

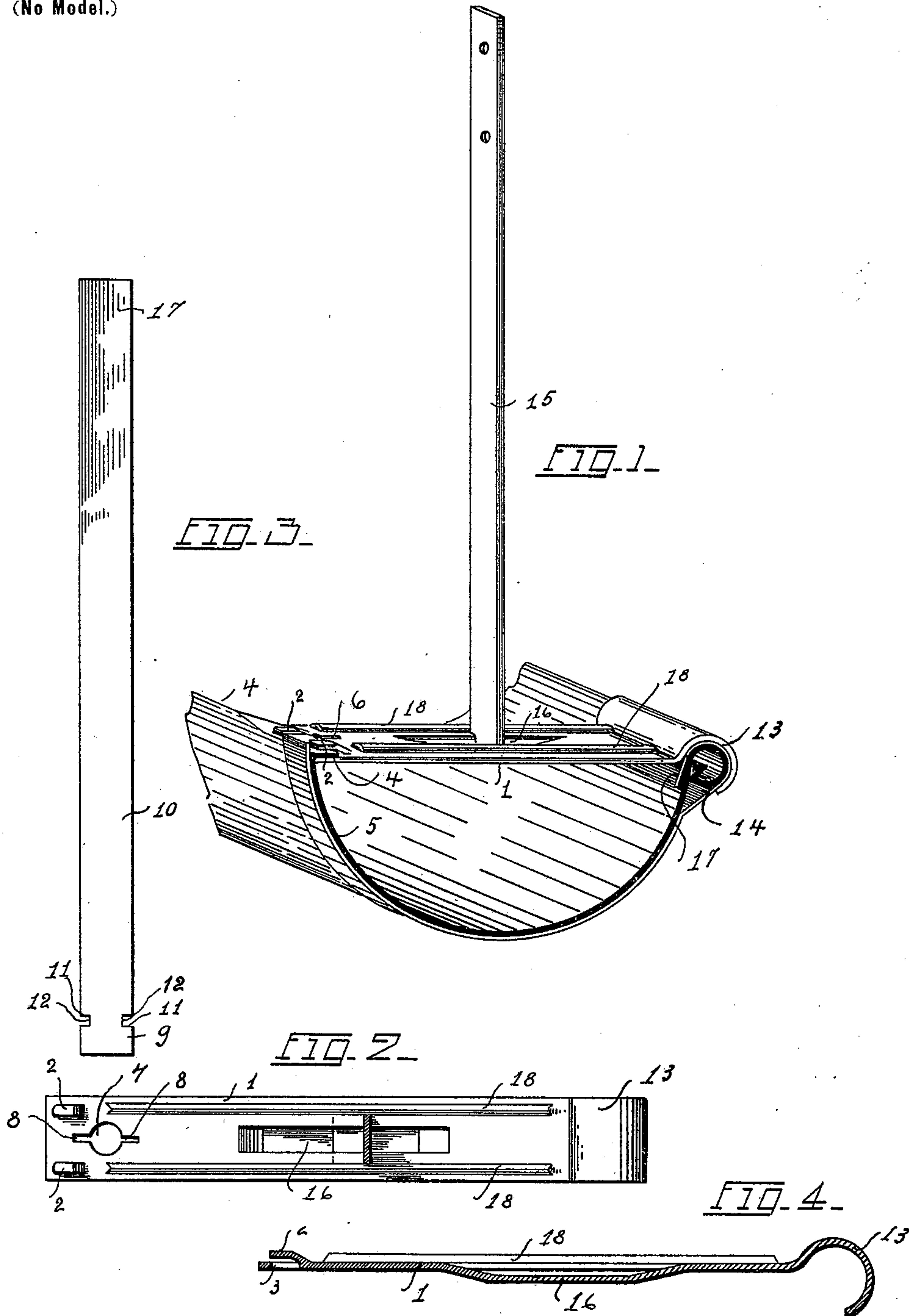
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Patented Oct. 24, 1899.

G. W. HARTLEY.  
EAVES TROUGH HANGER.

(Application filed Aug. 25, 1897.)

(No Model.)



WITNESSES.

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# UNITED STATES PATENT OFFICE.

GEORGE W. HARTLEY, OF TOLEDO, OHIO.

## EAVES-TROUGH HANGER.

SPECIFICATION forming part of Letters Patent No. 635,317, dated October 24, 1899.

Application filed August 25, 1897. Serial No. 649,546. (No model.)

*To all whom it may concern:*

Be it known that I, GEORGE W. HARTLEY, of Toledo, county of Lucas, and State of Ohio, have invented certain new and useful Improvements in Eaves-Trough Hangers; and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the figures of reference marked thereon, which form part of this specification.

My invention relates to an eaves-trough hanger, and has for its object to simplify the construction heretofore known in the art, cheapen the product, and also render the act of hanging the eaves-trough much more convenient than heretofore.

A further object is to provide a hanger-bar with provision for engagement with a bending of the free edge of the eaves-trough, with a safety-strip attachable therewith and detachable therefrom to closely encircle the eaves-trough and be secured at the roll end.

Incidental to these objects I have devised means of forming the suspension-bar with a plurality of arches or longitudinal corrugations intermediate the engagement end and the encircling end whereby I may employ a metal of lightest gage with maximum rigidity.

In the branch of the art to which my invention belongs it has been found that, in addition to the features of simplicity and cheapness of construction, it is desirable to provide for convenience of attachment of the hanger, whereby the labor is reduced and the expense of suspending the hanger is cheapened.

