(No Model.)

W. S. HARRIS.

EAVES TROUGH.

No. 493,497. Patented Mar. 14, 1893.

FIG. 1.

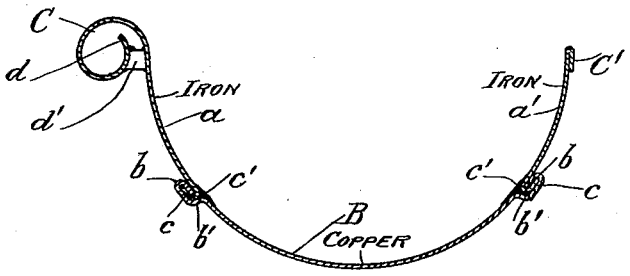


FIG. 2.

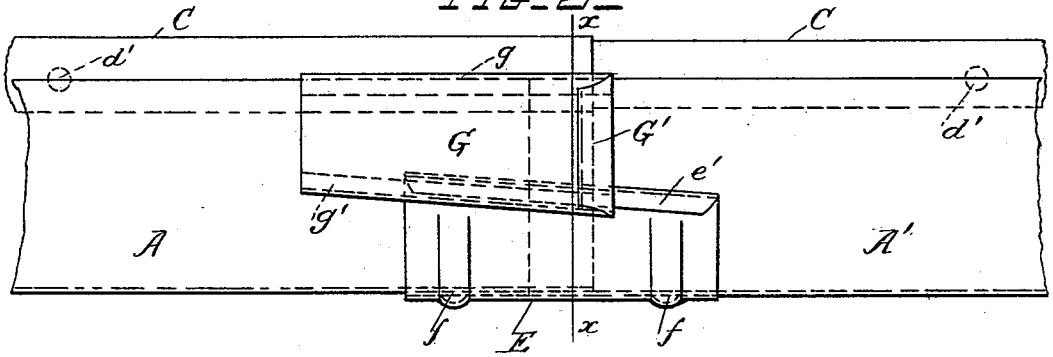
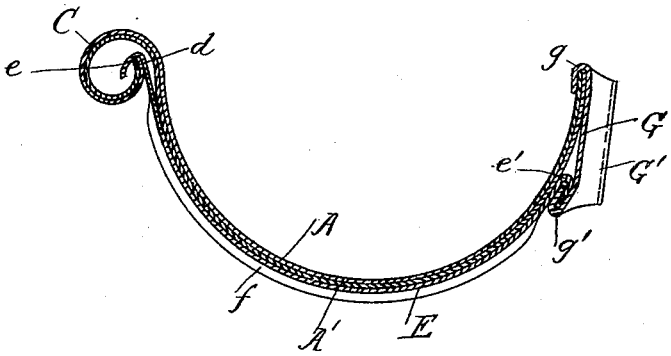


FIG. 3.



WITNESSES

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WILLIAM S. HARRIS, OF NILES, OHIO.

EAVES-TROUGH.

SPECIFICATION forming part of Letters Patent No. 493,497, dated March 14, 1893.

Application filed October 5, 1892. Serial No. 447,920. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM S. HARRIS, a citizen of the United States, residing at Niles, in the county of Trumbull and State of Ohio, have invented certain new and useful Improvements in Eaves-Troughs; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to eaves troughs, and it consists in the novel construction and combination of the parts hereinafter fully described and claimed.

In the drawings: Figure 1 is a cross section of an eaves trough constructed according to this invention. Fig. 2 is a side view of the ends of two eaves troughs showing the joint and fastening. Fig. 3 is a cross section taken on the line *x x* in Fig. 2.

The metal is shown thicker than actually used, for clearness.

A and A′ are the meeting ends of two eaves troughs.

In Fig. 1 a section through the central part of an eaves trough of improved construction, is shown. This eaves trough has a bottom portion B of copper or other equivalent non-corrosible material, and the upper portions or sides of the trough *a a′* are formed of tinned or galvanized iron or other cheap and stiff material. The upper portions *a a′* are provided with a scroll C and a bead C′ respectively, at their upper edges, in the usual manner. The lower parts of the sides *a a′* are provided with hooks *c*, and the upper edges of the bottom portion B are provided with hooks *b*. The hooks *b* and *c* engage with each other as shown in Fig. 1, and are secured by solder *c′*. The upper edges of the bottom portion B are preferably formed with offsets *b′* so that the inside of the trough is smooth. The projections on the outside surface of the trough formed by the hooks are an advantage, as they serve to stiffen and strengthen the trough, but these projections can be reduced, if desired, by making the meeting hooked edges thinner than the rest of the material. The soft copper or other non-corrosible material forming the bottom portion of the trough can be secured to the sides in any other approved manner which will serve to make a rigid and watertight joint, but the interlocking hooked edges are preferred. The ends A A′ of the eaves troughs are coupled together by sliding one for a short distance within the other, the scroll C of one end being made a little smaller than the scroll which incloses it. Each scroll C has a hooked edge *d* inside it, and the scrolls are secured to the sides of the troughs at intervals by pillars of solder *d′*, or other similar fastening pieces.

E is a curved band of metal provided with a horizontal hooked edge *e* adapted to engage with the horizontal hooked edge *d* of the scroll. The other edge *e′* of the band is also hooked and is inclined as shown in Fig. 2. The edge *e* is first hooked into the scroll, and the band is then pressed upward into contact with the bottom portions of the ends of the troughs. Corrugations *f* are pressed into the band E for the purpose of stiffening it.

G is a wedge-shaped fastener provided with hooked upper and lower edges *g* and *g′*, and a thumb piece G′. The hooked upper edge *g* is slid along the upper edge of the inner end of the trough, and the hooked lower edge engages with the inclined hooked edge *e′* of the band. The thumb piece is merely for convenience in sliding the fastener. When the fastener is slid to the right, from the position shown in Fig. 2, it draws the band tight and clamps the ends of the troughs together. The joint is practically watertight, and the troughs are still free to expand and contract longitudinally under changes of temperature, as the ends of the troughs are not rigidly connected together as they would be if soldered together in the ordinary way.

What I claim is—

1. An eaves trough, provided with sides, and a separate bottom portion of non-corrosible material permanently secured to the sides, substantially as set forth.

2. An eaves trough, provided with sides, and a separate bottom portion of non-corrosible material, said sides and bottom portion being permanently connected together by interlocking hooks, substantially as set forth.

3. An eaves trough, provided with sides having hooked lower edges, and a separate bottom portion having offsets and hooks at its

upper edges interlocking with and secured to the said hooked edges of the sides, whereby the trough has a smooth inner surface, substantially as set forth.

4. The combination, with the telescopic ends of two eaves troughs provided with scrolls having internal hooked edges *d*, of a curved band provided with a horizontal hooked edge engaging with the said hooked edges *d* and having the inclined hooked edge *e'*, and the sliding wedge-shaped fastener provided with hooked edges adapted to engage with the edge of the eaves trough and with the said edge *e'* of the band, substantially as set forth.

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

WILLIAM S. HARRIS.

Witnesses:

LEONARD HOLLOWAY,

ERNEST L. BOYNTON.