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(54) **CANOPY WITH AWNING**

(57) Canopy with awning, whereby the canopy (1) comprises a load-bearing structure (3) with at least two parallel beams (4), i.e. a front beam (9) and a rear beam (8), which are connected to each other by means of side beams (5), whereby the rear beam is intended for mounting against or to a façade of a building, **whereby** in at least one side beam (5) a first roller (15A) is provided to

which one end of the awning (2) is attached and whereby at the facing end of the awning (2) an end bar (12) is provided, the ends (13) of which are guided using guides (14) provided at each of the at least two parallel beams (4) for guiding the end bar (12) from the side beam (5) with the first roller (15A) to the facing side beam (5) when rolling up or rolling out the awning (2).

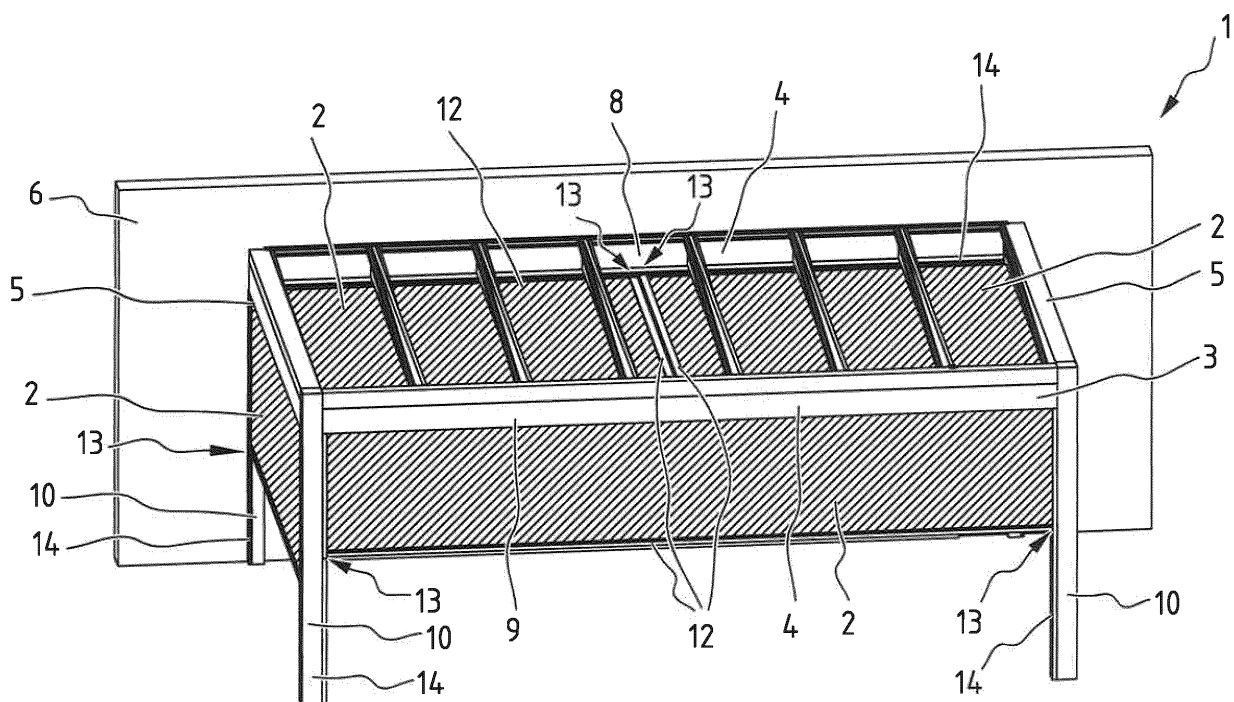


Fig. 3

Description

[0001] The present invention relates to a canopy with awning.

[0002] In particular, the invention is intended for a canopy with a load-bearing structure, which is provided with at least two parallel beams, at least a front beam and rear beam, which are connected to each other by means of side beams.

