Dec. 17, 1935. H. B. FELTMAN 2,024,348

GUTTER HANGER

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Fig. 2

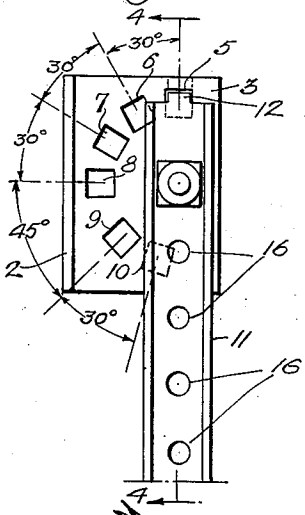


Fig. 3

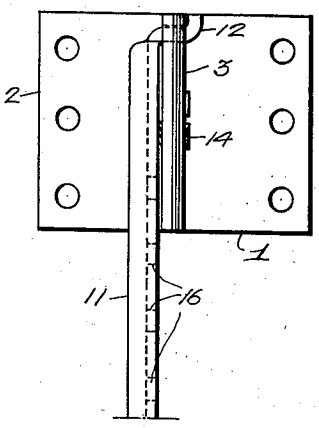


Fig. 4.

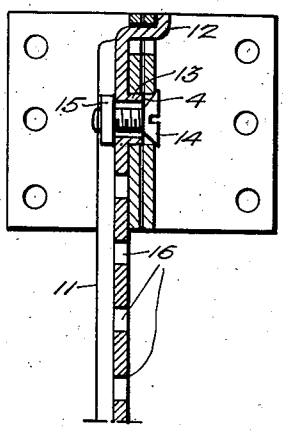
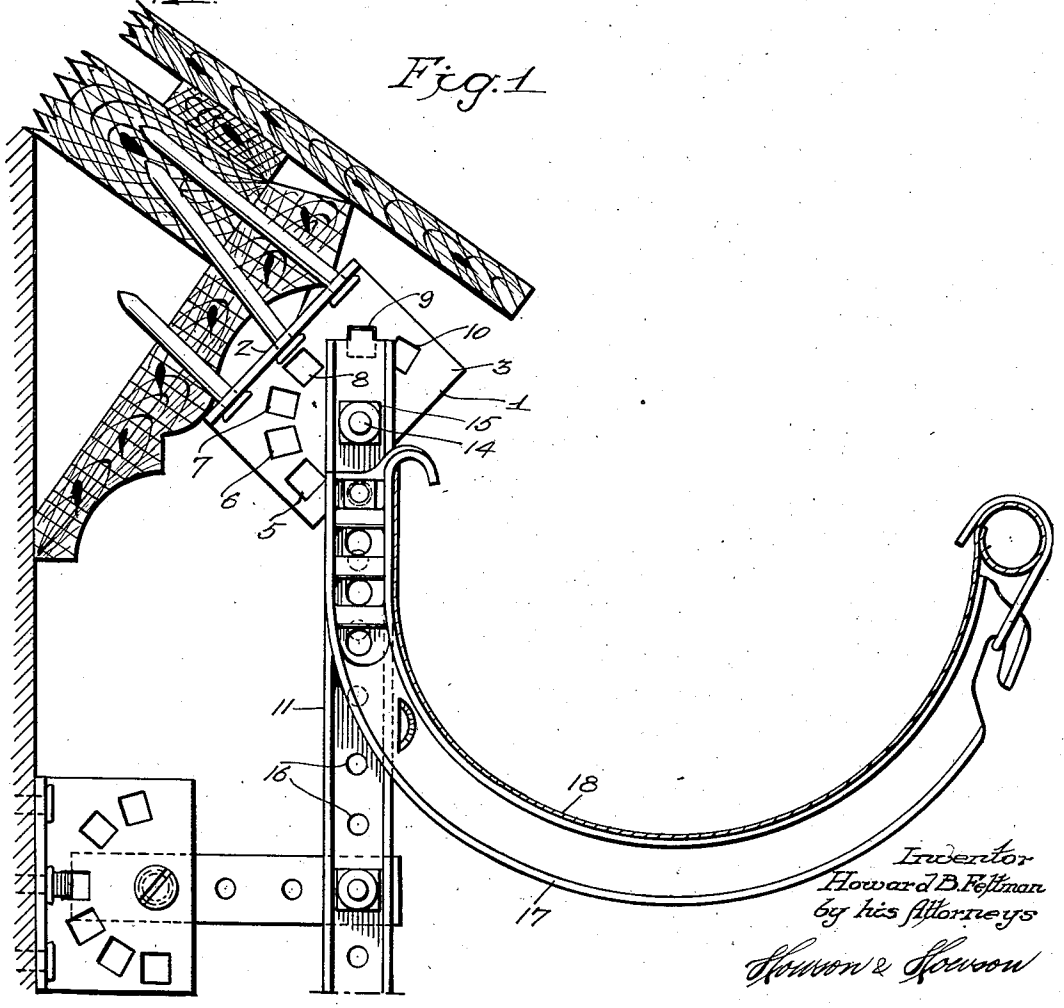


