

A. E. FORTNEY.
 WATER CONDUCTOR.
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1,368,918.

Patented Feb. 15, 1921.

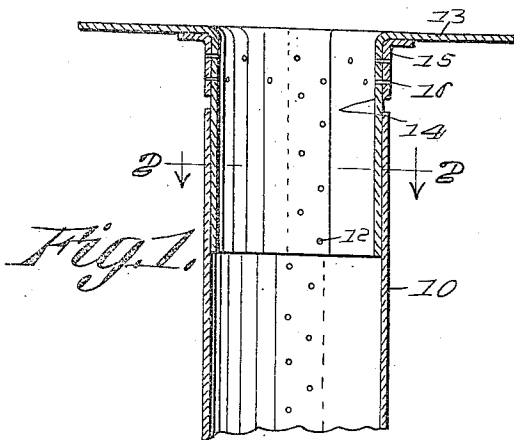


Fig. 2.

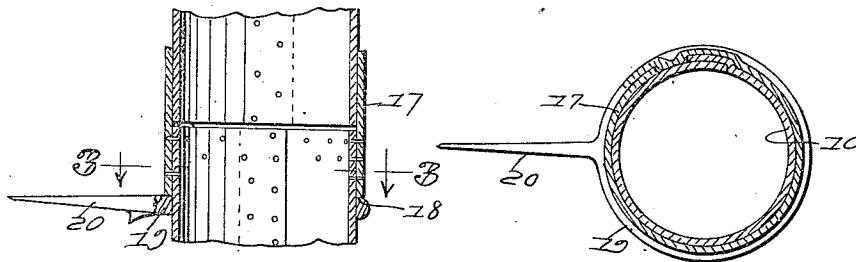
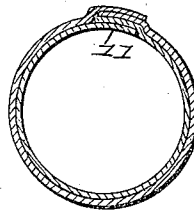
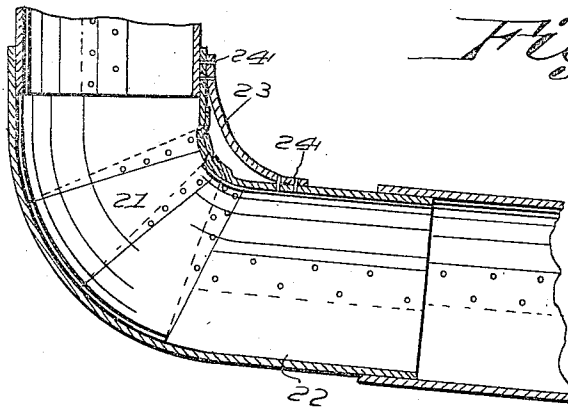


Fig. 3.



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WATER-CONDUCTOR.

1,368,918.

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To all whom it may concern:

Be it known that I, ASHFORD E. FORTNEY, a citizen of the United States of America, residing at Bridgeport, in the county of Belmont and State of Ohio, have invented new and useful Improvements in Water-Conductors, of which the following is a specification.

The object of the invention is to provide a durable and relatively inexpensive drainage conductor for use as down-spouts in connection with roof gutters and troughs, particularly in localities and climates such as the bituminous coal regions or where soft coal is extensively used in mills, furnaces and the like, and where there is a considerable percentage of sulfur fumes in the air, and hence where metallic drainage and down-spout equipment is destructively affected to such an extent as to render it practically useless for the purposes indicated, particularly when the rain and snowfalls are relatively frequent; and furthermore it is the object to provide a down-spout or water conductor construction which can readily be molded or formed or modified in shape on the ground or at the point of use without the employment of special machinery or tools and which when installed has a permanence and efficiency as well as a durability which render it preferable to materials which have heretofore been used in this connection, even under conditions in which the expedient of frequent painting or coating with special preparations has been resorted to as a means of preventing or neutralizing the effect of the acid incident to the presence of sulfur fumes in the air.

With these and related objects in view the invention consists in a construction and arrangement of which a preferred embodiment is disclosed hereinafter in connection with the accompanying drawings, wherein—

Figure 1 is a sectional view of a length of conductor including an elbow or angle bend or joint, a means of support, and a terminal connection with a roof gutter or trough.

Fig. 2 is a transverse sectional view on the plane indicated by the line 2—2 of Fig. 1.

Fig. 3 is a similar view on the plane indicated by the line 3—3 of Fig. 1.

The material which is preferably employed in this connection is rubberoid or asphaltum felt, either as these materials are now found on the market in the form of roofing sheets or otherwise, or as the same

may be constructed with a base of felt or felted fibers saturated asphaltum or the equivalent thereof to give the necessary resistance to moisture, and a body and stability which adapts it to retain a definite form, particularly when dry, and in fact under all conditions except those in which heat and moisture are applied jointly. For example, the material commercially known as rubberoid or asphaltum paper or felt possesses under ordinary climatic and atmospheric conditions a relative stiffness or rigidity which adapts it to be applied very much in the same manner as shingles or slates as a roofing material, and to be secured in place by such fastening devices as nails, without involving the risk under normal conditions, of exposure, of being displaced or torn or otherwise rendered ineffective as a protection against moisture to which it is impervious. And yet if subjected to moisture and heat, particularly of a relatively high degree, such material in sheets, as it is ordinarily employed, may be readily be bent and curved or formed to assume any desired shape which will be retained after the material has been dried or the conditions incident to rendering it flexible have been removed.

This material therefore is employed as the basis of the conductor forming the subject of the present invention in which the sheet, cut to the proper dimensions, is rolled to form tubular sections indicated at 10 in the drawings, with the edges thereof arranged in overlapping relation as shown at 11 and temporarily secured by rivets or equivalent fastening devices 12, these joints being coated, preferably subsequent to the cooling of the material by a layer of cement which permanently seals the same and renders leakage impossible. At angles such as indicated between the roof gutter or trough wall 13 illustrated in the drawing, and a sleeve 14 which may be formed by molding the material, a reinforcement 15 of cross sectionally angular form may be applied and secured by rivets 16, and in the same way a collar 17 may be applied to the end of a tubular section to form a seat for the reception of the extremity of an adjoining section and at the same time provide a shoulder 18 to afford a bearing upon the eye 19 of a wall engaging support 20.

Also as indicated at 21 the walls of a tubular section may be buckled or doubled

in to produce an elbow 22 to the inner angle of which may be applied a brace 23, either of the same or any preferred material terminally secured to the wall of the tubular section by means of rivets 24 or the equivalents thereof, and in this way the material formed, for example, at the factory in tubular sections may be shaped at the building site to form the necessary joints, couplings, elbows and the like, merely by subjecting the portions thereof which are to be molded to a high degree of heat in the presence of moisture as by dipping the same into hot or boiling water and securing the parts in the shape which they are desired to retain by means of rivets or the equivalents thereof until they have become cooled and set, and

in this connection it will be noted that the material with which the base of the structure is saturated serves as a sealing means which is rendered adhesive by the treatment above indicated to assist in maintaining the shape necessary to serve the intended purpose.

What is claimed is:

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A water conductor for the purpose indicated consisting of a rolled sheet of rubberoid having its edges arranged in overlapping relation and secured by fastening devices, the joints being provided with a coating of cement.

In testimony whereof I affix my signature.

ASHFORD E. FORTNEY.