Aug. 11, 1959 H. L. REHEIS 2,899,158

GUTTER HANGER

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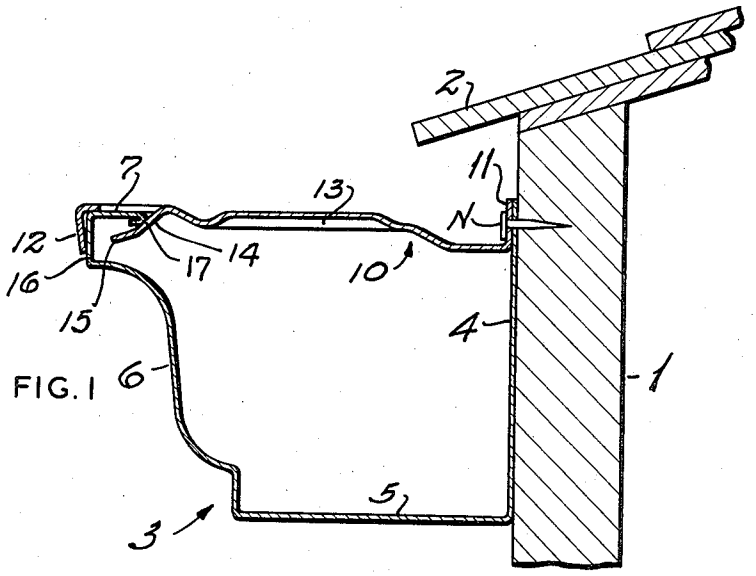


FIG. 1

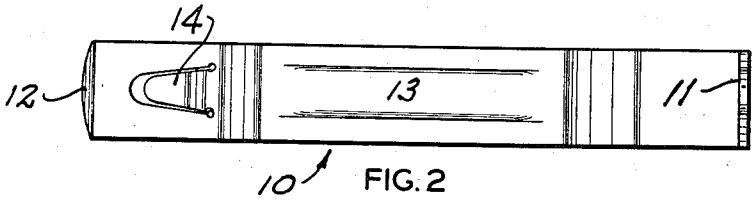


FIG. 2

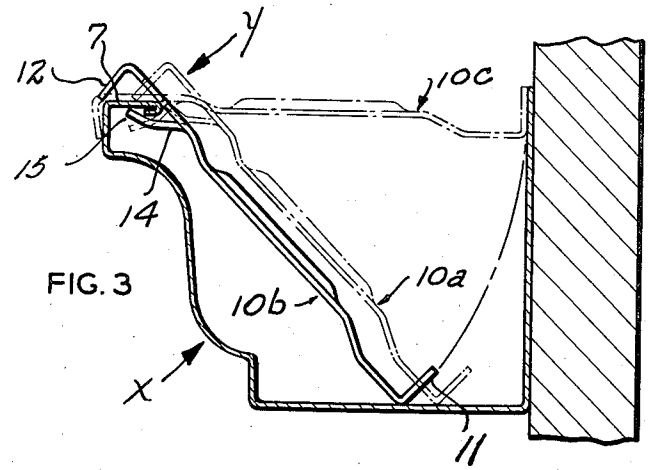


FIG. 3

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GUTTER HANGER

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1 Claim. (Cl. 248—48.2)

The invention relates to the support and bracing of a roof eave gutter or trough and consists in a simple, one piece substantially rigid hanger adapted to be secured to the upright facia or wall element beneath the overhanging eave of a roof and to securely engage the outer edge of the trough.

One object of the invention is to avoid attachment of the gutter hanger by nailing through the roof boards.

Another object is to avoid relatively complicated assembly operations of the hanger and gutter, such as would require slipping the hanger onto the end of the gutter or rotating the hanger from a position externally of the gutter to a position within the gutter.

Another object is to avoid deforming of the hanger during application, thus weakening its structure.

Another object is to make possible the use of a simple, inexpensive hanger element which can be readily formed from strip material in a single stamping operation.

In the accompanying drawings which illustrate a selected embodiment of the invention,

Figure 1 is a vertical transverse section through a building facia, adjacent roof portion, a gutter, and a retaining and bracing hanger embodying the invention.

Figure 2 is a top view of the hanger shown in Figure 1 and is drawn to an enlarged scale.

Figure 3 is a section similar to that shown in Figure 1 but is taken through the gutter and facia at a point spaced from the hanger and shows the hanger in an initial position assumed when it is to be applied to the gutter, and in a successive application position, and in a final position corresponding to that shown in Figure 1.

