(No Model.)

B. S. BAKER.

EAVES TROUGH AND GIRDER THEREFOR.

No. 354,372. Patented Dec. 14, 1886.

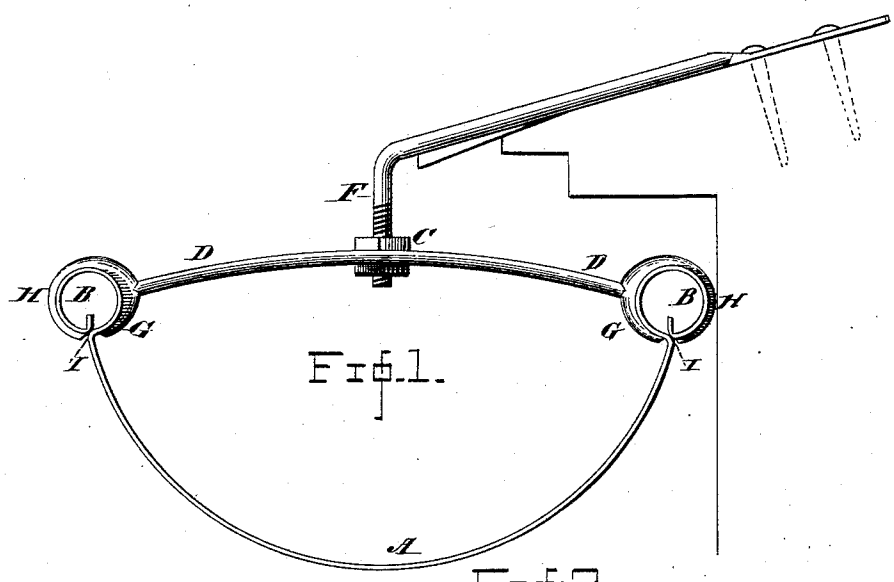
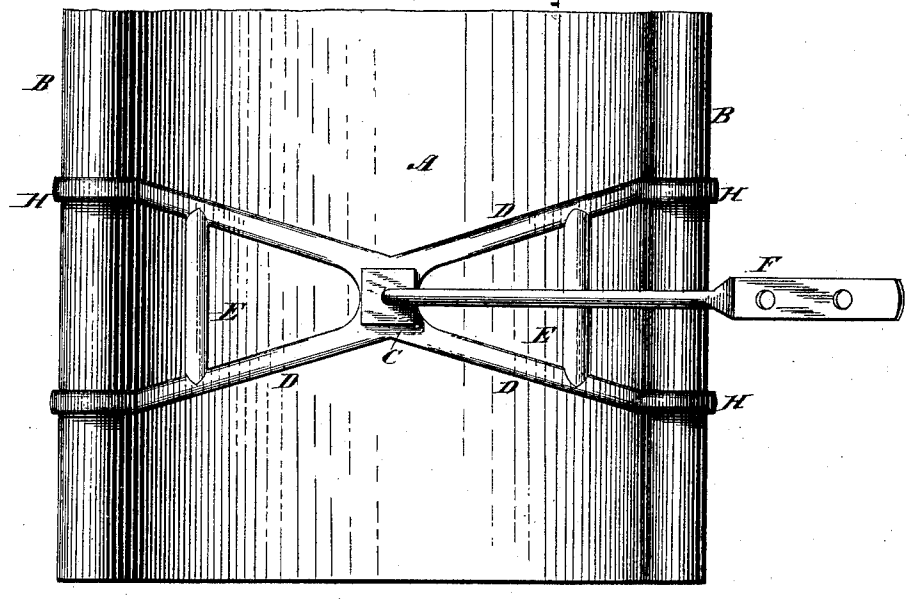


Fig. 1.

Fig. 2.



WITNESSES

A. P. Seaman

Edwin L. Bradford

INVENTOR

Barney S. Baker.

By Taulmin & Gemmes.

his Attorneys.

N. PETERS. Photo-Lithographer, Washington, D. C.

UNITED STATES PATENT OFFICE.

BARNEY S. BAKER, OF SPRINGFIELD, OHIO.

EAVES-TROUGH AND GIRDER THEREFOR.

SPECIFICATION forming part of Letters Patent No. 354,372, dated December 14, 1886.

Application filed February 27, 1886. Serial No. 193,463. (No model.)

