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3,239,172

GUTTER HANGER

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FIG. 1

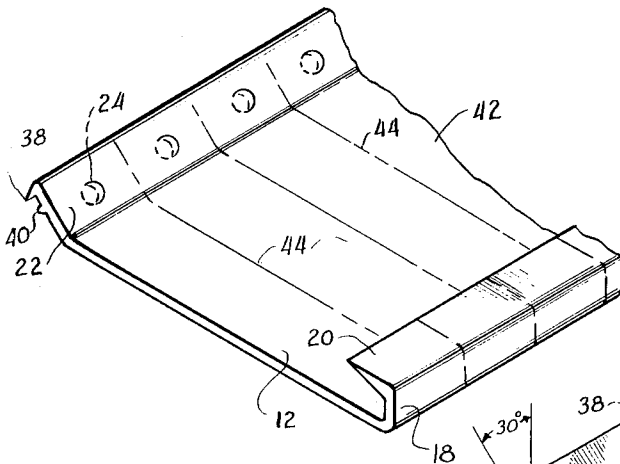


FIG. 2

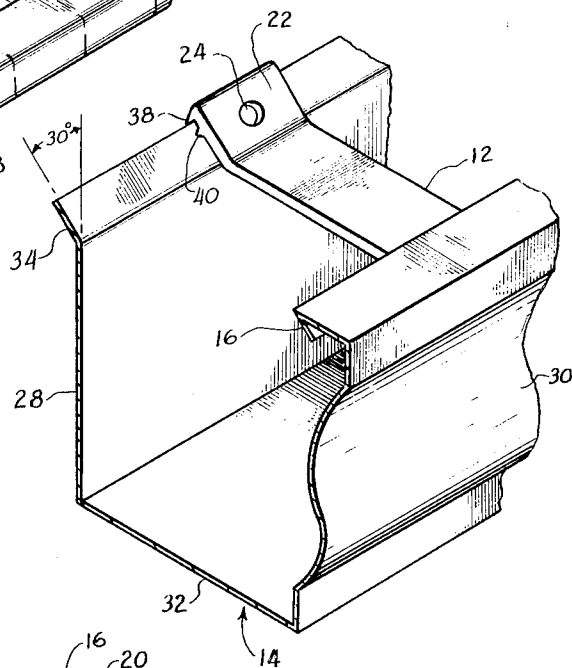


FIG. 3

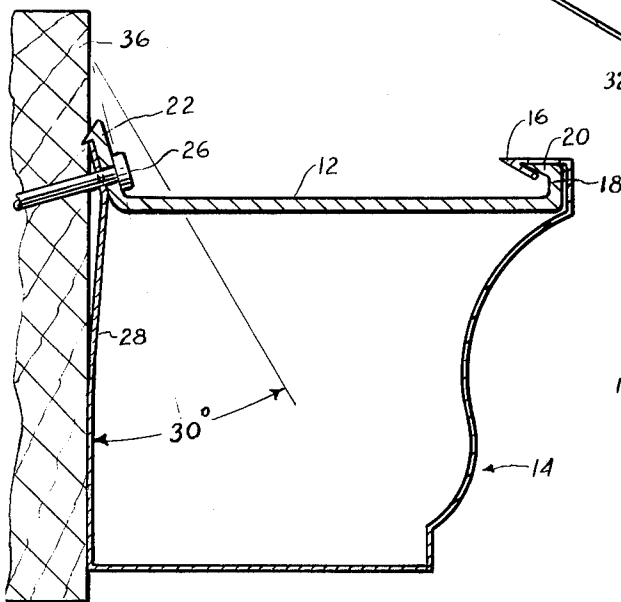
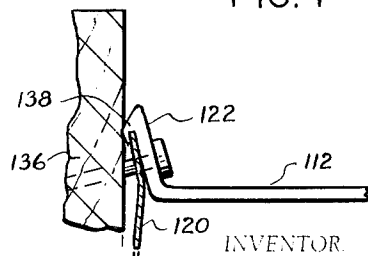


FIG. 4



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GUTTER HANGER

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8 Claims. (Cl. 248—48.2)

This invention relates to rain gutters for roofs, and more particularly to a hanger therefor.

The general object of the present invention is to improve gutter hangers. More particular objects are to provide a gutter hanger which is inexpensive to manufacture; which is easily and quickly applied to the gutter; which may be preliminarily applied to a gutter while the gutter is still on the ground; and which requires no extra fastening means, it being secured by the same nails which would anyway be used to hold the gutter itself.

Still further objects of the invention are to provide a gutter hanger which is invisible from the ground, and which does not mar the clean, straight lines of the gutter exterior.

