March 15, 1960 L. F. BENDER 2,928,634

EAVES GUTTER SUPPORT BRACKET

Filed Sept. 16, 1958

FIG. 1

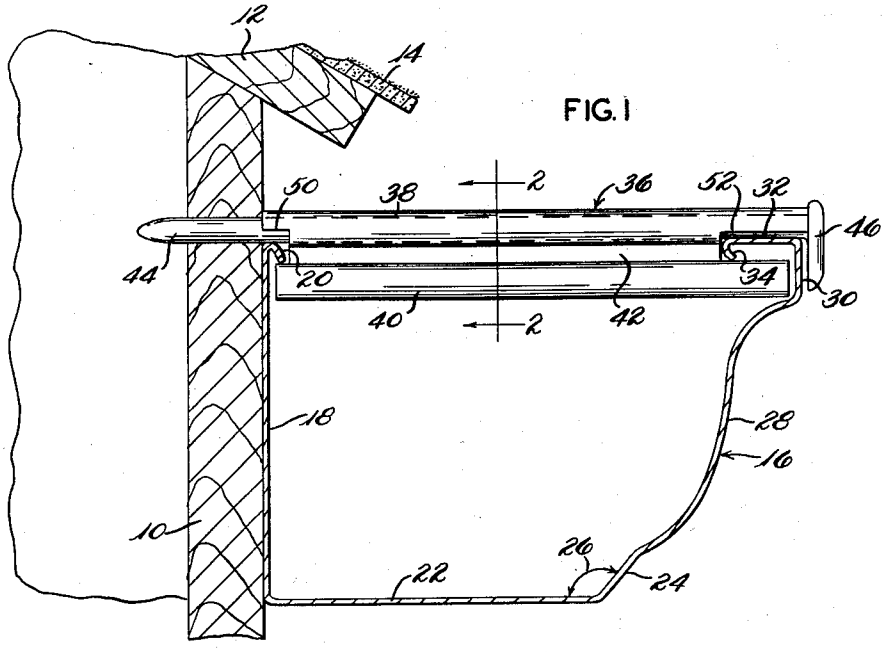
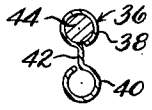


FIG. 2



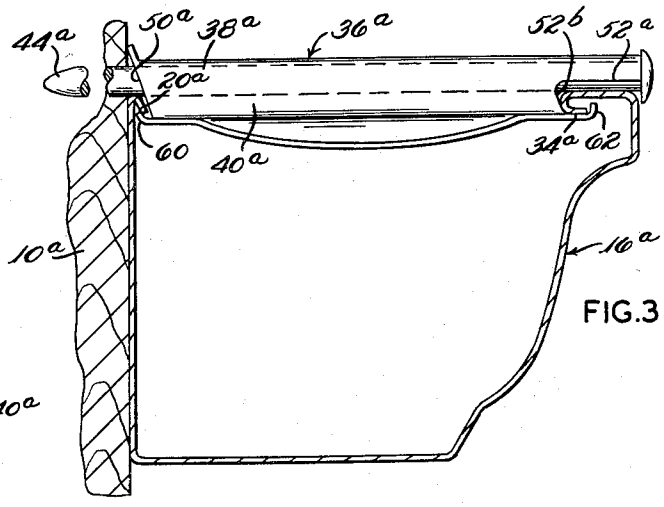
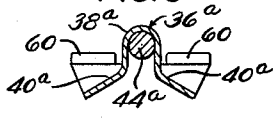


FIG. 3

FIG. 5



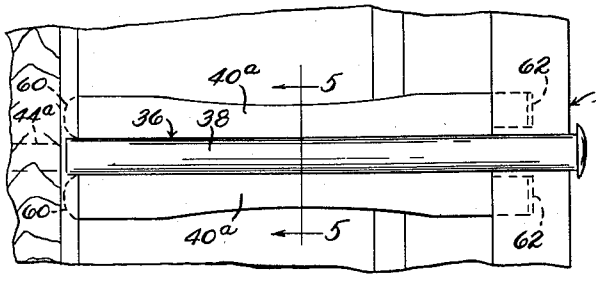


FIG. 4

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EAVES GUTTER SUPPORT BRACKET

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7 Claims. (Cl. 248—48.2)

This invention relates to eaves gutters and support brackets therefor, and, more particularly, is concerned with ogee type gutters and with support brackets which allow longitudinal expanding and contracting movement of the gutter.

