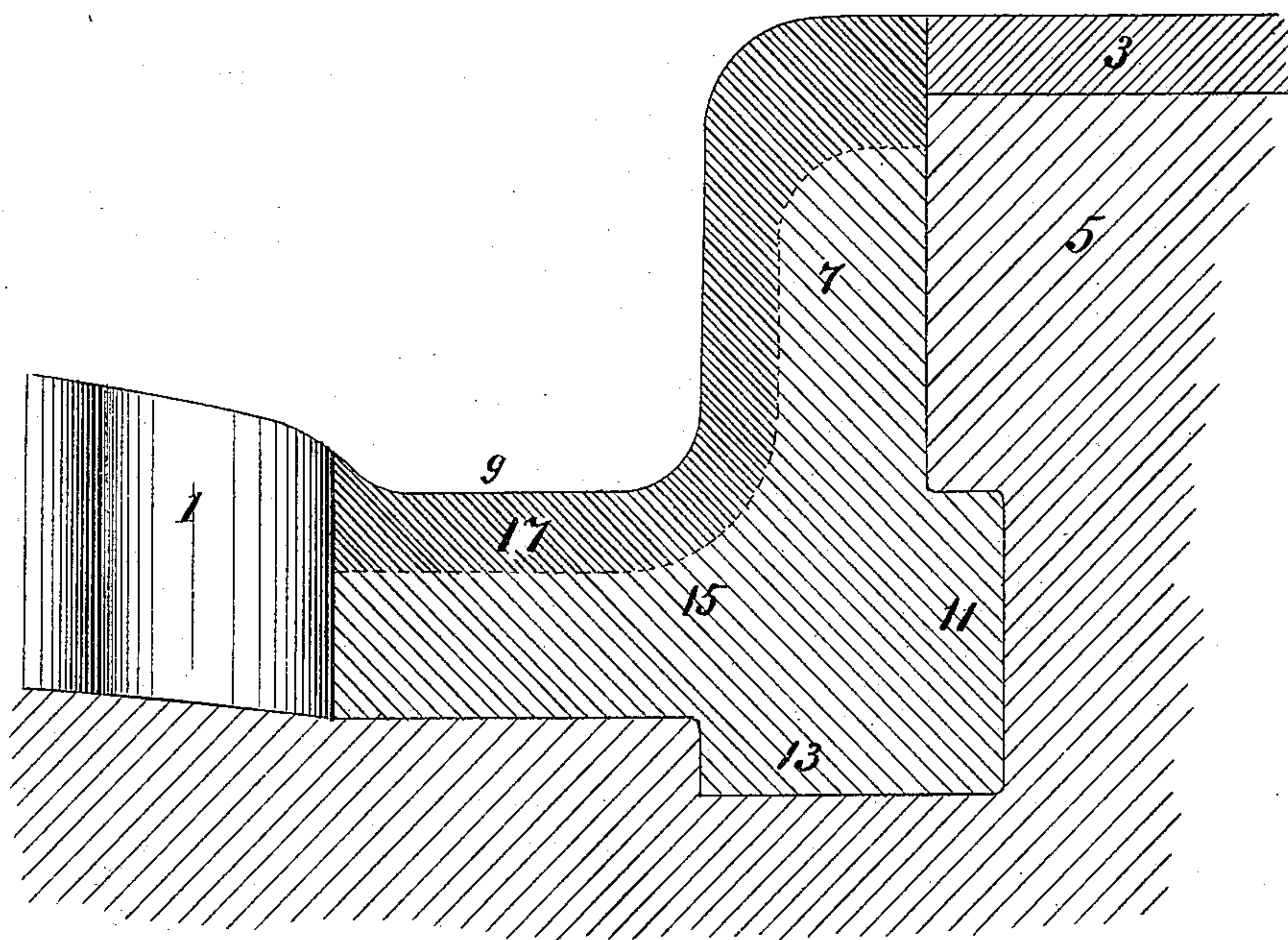


(No Model.)

