

(Model.)

A. C. KANNEBERG.
EAVES TROUGH.

No. 531,044.

Patented Dec. 18, 1894.

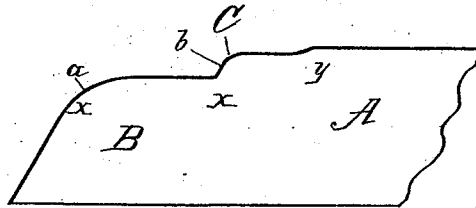


Fig. 1

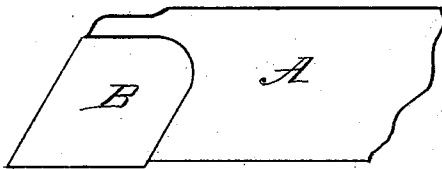


Fig. 2.

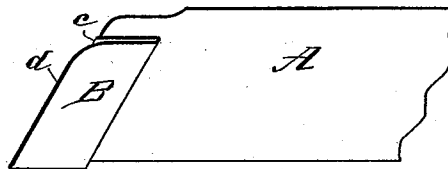


Fig. 3.

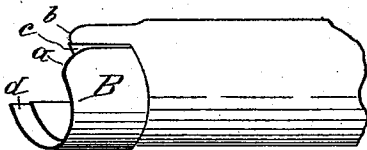


Fig. 4

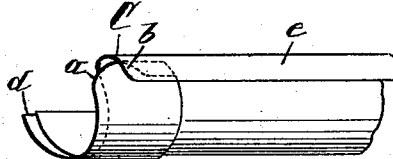


Fig. 5

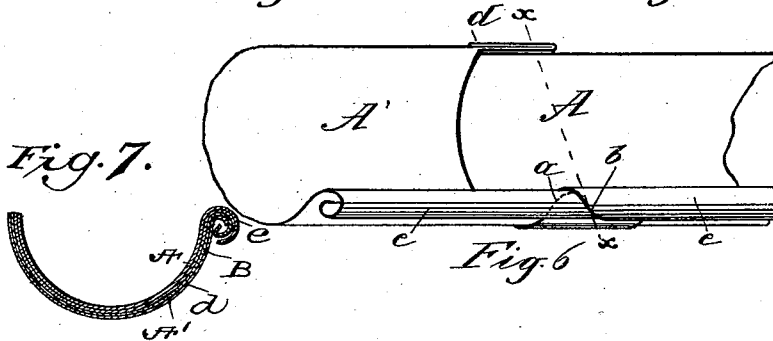


Fig. 7.

Fig. 6

WITNESSES

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EAVES-TROUGH.

SPECIFICATION forming part of Letters Patent No. 531,044, dated December 18, 1894.

Application filed November 20, 1893. Serial No. 491,377. (Model.)

To all whom it may concern:

Be it known that I, ALVIN C. KANNEBERG, a citizen of the United States, and a resident of Canton, county of Stark, State of Ohio, have invented a new and useful Improvement in Eaves-Troughs, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, making part of this specification.

My invention relates to an improvement in eaves troughs, and consists of certain features of construction and combination of parts as will be hereinafter described and pointed out in the claim.

The object of the invention is to provide in eaves troughs, a slip joint that is economical and durable, whereby troughs of any desired length may be erected without solder or tools of any special character, the parts adapted one to receive the other freely, and to form a joint not liable to leak.

Figure 1, of the drawings is a plan view of a fragment plate or sheet, from which a section of trough is made, showing the form of the end portion. Fig. 2, is a similar view showing the first bend in process of forming the slide or groove; Fig. 3, a similar view showing the second bend or operation. Fig. 4, is a perspective showing the sheet turned into the form of trough semicircle in cross section. Fig. 5, is a similar view showing the roll formed on the edge of the trough, and the slide or groove for slip joint complete. Fig. 6, is a similar view of completed joint as formed between two sections. Fig. 7, is a transverse sectional view on line X X, Fig. 6.

Referring to Fig. 1, A represents the end portion of a sheet of metal, having a portion cut away as shown, reducing the width of the end portion from x to x , to form a narrow lap portion B, and a shoulder C. There is also a portion cut away at the side, extending from y to the shoulder C. The corner of the lap B is cut away or rounded as shown at a . The outer corner of the shoulder C is also cut away and rounded as shown at B. The object sought in rounding the point a b , will be more fully described farther on.

To form the groove to receive the end of the trough A' as shown in Fig. 6, the lap is turned back on the plate A as shown in Fig. 2. The end portion is then folded back on itself, as shown in Fig. 3, thus forming the groove c and the projected end portion d .

The sheet is now turned to semicircle form as shown in Fig. 4, after which is formed the roll e as shown in Figs. 5 and 6. In forming this roll, the edge of the sheet between the points x and x , is at the same time bent in a roll concentric to the roll e , between which rolls, the roll of the section a fits, thus greatly strengthening the joint, as well as increasing the friction between the two sections of the trough, whereby the tendency of the sections to pull apart, is reduced and a more perfect water tight joint secured. The object of the rounded portions a and b as now shown, serve a very important purpose; that of forming guides by which the roll e of trough section A' is guided into the roll e of trough section A. The end of the section A', resting on the extension d will be directed into the groove c as shown in Fig. 6, which may be readily and quickly accomplished when constructed as hereinbefore described.

I am aware of the patents granted to Bowers and Dickelman and Bonkrake, dated and numbered respectively, November 7, 1893, No. 508,366, and November 1, 1892, No. 485,573, and wish to be understood as not claiming the construction therein shown. It will be noticed that neither of these patents show the edge of the sheet from which they make the trough curved concentric with the roll, but on the other hand, terminate the edge below the roll.

Having thus fully described the nature and object of my invention, what I claim is—

As a new article of manufacture, an eaves trough having one edge of one of its ends cut away from x to x , forming a tongue B and cut away from C to y , and having rounded shoulders a and b , receding from the front end of the trough the tongue B being folded back upon the trough from the shoulder b , thence forward upon itself to form a groove or pocket c , and extension d , and its edge from x to x , bent laterally into a roll, the edge of the trough being bent over the tongue, to form a roll concentric with the aforesaid roll, substantially as shown and described.

In testimony whereof I have hereunto set my hand this 15th day of November, A. D. 1893.

ALVIN C. KANNEBERG.

Witnesses:

CHAS. M. BALL,
BURT A. MILLER.