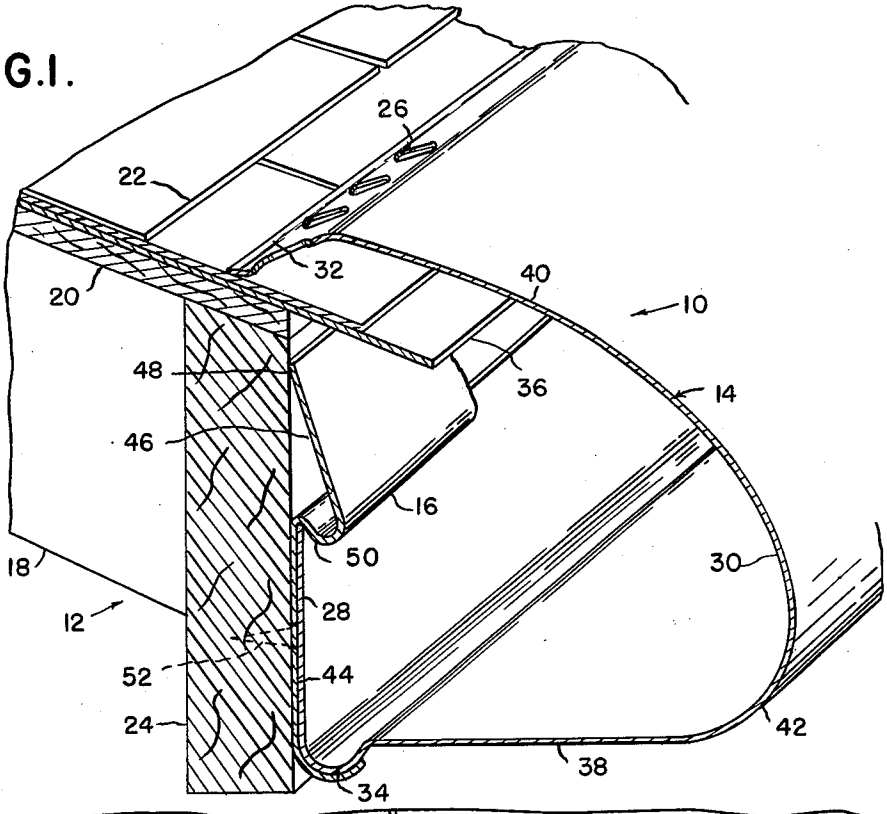
March 12, 1963 J. H. TEUTSCH 3,080,682

EAVES TROUGH CONSTRUCTION

Filed Feb. 9, 1960

FIG.1.



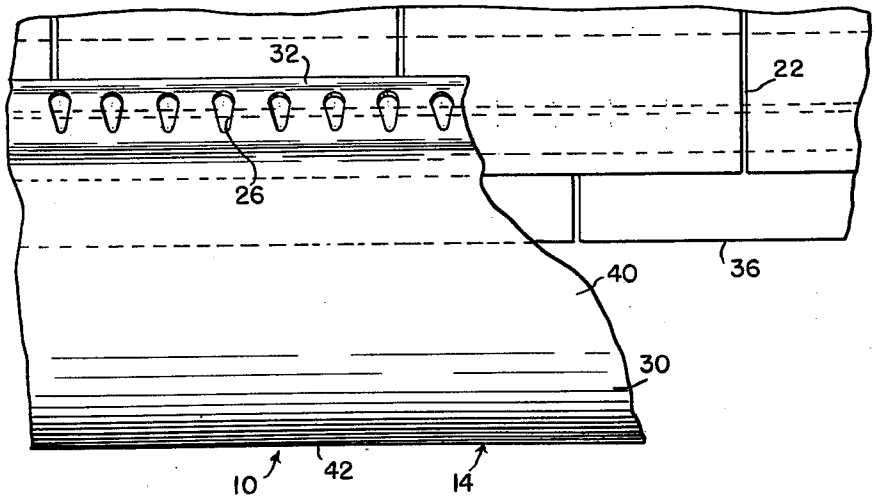


FIG.2.

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EAVES TROUGH CONSTRUCTION

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The present invention relates generally to eaves trough construction and refers more specifically to a trough structure especially constructed to prevent solid material from entering thereinto and means for attaching the trough structure to eaves of a building.

In the past eaves trough constructions have been subject to the undesirable collection of solid material therein, such as twigs and leaves, necessitating the periodic cleaning of the eaves trough construction. Such periodic cleanings are inconvenient and inherently dangerous for the average householder as will be readily understood.