To accomplish the foregoing objects, and other more specific objects which will hereinafter appear, my invention resides in the gutter hanger and the elements thereof, and their relation to the gutter as are hereinafter more specifically described in the following specification. The specification is accompanied by a drawing in which:

FIG. 1 is a perspective view showing how the individual one-piece gutter hangers are severed from a continuous extruded member;

FIG. 2 is a fragmentary perspective view showing the gutter hanger applied to a gutter, preparatory to securing both to a building;

FIG. 3 is a vertical section through a gutter hanger assembly as applied to a fascia board beneath an overhanging roof eave (not shown); and

FIG. 4 is a fragmentary view showing a modification.

Referring to the drawing, the gutter hanger 12 is used with a conventional sheet metal gutter 14, said gutter having a reversely bent stiffening lip 16 at its outer or forward edge. Hanger 12 has a length substantially equal to the width of the gutter, and it comprises a one-piece heavy-gauge metal bar which is directed upwardly at 18, and reversely at 20, to form a hook at its outer end which hooks into the lip 16 of the gutter, inside the gutter.

The hanger is directed upwardly at its inner end to form a short nail base 22. This base is apertured or pre-punched at 24 to receive a nail shown at 26 in FIG. 3. The nail penetrates the sheet metal rear wall 28 of the gutter, and the hanger may be slid along the gutter and located wherever desired when nailing the same.

Referring to FIG. 2, the gutter 14 has a front wall 30, and a bottom wall 32, in addition to the rear wall 28. The front wall 30 may have an ornamental configuration as shown. Frequently the top portion of the rear wall 28 is given a rearward slope as shown at 34, and in the present case, the rearward slope is approximately 30° from vertical. The purpose of this slope is to ensure that the edge of the gutter will hug the fascia board of the building, indicated at 36 in FIG. 3. The nailing operation helps straighten the bent edge 34, but some of the angularity is retained. In FIG. 3 the eave above and slightly overhanging the gutter has been omitted. The building wall below the fascia board also has been omitted.

In accordance with the present invention the nail base 22 as initially made slopes rearwardly at an angle conforming to that of the edge 34 of the gutter. This is clearly shown in FIGS. 1 and 2, and in the illustrated example the base 22 slopes rearwardly at an angle of

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30° from vertical. Here again the nailing operation reduces the angularity and brings the base 22, as well as the gutter edge 24, to a more nearly vertical position as shown in FIG. 3. In final position the nail base may have an angle of say 10° or at most 15° to the vertical.

In accordance with another feature of the present invention, the nail base 22 has a narrow rearward protruding ledge 38 at its upper end, this being designed to overlap the top edge of the gutter. One advantage is that it helps hold the hanger in position on the gutter before the nailing operation. Another advantage is that it prevents the nail base from sliding downward relative to the rear edge of the gutter as it is being nailed. In many cases, the hangers are applied at desired intervals along a length of gutter while the gutter is still on the ground, and the gutter assembly is ready for nailing when raised to the fascia board. The hanger then is still slidable along the gutter, and the exact nailing position may be decided just before driving the nail in place.

As an additional refinement the nail base 22 may be provided with a horizontal bead 40 projecting rearward, this bead being parallel to the ledge 38, and spaced downward somewhat from the ledge. The bead is intended to help additionally anchor the parts against relative displacement before and after applying the nail.

However, the bead 40 is a refinement and not at all essential. FIG. 3 shows the hanger as made commercially, in which no bead is used. FIG. 3 also shows the relation to the fascia board after nailing, the angular parts being bent to more nearly vertical position by the nailing operation.

FIG. 4 corresponds to the upper left corner of FIG. 3, but shows a modification in which the ledge has a hook shaped cross section to receive the edge of the gutter. The reference numerals correspond to those previously used, but increased by 100. The ledge part 138 has a narrow channel within which the gutter edge is received.

A common material used for rain gutters is sheet aluminum, and in such case the hanger 12 is preferably made of aluminum. Aluminum may be extruded in desired cross section, and one advantage of the present hanger is illustrated in FIG. 1, this being that a long member 42 may be made by extrusion, and the individual hangers may be severed or sliced from member 42, as is indicated by the broken lines 44. The nail holes 24 are punched after member 42 has been extruded. They may be punched before, during or after the severing operation. It should be noted that member 42, as extruded, provides the tapered hook 20 and the nail base 22, including also the ledge 38 and the bead 40 of the nail base. The part 20 is tapered as shown to better fit into the gutter lip 16. These structural details are provided at minimum cost as a part of the extrusion operation.

In the particular case here shown the hangers are one inch in width and the strap portion, that is the horizontal part shown in FIG. 3, has a thickness of about one-tenth inch. The length of the hanger is made such as to mate with the gutter, and in the illustrated hanger the length is five inches. These dimensions are given solely by way of example, and are not intended to be in limitation of the invention.