I have attained these objects, first, by the novel construction of hanger-bar, in which I employ a truss to enable the suspension-rod to be attached or detached conveniently; second, by employing raised parallel struck-up portions with relation to the body of the suspension-bar to allow of insertion of the free edge of the eaves-trough; third, by forming a keyway-opening or its plain equivalent, a circular opening with diametric slots, whereby I may employ an attachable or detachable safety-strip in holding the suspension-bar closely in engagement with the eaves-trough, and, fourth, in corrugating longitudinally the

suspension-bar intermediate the point of engagement with the free edge of the eaves-trough and the roll end of the bar I not only strengthen the bar, but provide for a free discharge of liquid deposit, and thereby prevent rust and consequent final weakening of the bar.

In the drawings, Figure 1 is an elevation of a preferred form of hanger, in which I have shown a keyway-slot for the reception of the recessed end of the safety-strip. Fig. 2 is a top plan view of the suspension-bar, in which I have shown the longitudinal corrugations and also an obvious modification of the keyway-slot for the reception of the recessed end of the safety-strip. Fig. 3 is an elevation of the safety-strip, and Fig. 4 is a central longitudinal section of the suspension-bar with the hanger-bar omitted.

1 designates the suspension-bar, formed at its inner end with a plurality of struck-up portions 2, forming tongues in an elevated plane with the body portion 3 of the bar and separated sufficiently to receive the free edge 4 of the eaves-trough 5 and closely engage the same in the act of bending the portion of eaves-trough with which it engages in forcing the bar 1 to a horizontal position. Contiguous to the inner end I form a slot 6 either of a keyway form—that is to say, with a circular portion and a slot portion extending toward the free end—or I may form the slot 6 of a central circular portion 7, with diametrically-opposed slots 8. In fact, any character of slot adaptable to receive the lower end 9 of a strip 10, with a contracted portion to engage with the shoulders 11 of recesses 12, will subserve my purpose.

Upon the outer end of the bar 1 is formed a circular portion 13 to engage with the ordinary roll 14 of the eaves-trough and be impinged in close engagement therewith in the usual manner.

Centrally of the bar 1 is attached a suspension-bar 15. Bar 15 may be engaged with the bar 1 in any preferred manner. In the present instance I have shown the bar as engaged with a trussed portion 16, as shown in my former patent, No. 472,294, granted to me April 5, 1892.

Safety-strip 10 is of a length to engage in the slot 6 of bar 1 and bent at right angles to



encircle the outer surface of the eaves-trough and curved within the circular portion 12 of bar 1 in opposition to the curve of the eaves-trough, as shown at 17, so that in the act of  
5 closely assembling the circular portion 12 the end 17 of the bar 10 is closely housed within the curvature.

I have discovered that I may greatly cheapen the manufacture of bar 1 in the use of material of minimum gage by striking one or  
10 more corrugations 18 intermediate the length of the bar—that is to say, commencing upon the inner end coincident with the slot 6 and ending at the point of curvature of the bar 1.  
15 I consider this feature of great value not only in the matter of economy, but in the additional rigidity given to the suspension-bar.

With this description I will briefly summarize the operation of suspending the eaves-trough. The first operation is to engage the  
20 inner end of the bar 1 with the free side 4 of the eaves-trough, in which operation the bar 14 is substantially in vertical position. The bar is now forced to a horizontal plane,  
25 and the strip 10 is engaged within the slot 6 by inserting the strip edgewise within the provision of slot or slots radiating from the orifice when the strip is turned with its greatest width at right angles to the length of the bar  
30 and the strip is brought in close engagement with the lower surface of the eaves-trough and coiled or bent over the circular roll of the outer edge when the circular portion 13 of the bar is closely impinged upon the circular  
35 roll of the eaves-trough and also the end 17 of the strip. It will be seen that by this provision the free edge 4 is always held in close engagement with the base portion 3 of strip 1 and also with the roll end 13, thereby  
40 effectually preventing any displacement or disengagement of the parts. The hanger 15 is now inserted in the truss portion 16 by the same operation that has been described as regards the insertion of the bar 10 with the slot

6 and is attached to the roof in the usual  
45 manner.

I wish it distinctly understood that I may vary the details of construction greatly without departing from the spirit of my invention—as, for illustration, while I have shown  
50 two lugs or tongues 2 for engagement with the free edge of the eaves-trough I may employ one or more than two.

What I claim is—

1. In an eaves-trough hanger, a suspension-  
55 bar formed with lugs struck up from the metal and extending above the body portion in a plane parallel therewith a slot formed in the bar contiguous to the lugs, the opposite end of the bar having a curvature to embrace the  
60 eaves-trough, one or more corrugations intermediate the engagement end and the encircling end adapted to truss the suspension-bar and a safety-strip having a recessed end portion adapted to be inserted into the slot and  
65 to engage with the suspension-bar and is of a length to encircle the outer surface of the eaves-trough and encircle the rolled side.

2. In an eaves-trough hanger, a suspension-  
70 bar formed with lugs struck up from the metal and extending above the body portion in a plane parallel therewith, a slot formed in the bar contiguous to the lugs, the opposite end of the bar having a curvature to embrace the  
75 roll of the eaves-trough, and a safety-strip having a recessed end portion adapted to be inserted into the slot and to engage with the suspension-bar of a length to encircle the  
80 outer surface of the eaves-trough and encircle the rolled side.

In testimony that I claim the foregoing as my own I hereby affix my signature in presence of two witnesses.

GEORGE W. HARTLEY.

Witnesses:

WILLIAM WEBSTER,  
H. H. MARTIN.