Furthermore past attempts at providing an enclosed eaves trough construction in which solid material is not permitted to collect have been unsuccessful due to the general complicated and expensive nature of the eaves trough construction provided. In addition such constructions in the past have often been difficult to install on the average house by the unskilled home owner.

Therefore, it is one of the objects of the present invention to provide an eaves trough so constructed that solid material is prevented from entering thereinto.

Another object is to provide an eaves trough construction requiring no soldering or other skilled mechanical labor to install so that an unskilled home owner may install the trough construction.

More specifically it is another object to provide eaves trough construction comprising an elongated trough having a longitudinal edge portion adapted to be secured to the eaves of a building, a central portion depending from the first longitudinal edge portion which is adapted to wrap around the outer edge of the roof of the building, and a second longitudinal edge portion adapted to fit tightly against the upper surface of the outer edge of the roof of the building when the trough is secured to the eaves of the building.

Another object is to provide eaves trough construction as set forth above wherein longitudinally spaced openings are provided adjacent said second edge portion thereof through which liquid draining from the roof may pass into the trough.

Another object is to provide eaves trough construction as set forth above wherein said second edge portion is formed to extend downwardly and inwardly toward the upper surface of the outer edge of the roof with the trough secured to the eaves of the roof to provide a shallow channel in which liquid drained from the roof may collect before passing through the openings into the trough.

Another object is to provide eaves trough construction as set forth above wherein the central portion includes a substantially horizontally extending lower side so that liquid collecting on the upper side thereof will be caused to drip from the portion of the trough furthest from the eaves with the trough secured to the eaves.

Another object is to provide means for securing a trough as set forth above to the eaves of a building.

Another object is to provide a substantially C-shaped bracket adapted to be attached to the eaves of a building and to receive a trough as set forth above to secure the trough to the eaves of the building.

Another object is to provide eaves trough construction which is simple in structure, economical to manufacture and efficient in use.

Other objects and features of the invention will become apparent as the description proceeds, especially when

taken in conjunction with the accompanying drawings, illustrating a preferred embodiment of the invention, wherein:

FIGURE 1 is a partial perspective of the eaves of a building having attached thereto an eaves trough construction according to the invention.

FIGURE 2 is a partial broken away top view of the eaves and eaves trough construction illustrated in FIGURE 1.

With particular reference to the figures a specific embodiment of the invention will now be disclosed.

An eaves trough construction generally indicated 10 according to the invention is shown in FIGURE 1 attached to the eaves generally indicated 12 of a building (not shown). The eaves trough construction comprises trough 14 and supporting bracket 16 for the trough 14. The eaves as shown include rafter extensions 18, roof sheathing 20, shingles 22 and fascia board 24.

With the eaves trough construction 10 of the invention mounted on the eaves 12 as shown in FIGURE 1, liquid, such as rain water draining from the roof, will be permitted to enter the trough 14 through openings 26 while solid material, such as leaves and twigs washed from the roof, will not be allowed to enter the trough 14 where they might accumulate to clog the eaves trough construction. Thus with the invention as shown the necessity of periodically cleaning the eaves trough construction is eliminated.

More specifically the trough 14 is an elongated member which may be constructed of aluminum or other metal or plastic having non-corrosive properties when exposed to weather for extended periods. Trough 14 includes the longitudinal edge portion 28, a central portion 30 and the longitudinal edge portion 32 shaped as shown in FIGURE 1.

The longitudinal edge portion 28 as shown is substantially flat and is adapted to fit within bracket 16 whereby the trough 14 is secured to the eaves 12. The longitudinal edge portion 28 is further provided with the channel 34 as shown to aid in locking the trough 14 to the bracket 16 and for draining liquid which passes into the trough from the roof longitudinally of the trough to a vertical drain as will be understood by those in the art.

The central portion 30 of the trough 14 as shown is formed to surround the outer edge 36 of the fascia construction 12 as shown. A substantially horizontally extending lower side 38 is provided for the central portion 30 of the trough 14 as shown to prevent liquid collecting on the upper surface 40 of the central portion of the trough from draining back along the lower side 38 of the trough. The side 38 may be inclined upwardly outwardly of the fascia board 24 at an angle less than one degree and still cause liquid to drip from the portion 42 of the trough 14 located furthest from the fascia board 24.