It is believed that the construction and method of use of my improved gutter hanger, as well as the advantages thereof, will be apparent from the foregoing detailed description. The hanger is a simple one-piece device which is readily hooked or snapped into position, even on the ground, and which remains in position, and yet which may be slid along the gutter just before nailing the same in place to adjust to a most favorable nailing position. The hanger has refinements in construction, but may be made inexpensively because it is made by extrusion. The

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hanger is secured in position by the same fastener, usually a heavy nail, that is any way used to secure the gutter itself in position. The hanger is invisible from the ground, and does not mar the clean, straight lines of the gutter. The hanger is heavy in gauge, and greatly strengthens the gutter against buckling or sagging. The heavy construction of the hanger does not slow the installation, because the nail hole is pre-punched. The sheet metal of the gutter which is not pre-punched is relatively thin and easily punctured by the nail.

It will be understood that while I have shown and described the gutter hanger in a preferred form, changes may be made without departing from the scope of the invention, as sought to be defined in the following claims.

I claim:

1. A gutter hanger for use with a conventional sheet metal gutter having a reversely bent lip at its outer edge, said hanger having a length substantially equal to the width of a gutter and comprising a one-piece heavy gauge solid metal bar which is directed upwardly and reversely at its outer end to form a hook which hooks inside the lip of a gutter, and which is directed upwardly at its inner end to form a short nail base adapted to rest against the back wall of a gutter, said nail base being apertured to receive a nail to be driven into a vertical fascia board or equivalent vertical support surface, and having a very narrow rearwardly protruding ledge at its upper end to overlie the rear top edge of a gutter, the material of said hanger being thick enough to support a gutter from the base, and the tip of said hook and the tip of said ledge each tapering to a thin edge.

2. A gutter hanger for use with a conventional sheet metal gutter having a reversely bent lip at its outer edge, said hanger having a length substantially equal to the width of a gutter and comprising a one-piece heavy gauge solid metal bar which is directed upwardly and reversely at its outer end to form a hook which hooks inside the lip of a gutter, and which is directed upwardly at its inner end to form a short nail base adapted to rest against the back wall of a gutter, said nail base being apertured to receive a nail to be driven into a vertical fascia board or equivalent vertical support surface, and having a very narrow rearwardly protruding ledge at its upper end to overlie the rear top edge of a gutter, the material of said hanger being thick enough to support a gutter from the base, and the tip of said hook and the tip of said ledge each tapering to a thin edge, said base also having a bead projecting rearward, said bead being spaced downward somewhat from said ledge.

3. A gutter hanger for use with a conventional sheet metal gutter having a reversely bent lip at its outer edge, and somewhat rearward slope at its rear edge, said hanger having a length substantially equal to the width of a gutter and comprising a one-piece heavy gauge solid metal bar which is directed upwardly and reversely at its outer end to form a hook which hooks inside the lip of a gutter, and which is directed upwardly at its inner end to form a short nail base adapted to rest against the back wall of a gutter, said nail to be driven into a vertical fascia board or equivalent vertical support surface, base being apertured

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to receive a nail and having a very narrow rearwardly protruding ledge at its upper end to overlie the rear top edge of a gutter, the material of said hanger being thick enough to support a gutter from the base, and the tip of said hook and the tip of said ledge each tapering to a thin edge, said base sloping rearwardly at an angle adapted to conform to that of the rear edge of a gutter.

4. A gutter hanger for use with a conventional sheet metal gutter having a reversely bent lip at its outer edge, and a somewhat rearward slope at its rear edge, said hanger having a length substantially equal to the width of a gutter and comprising a one-piece heavy gauge solid metal bar which is directed upwardly and reversely at its outer edge to form a hook which hooks inside the lip of a gutter, and which is directed upwardly at its inner end to form a short nail base adapted to rest against the back wall of a gutter, said nail to be driven into a vertical fascia board or equivalent vertical support surface, base being apertured to receive a nail and having a very narrow rearwardly protruding ledge at its upper end to overlie the rear top edge of a gutter, the material of said hanger being thick enough to support a gutter from the base, and the tip of said hook and the tip of said ledge each tapering to a thin edge, said base sloping rearwardly at an angle conforming to that of the rear edge of a gutter, said base also having a bead projecting rearward, said bead being spaced downward somewhat from said ledge.

5. A gutter hanger as defined in claim 1 in which the hanger is a transverse slice cut from an extruded member, which as extruded, provides the said hook and the said base with its ledge.

6. A gutter hanger as defined in claim 2 in which the hanger is a transverse slice cut from an extruded member, which as extruded, provides the said hook and the said base with its ledge and its bead.

7. A gutter hanger as defined in claim 3 in which the hanger is a transverse slice cut from an extruded member, which as extruded, provides the said hook and the said base with its ledge.

8. A gutter hanger as defined in claim 4 in which the hanger is a transverse slice cut from an extruded member, which as extruded, provides the said hook and the said base with its ledge and its bead.

References Cited by the Examiner

UNITED STATES PATENTS

496,483	5/1893	Miller	248—237
2,359,209	9/1944	Ellinwood	248—74
2,577,006	12/1951	Dodson	248—48.1
3,053,491	9/1962	Ramser	248—48.2
3,107,932	10/1963	Johnson et al.	287—54

FOREIGN PATENTS

227,585	3/1960	Australia.
683,196	3/1964	Canada.

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