It has been proposed heretofore to mount eaves gutters on support brackets from the roof of a building, but such brackets must normally be applied before shingles are put on the roof, and difficulty is experienced in utilizing brackets of this type for supporting replacement gutters. It has also been proposed to utilize support brackets which are driven into the side wall of a building, but known brackets often require two men to install, one holding the gutter and the other manipulating the bracket. Still again, known brackets have often required the piercing of the gutter itself which eliminates expansion and contraction of the gutter, and this is objectionable.

It is the general object of my invention to avoid and overcome the foregoing and other difficulties of and objections to prior art practices by the provision of a simplified and improved ogee type of gutter capable of being assembled in fully nested and overlapped relationship with a similar gutter, together with the provision of support brackets for the gutter, which brackets are quickly and easily installed, either for new or replacement gutters, and which provide a positive but frictional support for the gutters allowing expansion and contraction movement thereof.

Another object of my invention is to provide an improved support bracket for an ogee or similar type of eaves gutter, and with the support bracket including a spike passing over the top of the gutter without piercing it, the spike being capable of being driven laterally into a building wall, and with the bracket having portions extending into frictional engagement with the underside of inwardly turned flanges on the tops of the gutter side.

Another object of my invention is to provide an improved support bracket for eaves gutters, which bracket can be quickly assembled in supporting relation with the top of the gutter by inclining the axis of the bracket at an acute angle to the axis of the gutter followed by a swinging movement of the bracket in a horizontal plane to a position to bring the axis of the bracket at right angles to the axis of the gutter and into frictional supporting engagement therewith.

The foregoing objects of my invention, and other objects which will become apparent as the description proceeds, are achieved by the provision in combination of an eaves gutter having laterally protruding flanges at its front and back edges, a one-piece support bracket for the gutter, a spike extending through the bracket above the gutter and adapted to be driven into the building wall of which the gutter is adapted to be mounted, said bracket having portions extending underneath the flanges on the gutter, said bracket being formed so as to expose the underside of the spike above the flanges, and said spike frictionally engaging with the top edges of the gutter to

pull the portions of the bracket extending underneath the flanges into frictional engagement therewith.

For a better understanding of the invention, reference should be had to the accompanying drawings wherein

Figure 1 is a vertical cross-sectional view of one embodiment of the gutter and support bracket of the invention;

Fig. 2 is a vertical cross-sectional view taken on line 2—2 of Fig. 1;

Fig. 3 is a view similar to Fig. 1 illustrating a modified form of the support bracket of the invention;

Fig. 4 is a plan view, partially broken away, of the support bracket of Fig. 3; and

Fig. 5 is a cross-sectional view taken on line 5—5 of Fig. 4.

Having more specific reference to the drawings, in Fig. 1 the numeral 10 indicates generally a wall of a building on which the gutter and support of the invention are to be mounted and the numeral 12 shows the roof of the building joining with the side thereof, the roof having shingles 14 or other roofing means thereon.

Adapted to be positioned on the wall 10 of the building adjacent the roof 12 and in a position to catch any water flowing off of the roof is an ogee type eaves gutter, indicated as a whole by the numeral 16, and including a substantially flat vertical back wall 18 terminating at its upper edge in an inwardly and downwardly turned flange 20. The back wall 18 of the gutter is joined integrally and substantially at right angles with a bottom wall 22 which is joined integrally with a lower front wall portion 24 which makes an angle of greater than 90 degrees with the bottom wall 22, and usually an angle of between about 120 degrees and about 150 degrees with the bottom wall, this angle being indicated by the numeral 26. The lower front wall portion 24 joins integrally with the remainder of the front wall of the gutter, this remainder of the front wall being indicated by the numeral 28 and formed with the conventional ogee type of curve. The ogee curve terminates integrally with a vertical face 30 formed integrally with an inwardly directed horizontal portion 32 which terminates in a downwardly directed flange 34.

The support bracket itself is indicated as a whole by the numeral 36, and this is conveniently made from a single piece of sheet metal, as best seen in Fig. 2, to have a dog bone or dumb-bell shape in cross section including a substantially cylindrical upper portion 38 and a substantially cylindrical lower portion 40, the upper and lower portions being joined by a spacer web 42.

