

(No Model.)

O. HARLEY.
EAVES TROUGH HANGER.

No. 369,708.

Patented Sept. 13, 1887.

Fig. 1.

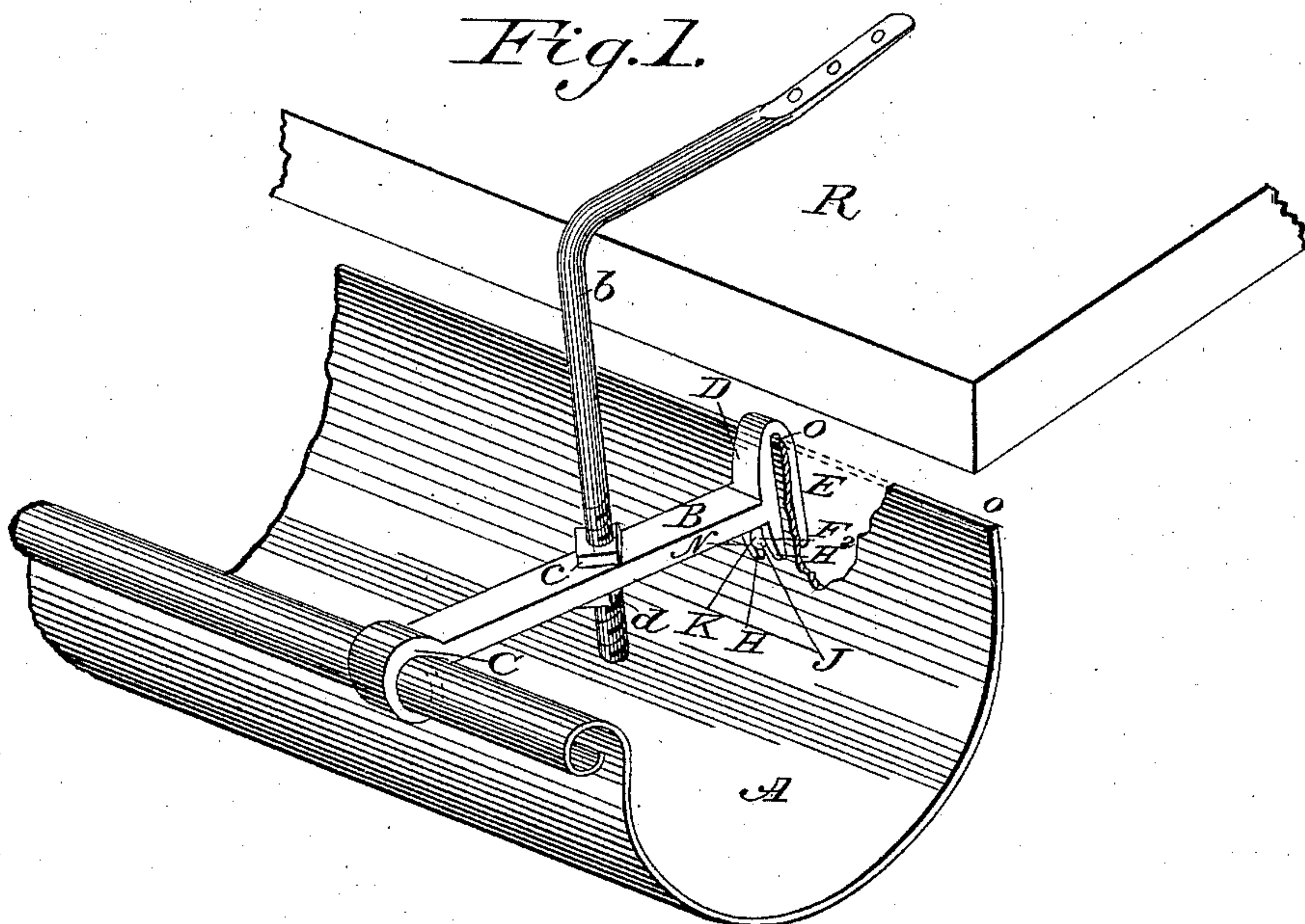


Fig. 2.

