June 23, 1942. W. B. BROWN 2,287,667

AWNING FASTENER

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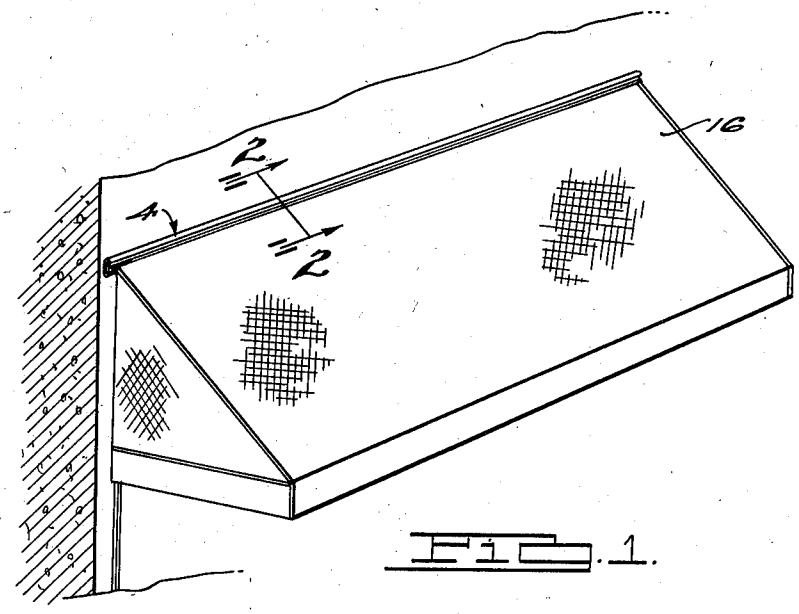
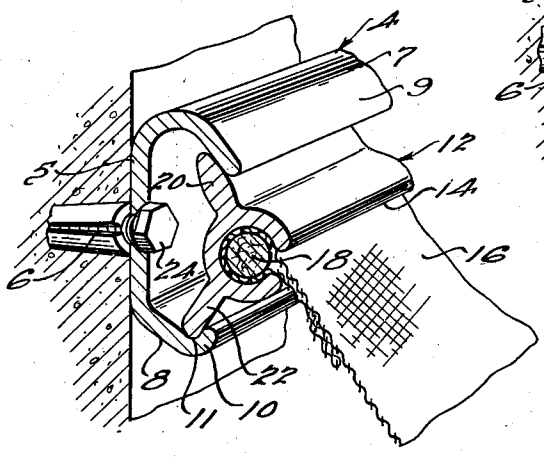


Fig. 1.

Fig. 2.



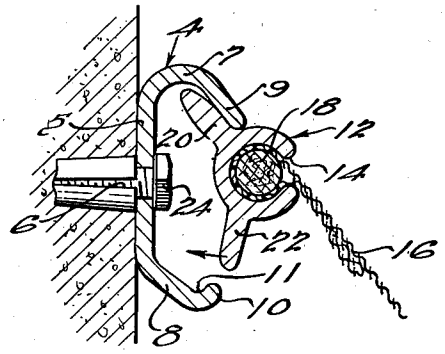


Fig. 3.

INVENTOR
Winfield B. Brown.
BY
Harness, Dickey & Pierce.
ATTORNEYS.

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AWNING FASTENER

Winfield B. Brown, Detroit, Mich.

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15 Claims. (Cl. 156—15)

This invention relates particularly to awning fasteners, and the like, although the construction of this development may be utilized for many other purposes with equal facility.

The main objects of this invention are to provide a two piece awning fastener construction, one piece of which is permanently affixed to a building or other support, and the other piece of which carries the awning and is adapted to be readily assembled to and dismounted from the first mentioned base; to provide a simple construction of two piece demountable construction which may be fabricated from either rolled stock or by extrusion from dies; to provide an awning fastener in which an awning may be put up or taken down readily and quickly with a minimum of manual labor; to provide a two piece awning fastener, the members which are securely interlocked in assembled relation and maintained in such position by gravity as well as the pull of the awning, but which may be readily dismounted by relieving the tension of the awning and moving one member in opposition to gravity; to provide an awning fastener of weather-proof and watertight construction; to provide a two piece awning fastener in which one piece is permanently attached to the building or to the support, and the other piece which is adapted to be assembled to and dismounted therefrom by translational and rotary movements thereof relative to the fixed member; and to provide a two piece demountable awning fastener in which warpage or other distortion of the building or othe support and consequent distortion of the permanently affixed base member will not interfere with the assembling or demounting of the other member.