[0003] Where reference is made to a canopy in this document, this also relates, inter alia, to pergolas, verandas and the like.

[0004] An awning is usually provided at the top of the load-bearing structure. If relevant the load-bearing structure is also covered with glass panels or the like. This, however, is not necessary. In some cases rainwater drainage is possible exclusively with the awning.

[0005] Typically, a first side of an awning is attached to a roller that is rotatably applied in a screen casing located under or in the rear beam. Traditionally, the rear beam of such canopy is mounted against or to the façade of a building. A second side of the awning is attached to a so-called end bar.

[0006] Traditionally, the side beams are provided with grooves for the lateral guidance of the end bar and free side edges of the awning.

[0007] This has the disadvantage that the space under the canopy can only be blacked out in a strip that extends in a parallel way relative to the front and rear beam.

[0008] Another disadvantage if the roller is applied in the rear beam is that a higher and wider profile is needed there.

[0009] When a separate screen casing is mounted under the rear beam a certain space under the rear beam is needed. Moreover, a screen casing under the rear beam has a major aesthetic disadvantage.

[0010] The purpose of the present invention is to provide a solution to the aforementioned and other disadvantages.

[0011] To this end, the invention relates to a canopy with awning, whereby the canopy comprises a load-bearing structure with at least two parallel beams, i.e. a front beam and a rear beam, which are connected to each other by means of side beams, whereby the rear beam is intended for mounting against or to the façade of a building, whereby in at least one side beam a first roller is provided to which one end of the awning is attached and whereby at the facing end of the awning an end bar is provided, the ends of which are guided using guides provided at each of the at least two parallel beams for guiding the end bar from the side beam with the first roller to the facing side beam when rolling up and rolling out the awning whereby in at least one side beam a second roller is provided to which one end of the awning is attached and whereby at the facing end of the awning an end bar is provided which rolls out toward the ground from the side beam with the second roller or the other way around when rolling up the awning.

[0012] The advantage of such canopy with awning according to the invention is that the space under the canopy can be blacked out in a strip that extends in a parallel way relative to the side beams.

[0013] In this way a shaded zone and a sunny zone can be created as it were which extend over the full depth of the canopy, or in other words, over the full length of the side beams. In this way the surface or space under the canopy can be divided more simply into a use area with, for example, a seating area and an area that may remain lit, for example a corner for plants that require or tolerate a lot of sunshine.

[0014] When a roller is used in every side beam two shaded and one sunny zone can be created.

[0015] This is unlike the known canopies whereby a shaded and sunny zone can be created which extend over the full width, or in other words over the full length of the front or rear beam and whereby it is thus not possible to create separate zones.

[0016] Another advantage is that by incorporating the first roller in the side beam, a high rear beam or space under the rear beam for a screen casing is no longer needed. The side beams already have a high profile anyway for bearing the weight of the panels and any snow load and in this way said space in the side beam can be efficiently utilised.

[0017] Preferably, the side beam in which the first roller is incorporated is provided with a removable cover plate. In this way the first roller is easily accessible for mounting, inspection and maintenance.

[0018] According to the invention a second roller is provided in at least one side beam to which one end of the awning is attached and whereby at the facing end of the awning an end bar is provided. Said end bar rolls out from the side beam with the second roller towards the ground or the other way around when rolling up the awning.

[0019] Preferably, the second roller is positioned vertically above the first roller. In this way the free height of the side beam, between the upperside of the side beam and the awning, can be optimally utilised for applying panels, for example.

[0020] With the intention of better showing the characteristics of the invention, a few preferred embodiments of a canopy with awning according to the invention are described hereinafter by way of an example, without any limiting nature, with reference to the accompanying drawings, wherein:

figure 1 schematically shows a perspective view of a fully rolled up awning according to the invention; figure 2 shows the canopy of figure 1 but this time with partially rolled out awning; figure 3 shows an embodiment variant of figure 1; figure 4 shows a cross-section according to line IV-IV of figure 2.

