(No Model.)

W. C. BERGER.

EAVES TROUGH.

No. 376,574. Patented Jan. 17, 1888.

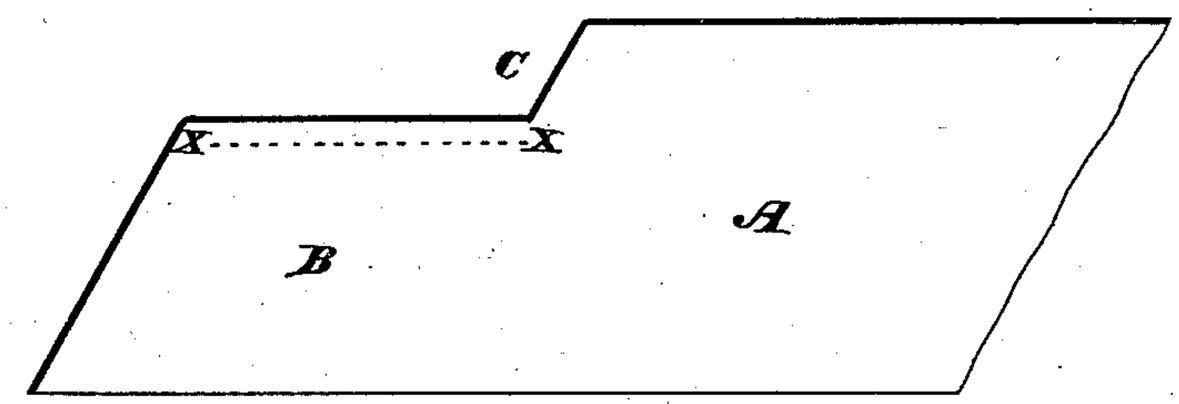

Fig. 2.

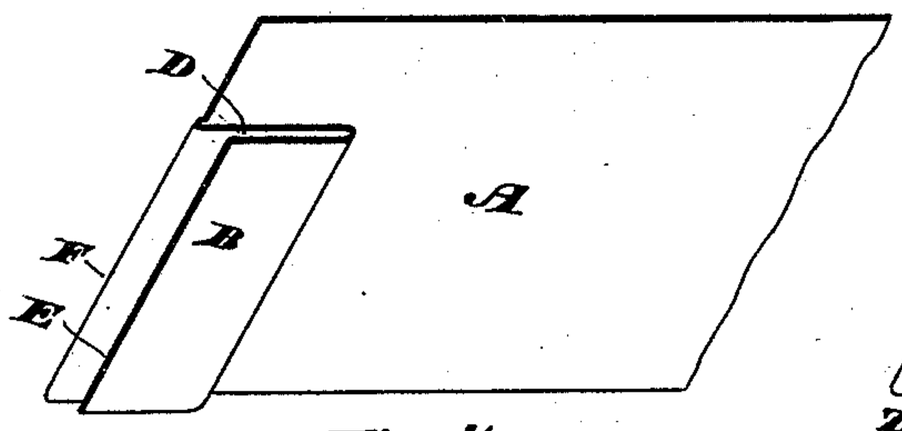

Fig. 4.

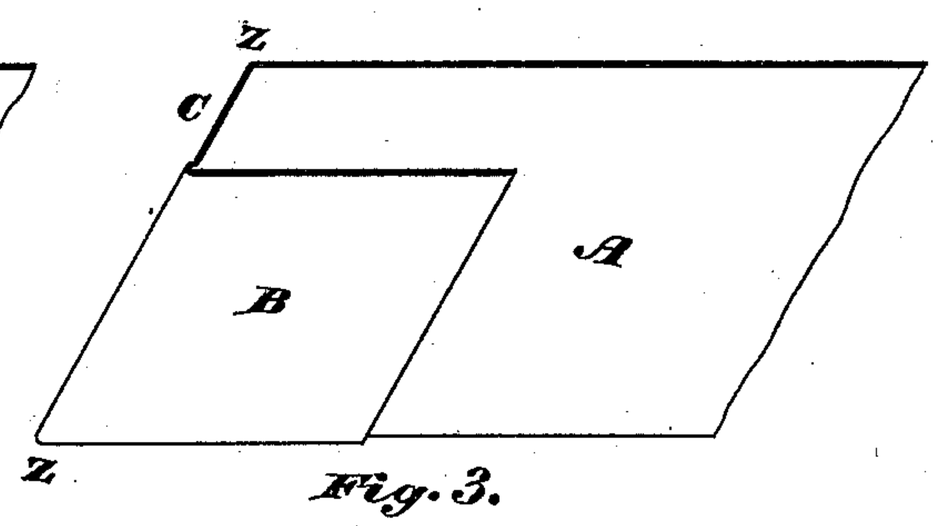

Fig. 3.

