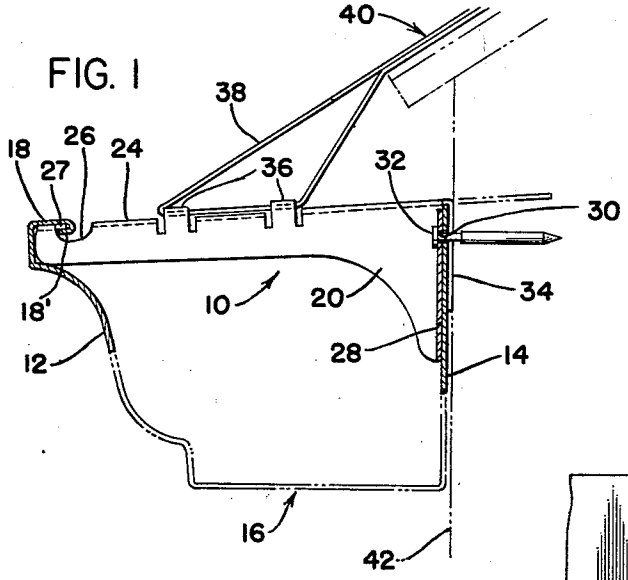
March 24, 1964 P. STEEG 3,126,181

SELF-LOCKING GUTTER HANGER BRACKET

Filed July 18, 1961

FIG. 1



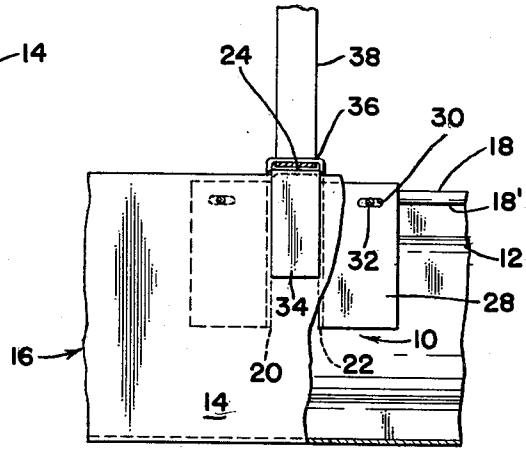
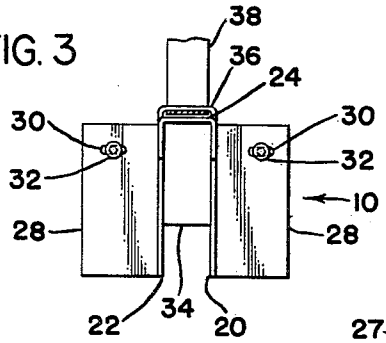


FIG. 2

FIG. 3



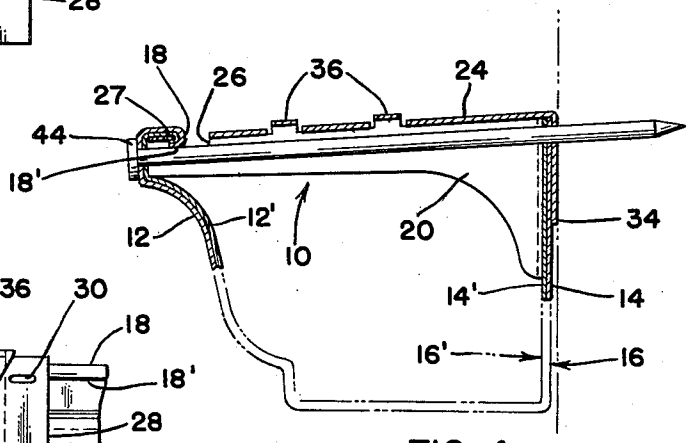


FIG. 4

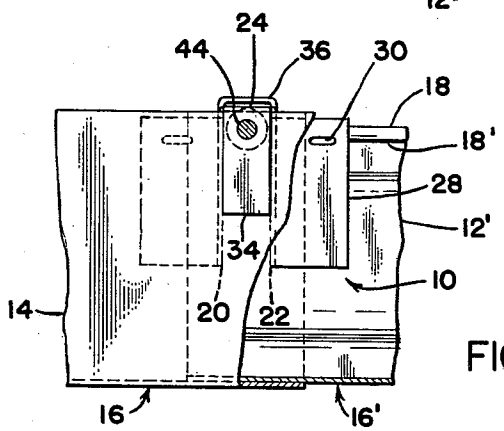


FIG. 5

INVENTOR.
PAUL STEEG
BY Ely, Fuge & Hamilton
ATTORNEYS

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SELF-LOCKING GUTTER HANGER BRACKET

Paul Steeg, 835 Broad, Cuyahoga Falls, Ohio

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3 Claims. (Cl. 248—48.2)

This invention relates to an improved hanger bracket for eave troughs or gutters, and more particularly is directed to a self-locking hanger bracket.

