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(54) **BRACKET FOR THE INSTALLATION OF A ROLLER BLIND IN THE SUBFRAME OF A WINDOW AND DEVICE THAT COMPRISES SUCH BRACKET**

(57) A bracket for the installation of a sunshade awning in the subframe of a window and a device that comprises such bracket. The bracket is constituted by a plate-like element to be affixed to one end of an elongated roller for winding the sunshade thereon, to be coupled with another bracket (11) which is pre-installed in the subframe of the window. The bracket (10) for the roller has:

- at least two tabs (12), protruding from opposite edges, with which it is adapted to slide within anti-tipping vertical guides (13) defined in the bracket (11) for the subframe during the adjustment of the height of the roller,
- at least one elongated hole (14), parallel with the edges, for affixing by way of screws to the bracket (11) for the subframe.

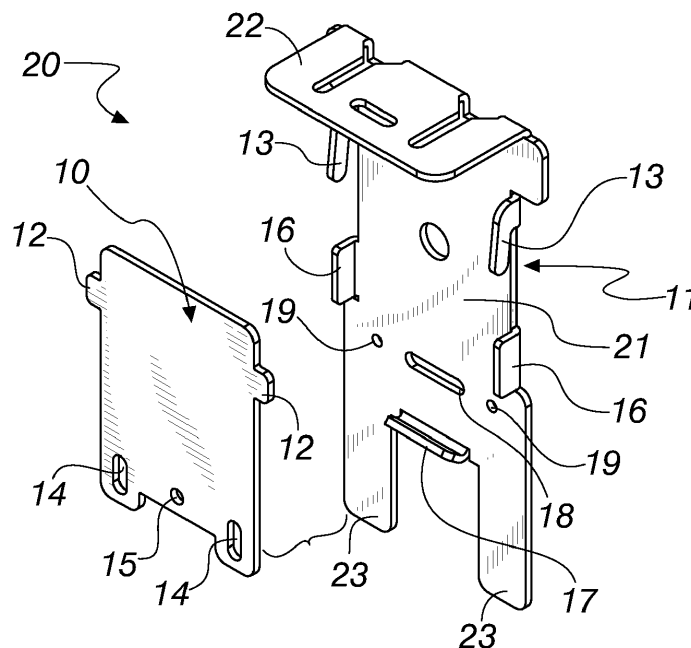


Fig. 1

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Description

[0001] The present invention relates to a bracket for the installation of a sunshade awning in the subframe of a window and a device that comprises such bracket.

[0002] The use is widespread of sunshade awning systems that comprise a sunshade to be wound on an elongated roller, to be fitted inside the subframe of the windows.

[0003] The installation of these systems occurs in two steps: brackets are fixed on opposite sides of the subframe and the roller is coupled to the brackets, at its opposite ends.

[0004] Usually each bracket has a hole into which to insert a pin that protrudes from the ends of the roller of the awning, or conversely is provided with a protruding pin to be inserted into a hole in the end of the roller.

[0005] Installation is often difficult for installation technicians because the width of the sunshade fabric is greater than the light aperture of the window, and the operations it requires must be carried out from below, while at the same time requiring the installation technician to support the roller in the restricted space of the subframe.

[0006] As an alternative, for each side two brackets are used, one to be affixed to a wall and the other to be affixed to one end of the roller, and are conveniently provided with mutual coupling elements that make it possible for the installation technician to place the roller on the wall-mounted bracket in order to then proceed to affix the two brackets.

[0007] This solution too is not devoid of drawbacks, because the affixing must occur by way of adapted affixing means such as screws and the like, an operation during which the roller, owing to its weight and its elongated shape, tends to tip over outward, thus still requiring the installation technician to support it stably.

[0008] The aim of the present invention is to provide a bracket for the installation of a sunshade awning in the subframe of a window and a device that comprises such bracket, which are capable of improving the known art in one or more of the aspects indicated above.

[0009] Within this aim, an object of the invention is to facilitate the installation of sunshade awnings to be installed in the subframe of windows.

[0010] Another object of the invention is to keep the roller stable during the affixing to the subframe.

