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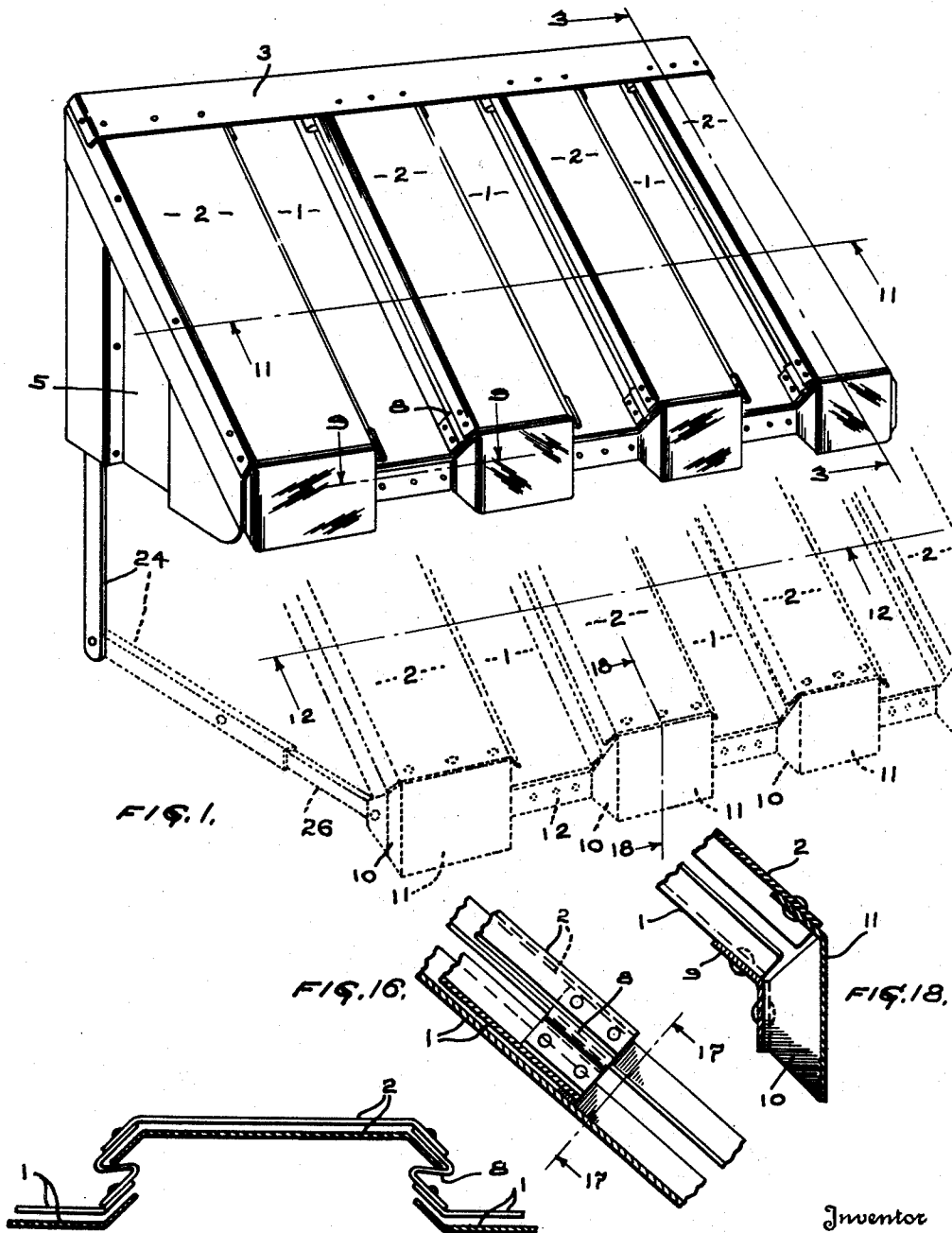
H. F. VOLLMER

2,467,351

AWNING

Filed July 28, 1947

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Inventor

FIG. 17

Harry F. Vollmer

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Thomas W. Clark

Attorney

April 12, 1949.