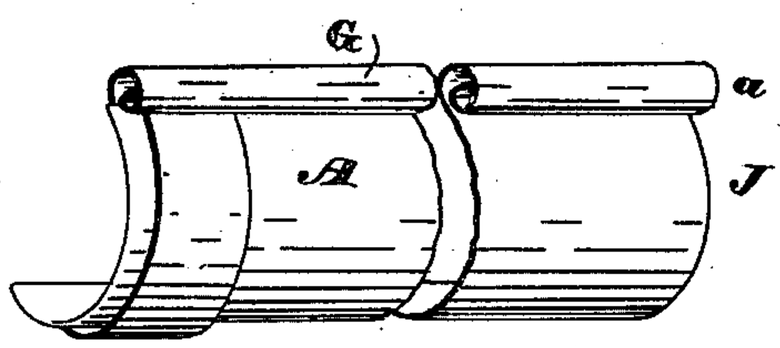

Fig. 6.

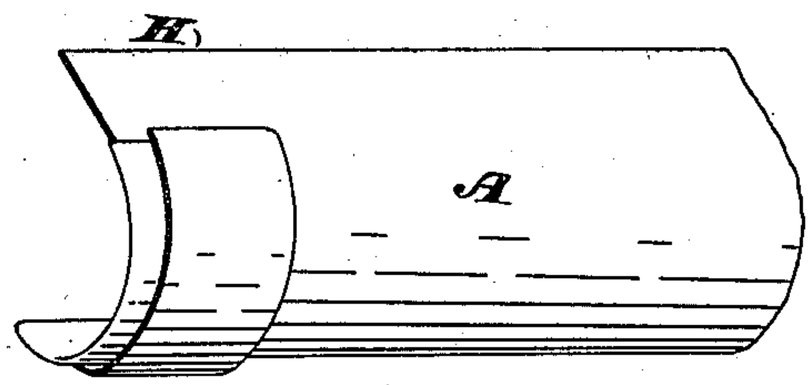

Fig. 5.

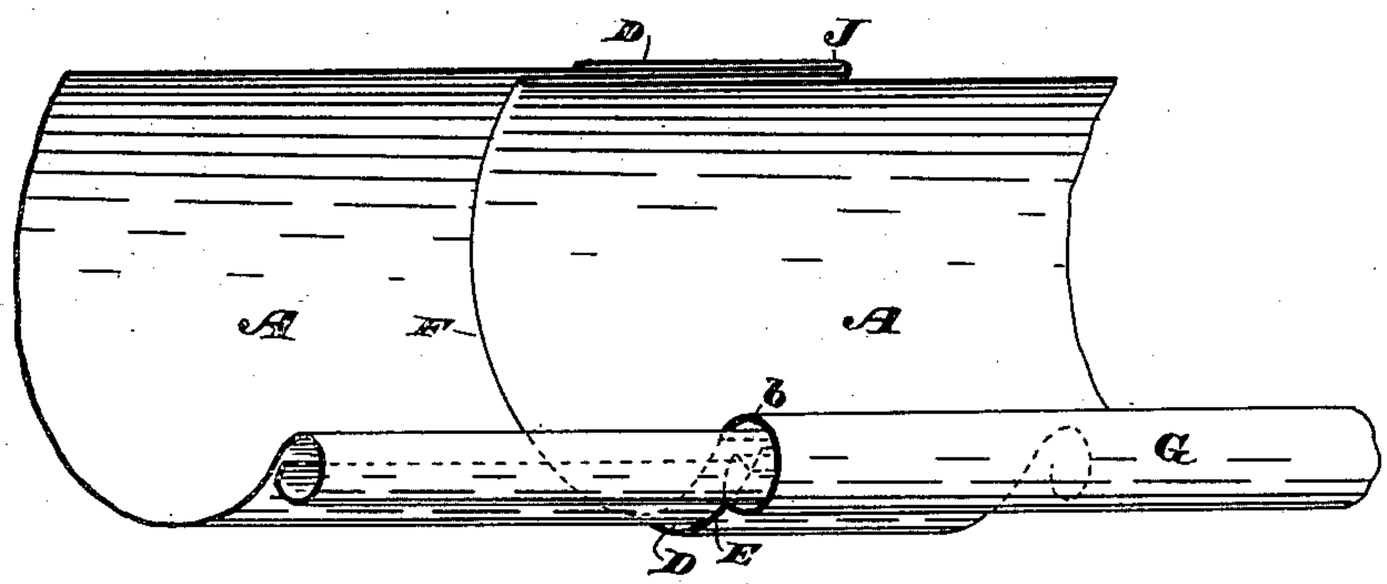

Fig. 1.

