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(54) **SCREEN DEVICE**

ABSCHIRMVORRICHTUNG

DISPOSITIF D'ÉCRAN

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Description

[0001] This invention relates to a screen device comprising

- a canopy, which comprises a beam, wherein this beam is fastenable to at least one adjacent construction element of the screen device and comprises an internal gutter for the drainage of precipitation falling onto the canopy;
- an end plate, which is fastenable to or forms part of an end of the beam, for fastening the beam to the adjacent construction element, and which is provided with a flow-through opening and a spout-shaped piece adjoining this flow-through opening, in order to let precipitation flow through this flow-through opening and this spout-shaped piece out of the internal gutter into a cavity of the adjacent construction element;
- and a collector, which is placeable between the beam and the adjacent construction element, adjoining the spout-shaped piece of the end plate and adjoining the cavity of the adjacent construction element, for the passage of the drained precipitation from the spout-shaped piece to the cavity of the adjacent construction element, wherein the spout-shaped piece is fitted on top of an edge of the collector.

[0002] Screen devices to which this invention relates are generally arranged to screen, or conversely to liberate, an outdoor space. In this way, screen devices of this type are frequently arranged in dwellings, restaurants, shops and the like in order to screen an outside terrace or the like from sunrays, precipitation and/or wind, or, conversely, to temporarily admit sunrays. These screen devices can be constructed in the form of awnings, pergolas, verandas, terrace canopies, carports, etc.

A screen construction of this type typically comprises a roof construction (canopy) which is at least partially supported by columns. The canopy generally comprises a plurality of beams as construction elements, which are assembled to form one or more frameworks. A framework of this type is typically supported on four (or more) columns or is typically fastened on one or more sides, for support purposes, to a wall, and supported on another side by two (or more) columns. The columns are - just like the beams - construction elements of the screen device. A beam can be fastened to an adjacent beam as an adjacent construction element, and/or to a column as an adjacent construction element.

The canopy can be of fixed construction, or can comprise a rollable and unrollable screen, or can comprise slats, etc., whether rotatable and/or retractable or not. The screen devices of this type are often provided with electrical apparatus such as lighting and/or heating. Furthermore, these screen devices are laterally also often provided with screens in order to screen the opening be-

tween two columns. This opening can herein be screened, for example, with a screen which is rollable and unreliable on a screen roller. It is also possible for sliding walls to be provided herein.

[0003] With beams which are of hollow construction and in their cavity are provided with an internal gutter, with the said end plates with flow-through opening and spout-shaped piece, with poles which are of hollow construction, and with the aid of the said collectors, it is possible to drain off precipitation in screen devices of this type centrally in a directed manner. The conduits for water drainage are neatly integrated in the beams and columns, wherein these can be flexibly assembled with the aid of the end plates.

A screen device of this type having a said end plate and a said collector is known, for example, from WO2015104675A1. A problem with the screen devices of this type is, however, to ensure the water tightness of the connection of the spout-shaped piece on top of the edge of the collector. The risk of a seal fitted herebetween snarling is very high. In the case of lighter beams, the collector needs also to be tensioned against the spout-shaped piece, whereby a seal of this type often gets damaged. In the tensioning of the collector against the spout-shaped piece, it is difficult to both ensure water tightness and make the various parts of the screen device connect to one another aesthetically. Also the accuracy of placement of the adjacent construction elements plays a major part in procuring water tightness.

[0004] The object of this invention is to at least partially remedy the said problems and to obtain an improved water tightness of the said connection.

[0005] This object is achieved by providing a screen device comprising

- a canopy, which comprises a beam, wherein this beam is fastenable to at least one adjacent construction element of the screen device and comprises an internal gutter for the drainage of precipitation falling onto the canopy;
- an end plate, which is fastenable to or forms part of an end of the beam, for fastening the beam to the adjacent construction element, and which is provided with a flow-through opening and a spout-shaped piece adjoining this flow-through opening, in order to let precipitation flow through this flow-through opening and this spout-shaped piece out of the internal gutter into a cavity of the adjacent construction element;
- a collector, which is placeable between the beam and the adjacent construction element, connecting to the spout-shaped piece of the end plate and connecting to the cavity of the adjacent construction element, for the passage of the drained precipitation from the spout-shaped piece to the cavity of the adjacent construction element, wherein the spout-shaped piece is fitted on top of an edge of the collector;

- a fastening means for fastening the collector in the screen device such that the said collector is adjustable in height at several points.

[0006] By providing the collector in the screen device such that it is fastenable in a height-adjustable manner at more than one point, more control is established over the positioning thereof, irrespective of a correct alignment of other components of the screen device relative to one another. In this way, this collector can be more accurately connected up to the spout-shaped piece, without, for this purpose, damaging the seal.

By providing the collector such that it is adjustable in height at two points, a certain tilting relative to the spout-shaped piece can already be realized.

[0007] Preferably, the collector is, however, provided such that it is adjustable in height at at least 3 points which are not all in line, so that the collector can be tilted in more than one direction relative to this spout-shaped piece.

[0008] The said adjacent construction element can in this case, for example, be another beam of the screen device, or can be a column of the screen device. Where the adjacent construction element is an adjacent beam, precipitation is typically passed, via the collector, between the beams. Where the adjacent construction element is a column, precipitation passed via the collector is drained off via this column.

Where this adjacent construction element is a column, this collector can be provided in a height-adjustable manner on top of the column. The column itself is then preferably provided with a drainpipe in its cavity. The collector is then preferably provided with a connecting piece in order to connect it to this drainpipe in order to let precipitation flow into the cavity of the column.

[0009] The fastening means preferably comprise a fastening body, which forms part of or is fastened to the beam and/or the adjacent construction element, for the height-adjustable fastening of the collector hereto. This fastening body can in this case, for example, form part of or be fastened to the said end plate.

[0010] A screen device of this type can comprise one such fastening body for all points, or can comprise a plurality of fastening bodies which are each provided for the height adjustment of the collector at one or more of the said points. With a view to ease of assembly, preferably only one such fastening body is provided for all points.

[0011] In a preferred embodiment, the said fastening body extends in the mounted state, at the said points, above the collector. The collector is then, at the said points, suspended from this fastening body and raised to a greater or lesser extent towards this fastening body in order to provide its height adjustability.

[0012] Preferably, the fastening means comprise for each point an adjusting screw for the, at that point, height-adjustable fastening of the collector to the fastening body.

[0013] With a said fastening body which extends above the collector and with the said adjusting screws as the

fastening means, the collector is preferably, for each point, provided with a cavity having an internal screw thread, conforming to the external screw thread of the corresponding adjusting screw. Around this cavity, the collector is preferably provided with a raised edge, which is constructed such that it tapers towards the fastening body. With the aid of a raised edge of this type, precipitation which is passed via the collector can be easily kept away from the herewith demarcated cavity with internal screw thread.

[0014] In a screen device according to this invention, at least one said point, in the mounted state, is preferably arranged adjacent to the spout-shaped piece.

If a plurality of spout-shaped pieces of a plurality of head pieces can connect to a plurality of beams on a collector of this type, such a point is preferably provided in the area of each of these spout-shaped pieces.

