June 17, 1924. 1,498,351

W. L. CLEMENT

COMPOSITION ASPHALT HOUSE GUTTER

Filed March 12, 1923

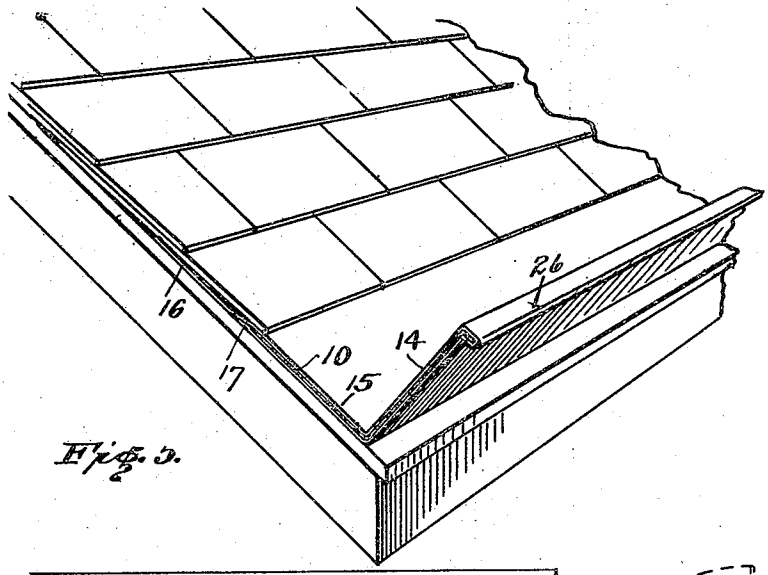


Fig. 5.

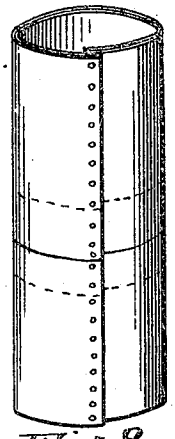


Fig. 8.

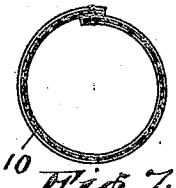


Fig. 7.

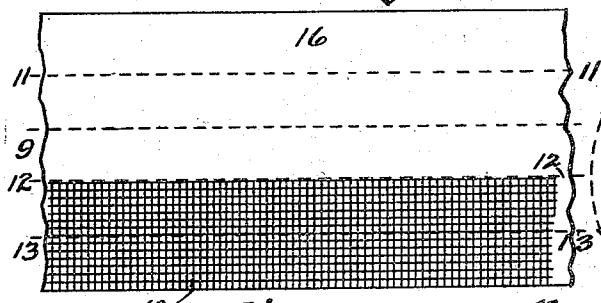


Fig. 1.

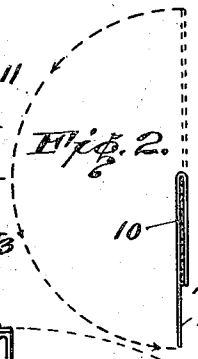


Fig. 2.

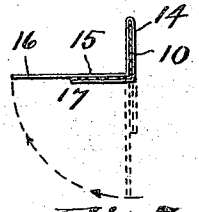


Fig. 3.

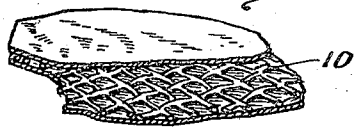


Fig. 6.

Fig. 4.

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UNITED STATES PATENT OFFICE.

WALTER LEE CLEMENT, OF INDIANAPOLIS, INDIANA.

COMPOSITION-ASPHALT HOUSE GUTTER.

Application filed March 12, 1923. Serial No. 624,383.

To all whom it may concern:

Be it known that I, WALTER LEE CLEMENT, a citizen of the United States, residing at Indianapolis, in the county of Marion and State of Indiana, have invented new and useful Improvements in Composition-Asphalt House Gutters, of which the following is a specification.

The object of this invention is to make rain-water conductors, generally known as gutters, by which designation is included the usual open horizontal conductors and also the tubular down-spouts, as light in weight, as inexpensive to manufacture and very much more durable than similar articles are now made out of galvanized sheet iron.

I accomplish the above and other minor objects which will hereinafter appear, by the means illustrated in the accompanying drawing, in which—

Fig. 1, is a plan view of the felt material from which the body of a horizontal conductor is made, in the flat, with a strip of wire-cloth for reinforcing the felt in position preparatory to lapping and bending the material into the desired form. Fig. 2, is an edge view of the same parts showing the felt folded double around the wire-cloth. Fig. 3, shows the third and final step of bending the material of Fig. 2 into a V-shaped gutter. Fig. 4, is a top plan view, in dotted lines, of the gutter material before folding to V-shape, and in full lines shows the finished gutter bent to form a square corner, and the material bent to form an end closure. The view also illustrates the manner of joining the butt ends of two straight pieces. Fig. 5, is a perspective view of the corner of a gable-roof with a standing gutter embodying my improvements. Fig. 6, is a fragment in perspective of my conduit material with the top felt removed in part to show the pockets formed by the mesh of the wire-cloth. Fig. 7 is a cross-section and Fig. 8 a perspective view of a down-spout embodying my invention.

Like characters of reference indicate like parts in the several views of the drawing.

