

Feb. 28, 1956

N. L. ETTEN
ADJUSTABLE AWNING

2,736,372

Filed April 19, 1951

4 Sheets-Sheet 1

Fig. 1

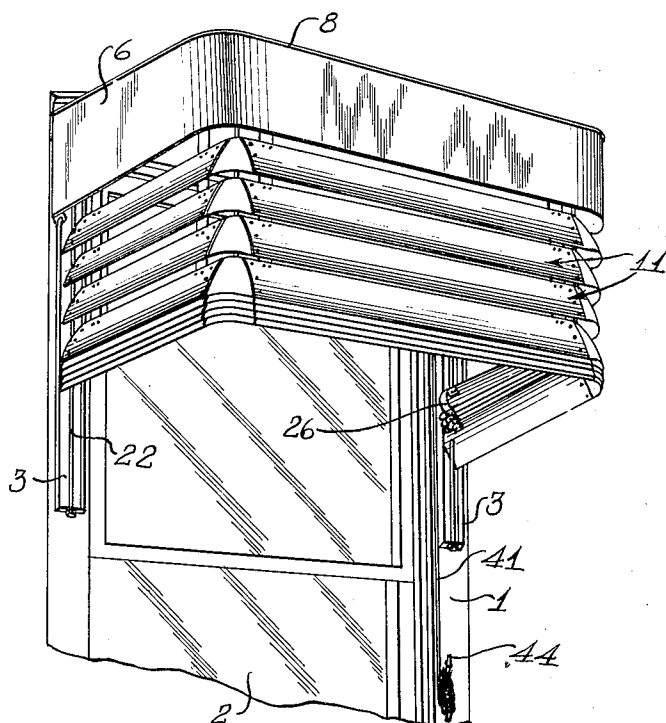
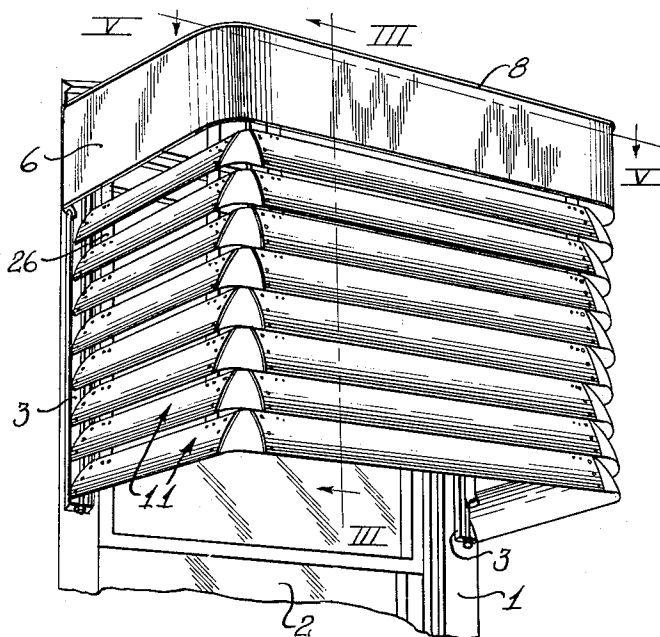