Fig. 1



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Fig. 5.

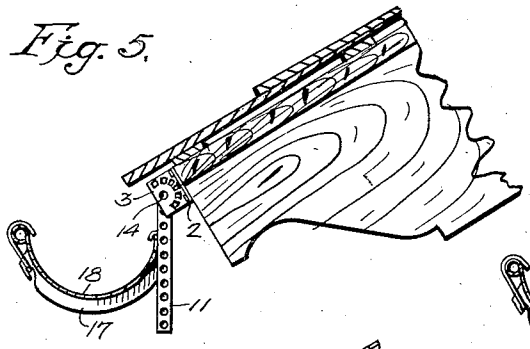


Fig. 6

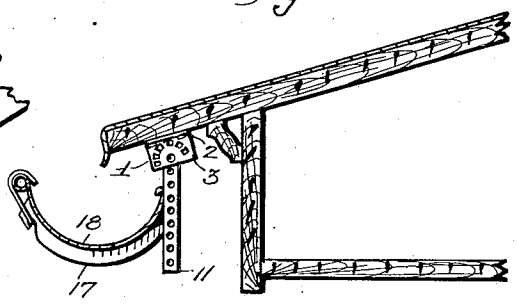


Fig. 7

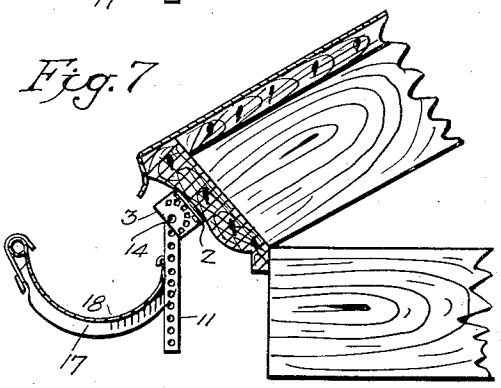


Fig. 8

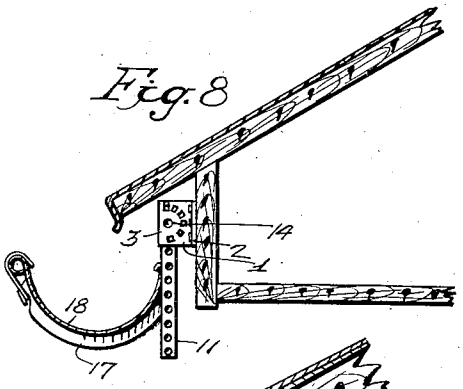


Fig. 9.

