

[54] GUTTER REINFORCER ATTACHMENT

[76] Inventor: **Nicholas J. D'Amato**, 2840 Braidwood Road, Richmond, Va. 23225

[22] Filed: **Aug. 20, 1974**

[21] Appl. No.: **498,936**

[52] U.S. Cl. **248/48.2**; 52/11; 248/216

[51] Int. Cl.² **E04D 13/00**; E04D 13/06

[58] Field of Search 52/11, 12, 14, 753 C, 285, 52/751, 95, 96; 248/48.1, 48.2, 216, 220.5, 237, 312

[56] **References Cited**

UNITED STATES PATENTS

263,046	8/1882	Huth	52/11
546,147	9/1895	Gregg	52/751
784,218	3/1905	Lane	52/751
1,635,871	7/1927	Wilson	248/48.1
1,701,087	2/1929	Tangard	248/48.1
1,940,369	12/1933	Peal	248/48.1
3,340,653	9/1967	Steeg	248/48.2 X

FOREIGN PATENTS OR APPLICATIONS

93,998	3/1959	Norway	52/751
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Primary Examiner—Roy D. Frazier
Assistant Examiner—Terrell P. Lewis

[57] **ABSTRACT**

A gutter reinforcer adapted to be used in connection with conventional tube and spike type attachment means, said reinforcer comprising a V shaped attachment having a down turned head portion at the apex of the V provided with an aperture to permit passage of a nail or spike and having flat outwardly disposed feet portions at the extremities of the legs of the V for attachment to the inner wall of the gutter. The improved gutter reinforcing attachment is preferably in strip form and may be stamped from sheet metal, after which the head portion is bent at substantially 90° to the plane of the strip. The legs are twisted through an angle of about 90° and the feet are bent outwardly so that they fit flat or substantially so upon the inside of the gutter where the same is applied to the facia-board. An aperture is formed in the down turned head portion to permit a nail or spike to be passed therethrough and then through a tube which extends between the outer and inner walls of the gutter and thence into the wall of the building to which the gutter is applied. Suitable fasteners such as nails or screws extend through the apertures in the outturned feet and also serve to secure the attachment to the inner wall of the gutter and to the facia-board.

8 Claims, 3 Drawing Figures

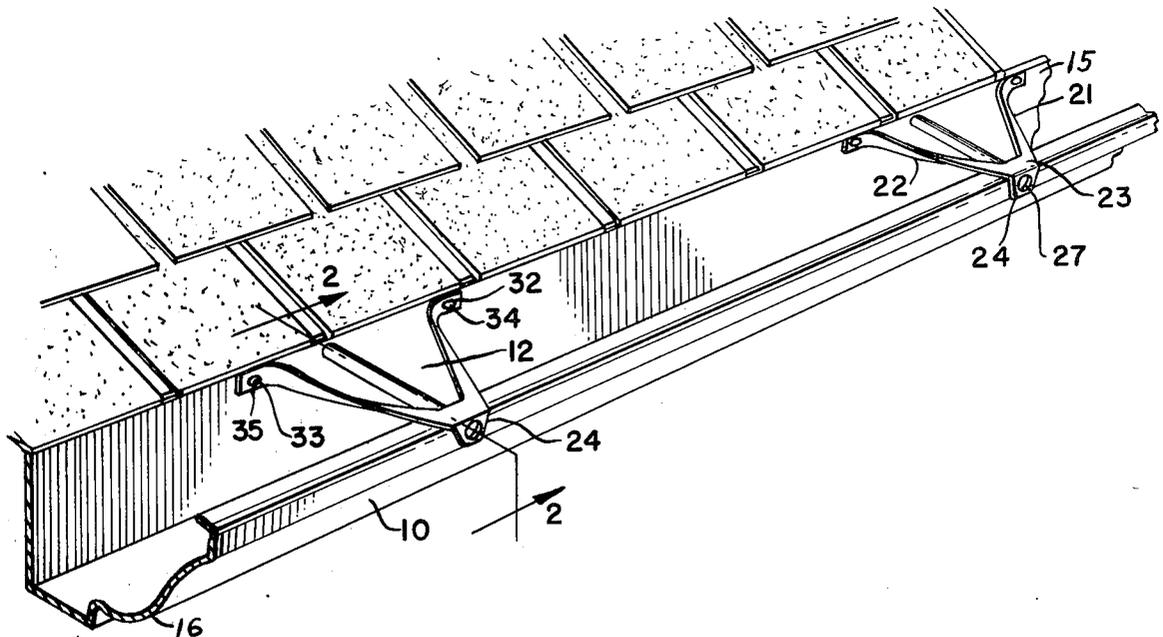


FIG. 1.