[0021] The canopy 1 with awning 2 shown in figure 1

comprises a load-bearing structure 3 with in this case two parallel beams 4 which are connected to each other by means of two side beams 5.

[0022] One of the two parallel beams 4 is mounted against or to the façade 6 of a building in which, in this case, a sliding window 7 is mounted. Said bar 4 is called the rear beam 8, whereas the facing bar 4 is called the front beam 9.

[0023] Although this embodiment shows four vertical posts 10 on the four corners of the load-bearing structure 3 the invention is not limited to this.

[0024] Although not necessary for the invention, a series of glass panels 11 extend between the beams 4 in this case. Alternatively, this may also be other panels such as, for example, polycarbonate panels or sandwich panels.

[0025] The vertical sides between the posts 10 of the canopy 1 and/or between the façade 6 and a post 10 of the canopy 1 can also be provided with glass panels 11, windows, sliding panels, awnings or the like or alternatively can also be open as shown in this figure 1.

[0026] Figure 2 shows that in this case each of the two side beams 5 is provided with an awning 2 whereby at one end of each awning 2 an end bar 12 is provided, the ends of which are 13 guided in or by guides 14 provided on, or integrated in, the front beam 9 and rear beam 8.

[0027] The two awnings 2 thus roll out toward each other, whereby the end bars 12 can meet, and roll up away from each other.

[0028] As shown in this figure 2 the space or the surface under the canopy 1 is approximately evenly divided in this case in two shaded zones and one sunny zone, whereby the zones extend in a parallel way relative to the side beams 5 and over the full depth of the canopy 1.

[0029] Alternatively only one awning 2 could be provided in one side beam 5, whereby the length of the awning 2 is equal to the full width of the canopy to in this way black out the entire canopy 1 or to be able to divide it into a shaded zone and sunny zone.

[0030] The variant of figure 3 is also provided with awnings 2 which can shield the vertical sides between the posts 10 of the canopy 1 and can thus roll out toward the ground and roll up toward the load-bearing structure 3. One end of said awnings 2 is also provided with an end bar 12, whereby the end bar 12 and the free side edges of the awning 2 are guided by means of vertical guides 14 which are provided for this purpose in or to the posts 10 of the canopy 1.

[0031] In this example, said vertical awnings 2 are also provided in the side beams 5, respectively the front beam 9.

[0032] Figure 3 also shows that in this case the glass panels 11 or the glass roof are completely blacked out. Indeed, the two awnings 2 which extend in a parallel way relative to the front beam 9 and rear beam 8 are completely rolled out whereby the end bars 12 of said awnings 2 connect against each other.

[0033] The variant shown here is also provided with an

awning 2 that rolls out from the front beam 9 toward the ground.

[0034] The cross-section of the side beam 5 as shown in figure 4 shows two awnings 2 in this case which are each separately rolled up on respectively a first rotatable roller 15A and a second rotatable roller 15B, the side beam 5 acting as a shared screen casing 16 as it were for both the first roller 15A and the second roller 15B.

[0035] One end of each awning 2 is attached to the relevant roller 15A or 15B, whereas the facing end is connected to the end bar 12.

[0036] The first roller 15A and second roller 15B are able to rotate around their axis for rolling up or rolling out the relevant awning 2. The rollers 15A and 15B are usually rotated by a drive coupled for this purpose to the axial ends of the rollers 15A and 15B and/or the end bar 12 by means of a belt or rope for example.

[0037] Alternatively, the drive can also be located in a facing side beam 5 and pull the relevant awning 2 to the facing side beam 5 for rolling out the awning 2. Rolling up is then possible by means of a belt which is connected to the drive and the end bar 12 or alternatively by tensioning a torsion spring provided for that purpose when rolling out the awning 2.

[0038] As shown in this figure one awning 2 is intended for rolling out from the side beam 5 toward the ground using the second roller 15B and one awning 2 intended for rolling out from the side beam 5 toward the facing side beam 5 using the first roller 15A.