[0015] The said edge of the collector preferably comprises at least one insertion cavity, into which the spout-shaped piece is placeable in order to fit this on top of this edge.

A plurality of such insertion cavities can be provided for the connection of a plurality of corresponding spout-shaped pieces to this collector. A collector can, for example, be standardly provided with the maximum number of such insertion cavities which might be necessary in a screen device, wherein these insertion cavities can initially be closed off with the aid of a fill-in element. Where necessary, this fill-in element can then be removed in order to make room for a spout-shaped piece which is to be fitted herein.

[0016] A screen device according to this invention preferably further comprises a sealant, which is fitted, at the said edge of the collector, between the collector and the spout-shaped piece.

[0017] For this, various kinds of sealant can be used. This sealant can be applied, for example, in the form of a silicone. This is, however, rather laborious and not very reliable, given that the accurate application thereof is heavily dependent on the persons who fit the screen device. Preferred, this sealant is therefore rather provided in the form of a seal.

[0018] The said edge of the collector is preferably provided, in addition to this seal, with a raised edge, which rises less high than the seal.

With the aid of a raised edge of this type, possible damage to the seal as a result of the over-hard tensioning of the collector against the spout-shaped piece can be avoided. The seal itself is preferably centrally provided with a raised rib, which on both sides is bounded by a groove in the seal. In this way, the material of the seal, when the collector is tensioned against the spout-shaped piece, can be neatly distributed without the seal being hereupon torn.

If the said edge of the collector is here also provided with a said raised edge, then the grooves in the seal preferably extend below this raised edge, whilst the raised rib rises above this raised edge.

[0019] In one particular embodiment, the seal and the collector form part of a same piece. This again reduces the risk of mispositioning of the seal as a result of snarling, for example, and possible damaging of the rib. The seal can herein be formed, for example, by co-injection moulding with the collector.

[0020] In one specific embodiment, the collector is realized as a collecting basin. In an embodiment of this type, in which a said seal is provided, this seal, in the mounted state, is preferably fitted over the complete top edge of the collecting basin.

[0021] This invention is now explained in greater detail on the basis of the hereinafter following detailed description of some preferred screen devices according to this invention. The aim of this description is solely to give illustrative examples and to indicate further advantages and particularities of this invention, and can thus by no means be interpreted as a limitation of the scope of the invention or of the patent rights claimed in the claims.

[0022] In this detailed description, reference is made by means of reference numerals to the accompanying drawings, wherein in

- Figure 1 two beams of a first embodiment of a screen device according to this invention, which are mutually coupled with the aid of end plates, are depicted in perspective view, without collector or fastening means;
- Figure 2 fastening means of the first embodiment of a screen device according to this invention are depicted in perspective view;
- Figure 3 a collector of the first embodiment of a screen device according to this invention is depicted in perspective view;
- Figure 4 the mutually coupled beams from Figure 1 are depicted in perspective view, with the fastening means from Figure 2 and the collector from Figure 3 fastened hereto;
- Figure 5 a beam from Figure 1, to which the fastening means from Figure 2 are fastened, is depicted in perspective view, sectioned according to the longitudinal direction of the beam;
- Figure 6 the mutually coupled beams from Figure 1 are depicted in perspective view, with the fastening means from Figure 2 and the collector from Figure 3 fastened hereto, wherein a cover plate at the bottom of the collector is fastened with the aid of a fastening plate;
- Figure 7 the supporting structure of a screen device according to this invention is represented in perspective view.

[0023] The screen device (1) depicted in Figure 7 comprises a plurality of beams (3), as construction elements, which are assembled into frameworks which, on the one hand, are fastened to existing buildings (32) and, on the other hand, are supported by a plurality of columns (5) as construction elements of the screen device (1).

[0024] The screen device (1) also comprises fill-in elements (not depicted) for forming a, whether movable or immovable, filling of the frameworks as a canopy (2) and possible, whether movable or immovable, wall-forming fill-in elements (not depicted).

[0025] Filling elements for filling in the frameworks as a canopy (2) can be fixed fill-in elements or movable fill-in elements. The movable fill-in elements are typically screens which are rollable and unrollable on a screen roller, and/or tiltable and/or retractable slats, etc. The movable fill-in elements form in the closed position a watertight roof, which is typically drained of water towards the beams (3) and, from there, via adjacent beams (3) and/or columns (5). By displacement and/or rotation of slats and/or by rolling-up of a screen, this roof can be at least partially opened and/or closed in order thus, according to choice, to admit sun and/or wind, or else screen these off.

[0026] Wall-forming fill-in elements are typically intended to screen openings under the canopy (2), between columns (5). These can likewise be fixed fill-in elements or movable fill-in elements. Movable fill-in elements are typically screens which are rollable and unrollable on a screen roller, or wall elements which are arranged displaceably relative to one another, etc.

[0027] The beams (3) and columns (5), or parts thereof, can be produced from aluminium, for example by extrusion. It is also conceivable to produce these beams (3) and columns (5), for example, from steel, or from stainless steel, or from wood, etc.

[0028] The beams (3) are of hollow construction and are provided with an internal gutter (6) for the drainage of precipitation falling on the canopy (2). One or more columns (5) may also be of hollow construction for the further drainage of this precipitation from the beams (3).

[0029] The beams (3) and the columns (5) are mutually connected with the aid of end plates (7, 22). An example of such a coupling of a beam (3) to an adjacent beam (4) as the adjacent construction element is depicted in Figure 1. With a somewhat adapted end plate, a beam (3) of this type can also be coupled to a column (5) as the adjacent construction element.

[0030] The end plates (7, 22) respectively comprise a flow-through opening (8), which, after fastening of the end plate (7, 22) onto a corresponding beam (3, 4), connects to the internal gutter (6) thereof in order to allow precipitation drained off with this beam (3) to flow through here, or to allow precipitation to flow through here from an adjacent beam (3) into the cavity (10) of this beam (4) in order to further drain it off via the internal gutter (6) hereof.

[0031] The screen device (1) further comprises collectors (11) which correspond with the end plates (7, 22) and which are provided to be mounted connecting to the flow-through opening (8), as can be seen in Figures 4 to 6. Adjoining the flow-through opening (8), the end plates (7, 22) comprise a spout-shaped piece (9, 23). The collectors (11) are realized as a collecting basin,

which at their top edge (12) comprise four insertion cavities (17), so that the necessary spout-shaped pieces (9, 23) can be fitted herein. In the depicted collector (11), two of the four insertion cavities (17) are provided with a fill-in element (31). It is possible to initially provide all insertion cavities (17) with such a fill-in element (31) and only to liberate only those insertion cavities (17) where a connection of a spout-shaped piece (9) hereto is necessary.

[0032] In the figures is depicted a collector (11), which is provided for a connection between two beams (3, 4), without support of a column (5), in order herewith to transfer precipitation of the internal gutter (6) out of the one beam (3) to the internal gutter (6) of the other beam (4).

[0033] This screen device (1) may also comprise one or more collectors, which are provided for a connection of a beam (3) to a column (5), wherein this collector is then preferably provided with a connector for connecting this collector to a drainpipe which can be fitted in the cavity of the column (5).