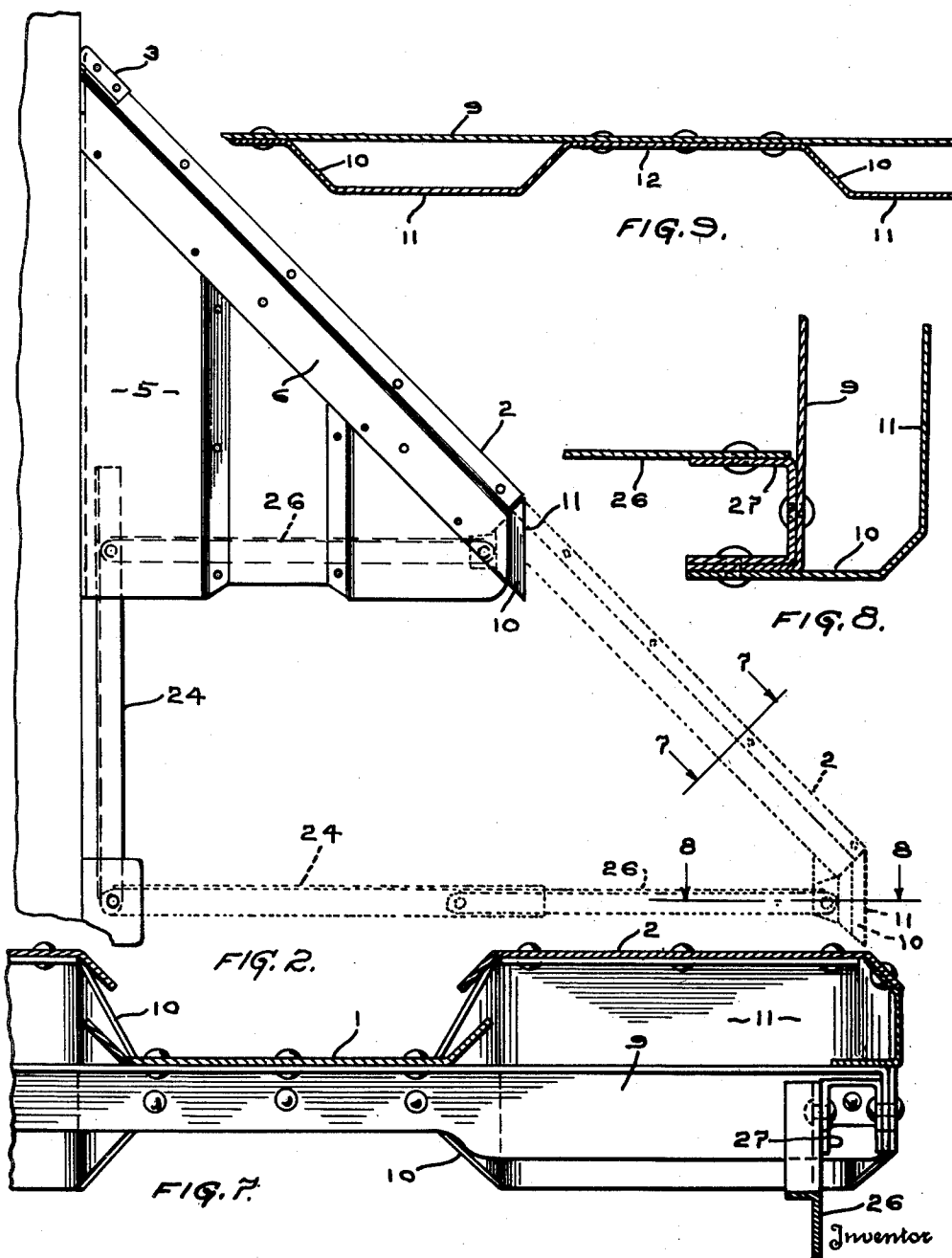
H. F. VOLLMER

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Harry F. Vollmer.

By Thomas W. Clark

Attorney

April 12, 1949.