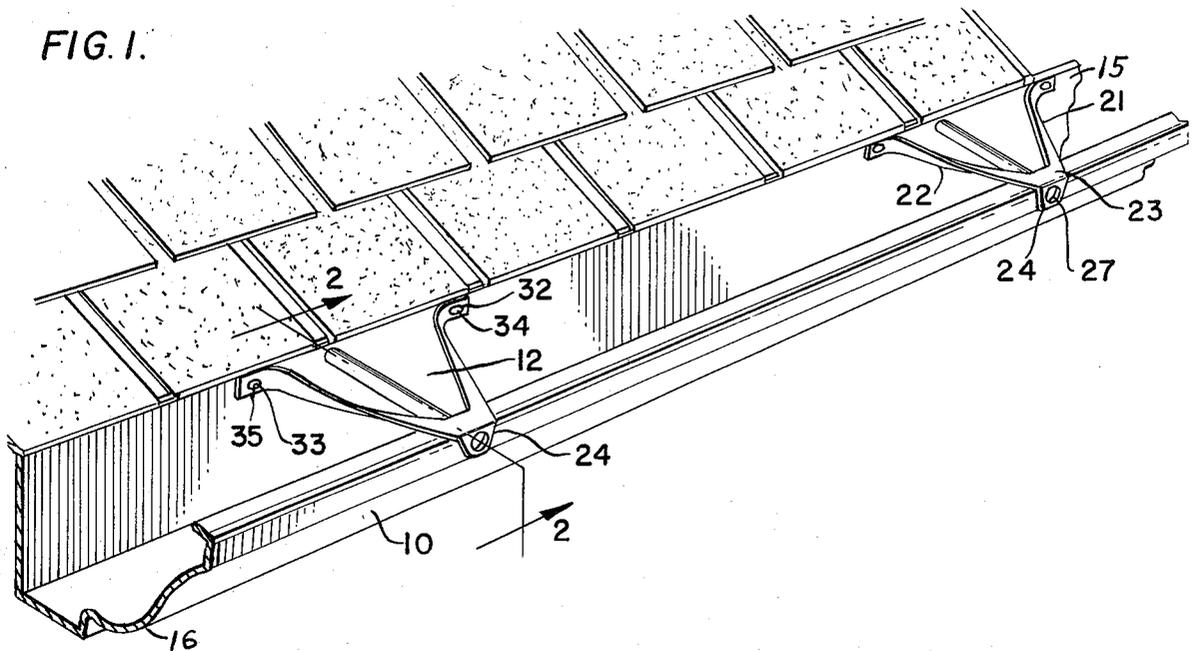


FIG. 2.