To all whom it may concern:

Be it known that I, BARNEY S. BAKER, a citizen of the United States, residing at Springfield, in the county of Clark and State of Ohio, have invented certain new and useful Improvements in Eaves-Troughs, of which the following is a specification, reference being had therein to the accompanying drawings.

This invention relates to improvements in eaves-troughs; and it has for its objects, first, to provide a trough-girder of such construction that its ends will fit round beads formed at the edges of the trough, and will be made to tightly grasp and secure the same by simply compressing said ends against the beads; and, second, to provide the edges of the trough with beads so formed with relation to the body of the trough that the latter shall depend from about the center of the beads, whereby shoulders for the ends of the girder to clamp against both inside and outside the trough are produced.

In the accompanying drawings, forming part of this specification, and on which like reference-letters indicate corresponding parts, Figure 1 represents an end view of my improved trough, showing the girder in side elevation and illustrating the device as applied to a roof; and Fig. 2, a plan view of the girder and of a portion of a section of the trough.

The letter A designates a section or part of a section of an eaves-trough constructed of tin or sheet-iron, and otherwise as usual; same in respect to the beads B. These beads, it will be seen from Fig. 1, are so formed with relation to the body of the trough that they stand or project laterally both to the inside and outside thereof, causing the weight of the body to suspend from beneath or approximately beneath the axial line of each bead, and also presenting a shoulder both on the inside and outside of the body. This latter feature affords a shoulder-like projection both inside and outside the trough for the ends of the girder, as will presently be described, to take hold of, which makes a much stronger and more lasting connection than if the beads extended to the outside merely of the trough-body. This position of the beads also suspends the weight of the trough from a center line, and positively prevents the beads from unwinding, as it were, and drawing through the eye formed by the ends of the girder. Beads which stand wholly to one side of the body of the trough are found, in practice, to unwind and pull out and to necessitate puncturing the body of the trough or resorting to solder in order to effect a connection with the girders or suspending-straps strong enough to sustain the weight, the troughs, and the accumulation of water therein. Both these methods entail expense, and the latter allows the water to enter and rust out the trough materials. My improvements avoid these objections.

The letter C indicates my improved girder, constructed, preferably, of malleable iron, and consisting of the diverging bars D, connected by cross-bars E. Where the bars are united, a hole is provided for the reception of the hanger F, which is screw-threaded and provided with nuts, one above and the other below the girder, whereby the trough is supported and its altitude adjusted from point to point to secure the proper inclination to shed the water. This hanger is secured to the roof in any of the known ways—as by nails or screws. Each bar D of the girder terminates in inside and outside claws, G and H, and these claws are slipped over the beads, and then clamped firmly against them by suitable tongs, or by any other convenient means.

It will be observed that the claws of the girder take hold of the beads both upon the inside and the outside, and that they hold them intact against the tendency to distortion consequent to the weight and strain incident to the filling of the trough with water. Furthermore, they avoid the necessity of resorting to solder and to puncturing the trough-body, which, as above noted, are objectionable. Of course the success of my girder does not depend upon its being divided into a plurality of bars at either end, since one set of claws would answer the purpose. Still, however, I prefer the construction shown. It is also preferable to have the edge of the beads fit against the body of the trough, as seen at I in Fig. 1.

Having thus fully described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. In an eaves-trough, the combination, with the body thereof, having beads which stand both upon the inside and outside, of a girder having claws formed at its ends, which embrace

and clamp said beads upon the inside and outside.

2. In an eaves-trough, the combination, with the body thereof, having its edges turned into beads which stand both upon the inside and outside, of a girder having a plurality of claws at its ends, which embrace and clamp said beads upon the inside and outside.

3. In an eaves-trough, the combination, with the body thereof, having its edges turned into beads which stand both upon the inside and outside of the body, and whose edges fit against the body of the trough, of the girder consisting of a plurality of diverging bars, each having a set of claws which embrace and clamp the beads, and which terminate with the body of the trough between their ends.

4. In an eaves-trough, the girder consisting of bars having ends which terminate in claws constructed to embrace and clamp a trough-bead which stands both inside and outside the body of the trough.

5. In an eaves-trough, the malleable-iron girder consisting of a plurality of bars extending in pairs in opposite directions, and terminating each in two claws constructed to embrace and clamp a trough-bead.

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

BARNEY S. BAKER.

Witnesses:
A. A. YEATMAN,
EDWIN L. BRADFORD.