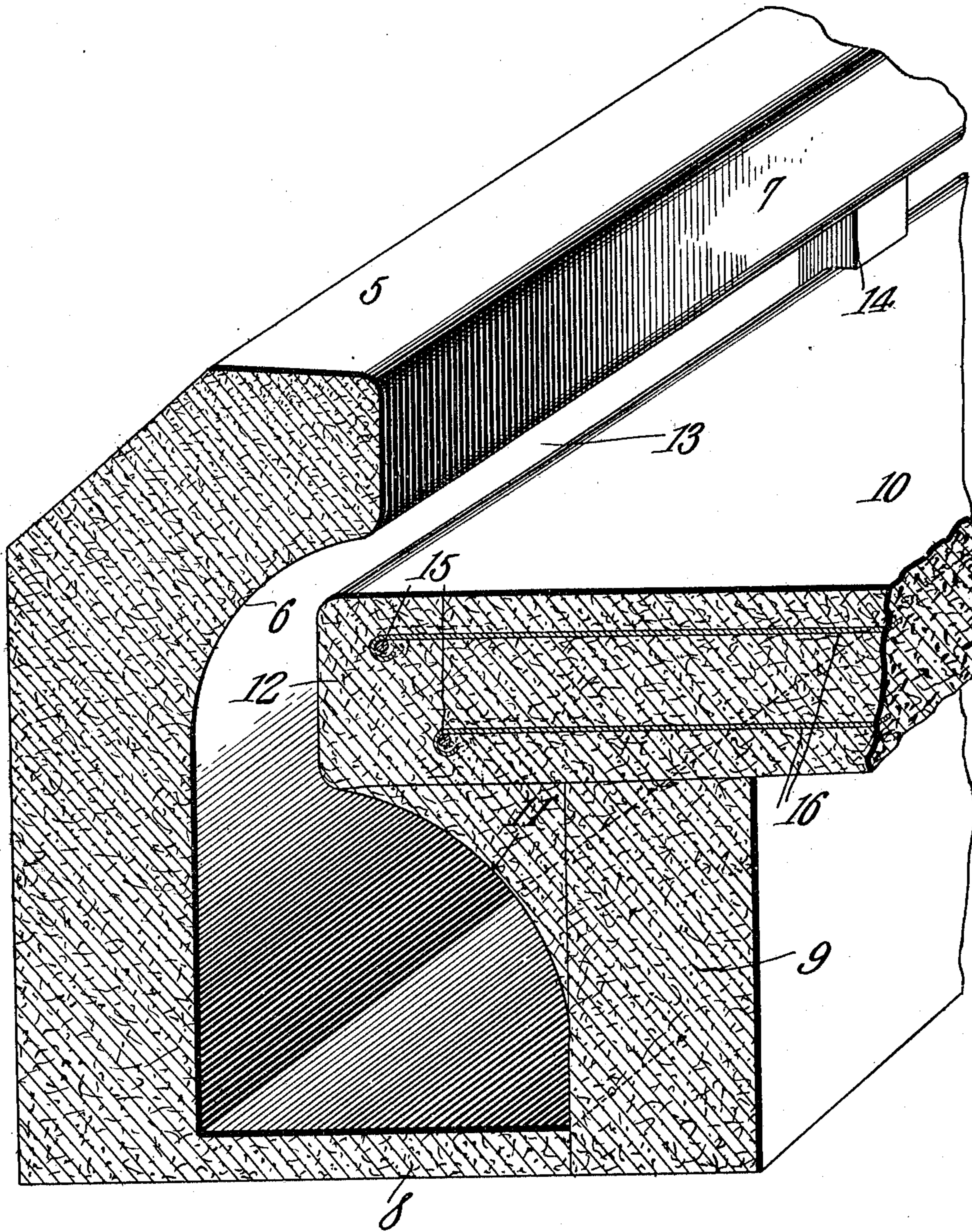


J. FIRTH.
CURBING.

APPLICATION FILED JAN. 30, 1909.

945,312.

Patented Jan. 4, 1910.



Witnesses

E. J. Stewart
J. H. Smith

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UNITED STATES PATENT OFFICE.

JOSEPH FIRTH, OF CHARLOTTE, NORTH CAROLINA, ASSIGNOR OF ONE-HALF TO JOHN WILSON HAAS, OF CHARLOTTE, NORTH CAROLINA.

CURBING.

945,312.

Specification of Letters Patent.

Patented Jan. 4, 1910.

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To all whom it may concern:

Be it known that I, JOSEPH FIRTH, a citizen of the United States, residing at Charlotte, in the county of Mecklenburg and State of North Carolina, have invented a new and useful Curbing, of which the following is a specification.

