May 13, 1952 F. LANGBEIN 2,596,934

VENTILATED RIGID AWNING

Filed Oct. 7, 1949 2 SHEETS—SHEET 1

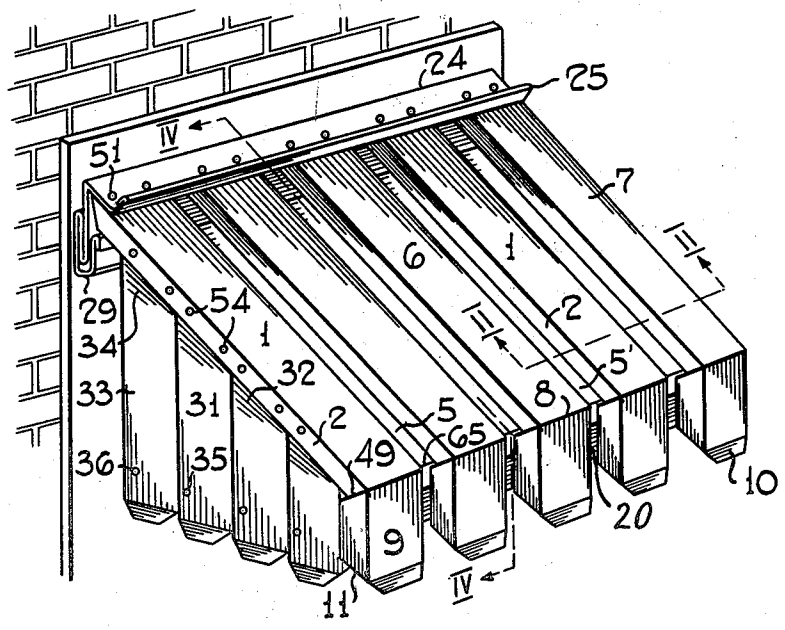


FIG.-1

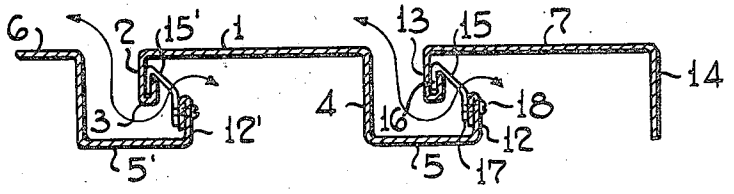


FIG.-2

Fred Langbein Inventor

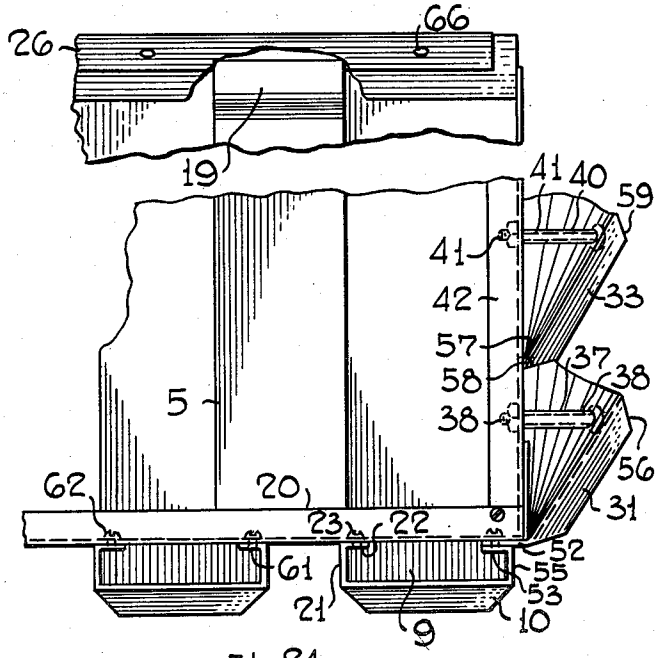
By Peter J. Taylor Attorney

May 13, 1952 F. LANGBEIN 2,596,934

VENTILATED RIGID AWNING

Filed Oct. 7, 1949 2 SHEETS—SHEET 2

FIG.-3



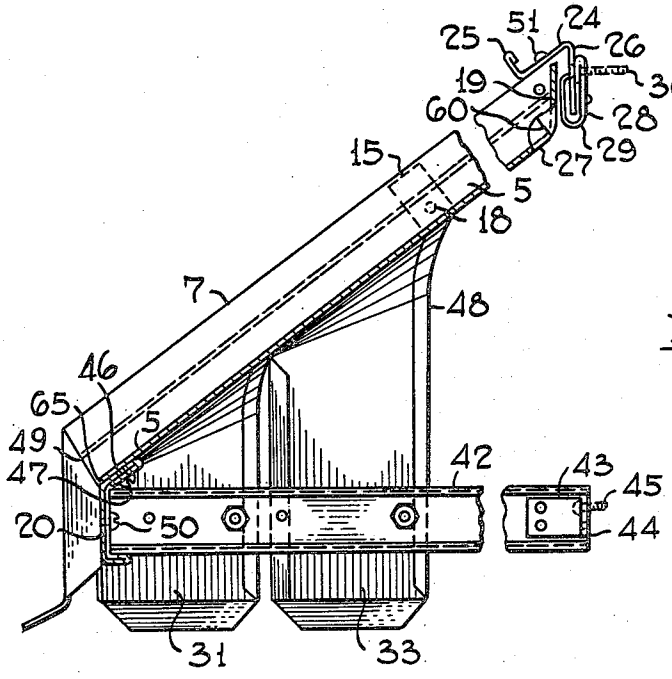


FIG.-4

Fred Langbein Inventor

By Peter J. Baylor Attorney

Patented May 13, 1952 2,596,934

UNITED STATES PATENT OFFICE

2,596,934

VENTILATED RIGID AWNING

Fred Langbein, Kenilworth, N. J.

Application October 7, 1949, Serial No. 120,183

3 Claims. (Cl. 20—57.5)

1

This invention relates to rigid awnings which are hung above windows and other openings in homes and other buildings.

The ventilated awnings of the present invention are preferably made of aluminum or other light metal or alloy, although they can be manufactured from plastic and similar materials. Among the novel features of the present invention is a specially shaped awning member and joining means, arcuate-shaped side members or shields and the sealing means at the top of the awning adjacent the building. Other features will become apparent from the description which follows.

The invention will be more readily understood by reference to the drawings in which Figure 1 illustrates an isometric view of a preferred embodiment of the invention, say, mounted over a window having a wooden frame. A cross-sectional view along II—II of Figure 1 is shown in Figure 2, while Figure 3 depicts a bottom view of a portion of the same awning. A partially cut-away inside side view of the awning taken along IV—IV of Figure 1 is illustrated in Figure 4. Similar numerals refer to similar parts in the various figures.

Referring again to the drawings, numeral 1 represents the wide upper plate or sheet portion of a shaped awning unit having a downwardly directed side section 2, the edge 3 of which is folded over inwardly. Oppositely disposed to side section 2, and downwardly directed, is side 4 which is longer than side section 2. From the bottom edge of side 4, and disposed in parallel relation to upper portion or top 1, is gutter member 5 which acts as a gutter for water collected on the awning. This gutter portion is narrower than the top portion 1 and preferably about one-half the width of portion 1. It terminates with upwardly directed short edge 12. This awning unit extending from elements 2 to 12 is the basic unit for the awning portion, and is used throughout, except for the last section 7 which is a channel member having downwardly directed sides 13 and 14. It is preferable to have all edges folded over, wherever possible, such as folded-over portions 16 and 3.

