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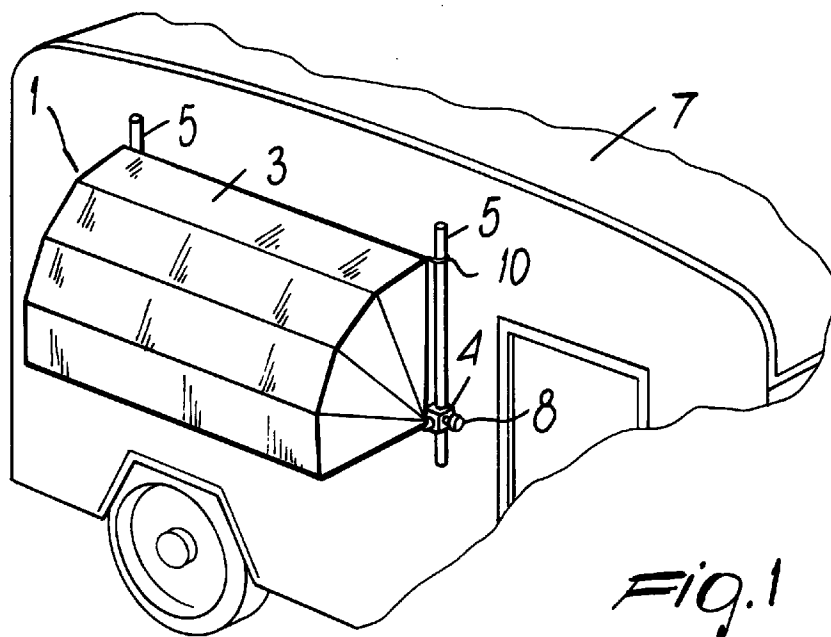
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**(54) Awning, particularly for caravans, campers, and the like**

(57) An awning particularly for caravans, campers, and the like, comprising a supporting frame (2) for an awning canvas that can be opened in a substantially fan-like fashion, the awning comprising means (4) for supporting the frame at a window and the like that provide a

first coupling position, in which the awning canvas, in open position, has a downward-facing concavity, and a second coupling position, in which the awning canvas, in open position, has an upward-facing concavity.



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## Description

The present invention relates to an awning, particularly for caravans, campers, and the like.

Conventional caravans, campers, and the like usually have windows provided, generally in summer, with an awning to protect the inside of the living compartment against sun and strong light.

Awnings are conventional screens against sun rays, which are fixed to the outside walls of the vehicle and usually have a curved shape, with the concave part facing downward, since sun rays usually fall from above.

In a camping site, caravans and campers are generally parked in spaces that are equipped, to varying extents, with a connection to electrical power and to other utilities, and are arranged in a loosely ordered fashion next to one other; accordingly, the windows of neighboring caravans are side by side.

This closeness causes the occupants of a caravan or camper to see, in practice, the inside of the adjacent caravan or camper, with a consequent lack of privacy.

In this situation, it is normal for a person who is camping to be forced to also use inside curtains to prevent viewing from outside, thus contrasting with the typical way of thinking of the camping person, which is to live in contact with nature and not be conditioned by the more or less prying looks of other people.

A principal aim of the invention is indeed to solve the above described problem, providing an awning particularly for caravans, campers, and the like, that allows to prevent prying looks into the caravan or camper, without thereby preventing the light from entering and without having to use the internal curtains that normally limit air circulation.

Within the scope of the above aim, a particular object of the invention is to provide an awning that ensures privacy even when caravans and campers are arranged side by side in a camping site.

Another object of the present invention is to provide an awning that in practice allows to increase the useful volume of the environment, without giving a sense of constriction but on the contrary attracting one's feelings outward.

Another object of the present invention is to provide an awning that can be easily folded so that it does not occupy large spaces when it is stored after use.

This aim, these objects, and others which will become apparent hereinafter are achieved by an awning particularly for caravans, campers, and the like, that comprises a supporting frame for an awning canvas that can be opened in a substantially fan-like fashion, according to the invention, characterized in that it comprises means for supporting said frame at a window and the like that provide a first coupling position, in which said awning canvas, in open position, has a downward-facing concavity, and a second coupling position, in which said awning canvas, in open position, has an upward-facing concavity.