[0034] In order to fasten the collector (11), the screen device (1) comprises a fastening body (13), which is fastenable to the end plates (7, 22) and for this purpose is provided with holes (29), in which pins (30) on the end plates (7, 22) can be fitted. In ducts of this fastening body (13) are fitted adjusting screws (14), which at the bottom are provided with an external screw thread, corresponding with an internal screw thread in cavities (15) which are provided in the collector (11). By turning of these adjusting screws (14) relative to the fastening body (13), the collector (11) is in this way at four points (15) moved vertically relative to this fastening body (13). The inclination of the collector (11) can in this way be adjusted relative to both beams (3, 4), and this irrespective of the accuracy with which both beams (3, 4) are aligned relative to each other.

The said points (15) are respectively arranged adjacent to a said insertion cavity (17). Around the cavities (15), the collector (11) is provided with a raised edge (16), which is constructed such that it tapers towards the fastening body (13). Precipitation which flows through the collector (11) is in this way kept away from these cavities (15).

[0035] After accurate positioning of the collector (11), at the bottom a fastening plate (27) can be fastened, this, for example, with the aid of a screw which engages in the central duct (25) in the collector (11). This screw can possibly be tightened through the central duct (24) in the fastening body (13). A finishing plate (26) can underneath be fastened, wherein the inclination of the finishing plate (26) relative to the inclination of the collector (11) can be adapted, for example, with the aid of spacers (28), the height of which can for this purpose be adapted by breaking off or sawing off a part of these spacers (28). In this way, the aesthetic end result of the connection of the beams (3, 4) is completely decoupled from the positioning of the collector (11).

[0036] The top edge (12) of the collector (11) is pro-

vided with a seal (18), which in the mounted state seals the connection between the collector (11) and the spout-shaped piece (9, 23). In addition to this seal (18), the top edge (12) is provided with a raised edge (21), which defines the boundary to where the collector (11) can be tensioned against the spout-shaped piece (9, 23), so that the seal (18) cannot get damaged but ensures a satisfactory sealing. The seal (18) is further provided with a central raised rib (19), which rises above this raised edge (21) and which on both sides is bounded by a groove (20) in the seal (18), which groove extends less high than the raised edge (21), this in order to still further limit the chance of damage to the seal (18).

Claims

1. Screen device (1) comprising

- a canopy (2), which comprises a beam (3), wherein this beam (3) is fastenable to at least one adjacent construction element (4) of the screen device (1) and comprises an internal gutter (6) for the drainage of precipitation falling onto the canopy (2);
- an end plate (7), which is fastenable to or forms part of an end of the beam (3), for fastening the beam (3) to the adjacent construction element (4), and which is provided with a flow-through opening (8) and a spout-shaped piece (9) adjoining this flow-through opening (8), in order to let precipitation flow through this flow-through opening (8) and this spout-shaped piece (9) out of the internal gutter (6) into a cavity (10) of the adjacent construction element (4);
- and a collector (11), which is placeable between the beam (3) and the adjacent construction element (4), adjoining the spout-shaped piece (9) of the end plate (7) and adjoining the cavity (10) of the adjacent construction element (4), for the passage of the drained precipitation from the spout-shaped piece (9) to the cavity (10) of the adjacent construction element (4), wherein the spout-shaped piece (9) is fitted on top of an edge (12) of the collector (11);

characterized in that the screen device (1) comprises fastening means (13, 14) for fastening the collector (11) in the screen device (1) such that the said collector is adjustable in height at several points (15).

2. Screen device (1) according to Claim 1, **characterized in that** the fastening means (13, 14) comprise a fastening body (13), which forms part of or is fastened to the beam (3) and/or the adjacent construction element (4), for the height-adjustable fastening of the collector (11) hereto.

3. Screen device (1) according to Claim 2, **characterized in that** the fastening body (13) extends in the mounted state, at the said points (15), above the collector (11). 5
4. Screen device (1) according to one of Claims 2 to 3, **characterized in that** the fastening means (13, 14) comprise for each point (15) an adjusting screw (14) for the, at that point (15), height-adjustable fastening of the collector (11) to the fastening body (13). 10
5. Screen device (1) according to Claim 3 and 4, **characterized in that** the collector (11) is, for each point (15), provided with a cavity having an internal screw thread (15), conforming to the external screw thread of the corresponding adjusting screw (14), and around this cavity (14) comprises a raised edge (16), which, viewed in the mounted state, is constructed such that it tapers towards the fastening body (13). 20
6. Screen device (1) according to one of the preceding claims, **characterized in that** at least one said point (15), in the mounted state, is arranged adjacent to the spout-shaped piece (9). 25
7. Screen device (1) according to one of the preceding claims, **characterized in that** the said edge (12) of the collector (11) comprises at least one insertion cavity (17), into which the spout-shaped piece (9) is placeable in order to fit this on top of this edge (12). 30
8. Screen device (1) according to one of the preceding claims, **characterized in that** the screen device (1) comprises a sealant (18), which in the mounted state is fitted, at the said edge (12) of the collector (11), between the collector (11) and the spout-shaped piece (9). 35
9. Screen device (1) according to Claim 8, **characterized in that** the sealant (18) is provided in the form of a seal (18). 40
10. Screen device (1) according to Claim 9, **characterized in that** the said edge (12) of the collector (11) is provided, in addition to the seal (18), with a raised edge (21), which rises less high than the seal (18). 45
11. Screen device (1) according to Claim 9 or 10, **characterized in that** the seal (18) is centrally provided with a raised rib (19), which on both sides is bounded by a groove (20) in the seal (18). 50
12. Screen device (1) according to one of Claims 9 to 11, **characterized in that** the seal (18) and the collector (11) form part of a same piece. 55
13. Screen device (1) according to Claim 12, **characterized in that** the seal (18) is formed by co-injection

moulding with the collector (11).

14. Screen device (1) according to one of the preceding claims, **characterized in that** the collector (11) is realized as a collecting basin (11).

15. Screen device (1) according to one of Claims 9 to 13 and 14, **characterized in that** the seal (18), in the mounted state, is fitted over the complete top edge (12) of the collecting basin (11).

Patentansprüche

1. Abschirmvorrichtung (1), umfassend:

- eine Überdachung (2), die einen Träger (3) umfasst, wobei dieser Träger (3) an wenigstens einem angrenzenden Bauelement (4) der Abschirmvorrichtung (1) befestigbar ist und eine innere Regenrinne (6) für den Ablauf von auf die Überdachung (2) fallendem Niederschlag umfasst,

- eine Endplatte (7), die an einem Ende des Trägers (3) befestigbar ist oder Teil desselben bildet, um den Träger (3) an dem angrenzenden Bauelement (4) zu befestigen, und die mit einer Durchflussöffnung (8) und einem an diese Durchflussöffnung (8) angrenzenden ausgussförmigen Stück (9) versehen ist, um zu ermöglichen, dass Niederschlag durch diese Durchflussöffnung (8) und dieses ausgussförmige Stück (9) aus der inneren Regenrinne (6) in einen Hohlraum (10) des angrenzenden Bauelements (4) fließt,

- und eine Sammelvorrichtung (11), die zwischen dem Träger (3) und dem angrenzenden Bauelement (4) platzierbar ist und an das ausgussförmige Stück (9) der Endplatte (7) und an den Hohlraum (10) des angrenzenden Bauelements (4) angrenzt, um den Durchfluss des abgelaufenen Niederschlags aus dem ausgussförmigen Stück (9) zu dem Hohlraum (10) des angrenzenden Bauelements (4) zu ermöglichen, wobei das ausgussförmige Stück (9) oben auf einem Rand (12) der Sammelvorrichtung (11) angebracht ist,

dadurch gekennzeichnet, dass die Abschirmvorrichtung (1) Befestigungsmittel (13, 14) umfasst, um die Sammelvorrichtung (11) auf eine solche Weise in der Abschirmvorrichtung (1) zu befestigen, dass die Sammelvorrichtung an mehreren Punkten (15) höhenverstellbar ist.