[0011] Another object of the invention is to adjust for the preinstalled subframe if it is out-of-square.

[0012] Furthermore, another object of the present invention is to overcome the drawbacks of the known art in an alternative manner to any existing solutions.

[0013] Another object of the invention is to provide a device that is highly reliable, easy to implement and low cost.

[0014] This aim and these and other objects which will become better apparent hereinafter are achieved by a bracket for the installation of a sunshade awning in the subframe of a window according to claim 1, optionally

provided with one or more of the characteristics of the dependent claims.

[0015] Further characteristics and advantages of the invention will become better apparent from the description of the bracket according to the invention, which is illustrated for the purposes of non-limiting example in the accompanying drawings wherein:

Figure 1 is an exploded perspective view of a bracket according to the invention and a device that comprises the bracket;

Figure 2 shows the device in a step of its assembly; Figure 3 shows the device in another step of assembly;

Figure 4 shows the device and an end portion of the roller to which it is affixed.

[0016] With reference to the figures, the bracket according to the invention, generally designated by the reference numeral 10, is constituted by a plate-like element to be affixed to one end of an elongated roller 30 for winding a sunshade thereon, to be coupled with another bracket 11 which is pre-installed in the subframe of the window.

[0017] The bracket 10 has:

- at least two tabs 12, protruding from opposite edges, with which it is adapted to slide within anti-tipping vertical guides 13 defined in the bracket 11 for the subframe, as can be seen in Figure 3, during the adjustment of the height of the roller,
- at least one elongated hole 14, parallel with the edges (two in the case shown and provided symmetrically near opposing edges of the plate-like element) for affixing by way of screws 31 to the bracket 11 for the subframe, and optionally for adjusting it if the subframe is out-of-square.

[0018] For the sake of simplicity the roller 30 and screws 31 are shown only in Figure 4.

[0019] On the bracket 10 there is also at least one hole 15 (provided centrally between the holes 14) for inserting a pointed tool during the installation operations.

[0020] The invention also relates to a device 20 that comprises the bracket 10 for the roller and the bracket 11 for the subframe.

[0021] The bracket 11, which is also plate-like, is cut from sheet metal and folded to resemble an upside-down L in the subframe of a window, and has:

- anti-tipping vertical guides 13 for the two tabs 12 of the bracket 10 for the roller,
- two lateral tabs 16, one per side, for containing the plate-like element of the bracket 10 for the roller, which are folded toward the side opposite the side for fixing to the subframe,
- at least one cantilevered portion 17, in the lower part, for resting the bracket 10 for the roller,

- at least two holes 19 for affixing, by way of screws, the bracket 10 for the roller at its elongated hole 14 parallel to the edges.

[0022] The bracket 11 also has at least one elongated hole 18 corresponding to the hole 15 of the bracket 10 for the passage of a pointed tool.

[0023] The two anti-tipping vertical guides 13 are defined by two elements shaped like an upside-down L, which are provided at the opposing outer edges of the bracket 11 when the sheet metal is cut, and are folded toward the side opposite the side for fixing to the subframe. The two tabs 12 of the bracket 10 are adapted to slide upward from below behind the upside-down L-shaped elements.

[0024] As anticipated, the bracket 11 for the subframe is shaped like an upside-down L in cross-section. In particular it has a first portion 21 and a second portion 22 respectively to be affixed vertically and horizontally to the subframe.

[0025] Furthermore, the first portion 21 has two symmetric protrusions 23 on opposite sides, directed away from the second portion 22 and substantially downward, for aligning the guide on which the fabric of the awning slides.

[0026] Use of the bracket and of the device is the following.

[0027] Figures 2 and 3 show the coupling of the two brackets, in succession.

[0028] The bracket 10, integral with the roller 30 of the awning (the end of which is shown in Figure 4), is placed on the cantilevered portion 17.

[0029] The roller is then rotated about the point at which it rests on the bracket 11 of the subframe, modifying its inclination until the vertical position is reached. Figure 2 shows the rotation of the bracket 10 and Figure 3 shows how at the end of this operation it is placed frontally on the bracket 11 of the subframe.

