W. T. HARRIS.

ADJUSTABLE EAVES TROUGH HANGER.

APPLICATION FILED MAR. 24, 1911.

1,003,258. Patented Sept. 12, 1911.

Fig. 1.

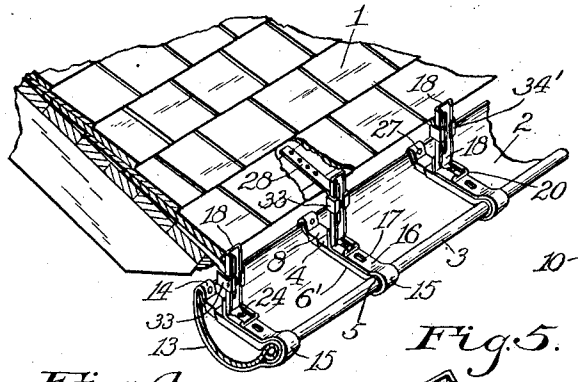


Fig. 2.

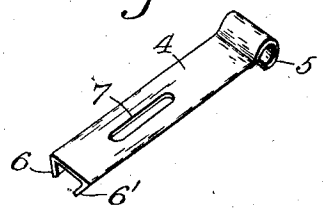


Fig. 3.

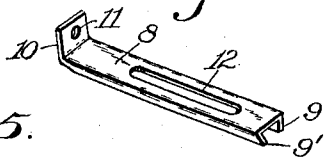


Fig. 5.

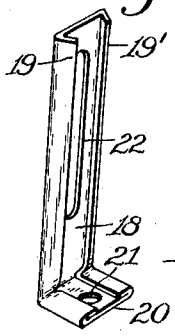


Fig. 4.

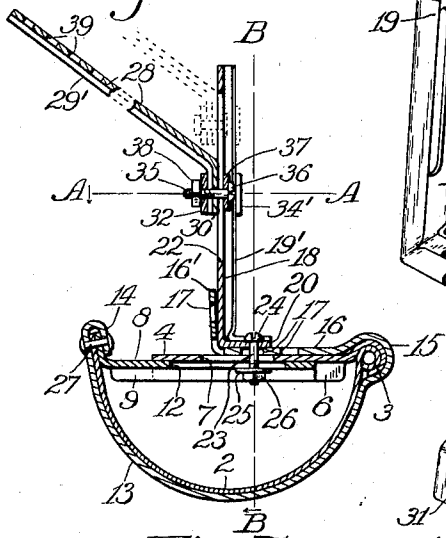


Fig. 6.

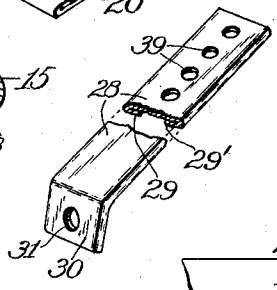


Fig. 8.

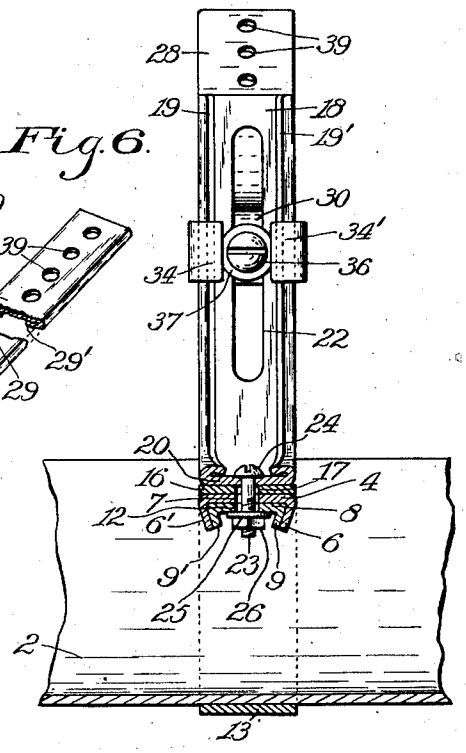
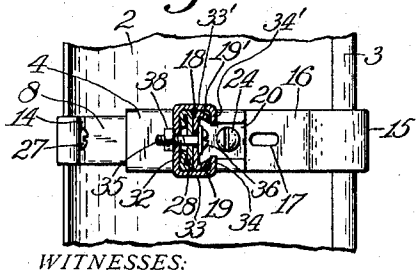


Fig. 7.