In most cases, it has been found that highly useful awnings can be made from awning units, the dimensions of which approximate the following:

Top portion 1 (width) about 3⅝", side 2 about ⅝", side 4 about 1¼", gutter portion 5 about 1¾", and edge 12 about ⅝". Channel member 7 generally may be about 3¾" wide, with side 13 about ⅝" wide, and side 14 about 1" wide.

These awning members are supported and separated from each other to provide an air space or venting zone, the air circulating therein in the direction of the arrows shown in Fig. 2. In the

2

case of relatively short lengths, the only supports required for the awning units are sides 21 in the apron portion and strip 24 to which the upper ends of top awning members 1, 6, etc. are screwed by screws 51. However, in the case of longer awnings, it is recommended to insert intermediate supports as well, such as narrow, angularly bent channel strips 15, 15', etc., the upper end 16 of which is folded between the layers of sides 2 or 13 or screwed to said sides, while the lower end 17 is screwed to sides 12 or 12'.

Apron sections 9 are extensions of awning members 1, 6, 7, etc. which are bent downwardly after sides 2 have been slit at 49. Sides 21, thus formed, are bent back to provide lips 22 which are screwed to channel 20 by screws 50, the upper side 46 of said channel 20 being turned up at an angle to act as a fastening means for the lower ends of gutter sections 5, 5', etc. to which they are screwed by screws 47. Tips 10 of apron sections 9 are bent outwardly to act as deflectors in the conventional manner.

The upper ends 19 of the awning members 1, 6, 7, etc. are cut at an angle so that the end edges are parallel to the window frame to which they are attached. Angle member 24 is fitted over the edges so as to allow side 24 to overlap over the tops of the awning members 7. Side 24 has its lower edge 25 turned up to allow some drainage of water to the sides and to prevent bulging of plate 24 when screws 51 are tightened therein.

Side 26 of angle member 24 fits into U-shaped hanger 28, and a hole is made through side 6 and U-member 28 through which screws 30 are inserted and driven into the window frame, thus holding the upper portion of the awning to the building.