An illustrative embodiment of this invention is shown in the accompanying drawing, in which:

Fig. 1 is a view in perspective of an awning mounted on the face of a building, or such other support, by the improved fastener according to the present invention.

Fig. 2 is an enlarged fragmentary view in perspective taken along the line 2—2 of Fig. 1, looking in the direction indicated by the arrows, showing the parts in assembled relation.

Fig. 3 is an enlarged transverse sectional view showing the two members in partially assembled relation during the assembly operation, the direction of further movement being indicated by the arrow thereon.

In the construction shown in the drawing a base member, generally indicated 4, is preferably a continuous strip of channel shape having a web portion 5 which is adapted to be secured snugly against a building, or like support, by means of suitable fasteners such as expansion bolts 6, or the like.

Although the base member 4 is shown as being a continuous strip, it is to be understood that the broad concept of this invention may be carried out by using a series of independent brackets secured to the building in spaced relation to each other. The base member may be formed either by extrusion, or by the rolling of strip stock, and may vary considerably from the particular cross-sectional shape and contour shown.

The base member 4, as before stated, is generally of channel shape, and has integrally formed flanges 7 and 8, which extend outwardly or transversely to the web 5 and are disposed in generally spaced parallel relation to each other. The flange 7 will hereinafter be referred to as the top flange, as it bears this relation to the strip when the base member is secured in normal position for use. The top flange 7 not only extends outwardly from the web 5, but also is provided with a downwardly, extending lip portion 9, which is directed toward the flange 8.

The lower flange 8 is also provided with a lip portion 10 which extends outwardly and upwardly, that is to say, toward the lip portion 9, thus forming a groove or trough 11 on the upper or inner side thereof which faces or is in opposed relation to the top flange 7. It is to be noted that the upper flange 7 and lip 9 are of greater dimension than the lower flange 8 and its lip 10, so that the upper flange and lip overhang the lower or supporting flange when mounted in normal position.

An awning retaining member, generally designated 12, is provided for detachable or demountable assembly with the base member 4, and is preferably provided with a cylindrical bore and continuous communicating slot 14 for receiving the marginal edge of an awning 16, which has been folded back to form a hem. The hem is provided with a flexible filler rod 18 in the usual and customary manner.

The awning retaining member 12 is preferably of continuous length, and likewise may be extruded or rolled, the particular exemplification shown herein being extruded aluminum alloy.

The member 12 is provided with integrally formed, outwardly extending, divergent flanges 20 and 22 of such shape and dimensions as to be readily assembled into and demounted from the base member 4. The distance from the outer tip of the flange 20 to the outer tip of the flange 22 is less than the distance from the upper edge of the lip 10 to the adjacent side of the upper flange 7, rearward of its lip 9 so that the flange 20 may be inserted underneath the lip 9 of flange 7, as shown in Fig. 3, and then by rotation of the member in the direction indicated by the arrow shown on flange 22, this flange may be swung inwardly above the groove 11. Then by translatory movement, the member 12 is lowered into the position shown in Fig. 2, with the edge of the flange 22 received in the groove 11 and resting

on the flange 8 and retained by the lip 10. At this time the flange 20 will engage the under or rear side of the lip 9, as shown in Fig. 2, due to the fact that the dimension between the outermost tips of the flanges 20 and 22 is greater than the distance between the floor of the groove 11 and the adjacent edge of the lip 9.

It is particularly to be noted that the flanges 20 and 22 are so arranged with respect to the central body portion of the awning retaining member 12 that ample clearance is provided between the upstanding edge of the lip 10 and the lower edge of the flange 22 at the time the awning member is rotated past the lip 10 and into position to be demountably assembled therein.

Furthermore, the flanges 20 and 22 are so disposed with respect to the body portion 12 that ample clearance is allowed for the bolt head 24 of the expansion bolt 6. Another feature is in having the flanges 7 and 8, and their respective inturned lips 9 and 10 so spaced and arranged, that the bolt head 24 may be engaged by the socket of a standard socket wrench, and thus readily rotated to secure the base member 4 to the building or other support.

In the operation of this development, the base member 4 is secured in snugly fitting relation to the surface of a building, or like support, by passing suitable fasteners, such as expansion bolts 6, through the web portion 5 and drawing up snugly upon them.