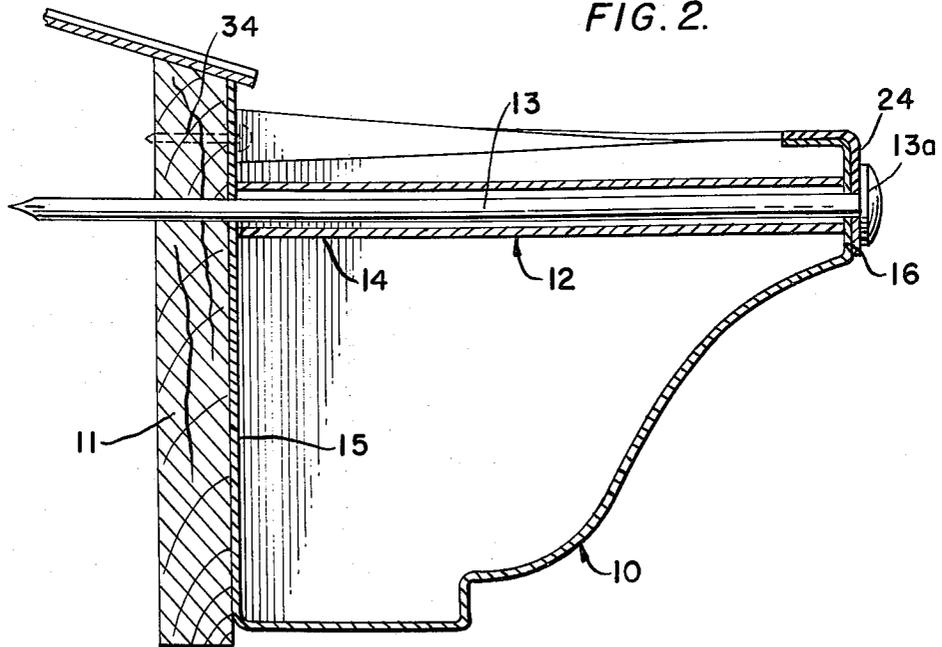
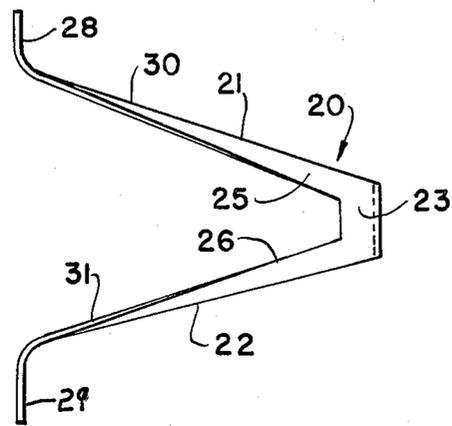


FIG. 3.



GUTTER REINFORCER ATTACHMENT

SUMMARY AND OBJECTS OF THE INVENTION

The invention relates to an improved reinforcement bracket attachment for gutters. More particularly the invention relates to a gutter reinforcer adapted to be used in connection with conventional tube and spike type attachment means, said reinforcer comprising a V shaped attachment having a down turned head portion at the apex of the V provided with an aperture to permit passage of a nail or spike and having flat outwardly disposed feet portions at the extremities of the legs of the V for attachment to the inner wall of the gutter. The improved gutter reinforcing attachment is preferably in strip form and may be stamped from sheet metal, after which the head portion is bent at substantially 90° to the plane of the strip. The legs are twisted through an angle of about 90° and the feet are bent outwardly so that they fit flat or substantially so upon the inside of the gutter where the same is applied to the facia-board. An aperture is formed in the down turned head portion to permit a nail or spike to be passed there-through and then through a tube which extends between the outer and inner walls of the gutter and thence into the wall of the building to which the gutter is applied. Suitable fasteners such as nails or screws extend through the apertures in the outturned feet and also serve to secure the attachment to the inner wall of the gutter and to the facia-board.

An object of the invention is to provide a rigid means of support for a gutter by preventing the loosening of the gutter through jarring and excessive weight.

A second object of the invention is to provide a device or attachment which may be used as a gutter reinforcer along with a conventional tube and spike fastener means of gutter support.

Another object of the invention is to provide twisted appendages of the attachment which give it strength and rigidity.

A further object of the invention is to provide an inexpensive device stamped from sheet stock.

I am aware of other gutter reinforcers covered by patents of which the following are representative:

263,046	Huth	Aug.	22, 1882
1,940,369	Peal	Dec.	19, 1933
2,144,225	Neisworth	Jan.	17, 1939
2,565,090	Ramser, Jr.	Aug.	21, 1951
2,761,642	Rachlin	Sept.	4, 1956

U.S. Pat. No. 263,046 for example shows a V-shaped bracket used in conjunction with an eaves trough, but its function is primarily as a bearing surface against which the upper edges of the eaves trough are pulled by means of the strips F.

U.S. Pat. No. 1,940,369 shows an integral spacer bar for covering a supporting spike 8 and a supporting strip 1 for nailing to the roof to supplement the support of the gutter by spike 8.