Side baffles 31, 33, etc. project at an angle from the awning. Sides 52 of the end baffle 31 are screwed directly to front channel 20 together with lip 53 of side 55 of the apron section 9, while the projecting side 56 of baffle 31 is held in place by hollow separator 37 through which is inserted bolt 38 which holds side 56 tightly to side channel 42. The inner sides 57 of the succeeding baffles are bolted directly to side channel 42 by bolts 58, while their protruding sides 59 are held by separators 40 through which bolts 41 are inserted and bolted to channel 42. The upper portions 32 of the protruding sections of baffles 31, 33, etc. are shaped into an arcuate design.

It will be observed that the upper portions of gutter sections 5, 5', etc. have their sides slit at 60 and the gutter plate 5 is raised at an angle to form a sealing section 19 which seals off the gutter from the rain. Sealing section 19 abuts or terminates against the underside of channel section 6, 7 or 1.

Side channels 42 are preferably attached to the window frame via a stronger and thicker angle member 43 by means of screws 45 in side 44 of angle 43.

The apron portion 9 of the awning is an extension of the sloping portion composed of the shaped sheet units having raised channel sections 1, 6, etc., and gutter sections 5, 5', etc. Before the apron portion is bent into position, the lower gutter section, to be incorporated in the apron portion, is slit at 65 and the gutter is removed at that point. The side portions 21 on apron members 9 which are slit at 49 are cut to allow bending down of apron members 9, and these side portions 21 are then turned inwardly under the apron sections 9 to act as lips 22, 61, etc. which are fastened to channel 20 by screws 23, 62, etc. Since the upper side 46 of channel 20 is angularly disposed parallel to the gutter, sections of the sloping portion of the awning, edge 65 of the cut-off rests on side 46 and thus is sealed off from entry of rain and the like.

Among the advantages of the present invention over existing units of similar type are stronger construction and rigidity, requirement of fewer bolts and screws and better concealment thereof, much easier assembly and simplified apron construction. Also, there is much less rain entry due to the type of gutter construction employed which shields half of the gutter and yet allows adequate air circulation.

Although side 14 of channel member 17 may be of the same width as side member 13 it is preferable to make side 14 wider, as shown in Fig. 2, to facilitate fastening of shields 31, 33, etc. Screws 66 are inserted through members 24 and 28 to fasten the two strips, thus preventing dislodging of the awning out of hanger 28.

I claim:

1. In a rigid ventilated awning to be mounted over an opening in a building and having at least one sloping raised portion and adjacent gutter portion running lengthwise the awning, means for mounting the upper section of said sloping portion to the building above the opening, and a forward downwardly directed apron section comprising extensions of said sloping portions mounted on a horizontal channel member from the sides of which extend angularly directed supports attachable to the building, to which supports are attached a multiplicity of side baffles for deflecting rain, the improvement comprising sloping portions substantially consisting of shaped sheet units consisting of a wide raised channel section, an outer downwardly directed narrow side and an oppositely disposed wide side extending therefrom, a horizontally directed narrow gutter section extending from said wide side, and a vertically upwardly directed narrow side extending from the side edge of said gutter section, said shaped sheet units being disposed alongside each other, the outer downwardly directed narrow side of the channel section of one shaped sheet unit being disposed in spaced overlapping relation to the narrow side of the gutter section of the next adjacent shaped sheet unit and attached thereto with sufficient vertical clearance between the entire edge of said outer downwardly directed narrow side and the gutter section and sufficient horizontal clearance between the adjacent overlapping short sides of the channel and gutter sections to provide substantial air circulation therethrough, said raised channel sections of all shaped sheet units being horizontally in line with each other, a channel member having downwardly directed sides and acting as a terminal shaped sheet unit for said awning, inwardly bent lips projecting from the sides of the raised channel members in the apron section, means for attaching said lips to said horizontal channel member of the apron section, and an upwardly raised side on said horizontal channel member, projecting at an angle, parallel to and fitting tightly against the lower gutter sections of said sloping portion.

2. An awning according to claim 1 in which the sides of the upper section of the gutters in the sloping portion are slit, and the gutter section is raised at an angle, said raised portion being parallel to and tightly fitting against the mounting means to the building.

3. An awning according to claim 2 in which the narrow side of the channel section of the sloping portion has a holding means, a narrow bent strip of sheet having an end attached to said holding means, and means for holding the other end of said strip to the narrow side of the channel section, said strip acting as a separator and support for the shaped sheet units.

FRED LANGBEIN.

REFERENCES CITED

The following references are of record in the file of this patent:

UNITED STATES PATENTS

Number	Name	Date
502,552	Detombay	Aug. 1, 1893
2,098,705	Houseman	Nov. 9, 1937
2,466,595	Korman	Apr. 5, 1949
2,467,351	Vollmer	Apr. 12, 1949
2,484,987	Eschrich	Oct. 18, 1949
2,486,660	Kurtz	Nov. 1, 1949
2,530,036	Williams	Nov. 14, 1950
2,542,919	Freeman	Feb. 20, 1951
2,568,679	Freeth	Sept. 18, 1951