May 29, 1956 S. H. ELLMAN 2,747,242

AWNING

Filed March 25, 1954 2 Sheets-Sheet 1

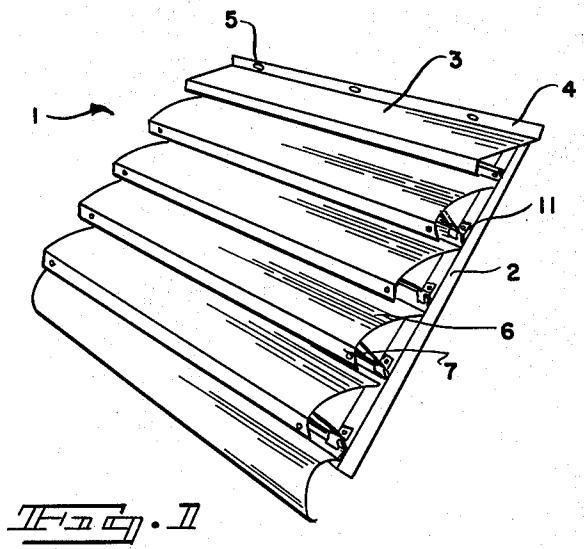
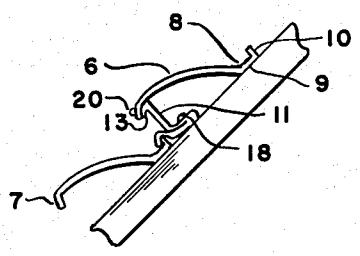


Fig. 1

Fig. 2



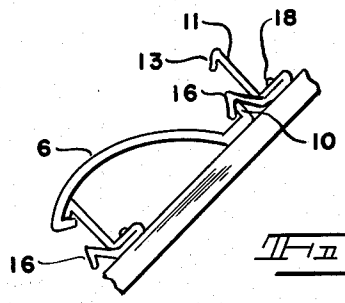


Fig. 3

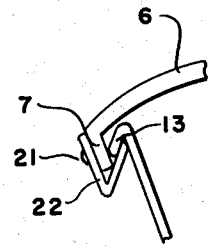


Fig. 4

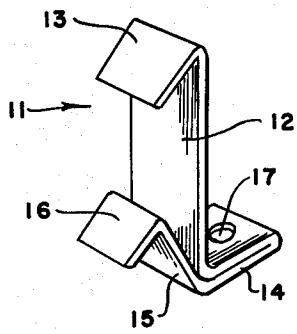


Fig. 5

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May 29, 1956 S. H. ELLMAN 2,747,242

AWNING

Filed March 25, 1954 2 Sheets-Sheet 2

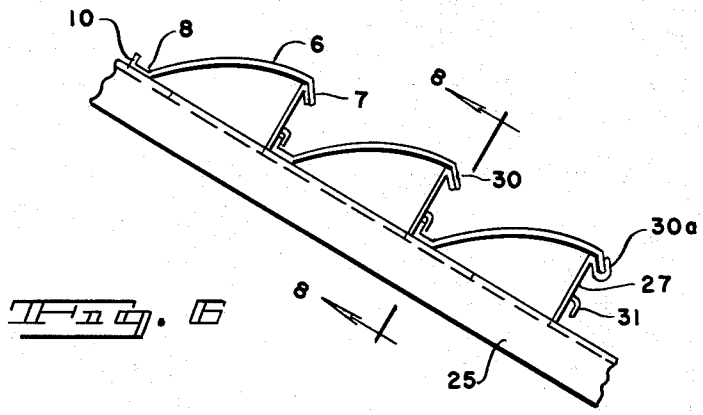
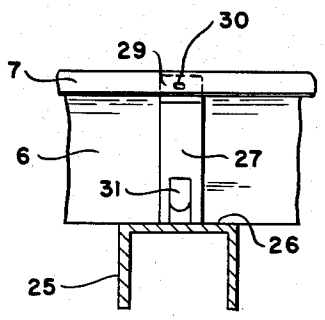