U.S. Pat. No. 2,144,225 discloses a support strip having one end attached to the roof and its other end secured to the spike and cross bar 2.

U.S. Pat. No. 2,565,090 shows an integral spacer encompassing a spike for supporting the gutter and reinforcing webs 2 and 3 which have tabs 4 and 5 which are nailed to the facia board 19.

In accordance with a preferred embodiment of the invention, my improved gutter reinforcer attachment is

constructed from a V shaped piece of stamped metal sheet stock. Each leg or appendage of the V is twisted intermediate its ends and then bent outwardly at the extreme end. An extension at the apex of the V is bent transversely to the plane of the appendages or legs. A hole is placed in the apex to facilitate entry of the spike of the conventional tubular support. The gutter reinforcer is placed at the top of the gutter and perpendicular to the gutter flow, and is so placed that the spike and the V lie in the same plane and that the spike substantially bisects the angle made by the V. The down turned portion of the apex of the V fits over the outer rim of the gutter and is secured thereto by the nail or spike. The appendages or legs are provided with outwardly turned feet which are fastened to the gutter facia-board on the inner rim of the gutter, and to the eaves of the building to which the gutter is applied.

The invention will be more readily understood by reference to the accompanying drawing and the following detailed description which are intended as illustrative embodiments but not as limiting the invention to the exact details set forth.

In the drawings:

FIG. 1 is a perspective view showing the gutter reinforcer applied to the facia-board and gutter of a building in combination with the usual nail and tube fastening means;

FIG. 2 is a sectional view taken on line 2—2 of FIG. 1; and

FIG. 3 is a top plan view of the V shaped attachment separate from the other elements of the assembly.

PREFERRED EMBODIMENT OF THE INVENTION

Referring to the drawings, reference numeral 10 denotes generally a conventional form of gutter shown as secured to the conventional facia-board 11 of a building, by means of conventional spike and tube fastening means generally designated by the reference numeral 12 and comprising a nail, spike or other fastener 13 which passes through a tubular member 14 inserted between the inner and outer walls 15 and 16 of the gutter near the top portion of the same. Such tube and spike fastening means is conventional but has the disadvantage that, as I have found, it requires reinforcement to prevent removal of the fasteners when the gutter becomes loaded with ice or snow and debris particularly during the winter season or when pressure is applied to the outer wall of the gutter in cleaning the same. The primary purpose of my improved gutter reinforcing attachment 20 is to remedy this defect.

The improved supplemental gutter reinforcing attachment 20 (FIG. 3) is preferably a V shaped unitary strap-like device initially separate from the tube and spike fastening means 12 but adapted for use in connection therewith without modification of the existing spike and tube fastener 12. As shown the gutter reinforcing attachment 20 is a substantially V shaped article preferably of strap-like material, which may be initially stamped from a sheet of metal or other suitable material.

The supplemental attachment 20 comprises a pair of legs 21 and 22 diverging from the apex or head portion 23 preferably at an acute angle ranging from about 30° to 85°. An attaching flange 24 is turned downwardly at the head portion 23 preferably at about 90° angle to the plane of the adjacent head portion and an aperture 27 may be formed therein for receiving the spike 13 of the

tube and spike fastener combination 12. The head 13a of the spike holds the down turned flange 24 in place.

As shown outturned foot portions 28 and 29 are formed at opposite ends of the legs 21 and 22 from the apex 23 for engagement with and attachment to the inner wall 15 of the gutter, which gutter engages the faciaboard 11 of the building.

In order that the foot portions 28 and 29 may lie substantially flush with the inner wall 15 of the gutter the legs 21 and 22 are twisted as indicated at 30 and 31 through an approximate 90° angle between the apex 23 and the foot portions 28 and 29. Suitable apertures 32 and 33 may be formed in the foot portions 28 and 29 to receive the fasteners 34 and 35 which may be screws, nails or the like and which extend through inner wall 15 of the faciaboard 11.

As will be apparent from the foregoing description the improved gutter reinforcer attachment is simple and inexpensive to manufacture and may be readily installed in connection with tube and spike fastening means 12.

