherein the screen system is arranged for closing off a window or an open space, such as a side or a part of a side of a veranda, the screen system comprising a flexible screen for closing off the open space in a closed position of the flexible screen, a longitudinal tensioning arrangement arranged for tensioning the flexible screen in a longitudinal direction, and a transverse tensioning arrangement arranged for tensioning the flexible screen in a transverse direction perpendicular to the longitudinal direction.

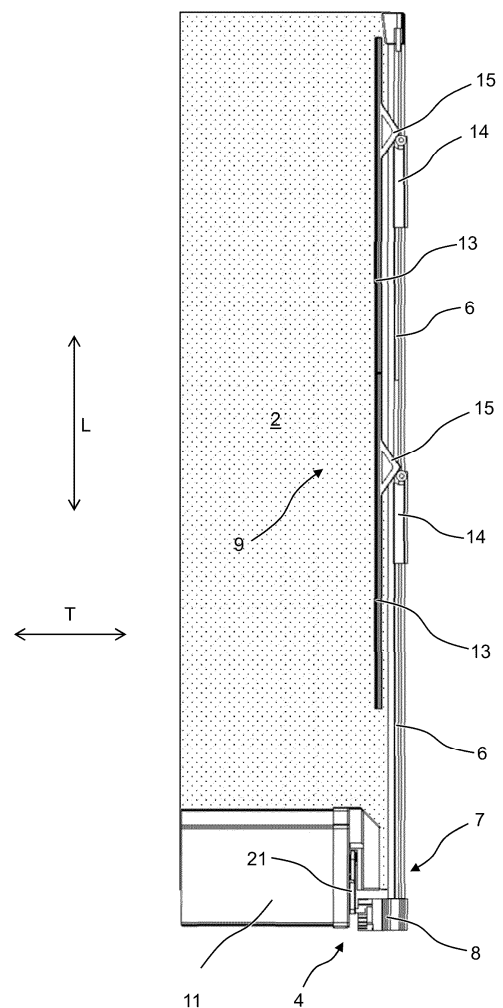


Fig. 10C

Description

[0001] According to a first aspect, the present disclosure relates to a screen system, preferably a zip screen assembly or a T-rail screen assembly designed for closing off a window or an open space, such as a side of a veranda.

[0002] According to a second aspect, the present disclosure relates to a veranda comprising a screen system according to the first aspect of the present disclosure.

[0003] Retractable screens are commonly used to provide shade, wind protection, and privacy in outdoor spaces such as verandas, patios, and balconies. Traditional retractable screens, however, often suffer from instability in windy conditions, fabric displacement from guide tracks, and wear due to repeated use. To address these issues, zip screen systems have been developed, in which the fabric is guided within a track using a zipper-like mechanism. While existing zip screens offer improved stability, there remains a need for an enhanced system that optimizes ease of installation, smooth operation, and long-term performance under varying environmental conditions as regards wind resistance, durability, and ease of operation.

[0004] The objective of the present disclosure is to provide an improved screen system.

[0005] This object is achieved according to the first aspect of the present invention that relates to a screen system, preferably a zip screen assembly or a T-rail screen assembly, arranged for closing off a window or an open space, such as a side or a part of a side of a veranda, the screen system comprising:

- a flexible screen for closing off the open space in a closed position of the flexible screen, wherein the flexible screen is provided with a screen interface at opposite sides of the flexible screen and a first coupling device;
- a guiding arrangement comprising guiding elements arranged for guiding the flexible screen in a longitudinal direction, via the respective screen interfaces at the opposite sides of the flexible screen, between the closed position of the flexible screen and an open position of the flexible screen;
- a longitudinal tensioning arrangement comprising a second coupling device arranged for coupling with the first coupling device for tensioning the flexible screen in the longitudinal direction, thereby bringing the flexible screen in a tensioned state, when the first coupling device is coupled to the second coupling device and the flexible screen is moved over a predetermined distance in the longitudinal direction, preferably moved over a predetermined distance in the longitudinal direction towards the open position;
- a transverse tensioning arrangement arranged for

moving the guiding elements between a first position and a second position, wherein in the first position of the guiding elements the guiding elements are closer to each other than in the second position of the guiding elements for tensioning the flexible screen, via the screen interface, in a transverse direction perpendicular to the longitudinal direction, wherein the transverse tensioning arrangement interacts with the second coupling device for moving the guiding elements into the second position when the first coupling device is coupled to the second coupling device and the flexible screen is moved over the predetermined distance in the longitudinal direction towards the open position for tensioning the flexible screen in the longitudinal direction.

[0006] The improved screen system according to the present disclosure offers superior stability in windy conditions in particular due to the dual tensioning arrangements. The longitudinal and transverse tensioning arrangements ensure that the flexible screen remains taut and secure, minimizing the risk of displacement or damage. By maintaining the flexible screen in the closed position in a tensioned state, the system reduces wear and tear caused by repeated use. The robust guiding and tensioning arrangements contribute to the long-term durability of the screen, making it a reliable solution for outdoor spaces. Furthermore, the tensioned screen maintains a neat and tidy appearance, enhancing the visual appeal of the outdoor space.

[0007] The screen system is adaptable to various outdoor spaces, such as verandas, patios, and balconies. Its flexible design allows it to be customized to fit different dimensions and configurations, providing a versatile shading and protection solution. The screen system is engineered for straightforward assembly, allowing for quick and hassle-free setup, simplifying the installation process.

[0008] The interactions between the respective elements of the screen system according to the present disclosure ensure smooth and consistent movement of the flexible screen. This results in effortless operation, whether opening or closing the flexible screen.

[0009] The flexible screen is for example a canvas or a fabric made from a material selected from the group consisting of polyester, vinyl-coated polyester, acrylic, and/or polyvinyl chloride. Preferably, the flexible screen comprises at least partly a transparent material.

[0010] Preferably, the screen system comprises a tubular body, wherein the flexible screen is arranged to be rolled onto and unrolled from the tubular body by a motorized system, for example a tubular motor, for automatically rolling up and down the flexible screen and/or for controlling the flexible screen in the open position, closed position, and/or any position in between.

[0011] The screen interface of the flexible screen is for example a zip interface, wherein the zip interface

comprises a zipper-like mechanism arranged for interacting with the guiding arrangement for guiding the flexible screen in the longitudinal direction, or a T-shaped interface, wherein the T-shaped interface comprises a T-shaped profile arranged for interacting with the guiding arrangement for guiding the flexible screen in the longitudinal direction. The screen interface engages with complementary recesses provided in the guiding elements of the guiding arrangement, keeping the flexible screen relatively taut and preventing it from being displaced by wind or other forces.

[0012] For holding the guiding arrangement, protecting the guiding arrangement for environmental and external forces, and/or for aesthetical reasons, the screen system may comprise a frame housing arranged for receiving the guiding arrangement, wherein the frame housing preferably is a metal side rail, more preferably an aluminum side rail.

[0013] The guiding elements are preferably made of a plastic material, more preferably selected from the group consisting of polyethylene, such as high-density polyethylene or low-density polyethylene, polypropylene, polyvinyl chloride, polystyrene, polyethylene terephthalate, acrylic, nylon, and/or polycarbonate.

[0014] In an embodiment, the screen system further comprises:

- a housing arranged for receiving the flexible screen in an open position of the flexible screen, preferably in a rolled-up manner; and

wherein the longitudinal tension arrangement is provided at a side of the screen system opposite to the housing.

[0015] Preferably, the housing comprises metal, more preferably aluminum, for protecting the flexible screen, preferably in a rolled-up manner, for environmental and external forces, and/or for aesthetical reasons. The housing is furthermore arranged for receiving a tubular body, wherein the flexible screen is arranged to be rolled onto and unrolled from the tubular body, and/or for receiving a tubular motor, for automatically rolling up and down the flexible screen and/or for controlling the flexible screen in the open position, closed position, and/or any position in between.

[0016] In another embodiment the screen system further comprises:

- a bottom frame attached to a, during use, bottom side of the flexible screen, wherein the first coupling device is connected, via the bottom frame, to the flexible screen.

[0017] Advantageously, the bottom frame is weighted, for example with steel, for guiding the flexible screen, via the guiding arrangement, towards the closed position by gravitation when the flexible screen is moved towards the closed position. Preferably, the

bottom frame comprises metal, more preferably aluminum.

[0018] In a further embodiment, the screen system comprises an urging element, wherein the transverse tensioning arrangement interacts, via the urging element with the second coupling device for urging the guiding elements into the first position when the flexible screen is out of the tensioned state.

[0019] This is beneficial for bringing the flexible screen in a pre-tensioned state, preferably in the transverse direction, in particular when the first coupling device is not coupled to the second coupling device, wherein the tensioning force acting on the flexible screen is smaller in the pre-tensioned state than in the tensioned state.