WITNESSES:

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BY

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UNITED STATES PATENT OFFICE.

WILSON C. BERGER, OF CANTON, OHIO, ASSIGNOR TO THE BERGER MANUFACTURING COMPANY, OF SAME PLACE.

EAVES-TROUGH.

SPECIFICATION forming part of Letters Patent No. 376,574, dated January 17, 1888.

Application filed October 14, 1887. Serial No. 252,304. (No model.)

To all whom it may concern:

Be it known that I, WILSON C. BERGER, 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 improvements in eaves-troughs; and it consists in certain features of construction and combination of parts, as will be hereinafter described, and set forth in the claim.

Figure 1 is an isometrical view of a portion of an eaves-trough, illustrating my improvement. Fig. 2 is the same view of an end portion of metal sheet, showing a portion cut away, which is the first operation in forming my improvement in eaves-troughs. Fig. 3 is the same view showing the end portion turned back on the body portion, which is the second operation. Fig. 4 is the same view showing the end portion turned back on itself, the third operation. Fig. 5 is the same view showing the plate formed in semi-cylindrical or trough form, and is the fourth operation. Fig. 6 is the same view showing a roll or bead formed on the edge of the trough, the fifth and last operation.

Similar letters of reference indicate corresponding parts in all the figures of the drawings.

Letter A represents the end portion, of sheet metal, having a portion cut away, as shown, reducing the width of the end portion, B, from X to X. This narrowed end B is turned back on the body A on a line with the shoulder C from Z to Z, as shown in Fig. 3, and rolled down flat on the body portion A. The end of said end portion is then turned back on itself, as shown in Fig. 4, forming a U-shaped groove, D, the free end E of the narrow portion not to reach to the end F of the body portion. The sheet formed as hereinbefore described is then passed through the rolls, in the usual way of forming such plates, into a semicircular trough, as shown in Fig. 5. The roll or bead G is now formed by rolling the edge H of the body portion A in the usual and well-known way of forming such beads, the roll turned back over the open end of the U-groove D, to prevent water passing into the groove and freezing, and thereby doing great damage.

The trough may be made of any desirable length, preferably about ten feet, one end only of which is constructed as hereinbefore described, and the other end to take the form as shown at J, Fig. 6, and is adapted to slide into the U-groove D, the body portion A into the groove D, and the end portion *a* of the roll G into the end portion *b* of the roll G, thus forming a simple, inexpensive, strong, and durable joint, by which sections of eaves-troughs may be loosely secured one to the other.

An eaves-trough is thus manufactured that may be shipped from the factory in sections and placed upon buildings without the use of solder, and that will adapt itself to the severest change of temperature, the end J sliding in the groove D as the length of the section is changed by reason of contraction or expansion.

I am aware that sections of eaves-troughs have been hitherto provided with slip-joint portions formed by the folding back of a portion of the tin at the end of the section, and that the edges of the section have been rolled into tubular form, and I do not claim that construction, broadly, but limit myself substantially to the construction herein shown and described, by which the sections are united in such a manner as to render them capable of expansion and contraction without opening the joints to produce leakage, and at the same time so construct the roll on the edge as to completely protect the joint-socket from admitting water.

Having thus fully explained the nature and object of my invention, what I claim, and desire to secure by Letters Patent, is—

As a new article of manufacture, an eaves-

trough having on one of its ends a slip-joint formed, essentially, by cutting away a portion of the sheet from X to X, the narrowed end folded to form a groove, as D, and the end of said groove covered by the roll G, formed of the projecting edge H, substantially as shown and described, and for the purpose set forth.

In testimony whereof I have hereunto set my hand this 11th day of October, A. D. 1887.

WILSON C. BERGER.

Witnesses:
CHAS. R. MILLER,
W. K. MILLER.