The cylindrical upper portion 38 of the support bracket 36 is adapted to slidably receive a spike 44 which is adapted to be driven into the building wall 10 to support the bracket 36 and gutter 16 in position, the spike having an enlarged or elongated head 46 extending down over the front face 30 of the gutter 16. The head 46 of the spike is kept from engaging in other than a light frictional contact with the surface 30 of the gutter by making the length of the upper portion 38 of the support bracket substantially to the dimensions shown in the drawing, it being noted that the inner end of the upper portion 38 of the bracket 36 and gutter 16 in position, the spike having face of the building wall 10.

The lower portion 40 of the bracket 36 is made of a length, as shown in the drawing, so that the inner end engages underneath the flange 20 but is spaced from the back wall 18 of the gutter. The outer end of the lower portion 40 of the bracket engages underneath the flange 34, but is spaced from engaging with the wall 30 of the gutter. The spacer flange 42 joining the upper portion 38 and the lower portion 40 of the gutter is cut away in the manner seen in Fig. 1 to allow the engagement as last described, and the upper portion 38 of the bracket is cut

away to the line **50** at its inner end and to the line **52** at its outer end to leave the underside of the spike **44** exposed to frictionally engage with the upper edge of the back wall **18** of the gutter, and to frictionally engage with the upper portion **32** of the front wall of the gutter for reasons more particularly described hereinafter.

In assembling the support bracket **36** with the gutter **16** it is a relatively simple matter to incline the axis of the support bracket **36** (with the spike removed) to an acute angle with respect to the longitudinal axis of the gutter, and to then drop the ends of the lower portion **40** of the bracket beneath the flanges **20** and **34**. Thereafter, the bracket **36** is turned while held horizontal to bring its axis at right angles to the axis of the gutter to position the bracket in the relationship shown in Fig. 1 with respect to the gutter, followed by inserting the spike **44** into the upper portion **38** of the bracket and the pounding of the spike into the building wall to complete the assembly and support of the gutter in the proper position on the building wall.

The frictional engagement between the underside of the spike **44** and the top edge of the back wall **18** of the gutter, and the frictional engagement between the underside of the spike and the top portion **32** of the front edge of the gutter does several things. First it pulls the ends of the lower portion **40** of the support bracket into frictional engagement with the lower edges of flanges **20** and **34** on the gutter to provide adequate vertical support for the gutter, second it holds the gutter with a frictional engagement so that it does not rattle in the wind, and lastly it allows expansion and contraction movement of the gutter in its frictional support.

Turning now to what is actually the preferred embodiment of the invention shown in Fig. 3 the gutter has been indicated by the numeral **16***a*, and the support bracket by the numeral **36***a*, the support spike by **44***a* and the building wall by the numeral **10***a*. The support bracket **36***a* is formed more in the nature of a saddle, including an upper portion **38***a* adapted to slidably receive the spike **44***a*, and a lower portion **40***a* having upturned ends **60** and **62** adapted to engage underneath the downwardly turned flanges **20***a* and **34***a* of the gutter **16***a*.

The support bracket **36***a* is assembled with the gutter **16***a* in exactly the same fashion as the support bracket **36** is assembled with the gutter **16**, namely by being inclined to an acute angle with the longitudinal axis of the gutter, and then being swung in a horizontal plane to engage the ends **60** and **62** beneath the flanges **20***a* and **34***a* and with the support bracket then being at right angles to the longitudinal axis of the gutter **16***a*, followed by the insertion of the spike **44***a* and the driving of it into the building **10***a*. The same frictional engagement between the top sides of the gutter **16***a* and the spike **44***a* is provided, the support bracket **38***a* being cut away at **52***a* and at **50***a* for this purpose, the result being a very positive support for the gutter, but one which only frictionally engages with the gutter to allow expansion and contraction thereof in a longitudinal direction. Said spike **44***a* in making frictional engagement with the top sides of the gutter **16***a* raises said bracket **36***a* in relation to gutter **16***a* thereby bringing upturned ends **60** and **62** of bracket **36***a* above the downturned edges **20***a* and **34***a* of said gutter, thus securely holding said gutter and at the same time permitting longitudinal movement of the same. It will be noted that the cutaway **52***a* has an inclined vertical or camming wall **52***b* which pulls the upturned ends **62** into engagement with the flange **34***a* in addition to the actions heretofore described.

While in accord with the patent statutes I have specifically illustrated and described certain best known embodiments of my invention, I am not to be limited thereto or thereby, it being understood that the scope of my invention is defined in the appended claims.

