Feb. 17, 1925.

1,526,825

J. H. BOHNSACK

EAVES TROUGH OUTLET

Filed May 11, 1923

Fig. 1.

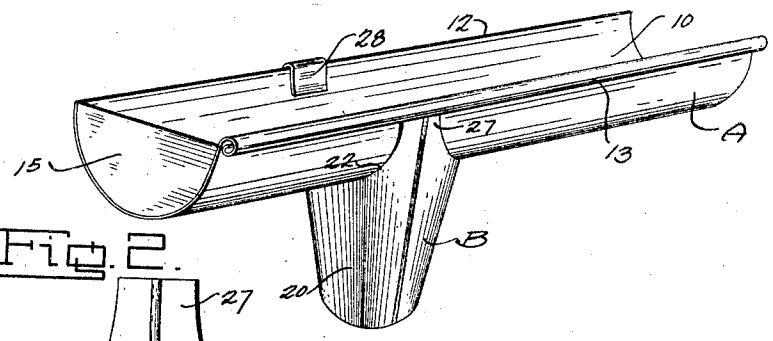


Fig. 2.

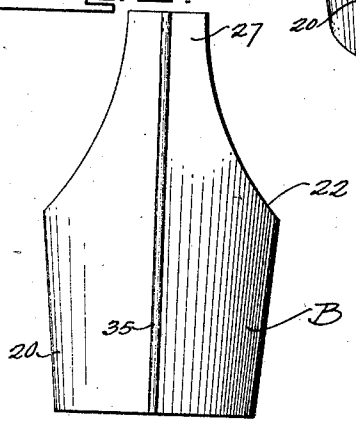


Fig. 5.

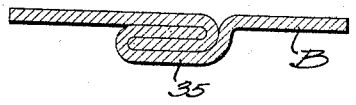


Fig. 3.

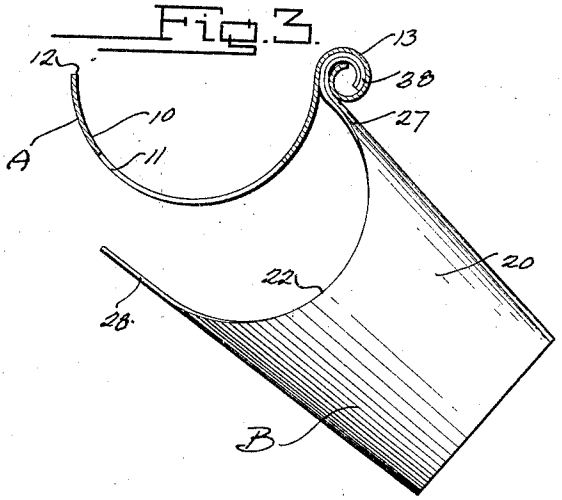
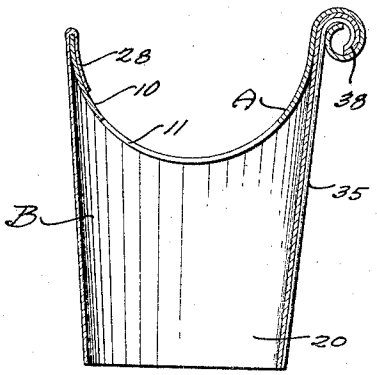


Fig. 4.



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UNITED STATES PATENT OFFICE.

JOHN H. BOHNSACK, OF CASS CITY, MICHIGAN.

EAVES-TROUGH OUTLET.

Application filed May 11, 1923. Serial No. 638,332.

To all whom it may concern:

Be it known that I, JOHN H. BOHNSACK, a citizen of the United States, residing at Cass City, in the county of Tuscola and State of Michigan, have invented certain new and useful Improvements in Eaves-Trough Outlets, of which the following is a specification.

This invention relates to improvement in eavestroughs, being particularly directed to an improved means of connecting the drop pipe or outlet to the eavestrough.

A further object of the invention is the provision of an outlet member, which may be used at the juncture of a vertical drop pipe with the eavestrough, and which may be connected to the eavestrough without the use of solder, so that the same may be permanently and durably fixed in place against liability of easy detachment therefrom.

Other objects of this invention will be apparent during the course of the following detailed description.

In the accompanying drawing, forming a part of this specification, and wherein similar reference characters designate corresponding parts throughout the several views:

Figure 1 is a perspective view of an eavestrough showing the improved outlet member as connected thereto.

Figure 2 is a side elevation of the improved outlet member showing the same prior to attachment to an eavestrough.

Figure 3 is a view, partly in cross section, showing a primary step for the attachment of an outlet member to an eavestrough.

Figure 4 is a transverse sectional view, taken through an eavestrough at the connection of the outlet member therewith, showing the novel cooperating details of this invention.

Figure 5 is an enlarged fragmentary cross sectional view, taken through the seam of an outlet member embodied as a part of this invention.

In the drawing, wherein for the purpose of illustration is shown but the preferred embodiment of this invention, the letter A may generally designate an eavestrough with which the improved outlet member B may be connected, so that a drop pipe (not shown) may be connected to the outlet member.

