

(No Model.)

W. W. WARREN.

IMPLEMENT FOR FORMING ENDS FOR EAVES TROUGHS.

No. 597,924.

Patented Jan. 25, 1898.

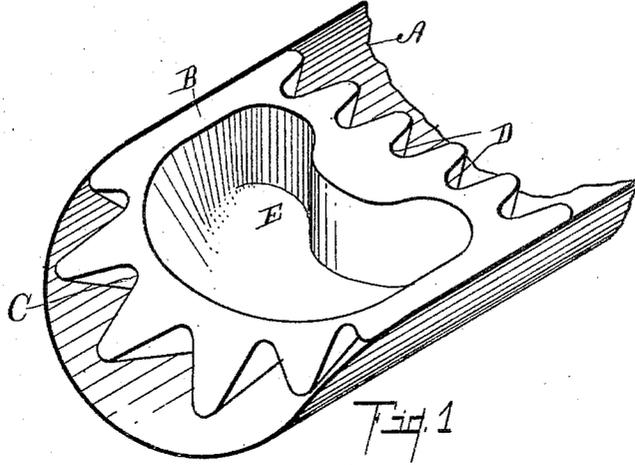


Fig. 1

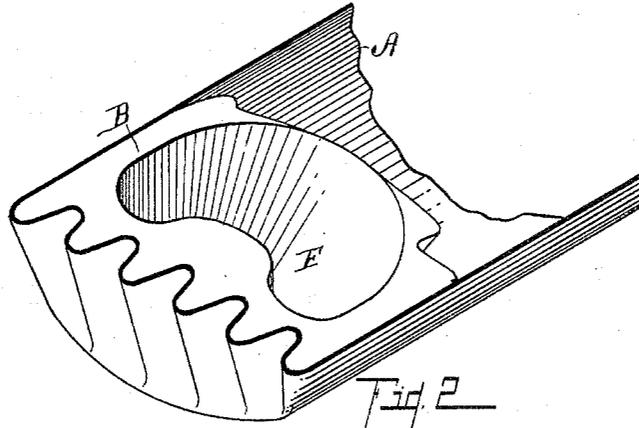


Fig. 2

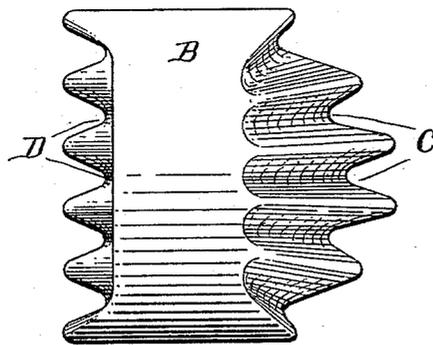


Fig. 3

Witnesses,

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# UNITED STATES PATENT OFFICE.

WILLIAM W. WARREN, OF DOWAGIAC, MICHIGAN.

## IMPLEMENT FOR FORMING ENDS FOR EAVES-TROUGHS.

SPECIFICATION forming part of Letters Patent No. 597,924, dated January 25, 1898.

Application filed June 1, 1897. Serial No. 639,035. (No model.)

*To all whom it may concern:*

Be it known that I, WILLIAM W. WARREN, a citizen of the United States, residing at the city of Dowagiac, in the county of Cass and State of Michigan, have invented a certain new and useful Implement for Forming Ends for Eaves-Troughs, of which the following is a specification.

This invention relates to improvements for forming ends to eaves-troughs or like articles.

As heretofore constructed the ends of eaves-troughs have been formed on a separate length, which is joined to the eaves-trough by a slip-joint, or, after careful measurement, the entire trough is made and an end soldered in before it is put into place. This necessarily requires a great deal of calculation and care on the part of the tinner, and also the soldered joints thus formed are objectionable, particularly to galvanized eaves-troughs, because they soon break apart, a firm joint being practically impossible under such circumstances. Eaves-troughs formed in the ordinary manner that have soldered joints are frequently broken apart from freezing of the water within the same, causing expansion and breaking them apart.

The objects of this invention are, first, to provide a simple and convenient implement which can be used in closing the ends of an eaves-trough after the trough has been attached to the building or other place where it is intended to be used and the inclination of the trough and the flow of the water there-through determined; second, to provide an implement by means of which the ends of an eaves-trough can be quickly closed without the necessity of solder or slip joints and without waste of material; third, to provide a simple means of closing the ends of the eaves-trough that can be successfully used after the eaves-troughs are put into place. Further objects will definitely appear in the detailed description. I accomplish these objects of my invention by the devices and means described in the following specification, pointed out in the claims, and illustrated in the accompanying drawings, in which—

Figure 1 is a perspective view of an eaves-trough after it has been cut off, with one of my improved forming devices in place, the starting end of the same being in position for

operation. Fig. 2 is a perspective view of the same, showing the completing end of the forming device in position and the eaves-trough pounded into place around it, forming a perfect end to the same. Fig. 3 is an inverted plan view of the forming device itself.

In the drawings similar letters of reference refer to similar parts throughout the several views.

Referring to the lettered parts of the drawings, A represents the end of an eaves-trough before it has been closed.

B is one of my improved forming devices, which consists of a body portion conforming to the contour of the eaves-trough on which it is to be used. One end is sloped up, terminating in a semicircular form, and contains rather deep corrugations extending from a transverse line around the body of the same outwardly to the end of the semicircle, as clearly indicated by letter C in Fig. 1. The opposite end has corresponding corrugations, which are vertical and at right angles to the general direction of the body of the same, as clearly appears at D in the drawings. Within the body of the same a depression E is formed, which permits of an easy handling of the device. A portion is left flat to receive a clamp, where it is found necessary to clamp the top during the operation of closing the end of a trough.

To use my improved device, the same is fixed in the end of an eaves-trough, and the projecting end of the trough is rounded off somewhat in a semicircular line, as appears in Fig. 1. The end portion having corrugations C is then brought near the end, and by the use of a peening-hammer the trough is indented into the various corrugations at c, which starts the formation of the end. The forming device is then reversed, and the end B, with its corrugations, is brought next to the fluting already started, and as the corrugations at each end correspond the corrugations started in the trough are driven tight into the form, as indicated in Fig. 2. Thus the end of the trough is closed in an artistic manner very quickly without solder, rivets, or any seaming. When used in very stiff troughs or by those having little experience in the use of the device, it is desirable to clamp the former in place in both instances,

when the hammer can be utilized and the corrugations made perfect. An experienced operator, however, will use the former in almost any kind of trough without any such precaution. A workman should be provided with a series of these forms, so that different-sized eaves-troughs can be easily operated upon.

I desire to state that the structure shown can be somewhat varied in its details without departing from my invention. It is not a necessity that the corrugations forming the square end and the oblique corrugations be upon the same block, though they are exceedingly convenient so, as will be readily understood, when it is taken into consideration that this implement is used high up on cornices or on the eaves, where it is not convenient to carry many tools and where it would require too much time to descend for another part; also, by having the corrugations or fluting on the same part a surer fit is obtained.

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

1. As an article of manufacture an implement for forming the ends of eaves-troughs consisting of a body B, conformed to fit the trough and having oblique corrugations at one end and vertical corrugations at the opposite end to correspond thereto for use.

2. As an article of manufacture an implement or implements for forming the ends of eaves-troughs having a body portion and sloping corrugations to start the fold and right-angled or vertical corrugations corresponding thereto to fit the same, as specified.

In witness whereof I have hereunto set my hand and seal in the presence of two witnesses.

WILLIAM W. WARREN. [L. S.]

Witnesses:

V. A. OSBORN,  
HENRY MICHAEL.