[0020] In a preferred embodiment, the first coupling device is arranged for being moved, by interaction with the second coupling device, from a decoupling position for decoupling the first coupling device from the second coupling device into a coupling position for coupling the first coupling device to the second coupling device.

[0021] This enables a relatively simple and accurate coupling mechanism for the coupling of the first coupling device to the second coupling device, that is easy to actuate in a controlled manner.

[0022] In another preferred embodiment, the first coupling device is arranged for being moved, by interaction with the second coupling device, from a coupling position for coupling the first coupling device to the second coupling device into a decoupling position for decoupling the first coupling device from the second coupling device.

[0023] This enables a relatively simple and accurate decoupling mechanism for the decoupling of the first coupling device from the second coupling device, that is easy to actuate in a controlled manner.

[0024] In an embodiment, in the coupled position, the first coupling device is hooked to the second coupling device for the coupling of the first coupling device to the second coupling device.

[0025] This further enables a relatively simple and accurate coupling mechanism for the coupling of the first coupling device to the second coupling device.

[0026] In another embodiment, the transverse tensioning arrangement comprises interaction elements arranged for interaction with at least one of the guiding elements and arranged for moving, in the longitudinal direction, relative to the guiding elements for moving the guiding elements between the first position and the second position.

[0027] The interaction elements are preferably made of a plastic material, more preferably selected from the group consisting of polyethylene, such as high-density polyethylene or low-density polyethylene, polypropylene, polyvinyl chloride, polystyrene, polyethylene terephthalate, acrylic, nylon, and/or polycarbonate.

[0028] In an example, the interaction elements are firmly attached, for example in grooves provided in a

frame housing, and the guiding elements are movably attached, for example in further grooves provided in the frame housing. In another example, the guiding elements are firmly attached, for example in grooves provided in a frame housing, and the interaction elements are movably attached, for example in further grooves provided in the frame housing.

[0029] In a preferred embodiment, one of the interaction elements and the guiding elements are further in interaction with the second coupling device, via the urging element, if any, for moving the one of the interaction elements and the guiding elements upon movement of the second coupling device.

[0030] This enables the transverse tensioning arrangement to interact with the second coupling device for moving the guiding elements into the second position when the first coupling device is coupled to the second coupling device and the flexible screen is moved over the predetermined distance in the longitudinal direction towards the open position for tensioning the flexible screen in the longitudinal direction.

[0031] To reduce friction, the transverse tensioning arrangement further comprises a roller bearing, wherein the interaction element is in interaction, via the roller bearing, with the guiding element, thereby ensuring smooth and consistent movement of the flexible screen.

[0032] In a further embodiment, each of the interaction elements comprises an interaction body defining an interaction surface extending in a direction having a direction component in the transverse direction for moving the guiding element into the second position when interacting with the guiding element or the roller bearing if any.

[0033] The interaction body is preferably made of the same material of the interaction elements. Advantageously, the interaction surface extending in a direction having a direction component in the transverse direction is inclined, preferably linearly or parabolic inclined.

[0034] In another embodiment, for ease of installation and/or adjustability after installation of the screen system, at least one of the first coupling device and the second coupling device comprises a setting arrangement arranged for setting a predetermined position of the closed position of the flexible screen.

[0035] Preferably, the screen system further comprises an urging system for urging the first coupling device in the transverse direction towards the second coupling device. This is beneficial to realise a reliable coupling between the first and second coupling device. This embodiment relies at least partly on the insight that the distance between the first coupling device and the second coupling device in the transverse direction without the urging element may vary as a consequence of the environmental temperature cause thermal expansion or shrinkage of elements of the screen system. By providing the urging system an variation in this distance may be compensated to achieve a reliable coupling.

pling.

[0036] The object of the present disclosure is furthermore achieved according to the second aspect of the present invention that relates to a veranda comprising a screen system according to the first aspect of the present disclosure, wherein the screen system is provided for closing off an open space, such as a side of the veranda.

[0037] Embodiments, effects and advantages of the screen system according to the first aspect of the present disclosure, as presented herein, correspond to and/or are also applicable to the veranda according to the second aspect of the present disclosure, and vice versa.

[0038] The present disclosure will furthermore be explained in more detail below by means of preferred embodiments of a screen system according to the first aspect of the present disclosure and a veranda comprising a screen system according to the second aspect of the present disclosure, as shown in the drawings, in which:

Fig. 1 shows an embodiment of veranda according to the second aspect of the present disclosure;

Fig. 2 shows an isometric view of an embodiment of a transverse tensioning arrangement of a screen system according to the first aspect of the present disclosure;

Fig. 3 shows a cross-sectional view of elements of the transverse tensioning arrangement of Fig. 2;

Fig. 4 shows an isometric view of further elements of the transverse tensioning arrangement of Fig. 2;

Fig. 5 shows an isometric view of yet further elements of the transverse tensioning arrangement of Fig. 2;

Fig. 6 shows in more detail elements the transverse tensioning arrangement, wherein the guiding elements are in the second position.

Fig. 7A shows an isometric view of an embodiment of a bottom frame of a screen system according to the first aspect of the present disclosure;

Fig. 7B shows an isometric view of elements of the bottom frame of Fig. 7A;

Fig. 8 shows in detail an isometric view a longitudinal tensioning arrangement of a screen system according to the first aspect of the present disclosure;

Fig. 9A shows in more detail an isometric view of elements of the longitudinal tensioning arrangement of Fig. 8;

Fig. 9B shows a front view isometric view of elements of the longitudinal tensioning arrangement of Fig. 8;

Fig. 10A shows a front view of a screen system according to the first aspect of the present disclosure, wherein the flexible screen is in an open position and the guiding elements are in a first position;

Fig. 10B shows a front view of the screen system

of Fig. 10A, wherein the flexible screen is near a closed position and the guiding elements are in a first position;

Fig. 10C shows a front view of the screen system of Fig. 10A, wherein the flexible screen is in a closed position and the guiding elements are in a second position.

[0039] Figure 1 shows an embodiment of a veranda 100 according to the second aspect of the present disclosure. The veranda 100 comprises two screen systems 1, preferably zip screen assemblies, according to the first aspect of the present disclosure. The flexible screens 2 of the screen systems 1 are shown in a closed position, wherein the flexible screens 2 are made of polyvinyl chloride (PVC), each comprising a transparent top part and a non-transparent parapet bottom part. The flexible screen 2 furthermore comprises a screen interface 3, such as a zipper-like mechanism or a T-shaped interface provided at opposite sides of the flexible screen 2.

[0040] The screen systems 1 are provided for closing off an open space of the veranda 100, such as a front side and a left side of the veranda 100. Each screen system 1 comprises a guiding arrangement 5, a housing 10, and a bottom frame 11 attached to a bottom side of the flexible screen 2.

[0041] The guiding arrangement 5, as shown in more detail in figure 2, comprises two aluminium side rails, each side rail having two rail parts 20A, 20B, at the opposite sides of the flexible screen 2, arranged for receiving guiding elements 6. The guiding elements 6 are arranged for guiding the flexible screen 2 in a longitudinal direction L, via the respective screen interfaces 3 at the opposite sides of the flexible screen 2, between the closed position of the flexible screen and an open position of the flexible screen 2.

[0042] The housing 10 is provided with a tubular body, wherein the flexible screen 2 is arranged to be rolled onto and unrolled from the tubular body for moving the flexible screen 2 to an open position and the closed position respectively. The tubular body is controlled by a tubular motor for automatically positioning the flexible screen 2 in the open position, closed position, and/or any position in between.

[0043] The bottom frame 11 is weighted with steel, thereby guiding the flexible screen 2 towards the closed position by gravitation when the tubular motor is controlled to move the flexible screen 2 towards the closed position, while unrolling the flexible screen 2 from the tubular body.

[0044] The bottom frame 11 furthermore comprises a first coupling device 4, which is shown in more detail in figures 7A, 7B, and 8, wherein the first coupling device 4 comprises a setting arrangement 16 for setting a predetermined position of the closed position of the flexible screen 2. The first coupling device 4 is arranged for interaction with a longitudinal tensioning arrangement 7 of the screen system 1, wherein the longitudinal tensioning arrangement 7 is arranged for bringing the flexible screen 2 in a tensioned state in the longitudinal direction L, thereby bringing the flexible screen 2 in a tensioned and taut state.

[0045] The longitudinal tensioning arrangement 7, which is shown in more detail in figures 8, 9A and 9B, comprises a second coupling device 8, that is arranged for coupling with the first coupling device 4. The first coupling device 4 comprises a swing body 21 which can pivot around a rotational axis R, wherein the swing body is forced to an initial position by a torsion spring 23. The swing body 21 is provided with a pin 22 that is arranged to be hooked in a cam track of the second coupling device 8 for the coupling of the first coupling device 4 to the second coupling device 8. The cam track of the second coupling device 8 comprises a funnel-shaped opening 30, adjoining cam track sections 31, 32, 33 and 34 and end positions 35, 36, 37 which are situated between the cam track sections and where the direction of the cam track always reverses.