Further characteristics and advantages of the invention will become apparent from the following detailed description of a preferred but not exclusive embodiment of an awning particularly for caravans, campers, and the like, illustrated only by way of non-limitative example in the accompanying drawings, wherein:

figure 1 is a view of a first embodiment of the awning according to the invention, in the position for protecting against sun rays;

figure 2 is a view of the awning of figure 1, arranged so as to allow light to enter and prevent access to prying eyes;

figure 3 is a schematic perspective view of a further embodiment of the awning according to the invention;

figures 4 and 5 are views of the supporting means of the awning, respectively in the uncoupled and in the coupled positions;

figure 6 is a view of the step for folding the frame of the awning;

figures 7 and 8 are partially sectional views of the hinge means for folding the awning;

figure 9 is a schematic view of the awning, arranged so as to shelter from sun rays;

figure 10 is a schematic view of the awning, arranged so as to allow light to enter;

figures 11 and 12 are views of the pivoting means of the U-shaped elements, in open position and in closed position respectively.

With reference to the above figures, and particularly to figures 1 and 2, the awning according to the invention, generally designated by the reference numeral 1, comprises a supporting frame 2 for an awning canvas 3.

The supporting frame is preferably but not necessarily constituted by U-shaped elements which, at their free end, are pivoted to a block 4 so as to provide a fan-shaped opening and closure of the awning.

The awning supporting means are provided by the blocks 4, which are connected to vertical guiding bars 5 arranged adjacent to the window 6 formed on a caravan or the like 7, and can be locked in the selected position by means of a knob 8.

Engagement elements 10 are furthermore provided to fix to the guiding bars the end of the frame lying opposite to the one pivoted to the blocks 4.

The blocks 4 are slideable along the guiding bars and allow to arrange the awning in a first position, shown in figure 1, in which the awning canvas, in open position, has a downward-facing concavity, and in a second position, in which the awning canvas, in open position, has an upward-facing concavity.

The awning, with the arrangement shown in figure 1, does not prevent more or less prying looks to see, from outside, the internal part of the caravan, and therefore privacy of the occupants is not provided, whereas with the arrangement of figure 2 the awning neutralizes the more or less prying looks of people located outside the

caravan, ensuring privacy and allowing light and air to enter.

According to a different embodiment, which is linked conceptually to the preceding one, the awning for caravans, campers, and the like according to the invention has a frame 2 in which the various U-shaped elements, generally designated by the reference numeral 11, have, at the ends of the arms 11a, pivoting means constituted by pivoting and rotation-limiting blocks, designated by the reference numeral 12, having inclined edges 12a which, by mutually coupling, limit the angle of divarication between the adjacent elements 11, thus constituting a stroke limiter without having to resort to the conventional chain or wire elements that mutually join the various elements 11.

Furthermore, the means for supporting the frame 2 are provided by means of protrusions 20 formed on an external element 11 and end with an expansion 21 insertable in the enlarged part 22 of a slot 23 that is provided with a tapered part 24, so that once the expansion 21 has been inserted, locking is achieved by inserting the protrusion 20 in the narrow part of the slot.

The protrusions 20 are formed symmetrically on the arm 11a, so that it is possible to install the awning either with its concavity facing downward, as shown in figure 3 and in figure 9, or with its concavity facing upward, as shown schematically in figure 10.

In order to keep the awning stretched and ensure opening in the position with the concavity facing upward, as shown in figure 10, there are caliper-like elements 30 that join the externally-arranged U-shaped elements 11 and, being provided with a locking tooth or the like 31, constitute in practice a strut that prevents the accidental closure of the elements 11 but allows to rotate the elements 11 in the direction for closing the awning by acting first on the caliper-like elements.

Furthermore, in order to store the awning more easily when it is not used, the arms 11a can be folded onto the central part 11b of the elements 11 by virtue of the presence of hinge elements 40, illustrated more clearly in figures 7 and 8, that have a male coupling element 41 fitting between two female coupling elements 32 that are shaped so that they have a portion 43 that is concentric to the pivot 44 and an abutment portion 45 that can engage the coupling region 46, so as to provide, as shown in figure 7, the alignment of the arm in abutment, while allowing a 90° folding, as shown in figure 8.

According to what is shown in figures 11 and 12, the means for pivoting the U-shaped elements can be constituted by a box-like body 50 that supports pivots or the like 51 for pivoting the arms 11a of the U-shaped elements 11.

From the above description it is thus evident that the invention achieves the intended aim and objects, and in particular the fact is stressed that the solution of providing an awning that can be arranged with its concavity facing downward or facing upward allows to solve, with a single element, protection against sun rays and, when

required, protection of one's privacy simply by inverting said awning.

It should be noted that the awning, in inverted position, allows optimum ventilation of the internal space of the camper or caravan, and furthermore allows the availability of an extra space, formed by the internal surface of the awning, which in practice increases the useful space of the camper or caravan.