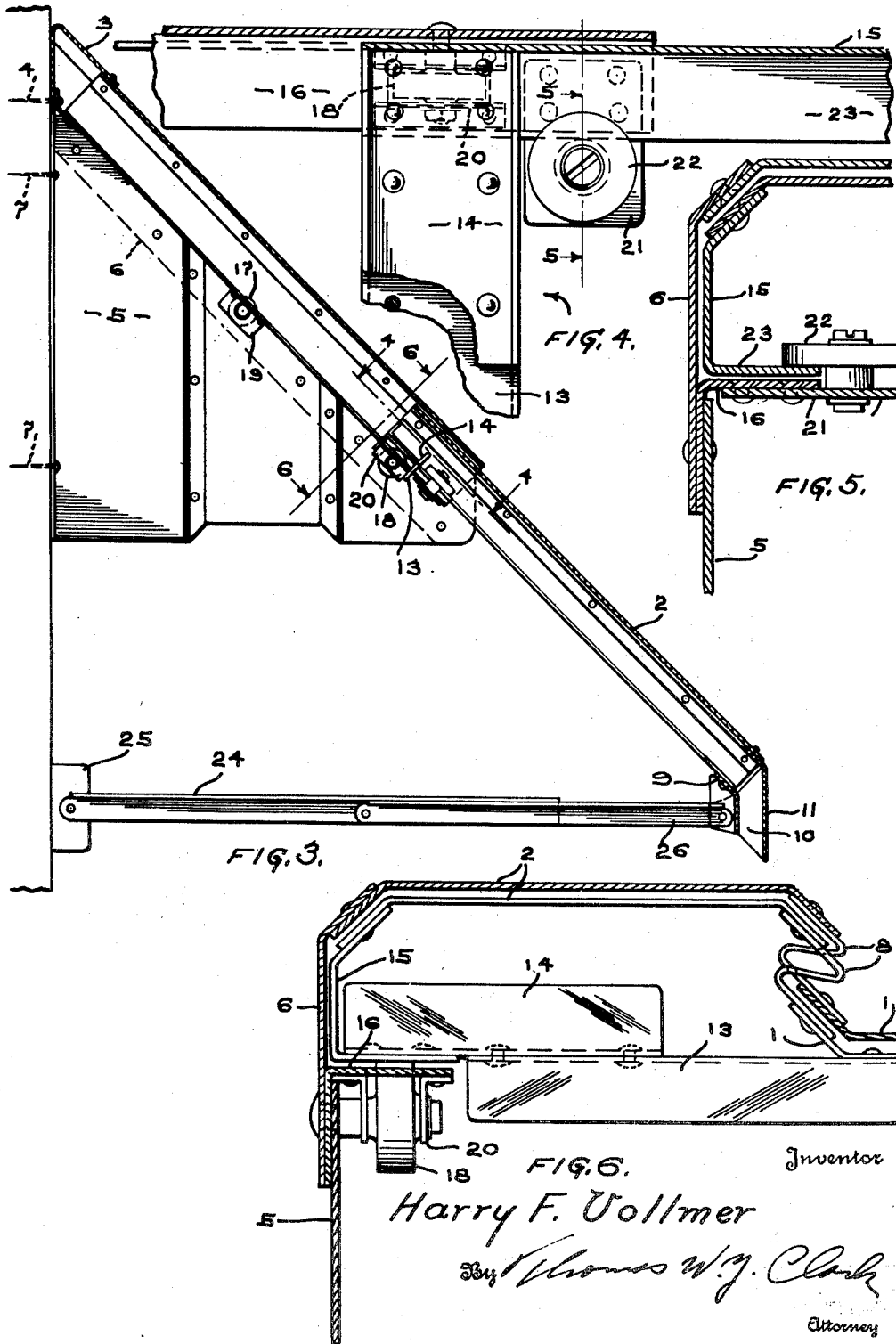
H. F. VOLLMER

2,467,351

AWNING

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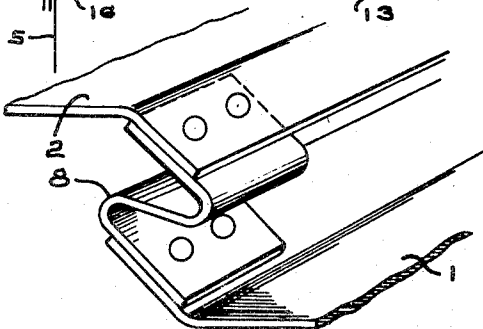
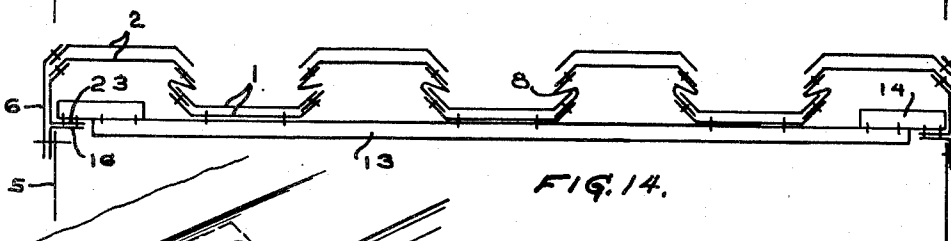
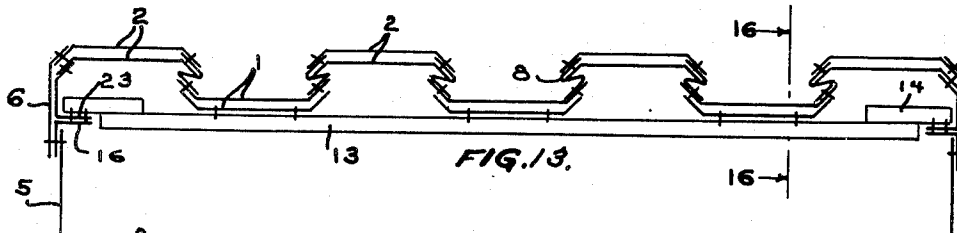
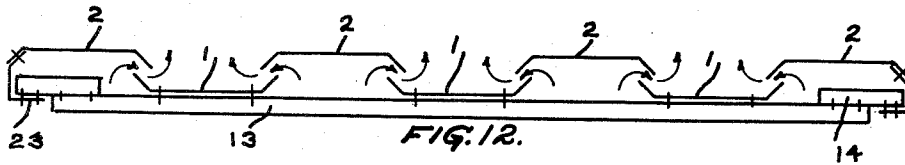
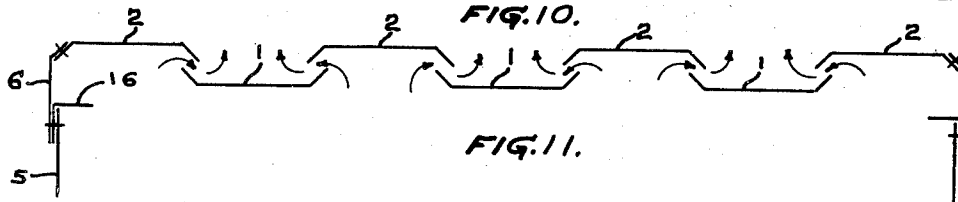
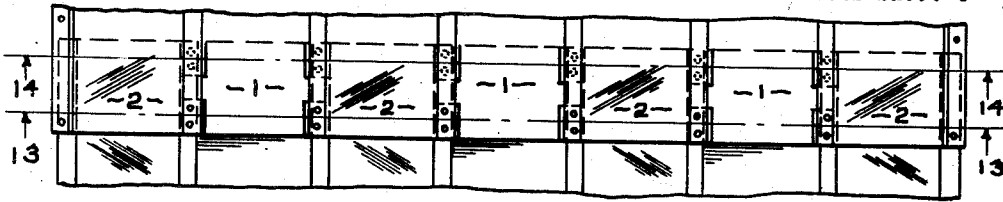
H. F. VOLLMER

2,467,351

AWNING

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4 Sheets-Sheet 4



Harry F. Vollmer,

By *Thomas W. Clark*

Attorney

UNITED STATES PATENT OFFICE

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AWNING

Harry F. Vollmer, Baltimore, Md.