Prior conventional hanger brackets for eave troughs or gutters have been constructed to fit over or under the front and rear edges of the trough, and the exposed portions of the bracket are unsightly and require painting to blend in with the paint on the gutter. It has been proposed to insert the front end of the bracket within the front edge of the gutters, but this sacrifices rigidity, and in some cases requires driving a spike through the front of the gutter and into or through the bracket, and into the adjacent facia board of the building.

Other prior constructions of gutter hangers have the disadvantages of requiring fastening both front and rear ends of the bracket to the gutter in place, and of requiring different bracket designs for gutters hung from the roof than for gutters attached to the facia board.

It is an object of the present invention to provide an improved self-locking hanger bracket which when mounted on the gutter is completely unexposed, and which can be quickly applied in position on the gutter in place.

Another object is to provide an improved hanger bracket which braces the gutter between its front and rear edges, and is adapted selectively to be hung from the roof or spiked to the facia board.

A further object is to provide an improved hanger bracket which is adapted to splice two gutter sections together while at the same time performing its function as a hanger bracket for the connected sections.

These and other objects which will become apparent from the following description are acomplished by the improvements comprising the present invention, preferred embodiments of which are disclosed herein by way of example. Various modifications and changes in details of construction are comprehended within the scope of the appended claims.

In the drawings:

FIG. 1 is a side elevation of the self-locking hanger bracket hung from a roof and one manner of installing the bracket in a gutter shown in section, and the manner of the securement of both the bracket and gutter to a building shown in phantom.

FIG. 2 is a rear elevation of the self-locking hanger bracket in a gutter with a section of the back wall of the gutter partly broken away.

FIG. 3 is a front elevation of the self-locking hanger bracket.

FIG. 4 is a side elevation of a self-locking hanger bracket and shows an alternate manner of installing the bracket in a gutter and splicing two gutter sections together.

FIG. 5 is a rear elevation of the embodiment of FIG. 4 with the rear walls of the spliced lengths of gutter shown partly broken away.

The self-locking hanger bracket **10** is shown fitting between and abutting the front and back walls **12** and **14** of a gutter **16**. The gutter illustrated in FIGS. 1 and 4 is of the character known as the OG-type gutter design and is provided with an overhanging lip **18** which projects inwardly from the front wall **12** and which has a folded-under return flange **18'**. Obviously, the hanger bracket of the invention is not limited to this particular character of gutter but is equally applicable to all designs of gutter which are fabricated with an inwardly projecting overhanging lip. The hanger bracket **10** comprises duo-sidewall members **20** and **22**, a bridging portion **24** and a notch **26** forming an inwardly projecting tongue **27** adapted to interlock with the return flange **18'** of the overhanging lip **18**.

The hanger bracket **10** is preferably stamped from a single piece of sheet metal and bent into the configuration illustrated in the drawings. The resultant assembly is light in weight, strong and economical to fabricate. In essence it has the formation of a cross section of an inverted U.

The lower surfaces of the duo-sidewall members **20** and **22**, as viewed in FIGS. 1 and 4, extend rearwardly across the width of the gutter and then curve downwardly into an enlarged baselike portion. It is from this latter portion that the flanges or lateral wings **28** extend at right angles to the duo-sidewall members for face to face abutment with the interior surface of back wall **14**. In each flange or wing a preferably slotted hole **30** is provided through which a nail **32** can be driven to secure the gutter to the facia of a building, which is shown in phantom outline in FIG. 1.

The bridging portion **24** is substantially horizontal and presents a flat surface between the duo-sidewall members. Portion **24** extends rearwardly from the front wall of a gutter and ends in a projecting tab **34**, which tab is adapted to fold over the exterior rear surface of back wall **14** of the gutter. The bridging portion is preferably provided with raised clips **36** under which the lower looped end **38** of a hanger strap **40** may be slid laterally in supporting relation. The strap **40** may be secured to a roof preferably prior to installation of the roof shingles; however, it would be possible to install it after shingle installation with somewhat more difficulty. The raised clips **36** are stretched during the bending process so as to extend above the normal surface plane of the bridging portion. Although not shown, if desired, the hanger strap could be secured to the bridging portion in any suitable manner without the provision of raised clips.