With the awning arranged so that its concavity faces upward, it is also possible to lay out laundry, in the space delimited by the awning, without it being visible from outside, furthermore providing a region that is protected from dust and in which a flow of air is conveyed for facilitating the drying of the laundry.

The invention thus conceived is susceptible of numerous modifications and variations, all of which are within the scope of the inventive concept.

All the details may furthermore be replaced with other technically equivalent elements.

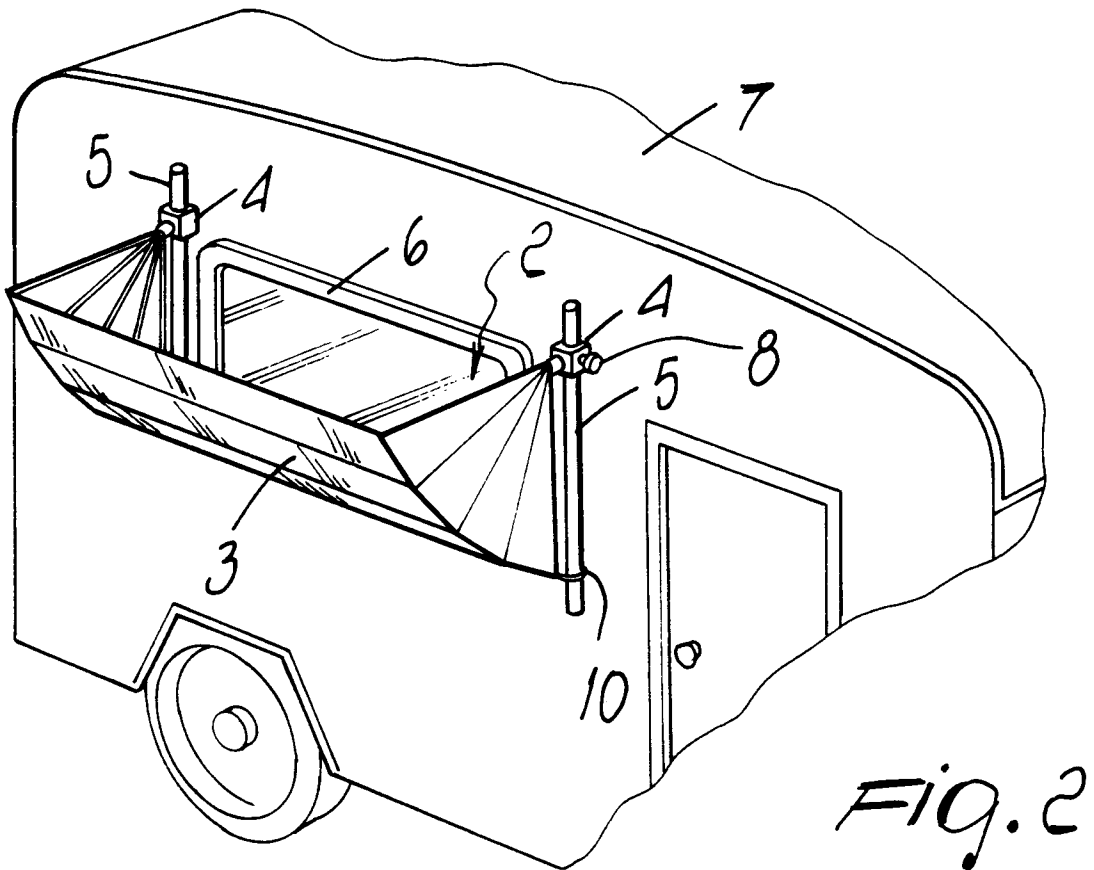
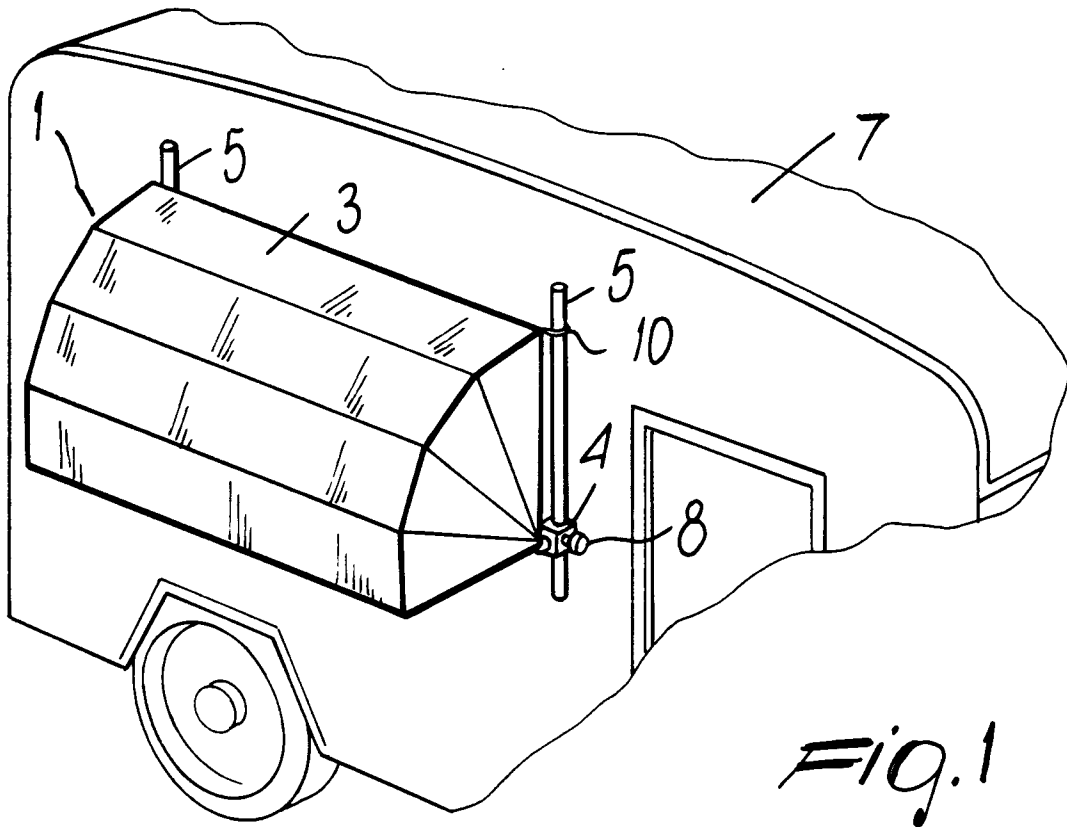
In practice, the materials employed, so long as they are compatible with the specific use, as well as the contingent shapes and the dimensions, may be any according to the requirements.