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11 Claims. (Cl. 160—62)

1

This invention relates to an awning of the permanent, retractable type.

Preferably the awning is made of metal although other permanent construction materials are available for such purposes. The awning is intended to be installed as a permanent attachment on a building and it is arranged to provide ventilation while it is in use, also it is provided with means to extend it over the whole window or if desired to retract as a cover for one-half of the window or other opening space and the ventilation is available whether the awning is in extended position or retracted position. The awning is also constructed in sections which are easily relatively slidable, so that the extended portion may be raised by hand or mechanical means.

It has been found by actual test that one hundred per cent more light is admitted to the room when the lower section is up, than when it is down. Support is also provided for the awning so that it will sustain vertical pressure whether in extended position or retracted position. The relatively movable sections of the awning are so made as to avoid any rattling of the sections in the wind. The structure is solidly and simply made so as not to require repairs.

These and other objects and advantages of the invention will be apparent from the following description and the accompanying drawings forming a part hereof, and in which:

Figure 1 is a front perspective view of the awning in folded position, showing by dotted lines the extended position.

Figure 2 is a side elevation of the awning in folded position.

Figure 3 is a vertical sectional view on line 3—3 of Figure 1, with the awning extended.

Figure 4 is a sectional view on line 4—4 of Figure 3.

Figure 5 is a sectional view on line 5—5 of Figure 4.

Figure 6 is a sectional view on line 6—6 of Figure 3.

Figure 7 is a sectional view on line 7—7 of Figure 2.

Figure 8 is a sectional view on line 8—8 of Figure 2.

Figure 9 is a sectional view on line 9—9 of Figure 1.

Figure 10 is a fragmentary plan view across the center of the two sections of the awning when they are almost completely extended.

Figure 11 is a schematic view substantially on line 11—11 of Figure 1.

2

Figure 12 is a similar view substantially on line 12—12 of Figure 1.

Figure 13 is a similar view substantially on line 13—13 of Figure 10.

Figure 14 is a similar view substantially on line 14—14 of Figure 10.

Figure 15 is a perspective view showing the attaching angle between two adjacent trough members.

Figure 16 is a sectional view on line 16—16 of Figure 13.

Figure 17 is a sectional view on line 17—17 of Figure 16.

Figure 18 is a sectional view on line 18—18 of Figure 1.

In the drawings similar numerals refer to similar parts throughout the several views.

The awning consists essentially of a series of troughs 1 with alternate inverted troughs 2. The upper section of the awning consisting of these troughs has an angle 3 across the top thereof which is attached to the top of a window or other opening in a building by means of nails or other affixing means 4. This section has downwardly extending panels 5 which are connected by angles 6 to the adjacent upper inverted trough 2 and these panels are likewise attached to the building by means of nails or fastenings 7.

The troughs 1 and 2 are connected at their lower ends to each other by angular brackets 8. It will be noted that these brackets in their extension go beyond both the downturned and the upturned sides of the troughs 1 and 2. This allows identical troughs of another section to slide between the angle brackets 8.

The other or sliding section of the awning is shown in dotted lines in extended position in Figures 1 and 2 and it has identical troughs 1 and inverted troughs 2 which are connected at their upper ends by identical angles 8 as most clearly shown in Figures 6 and 14. As is also shown in Figure 6 these angles 8 cross one another and thus interengage when the movable section is let down to its greatest extent so as to prevent the complete separation of the two sections. At their lower end the troughs 1 of the movable section are connected by an angle 9 and to this angle 9 is riveted the member 10 having alternately large face sections 11 and small sections 12, the sections 12 being also riveted to the angle 9. The sections 11 are in turn riveted to and support the upper inverted troughs 2 as clearly shown in Figure 18.

