AWNING STRAP TIE DOWN COMPONENT

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ABSTRACT
A method of securing an awning strap of a recreational vehicle to an awning support arm comprising the steps of extending an end of an awning strap proximate to an awning support arms and inserting a first loop retaining end of a device into a loop at the end of the awning strap and inserting a second end of the device into an awning support arm positioning hole. Also an apparatus for securing an awning support strap where the apparatus comprises an elongated device with a first bent end adaptable to the loop of the awning strap and a second end that may be inserted within a hole of the awning support arm.
AWNING STRAP TIE DOWN COMPONENT

FIELD OF USE

[0001] The present invention pertains to recreational vehicles (whether self propelled or pulled) and mobile homes. The invention particularly pertains to retractable awning devices commonly installed on the recreational vehicles.

BACKGROUND OF INVENTION

[0002] The majority of recreational vehicles have a retractable awning installed on the side of the vehicle. When stored, e.g., during vehicle travel, the awning is rolled up and the support arms are hingely folded to the side of the vehicle. There are two support arms, each positioned at one end of the awning. When the vehicle is parked, the awning may be deployed.

[0003] Deployment may include the steps of pulling upon a strap end that is wound with the awning. Pulling the strap causes the awning to unwind. The support arms can also be deployed from the side of the vehicle. The support arms, each hinged to the side of the vehicle, can be variously positioned, thereby adjusting the angle of the awning. Each support arm can be extended in length.

[0004] A problem common to all awning systems is the storing or placement of the extended strap after deployment of the awning. Currently there is no satisfactory method to conveniently store the strap. The strap may be manufactured of woven nylon or similar material. The end of the extended strap forms a loop at the end. Some users will wrap the strap around one of the support arms. This can be unsightly and the strap tends to unwind or blow in the wind, causing a potential hazard. Others tie the strap end to the awning support arm. This can be unsightly. In addition, over time, it becomes difficult to untie the strap.

BRIEF SUMMARY OF INVENTION

[0005] The invention pertains to a method of storing and securing an awning strap of a recreational vehicle. The method (and device) is used when the vehicle is parked and the awning deployed from its stored position. The method may comprise the steps of extending an end of an awning strap proximate to the extended awning support arms and inserting a first loop retaining end of a device into a loop at the end of the awning strap and inserting a second end of the device into an awning support arm positioning hole.

[0006] The invention also includes a device for securing an awning support strap where the device comprises of an elongated device with a first bent end adaptable to the loop of the awning strap and a second end that may be inserted within a hole of the awning support arm or other suitable structure. The apparatus holds the extended strap snugly to the support arm, eliminating the need to tie or wrap the strap. This improves the appearance and safety of the recreational vehicle when parked.

BRIEF SUMMARY OF THE DRAWINGS

[0007] The accompanying drawings, which are incorporated by reference and constitute part of the specification, illustrate preferred embodiments of the invention. These drawings, together with the summary of invention given above and the detailed description of the preferred embodiments given below serve to explain the principles of the invention.

[0008] FIG. 1 is a perspective view of the strap attachment device.
[0009] FIG. 2 is a view of a deployed awning, awning support arm and extended strap.
[0010] FIG. 3 is a perspective view of the extending rails of the awning support arm, the strap end loop and the strap attachment device.

DETAILED DESCRIPTION OF THE INVENTION

[0011] The present invention is for a method and device for securely and removeably fastening a strap end to an extended awning support arm.

[0012] When a support arm is extended in length, the increased support arm length extends the awning coverage. The extended segment of the support arm may comprise a rail extending from the interior annulus of the support arm. The rail may have regularly spaced holes. The holes may be used in combination of a lever controlled pin component that controls the position or extended length of the support arm. In one example, the holes do not exceed ¼ inch diameter.

[0013] In one embodiment of the invention, the device subject of the invention is elongated and has a first end component and a second end component. The first end component has two 90° bends. The segment of the end component between the two bends is approximately equal to the diameter or width of the awning strap. (Reference FIG. 3) The end component can be inserted through the loop located at the end of the strap.

[0014] The second end component of the device also comprises one 90° bend. The bend of the second end may be radially oriented 90° to the bend of the first end. The segment of the second end component may be inserted into a positioning hole within the rail of the extended awning support arm.

[0015] In one embodiment the first end of the device is inserted into the loop of the strap. The device can then be used to pull the strap snugly along the length of the awning support arm and the second end of the device inserted into one of the holes of the extension rails. This combination holds the awning strap securely to the awning support arm and eliminates the need for tying or wrapping the strap to the support arm.

[0016] The device can be made of metal. It may also be made of plastic or similar material. In one embodiment, the device may contain an elastomeric or stretching component.

[0017] FIG. 1 illustrates the elongated device 100 subject of the invention. The first end of the device comprises two 90° bends 110, 120. The space 130 between the two bends is approximately equal to the width of the awning strap (not shown). The second end 150 of the device comprises an additional 90° bend which is adaptable to inserting the second end into one of the plurality of positioning holes of the support arm rail.

[0018] FIG. 2 illustrates a vehicle 500, a deployed awning 350, extended awning support arm 540 hingedly attached 545 to the vehicle side. Also shown is the prior art practice of wrapping the strap 300 around the support arm. The end loop 310 of the strap is also illustrated. The awning strap is shown partially wrapped about the support arm with the end hanging loose. In other examples, the end of the strap is tied to the support arm, (which can be difficult to untie after several days).

[0019] FIG. 3 illustrates the extension rail 400 of the awning support arm. Also illustrated are the plurality of positioning holes 410 used to position or retain the extension of
the awning arm. Also illustrated is the device 100 showing the first end 110, 120 extending through the loop end 310 of the strap 300. The second end 145 of the device is shown inserted into a positioning hole 410A.

[0020] This specification is to be construed as illustrative only and is for the purpose of teaching those skilled in the art the manner of carrying out the invention. It is to be understood that the forms of the invention herein shown and described are to be taken as the presently preferred embodiments. As already stated, various changes may be made in the shape, size and arrangement of components or adjustments made in the steps of the method without departing from the scope of the invention. For example, equivalent elements may be substituted for those illustrated and described herein and certain features of the invention may be utilized independently of the use of other features, all as would be apparent to one skilled in the art after having the benefit of this description of the invention.

[0021] While specific embodiments have been illustrated and described, numerous modifications are possible without departing from the spirit of the invention, and the scope of protection is only limited by the scope of the accompanying claims.

What we claim is:

1. A method of securing an awning strap to an awning support arm comprising the steps of:
   a) extending an end of an awning strap proximate to an awning support arms;
   b) inserting a first loop retaining end of a device into a loop at the end of the awning strap; and
   c) inserting a second end of the device into an awning support arm positioning hole.

2. The method of claim 1 further comprising wrapping the awning strap around the awning arm.

3. The method of claim 1 further comprising extending the length of the awning support arm.

4. The method of claim 1 further comprising placing the strap under tension in pulling the device so that the second end fits within a positioning hole.

5. A recreational vehicle awning attachment device comprising two ends wherein the first end comprises a component for attachment to an awning strap loop and the second end comprises a component for insertion into an awning support arm positioning hole.

6. The device of claim 5 wherein the component of the second end has a diameter of ¾ inch or less.

7. The device of claim 5 wherein the diameter of the second end of the device is less than the diameter of the positioning hole.

8. The device of claim 5 wherein the attached awning strap can be placed under tension simultaneously with the second device end being inserted into a positioning hole.

9. The device of claim 5 wherein the device is made of metal.

10. The device of claim 5 wherein the device is made of plastic.

11. The device of claim 5 wherein the device comprises an elastomeric component.