After the base member 4 has been mounted in position, the member 12, which carries the awning 16, is assembled to the base member by slipping the flange 20 underneath the outwardly and downwardly extending lip 9 of the upper flange 7, as shown in Fig. 3 of the drawing, then rotating the member 12 until the lower flange 22 is over and above the groove 11. At this time the member 12 is lowered downwardly by translatory movement to engage the lower edge of the flange 22 in the groove 11. Gravity and the pull of the awning 16 will rotate the member 12 outwardly to the position shown in Fig. 2, in which position it is securely locked and demountably or detachably retained in position. By securing the web 5 of the base member 4 securely against the building, and the fact that the upper flange 7 and lip 9 extends over the awning retaining member 12 in the manner illustrated, a very snug, water-tight joint is secured. Ample clearance is allowed between the lower edge of the flange 22 and the upper edge of the lip 10 so that should distortion of the base member 4 take place, due to warpage of the building, or for any other reason, it will not lock the member 12 into the base member 4 so that it can not be removed therefrom. Furthermore, the base member 12 may be assembled and dismounted year after year even though considrable warpage or distortion of the base member 4 takes place.

A further feature of this invention lies in the fact that the member 12 is rather stiff throughout its length due to the flanges 20 and 22, and thus it is a simple matter for one person to put up a relatively long or wide awning without the aid of helpers.

It will be understood, of course, that demounting or disassembling of the parts is done by reversing the order described for assembly, that is to say, the awning retaining member 12 is first raised upwardly to disengage the flange 22 from the groove 11, and then the member is rotated outwardly until the flange 22 clears the lip 10, at which time the member 12 is lowered to disengage the flange 20 from behind the lip 9.

Although but one specific embodiment of this invention has been herein shown and described, it will be understood that numerous details of the invention shown may be altered or omitted without departing from the spirit of this invention, as defined by the following claims.

What is claimed is:

1. An awning fastener comprising a base member adapted to be affixed to a support, and an awning retaining member demountably interlocked on said base member and retained in assembled relation by gravity, said latter member being demountable from said base member by moving the same in opposition to gravitational forces.

2. An awning fastener comprising a base member adapted to be affixed to a support, a supporting flange on said base member, a locking flange on said base member and an awning retaining member adapted to rest on said supporting flange, and when in such position to be engaged by said locking flange to retain said members in assembled relation.

3. An awning fastener comprising a base member adapted to be affixed to a support, a supporting flange on said base member having an upwardly extending lip forming an upwardly presenting groove, a locking flange on said base member in spaced relation to such groove and having a downwardly extending lip, and an awning retaining member having a portion receivable in said groove, and another portion engageable by said locking flange lip to retain said members in assembled relation, said awning retaining member being demountable from said base member by translatory and rotary movements relative to said base member.

4. An awning fastener comprising a base member adapted to be affixed to a support, a supporting flange on said base member having an upwardly extending lip forming an upwardly presenting groove, a locking flange on said base member in spaced relation to such groove and having a downwardly extending lip, and an awning retaining member having a portion receivable in said groove, and another portion engageable by said locking flange lip to retain said members in assembled relation, said awning retaining member being demountable from said base member by a translatory movement followed by a rotary movement relative to said base member.

5. An awning fastener comprising a generally channel shaped base member adapted to have its web portion affixed to a base support with the flanges thereof extending outwardly from such support, one of said flanges being provided with a groove facing the other of said flanges, said other flange being provided with a lip inclined toward said grooved flange, and an awning retaining member having a portion receivable in said groove, and having another portion loosely engageable by said flange lip, the shape and dimensions of said portions being such that said awning retaining member is readily assembled to and demounted from said base member.

6. An awning fastener comprising a generally channel shaped base member adapted to have its web portion affixed to a base support with the flanges thereof extending outwardly from such support, one of said flanges being provided with a groove facing the other of said flanges, said other flange being provided with a lip in-

clined toward said grooved flange, and an awning retaining member having a portion receivable in said groove, and having another portion loosely engageable by said flange lip, the dimension between the adjacent faces of said flanges being greater than the dimension betwen the bottom of said groove and the adjacent edge of said flange lip, and the over-all dimensions to the outermost extremities of said awning retaining member portions being less than the dimension between the adjacent faces of said flanges and being greater than the dimension between the bottom of said groove and the adjacent edge of said flange lip, whereby the portions of said awning retaining member may be assembled within and between said base member flanges, and when one of said portions is resting in said groove, the other of said portions will be engaged by said flange lip.