It is the object of the present invention to provide an improved drain for streets and roadways and the invention is embodied in a novel construction of curb and roadway gutter, the two being so relatively constructed as to afford a concealed drain for carrying off rainwater, water resulting from melting snow and ice, etc.

It has been proposed, in an attempt to secure the same result as secured by the present invention, to lay a continuous conduit in the roadbed at each side thereof and provide this conduit, at intervals, with openings through which the water may flow thereinto. Such constructions however are undesirable inasmuch as the openings are liable to become clogged with leaves or dirt and being located only at intervals provide too small an area to effectually drain off any great amount of water.

It is proposed, in the present invention, to provide a concealed conduit which has a continuous practically unobstructed mouth or inlet so that no obstruction whatsoever will be offered to the flow of water into the conduit. More specifically speaking the conduit is formed between an undercut curb and an undercut roadway gutter and the upper portion of the curb extends above or overlies the adjacent portion of the gutter but in spaced relation with respect thereto so as to afford a mouth or throat through which water may flow into the conduit.

In the accompanying drawing, there is shown a sectional perspective view of the roadway construction embodied in the invention and in this view, the curb is indicated by the numeral 5 and is undercut as at 6 to afford an overhanging portion 7 which comprises the upper portion of the curb. As will be apparent from an inspection of the drawing, it is the face of the curb which opposes the roadway that is undercut and at its bottom, the curb, owing to the undercut therein, has a flat extension

8 which extends toward the said roadway, and forms the floor or bottom of the conduit, the adjacent wall or face of the curb, at the undercut portion thereof, affording one side wall of the said conduit. The other side wall of the conduit is embodied in the opposing side of the roadway gutter, which is indicated by the numeral 9, and roadbed which is indicated by the numeral 10, the roadbed being undercut as at 11 so as to afford a portion 12 which overhangs the conduit.

As clearly shown in the figure of the drawing, the upper or overhanging portion 7 of the curbing overlies the edge portion of the roadway gutter 9, in practice, to the extent of several inches and is spaced above the same approximately a corresponding distance. This relative arrangement of the upper portion of the curbing and the inner edge portion of the roadway gutter will, as will be readily understood, afford a continuous and unobstructed mouth or inlet through which water may flow from the surface of the roadway, into the conduit. It will further be understood, in connection with this feature of the invention, that inasmuch as the curbing overlies the edge portion of the gutter, there is no possibility of wagon wheels sinking or dropping into the conduit, and it will further be understood that a maximum volume of water may flow into the conduit through this mouth or inlet 13 whereas but a minimum volume might flow into the conduit heretofore referred to by way of the openings which are located at intervals therein.

In order to firmly brace the curbing with respect to the roadway gutter, it is in some instances desirable to provide, at intervals, narrow bosses or lugs upon the under side of the upper or overhanging portion 7 of the curbing, as indicated at 14, or to insert between the said under-side of the curbing and the upper face of the gutter, a narrow spacing block and in order to firmly brace and reinforce the overhanging portion 12 of the roadway gutter, reinforcing rods are embedded therein and extend parallel to the edge thereof and other reinforcing rods or bonds, which may if desired, be in the nature of lengths of bar metal, 16 are connect-

ed at their ends with the rods 15 and are also embedded in the material of the gutter and extend transversely of the same. The character of this reinforcement may however be
5 changed through varying conditions as will be readily understood, and in some instances, may be omitted entirely.

It will be apparent from the foregoing description of the invention that a roadway
10 embodying the construction heretofore described, will have practically the same appearance as the ordinary roadway or street but that instead of the water from the surface of the roadway collecting in the gutter
15 or depression along the curb, it will flow into the concealed conduit and will be carried off to suitable waste mains. At street corners, the curbing or gutter is of course provided with suitable closed inlets whereby
20 access may be had to the interior of the conduit for the purpose of cleaning them, and the conduits are of course continuous across the street intersections and are at such points in their length, covered completely.

What is claimed is:—

A curb and gutter, the curb being undercut to afford a conduit, the undercut of the curb affording the bottom and one side wall of the conduit and a portion overhanging the conduit and having its edge in a vertical
30 plane substantially medially of the bottom of the conduit, the gutter being also undercut to afford the other side wall of the conduit and a portion overhanging the conduit,
35 said overhanging portion of the gutter projecting beneath the overhanging portion of the curb, the space between the said overhanging portion of the curb and the gutter being comparatively restricted, the conduit
40 being of maximum width at its bottom and gradually decreasing in width upwardly.

In testimony that I claim the foregoing as my own, I have hereto affixed my signature in the presence of two witnesses.

JOSEPH FIRTH.

Witnesses:

BREVARD NIXON,

PAUL CAMERON WHITLOCK.