

J. H. MACDONALD.
CATCH BASIN COVER.
APPLICATION FILED JAN. 11, 1909.

979,182.

Patented Dec. 20, 1910.

Fig. 1

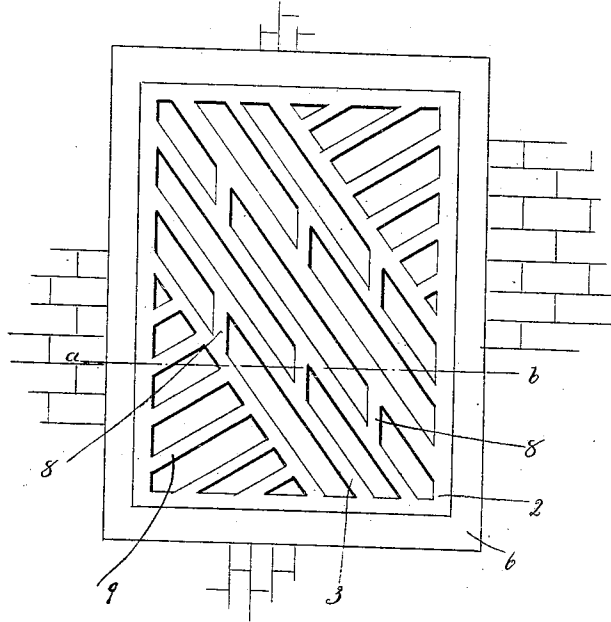


Fig. 2

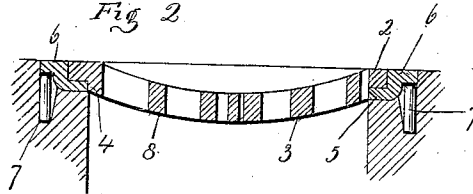
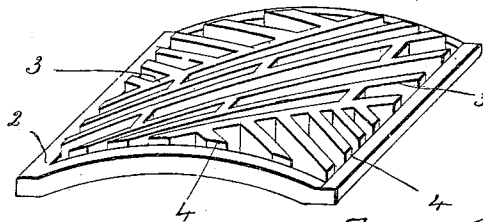


Fig. 3



Witnesses
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C. L. Weed

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Att'y

UNITED STATES PATENT OFFICE.

JAMES H. MACDONALD, OF NEW HAVEN, CONNECTICUT.

CATCH-BASIN COVER.

979,182.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, JAMES H. MACDONALD, a citizen of the United States, residing at New Haven, in the county of New Haven and State of Connecticut, have invented a new and useful Improvement in Catch-Basin Covers; and I do hereby declare the following, when taken in connection with the accompanying drawings, and the letters of reference marked thereon, to be a full, clear, and exact description of the same, and which said drawings constitute part of this specification, and represent, in—

Figure 1 a top or plan view of a catch-basin frame and grille constructed in accordance with my invention. Fig. 2 a sectional view on the line *a-b* of Fig. 1. Fig. 3 a perspective view of a grille, inverted.

This invention relates to an improvement in catch-basin covers, the object being to provide a simple, durable, and convenient cover constructed with particular reference to providing a grille in which the voids or openings exceed the solids or bars and in which the openings are disposed so as to prevent a wheel-rim from entering them and getting caught.

With these ends in view my invention consists in the construction to be hereinafter described and particularly recited in the claim.

As shown, the grille is in the form of an oblong rectangle and transversely bowed so as to present a concave upper surface. It consists, in part, of a rim 2 and a group of six long parallel bars 3 extending diagonally between opposite corners of the said rim. These bars are reinforced by short bars 8 arranged parallel with each other and parallel with the sides of the rim, but at an angle with respect to the said long parallel bars the spaces between which they interrupt without substantially obstructing them. The two remaining spaces inclosed by the rim are respectively filled with two groups of parallel bars 9 differentiated in length and intersecting the rim at an acute angle but intersecting the outermost bars of the group of long bars at substantially a right angle. These bars 9 occupy, in other words, the triangular spaces lying between the rim and the outer edges of the outermost bars 3. Considering the spaces between the several bars as voids, and the bars themselves as

solids, it is designed that the voids shall exceed the solids so as to give the grille the utmost capacity for carrying off water, while the arrangement of the voids with reference to the solids is such that a wheel may be driven across the grille in any direction without danger of its rim being caught. The several bars 3, 8 and 9 are made deeper than the thickness of the rim 2 so as to form a series of shoulders 4 extending below the said rim in position to bear against the inner edge of the inwardly extending bearing flange 5 formed upon the frame 6 in which the grille is set. These shoulders 4 prevent the grille from being laterally displaced in the frame or from being tipped or tilted therein. The said frame 6 is preferably provided with a series of depending lugs 7 which may be seated in the bed in which the cover structure is set.

I claim:—

In a catch-basin cover, the combination with an open oblong rectangular frame having an inwardly extending bearing-flange, of a grille transversely bowed on its longitudinal axis so as to present a concave upper surface and consisting of a rim adapted in form and size to be set into the said open frame and having a main group of long parallel bars extending diagonally between opposite corners of the said rim and reinforced by short bars arranged parallel with each other and with the sides of the said rim and at an angle to the said long bars, and the triangular spaces between the two remaining corners of the rim and the outer edges of the outermost of the said long bars being respectively filled by groups of parallel bars differentiated in length and joining the sides and ends of the rim at an acute angle and the said outermost bars at substantially a right angle, the open spaces produced in the grille by the described construction and arrangement of bars being large and yet disposed so as to prevent a wheel-rim from entering them and getting caught.

In testimony whereof, I have signed this specification in the presence of two subscribing witnesses.

JAMES H. MACDONALD.

Witnesses:

EUGENE H. KELSEY,
H. S. PORTER.