[0030] Subsequently the roller is made to translate upward (in this step the tabs 12 slide in the guides 13) until it reaches the correct position in the subframe.

[0031] The guides 13 and the lateral tabs 16 facilitate the correct coupling of the brackets and prevent any accidental tipping of the roller before the affixing of the two brackets.

[0032] The brackets 10 and 11 are then mutually affixed by way of screws at the slots and at the holes.

[0033] Figure 4 shows an example of a bracket 10 supporting a pin 32 designed to be inserted into the end portion of the roller 30, by way of which the bracket 10 is coupled to the roller 30.

[0034] Alternatively, the roller 30 can be provided at its end with a motor, with a fixed contoured portion designed to be coupled with a complementarily-shaped protrusion of the bracket 10.

[0035] In practice it has been found that the invention fully achieves the intended aim and objects by providing a bracket and a device for making it easier to install a

sunshade awning in the subframe of a window, while preventing accidental unbalancing of the roller supporting the awning.

[0036] The invention, thus conceived, is susceptible of numerous modifications and variations, all of which are within the scope of the appended claims. Moreover, all the details may be substituted by other, technically equivalent elements.

[0037] In practice the materials employed, provided they are compatible with the specific use, and the contingent dimensions and shapes, may be any according to requirements and to the state of the art.

[0038] The disclosures in Italian Utility Model Application No. 202017000107273 from which this application claims priority are incorporated herein by reference.

[0039] Where technical features mentioned in any claim are followed by reference signs, such reference signs have been included for the sole purpose of increasing the intelligibility of the claims and accordingly, such reference signs do not have any limiting effect on the interpretation of each element identified by way of example by such reference signs.

Claims

1. A bracket for the installation of a sunshade awning in the subframe of a window, which is constituted by a plate-like element to be affixed to one end of an elongated roller for winding the sunshade thereon, to be coupled with another bracket (11), pre-installed in the subframe of the window, said bracket (10) for the roller being **characterized in that** it has:

- at least two tabs (12), protruding from opposite edges, with which it is adapted to slide within anti-tipping vertical guides (13) defined in said bracket (11) for the subframe during the adjustment of the height of said roller,
- at least one elongated hole (14), parallel with the edges, for affixing by way of screws to said bracket (11) for the subframe.

2. A device that comprises a bracket (10) according to claim 1, **characterized in that** it also comprises another plate-like bracket (11) which is folded to resemble an upside-down L in the subframe of a window, and has:

- anti-tipping vertical guides (13) for said two tabs (12) of said bracket (10) for the roller,
- at least one side tab (16), at least one per side, for containing the plate-like element of said bracket (10) for the roller, which are folded toward the side opposite the side for fixing to the subframe,
- at least one cantilevered portion (17), in the lower part, for resting said bracket (10) for the

roller,

- at least two holes (19) for affixing, by way of screws, said bracket (10) for the roller at its said at least one elongated hole (14) parallel to the edges.

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3. The device according to claim 2, **characterized in that** said bracket (11) for the subframe is shaped like an upside-down L in cross-section, with a first portion (21) and a second portion (22) respectively to be affixed vertically and horizontally to the sub-frame.

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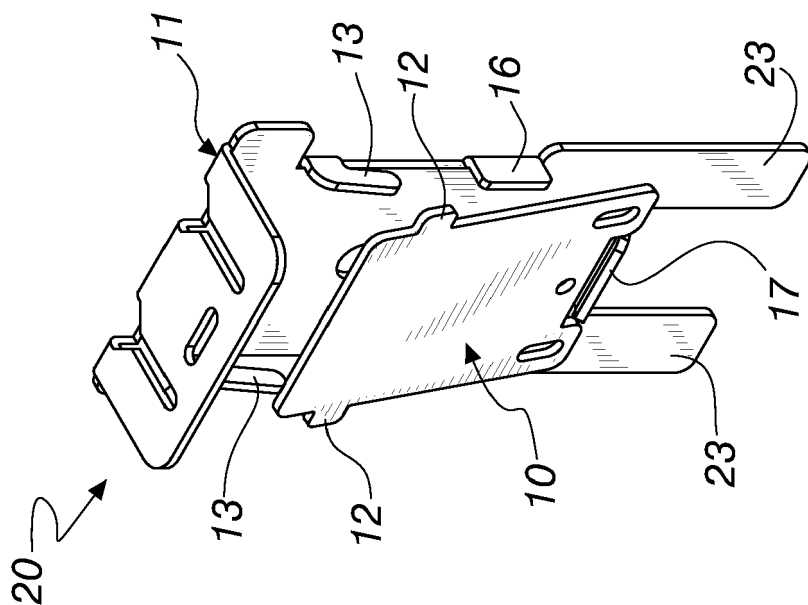