7. An awning fastener comprising a strip-like base member adapted to be affixed to a support, a pair of flanges on said base member extending transversely to the plane thereof, and in generally spaced parallel relation to each other, a portion of each of said flanges being inclined toward the other, and an awning retaining member adapted to loosely fit and be assembled between said flanges, said awning retaining member having an edge portion adapted to be received on one of said flanges back of its inwardly turned edge, and another portion adapted to be engaged and retained by the inwardly turned edge of the other flange when in proper position therein, said awning retaining member being readily demountable from said base member by translatory and rotary movements relative to said base member.

8. An awning fastener comprising a continuous strip-like, generally channel shaped, base member adapted to have its web portion fixed to a base support in snug relation thereto, the flanges of said base member extending outwardly from such support, each of said flanges having a lip portion at its outer free edge, said lip portions being disposed in opposed relation to each other, one of said flanges and lip portions being of materially greater dimension than the other, and an awning retaining member having a pair of divergently disposed flange portions, the distance between the outer edges of said divergently extending flange portions being greater than the distance between said base member flange lips, and less than the distance between the adjacent faces of said base member flanges, whereby assembly and dis-assembly of said members may be effected by placing said awning retaining member within the space defined by said base member flanges, and then rotating the same with one of said awning retaining member flanges resting on the smallest of said base member flanges and behind the lip thereof.

9. In an awning fastener, the combination of an elongated generally channel-shaped base member adapted to be secured to a support, spaced substantially parallel flanges on said base member and an elongated strip-like awning retaining member loosely mounted between the flanges of said base member and movable with respect thereto endwise and rotatable about a longitudinal axis, such bodily rotation being normally limited by one of said base flanges.

10. In an awning fastener, the combination of an elongated generally channel-shaped base member adapted to be secured to a support, spaced substantially parallel flanges on said base member, the outer free edges of said flanges being inclined toward each other, and an elongated strip-like awning retaining member having one edge loosely and rotatably mounted on one of said base flanges and being shaped and disposed so that its other edge will be engaged by the other of said base flanges when said retaining strip is rotated about its mounted edge as an axis.

11. An awning fastener comprising a base member adapted to be affixed to a support, a supporting flange on said base member having a lip forming a groove, a locking flange on said base member in spaced relation to such groove and having a lip extending toward said groove, and an awning retaining member having a portion receivable in said groove, and another portion engageable by said locking flange lip to limit relative movement, said awning retaining member being demountable from said base member.

12. An awning fastener comprising a base member adapted to be affixed to a support, a supporting flange on said base member, a lip on said flange forming a groove, a locking flange on said base member in spaced relation to such groove and having a lip extending toward said groove, and an awning retaining member having a portion receivable in said groove, and another portion engageable by said locking flange lip, said awning retaining member being demountable from said base member.

13. An awning fastener comprising a continuous strip-like, generally channel-shaped, base member adapted to be affixed to a base support in snug relation thereto, the flanges of said base member extending outwardly from such support, each of said flanges having a lip portion at its outer free edge, said lip portions being disposed in opposed relation to each other, one of said flanges and lip portions being of materially greater dimension than the other, and an awning retaining member having a pair of divergently disposed flange portions, the distance between the outer edges of said divergently extending flange portions being greater than the distance between said base member flange lips, and less than the distance between the adjacent faces of said base member flanges, whereby assembly and dis-assembly of said members may be effected by placing said awning retaining member within the space defined by said base member flanges, and then rotating the same with one of said awning retaining member flanges resting on one of said base member flanges and behind the lip thereof.

14. In an awning fastener, the combination of a base member adapted to be secured to a support, flanges on said base member, an awning retaining member, having a longitudinal passageway and a communicating slot for receiving and retaining the marginal edge of an awning, and divergent flanges on said awning retaining member, shaped and disposed so as to be engaged and demountably secured by said base member flanges.

15. In an awning fastener, the combination of a base member adapted to be secured to a support, flanges on said base member inclined toward each other, an awning retaining member having a longitudinal passageway and a communicating slot for receiving and retaining the marginal edge of an awning, and divergent flanges on said awning retaining member, shaped and disposed so as to be embraced between and demountably secured by said base member flanges.

WINFIELD B. BROWN.