[0039] In this embodiment, the side beam 5 is executed in two halves 17A, 17B. The first roller 15A is provided in the first half 17A, whereas the second roller 15B is provided in the second half 17B.

[0040] Two halves 17A and 17B are understood to mean two parts that when composed, substantially form the side beam 5.

[0041] In this practical embodiment, the first roller 15A and second roller 15B are also located vertically above each other for obtaining a high but narrow side beam 5.

[0042] In this example, the second roller 15B is positioned vertically above the first roller 15A. Consequently a high space H remains between the awning 2 and the upperside of the side beam 5, whereby said space H can be used for applying panels 11 or the like, for example.

[0043] In this example, the shared screen casing 16 is provided with a removable cover plate 18 through which the first roller 15A and/or second roller 15B are easily accessible for mounting, inspection and maintenance.

[0044] It is understood that many different possible variants are possible. Although the shown examples also talk about awnings 2 that roll out from the side beams 5 and/or front beam 9 toward the ground this is not necessary.

[0045] Alternatively, only one awning 2 can be provided in one side beam 5. Whereby the length of said awning is such that the full width of the canopy can be blacked out.

[0046] The present invention is by no means limited to

the embodiments described as an example and shown in the figures, but a canopy with awning according to the invention can be realised in all kinds of forms and dimensions, without departing from the scope of the invention.

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two parallel beams (4) a third roller is provided to which one end of the awning (2) is attached and whereby at the facing end of the awning (2) an end bar (12) is provided which rolls out from the relevant bar (4) toward the ground or the other way around when rolling up the awning (2).

Claims

1. Canopy with awning, whereby the canopy (1) comprises a load-bearing structure (3) with at least two parallel beams (4), i.e. a front beam (9) and a rear beam(8), which are connected to each other by means of side beams (5), whereby the rear beam is intended for mounting against or to a façade of a building, whereby in at least one side beam (5) a first roller (15A) is provided to which one end of the awning (2) is attached and whereby at the facing end of the awning (2) an end bar (12) is provided, the ends of which are (13) guided using guides (14) provided at each of the at least two parallel beams (4) for guiding the end bar (12) from the side beam (5) with the first roller (15A) to the facing side beam (5) when rolling up and rolling out the awning (2) **characterised in that** in at least one side beam (5) a second roller (15B) is provided to which one end of the awning (2) is attached and whereby at the facing end of the awning (2) an end bar (12) is provided which from the side beam (5) with the second roller (15B) rolls out toward the ground or the other way around when rolling up the awning (2).

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2. Canopy according to claim 1, **characterised in that** the side beam (5) is provided with a removable cover plate (18) through which the first roller (15A) and/or the second roller (15B) is accessible.

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3. Canopy according to claim 2, **characterised in that** the side beam (5) is executed in two halves (17A, 17B) whereby the first roller (15A) is provided in the first half (17A) and whereby the second roller (15B) is provided in the second half (17B).

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4. Canopy according to any one of the previous claims 2 or 3, **characterised in that** the first roller (15A) and the second roller (15B) are positioned above each other in the side beam (5).

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5. Canopy according to claim 4, **characterised in that** the second roller (15B) is positioned above the first roller (15A).

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6. Canopy according to any one of the previous claims, **characterised in that** a series of panels (11) extend between the beams (4), for example glass panels, polycarbonate panels or sandwich panels.