2. Abschirmvorrichtung (1) nach Anspruch 1, **dadurch gekennzeichnet, dass** die Befestigungsmittel (13, 14) einen Befestigungskörper (13) umfassen, der

Teil des Trägers (3) und/oder des angrenzenden Bauelements (4) ist oder an demselben/denselben befestigt ist, um die Sammelvorrichtung (11) an demselben/denselben höhenverstellbar zu befestigen.

3. Abschirmvorrichtung (1) nach Anspruch 2, **dadurch gekennzeichnet, dass** sich der Befestigungskörper (13) im montierten Zustand an den Punkten (15) über der Sammelvorrichtung (11) erstreckt. 5
4. Abschirmvorrichtung (1) nach einem der Ansprüche 2 bis 3, **dadurch gekennzeichnet, dass** die Befestigungsmittel (13, 14) für jeden Punkt (15) eine Einstellschraube (14) umfassen, um die Sammelvorrichtung (11) an dem Punkt (15) höhenverstellbar an dem Befestigungskörper (13) zu befestigen. 10
5. Abschirmvorrichtung (1) nach den Ansprüchen 3 und 4, **dadurch gekennzeichnet, dass** die Sammelvorrichtung (11) für jeden Punkt (15) mit einem Hohlraum, der ein Innengewinde (15) aufweist, das dem Außengewinde der entsprechenden Einstellschraube (14) entspricht, versehen ist und um diesen Hohlraum (14) herum einen erhöhten Rand (16) umfasst, der, gesehen im montierten Zustand, auf eine solche Weise gestaltet ist, dass er sich zu dem Befestigungskörper (13) hin verjüngt. 15 20 25
6. Abschirmvorrichtung (1) nach einem der vorhergehenden Ansprüche, **dadurch gekennzeichnet, dass** wenigstens ein Punkt (15) im montierten Zustand angrenzend an das ausgussförmige Stück (9) angeordnet ist. 30
7. Abschirmvorrichtung (1) nach einem der vorhergehenden Ansprüche, **dadurch gekennzeichnet, dass** der Rand (12) der Sammelvorrichtung (11) wenigstens einen Einsetzhohlraum (17) umfasst, in den das ausgussförmige Stück (9) platzierbar ist, um dieses oben auf diesem Rand (12) anzubringen. 35 40
8. Abschirmvorrichtung (1) nach einem der vorhergehenden Ansprüche, **dadurch gekennzeichnet, dass** die Abschirmvorrichtung (1) ein Dichtungsmittel (18) umfasst, das im montierten Zustand an dem Rand (12) der Sammelvorrichtung (11) zwischen der Sammelvorrichtung (11) und dem ausgussförmigen Stück (9) angebracht ist. 45
9. Abschirmvorrichtung (1) nach Anspruch 8, **dadurch gekennzeichnet, dass** das Dichtungsmittel (18) in Form einer Dichtung (18) bereitgestellt ist. 50
10. Abschirmvorrichtung (1) nach Anspruch 9, **dadurch gekennzeichnet, dass** der Rand (12) der Sammelvorrichtung (11) zusätzlich zu der Dichtung (18) mit einem erhöhten Rand (21) versehen ist, der weniger als die Dichtung (18) erhöht ist. 55

11. Abschirmvorrichtung (1) nach Anspruch 9 oder 10, **dadurch gekennzeichnet, dass** die Dichtung (18) mittig mit einer erhöhten Rippe (19) versehen ist, die auf beiden Seiten durch eine Rille (20) in der Dichtung (18) begrenzt ist.

12. Abschirmvorrichtung (1) nach einem der Ansprüche 9 bis 11, **dadurch gekennzeichnet, dass** die Dichtung (18) und die Sammelvorrichtung (11) Teil desselben Stücks bilden.

13. Abschirmvorrichtung (1) nach Anspruch 12, **dadurch gekennzeichnet, dass** die Dichtung (18) durch Spritzgießen zusammen mit der Sammelvorrichtung (11) ausgebildet ist.

14. Abschirmvorrichtung (1) nach einem der vorhergehenden Ansprüche, **dadurch gekennzeichnet, dass** die Sammelvorrichtung (11) als ein Sammelbecken (11) ausgeführt ist.

15. Abschirmvorrichtung (1) nach einem der Ansprüche 9 bis 13 und 14, **dadurch gekennzeichnet, dass** die Dichtung (18) im montierten Zustand über dem gesamten oberen Rand (12) des Sammelbeckens (11) angebracht ist.

Revendications

1. Dispositif de protection (1) comprenant :

- un auvent (2), qui comprend une poutre (3), dans lequel cette poutre (3) peut être fixée à au moins un élément de construction adjacent (4) du dispositif de protection (1) et comprend une gouttière interne (6) pour le drainage des précipitations tombant sur l'auvent (2) ;
- une plaque d'extrémité (7) pouvant être fixée à une extrémité de la poutre (3) ou faisant partie d'une extrémité de celle-ci, pour fixer la poutre (3) à l'élément de construction adjacent (4), et qui est pourvue d'une ouverture de passage (8) et d'une pièce en forme de bec (9) attenante à cette ouverture de passage (8), afin de permettre aux précipitations de s'écouler par cette ouverture (8) et cette pièce en forme de bec (9) hors de la gouttière interne (6) dans une cavité (10) de l'élément de construction adjacent (4) ;
- et un collecteur (11), qui peut être placé entre la poutre (3) et l'élément de construction adjacent (4), de manière attenante à la pièce en forme de bec (9) de la plaque d'extrémité (7) et de manière attenante à la cavité (10) de l'élément de construction adjacent (4), pour le passage des précipitations drainées de la pièce en forme de bec (9) vers la cavité (10) de l'élément de construction adjacent (4), la pièce en forme de

bec (9) étant ajustée au-dessus d'un bord (12) du collecteur (11) ;

le dispositif de protection (1) comprenant des moyens de fixation (13, 14) pour fixer le collecteur (11) dans le dispositif de protection (1) de telle sorte que ledit collecteur soit réglable en hauteur sur plusieurs points (15) .

