Nov. 4, 1958 J. P. RAPIN 2,858,883

AWNING INTERLOCK DEVICE

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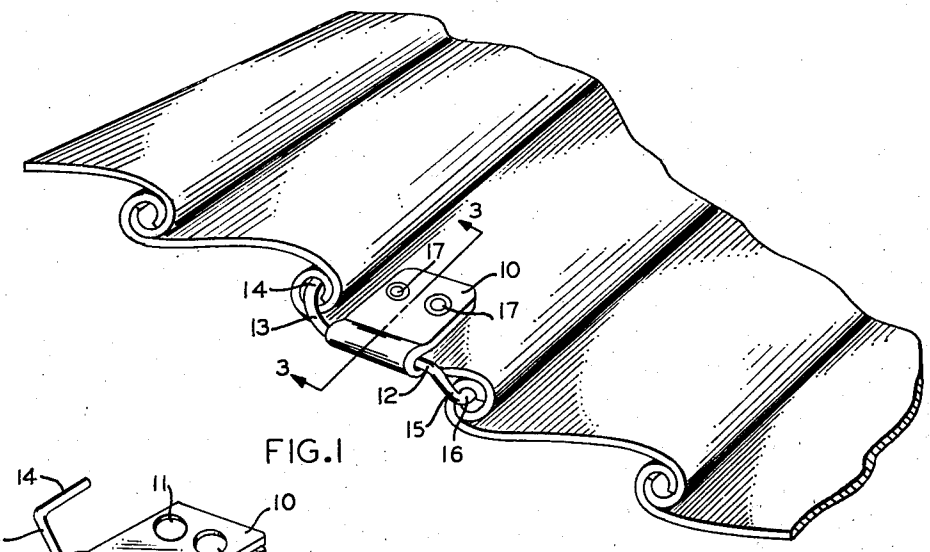


FIG.1

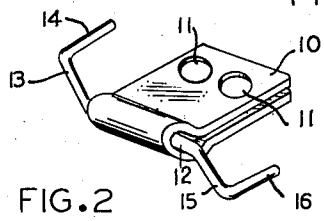


FIG.2



FIG.3



FIG.4

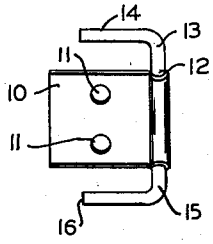


FIG.5

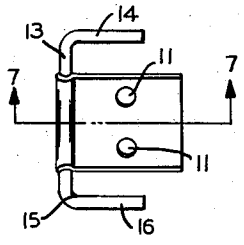


FIG.6

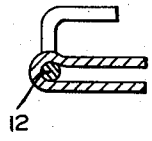


FIG.7

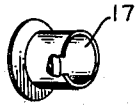


FIG.8

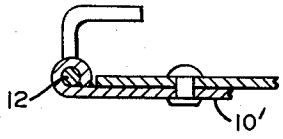


FIG.9

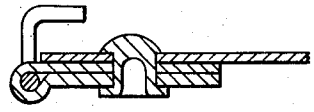


FIG.10

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AWNING INTERLOCK DEVICE

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2 Claims. (Cl. 160—235)

This invention relates to awnings, more particularly of the type made of a plurality of slats of sheet metal, such as aluminum, each slat having a curled edge at each side, curled in opposite directions so that the curled edge of one slat is engaged with the curled edge of the adjacent slat to form an articulated, or roll-up, awning fabric.

The invention more specifically, has particular reference to a means to hold the slats against longitudinal relative displacement since it has been found in awnings of this kind, particularly in an awning of a length of 15 to 20 feet or more that a brisk wind will cause the fabric to lift and shift so that the adjacent slats tend to move endwise relative to each other, which is, of course, objectionable.

It is an object of this invention, therefore, to provide a means of preventing such endwise motion.

It is a further object of the invention to provide a means which is inexpensive to apply, and which does not distract from the appearance of the awning.

Other and further objects and advantages of the device will be clear from the following specification, taken with the accompanying drawing, in which like characters of reference refer to like parts in the several views, and in which:

Fig. 1 is a perspective view of a part of an awning fabric with the device of the present invention mounted thereon;

Fig. 2 is a perspective view of the device of the invention;

Fig. 3 is a sectional view, taken on line 3—3 of Fig. 1;

Fig. 4 is an end elevational view of such a device or end clip;

Figs. 5 and 6 are plan views of a right and left hand end clip;

Fig. 7 is a section taken on line 7—7 of Fig. 5;

Fig. 8 is a perspective view, partly broken away, of a rivet used to secure the device of the present invention to the awning;

Fig. 9 is a section, similar to section 7, showing the device of a modified form mounted on the edge of an awning slat; and

Fig. 10 illustrates a modified method of mounting the preferred form of device on a slat.

Attempts have previously been made to provide such a means, but these attempts have not born fruit, as the suggested devices have been bulky, unsightly, and expensive.

