W. HOUGHTON.

CONDUIT.

APPLICATION FILED MAR. 3, 1908.

903,572. Patented Nov. 10, 1908.

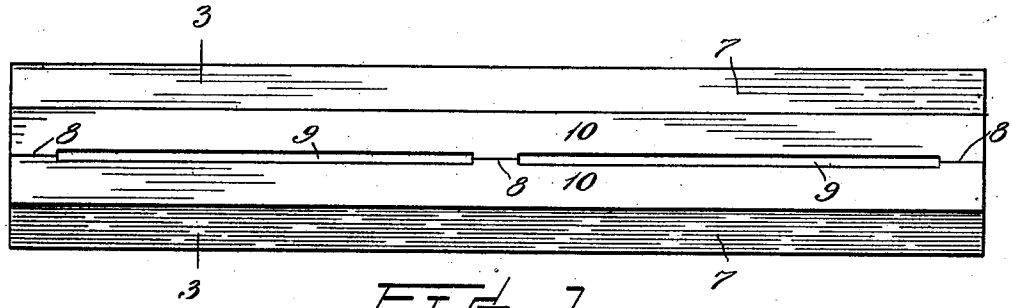


FIG. 1

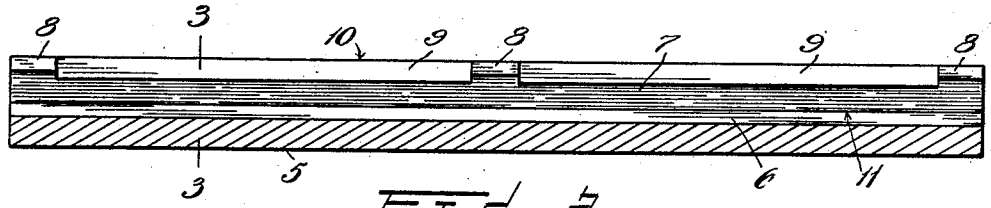


FIG. 2

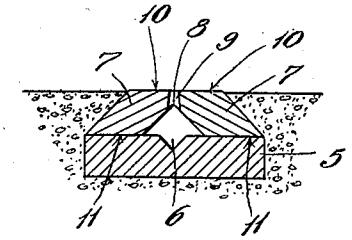


FIG. 3

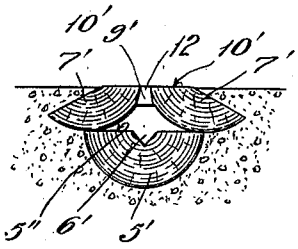


FIG. 4

WITNESSES:

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CONDUIT.

No. 903,572. Specification of Letters Patent. Patented Nov. 10, 1908.

Application filed March 3, 1908. Serial No. 418,937.

To all whom it may concern:

Be it known that I, WILLARD HOUGHTON, a citizen of the United States, residing at Seattle, in the county of King and State of Washington, have invented certain new and useful Improvements in Conduits, of which the following is a specification, reference being had therein to the accompanying drawings.

This invention relates to conduits, and more especially to improvements in the device of this character which is illustrated and described in United States Patent No. 697,485, issued to me April 15, 1902.

The object of the improvement is to simplify its construction and render the same more generally useful.

The present invention consists in the construction of a conduit of a uniform depth throughout its length and the employment of a gutter-like trough wherethrough even a small stream of water will serve to scour out a channel and obviate all danger of the conduit becoming inoperative through clogging.

In the drawings, illustrating an embodiment of the invention, Figure 1 is a plan view; Fig. 2 is a central longitudinal section; and Fig. 3 is a cross sectional view taken through 3—3 of Figs. 1 and 2, but shown embedded in the ground. Fig. 4 is an end view of a modified form adapted to be constructed of forest timber at places where sawed material is unavailable.

Referring to Figs. 1 and 3, the reference numeral 5 designates the bottom member of the improved conduit shown as rectangular in cross section. In the bottom of this member and extending its entire length is a longitudinal groove 6, which is disposed so as to be at or about the mid-width of the member. Seated upon said bottom are inwardly inclined sides 7 which are faced at 8 so that they will have meeting faces to mutually bear the lateral pressure necessary to sustain each other. Between said faces the adjacent portions of the sides are cut away to afford slots 9 wherethrough drainage water is admitted interiorly of the conduit. The opposite edges 10 and 11 of the sides are formed in parallel planes and are respectively disposed to furnish seats to bear against said bottom and also top surfaces which should be on the same plane, or nearly so, with the road surface where installed.

In Fig 4 is shown a conduit comprised of a bottom and two side members 5′ and 7′, respectively, which are made by splitting undressed timber, and under such conditions the slots 9′ are most conveniently formed by spreading the same at the top by inserted blocks 12. The bottom member is, in this modified form, also provided with a groove 6′ which is formed in the top flat face 5″ thereof, and the top faces 10′ of the sides are then made to be in a plane parallel with such flat face. Under both of the above constructions the various parts are rigidly secured together by spikes.

The advantages of this invention reside in the employment of timbers or planking of equal width throughout their lengths, thus requiring less work in fitting and assembling the parts than where the same are made tapering, as required in the patented invention above referred to. Furthermore, I find that the sloping bottom in a conduit is not essential and, as a matter of fact, is detrimental, for should the road surface be level, transversely, as is seldom the case, the proper slope to secure a flow of entrained water may be had by arranging the conduits diagonally in the road-bed. The gutter 6 or 6′, as the case may be, is a decided advantage, inasmuch as it provides what might be deemed a supplementary conduit, through which small quantities of water find a ready egress, which if spread over the entire exposed surface of the bottom would be insufficient to carry away dirt, sand or gravel which would enter the conduit through the slots.

Having described my invention, what I claim, is—

1. A conduit made trough shaped with inclined sides, and a bottom arranged to be parallel with the top edges of said sides, said sides meeting at various places along their respective lengths.

2. The herein described conduit, comprised of a bottom, inclined sides, said bottom being disposed so as to be parallel with

a plane extended through the top of said sides, and said sides being formed to provide intermediate slots.

3. In a conduit of the class described, the combination with the bottom member provided with a longitudinal groove in its top, of inclined sides, said sides being provided with slots between their meeting edges and along the tops thereof, substantially as and for the purposes described.

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

WILLARD HOUGHTON.

Witnesses:

PIERRE BARNES,

J. HENRY DENNING.