I claim:

1. The combination of an eaves gutter of the ogee type having a vertical back wall terminating at its top with an inwardly and downwardly directed small flange, and at its front top edge terminating in a downwardly and inwardly turned small flange, a spacer and support ferrule having one portion positioned above the gutter and adapted to slidably receive a spike to be driven into the building wall, a spike in the first portion of the ferrule, and a second portion of the ferrule engaging the gutter only underneath both of said small flanges to support the gutter, said first portion of the ferrule limiting the distance the spike can be driven into the building, the first portion of the ferrule being cut away adjacent the front and back top portions of the gutter so that the spike frictionally engages with the front and back top portions of the gutter and pulls the second portion of the ferrule into frictional engagement with the small flanges such frictional engagement allowing the gutter to expand and contract longitudinally, said ferrule being adapted to be engaged with the gutter by turning the axis of the ferrule toward the axis of the gutter until the second portion of the ferrule clears the small flanges on the gutter followed by turning the axis of the ferrule into a position at right angles to the axis of the gutter.

2. The combintaion of an eaves gutter of the ogee type having a vertical back wall terminating at its top with an inwardly and downwardly directed small flange, and at its front top edge terminating in a downwardly turned small flange, a spacer and support ferrule having one portion positioned above the gutter and adapted to slidably receive a spike to be driven into the building wall, a spike in the first portion of the ferrule, and a second portion of the ferrule engaging the gutter only underneath both of said small flanges to support the gutter, the first portion of the ferrule being cut away adjacent the front and back top portions of the gutter so that the spike frictionally engages with the front and back top portions of the gutter and pulls the second portion of the ferrule into frictional engagement with the small flanges such frictional engagement allowing the gutter to expand and contract longitudinally.

3. The combination of an eaves gutter of the ogee type having a vertical back wall terminating at its top with a downwardly directed small flange, and at its front top edge terminating in a downwardly turned small flange, a spacer and support ferrule having one portion positioned above the gutter and adapted to slidably receive a spike to be driven into the building wall, a spike in the first portion of the ferrule, and a second portion of the ferrule engaging the gutter only underneath both of said small flanges to support the gutter, said ferrule being adapted to be engaged with the gutter by turning the axis of the ferrule toward the axis of the gutter until the second portion of the ferrule clears the small flanges on the gutter followed by turning the axis of the ferrule into a position at right angles to the axis of the gutter.

4. The combination of an eaves gutter of the ogee type having a vertical back wall terminating at its top with an inwardly and downwardly directed small flange, and at its front top edge terminating in a downwardly turned small flange, a spacer and support ferrule having one portion positioned above the gutter and adapted to slidably receive a spike to be driven into the building wall, a spike in the first portion of the ferrule, and a second portion of the ferrule engaging the gutter only underneath both of said small flanges to support the gutter.

5. In combination, an eaves gutter having laterally protruding flanges at its front and back edges, a one-piece support bracket for the gutter, a spike extending through the bracket above the gutter and adapted to be driven into the building wall on which the gutter is adapted to be mounted, said bracket having portions extending underneath the flanges on the gutter, said spike having portions frictionally engaging with the top of the edges of the gutter to pull the portions of the bracket

extending underneath the flanges into frictional engagement therewith to hold said gutter but permit longitudinal movement thereof.

6. In combination, an eaves gutter having laterally protruding flanges at its front and back edges, a one-piece support bracket for the gutter, a spike extending through the bracket above the gutter and adapted to be driven into the building wall on which the gutter is adapted to be mounted, said bracket having portions extending underneath the flanges on the gutter, said bracket being formed so as to expose the underside of the spike above the flanges, and said spike frictionally engaging with the top of the edges of the gutter to pull the portions of the bracket extending underneath the flanges into frictional engagement therewith.

7. In combination, an eaves gutter having laterally protruding flanges at its front and back edges, a one-piece support bracket for the gutter, a spike extending through the bracket above the gutter and adapted to be

driven into the building wall on which the gutter is adapted to be mounted, said bracket having portions with upturned ends extending underneath the flanges on the gutter, said spike having portions frictionally engaging with the top of the edges of the gutter to pull the portions of the bracket extending underneath the flanges into frictional engagement therewith to hold said gutter but permit longitudinal movement thereof so that the upturned ends of the bracket portions laterally interlock with the flanges of the gutter.

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