The notch **26** is formed in the bridging portion **24** and extends downwardly into the duo-sidewall members **20** and **22**. The inwardly projecting tongue **27** of the notch is designed to hook under the return flange **18'** of the front wall **12** of a gutter in an interlocking relation.

The self-locking hanger bracket **10** is installed in a gutter by tilting the rear end upwardly to permit hooking the projection **27** under the lip flange **18'** and then moving the bracket into the horizontal position shown in the drawings whereby the flanges or lateral wings **28** firmly abut the rear or back wall **14** of the gutter and the projecting tab **34** is bent downwardly over the exterior surface of the back wall **14**. The hanger bracket thus forms a rigid brace between the front and rear walls of the gutter. The nails **32** are driven through the slotted holes **30** of the lateral wings or flanges **28** and the back wall **14** into the facia board **42** shown in phantom outline in FIG. 1. A predetermined length of hanger strap may be slid under the raised clips **36**, doubled and formed into a loop and attached at their extremities to a building roof. In this type of installation no portion of the hanger bracket shows on the outside face of the gutter.

If it is deemed desirable, however, a spike **44** as shown in FIGS. 4 and 5 may be driven through the outside or front wall **12** of the gutter and within the inverted U cross section of the hanger bracket and out through the back wall **14** and the tab **34** into a facia board. Inasmuch as the hanger bracket forms a rigid brace between the front and back walls of the gutter, the gutter front wall will not be caved in or distorted. The lateral wings will rigidly abut the interior back surface in bracing relation even though no nails are inserted through the slotted holes of the wings.

The self-locking hanger bracket **10** not only serves to

support a gutter at different points along its length, but also serves to support and reinforce a splice where one length of gutter has been joined with another length in overlapping relation. The combination of the tab and lateral wings along with the interlocking notch serves to provide a rigid support for such splice and severely restricts any tendency of the gutter to bend at this point. The wings provide laterally spaced points of support to prevent sagging at the spliced joint.

FIGS. 4 and 5 illustrate two gutter lengths **16** and **16'** with the front and back walls **12'** and **14'** of one length fitting within and overlapping the front and back walls **12** and **14** of another length. The projection **27** interlockingly supports both overlapping front walls of the gutter lengths. If the spike installation is used, the spike passes through both front walls, both rear walls and the tab into a facia board.

Although not specifically illustrated in FIGS. 1 and 2, it is to be understood that the type of installation shown therein is equally applicable to a splice arrangement as shown in FIGS. 4 and 5. The overlap of one length of gutter would extend sufficiently so that the nails **32** would pass through each slotted hole and each back wall of the gutter lengths into facia board **42**. Also, although not specifically illustrated, the installation of FIGS. 1–3 could be used without the hanger strap whereby the nails **32** would be the only means of securement to the facia board. Moreover, both forms of the bracket can be used with a hanger strap riveted thereto, if desired.

I claim:

1. A self-locking hanger bracket for a gutter having front and back walls with an overhanging lip projecting inwardly from said front wall and terminating in a folded-under return flange, comprising duo-sidewall members for extending between and abutting said walls, a bridging portion between said members, and a notch within said bridging portion and said duo-sidewall members forming an inwardly projecting tongue adapted to interlock under said return flange by tilting the rear end of the bracket upwardly.

2. A self-locking hanger bracket for a gutter having front and back walls with an overhanging lip projecting inwardly from said front wall and terminating in a folded-under return flange, comprising duo-sidewall members for extending between and abutting said walls, a bridging portion between said members, a notch within said bridging portion forming an inwardly projecting tongue adapted to interlock under said return flange by tilting the rear end of the bracket upwardly, means extending laterally from said sidewall members adapted to abut said back wall when the bracket is returned to horizontal position, and means extending rearwardly from said bridging portion for folding over said back wall.

3. A hanger bracket and splice support for overlapping lengths of gutters having front and back walls with overhanging lips projecting inwardly from said front walls and terminating in folded-under return flanges, comprising a longitudinal member extending across said gutter and abutting said front and back walls, wing means extending at right angles from said longitudinal member and adapted to abut said back walls, notch means on said longitudinal member forming an inwardly projecting tongue adapted to interlockingly engage at least one of said return flanges and support the overhanging lips of said front walls, and a tab extending rearwardly from said member and adapted to fold over the back walls of said gutter lengths.

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