This invention relates to a new and improved awning or canopy which is made in a more simple manner than the prior art but at the same time provides a more rigid and sturdy awning or canopy and also one which is assembled a great deal faster and easier than in the prior art.

An awning or canopy especially those made of materials such as plastic, metal or glass resin comprise a flashing adapted to be secured to a support upon which the awning or canopy will be mounted, a series of rafters extending generally at right angles to the flashing, a gutter at the opposite ends of the rafters from the flashing, and the gutter itself which is connected both to the flashing and to the gutter, the rafters not only supporting and shaping the curtain but stretching the same into a taut condition with respect to the flashing in the gutter.

The present invention relates in particular to an improvement in the construction of the gutter itself providing for easier attachment of the ends of the rafters and the gutter end of the curtain thereto, and particularly in such a way as to prevent any possible separation of the curtain from the gutter; while at the same time the novel gutter provides for anchoring of the ends of the rafters in a new and improved manner.

Other objects and advantages of the invention will appear hereinafter.

Reference is to be had to the accompanying drawings in which:

Fig. 1 is a view in side elevation with parts broken away and in section illustrating the invention, and
Fig. 2 is an enlarged perspective view of the novel gutter structure. The usual metal awning or canopy consists of a curtain or the like having which is old and well known in the art and is made up of thin bent metal pieces or the like forming a kind of crossbar effect. The curtain has a rear rolled-over edge and a forward rolled-over edge for instance, the former being secured in bead 16 of the flashing 18, the flashing being secured by any fasteners desired to a wall or the like with the curtain 10 extending outwardly and downwardly at whatever angle may be determined by the rafters.

The rafters 20 are usually bent tubular members being secured at their rear ends by any kind of fastener 22 to a projection or flange 24 in the flashing 18. Ordinarily these ends of the tubing are received between the flange 24 and the curtain material which is gripped between the end of the pipe at 26 and the edge 28 of bead 16.

The present invention has to do with the opposite or forward end of the awning or canopy and includes a gutter member generally indicated at 30. This gutter member is itself novel, and is best shown in Fig. 2. It comprises a substantially cylindrical channel member 32 having an open top at 34 and acting as a gutter. Its forward portion at 36 is unimpeded, and at its rear portion it is provided with a longitudinally extending lip 38 adjacent the lower part thereof. This lip is spaced from a bead 40 which is open longitudinally at a portion thereof at 42 having a curved-over rearward lip at 44. This provides a channel 46 in which the forward rolled-over edge 14 of the curtain is slidly received.

The lip at 44 provides a reduced opening or trap which is less in width than the diameter of the rolled-over edge 14 and it is necessary to slide this rolled-over edge 14 endwise into the channel 46. Once this has been accomplished, the curtain or course cannot escape from this channel.

The forward ends at 48 of the rafters 20 fit snugly between the lower edge 50 of the bead 40 and the lip or flange 38 as clearly shown in Fig. 1. The curtain is not interposed between the rafter and the shelf or lip at 50 as the rolled edge 14 of the curtain is in channel 46 and the curtain itself is resting on the bent-over portion 44 of the bead 40.

In the assembly of the device, the flashing can be assembled first or the forward gutter can be assembled first, depending upon the convenience of the operator or the home-owner who assembles the material. The rolled edge 14 is slid into the channel 46 as described so that the gutter 32 is located in central position relative to the curtain 10 and then all that is necessary to do is to secure the end of each rafter with respect to the lip 38 as by any type of usual fastener such as shown at 52. This will of course usually be a sheet metal screw. When the rolled edge 14 has been assembled in channel 46 and before the rafter is secured by screws or other fasteners 52, it is necessary to pivot the gutter structure in a clockwise direction looking at Fig. 1 so that the end 48 of the rafter snaps into the receptacle formed for it, i.e., it snugly fits between the edge 50 and the lip or flange 38 and actually snaps into this area thus bringing the curtain 10 to the right in Fig. 1 and stretching it relative to the flashing 18 so that a good strong and rigid awning or canopy is thereby provided.

This invention does away with the very awkward prior art manner of securing these parts and also does away with the necessary partial end caps ordinarily provided for the gutters to aid in securing the rafters in position. Furthermore in the absence of the new gutter construction, in the prior art, it was necessary to spread the lips of the gutter out in order to provide for a stretching action of the curtain; whereas this stretching action of the curtain is now inherent in the assembly operation of the gutter of the present invention.

There are many other advantages to this invention over canopy constructions of the prior art. In the prior art it is necessary to punch out holes in the gutter member to receive the ends of the rafters. Therefore once these holes have been punched out, the gutters cannot be used for any other size. For instance, if a 120° gutter is prepared with the holes punched, it cannot be used two if it is necessary to build a pair of sixty inch canopies because the holes would be in the wrong places for the rafters.

In addition to the present case, the punch-pressure operation is completely done away with and no such machinery is necessary in the manufacture of the novel canopy. Since no holes are pre-punched, it is obvious that each piece of gutter can be cut off to suit the exact size of the gutter which is desired to be made. The rafters in the new invention do not have to be pre-set just where the holes are.

Also, in the prior art, the gutters have to be an inch or an inch-and-a-half wider than the canopy itself at both ends if the rafters are going to be at the end edges of the curtain; but in the present case this is not necessary as the rafters can come exactly to the end edges of the gutters and thus further material is saved.

In addition to the above, the present construction allows a more rapid assembly and assembly which is made from a knockdown kit by an ultimate consumer rather than the entire device necessarily being assembled in the factory, and this of course saves time, money, shipping charges, etc.

Having thus described my invention and the advantages thereof, I do not wish to be limited to the details herein disclosed, otherwise than as set forth in the claims, but
what I claim is:

1. In a metallic awning, a curtain having a rolled forward edge and at least one rafter for said curtain, the curtain conforming to the shape of the rafter, the rafter having a forward end,
   a gutter, said gutter comprising a channel, a lip extending in a tangential direction from the channel underneath the forward edge portion of the rafter, means securing the lip to the forward edge portion of the rafter, a second channel of smaller dimension on the first-named channel, said second channel having an opening directed in a generally forward direction with respect to the rafter and the curtain and the rolled edge of the curtain being located and held in said channel.

2. The metallic awning of claim 1 wherein the rolled edge of the curtain is greater in diameter than the opening of the smaller channel.

3. The metallic awning of claim 1 wherein the rolled edge of the awning covers and conceals the opening to the smaller channel.

4. The metallic awning of claim 1 wherein the forward end of the rafter fits relatively snugly between the said lip and a portion of the smaller channel.

5. The metallic awning of claim 1 wherein the smaller channel includes a rearwardly directed portion in general parallelism with said lip, the distance between said rearwardly directed portion of said lip being approximately the outside diametrical dimension of said rafter.

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