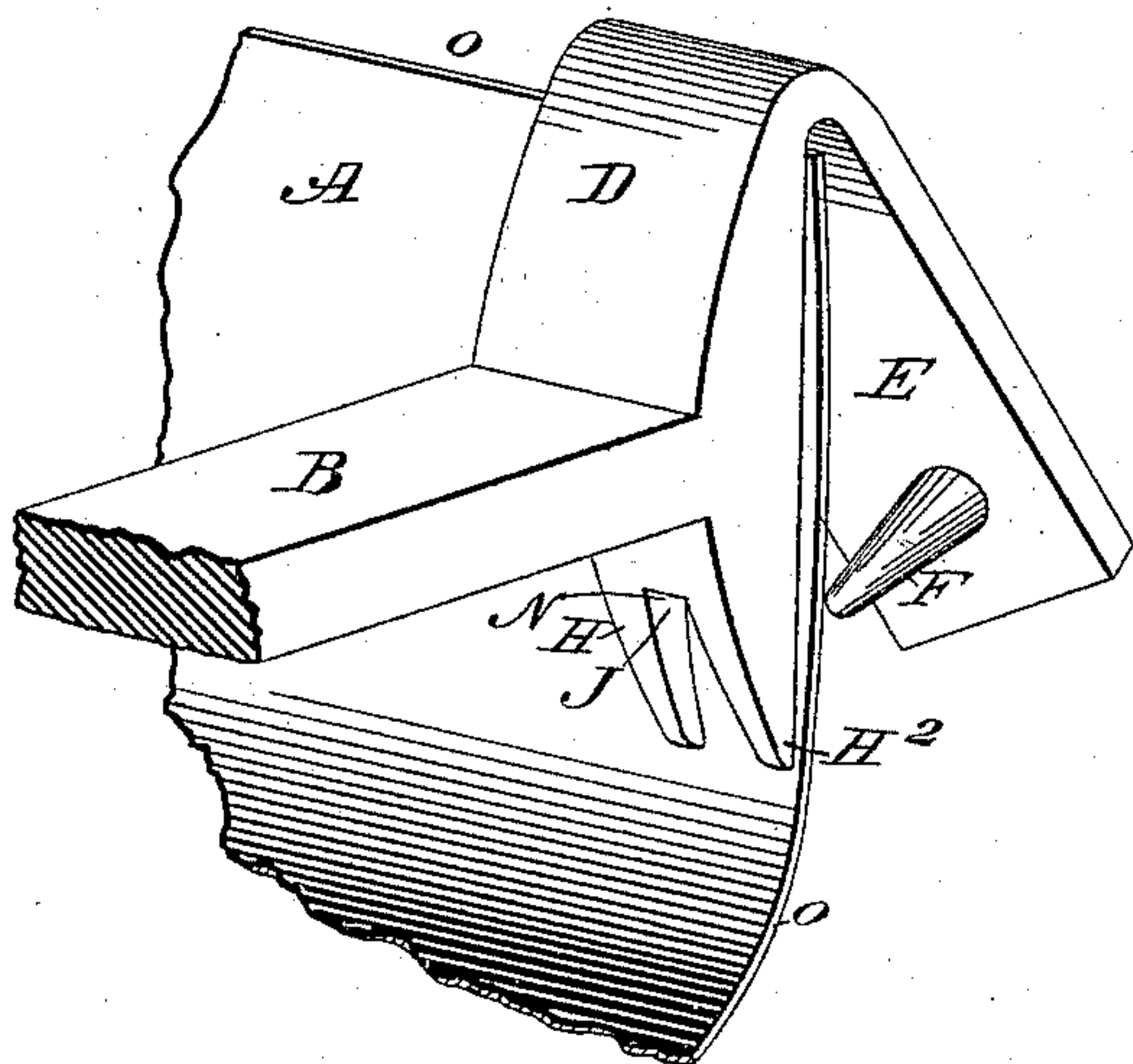