2. Dispositif de protection (1) selon la revendication 1, **caractérisé en ce que** les moyens de fixation (13, 14) comprennent un corps de fixation (13) qui fait partie de la poutre (3) et/ou de l'élément de construction adjacent (4) ou qui est fixé à ceux-ci, pour la fixation réglable en hauteur du collecteur (11). 10
3. Dispositif de protection (1) selon la revendication 2, **caractérisé en ce que** le corps de fixation (13) s'étend à l'état monté, au niveau desdits points (15), au-dessus du collecteur (11). 15
4. Dispositif de protection (1) selon l'une des revendications 2 et 3, **caractérisé en ce que** les moyens de fixation (13, 14) comprennent pour chaque point (15) une vis de réglage (14) pour la fixation réglable en hauteur, à ce point (15), du collecteur (11) sur le corps de fixation (13). 20 25
5. Dispositif de protection (1) selon les revendications 3 et 4, **caractérisé en ce que** le collecteur (11) est pourvu, pour chaque point (15), d'une cavité présentant un filetage intérieur (15) conforme au filetage extérieur de la vis de réglage (14) correspondante, et autour de cette cavité (14) comprend un bord surélevé (16) qui, vu à l'état monté, est réalisé de telle façon qu'il diminue progressivement vers le corps de fixation (13). 30 35
6. Dispositif de protection (1) selon l'une des revendications précédentes, **caractérisé en ce qu'**au moins un desdits points (15), à l'état monté, est disposé de manière attenante à la pièce en forme de bec (9). 40
7. Dispositif de protection (1) selon l'une des revendications précédentes, **caractérisé en ce que** ledit bord (12) du collecteur (11) comporte au moins une cavité d'insertion (17), dans laquelle la pièce en forme de bec (9) peut être placée afin d'ajuster celle-ci au-dessus de ce bord (12). 45 50
8. Dispositif de protection (1) selon l'une des revendications précédentes, le dispositif de protection (1) comprenant un matériau d'étanchéité (18) qui, à l'état monté, est ajusté sur ledit bord (12) du collecteur (11), entre le collecteur (11) et la pièce en forme de bec (9). 55

9. Dispositif de protection (1) selon la revendication 8, **caractérisé en ce que** le matériau d'étanchéité (18) est prévu sous la forme d'un joint d'étanchéité (18).
10. Dispositif de protection (1) selon la revendication 9, **caractérisé en ce que** ledit bord (12) du collecteur (11) est pourvu, en plus du joint d'étanchéité (18), d'un bord surélevé (21), qui monte moins haut que le joint d'étanchéité (18).
11. Dispositif de protection (1) selon la revendication 9 ou 10, **caractérisé en ce que** le joint d'étanchéité (18) est pourvu au centre d'une nervure surélevée (19) qui est limitée des deux côtés par une rainure (20) dans le joint d'étanchéité (18).
12. Dispositif de protection (1) selon l'une des revendications 9 à 11, **caractérisé en ce que** le joint d'étanchéité (18) et le collecteur (11) font partie d'une même pièce.
13. Dispositif de protection (1) selon la revendication 12, **caractérisé en ce que** le joint d'étanchéité (18) est formé par moulage par co-injection avec le collecteur (11) .
14. Dispositif de protection (1) selon l'une des revendications précédentes, **caractérisé en ce que** le collecteur (11) est réalisé sous la forme d'un bassin collecteur (11).
15. Dispositif de protection (1) selon l'une des revendications 9 à 13 et 14, **caractérisé en ce que** le joint d'étanchéité (18), à l'état monté, est ajusté sur le bord supérieur complet (12) du bassin collecteur (11).