To install the fastening means the tube 14 is first inserted between the inner and outer walls 15 and 16 of the gutter 10. Thereafter the attachment 20 is positioned as shown in FIGS. 1 and 2 with the flange 24 extending downwardly over the outer wall 16 of the gutter 10. The aperture 27 is placed in substantial alignment with the central passage of the tube 14 and the outwardly extending foot portions 28 and 29 rest against the inner wall 15 of the gutter 10 and preferably lie substantially flush with the wall 15. The head 13a of the nail or spike 13 overlies the flange 24 and opening 27.

As will be apparent the attachment 20 prevents any tendency to withdraw the sharpened end of the spike from the wall of the building when the gutter is weighted down by snow or ice or other accumulation, or by the application of outward pressure to the outer wall of the gutter as in cleaning. Also the legs 21 and 22 of the attachment 20 coact with tube 14 in preventing inner movement of the outer wall of the gutter when inward pressure is applied to the outer wall of the gutter. The gutter reinforcing attachment may be applied at any suitable intervals to the gutter and faciaboard as will be apparent to those skilled in the art.

The invention has been described in detail for the purpose of illustration but it will be obvious the numerous modifications and variations which may be resorted to without departing from the spirit of the invention in its broadest aspects.

What is claimed is:

1. A supplemental gutter reinforcing attachment for use in supporting a gutter from a faciaboard or the like at the eaves of a building, to be used in combination with conventional tube and spike gutter fastening means, said supplemental attachment comprising a unitary V shaped strip member including a down turned head portion at the apex of the V adapted to overlies the outer wall of the gutter and being adapted to receive the spike of the conventional tube and spike fastening means, said V shaped strip member having diverging legs provided with integral outwardly projecting foot portions for attachment to the inner wall of the gutter

and to the faciaboard, said reinforcing attachment, when assembled, lying in substantially the same plane as the spike and tube fastening means, and serving to reinforce the tube and spike fastening means and to prevent removal of the spike and tube fastening means due to accumulation of snow, ice or the like in the gutter, in combination with a gutter extending horizontally along the eaves of a building, spike and tube fastening means extending transversely through the gutter in a horizontal direction, the spike of said spike and tube fastening means extending through the down turned portion of the V shaped attachment through the tube portion of the fastening means and into the side wall of the building to which the gutter is attached.

2. The supplemental gutter reinforcing attachment as defined in claim 1 wherein the legs of the V shaped member are twisted at an angle of about 90° between the apex and the foot portions thereof.

3. An attachment as defined in claim 1 wherein the down turned head portion is apertured to receive the spike of the tube and spike fastening means.

4. The attachment as defined in claim 1 wherein the outturned foot portions are apertured to receive fastening means for securing the attachment to the inner wall of the gutter and to the outside of the building.

5. The attachment as defined in claim 1 wherein the strip from which the attachment is formed is a metal stamping.

6. A combination as set forth in claim 1 wherein the V shaped attachment when assembled lies in substantially the same plane as the tube and spike fastening means and the tube and spike fastening means bisects the angle at which the legs diverge from the head portion.

7. The combination as set forth in claim 1 wherein the spike is provided with a head which, when the parts are assembled, overlies the apertured head portion of the V shaped attachment.

8. The combination comprising a gutter having an inner wall extending along a facia board or the like at the eaves of a building, an outer wall, a bottom wall connecting said inner and outer walls, said outer wall having an upper edge portion spaced from said inner wall, conventional tube and spike fastening means for securing said gutter to said building and a supplemental gutter reinforcement attachment comprising a unitary V-shaped strip member including a downturned head portion at the apex of the V overlying the upper edge portion of said outer wall of the gutter, and diverging legs extending transversely across the gutter and provided with outwardly projecting foot portions abutting said inner wall, fasteners extending through said foot portions and through said inner wall into said facia board, the spike and tube fastening means extending transversely through the gutter, the tube of said spike and tube fastening means extending between said inner and outer walls, and the spike of said spike and tube fastening means extending serially through the downturned head portion of said reinforcement attachment, said outer wall, said tube of said tube and spike fastening means, said inner wall and into the side of the building to which the gutter is attached.

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