Fig. 6

Fig. 8



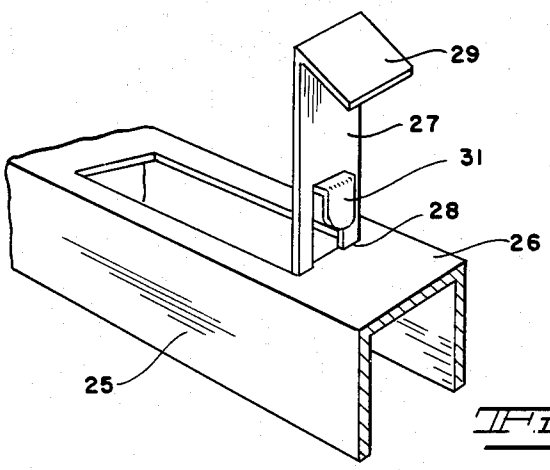


Fig. 7

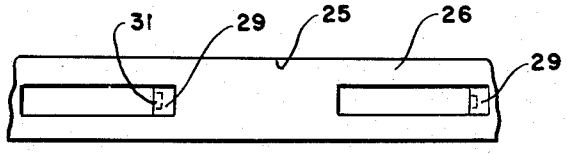


Fig. 9

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United States Patent Office 2,747,242 Patented May 29, 1956

2,747,242

AWNING

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Application March 25, 1954, Serial No. 418,495

6 Claims. (Cl. 20—57.5)

This invention relates to a slat type awning for use on the outside of windows.

In the manufacture of metallic slat type awnings, it is conventional to provide a space between such slat to permit the circulation of air and also to allow for the access of the maximum amount of light. However, when mounted upon the awning frame, the slats tend to contract and expand in response to thermal changes and thus become loose and warped. In addition, the slats tend to vibrate and rattle in the wind.

Accordingly, it is an object of my invention to provide a slat mounting means wherein the slats are rigidly held in their proper positions but are permitted to expand and contract with changes in temperature.

In addition, it is an object of my invention to provide a slat mounting wherein the slats are formed of a somewhat resilient material and are held in position under tension to prevent wind vibration and rattling.

Another object of my invention is to provide an awning mounting clip having means to frictionally grasp the rear end of one awning slat and means to hold the forward end of the next succeeding slat.

Yet another object of my invention is to provide an awning slat mounting clip formed of resilient material and having means to grasp an awning slat, said means being adapted to yield in response to expansion and contraction of the awning slat.

A further object of my invention is to provide an awning slat mounting clip having means to hold the front end of a slat under tension and spaced from the back of the next succeeding slat.

Also, it is an object of my invention to provide an awning slat mounting clip formed by punching out a portion of the awning side frame bars, bending this portion to form an upright clip member adapted to be connected with the front end of a slat, and punching out a section of said clip portion to form a means to grasp the rear end of the next succeeding slat.

Other objects and advantages of this invention will become apparent from the following description.

In the accompanying drawings forming a part of the specification and showing a preferred form of this invention:

Figure 1 is a perspective view of a slat type awning shown in position for mounting upon a wall above a window.

Figure 2 is a fragmentary side view illustrating one method of securing the mounting clip to the forward end of an awning slat.

Figure 3 illustrates a modified means for securing the mounting clip to the forward end of an awning slat.

Figure 4 shows a third modification for securing the clip to an awning slat.

Figure 5 is a perspective illustration of the mounting clip.

Figure 6 shows an end view of a modified form of my invention wherein the clip members are formed integral with the side support bars of the awning.

Figure 7 is a perspective view of a portion of the modified side bar shown in Figure 6.

Figure 8 is a sectional view taken on 8—8 of Figure 6.

Figure 9 is a top view of the support bar of Figure 6.

As seen in Figure 1, a slat type awning, generally designated as 1, is shown in position to be mounted upon a wall.

The awning is formed with a pair of frame bars 2, one of which is hidden from view in Figure 1, and a top mounting slat 3. The top mounting slat may be pivotally connected to the frame bars or may be connected by any other convenient means. As the top mounting slat forms no part of this invention, the connecting means therefor is not described in detail.

The top mounting slat is formed with a flange 4 having perforations 5. This flange is adapted to be abutted against a wall and screws may be inserted through the perforations for fastening to the wall.

A plurality of slats are secured to the frame bars to form the completed awning. The slats comprise a body portion 6 bent into a curved shape and having a forward flange 7. At the rear of the slats, and integral with the body portion 6 is a channel 8 having a base 9, adapted to contact the frame bars, and terminating in a flange 10.

The slats, themselves, are formed of a somewhat resilient metallic material, such as aluminum.

Mounting clips 11 are provided to fasten the slats to the frame bars 2. As shown in Figure 5, the clip comprises an upstanding leg 12 whose end is bent into a flange 13. Integral with the lower part of said leg is a doubled portion forming a base 14. The doubled portion or base 14 is extended to form a second leg 15 which terminates in a second flange 16.

An opening 17 is located in the base 14, and through this opening a screw or bolt 18 may be inserted to rigidly mount the clip upon the awning frame bar.

The clip 10 may be made from sheet metal having resilient properties, or any other similar suitable material.