[0046] For tensioning the flexible screen 2 in the longitudinal direction L, the first coupling device 4 is coupled to the second coupling device 8 as described below.

[0047] The flexible screen 2 is moved in the longitudinal direction L towards the closed position, which in the embodiments of the figures is the downward direction. Unrolling the flexible screen 2 from the tubular body by the tubular motor enables the flexible screen 2 to be moved in the downward direction. At a certain moment, the pin 22 of the swing body will become caught by the funnel-shaped opening 30 of the second coupling device 8. Subsequently, pin 22 will follow the curved track of cam section 31. To this end, swing body 21 pivots about axis R. The tubular motor is programmed to stop the movement of the flexible screen 2 shortly before pin 22 is due to reach end position 35.

[0048] Then the tubular motor is programmed to reverse the direction of rotation of the tubular body for a short time, so that the flexible screen 2 is moved in the longitudinal direction L towards the open position, which in the embodiments of the figures is the upward direction. Rolling the flexible screen 2 onto the tubular body by the tubular motor enables the flexible screen 2 to be moved in the upward direction. As a result, pin 22 will follow the curved track of cam section 32, until pin 22 touches end position 36, thereby tensioning the flexible screen 2.

[0049] In order to bring the flexible screen 2 from the closed position to the open position, the first coupling device 4 is uncoupled from the second coupling device 8 as described below.

[0050] The tubular motor is programmed to move the flexible screen 2 in the downward direction. As a result, pin 22 will follow the curved track of cam section 33, wherein the tubular motor is programmed to stop the movement of the flexible screen 2 shortly before pin 22

is due to reach end position 37.

[0051] Subsequently, the tubular motor is programmed to reverse the direction of rotation of the tubular body to move the flexible screen 2 in the upward direction. As a result, pin 22 will follow the curved track of cam section 34. Eventually, pin 22 leaves the cam track of the second coupling device 8 and the swing body is forced to the initial position by a torsion spring 23, wherein the flexible screen 2 is guided, via the screen interface 3, through the guiding arrangement 5 towards the open position.

[0052] The screen system 1 furthermore comprises a transverse tensioning arrangement 9. The transverse tensioning arrangement 9 is arranged for bringing the flexible screen 2 in a tensioned state in the transverse direction T, thereby bringing the flexible screen 2 in a tensioned and taut state. Elements of the transverse tensioning arrangement 9 are shown in more detail in figures 3 - 6.

[0053] The transverse tensioning arrangement 9 is furthermore arranged for interaction with longitudinal tensioning arrangement 7, such that the flexible screen 2 is tensioned in both the transverse direction T and the longitudinal direction L when the flexible screen 2 is in the closed position.

[0054] The transverse tensioning arrangement 9 is arranged for moving the guiding elements 6 between a first position and a second position, wherein in the first position of the guiding elements 6 the guiding elements 6 are closer to each other than in the second position of the guiding elements 6. In the first position of the guiding elements 6, the transverse tensioning arrangement 9 is in a neutral position. In the second position of the guiding elements 6, the transverse tensioning arrangement 9 is in a tensioned position and the flexible screen 2 is tensioned, via the screen interface 3, in a transverse direction T perpendicular to the longitudinal direction L.

[0055] The transverse tensioning arrangement 9 comprises interaction elements 13 arranged for interaction with the guiding elements 6 for moving the guiding elements 6 between the first position and the second position. The interaction elements 13 comprise individual plastic rails, each of the plastic rails having a length of around 22 cm, wherein the plastic rails are subsequently attached in a recess of the aluminum side rail 20A. The number of plastic rails used depends on the total length of the aluminum side rail 20A. Each of the interaction elements 13 comprises a triangular shaped interaction body 15, defining an interaction surface extending in a direction having a direction component in the transverse direction T.

[0056] The transverse tensioning arrangement 9 further comprises a roller bearing 14. The rolling bearings 14 are attached to the guiding elements 6, wherein the number of rolling bearings 14 is equal to the number of plastic rails.

[0057] The interaction elements 13 are in interaction

with the guiding elements 6 via the roller bearings 14 for moving the guiding elements 6 between the first position and the second position, as described below.

[0058] In the neutral position of the transverse tensioning arrangement 9, the guiding elements 6 are in the first position. This situation is shown in figures 10A and 10B. Figure 10A shows the flexible screen 2 in an open position, wherein the first coupling device 4 is not coupled to the second coupling device 8. Figure 10B shows the flexible screen 2 near the closed position, wherein the first coupling device 4 is coupled to the second coupling device 8. Figure 10B shows the situation wherein pin 22 of the first coupling device 4 is near end position 35 in the cam track of the second coupling device 8, as described above.

[0059] In the first position of the guiding elements 6, the flexible screen 2 is in a pre-tensioned, but not fully tensioned state. For pre-tensioning, the screen system 1 comprises an urging element 12, designed as a compression spring. Via the urging element 12, the guiding elements 6 are connected to the second coupling device 8, wherein the second coupling device 8 is slidably connected at a bottom side of the aluminium side rails 20A, thereby exerting an upward directed spring force to the guiding elements 6 for urging the guiding elements 6 into the first position when the flexible screen 2 is out of the tensioned state.

[0060] When the first coupling device 4 is coupled to the second coupling device 8 and the flexible screen 2 is moved in the upward direction, the first coupling device 4 is hooked to the second coupling device 8 as described above. As a result, the second coupling device 8 is moved over a predetermined distance in the upward direction, thereby moving the guiding elements 6 relative to the interaction elements 13 in an upward direction in the longitudinal direction L. The rolling bearings 14 engage with triangular shaped interaction body 15 of the interaction elements 13, thereby moving the guiding elements 6 from the first position to the second position, while the guiding elements 6 are moved by the second coupling device 8, via the urging element 12, in the upward direction.

[0061] Figure 10C shows the flexible screen 2 in the closed position, wherein the first coupling device 4 is coupled to the second coupling device 8 and the guiding elements 6 are in the second position. In this position, the flexible screen 2 is in the maximum tensioned state. The second position of the guiding elements 6 is furthermore shown in more detail in figure 6.

Claims

1. A screen system (1), preferably a zip screen assembly or a T-rail screen assembly, arranged for closing off a window or an open space, such as a side or a part of a side of a veranda (100), the screen system (1) comprising:

- a flexible screen (2) for closing off the open space in a closed position of the flexible screen (2), wherein the flexible screen (2) is provided with a screen interface (3) at opposite sides of the flexible screen (2) and a first coupling device (4);
 - a guiding arrangement (5) comprising guiding elements (6) arranged for guiding the flexible screen (2) in a longitudinal direction (L), via the respective screen interfaces (3) at the opposite sides of the flexible screen (2), between the closed position of the flexible screen and an open position of the flexible screen;
 - a longitudinal tensioning arrangement (7) comprising a second coupling device (8) arranged for coupling with the first coupling device (4) for tensioning the flexible screen (2) in the longitudinal direction (L), thereby bringing the flexible screen (2) in a tensioned state, when the first coupling device (4) is coupled to the second coupling device (8) and the flexible screen (2) is moved over a predetermined distance in the longitudinal direction (L), preferably moved over a predetermined distance in the longitudinal direction (L) towards the open position;
 - a transverse tensioning arrangement (9) arranged for moving the guiding elements (6) between a first position and a second position, wherein in the first position of the guiding elements (6) the guiding elements (6) are closer to each other than in the second position of the guiding elements (6) for tensioning the flexible screen (2), via the screen interface (3), in a transverse direction (T) perpendicular to the longitudinal direction (L), wherein the transverse tensioning arrangement (9) interacts with the second coupling device (8) for moving the guiding elements (6) into the second position when the first coupling device (4) is coupled to the second coupling device (8) and the flexible screen (2) is moved over the predetermined distance in the longitudinal direction (L) towards the open position for tensioning the flexible screen (2) in the longitudinal direction (L).
2. The screen system (1) according to claim 1, wherein the screen system (1) further comprises:
- a housing (10) arranged for receiving the flexible screen (2) in an open position of the flexible screen (2), preferably in a rolled-up manner; and
- wherein the longitudinal tension arrangement (7) is provided at a side of the screen system (1) opposite to the housing (10).
3. The screen system (1) according to claim 1 or 2, wherein the screen system (1) further comprises:
- a bottom frame (11) attached to a, during use, bottom side of the flexible screen (2), wherein the first coupling device (4) is connected, via the bottom frame (11), to the flexible screen (2).
4. The screen system (1) according to claim 3, wherein the screen system (1) comprises an urging element (12), wherein the transverse tensioning arrangement (9) interacts, via the urging element (12) with the second coupling device (8) for urging the guiding elements (6) into the first position when the flexible screen (2) is out of the tensioned state.
5. The screen system (1) according to any one of the preceding claims, wherein the first coupling device (4) is arranged for being moved, by interaction with the second coupling device (8), from a decoupling position for decoupling the first coupling device (4) from the second coupling device (8) into a coupling position for coupling the first coupling device (4) to the second coupling device (8).
6. The screen system (1) according to claim 5, wherein, in the coupled position, the first coupling device (4) is hooked to the second coupling device (8) for the coupling of the first coupling device (4) to the second coupling device (8).
7. The screen system (1) according to any one of the preceding claims, wherein the transverse tensioning arrangement (9) comprises interaction elements (13) arranged for interaction with at least one of the guiding elements (6) and arranged for moving, in the longitudinal direction (L), relative to the guiding elements (6) for moving the guiding elements (6) between the first position and the second position.
8. The screen system (1) according to claim 7, wherein one of the interaction elements (13) and the guiding elements (6) are further in interaction with the second coupling device (8), via the urging element (12), if any, for moving the one of the interaction elements (13) and the guiding elements (6) upon movement of the second coupling device (8).
9. The screen system (1) according to claim 7 or 8, wherein the transverse tensioning arrangement (9) further comprises a roller bearing (14), wherein the interaction element (13) is in interaction, via the roller bearing (14), with the guiding element (6).
10. The screen system (1) according to any one of the claims 7 to 9, wherein each of the interaction elements (13) is in interaction with the guiding elements (6) via the roller bearing (14).