Referring to the eavestrough A, the same may be of conventional construction, being concavo-convex in cross section, providing the runway 10 therein along which the water flows to the outlet opening 11 which may be provided in the bottom thereof. One marginal edge 12 of the trough A is preferably unobstructed by flanges or other extensions, while the other edge thereof is preferably provided with the spiralled bead 13, as in conventional construction. The end of the trough A may be suitably provided with a piece 15 to seal the way 10 therein.

Referring to the improved outlet member B, the same is preferably constructed of sheet metal, and includes a body portion 20, which is frusto-conical in formation, being concavely cut, as at 22, at the upper end thereof to accommodate the convex surface or contour of the trough A. It is preferred that the diameter of the body portion 12 at the upper end thereof against which the trough A abuts is of greater diameter than the width of the trough A, so that the outlet member B when connected beneath the outlet opening 11 in the trough A will appear substantially as is illustrated in Figure 4, so that no loose connections or joint structure appears immediately adjacent the opening 11, through which water may leak to the exterior of the outlet member B.

Attaching straps 27 and 28, at diametrically opposed points, are provided in upstanding relation from the enlarged end of the body portion 20, the same being formed integral with the body portion 20. It is preferred that the material of the outlet member B be so formed that a seam 35 is provided longitudinally thereof, which extends upwardly along the strap 27, to properly reinforce the same so that the same may properly perform the function of supporting the outlet B as will subsequently appear. The seam 35 may be of any of the well known interengaging lap joint constructions, such as illustrated in Figure 5, and of a thickness several times the thickness of the material forming the outlet member B.

The strap portion 27 along which the seam 35 extends is preferably curled or spiralled, as at 38, and which is adapted to be slipped beneath and within the pocket formed by the bead 13 of the eavestrough A, substantially as is illustrated in Figure 3 of the

drawings, as a primary step in the assembling of the outlet member B to the trough A. In this position, the relatively straight strap 28 which is disposed directly opposite the strap 27 is then moved upwardly to extend adjacent the straight marginal edge 12. The concavity 22 provided at the upper marginal portion of the member B, of course, conforms to the contour of the lower surface of the trough A, as is illustrated in Figure 4 of the drawing, snugly receiving the same. In this position, the upper end of the strap 28 extends above the longitudinal margin 12, and is bent over and inwardly of the trough A, substantally as is illustrated in Figure 4 of the drawing. When the outlet member B has been assembled to the trough A over the outlet opening 11 therein as above described, it is apparent that the straps 27 and 28 are securely attached respectively to the bead 13 and over the marginal edge 12, so that there will be no liability of accidental disconnection of the outlet member B from the trough A. The juncture of the outlet member B with the trough A is tight at all points, and as the outlet opening 11 is of a diameter relatively smaller than the interior diameter of the upper end of the outlet B, it is apparent that water flowing into the outlet member B has no possible chance of seeping at the jointed connection. The provision of the seam 35 along the strap 27, as above mentioned, reinforces the strap 27, and renders the same of sufficient inherent rigidity to support the outlet B at the beaded edge of the pipe of the trough A in a manner which is relatively simple and easy to assemble.

From the foregoing description of this invention, it is apparent that a means of fastening an outlet to an eavestrough has been provided, which does away with the ordinary soldering expedients which have proven impractical, in that a leak proof connection can rarely be accomplished, except in very extensive manner thereby. The member B after connection to the trough A in the manner above described will support considerable weight, either incident to the weight of the drop pipe connected thereto, or a column of water which may be suspended therein. It is well known that incident to excessive weight, the ordinary solder joint gives way. In addition to the economy and facility with which the outlet B may be assembled to a trough A, the same is more practical than the ordinary solder jointed connection in its ability to receive and properly convey water flowing therein from the runway of the trough A.

Various changes in the shape, size and arrangement of parts may be made to the form of invention herein shown and described, without departing from the spirit of the invention or the scope of the claims.

I claim:

1. As an article of manufacture, a sheet metal outlet member for eaves troughs including a frusto-conical shaped body portion having the upper marginal edge thereof concavely formed to receive the contour of an eaves trough and providing directly opposed upstanding straps thereon, the seam provided by the formation of the outlet member extending longitudinally along the body portion thereof and upwardly along one of said straps, said strap having the seam extending therealong being spirally curled outwardly.

2. In combination with an eavestrough having an outlet opening therein, one longitudinal edge of the eavestrough being of straight line formation and the other opposite edge having a spiral bead thereon, of an outlet member of frusto-conical formation concavely formed at its upper and lower end to receive the lower surface contour of the eavestrough therein, the interior diameter of the upper end of the outlet member being greater than the width of said eaves trough, said outlet member providing upstanding attaching straps at opposite sides thereof and having a seam extending longitudinally thereof into and along one of said straps, said strap along which the seam extends being spirally curled outwardly and adapted for snug seating within the pocket formed by the spiral bead of the trough, the other strap of said outlet member being adapted for bending over and into the trough at the straight marginal edge thereof.

JOHN H. BOHNSACK.