The upper ends of the troughs 1 of the movable section are likewise connected by angle 13

3

which is attached to the end sections 2 of the movable section through means of intermediate angles 14 and 15 as clearly shown in Figure 6. Angles 15 extend lengthwise of the outermost troughs 2 of the movable section. Angles 6 on the upper section have extending inwardly therefrom angles 16. These angles 16 have thereon rollers 17 and 18 supported in housings 19 and 20 rigidly attached to the angles 16. Also on angles 16 are extended brackets 21 supporting rollers 22 which hold in place and roll upon inturned edge 23 of angles 15 on the sliding awning section. The rollers 18 and 19 give a rolling support to the lower portion 23 of the angle 15.

A thrust angle member 24 is likewise attached to the building opening at 25 and movable thrust angle member 26 is pivoted under the horizontal part of member 24, to the vertical part of member 24, back from its swinging end. This member 26 is likewise angled and is attached to angle 27 on angle 9 at the far end of the movable section of the awning as shown in Figures 7 and 8. When both thrust members are down and the extended section of the awning is down it will be apparent that the thrust members support the vertical weight upon the awning, and when the thrust members are broken and member 24 backs against the building, it will likewise be apparent that the member 26 supports the vertical weight upon the top of the awning.

Since it is apparent that many modifications of the present invention will present themselves to those skilled in the art without departing from the spirit of the invention, it is to be understood that such modifications do not depart from the spirit of the invention although not specifically described herein and are contemplated by and included in the appended claims.

Having thus described the invention, what is claimed as new and is desired to be secured by Letters Patent is:

1. In an awning, a plurality of laterally spaced troughs, a plurality of inverted troughs spaced vertically from and bridging the said laterally spaced troughs, means to attach one end of said troughs to a fixed support, means at the other end of said troughs to attach each to its adjacent trough, and a plurality of similarly shaped troughs beneath said spaced and inverted troughs and means to connect said similarly shaped troughs to said spaced and inverted troughs, whereby to slide said similarly shaped troughs from said spaced and inverted troughs, parallel thereto.

2. A plurality of overlapping relatively slidable awning sections each comprising a plurality of laterally spaced troughs and a plurality of inverted troughs vertically spaced from and bridging the spaced troughs.

3. An awning comprising two sections, each comprising a plurality of laterally spaced troughs, and a plurality of inverted troughs spaced vertically from and bridging the laterally spaced

4

troughs, one section being, longitudinally of said troughs, slidable relative to the other.

4. The combination with an awning as claimed in claim 3, of means to rigidly hold the ends of the troughs of each section together.

5. The combination with an awning as claimed in claim 3, of roller bearings to facilitate the sliding of said sections relative to each other.

6. The combination with an awning as claimed in claim 3 in which the vertical spacing of the troughs and inverted troughs, when the sections are relatively retracted and extended, provide ventilating spaces laterally therebetween, and prevent the entrance vertically of rain therebetween.

7. The combination with an awning as claimed in claim 3, of means to attach the awning in a sloping position to a building, and means connected to the free end of the awning both when the sections are retracted together and when they are relatively extended, to support the awning against downward thrusts.

8. An awning comprising two sections, each comprising a plurality of laterally spaced troughs and a plurality of inverted troughs spaced vertically from and bridging the laterally spaced troughs, one section being, longitudinally of said troughs, slidable, relative to the other and means to attach the edge of each respective trough to the adjacent edge of each inverted trough.

9. The combination with an awning as claimed in claim 8 in which said means forms stops to limit the relative extension of said sections when they are extended.

10. The combination with an awning as claimed in claim 8 in which said means, on the troughs of one section, pass between adjacent troughs of the other section.

11. An awning comprising two sections each comprising a plurality of laterally spaced troughs and a plurality of inverted troughs spaced vertically from and bridging the laterally spaced troughs, one section being, longitudinally of said troughs, slidable, relatively to the other, means to attach the awning in a sloping position to a building, means connected to the free end of the awning both when the sections are retracted together and when they are relatively extended to support the awning against downward thrust, said last named means being foldable when the sections are retracted together.

HARRY F. VOLLMER.

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