As seen in Fig. 1, the device of the present invention is applied to the end of a slat and has an arm extending into the interlocked curled portions of adjacent slats.

The device comprises a small sheet of material 10 preferably of the same character as the awning slats, which is formed preferably to embrace the edge of the slat on which it is mounted. This sheet of material when made into an end clip preferably is also formed, as more clearly seen in Figs. 5 and 6, with a slight curve to engage with the curve of the slat as shown in the drawing, and is provided with aligned apertures by which the device is

secured to the slat. Mounted in the fold of sheet material 10 adjacent the edge of the slat is a heavy U-shaped wire 12, which has an upwardly extending portion 13 and an inwardly extending arm portion 14, extending from one edge of sheet material 10, and a downwardly extending portion 15, and an inwardly extending arm portion 16. These two inwardly extending arm portions 14 and 16 are parallel to each other and are offset from the general plane of the slat in order that they may be so aligned as to enter the ends of the interlocked curled edges. A plurality of these devices are mounted on alternate slats along opposite marginal edges of the assembled awning by placing the fold-over element 10 over the body of U-shaped wire 12 and preferably astride of the end of the slat, securing it in place by rivets 17 extending through holes 11 in sheet element 10, and through similar holes punched in the slat. It will be noted that the inwardly extending portion 14 will then enter the interlocked portion of the slat on which the device is mounted and of the slat immediately thereabove. Similarly, the inwardly extending portion 16 will enter the interlocked curled portions of the next adjacent lower slat.

In Fig. 6, a right hand device is shown which is made to fit on the far end of the awning, as seen in Fig. 1, and in Fig. 5 a left hand device is shown which will fit the near end of the slat in Fig. 1. Fig. 2, therefore, is a showing of a left hand element.

The device of Fig. 9 provides a clip in which the clip 10′ does not straddle the end of the awning slats. This construction may be preferable in some cases, and as is clearly shown in the drawing, the only part of the device which will be visible from the top of the awning will be the rivet heads and the roll of the clip about wire 12. However, it will be understood that the straddle type can be mounted on the slat for added strength as shown in Fig. 10.

In use, the awning material may be shipped to a dealer as a plurality of separate slats. When it is desired to make an awning of any specific length, this slat material is cut to the proper length and the necessary number of slats are assembled in interlocked relation. The ends of alternate slats are punched to form holes agreeing with apertures 11 of the device. A right hand device is placed on the right hand end, and a left hand device is placed on the left hand end, and each device is in oppositely disposed position to the slat.

It will thus be seen that the objects hereinbefore set forth may readily and efficiently be attained and, since certain changes may be made in the above construction, and different embodiments of the invention could be made without departing from the scope thereof, it is intended that all matter contained in the above description, or shown in the accompanying drawings, shall be interpreted as illustrative and not in a limiting sense.

It is also to be understood that the following claims are intended to cover all of the generic and specific features of the invention herein described, and all statements of the scope of the invention which, as a matter of language, might be said to fall therebetween.

Having described my invention what I claim as new and desire to secure by Letters Patent is:

1. The combination with a window awning to be rolled up upon itself and unrolled diagonally to project downwardly from above said window, which awning comprises a plurality of slats of sheet metal each having longitudinal side edges curled in opposite directions, each slot throughout its length being curved between said edges, and connected together by the curled edges of each slat engaging with the oppositely curled edges of adjacent slats to form a fabric flexible in the direction normal to the length of said slats, of means to prevent endwise

motion of any slat with respect to adjacent slats, said means comprising a single generally U-shaped rod element having a central portion shaped to lie generally in the curve of the slat and arms extending therefrom with portions adjacent said central portion offset in opposite directions with respect to said central portion and the remaining end portions of said rod being bent in substantially parallel relation so as to extend into said oppositely curled side edges of alternate slats at each end and interlocking curled portions of adjacent slats, and a sheet metal member of generally rectangular shape folded upon itself to embrace said central portion of said rod and secured to said central slat, said sheet being curved to conform to the curve of the slat.

2. A clip for a window awning to be rolled up upon itself and unrolled diagonally to project downwardly from above said window, which awning includes a fabric composed of a plurality of slats of sheet metal each having longitudinal side edges curled in opposite directions, each slat throughout its length being curved between said edges, and interlockingly connected together thereby, said clip comprising a single generally U-shaped rod of wire

having a central body portion shaped to lie in the curve of the slat and arms extending therefrom with lateral portions adjacent said central portion offset in opposite directions with respect to said central portion and the remaining end portions of said rod being bent in substantially parallel relation so as to extend into said oppositely curled side edges of alternate slats at each end and interlocking curled portions of adjacent slats, a sheet metal member of rectangular configuration folded upon itself to embrace the central portion of said wire, said sheet being curved to conform to the curve of the slat, and means to secure the same to said slats.

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