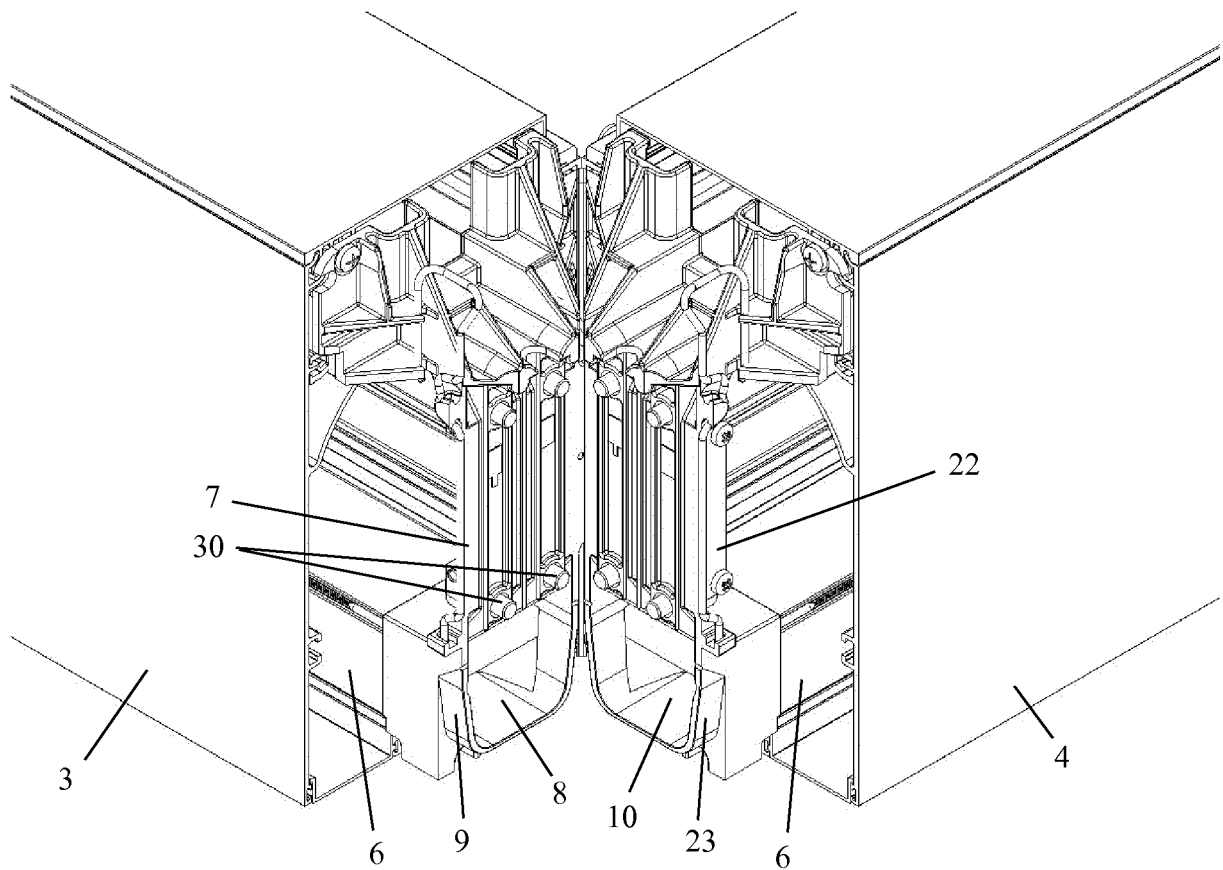


Fig. 1

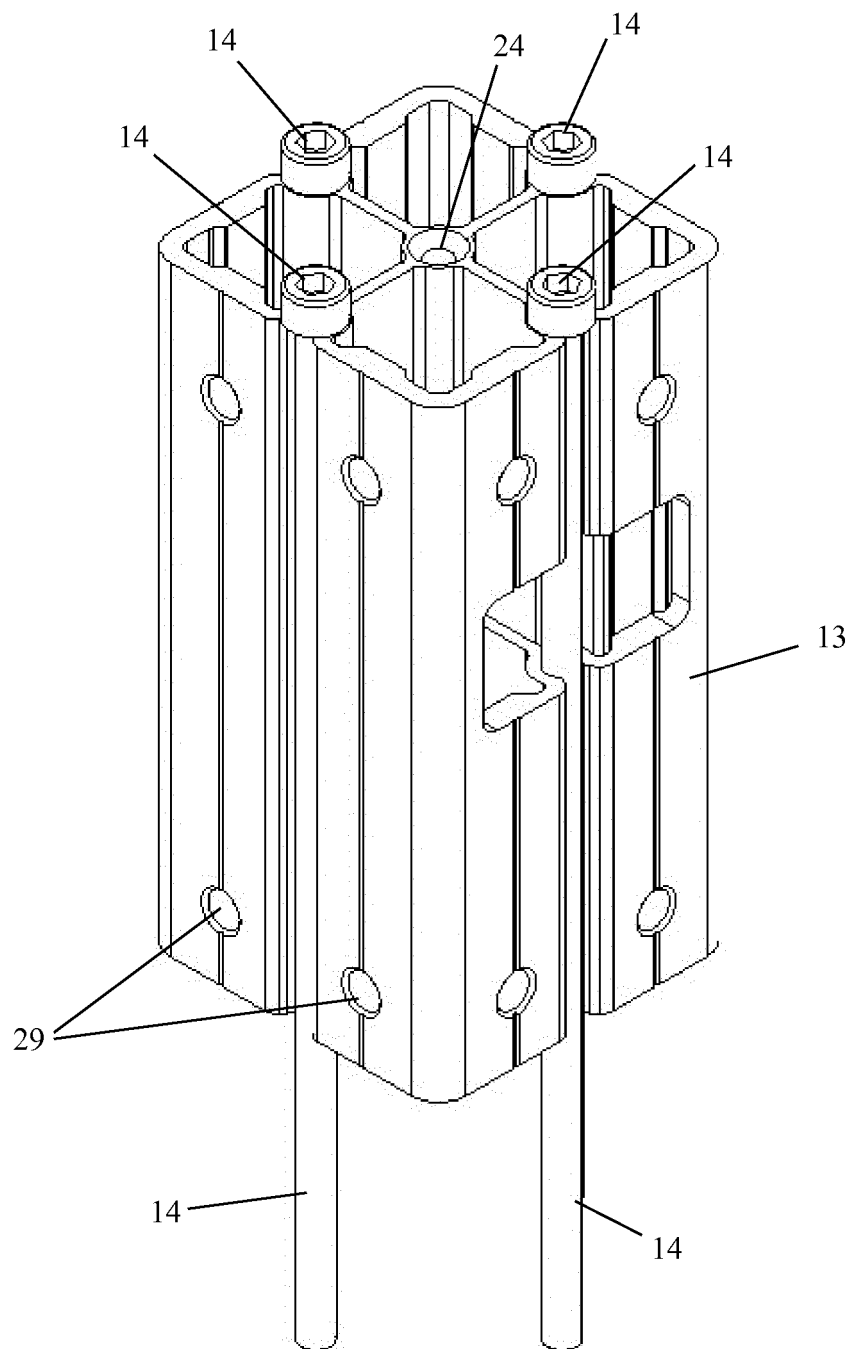


Fig. 2

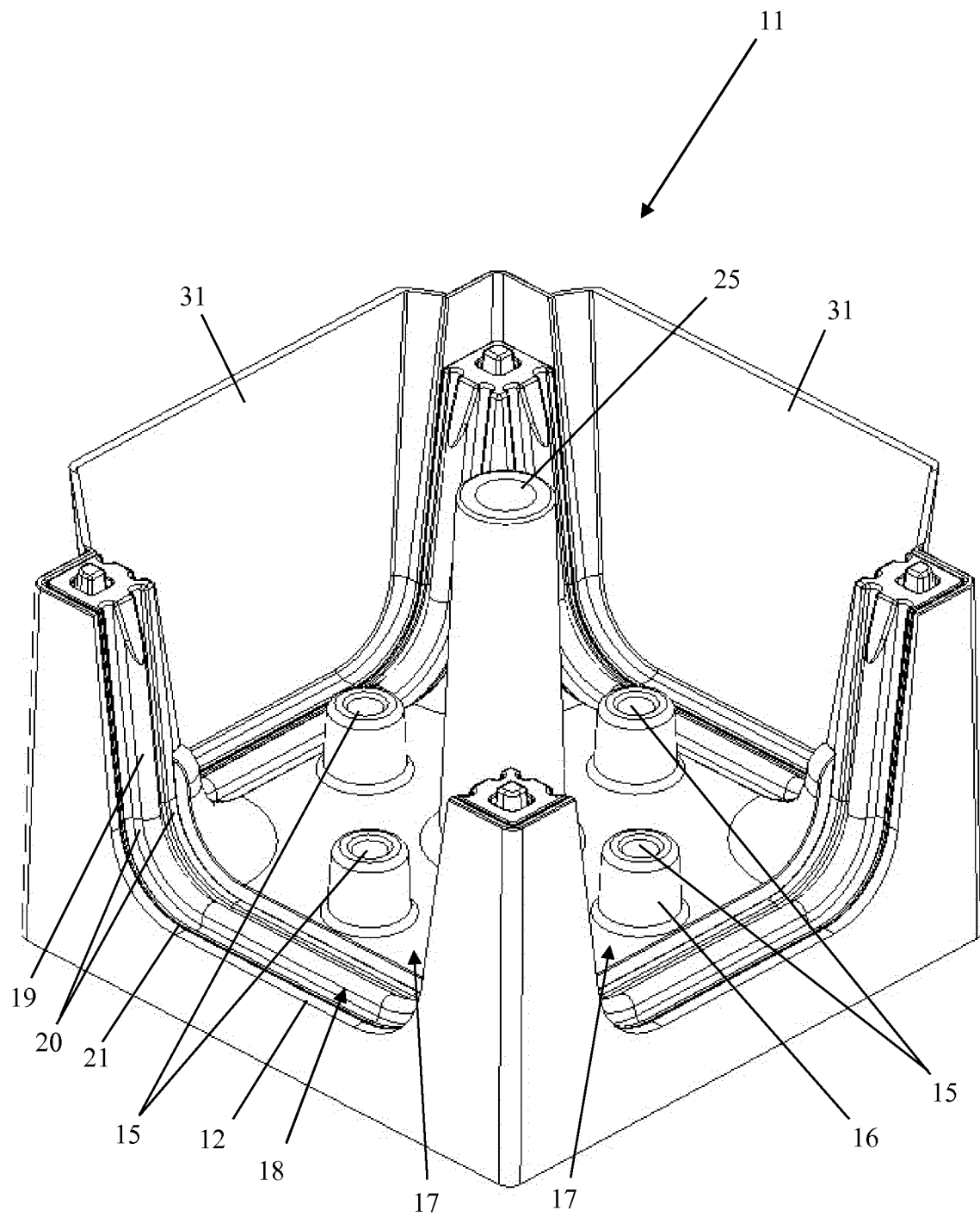


Fig. 3

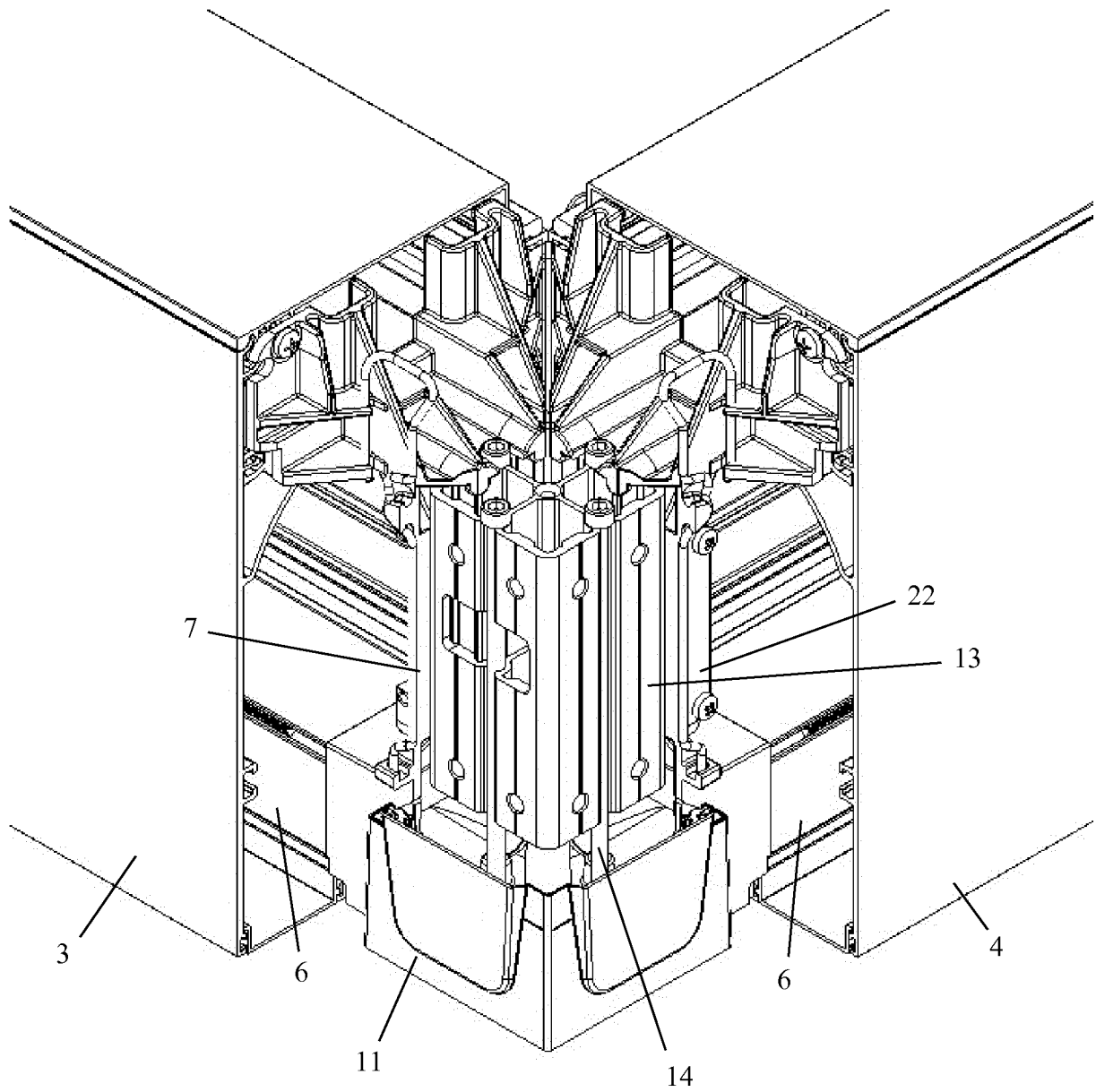