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ADJUSTABLE EAVES-TROUGH HANGER.

1,003,258. Specification of Letters Patent. Patented Sept. 12, 1911.

Application filed March 24, 1911. Serial No. 616,730.

To all whom it may concern:

Be it known that I, WILLIAM T. HARRIS, a citizen of the United States, residing at Ellettsville, in the county of Monroe and State of Indiana, have invented a new and useful Adjustable Eaves-Trough Hanger, of which the following is a specification, reference being had to the accompanying drawings and to the letters and figures of reference marked thereon.

This invention relates to an eaves trough hanger that is adapted to be adjusted to different sizes of troughs and also adapted to be adjusted vertically in order to accurately adjust the trough after fastening the hanger to the building.

The objects of the invention are to provide an improved eaves trough hanger that will be adapted to be readily adjusted as above-mentioned by the workmen at the place where the hanger is used, and which will be strong and durable and at the same time be adapted to be cheaply manufactured.

With the above-mentioned and minor objects in view, the invention consists in certain novel parts, and combinations and arrangements of parts, as hereinafter particularly described and further defined in the appended claims.

Referring to the drawings, Figure 1 is a fragmentary perspective view of a roof to which the improved hangers are connected and supporting an eaves trough; Figs. 2 and 3, perspective views of the two parts comprising the adjustable brace of the hanger; Fig. 4, a transverse vertical sectional view of the trough centrally of one of the hangers; Fig. 5, a perspective view of the hanger bar; Fig. 6, a perspective view of the tang, partially broken away, by which the hanger-bar is supported by the roof for directly supporting the brace ; Fig. 7, a fragmentary sectional plan on the plane of the line A A in Fig. 4; and Fig. 8, a fragmentary sectional elevation on the plane of the line B B in Fig. 4.

Similar reference characters in the different figures of the drawings indicate corresponding elements or features of construction herein referred to.

In the drawings, the numeral 1 indicates the roof of a building and 2 an eaves trough having a bead 3 on its forward portion. A suitable number of longitudinally adjustable braces are provided which may suitably be formed of strips of galvanized metal, and each brace comprises an outer bar 4 having a crook or hook 5 on one end thereof which when applied embraces the bead 3 of the trough, the edge portions of the bar being turned under and constituting parallel guides 6 and 6′, and the body portion of the bar has a slot 7 therein extending longitudinally. The brace comprises also an inner bar 8 which is placed against the under side of the bar 4 and has its edge portions turned under and constituting parallel guides 9 and 9′ adapted to fit against the inner sides of the guides 6 and 6′. The outer end of the bar 8 has an upwardly extending ear 10 thereon provided with a hole 11 adapted to receive a suitable securing device, such as a rivet, and the main portion of the bar has a slot 12 arranged longitudinally therein and registering with the slot 7, so that when the bars 4 and 8 are adjusted longitudinally a bolt may extend through the slots. A metallic strap 13 is provided which is of suitable length to adapt it to be connected to the largest size of trough as well as to the smallest size, and it has a loop 14 on one end thereof extending down over the upper portion of the rear side of the trough, the strap extending under the trough around to the bead, and when applied is bent over the bead, so as to form a loop 15 and is further bent down against the bar 4 to form a straight portion 16 in which is a plurality of slots 17 for receiving the bolt. When the hanger is applied to the trough the ear 10 is placed against the upper portion of the rear side of the trough against the inner side thereof, and then the strap is applied and the loop 14 brought down over the ear 10, the bars 4 and 8 being properly assembled and the crook 5 hooked over the bead.