ments (13) comprises an interaction body (15) defining an interaction surface extending in a direction having a direction component in the transverse direction (T) for moving the guiding element (6) into the second position when interacting with the guiding element (6) or the roller bearing (14), if any. 5

11. The screen system (1) according to any one of the preceding claims, wherein at least one of the first coupling device (4) and the second coupling device (8) comprises a setting arrangement (16) arranged for setting a predetermined position of the closed position of the flexible screen (2). 10

12. The screen system according to any one of the preceding claims, wherein the screen system further comprises an urging system for urging the first coupling device (4) in the transverse direction (T) towards the second coupling device (8). 15

13. A veranda (100) comprising a screen system (1) according to any one of the preceding claims, wherein the screen system (1) is provided for closing off an open space, such as a side of the veranda (100). 20 25

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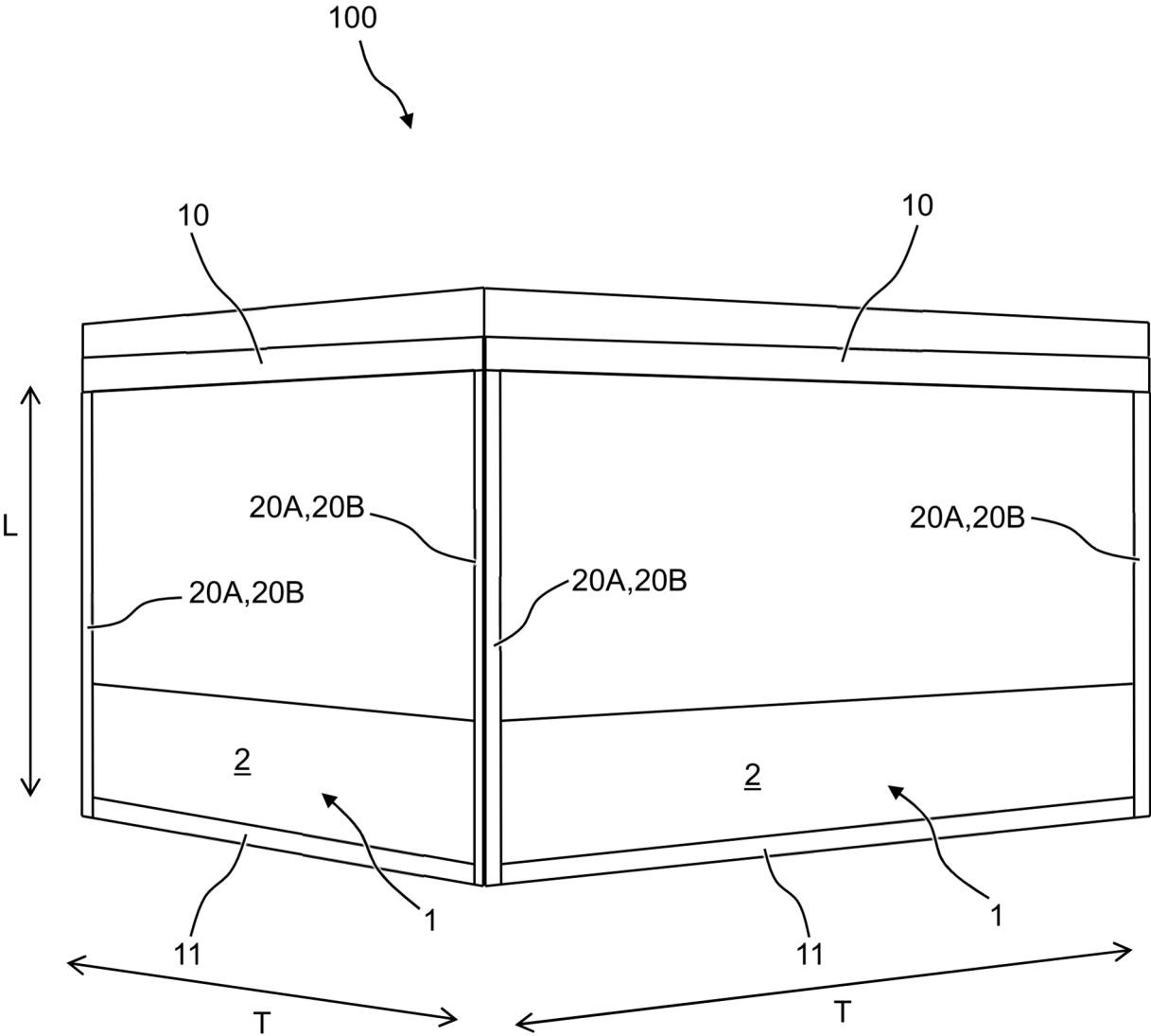