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7. Canopy according to any one of the previous claims, **characterised in that** in at least one of the at least

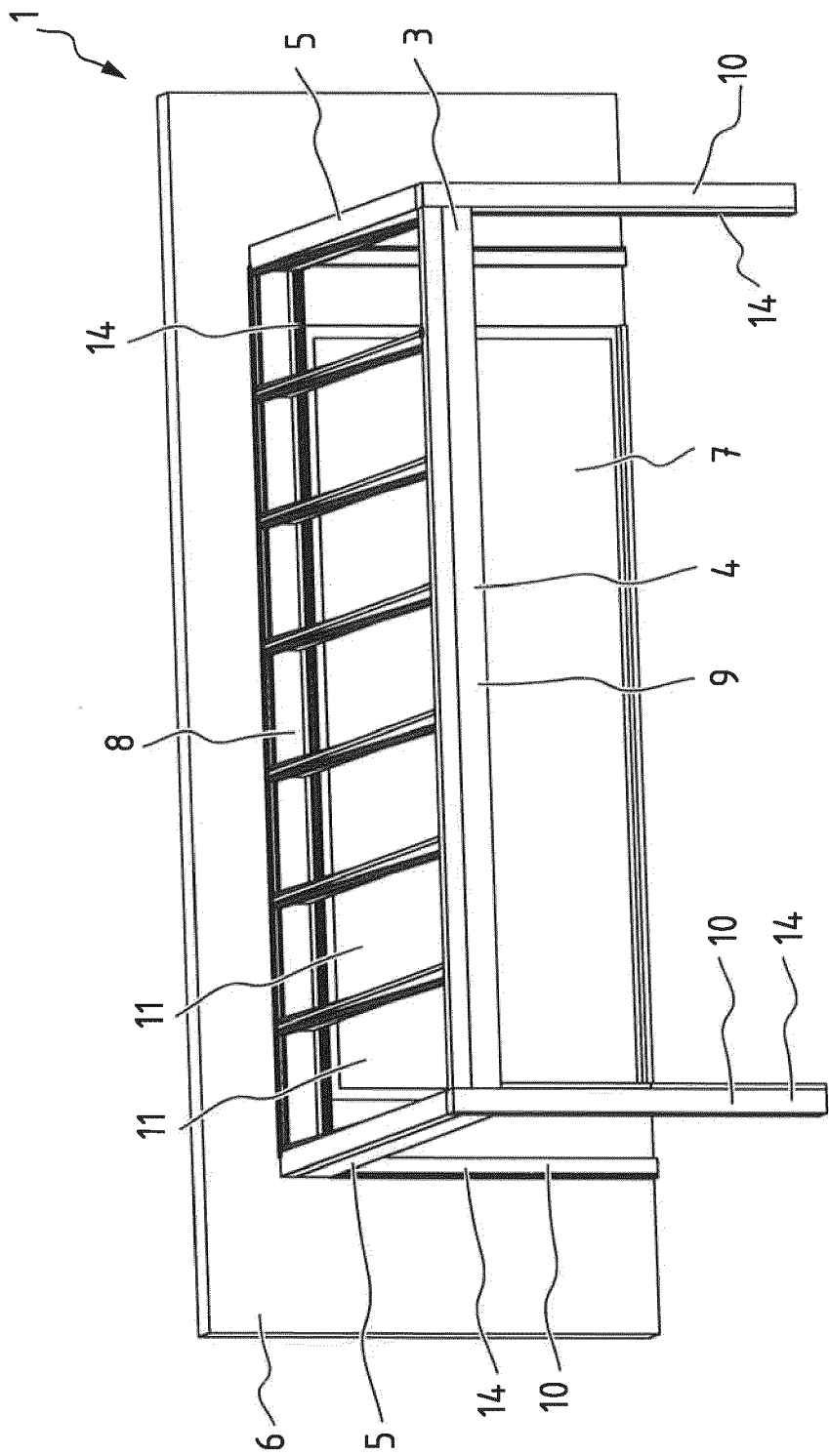


Fig. 1