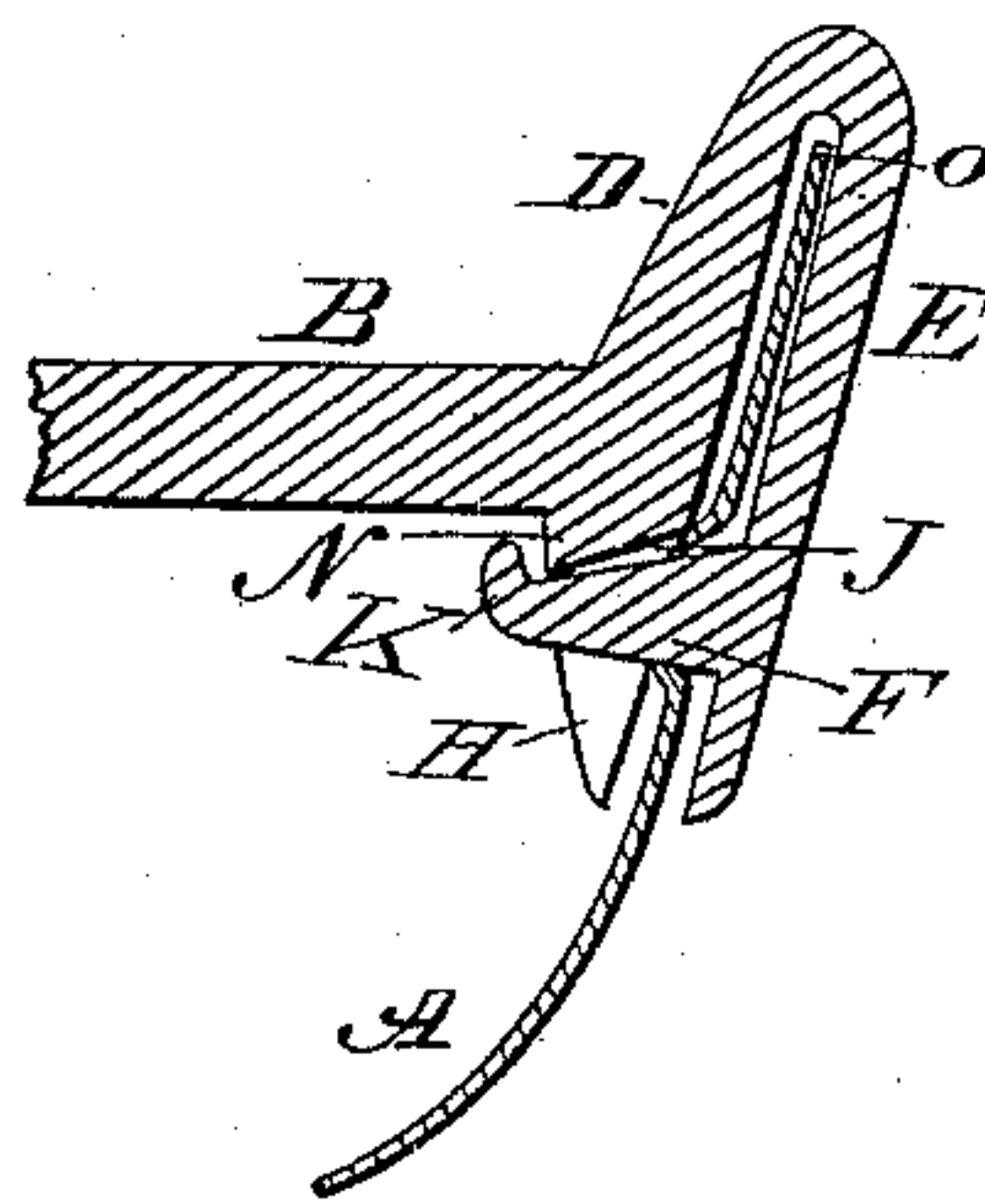