Fig. 1

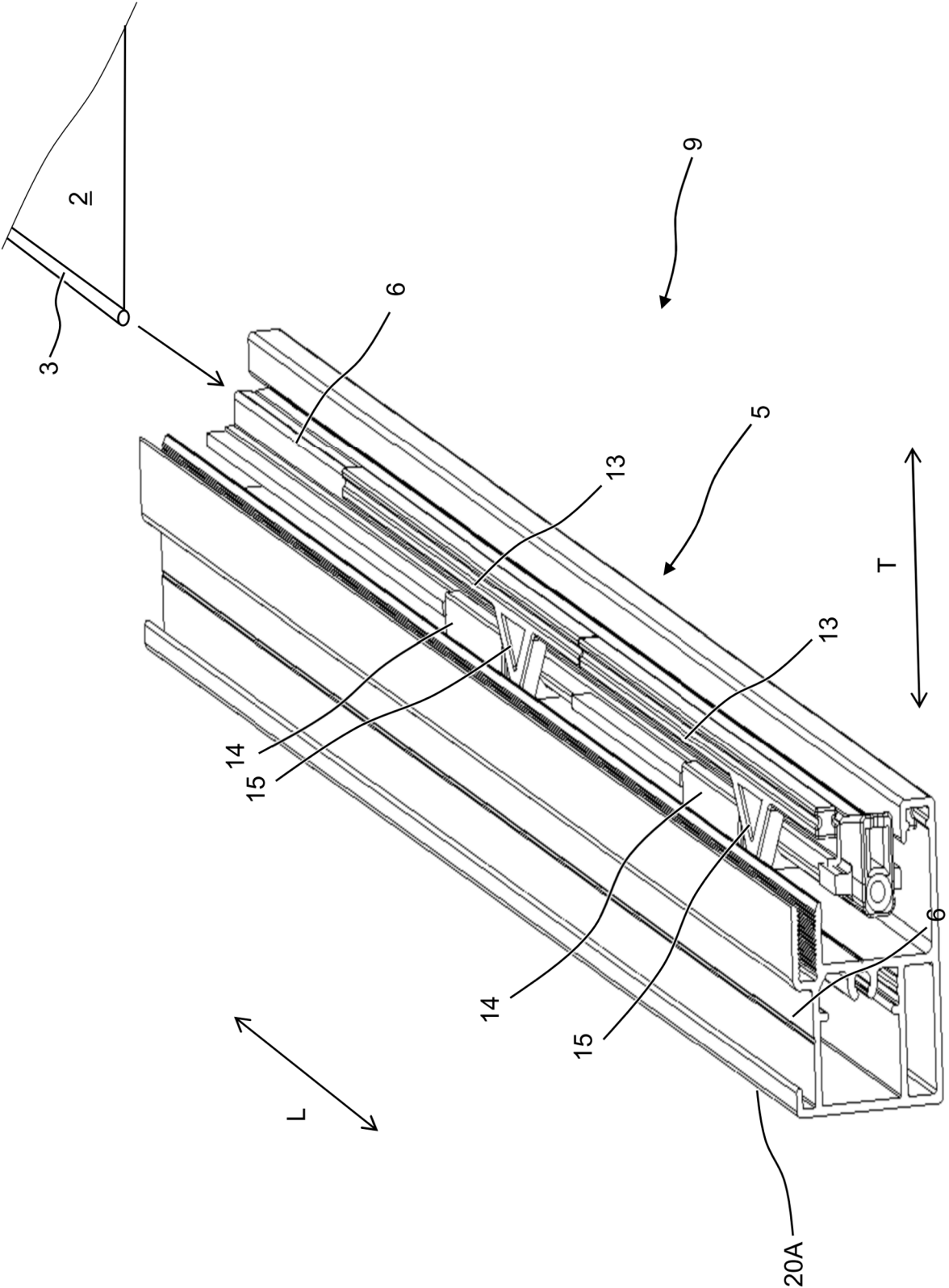


Fig. 2

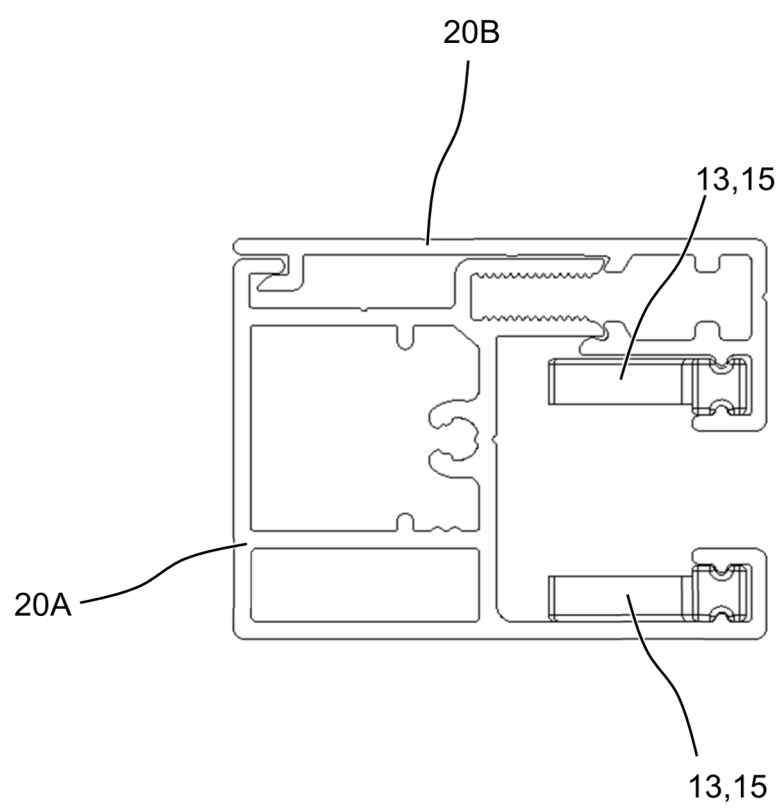


Fig. 3

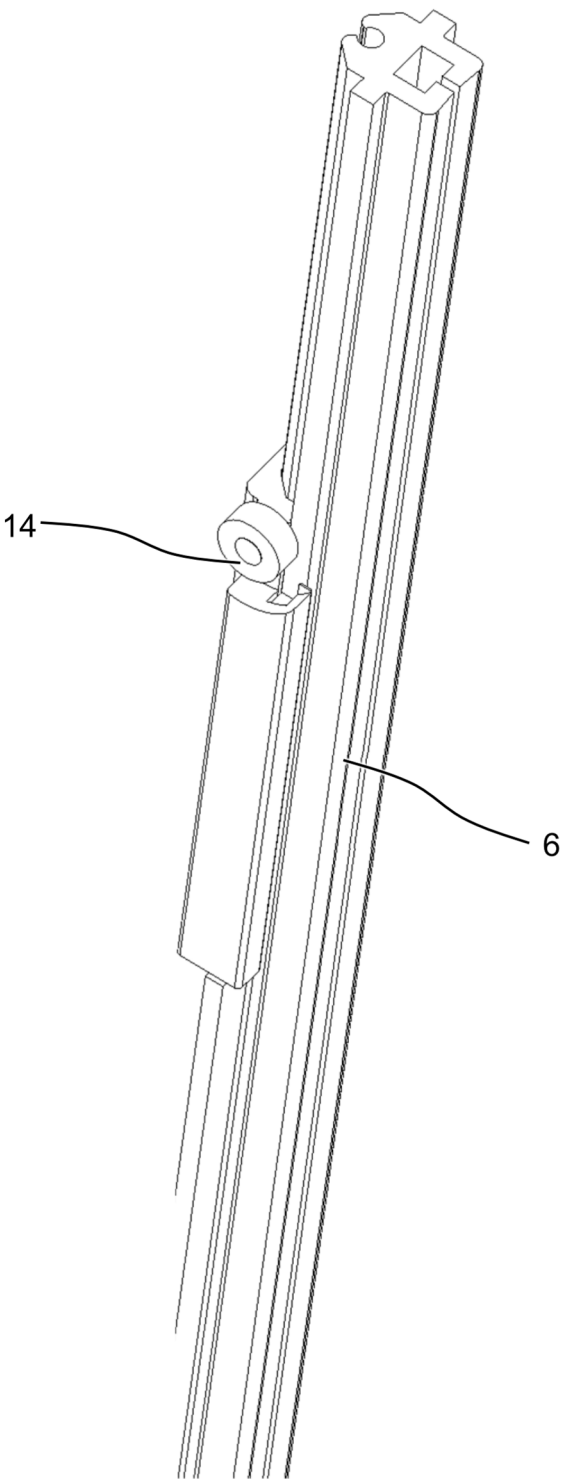


Fig. 4