Fig. 2

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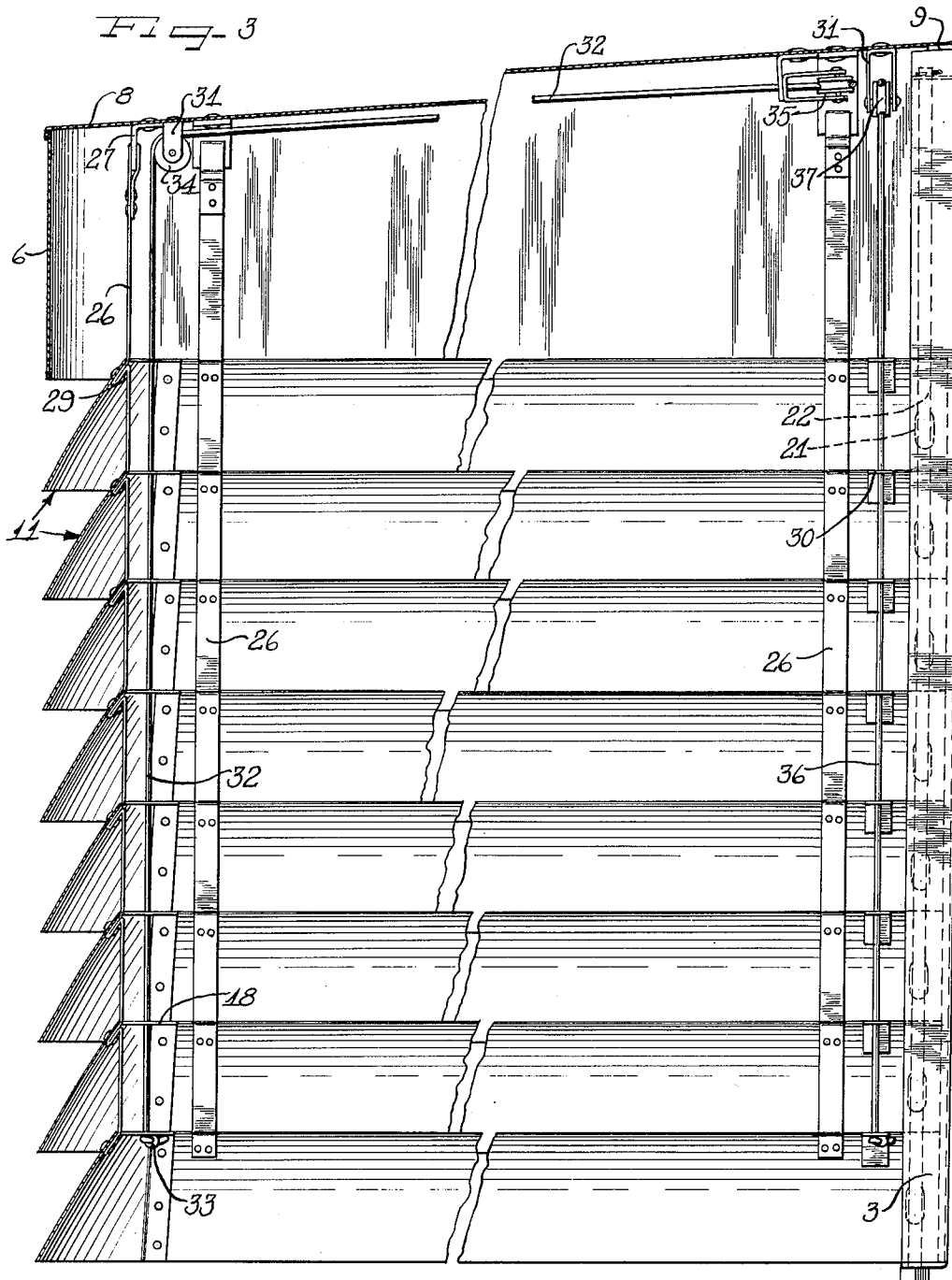
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