Fig. 2

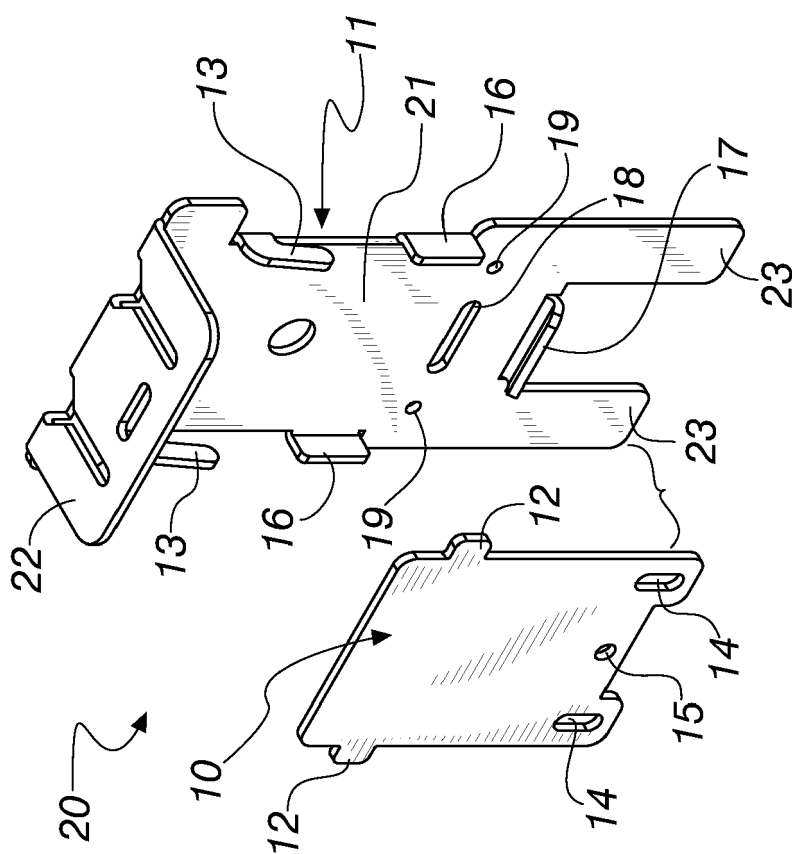
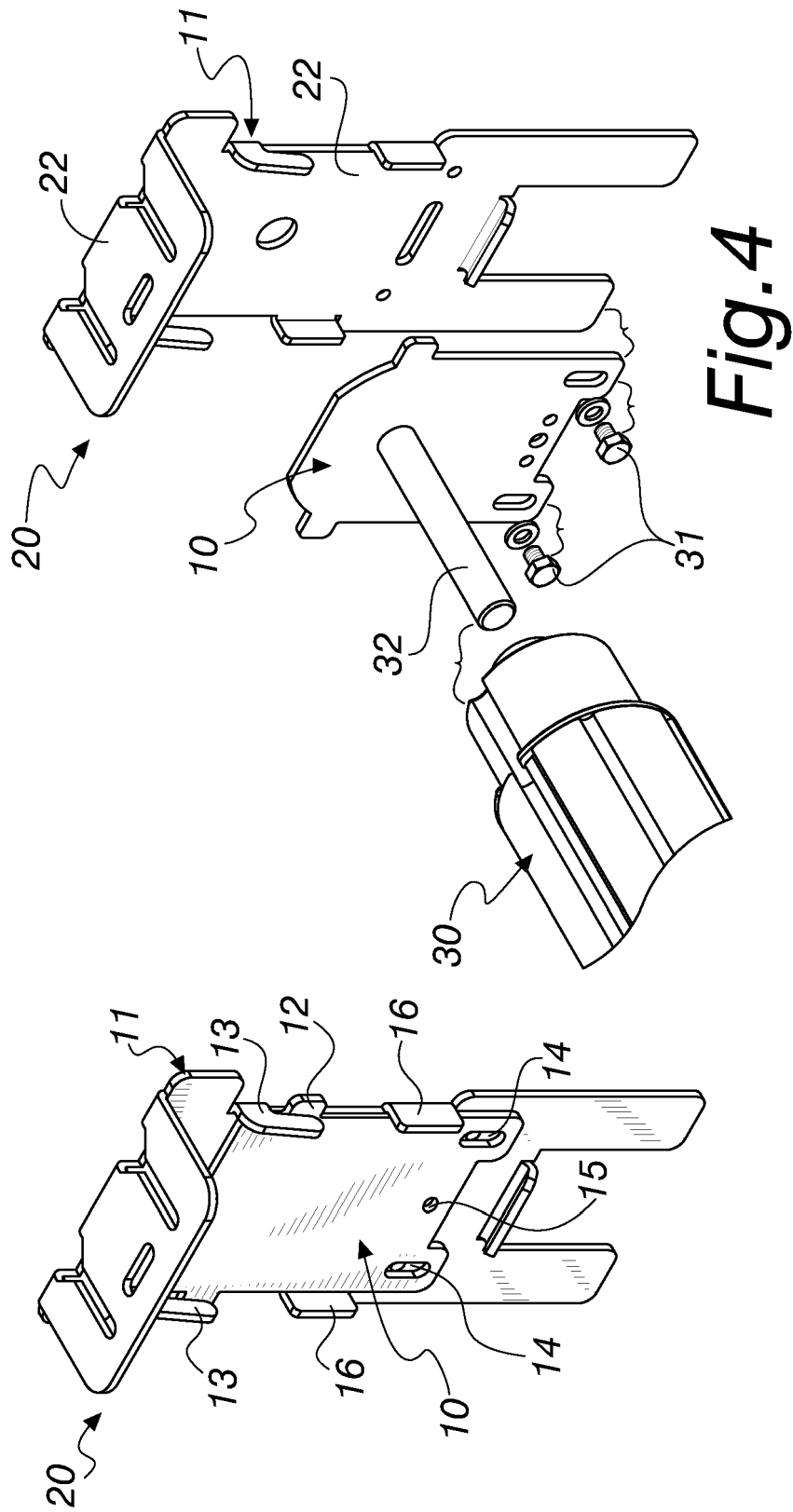


Fig. 1





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Application Number
EP 18 19 1522

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Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (IPC)
X	SE 415 904 B (JUNG AB STIG) 10 November 1980 (1980-11-10) * figures 1A-3B *	1-3	INV. E06B9/50
A	US 2017/247943 A1 (NG PHILIP [CA] ET AL) 31 August 2017 (2017-08-31) * figure 5 *	1-3	
A	JP 2004 204452 A (TACHIKAWA BLIND MFG) 22 July 2004 (2004-07-22) * figures 1-4 *	1	
			TECHNICAL FIELDS SEARCHED (IPC)
			E06B
The present search report has been drawn up for all claims			
Place of search Munich		Date of completion of the search 5 February 2019	Examiner Tänzler, Ansgar
CATEGORY OF CITED DOCUMENTS X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document		T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document	

EPO FORM 1503 03/82 (P04C01)

**ANNEX TO THE EUROPEAN SEARCH REPORT
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For more details about this annex : see Official Journal of the European Patent Office, No. 12/82

REFERENCES CITED IN THE DESCRIPTION

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- IT 202017000107273 [0038]