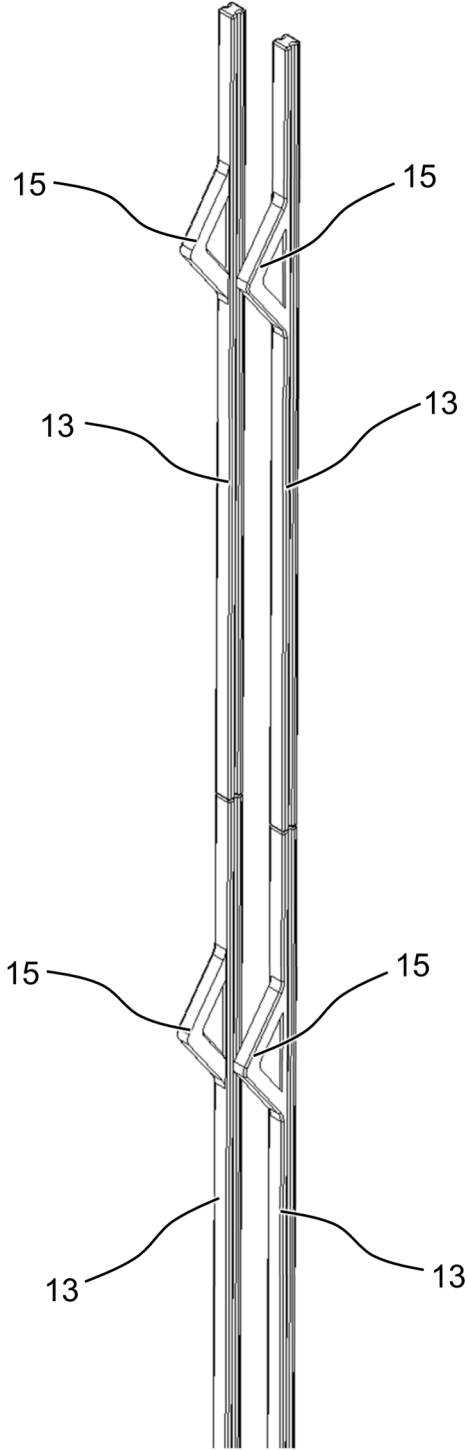


Fig. 5

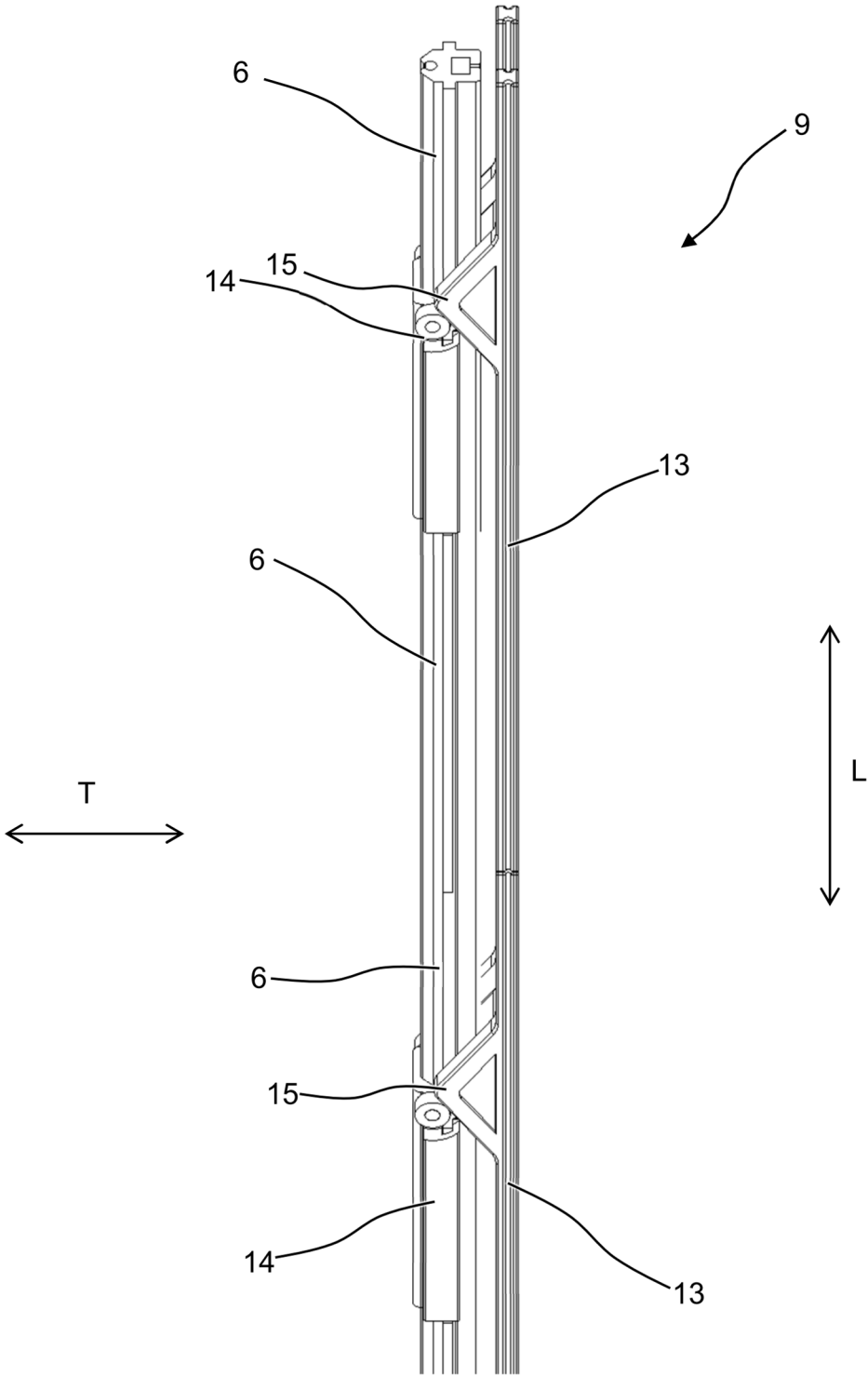
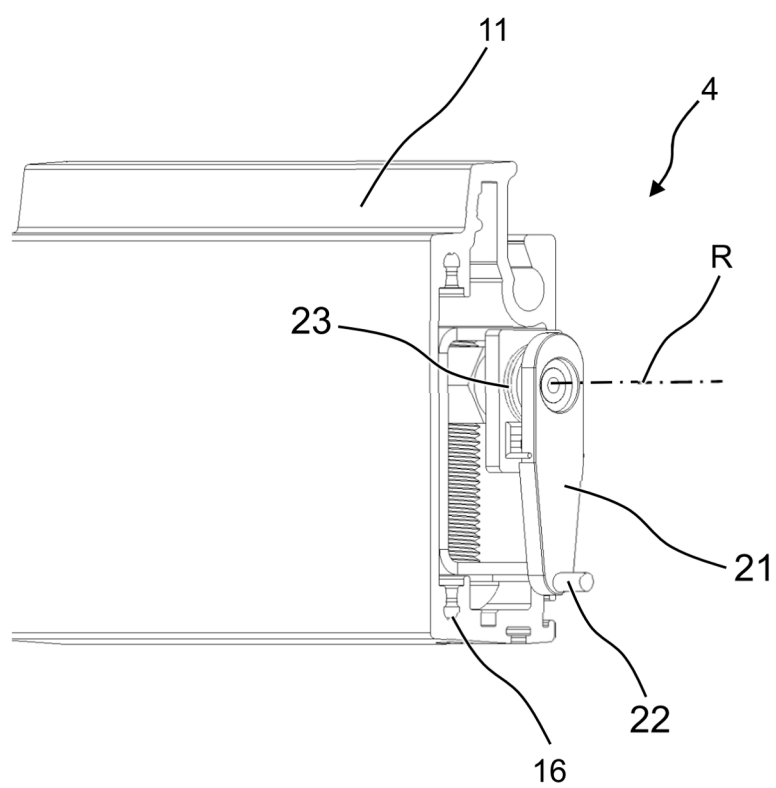
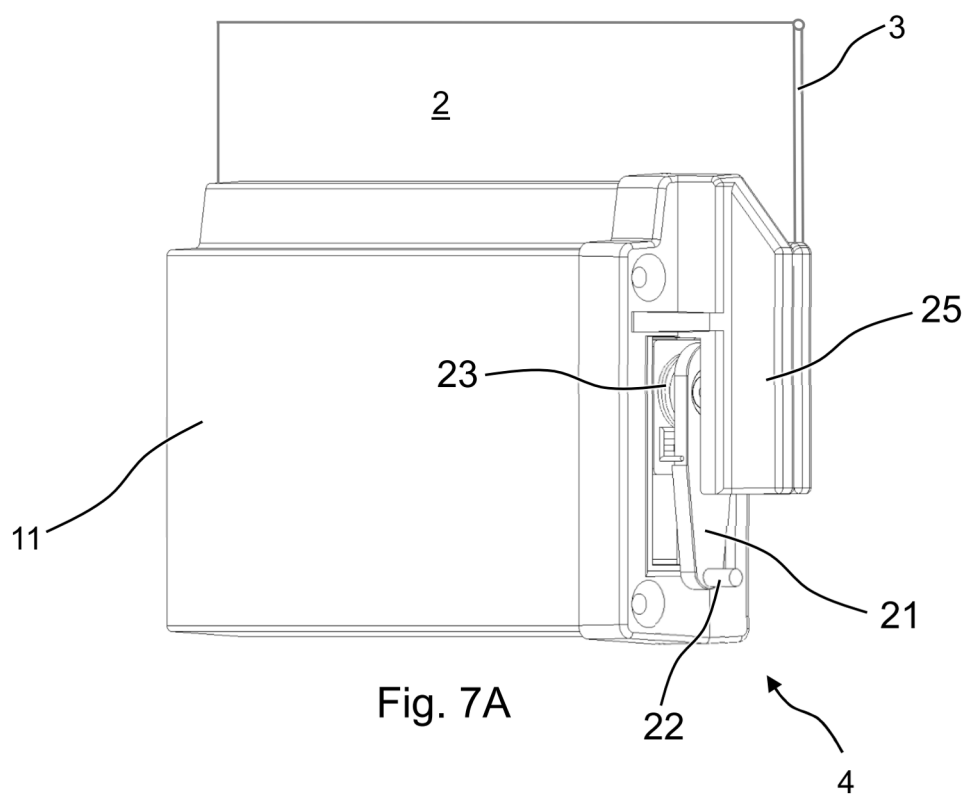