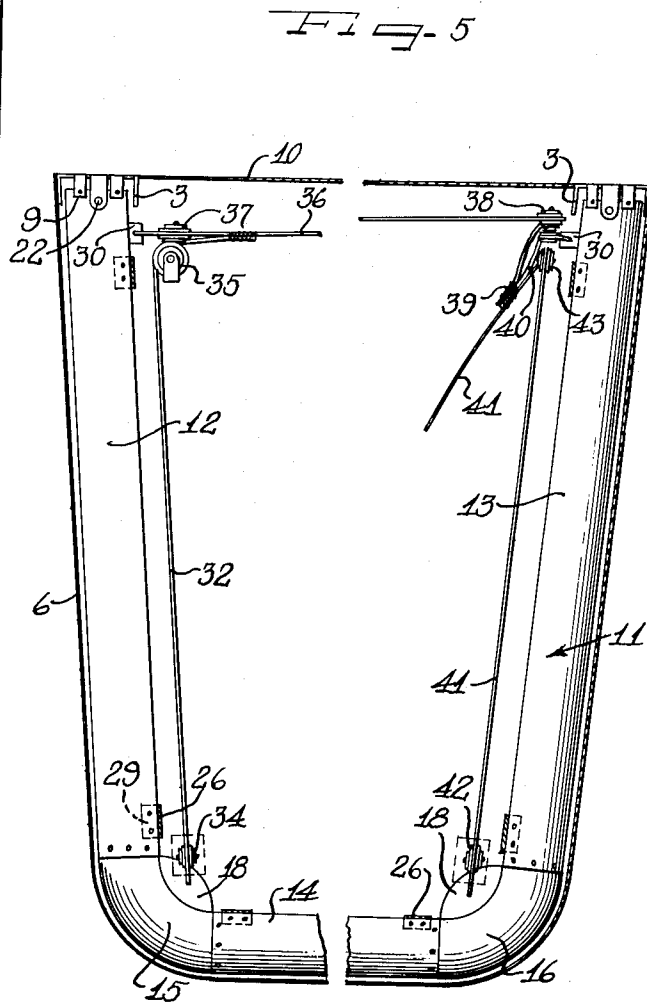
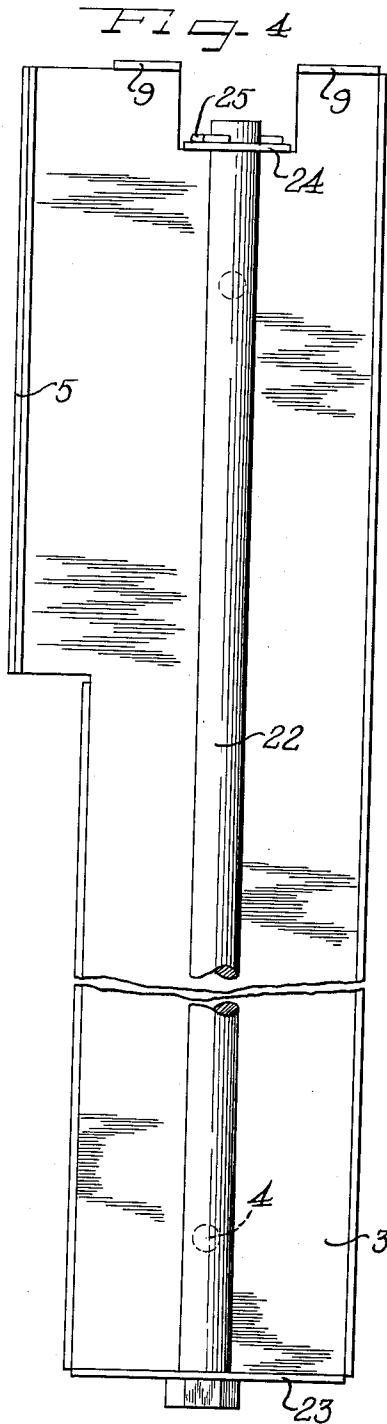
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FIG-6