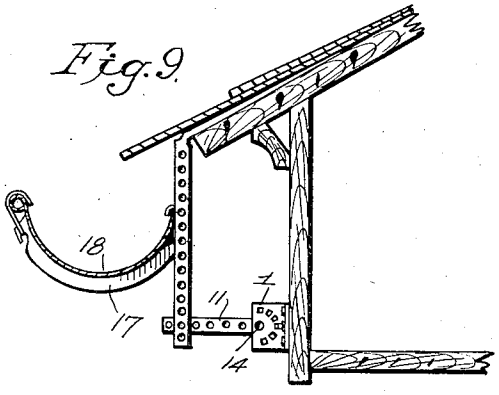


Fig. 10

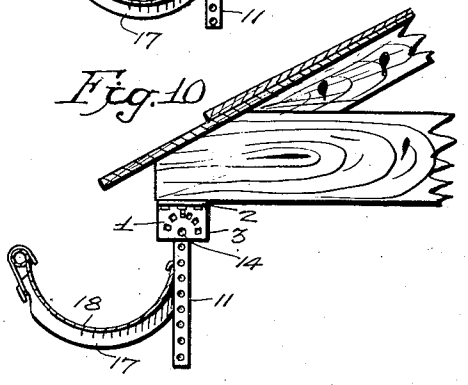
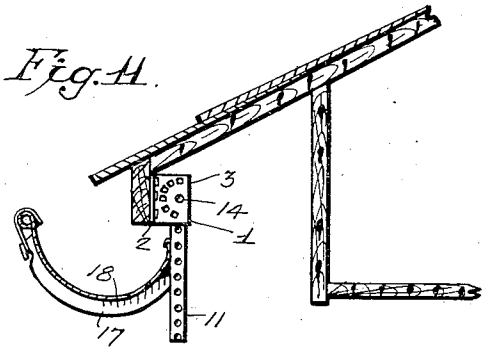


Fig. 11.



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UNITED STATES PATENT OFFICE

2,024,348

GUTTER HANGER

Howard B. Feltman, Wyncote, Pa., assignor to Berger Brothers Company, Philadelphia, Pa., a corporation of Pennsylvania

Application April 25, 1934, Serial No. 722,386

2 Claims. (Cl. 248—48.2)

This invention relates to improvements in gutter hangers, and more particularly in the shank fixtures to which the gutter-supporting circle is secured.

A principal object of the invention is to provide a shank fixture of novel construction which by reason of extreme flexibility of adjustment may be made to conform to a majority of the many varying conditions under which these fixtures must be attached to the eaves of buildings.

Another object of the invention is to provide a novel shank fixture that will have a substantially wider sphere of utility than the corresponding fixtures of the prior art.

Still another object of the invention is to provide an adjustable shank fixture so constructed as to permit attachment of the gutter-supporting circle at a relatively high point thereon, as hereinafter more fully set forth.

The invention further resides in certain novel structural details and arrangements hereinafter described and illustrated in the attached drawings, in which:

Figure 1 is a vertical elevational view of a shank and circle assembly made in accordance with my invention, and illustrates one manner in which the fixture is attached to the eave of a building.

Fig. 2 is a fragmentary side elevational view of the fixture;

Fig. 3 is a fragmentary front elevational view of the fixture;

Fig. 4 is a section on the line 4—4, Fig. 2, and

Figs. 5 to 11, inclusive, are more or less diagrammatic sectional elevational views illustrating various methods of installing a shank fixture made in accordance with my invention.

To meet the varying conditions under which gutter-supporting fixtures must be attached to the eaves of buildings, a great many special forms of fixture have been required. It is impractical for the average roofer or even jobber to carry in stock all of these special forms of fixture, and it is frequently necessary, and is in fact general practice, to employ makeshift hangers not ideally suited to the particular purpose. Such installations are apt to be imperfect and to cause considerable trouble. Attempts have been made to provide fixtures that are adjustable to meet the various conditions, but the utility and adjustability of these fixtures have been very limited, and have failed to meet the demand for a fixture of general application.

By the present invention, I have provided a fixture of the stated character that is so highly adaptable that it is possible to discard substantially all of the many specially designed fixtures heretofore employed, so that it is possible for a roofer or jobber by stocking my device alone to meet substantially any requirement.

With reference to the drawings, the shank in a preferred form comprises a flange plate 1 consisting of a base flange 2 and a transverse flange 3, which in the present instance projects at right angles from the mid section of one face of the base flange. As illustrated, the flange 3 is provided adjacent its outer edge with an aperture 4, and also with a plurality of additional apertures 5, 6, 7, 8, 9 and 10, which are arranged in an arcuate series centering on the aperture 4. As illustrated in Fig. 2, the aperture 8 is located centrally on a radial line from the aperture 4 perpendicular to the base flange 2, while the aperture 5 is arranged centrally on a radial line parallel to said base flange. The apertures 5, 6, 7 and 8 are evenly spaced and are separated from each other by intervening angles of 30°. The aperture 9 is separated from the aperture 8 by an angle of 45°, and from the aperture 10 by an angle of 30°. While this relative arrangement of apertures has been found highly satisfactory, it will be understood that the angular relation of the apertures may vary without departure from the invention.

