C. W. HAUCKE.
Eaves-Trough.

No. 215,740. Patented May 27, 1879.

Fig. 1.

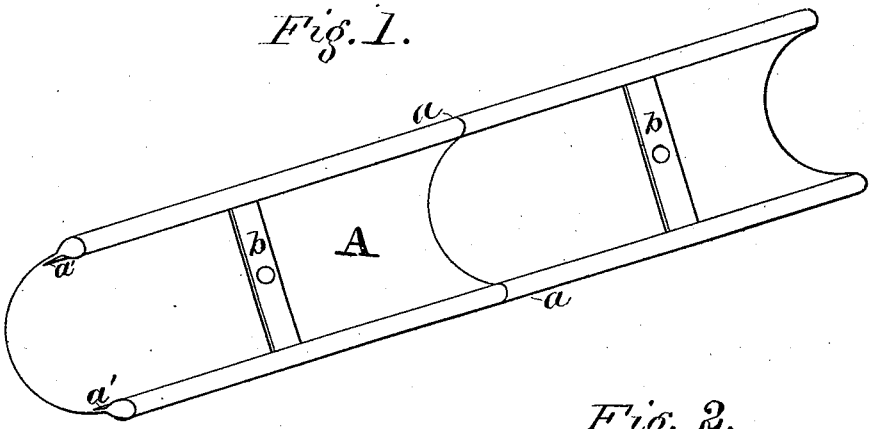


Fig. 2.

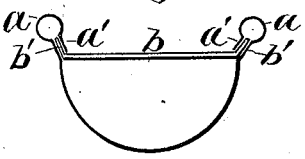


Fig. 3.

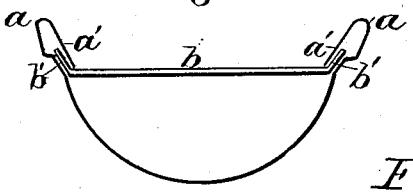
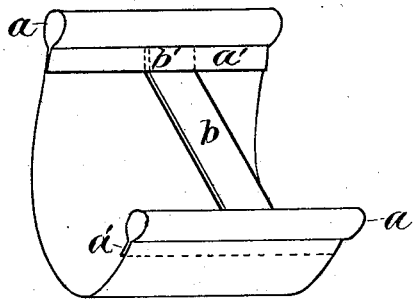


Fig. 4.



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UNITED STATES PATENT OFFICE.

CHARLES W. HAUCKE, OF SPRINGFIELD, OHIO.

IMPROVEMENT IN EAVES-TROUGHS.

Specification forming part of Letters Patent No. **215,740**, dated May 27, 1879; application filed March 1, 1879.

To all whom it may concern:

Be it known that I, CHARLES W. HAUCKE, of the city of Springfield, in the county of Clarke and State of Ohio, have invented certain Improvements in Eaves-Troughs, of which the following is a clear, concise, full, and exact specification.

My invention relates to eaves-troughs of sheet metal, differing in their construction from other sheet-metal troughs in the formation of the beading and the stays or braces across the inside, by which they are suspended, and the manner of securing them in their places.

The beads are formed on both edges of the trough, being first turned in a bead-press machine.

In forming the bead a margin is left on the edge of the sheet outside of it. This is bent over inwardly on the interior surface of the trough, the object being to conceal the edge, make a neater outside finish, and to form an overlapping part, under which the angular ends of the brace or stay can be secured to give the trough greater strength than when its ends only abut against the inside and are soldered thereto, as in the ordinary manner.

Any length of sheet-tin can be used in the manufacture of my improved eaves-trough, and, as the trough is the same on both sides, the sections can be readily reversed to suit any inclination of the same.

Figure 1 is an inside view of my improved eaves-trough, A being the trough, in which two sections are shown joined together. *a a* are the beads, which can be made of any desired form. In this view they are oval.

In Figs. 2 and 3 two other forms are shown—circular and square, or partly square.

In Fig. 4 a perspective view of a section of the trough is shown, giving a representation of the stay or brace *b*, the apron-strip or overlapping part *a'*, under which the angular end *b'* of the stay is seen in dotted lines.

In constructing my improved eaves-trough I first make it concave by passing it through rollers. It is then placed in a long beader, which swages the bead *a* from within outward by pressure, forming the bead, as before stated, a sufficient distance from the edge to leave a descending flap, *a'*, extending down onto the inside surface of the body-part of the trough, to allow the upturned ends *b'* of the stays or braces *b* to slip under this flap or margin, where they are securely soldered.

In the cross-sections, Figs. 2 and 3, the relative position of the parts can be seen, the braces *b* being inserted from the end of the trough-section.

It will be noticed that the stay, being bent up and extending under the part *a'*, gives it greater firmness and strength, and as the flow of solder can be made over the whole surface of the ends *b'* between it and the overlap *a'*, and also between it and the inside surface of the body with which it is in contact, the joint will be unusually strong, preventing the stay from being torn out with any pressure the trough may be subjected to.

I claim as my improvement—

1. In combination with sheet-metal eaves-trough A, having beads *a a*, bent from without inward, so as to leave a space between the edge and the bead, said edge lapping onto the inner surface of the body, of braces *b*, having their ends upturned and entered and secured between the edge and the bead, substantially as shown and specified, for the purpose set forth.

2. In a sheet-metal eaves-trough, beads *a*, turned inwardly to conceal the edge of the sheet and to form a neater outside finish, and a stay or brace, *b*, having upturned ends *b'*, connecting the sides of the trough by being slipped under the lap *a'* and soldered thereto, substantially as shown and described, for the purpose hereinbefore set forth.

CHARLES W. HAUCKE.

Attest:

B. C. CONVERSE,

M. M. CONVERSE.