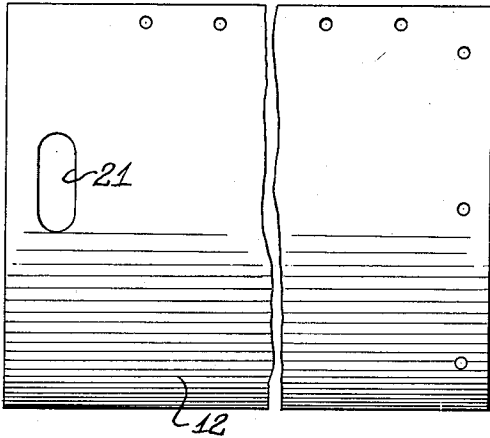


FIG-8

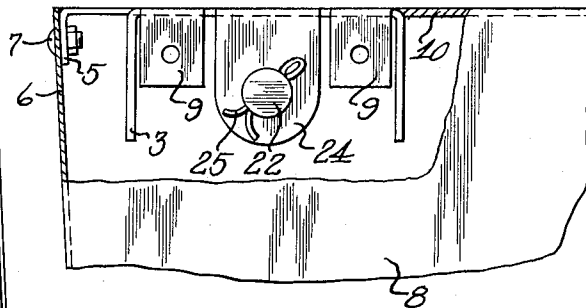
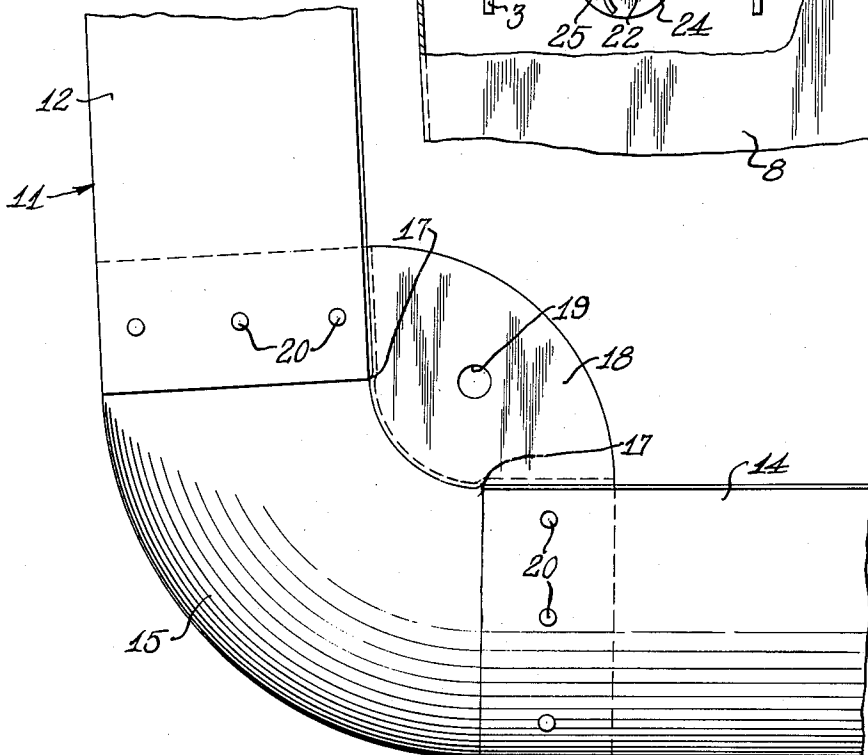


FIG-7



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2,736,372

ADJUSTABLE AWNING

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Application April 19, 1951, Serial No. 221,780

3 Claims. (Cl. 160—62)

This invention relates to improvements in an adjustable awning, and more particularly to an awning made in general of metal or equivalently durable material, such awning being substantially permanently mounted over a window, door frame, or some other opening of a building, although the invention may have other uses and purposes as will be apparent to one skilled in the art.

An important object of the instant invention is the provision of an awning or the like of the so-called permanent type, which is adjustable to a selective degree vertically.

It is also an object of this invention to provide an awning of the so-called permanent type embodying spaced vertically adjustable slats, arranged in louver-like style.

Another feature of the invention resides in the provision of an awning of the character set forth herein embodying spaced but overlapping slats connected by a flexible member, said slats being vertically adjustable so as to vary the length of the awning, with the adjustment of the lowermost slat not affecting the position or angle of the upper slat.

Also a feature of the invention resides in the provision of an awning embodying spaced but overlapping slats which may be raised and lowered in successive order.

A further desideratum of the invention resides in the provision of an awning embodying a plurality of U-shaped spaced slats, which may be bodily raised or lowered without changing the angular relationship of the slats relatively to the opening covered by the awning or to each other.

A further feature of the invention resides in the provision of an awning embodying U-shaped slats carried in spaced but overlapping relationship, and arranged to nest one within the other when the awning is raised, whereby a minimum of space is required for the awning in closed position.

A further object of the invention resides in the provision of a slatted type vertically adjusted awning, equipped with a valance effectively concealing all of the slatted portion of the awning when the same is fully raised.

Still a further object of the invention resides in the provision of a vertically adjustable slatted type awning, which provides thorough ventilation at all times, but which when lowered occludes both direct sunshine as well as rain.