The material from which the body of my improved conductor is formed is preferably rag-felt, well saturated with asphalt, such as is now in use for roof coverings. Strips 9 of suitable width, depending upon the style and size of conveyor to be made, are formed in convenient lengths. For a standing gutter of the style shown in Figs. 1 to 5 inclusive, the width of the strip 9 is approximately two and a half times the width of the roof-contacting member of the finished article. This is laid upon a table or floor and a strip of wire-cloth 10 of comparatively heavy wire and open mesh is laid upon it close to one edge. The width of this wire-strip 10 is about two-fifths as wide as the felt-strip 9, and before it is placed on the felt material the latter is well coated where the wire 10 is to go and for an equal additional width, or to line 11 of Fig. 1, with a cement paint of asphalt and coal tar.

Then the felt is folded over upon the wire-cloth on the line 12 of Fig. 1, and as indicated by the arrows in Fig. 2, so that the wire-cloth will be faced on both sides with the painted felt. This is bent again longitudinally on the line 13 of Fig. 1, in the direction shown by the arrows in Fig. 3, to V-shape in cross-section, thereby forming a longitudinal member 14, which will be the upwardly extending lower side of the gutter, and a longitudinal wire reinforced member 15, which, with an unreinforced extension 16 to lie under the lower course of shingles, forms the roof side of the gutter, as shown in Fig. 5.

The drawing shows a considerable offset at 17 because of the exaggeration here in order to show the several thicknesses of material, but in the full size article in practice the shoulder offset will be negligible.

In joining the abutting ends of the conveyor sections, the wire-cloth will stop about two inches from the ends of the sections to receive a sheet metal splicing plate 18 which enters the vacant spaces thus provided in each of the abutting sections and they are locked together by nails 19 driven through them into the roof sheeting. The ends are closed by flaps 21 and 22 shaped from the gutter material as shown in dotted lines in Fig. 4. These are cut apart as shown by the dotted lines between them, and they are then bent to lap each other as shown in full lines in Fig. 4 and are there held by rivets 23.

To form a corner, a V-shaped notch 24 is made in from the edge of member 15 and enough material is left on each side of the notch to make an overlap, through which nails are driven into the sheeting of the

roof to hold the joint as shown in Fig. 4.

In making the splice with plate 18 and in forming the end-laps 21 and 22 together and also in making the corner lap at notch 24, the conductor members brought together are thoroughly coated with the asphalt and coal tar cement paint to make a stiff and water-tight joint in each instance.

Hanging gutters and box-shape and any of the variously shaped house conveyors are made in a manner similar to that herein described for a V-gutter—the changes being obvious and within the accomplishment of one skilled in the roofing art, as, also, is the manufacture of cylindrical, hexagonal, or square tubular conveyors, such as illustrated in Figs. 7 and 8, wherein it will be apparent that the longitudinal edges are merely brought together, lapped and riveted, instead of remaining open as in the gutter conveyors.

In the construction shown in Fig. 5, the member 14 may be supported by a board below (not shown) in the well known manner for standing gutters.

A conductor made out of felt saturated with asphalt, doubled and reinforced with wire-cloth, the meshes of which form pockets for the composition of asphalt and coal tar as directed, is impervious to water, is light in weight on a house, will hold its shape and is not any more expensive to make than a galvanized conductor, compared with which my invention is in every way superior.

I have shown the upper edge of gutter member 14, see Fig. 5, bent out at right angles to form a flange 26, that stiffens the member and gives it a stronger and more substantial appearance.

While I have here shown the preferred form of my invention, it is capable of many modifications some of which I have here specifically shown and described, and I therefore do not desire to be limited to the precise form shown or any more than is required by the appended claims, and what I claim is—

1. A conveyor for houses formed of two aligned sections each shaped and joined substantially as described, and comprising an inside felt sheet saturated with asphalt, a like outside sheet, a layer of wire-cloth between said sheets beyond which the ends of the felt sheets of both sections project leaving a space on each side of the joint, a splicing plate in the combined space thus formed, and a cementitious waterproof filling in the meshes of the cloth and around the plate and uniting all of said members into a unitary structure.

2. A conveyor for houses substantially V-shaped as shown, comprising each an inside felt sheet saturated with asphalt, a like outside sheet, a layer of wire-cloth between said sheets but not extending to the ends, a splicing member between adjacent ends of the wire cloth, and a cementitious waterproof filling of asphalt and coal tar in the meshes of the cloth and uniting all of said members into a unitary structure the upper side of said conveyor being flanged laterally to stiffen the edge.

3. A conveyor for houses shaped substantially as described, comprising each an inside felt sheet saturated with asphalt, a like outside sheet, a layer of wire-cloth between said sheets but not extending to the ends, a splicing member between adjacent ends of the wire cloth, and a cementitious waterproof filling in the meshes of the cloth and uniting all of said members into a unitary structure, the inside sheet extending beyond the other members of the conveyor to underlie an adjacent course of shingles.

4. A gutter-conveyor for houses formed in two aligned sections each comprising a strip of wire-cloth, a single felt sheet saturated with asphalt, said sheet being longer than and at least twice the width of the wire-cloth strip and folded and receiving the wire-cloth therebetween with spaces at the ends of the wire-cloth members, a metal plate filling the space made by the combined shortage of adjacent ends of the wire-cloth, and a cementitious waterproof material filling the meshes of the wire-cloth and around the plate and adhesively uniting all of said members into a unitary section.

5. A gutter-conveyor for houses formed of a plurality of sections, each comprising a strip of wire-cloth, a single felt sheet saturated with asphalt, said sheet being longer and at least twice the width of the wire-cloth strip and folded and receiving the wire-cloth therebetween, a splicing member between the ends of the wire cloth and a cementitious waterproof material filling the meshes of the wire-cloth and adhesively uniting all of said members into a unitary structure, one folded member of the felt sheet extending beyond the wire-cloth and the other folded member of said sheet.

Signed at Indianapolis, Indiana, this the 9th day of March, 1923.

WALTER LEE CLEMENT.