The flange 13 of the mounting clip 12 is fastened to the flange 7 of the awning slats. This fastening may be accomplished by means of a screw or rivet 20 as shown in Figure 2. In Figure 4, the clip flange 13 is adapted to frictionally grasp a V-shaped channel 21 which is secured to the slat by means of a screw 22 or the like.

Figure 3 illustrates means of fastening the clip, namely by bending slat flange 7 back a sufficient distance to be frictionally engaged and grasped by the clip flange 13. This bending may be accomplished in the local area of the clip or the entire flange 7 may be so bent.

The rear end of each awning slat is retained in position by means of the clip second flange 15 grasping the rear slat flange 10 as is illustrated in Figures 2 and 3.

Referring next, to the modification shown in Figures 6 to 9 inclusive. In this structure, the awning frame side bars 25 are formed as an inverted U-shaped channel. The web 26, of the channel is die punched to form a clip portion 27 which is upwardly bent at bend line 28.

The upper end of said clip portion is bent to form a slat engaging flange 29. This flange nestles closely to the awning slat flange 7 and the two are connected together by means of a punched indentation 30, as seen in Figures 6 and 8, or by wrapping flange 29 around the end of awning flange 7, as seen at 30A in Figure 6. Any other suitable means may be used, as for example, those illustrated in Figures 2, 3 and 4.

The lower part of the clip portion 27, is also punched out to form a grasping finger or grasping flange 31. As can be seen in Figure 7, this finger is double bent so as to be spaced a distance from the main clip portion. It is within this space that slat flange 10 is inserted to be frictionally retained in position between the finger 31 and the main clip portion 27.

As in the case of clip 11, the integral clip of Figures 6

to 9, will be somewhat resilient due to the sheet material used. Thus, with both types of clips, the awning slat may freely expand and contract and may move slightly relative to the clips. This construction results in a neat appearing, sturdy awning, which is not subject to warpage or distortion due to temperature changes or other weather conditions.

This invention may be developed within the scope of the following claims without departing from the essential features of said invention and it is desired that the specification and drawings be read as being merely illustrative of a practical embodiment of the same and not in a strictly limiting sense.

I claim:

1. A means for supporting and holding the slats of a parallel slat type awning comprising an elongated frame bar in the form of an inverted substantially U-shaped channel, the base of said channel being formed with struck-out portions each being substantially rectangular in shape and being bent at the channel base to form a leg extending upwardly from said base, the free ends of said struck-out portions being bent into a slat engaging flange, a finger being struck out of the portion of the leg near the bar and joined to the leg at a point remote from the bends at the channel base and being bent forwardly to extend towards said channel base.

2. A means for supporting and holding the slats of a parallel slat type awning as defined in claim 1 above, and wherein the free end of said flange is bent double to form a portion spaced from but in substantial parallelism with said flange.

3. A means for supporting and holding the slats of a parallel slat type awning as defined in claim 2 above and wherein said flange is bent at an acute angle relative to said leg and extends towards said base.

4. A slat type awning having spaced frame bars and a plurality of slats each having a rear edge in contact with said bars and terminating in a flange extending upwardly from said bars, and a front edge spaced from said bars and terminating in a flange extending downwardly towards said bars; clips each formed from struck-out portions of said bars and integral therewith and each comprising an upstanding leg terminating in a flange abutted against the lower surface of a slat front edge flange, means to interconnect the clip flange and the slat front edge flange; and a struck-out downwardly extending finger formed on each of said legs and having a part spaced from and substantially parallel to the upstanding portion which part fits over the upwardly extending rear edge flange of the next succeeding slat to frictionally grip said rear edge flange.

5. A slat type awning having spaced parallel frame bars formed of sheet material and a plurality of slats arranged transversely upon said bars, each slat having a front edge terminating in a downwardly extending flange and a rear edge in contact with the frame bars and terminating in an upwardly extending flange, means to fasten the front edge slat flanges to the frame bars, said means comprising upright substantially rectangular legs struck-out of the bars at spaced intervals and each leg arranged so that the width portion thereof is transverse to the frame bars, the upper end of each leg terminating in a forwardly and downwardly bent flange abutted against the lower surface of said slat front edge flange and rigidly connected thereto, and a downwardly extending finger, located beneath each downwardly bent flange, and having a portion fitted over and frictionally holding the next succeeding slat rear edge flange and being joined to said slat front edge fastening means.

6. A slat type awning as defined in claim 5 and wherein said fingers are each struck out of a leg and are joined to its leg at a point remote from the bars and are bent to form a downwardly extending portion arranged substantially parallel to its leg for fitting over the upwardly extending flange of a slat and for frictionally holding said upwardly extending flange between the finger downwardly extending portion and its leg.

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