A. G. PARKHURST.  
COMBINED CURB AND GUTTER.

No. 398,074.

Patented Feb. 19, 1889.



Witnesses.

J. Jessen.  
A. M. Gaskill.

Inventor.

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By Paul & Merwin,  
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# UNITED STATES PATENT OFFICE.

AUGUSTUS G. PARKHURST, OF MINNEAPOLIS, MINNESOTA.

## COMBINED CURB AND GUTTER.

SPECIFICATION forming part of Letters Patent No. 398,074, dated February 19, 1889.

Application filed October 15, 1888. Serial No. 288,076. (No model.)

*To all whom it may concern:*

Be it known that I, AUGUSTUS G. PARKHURST, a citizen of the United States, residing at the city of Minneapolis, Hennepin county, Minnesota, have invented a new and useful Combined Curb and Gutter, of which the following is a specification.

My invention relates to the curbs and gutters of graded streets; and the object is to provide a curb and gutter which shall be formed solidly in one mass, so as not to be displaced from its proper position in the street, and thus prevent leakage through the gutter or between the gutter and the curb and the washing away of the soil underneath so as to undermine the gutter or curb.

The drawing forming a part of the specification shows a cross-section of my improved curb and gutter and a portion of the adjacent sidewalk and pavement.

In the ordinary methods of setting curbs and constructing gutters in streets they are not united together nor to the pavement nor sidewalk, and consequently in the course of time the curbstones settle and become displaced, cracks are opened between the curb and the gutter and in the gutter itself, so that the surface water leaks through, washing out the loose soil underneath, and undermines the curbstones and gutter, often causing serious damage.

In my improved combined curb and gutter these defects are wholly obviated. The whole is constructed in one solid mass, and by its form is firmly anchored in the surrounding soil, so as to render displacement or leakage impossible, and when constructed in connection with sidewalks and pavements may be joined to and made integral with them, thereby making the whole a solid mass, each part of which is supported and strengthened by the others.

In the drawing, 1 is the street-pavement, 3 the sidewalk, resting upon the soil or other material, 5, which serves also as a backing or support for the curb 7. The gutter 9 is made hollowing or concave, so as to conform to the curve of the surface of the street and to the upright surface of the curb. The projections 11 and 13 serve to anchor the structure in the surrounding soil and furnish a broader and firmer foundation for the whole structure.

I prefer to construct my improved curb and gutter of cement and gravel, sand, or crushed stone or granite, which are properly mixed and filled into the excavation, proper molds or casings to give requisite form to the structure, and can be removed after the cement has "set."

I prefer to use for the main body of the structure cement mixed with sand or crushed stone or granite in about the proportions of one part of cement to three of sand or broken stone, and for the exposed surface approximately two parts of cement to three of sand. The dotted line in the drawing indicates the division between the main body and the facing 17 of the structure. Where the combined curb and gutter can be constructed in connection with the paving of the street, if the paving be such as to be joined to the gutter, the work is done at the same time, and thus the whole work is made solid and integral. In like manner the curb may be joined to a sidewalk, so as to be freely connected with it.

To avoid cracks and breakage by reason of unequal settling or upheaval by frost, I divide the structure into suitable lengths by passing a trowel through the wet mass before the cement sets.

I claim as my invention—

1. A combined curb or gutter of artificial stone or cement, having its facing or exposed surface of harder and more durable material than its mass and fitted with the rear projections, 11 and 13, by means of which it is anchored and held in position by the surrounding and superincumbent earth.

2. In combination, the street-pavement 1, sidewalk 3, the combined curb and gutter 7, having the rear projections, 11 and 13, and a facing or outer surface, 17, composed of harder and more durable material than the mass of the structure.

In witness whereof I have hereunto set my hand, at Minneapolis, Minnesota, this 5th day of October, 1888.

AUGUSTUS G. PARKHURST.

Witnesses:

A. C. PAUL,  
J. JESSEN.