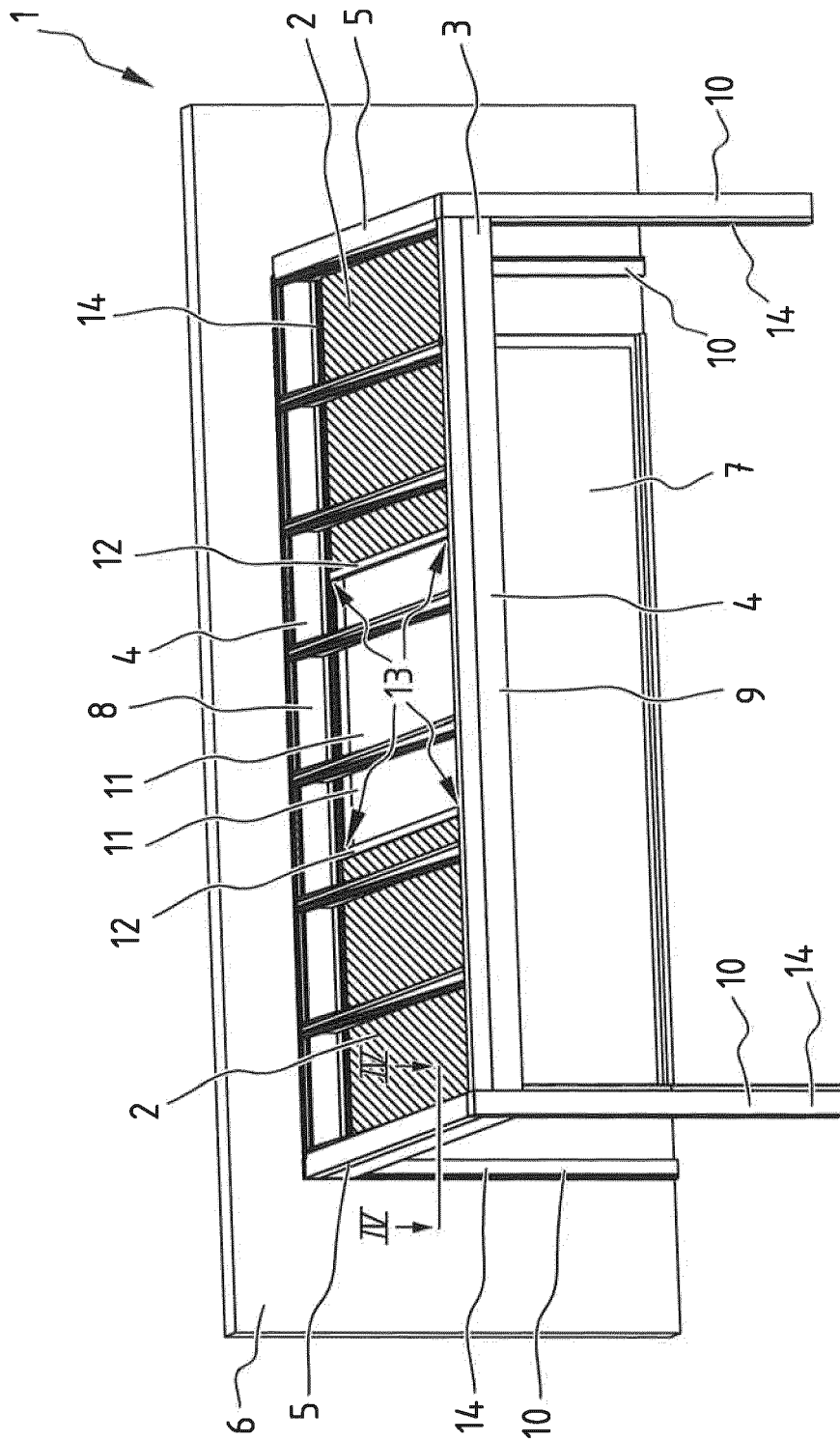


Fig. 2

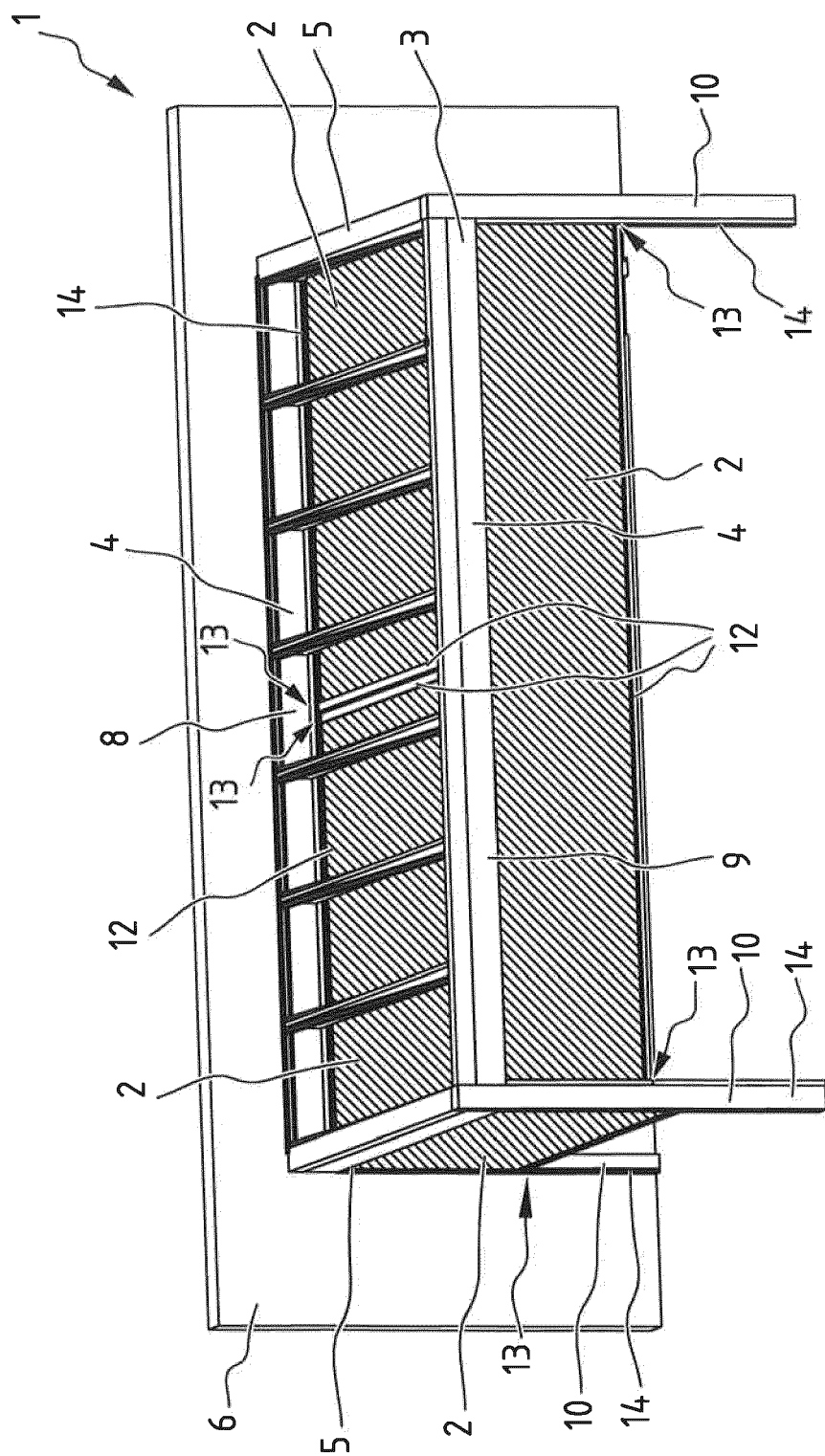
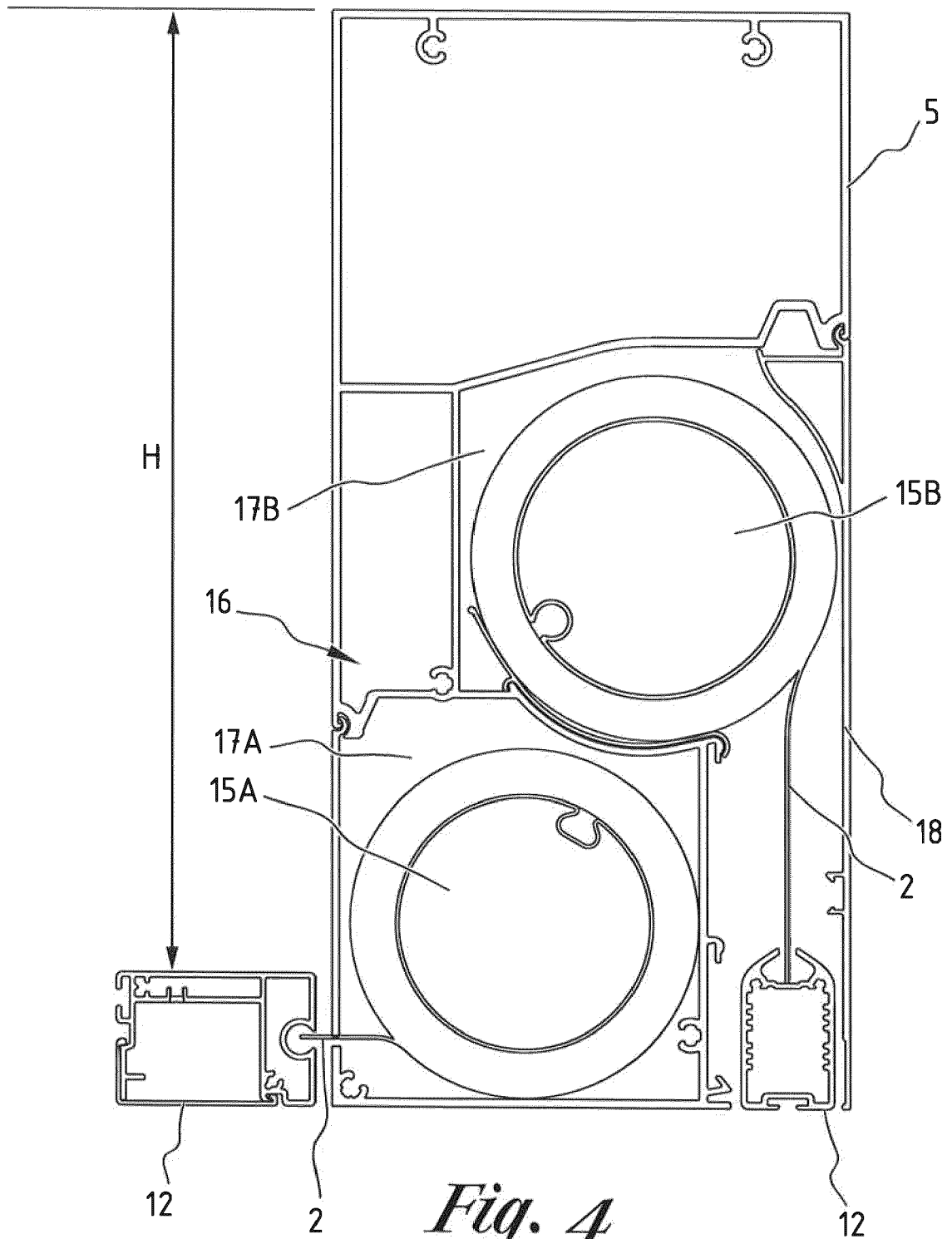


Fig. 3





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Application Number

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Place of search

Munich

Date of completion of the search

13 June 2024

Examiner

Cornu, Olivier

CATEGORY OF CITED DOCUMENTS

X : particularly relevant if taken alone
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ANNEX TO THE EUROPEAN SEARCH REPORT ON EUROPEAN PATENT APPLICATION NO.

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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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