A stiff metal hanger-bar 18 is provided which has its edge portions turned over to constitute stiffening ribs 19 and 19′, one end of the bar being turned at substantially right angles to the main portion of the bar to constitute a foot 20 in which a bolt-hole 21 is punched, the main portion of the bar having a longitudinal slot 22 therein. The foot is placed upon the top of the bar 4 so that the bar 18 extends vertically from the rear end of the foot, and the bolt 23 is placed in the hole 21 and extends through the slots

17 in the strap, and the slots 7 and 12 in the brace, the bolt having a head 24 seated upon the foot 20 so as to be accessible, and a washer 25 is placed on the bolt against the under side of the bar 8, a nut 26 being placed also on the bolt against the washer to secure the several parts together.

A suitable securing device 27, such as a rivet or bolt, is inserted through suitable apertures in the strap 13, and the rear upper side portion of the trough and also through the hole 11 and the loop 14 to secure the several parts together and aid in stiffening the rear side of the trough as well as to hold it in alinement at a proper distance from the bead 3 on the forward side of the trough. The end portion 16′ of the strap which may be surplusage when the hanger is applied to the smaller size of trough is turned up behind the hanger-bar 18.

A suitable metallic tang 28 is provided which has turned over side portions 29 and 29′ to form stiffening beads, and one end portion is bent over to constitute an oblique angled foot 30 in which a bolt-hole 31 is punched, the foot being placed behind the hanger-bar 18 and connected thereto by means of a clasp comprising a back plate 32 placed against the foot, two side plates 33 and 33′ and two lips 34 and 34′ engaging the ribs 19 and 19′ of the hanger-bar. A bolt 35 is placed in the slot 22 and extends through the hole 31 and through the back plate 32 of the clasp, the bolt having a head 36 thereon at the front of the hanger-bar, the bolt preferably having a washer 37 thereon between the head and the hanger bar, and the bolt has a nut 38 thereon in contact with the back plate 32 of the clasp. The tang has a suitable number of perforations 39 therein to receive nails or similar devices for securing the tang to the roof.

In practical use, the trough is placed in the proper position, so as to extend in one vertical plane, and the tangs are then secured to the roof, after which any of the nuts 38 may be slackened so that portions of the trough may be raised or lowered to give the desired amount of inclination to the trough to provide for free flow of the water therein, and then the nuts are tightened. If after securing the tangs to the roof it is found that lateral adjustment is necessary, any of the nuts 26 may be slackened to permit lateral adjustment of the brace relative to the foot 20, and if desired also the brace may be lengthened or shortened, as may be required, and then the nuts should be finally tightened, leaving the trough in correct position relative to the eaves of the roof to best receive and carry off the water fall.

Having thus described the invention, what is claimed as new, is—

1. An adjustable eaves-trough hanger including a brace comprising two bars that are adjustable each to the other, a strap having a portion that is adjustable relatively to the two bars, a hanger-bar having a foot that is adjustable relatively to the two bars and the strap portion and devices securing the two bars and the strap portion and also the foot together.

2. In an adjustable eaves-trough hanger, the combination of two superimposed bars having each a slot therein, a hanger bar having a slot therein and provided with a foot having a bolt-hole therein, a bolt in the bolt-hole and extending through the slots, the bolt having a head thereon that is seated on the foot, a washer on the bolt at the under side of the lower one of the superimposed bars, and a nut on said bolt opposite said washer.

3. In an adjustable eaves-trough hanger, the combination of an outer bar having a slot therein and a downturned crook on one end thereof, the bar having guides on the under side of the opposite edge portions thereof, an inner bar having a slot therein and an upturned apertured ear on one end thereof, the inner bar being in contact with the under side of the outer bar and having guides on the under side of the opposite edge portions thereof engaging the inner sides of the guides of the outer bar, and a bolt extending through the slots and adjustably securing the bars together.

4. In an adjustable eaves-trough hanger, the combination of a brace, a hanger-bar having a slot therein and also a foot connected to the brace, the hanger-bar having ribs on the forward side of the opposite edge portions thereof, a tang having a foot on the rear portion of the hanger-bar, a clasp comprising a back plate arranged against the foot and also two side portions embracing the edges of the hanger-bar and the foot, the side portions having lips engaging the ribs, and a bolt extending through the slot and the foot and also through the back plate of the clasp.

In testimony whereof, I affix my signature in presence of two witnesses.

WILLIAM T. HARRIS.

Witnesses:
OLIVER K. HARRIS,
J. A. WILSON.