Where technical features mentioned in any claim are followed by reference signs, those 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. Awning particularly for caravans, campers, and the like, comprising a supporting frame (2) for an awning canvas that can be opened in a substantially fan-like fashion, characterized in that it comprises means (4) for supporting said frame (2) at a window (6) and the like that provide a first coupling position, in which said awning canvas (1), in open position, has a downward-facing concavity, and a second coupling position, in which said awning canvas (1), in open position, has an upward-facing concavity.
2. Awning according to claim 1, characterized in that said supporting means comprise blocks (4) to which the free ends of substantially U-shaped elements (11) are pivoted, said U-shaped elements (11) constituting said supporting frame (2), said blocks (4) being slidably associated with vertical guides (5) arranged adjacent to a window (6) and the like.
3. Awning according to the preceding claims, characterized in that it comprises engagement elements (10) to connect to said vertical guides (5) the end of the substantially U-shaped element that lies opposite to said blocks (4).

4. Awning according to one or more of the preceding claims, characterized in that said frame (2) is constituted by a plurality of substantially U-shaped elements (11) having, at the ends of the arms (11a) of each element, mutual pivoting blocks (12) provided with inclined edges (12a) for limiting the divarication angles between the adjacent U-shaped elements. 5
5. Awning according to one or more of the preceding claims, characterized in that said supporting means of said frame (2) comprise protrusions (20) that are formed on an external U-shaped element (11) and end with at least one expansion (21) that is insertable in a shaped slot (23) arranged adjacent to said window (6). 10 15
6. Awning according to one or more of the preceding claims, characterized in that said shaped slot (23) has an enlarged portion (22) in which said expansion (21) is insertable, said enlarged portion (22) being flanked by a tapered part (24) in which it is possible to insert the connecting portion of said expansion (21) that is retained by said tapered part (24). 20 25
7. Awning according to one or more of the preceding claims, characterized in that it comprises two protrusions (20) arranged symmetrically on each one of the arms (11a) of the external U-shaped element (11). 30
8. Awning according to one or more of the preceding claims, characterized in that it comprises means (30) for retaining said U-shaped elements (11) in open position. 35
9. Awning according to one or more of the preceding claims, characterized in that said retention means comprise caliper-like elements (30) that are pivoted between the U-shaped elements (11) arranged externally and are adapted to form a strut to prevent the accidental closure of said U-shaped elements (11). 40
10. Awning according to one or more of the preceding claims, characterized in that it comprises hinge means (40) for folding said arms (11a) onto the central portion (11b) of said U-shaped elements (11). 45
11. Awning according to one or more of the preceding claims, characterized in that said hinge means (40) are constituted by a male coupling element (41) insertable between female coupling elements (32), said coupling elements (32) having a portion that is shaped so as to form a segment (43) that is concentric, with respect to the pivot (44), and is flanked by an abutment portion (45) that can engage the coupling region (46) of said coupling elements (41,32) 50 55
12. Awning particularly for caravans, campers, and the like, comprising a supporting frame (2) for an awning canvas that can be opened in a substantially fan-like fashion, having a plurality of U-shaped elements (11) that are mutually pivoted at the free ends of the arms (11a) of said U-shaped elements (11), characterized in that it comprises hinge means (40) for folding said arms (11a) on the central portion (11b) of said U-shaped elements (11). to act as an element for aligning the two hinge means (40).