While some of the more salient features, characteristics and advantages of the instant invention have been above pointed out, others will become apparent from the following disclosures, taken in conjunction with the accompanying drawings, in which—

Figure 1 is a pictorial illustration of an awning embodying principles of the instant invention showing the same mounted in operative position over a window, and lowered to the full extent;

Figure 2 is a view similar in character to Fig. 1, but showing the awning partially raised;

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Figure 3 is an enlarged fragmentary vertical sectional view of the awning taken substantially as indicated by the line III—III of Fig. 1 looking in the direction of the arrows;

Figure 4 is a front elevational view of one of the mounting brackets for the awning showing the same equipped with a supporting rod, but with the awning slats removed;

Figure 5 is a fragmentary plan sectional view taken substantially as indicated by the line V—V of Fig. 1, and illustrating the actuating cord hookup for adjusting the awning;

Figure 6 is a fragmentary elevational view of one of the side sections of a slat;

Figure 7 is a fragmentary enlarged plan view of a corner portion of a slat, illustrating the fabrication thereof; and

Figure 8 is a top plan view of a rear corner of the awning, with a portion of the cover broken away to provide a top plan view of a supporting bracket.

As shown on the drawings:

The illustrated embodiment of the instant invention is shown mounted in operative position on the sash frame 1 of a window 2, although it will be understood that the awning may be mounted over a doorway or in substantially any other desired location on a building.

The awning structure includes a pair of allochiral mounting brackets 3—3, seen best in Figs. 4 and 8, which are channel-like in shape, and screwed, bolted, or equivalently secured to the vertical risers of the sash frame 1 through openings at the base of the brackets indicated at 4 in Fig. 4. In the upper portion thereof, each bracket is outwardly widened and provided with an extra forwardly turned flange 5 to which a valance 6 may be bolted or equivalently secured as indicated at 7 in Fig. 8. This valance, in keeping with the entire awning structure, is substantially of a U-shape, with the bight of the U outermost. As seen clearly in Figs. 1, 2 and 3, the valance is wider at the rear portion than at the front thereof, tapering on the top side only, so that a cover 8 secured over the valance and connected to forwardly turned lugs 9—9 on each mounting bracket 3 may slope forwardly for drainage purposes. This cover has a rear downwardly turned flange 10, Figs. 5 and 8, which extends between the brackets 3—3 to effect a better seal with the building wall.

The adjustable part of the awning embodies a plurality of vertically aligned substantially U-shaped slats generally indicated by numeral 11. These slats are arranged in overlapping relationship, but not in contact with each other when the awning is in lowered position as seen in Fig. 1. Nevertheless the slats overlap to a sufficient extent as clearly evident from the showing in Fig. 3 to occlude both sunshine and rain. Adequate ventilation between the slats is present at all times, however. Further, the slats are slightly arcuate in cross section as seen in Figs. 1, 2 and 3, so that when an adjustment of the awning is made the slats may nest one within the other as the lower slats are illustrated in Fig. 2.

Referring now to Figs. 5 and 7, it will be seen that each of the slats 11 is fabricated from a plurality of pieces riveted, spot welded, or equivalently secured together at overlapping portions. These pieces include a pair of side members 12 and 13, a front member 14, and a pair of identical corner members 15 and 16. As seen in Fig. 7, each corner member is inset as indicated at 17 to substantially the thickness of the adjoining side and front members. Thus, when the respective side and front members are overlapped with the corner member in the inset regions, the outer appearance of the slat is smooth and even. Further, each corner member has an inwardly

extending flange 18 at the upper portion thereof provided with a suitable aperture 19 to accommodate an adjusting cord as will more fully later appear herein. As seen in the enlarged showing in Fig. 7, in the illustrated embodiment of the invention, the side and front members are riveted to the respective corner members as at 20.

In Fig. 6 I have shown one of the side members 12, provided with suitable rivet holes, and it will be noted that at the rear end thereof, each side member is provided with an elongated slot or aperture 21. This aperture engages over a rod 22 connected at the bottom to a forwardly extending flange 23 on the respective mounting bracket 3. The rod extends through an inwardly turned lug 24 at the top of the mounting bracket to which it may be fastened by a suitable cotter pin 25 or in an equivalent manner. From the showing in Fig. 4, it will be noted that the lug 24 is spaced below the aforesaid lugs 9—9 so that the rod does not interfere with or contact the awning cover 8. The particular arrangement of the elongated apertures 21 in each slat over the rod 22 may be best seen at the far right hand portion of Fig. 3.