Fig. 3.



Witnesses:

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Inventor:

Olin Harley,
per O. H. Woodworth,
Atty in fact.

UNITED STATES PATENT OFFICE.

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EAVES-TROUGH HANGER.

SPECIFICATION forming part of Letters Patent No. 369,708, dated September 13, 1887.

Application filed March 16, 1887. Serial No. 231,189. (No model.)

To all whom it may concern:

Be it known that I, OLIN HARLEY, a citizen of the United States, residing at South Whitley, in the county of Whitley and State of Indiana, have invented a new and useful Device for Hanging Eaves-Troughs, of which the following is a specification.

My invention relates to devices or means of hanging or supporting metal eaves troughs, in which the troughs are supported by cross-bars or braces extending from one side of the trough to the other on or over the trough, said cross-bars being connected with and attached by suitable devices to the roofs of buildings.

The objects of my invention are to provide an effective and rapid method of hanging eaves-troughs and to make such method reliable and infallible in its application, as well as cheap, simple, and substantial. I attain these objects by the mechanical devices illustrated in the accompanying drawings, in which—

Figure 1 represents a general view, in perspective, of my invention attached to the roof of a building. Fig. 2 is an enlarged view, in perspective, of my combined clamp and punch for attaching the inner end of the cross-bar of the hanger to the trough. Fig. 3 is a central longitudinal sectional view of my combined clamp and punch attached to the eaves-trough.

Similar letters refer to similar parts in all views represented by the drawings.

In Fig. 1, R represents the roof of a building, and *b* shows an ordinary pendent rod attached to the roof in the usual manner, and passing through cross-bar B, to which it is attached by upper and lower screw-nuts, *c* and *d*. The outer end of the cross-bar is attached to the bead of the eaves-trough by means of hooks C tightly pressed on the bead. At the other or inner end of cross-bar B, and as a part of the same piece of metal, are shown the devices which constitute my invention, as follows: D represents one side or jaw of a clamp formed by that side and the other side, E. To E is attached, or solidly formed or molded with it, the spur or punch F. H is one prong, and H² is another, which form a fork or crotch, J, the inside of said prongs also forming a backing, against and between which and jaw E the edge or side O of the metal trough is in-

serted, as shown in Figs. 1, 2, and 3, in Fig. 1 the edge of trough being broken away to more fully disclose the application of my invention.

Fig. 2 represents an enlarged perspective view of my invention, in which is shown the edge *o* of trough A between the open jaws D and E, showing punch F and its position relative to the trough and to the prongs H and H² before the jaws are closed.

Fig. 3 represents a vertical and central cross-sectional view extending in a line across the trough and lengthwise of the cross-bar through center of punch F, fork J, and the two sides or jaws D and E of the clamp when closed. K represents the small end of punch F as it appears after the combined clamp and punch have been applied to and closed on the edge of the trough. N represents a projection in the fork or crotch J, under which the point of punch is to be bent to lock together the two sides or jaws of the clamp.

The application and operation of my invention are substantially as follows: I insert the upper edge, O, of trough A between the point of punch F and the inner flat surfaces of prongs H and H², as shown in Fig. 2, and then, applying a pair of strong properly-shaped pinchers over the outside of the two sides or jaws D and E, I press them forcibly together, thereby forcing punch F through the side of the trough and between the prongs and under projection, N, until the point of the punch strikes the inner jaw of the pinchers, and is thereby bent upward, as shown at K, thus clinching the end of the punch, and thereby fastening and locking the end of cross-bar B to the eaves-trough, as shown in Figs. 1 and 3. The clinching of the punch may also be effected by any other means desired.

In the construction of my invention I generally use malleable or wrought iron.

In this specification when speaking of the "inner" edge of the trough I mean the edge next to the building, and the "inner" end of the cross-bar is the end next to the building.

I claim as my invention, and desire to secure by Letters Patent of the United States, the following:

1. In an eaves-trough hanger, the cross-bar

provided with the sides or jaws D and E, the spur or punch F, and the two prongs H and H², substantially as and for the purpose set forth and specified.

- 5 2. In an eaves-trough hanger, the cross-bar provided with the jaws D and E, forming a clamp, the punch F, the prongs H and H², and

the projection N in the fork J, all substantially as and for the purposes set forth and specified.

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Witnesses:

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