The building facia **1**, roof eave **2**, and gutter or trough **3** are of familiar construction, the gutter including an upright inner wall **4**, a horizontal lower wall **5**, and an upright outer wall **6**, there being an inturned horizontal lip **7** at the outer upper corner of the gutter.

The hanger **10** is formed of a strip of sheet metal with an upturned flange **11** at its inner end and a downturned flange **12** at its outer end, there being preferably an elongated corrugation **13** running through the middle portion of the hanger to afford greater rigidity. A tongue **14** is struck out from the middle of the hanger intermediate its opposite edges and is inclined downwardly from the body of the hanger toward flange **12** with its terminal **15** close to, but spaced from, the lower edge of flange **12** and forming a substantially rigid fork opening away from upturned flange **11**. Preferably the hanger is of substantially rigid material so as to resist deformation under pressure sustained when the hanger is applied to the gutter as follows:

The hanger is first laid diagonally of the gutter as indicated in dot and dash lines at **10*a*** in Figure 3. Pressure is then applied in the direction of arrows X and Y, causing the gutter lip **7** to distort and enter the space between tongue **14** and the body of the hanger, as indicated at **10*b*** in Figure 3. The hanger is then swung in a counterclockwise direction to the position indicated at **10*c*** in Figure 3 and as shown in full lines in Figure 1, and a

nail N is driven through an opening in the hanger upright flange **11** and through gutter upright wall **4** into facia **1**, thus securely locking the hanger in gutter supporting position.

By inclining the main portion of the tongue and the downturned flange of the hanger, as best indicated in Figure 1, the opposing elements of these two parts will form a yielding seat for the upright outer corner member **16** and the inner edge **17** of the gutter.

It will be noted that the spacing between the crotch defined by the tongue **14** and the overlying portion of the hanger strip, from the part thereof which engages the beaded inner edge of the lip **7** to the inner face of the downturned flange **13**, is such as to firmly grip the lip **7** therebetween when the parts are related as shown in Fig. 1, or in other words, when the hanger is swung upwardly to its operative position. At the same time, the length of the tongue **14** is such as to permit the lip **7** to be engaged in the manner described above and as is shown most clearly in Fig. 3 in full lines therein.

In hanging gutters, it is important that there be a firm gripping action between the outer end of the hanger and the engaged portion of the gutter and, at the same time, it is of extreme importance that the physical engagement and ultimate positioning of the hanger be achieved as quickly as possible and with as little effort as possible expended on the part of the mechanic effecting the installation. Because of this construction as defined above these specifications are admirably achieved in the present instance, that is to say, as it has been pointed out hereinbefore, the initial engagement of the hanger with the gutter as shown most clearly in Fig. 3 is easily effected and the physical act of swinging the gutter hanger from the full to the horizontal dotted line position shown in Fig. 3 effects the gripping action between the gutter hanger and the gutter itself and no further action on the part of the mechanic is required to effect this gripping action.

With this construction, the hanger may be applied to any point on the gutter intermediate the ends of the latter by dropping the hanger into the position indicated at **10*a***, applying pressure as indicated at X and Y, to insert the edge of the gutter lip **16** into the space between hanger flange **12** and tongue **14** and then swinging the hanger to the position indicated at **10*c***. No part of the hanger is distorted during this assembling operation and the distortion of the upper flange of the gutter is so slight that it has no effect upon the gutter strength. It is not necessary to remove one or more shingles or to pry the gutter inner upright wall **4** away from the roof facia **1** to get the hanger into place or to clamp the gutter lip to the hanger. The hanger may be removed later by reversing the swinging operation and without removing one or more shingles or pulling the gutter from the facia.

The application of the hanger to the gutter does not require any tools, and the securing of the hanger to the facia does not require any tools but an ordinary hammer and nail.

The essential features of the hanger may be retained in structures having additional features or modified details and the exclusive use of those modifications coming within the scope of the claim is contemplated.

What is claimed is:

A hanger for an eave gutter having an upright inner wall, an upright outer wall spaced therefrom with an inturned horizontal lip along its upper edge, the hanger comprising an elongated body corresponding in length to the distance between the upright walls of the gutter to which it is to be applied, said body having an upturned flange at its inner end and having a downturned flange at its outer end and having a tongue extending downwardly and outwardly and terminating near, but

spaced from, said downturned flange to define a crotch to receive the inner end of a gutter wall inturned lip between the tongue and body, the spacing between the lip engaging portion of the crotch defined between said tongue and said body and the inner side of said downturned flange being such as to firmly engage said horizontal gutter lip therebetween to grip the gutter lip as a result of and only when the inner end of the hanger is swung upwardly about its outer end as a pivot into a position

in which it extends across the distance between the gutter upright walls.

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