The other edge portion 32 of the trough 14 as illustrated in FIGURE 1 is inclined downwardly and inwardly toward the upper surface of the outer edge of the roof structure. With the trough secured to the bracket 16 the edge portion 32 is adapted to tightly fit against the roof shingles 22 whereby solid material is prevented from entering the trough 14. Openings 26 as shown are provided spaced longitudinally of the edge portion 32 of the trough 14 to permit entry into the trough of liquid drained from the roof. Also as shown the edge portion 32 of the trough 14 and the adjacent roof surface form a shallow channel in which water drained from the roof may collect before passing through openings 26 into trough 14.

The eaves trough construction of the invention further includes mounting brackets 16 adapted to be attached to the eaves 12 and to secure the trough 14 thereto. As shown the supporting bracket 16 comprises a substantially

C-shaped portion **44** adapted to slidably receive the trough section **14** as shown. The bracket **16** further includes the returned portion **46** adapted to fit against the fascia board **24** at the end **48** as shown whereby greater rigidity is given to the upper leg **50** of the C-shaped portion **44** as will be understood. Brackets **16** may be spaced intermittently along the fascia **24** and secured thereto by convenient means such as screws **52** as illustrated or a continuous bracket **16** may be provided in which case the returned portion **46** will prevent liquid which might collect on the underside of shingles **22** from draining along the outer surface of fascia board **24**.

In installation, the brackets **16** are first secured to the eaves **12** as shown. The trough in sections may then be slidably engaged with the brackets **16** or alternatively may be sprung into position as shown in the brackets **16** whereby they are slidably secured to the brackets **16**. Adjacent longitudinal sections of the trough **14** may be provided with offset end sections so that telescopic connections therebetween may be effected during their installation in the usual manner. In addition appropriate corner members and vertical drains are contemplated constructed in a manner similar to the eaves trough construction described.

Thus it will be seen that applicant has provided eaves trough construction that may be installed by the average home owner since no particular mechanical skill such as soldering is required in the installation.

While a particular embodiment of applicant's invention has been disclosed it is understood that modifications thereof will suggest themselves to those skilled in the art in view of the disclosure of the invention. It is therefore the intention to include all such modifications within the scope of the invention.

The drawings and the foregoing specification constitute a description of the improved eaves trough construction in such full, clear, concise and exact terms as to enable any person skilled in the art to practice the invention, the scope of which is indicated by the appended claim.

What I claim as my invention is:

In combination with the eaves of a roof which eaves include a fascia board having a substantially vertical outer surface and pitched roofing members inclined downwardly, outwardly of the eaves and extending over the top of the fascia board and outwardly of the eaves beyond the outer surface of the fascia board, a bracket positioned beneath the roofing members including a vertically extending plate-like portion having upper and lower edges and being in surface-to-surface engagement with and secured to the outer surface of the fascia board, an upwardly opening channel-shaped portion having inner and outer edges depending at the inner edge thereof from the lower edge of the plate-like portion and extending substantially horizontally outwardly of the plate-like portion a short distance with respect to the vertical extent of the plate-like portion, a horizontally extending downwardly opening groove portion having inner and outer edges depending at the inner edge from the upper edge of the

plate-like portion and extending substantially horizontally outwardly of the plate-like portion a short distance with respect to the vertical extent of the plate-like portion and an open return bent plate-like portion depending from the outer edge of the downwardly opening channel-shaped portion inclining upwardly and toward the fascia board and terminating in a portion bearing against the outer surface of said fascia board, and a trough member supported by the bracket including a vertically extending plate-like portion having upper and lower edges, the upper edge of which is positioned within the downwardly opening groove portion of the bracket in simultaneous abutment with the bottom and sides of the groove portion and which plate-like portion is in surface-to-surface contact with the plate-like portion of the bracket, an upwardly opening channel-shaped portion having inner and outer edges depending at the inner edge from the lower edge of the plate-like portion of the trough member extending substantially horizontally outwardly from the plate-like portion of the trough member and positioned within the upwardly opening channel-shaped portion of the bracket in continuous coextensive surface-to-surface engagement therewith for urging the upper edge of the plate-like portion of the trough member into firm engagement with the bottom of the groove in which it is positioned, a flat portion having inner and outer edges extending from the inner edge thereof at the outer edge of the upwardly opening channel-shaped portion of the trough member a horizontal distance large in comparison to the horizontal extent of the upwardly opening channel-shaped portion of the trough member and inclined upwardly outwardly of the channel-shaped portion of the trough member, an arcuate portion depending from the outer edge of the flat portion of the trough member extending over the ends of the roof members and terminating in a portion extending downwardly toward and in resilient contact with said roof members, the terminal portion of the arcuate portion of said trough member having openings therethrough spaced longitudinally of the trough member to permit water drained over said roof members to drain into the trough member.

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