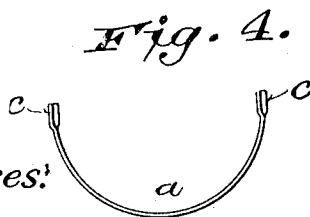
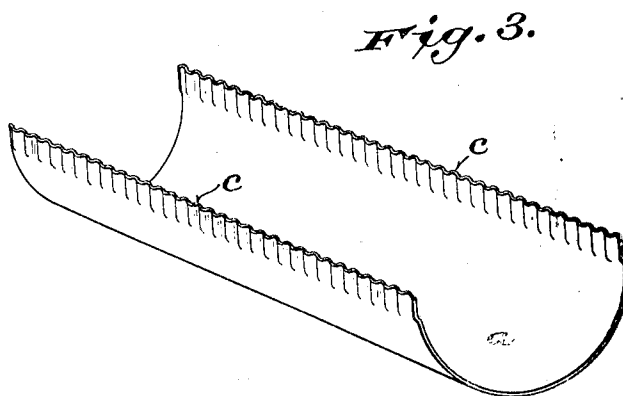
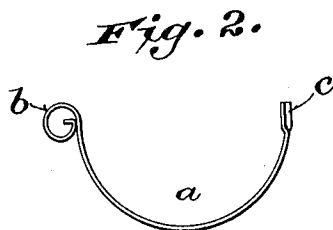
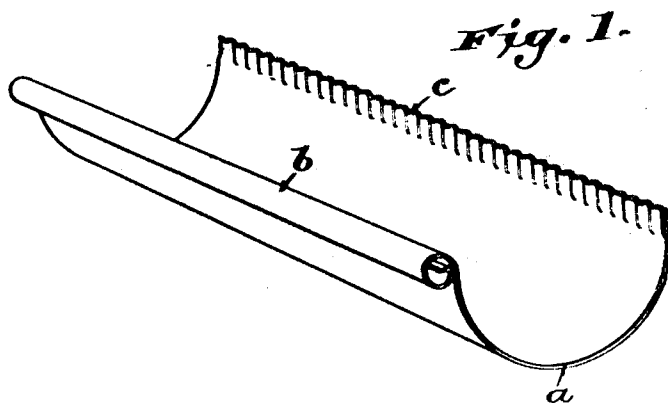


Patented Mar. 12, 1912.

1,020,087.



Witnesses:
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UNITED STATES PATENT OFFICE.

PHILLIPP F. FLAGGE, OF MILWAUKEE, WISCONSIN, ASSIGNOR TO MILWAUKEE CORRUGATING COMPANY, OF MILWAUKEE, WISCONSIN, A CORPORATION OF WISCONSIN.

EAVES-TROUGH.

1,020,087.

Specification of Letters Patent.

Patented Mar. 12, 1912.

Application filed August 17, 1911. Serial No. 644,538.

To all whom it may concern:

Be it known that I, PHILLIPP F. FLAGGE, a citizen of the United States, residing at Milwaukee, in the county of Milwaukee and State of Wisconsin, have invented certain new and useful Improvements in Eaves-Troughs, of which the following is a specification, reference being had to the accompanying drawing, forming a part thereof.

This invention relates to sheet metal eavestroughs and its main objects are to stiffen one or both edges of the trough, to prevent the trough from warping, winding or twisting and from spreading or opening, to economize in material used in the construction of the trough, and generally to improve the construction of eavestroughs of this class.

It consists in a trough having one or both edges transversely crimped or fluted either at right angles or oblique thereto.

In the accompanying drawing like characters designate the same parts in the several figures.

Figure 1 is a perspective view of a short section or length of eavestrough embodying the invention in its preferred form; Fig. 2 is an end elevation of the same; Fig. 3 is a perspective view of a modified form showing a section of trough having both edges crimped; and Fig. 4 is an end elevation of the same.

Referring to Figs. 1 and 2, showing the invention as embodied in the preferred form, *a* designates a short section of sheet metal eavestrough formed on the outer side with a marginal stiffening bead or roll *b* of a common form. Along the inner side which is placed next to a building, it is formed with a transversely crimped or fluted stiffening edge *c*, the crimps or flutes extending through and some distance below the edge, either at right angles thereto, as shown, or oblique thereto. Along the line of union or junction between the corrugated and non-corrugated or plain portion of the trough the bend or deflection of the metal

laterally at such junction by reason of the corrugations imparts strength and stiffness not attainable either by the non-corrugated metal alone or by corrugations extended entirely from edge to edge. There is accordingly a modifying influence exerted each upon the other by the presence of the two features. This crimping or fluting stiffens the trough at and adjacent to its inner edge and prevents the trough from winding, warping or twisting, and tends to prevent it from spreading or opening not only during the process of construction, but after it is made and is put up on a building. It also admits of the use of comparatively light or thin sheet metal in the construction of the trough which is made in long lengths or sections, and effects a considerable saving in material as compared with trough provided with beads or rolls on one or both edges, each bead or roll taking up considerable metal and requiring blanks of greater width.

The bead or roll *b* on the outer side of the trough serves not only to stiffen and strengthen it, but gives it a finished appearance where it is most exposed to view. The trough may however, be formed on both sides, as shown in Figs. 3 and 4, with transversely crimped or fluted stiffening edges *c*, the crimping or fluting of the outer edge taking the place of the bead or roll *b*.

I claim:

1. A sheet metal eavestrough having a transversely crimped stiffening edge.

2. A sheet metal eavestrough formed with transverse stiffening crimps extending downwardly from and terminating slightly below one edge thereof.

3. A sheet metal eavestrough having transversely crimped or fluted stiffening edges.

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

PHILLIPP F. FLAGGE.

Witnesses:

GEO. WEST, Jr.,
G. H. J. RYAN.