In combination with the flange plate 1, I provide an apertured shank 11 having at one end and as well illustrated in Fig. 4 a transverse hooked extension 12 which is adapted to fit through the apertures 5 to 10, inclusive, and when so fitted to interlock with the flange 3. Also as illustrated in Fig. 4, the shank 11 is provided on the same side thereof as the extension 12 with a boss 13 which, when the hook 12 is interlocked in one of the other apertures, fits into the aperture 4, and the boss 13 and the body of the shank 11 are apertured for reception of a retaining screw or bolt 14, which in assembly passes through the aperture 4 in the flange 3 and through the shank, and which in the present instance is provided with a nut 15 to secure the shank to the said flange. It will be noted that with the arrangement described, the retaining screw or bolt 14 is relieved of all shearing stress, such stress being taken upon the boss 13. The shank 11 may be otherwise of any standard or desired form and is provided with the usual apertures 16 providing for securing to the shank by means of a bolt or other suitable fastening means the usual circle 17 which carries the gutter 18 in well known manner.

It will be apparent from the foregoing descrip-

tion that by adjusting the hook 12 of the shank 11 to the various apertures provided for its reception, the angularity of the shank with respect to the plane of the base flange 2 may be varied. The apertures 5 to 8, inclusive, afford adjustments of these elements between parallelinity and perpendicularity at incremental angles of 30°. By a 90° reversal of the flange plate 1 and utilization of the apertures 9 and 10, angular variations of the shank with respect to the base plate 2 of 15° and 45° may be obtained, so that with the arrangement of apertures as shown a wide latitude of angularity is afforded. With this flexibility of adjustment, the fixture is applicable to practically any requirement, as illustrated for example in Fig. 1, Figs. 5 to 8, inclusive, and Figs. 10 and 11.

The highly adjustable character of the fixture further makes its use practicable as a brace for the depending shank of the gutter-supporting fixture, such for example as illustrated in Figs. 1 and 9, and in this use also the shank through the medium of the apertures 5 to 10, inclusive, may be adjusted to any desired angle with respect to the plane of the base flange 2.

It will be noted that in any adjusted position of angularity of the shank 11 with respect to the base plate 1, the plate occupies a position in which the retaining nails may be driven into the supporting structure in a substantially normal position with respect to the base flange 2, so that complication in the use of the hammer in driving the nails is avoided. Another desirable feature of the fixture resides in its extreme compactness of form and in the fact that the circle may be attached where required at points relatively close to the upper end of the shank fixture. This materially simplifies the operation of grading the gutter to effect a proper gravitational flow of water therein. It will be noted further that the adjustment of the fixture is effected by a relative adjustment of two rigid members, and avoids any necessity for bending or deforming the elements of the fixture, which is an undesirable feature of certain of the corresponding fixtures of the prior art.

I claim:

1. In a gutter-hanger fixture, an anchor member comprising a flat base plate and a flange intersecting and projecting at right angles from one face of said plate, said flange having a spaced series of apertures arranged on the arc of a circle and another aperture at the center of said circle, a shank adapted to depend in vertical position from said member and to support a gutter-supporting circle, means for securing the shank to the anchor member, said means comprising elements engageable respectively with the said center aperture and, selectively, with the apertures of said series whereby the base plate may assume a plurality of differing angular positions with respect to the said shank corresponding in number to the apertures of said series, and said series of apertures embracing an arc of approximately 180° with the apertures located with respect to the center aperture to afford each an angle between the base plate and the shank differing in degree from the angles afforded by the other apertures of the series.

2. In a gutter-hanger fixture, an anchor member comprising a flat base plate and a flange intersecting and projecting at right angles from one face of said plate, said flange having a spaced series of apertures arranged on the arc of a circle and another aperture at the center of said circle, a shank adapted to depend in vertical position from said member and to support a gutter-supporting circle, means for securing the shank to the anchor member, said means comprising elements engageable respectively with the said center aperture and, selectively, with the apertures of said series whereby the base plate may assume a plurality of differing angular positions with respect to the said shank corresponding in number to the apertures of said series, said series of apertures embracing an arc of approximately 180° with two of the apertures located with respect to the center aperture to afford a parallel relation between the base plate and the shank and an angular relation of 90° respectively, and the remaining apertures of the series being located with respect to the center aperture to afford each an angle between the base plate and the shank differing in degree from the angles afforded by the others of said apertures.

HOWARD B. FELTMAN.