Fig. 4

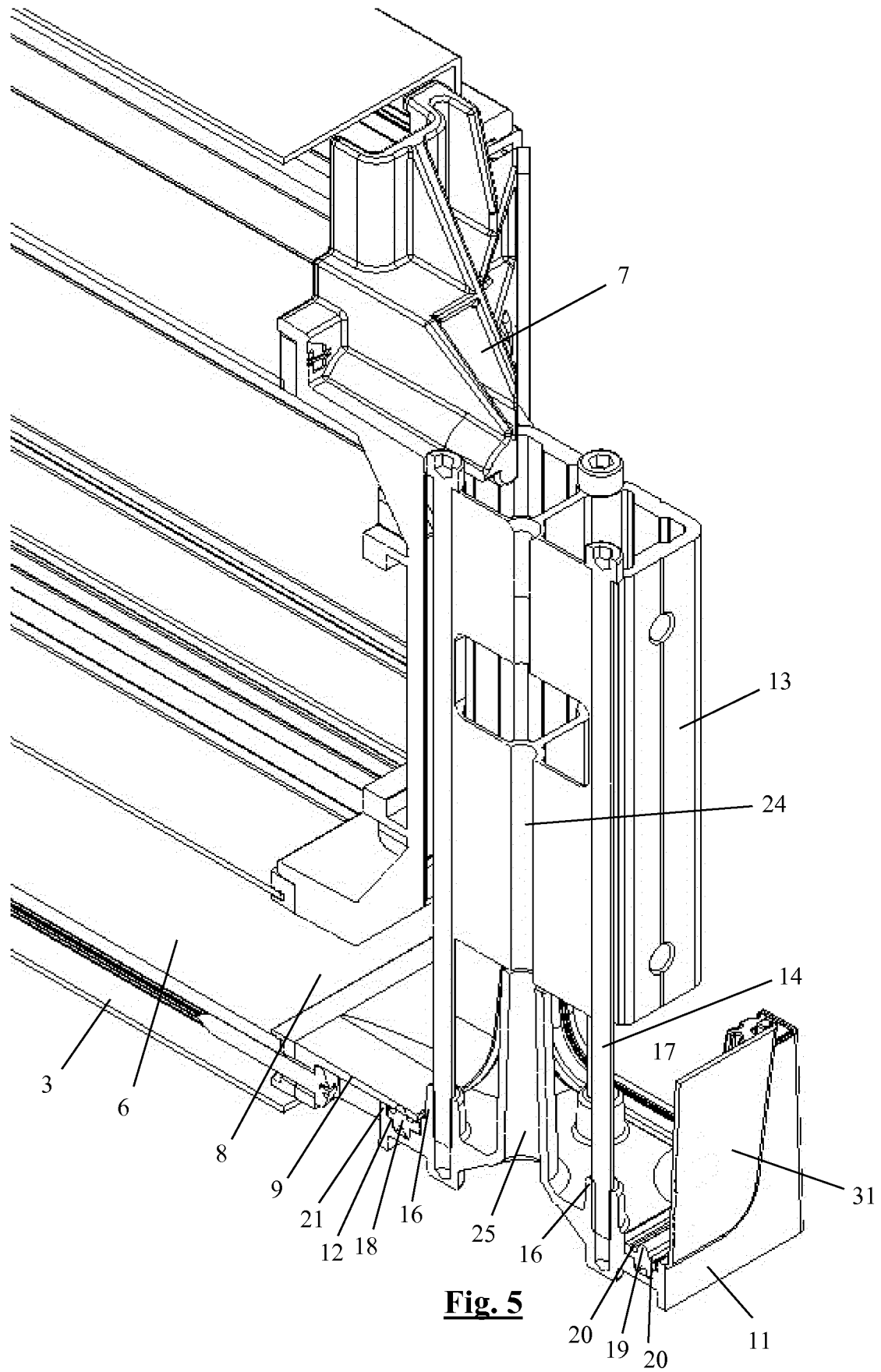


Fig. 5

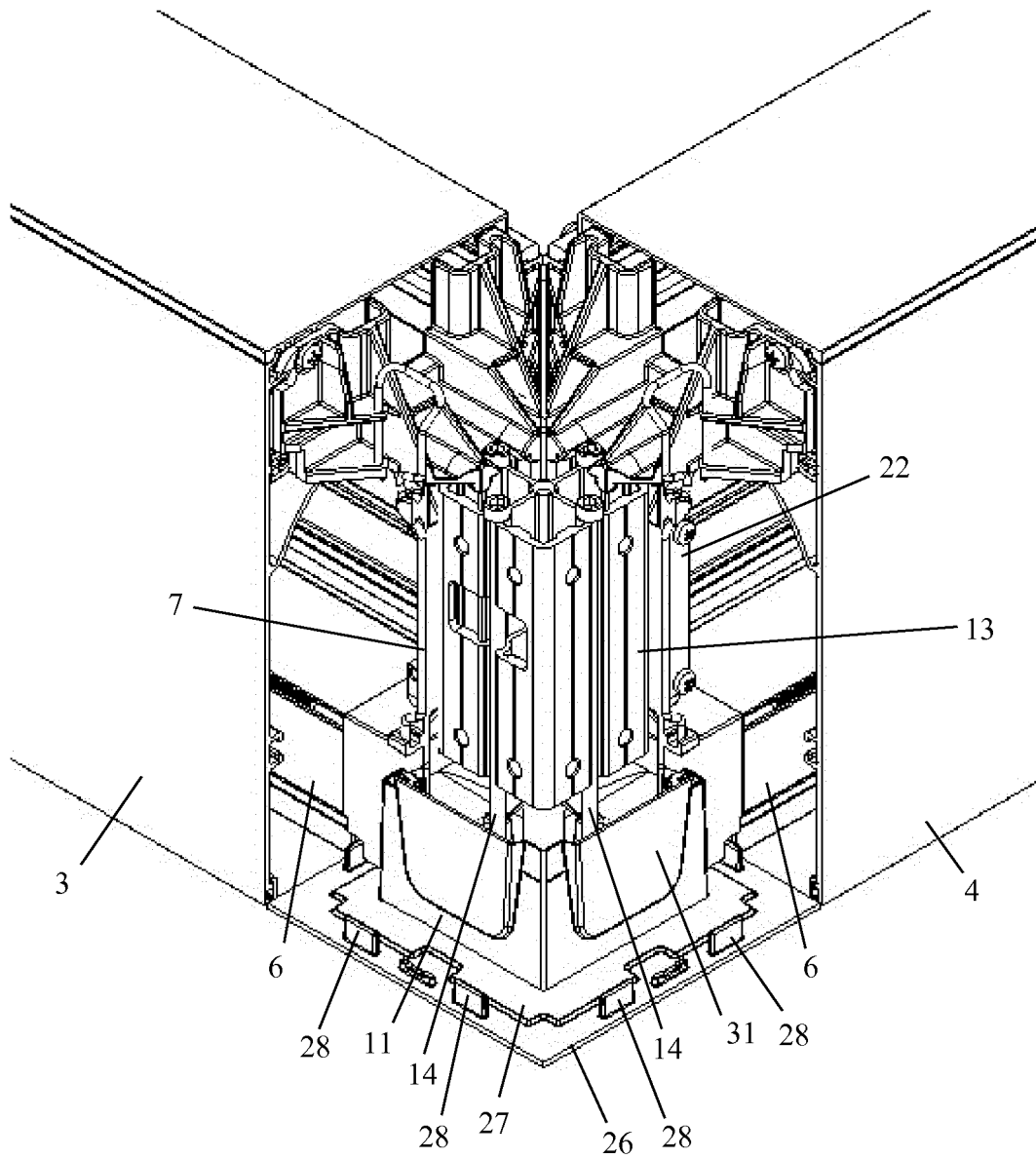


Fig. 6

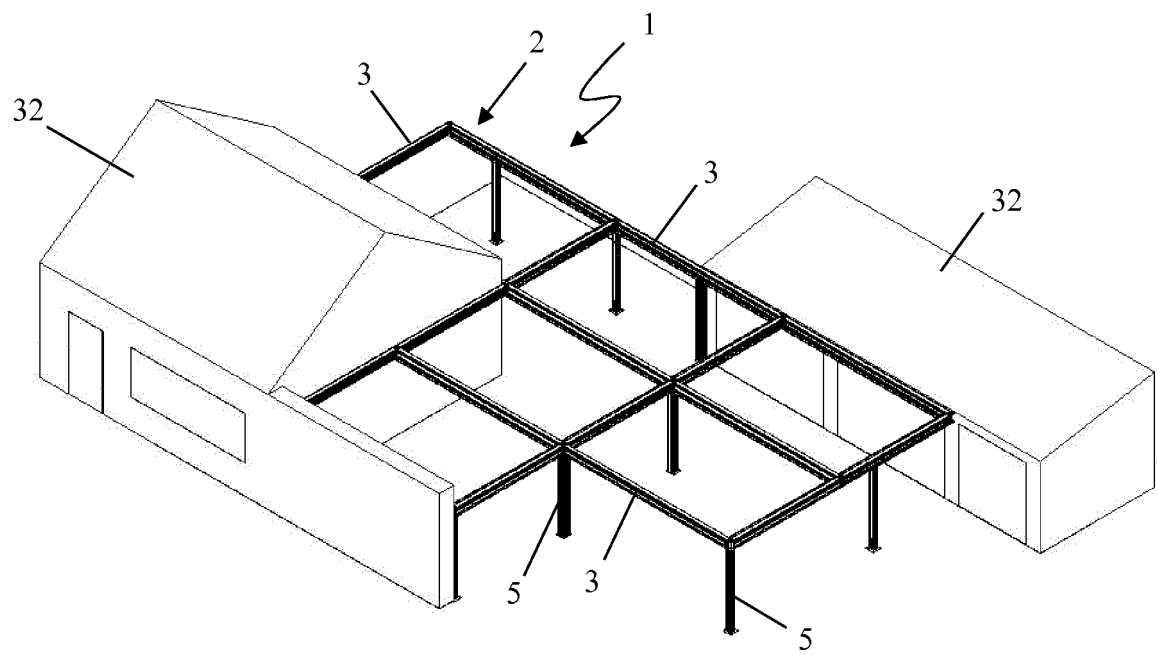


Fig. 7

REFERENCES CITED IN THE DESCRIPTION

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Patent documents cited in the description

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