Fig. 6



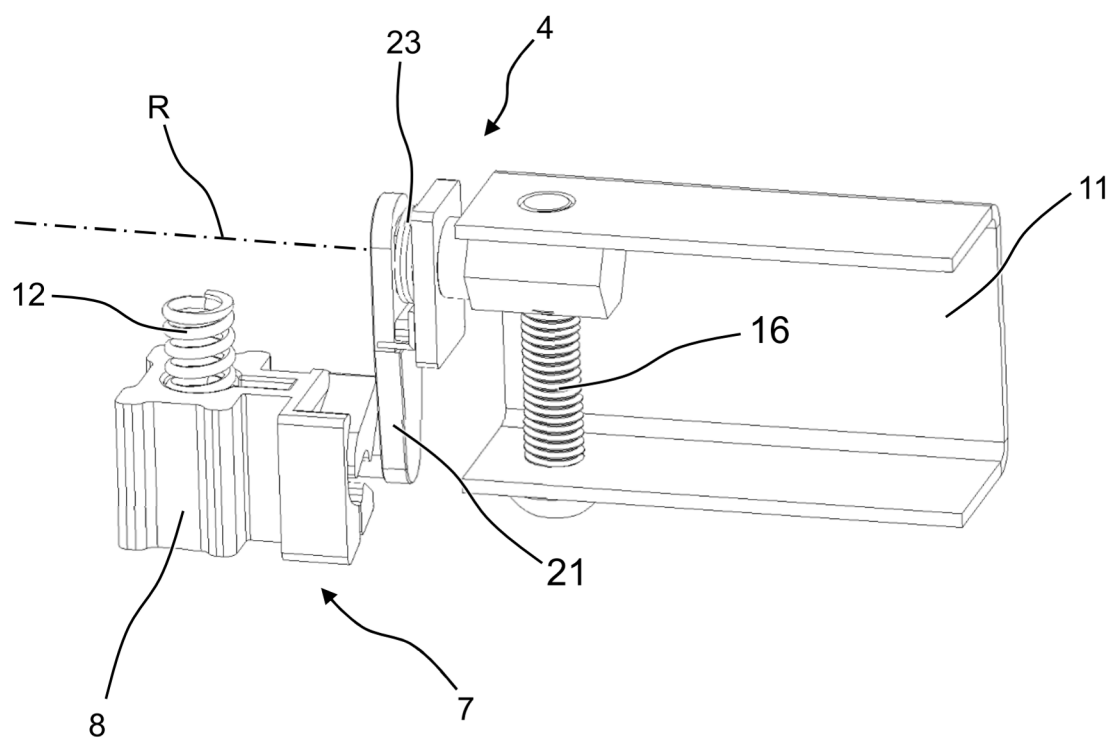


Fig. 8

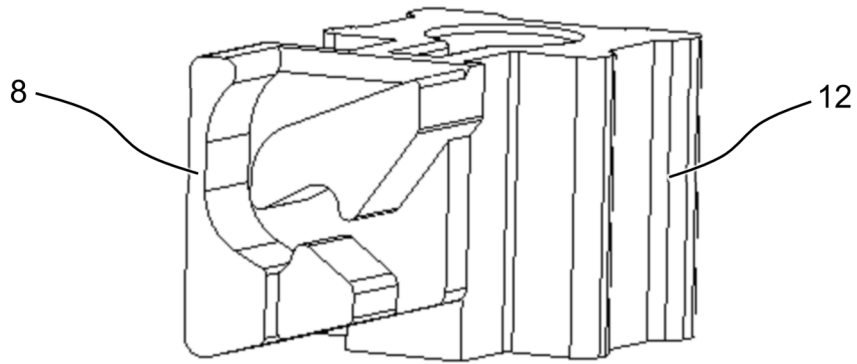


Fig. 9A

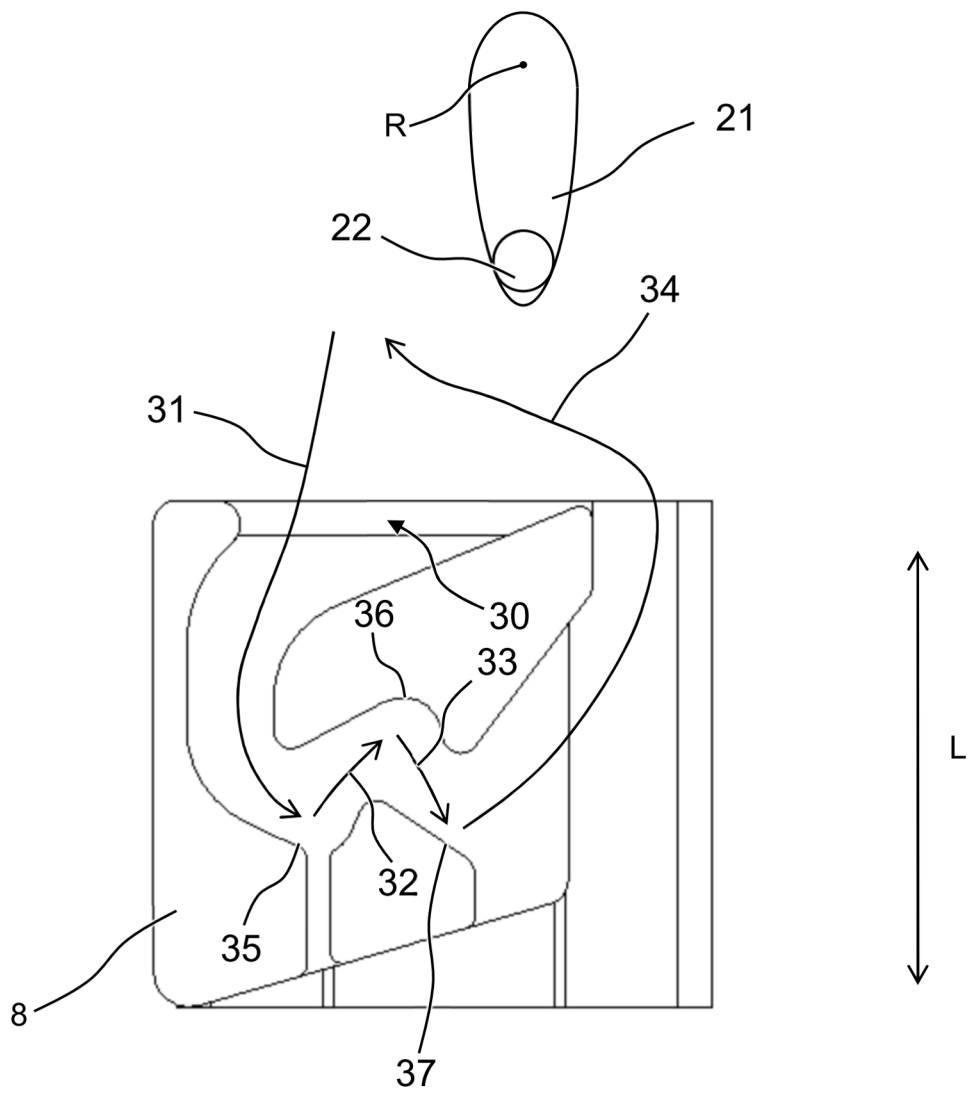


Fig. 9B

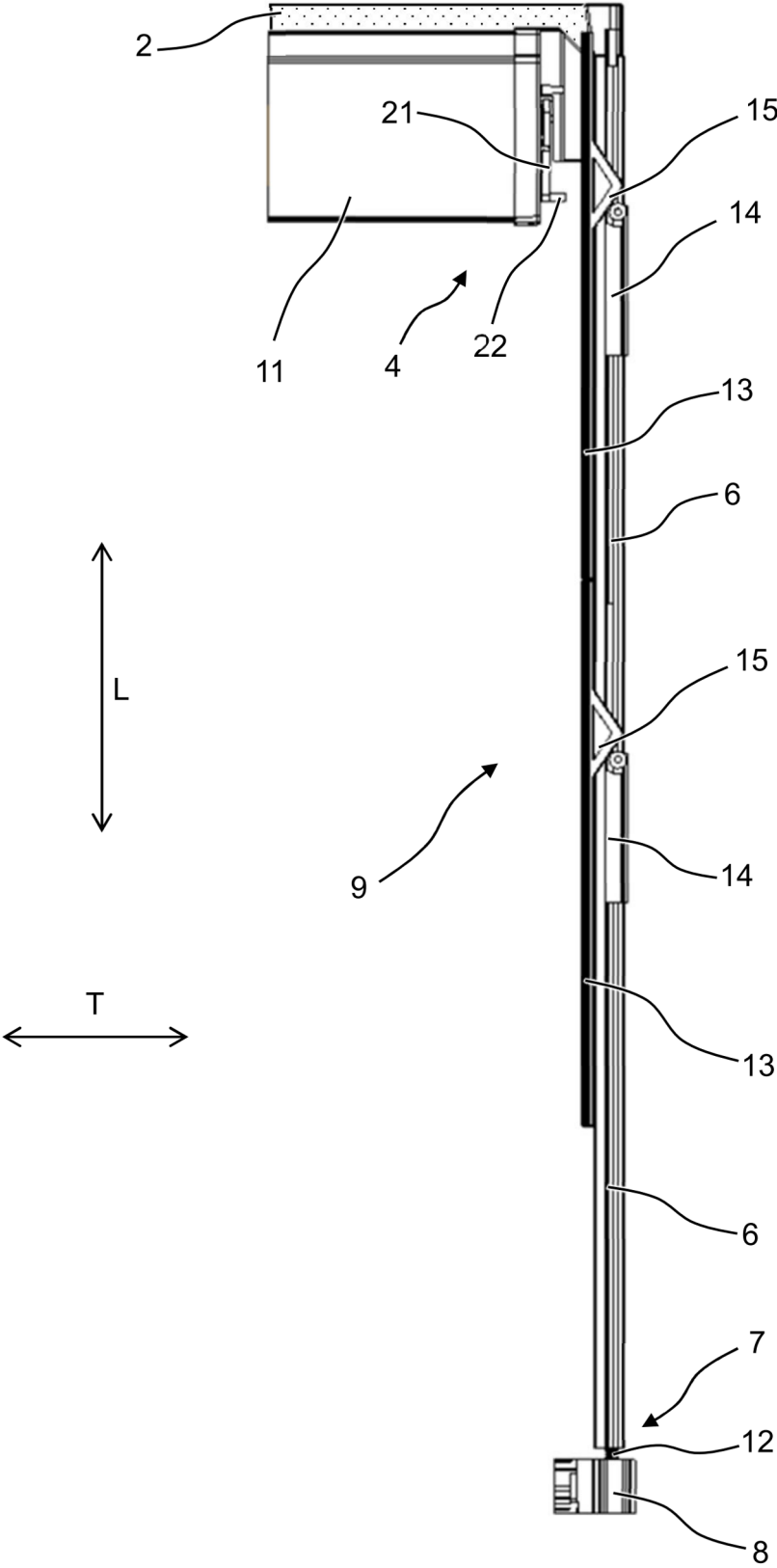


Fig. 10A

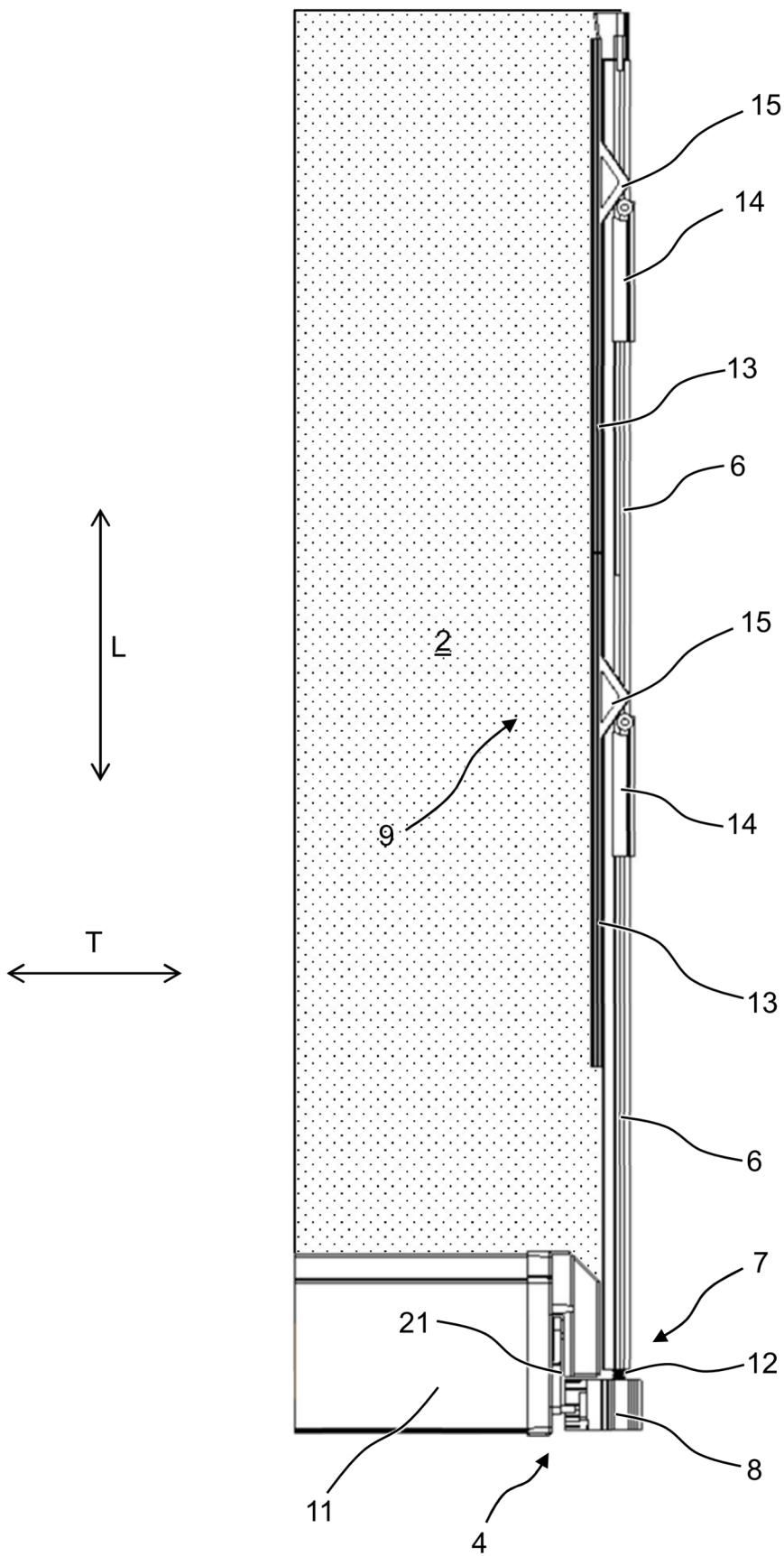


Fig. 10B

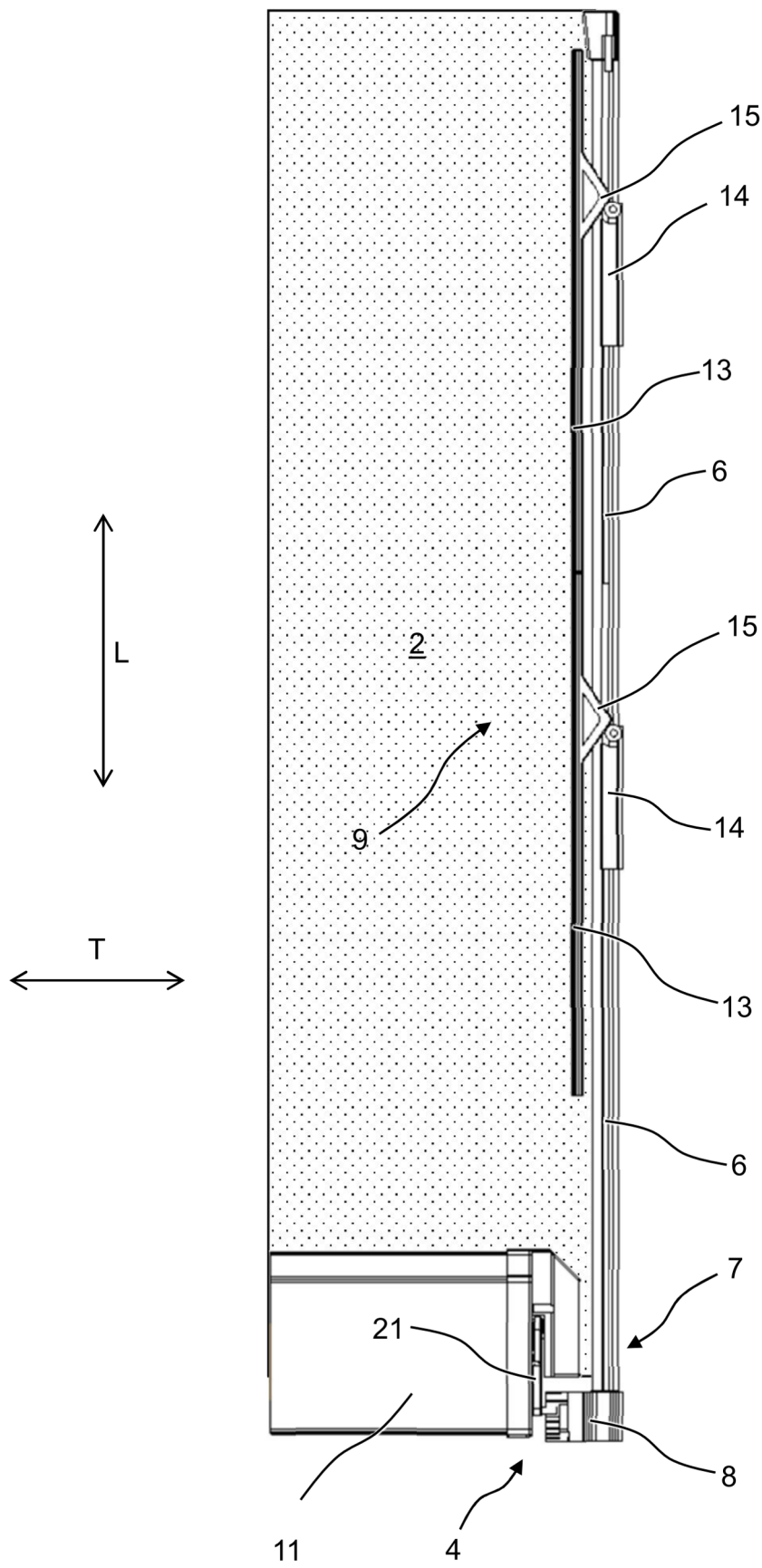


Fig. 10C



EUROPEAN SEARCH REPORT

Application Number

EP 26 16 4930

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			E04F E06B
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Place of search		Date of completion of the search	Examiner
Munich		15 June 2026	Bourgoin, J
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