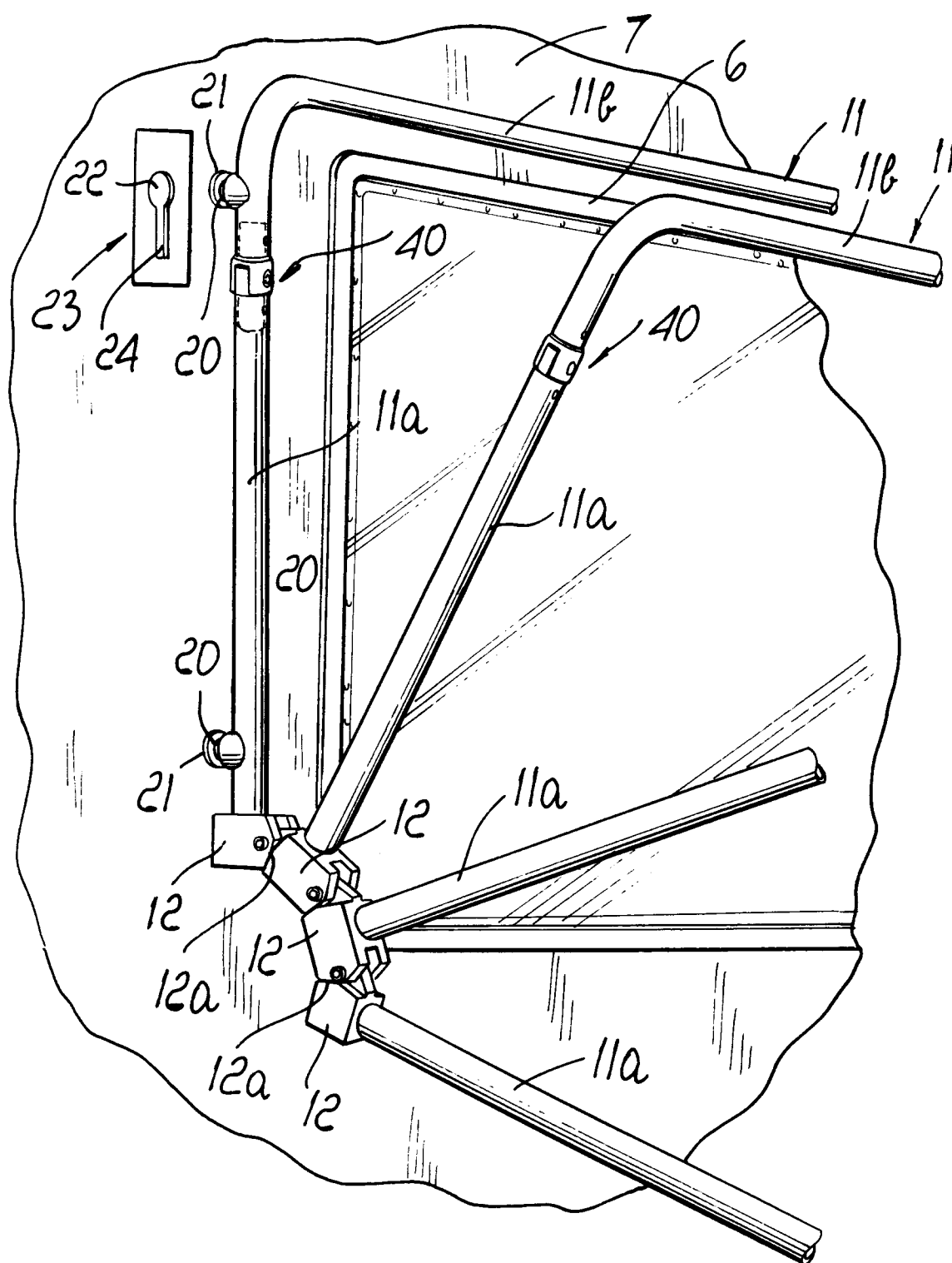
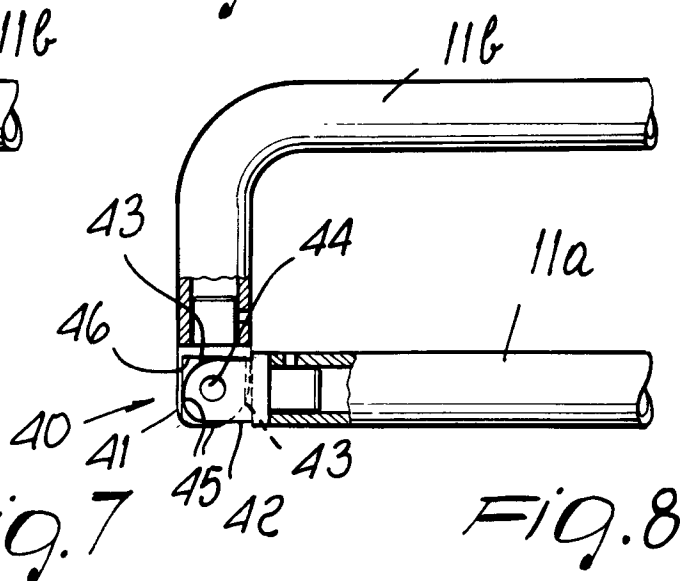
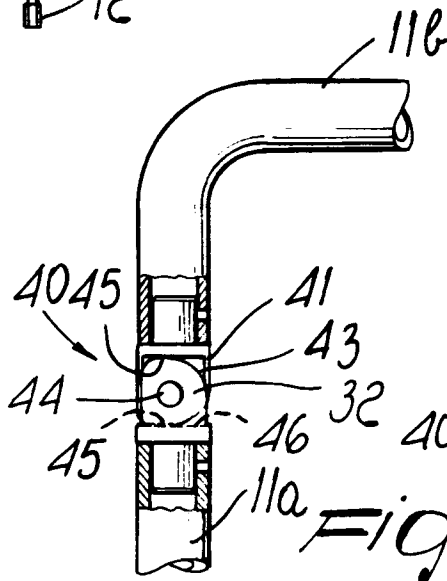
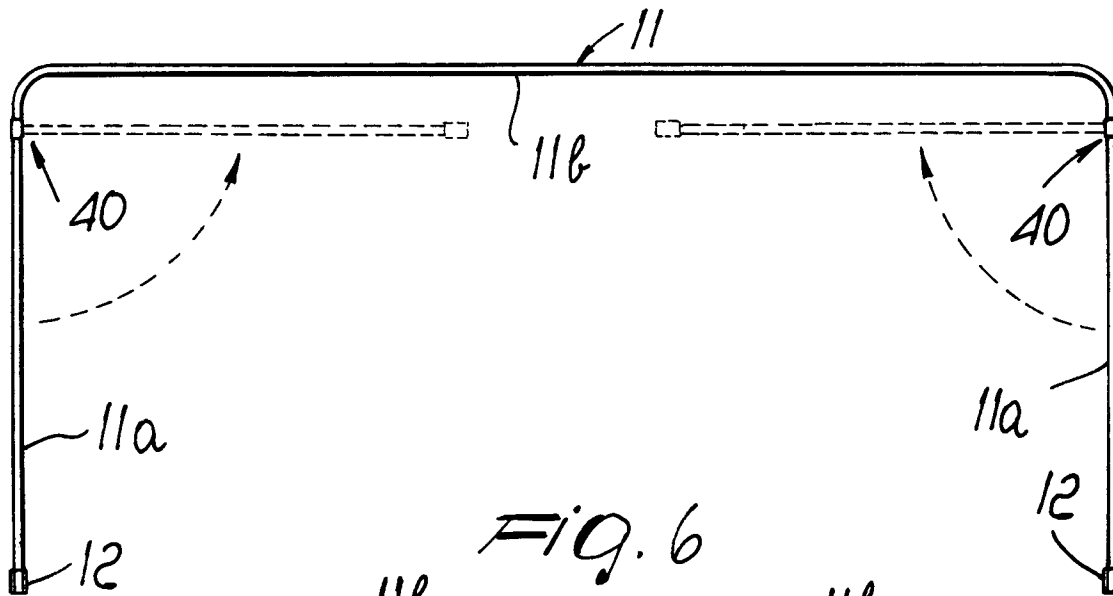
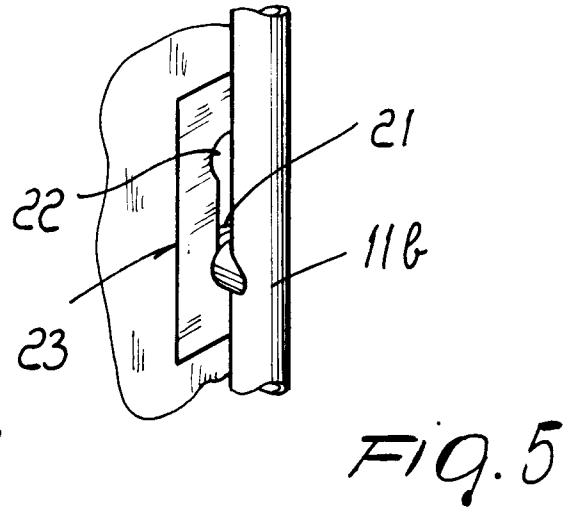
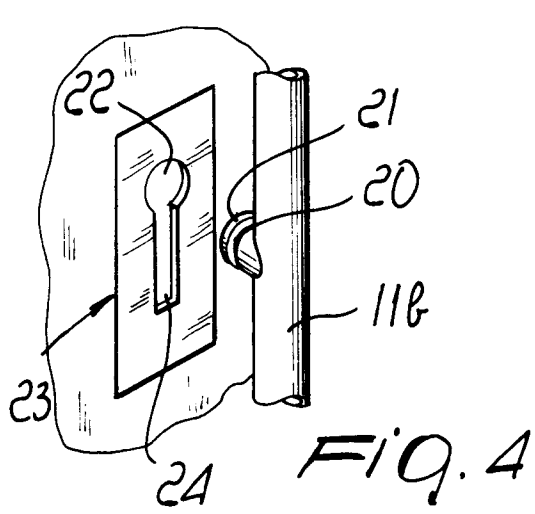
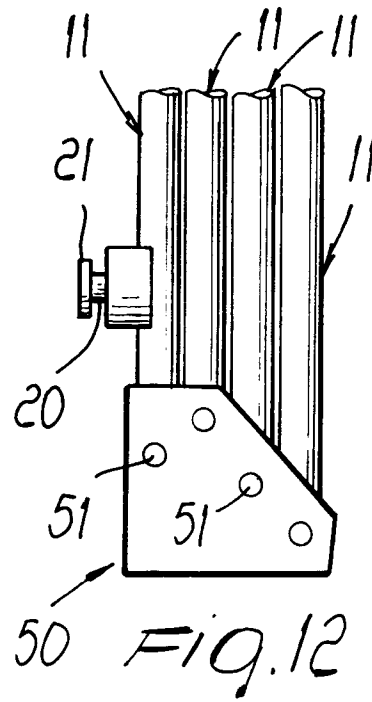
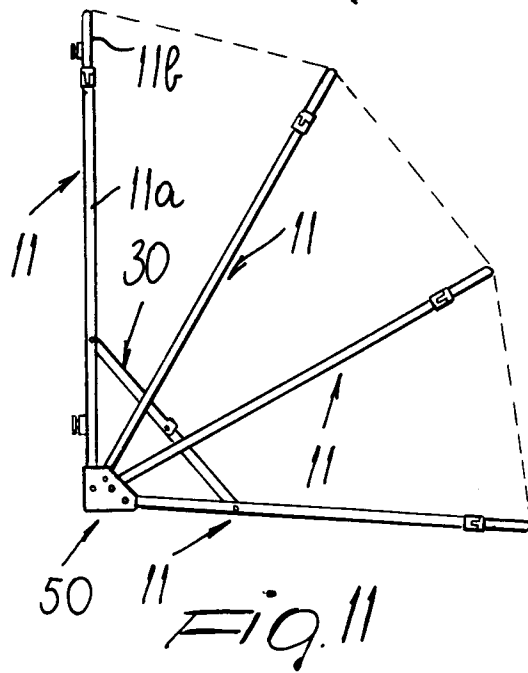
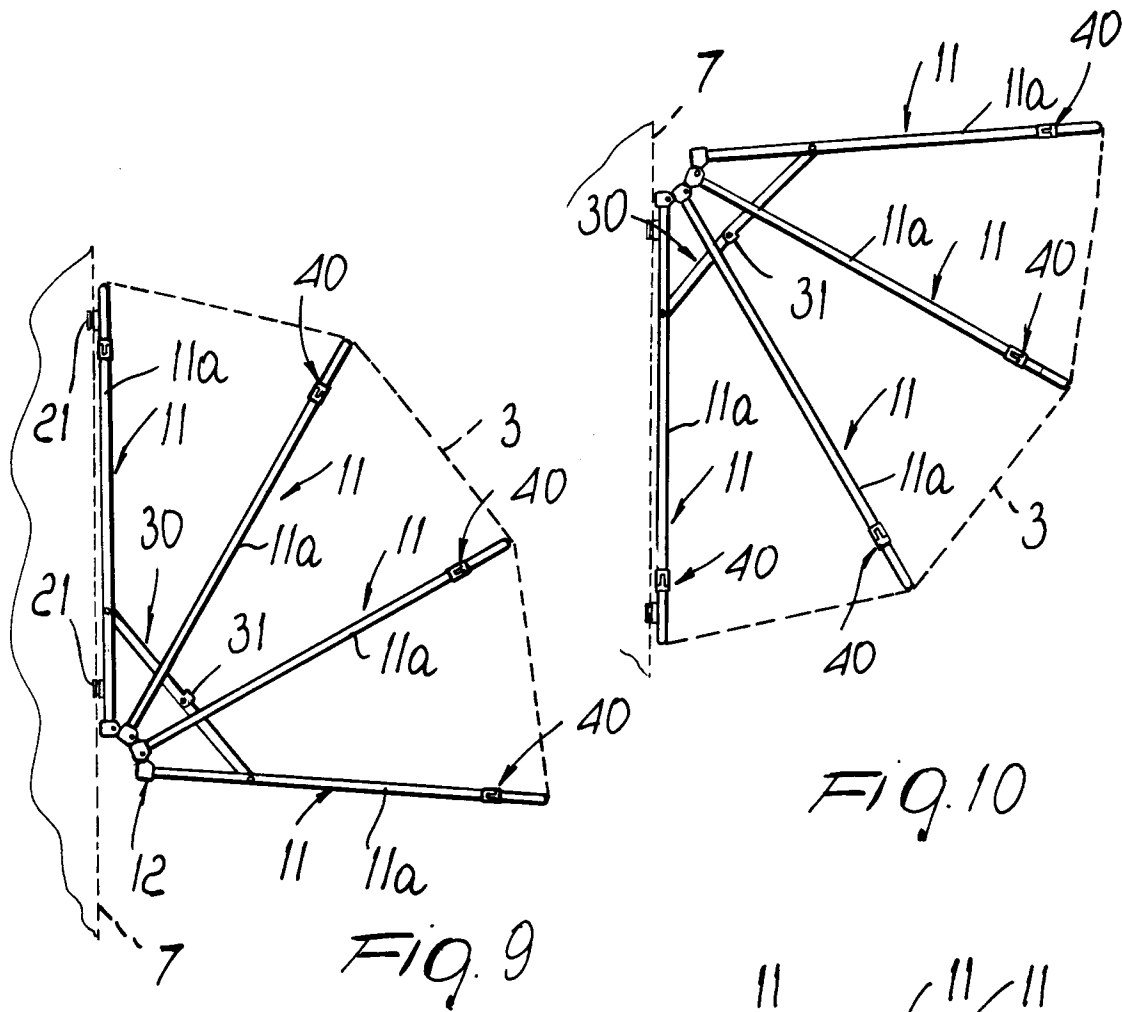


Fig. 3







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## EUROPEAN SEARCH REPORT

Application Number  
EP 95 11 8218

DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int.Cl.6)
X	DE-A-15 80 419 (MUSCULUS) 23 December 1970 * page 1, line 16 - line 32; figure 1 * ---	1	E04H15/08 B60P3/34
X	FR-A-2 348 339 (HERCOVICI) 10 November 1977 * page 2, line 5 - line 37; figures 1-4 * ---	12	
X	GB-A-2 085 953 (PERCO AWNINGS LTD.) 6 May 1982 * page 1, line 75 - line 115; figures 1-3 * ---	12	
A		2	
A	DE-A-31 37 958 (BENKENDORFF) 9 June 1983 * page 3, line 23 - line 29; figures 1-3,10,11 * -----	1	
			TECHNICAL FIELDS SEARCHED (Int.Cl.6)
			E04H B60P E04F
The present search report has been drawn up for all claims			
Place of search THE HAGUE		Date of completion of the search 23 January 1996	Examiner Kergueno, J
<p><b>CATEGORY OF CITED DOCUMENTS</b></p> <p>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</p> <p>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 ----- &amp; : member of the same patent family, corresponding document</p>			

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