With reference now to Figs. 3 and 5, it will be seen that the slats are interconnected at a plurality of different points, six such interconnections being shown in the illustrated embodiment. Each interconnection is in the form of a flexible tape 26 connected at its upper end to a bracket 27 secured to the cover 8, and reversely folded and riveted or equivalently attached to each slat as indicated at 29. These tapes maintain the slats suspended evenly one above the other when the awning is lowered, the tapes buckling between slats as seen clearly in Fig. 2 when the awning is raised. The rear ends of each slat ride between the forwardly extending flanges of the channel-shaped mounting brackets 3, and are prevented from leaving the channels by means of the aforesaid rods 22 over which the ends of the respective slats are threaded.

In order to assure an even and ready adjustment of the awning, a four cord arrangement is preferably provided. This is best seen in Figs. 3 and 5. Each rear end of each slat is provided with an inwardly extending apertured bracket 30 through which cords may extend, and cords may also extend downwardly through the flanges 18 on the corner members. All pulleys over which the cords travel are connected to the awning top 8 in any suitable manner such as by stirrup brackets 31 seen in Fig. 3.

The cord arrangement embodies one cord or tension member 32 extending vertically through the flanges 18 on the corner members 15, and this cord is knotted as at 33 below the lowermost flange. The cord extends upwardly, passes over a pulley 34, along beneath the cover 8 to a rear horizontally disposed pulley 35, after which this cord is attached to another cord 36 having a reach extending vertically through one set of brackets 30 and similarly knotted at its lower end. This cord 36 passes over a vertical pulley 37, extends horizontally underneath the cover to the far side of the awning, passing over one groove of a double pulley 38 and is then tied as at 39 to another pair of cords 40 and 41. The cord 40 extends vertically through the opposite set of brackets 30 and over the second groove of the double pulley 38. The cord 41 has a reach extending vertically through the opposite set of flanges 18 on the other corner members 16, passes over a forward pulley 42, travels rearwardly over a pulley 43, and terminates in a downwardly extending portion which may be anchored around a cleat 44 attached to the sash frame 1 as seen in Fig. 2. This cord 41 is the master or draw cord, and from the above arrangement, it will be noted that when this cord 41 is pulled

downwardly, the entire slat arrangement is elevated, and when the cord 41 is released, the slat arrangement may be dropped to a desired extent, or to the full extent, the tapes 27 maintaining the slats at even relative disposition during any degree of adjustment.

An important feature of the instant invention resides in the fact that when the awning is adjusted by pulling the slats upwardly, only the lowermost slats are disturbed, depending upon the length of pull, and it will be particularly noted from Fig. 2, that when the awning is approximately in half position, the upper slats maintain their original position exactly and are not disturbed in any manner. Thus, the light or vision angle between slats is not changed regardless of adjustment of the awning. In addition, if the awning is entirely raised so as to give maximum light and air, all of the slats will be hidden behind the valance 6, occupying a minimum space, by virtue of the intimate nesting of the slats.

The awning is economical to construct, highly durable, pleasing in appearance, and by virtue of its vertical adjustment characteristics provides a maximum of light and air even while occluding direct sun rays or rain.

It will be understood that modifications and variations may be effected without departing from the scope of the novel concepts of the present invention.

I claim as my invention:

1. In an awning structure, a pair of opposed channel-shaped mounting brackets, a top, flexible supporting elements depending from said top, U-shaped slats carried by said elements in vertically spaced relationship, each of said slats having a bight portion and a pair of leg portions in generally horizontal alignment with the ends of the leg portions riding in the channels of said brackets, and means to raise and lower said slats.

2. In an awning structure, a pair of opposed channel-shaped mounting brackets, a top, flexible supporting elements depending from said top, U-shaped slats carried by said elements in vertically spaced relationship, each of said slats having a bight portion and a pair of leg portions in generally horizontal alignment with the ends of the leg portions riding in the channels of said brackets, means to raise and lower said slats, a vertical rod carried by each said bracket, and each end of a slat having an elongated opening therein threaded over the corresponding rod.

3. In an awning, a top structure, spaced tapes depending therefrom, a plurality of U-shaped slats horizontally disposed and attached in spaced overlapping relationship to said tapes, said slats being arcuate in cross-section, pull cord means to raise and lower said slats into and out of nested relationship, each said slat being fabricated from side, front, and arcuate corner members, apertured flanges projecting inwardly from said corner members, and said pull cord means extending through said flanges.

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