

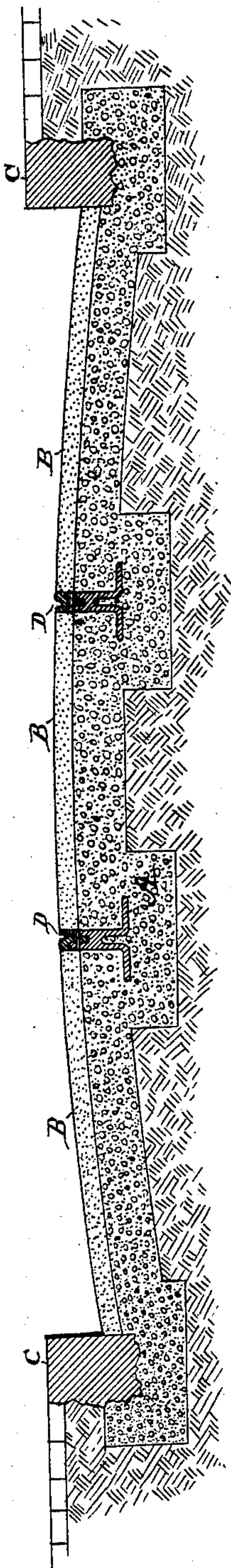
(No Model.)

A. L. BARBER.

CONSTRUCTION OF CONCRETE PAVEMENTS.

No. 338,382.

Patented Mar. 23, 1886.



WITNESSES

Edwin I. Yewell.

H. T. Chapman.

INVENTOR

Amgi L. Barber

By

L. W. Sinsabaugh

Attorney

UNITED STATES PATENT OFFICE.

AMZI L. BARBER, OF WASHINGTON, DISTRICT OF COLUMBIA, ASSIGNOR TO
THE BARBER ASPHALT PAVING COMPANY, OF SAME PLACE.

CONSTRUCTION OF CONCRETE PAVEMENTS.

SPECIFICATION forming part of Letters Patent No. 338,382, dated March 23, 1886.

Application filed October 26, 1885. Serial No. 180,915. (No model.)

To all whom it may concern:

Be it known that I, AMZI L. BARBER, a citizen of the United States, residing at Washington, in the District of Columbia, have invented certain new and useful Improvements in the Construction of Concrete Pavements, of which the following is a specification, reference being had therein to the accompanying drawing.

My invention relates to improvements in the construction of concrete pavements.

The object of my invention is to combine the curbstones of the street and the rails of street-railroads with the hydraulic-concrete base and asphalt-concrete wearing-surface of a Trinidad-asphalt pavement in such a manner as to make a substantial and permanent structure, thus obviating in a great measure the necessity of frequent repairs to the curbs and rails or track of street-railroad rails.

In the drawing I have shown a sectional view of a pavement embodying my invention.

Referring to the drawing, A indicates the hydraulic-concrete base, and B the top course or wearing-surface composed of Trinidad asphalt concrete, both of which are laid in the usual manner as laid in Washington, District of Columbia, and other cities.

C indicates the curbstones, the lower edges of which are embedded several inches in the hydraulic-concrete base A, as shown, while said concrete is in a soft or plastic condition, so that when the concrete sets or becomes hard the curbstones will be firmly embedded therein. By setting the curbstones in this manner

I am enabled to use to advantage stones from eight to nine inches in depth, instead of stones from eighteen to twenty-four inches in depth, as is now the case, thus effecting a great saving in material in the matter of curbstones.

A further advantage of this construction is that the curbstones can be set at a uniform depth, and the danger of being displaced by the upheavals of frost is obviated, owing to the solid and water-proof base or foundation in which they are embedded.

D indicates the rails of a street-railroad, which may be of the form shown, or of any other suitable or convenient form which will present a foot or base adapted to be embedded

in the hydraulic-concrete base A, a rail having a broad base being preferred.

In laying the rails in the hydraulic-concrete base the flange and web of the rail are embedded in said concrete while it is yet in a plastic or semi-plastic condition, so that when the concrete sets or becomes hard the rails will be firmly held in position without the use of cross-ties or sleepers. The hydraulic concrete which comes in contact with the rails may be made of a finer quality than that of the main body of the base, but it should be laid at the same time, in order to insure a perfect bond or union between the two. The rails should be embedded in the hydraulic concrete at a uniform depth, in order that the tops of the rails may be in the same plane and present a level surface. After the rails and curbstones have been placed in position, and the hydraulic concrete has set or become hard, the asphalt cement or concrete top B is laid down and rolled in the usual manner, care being taken to roll or compact the same around the web of the rail so as to form a water-tight joint, and also to bring the top of the wearing-surface of the pavement flush with the tops of the rails; and in some instances it may be desirable to extend the hydraulic concrete up to the top of the rails, with a strip of the same extending a few inches out from each side of the rail, which, when the asphaltic concrete is joined thereto, will form a water-proof joint.

In the construction of this kind of a pavement, I prefer to make the gutters of the upper surface of hydraulic concrete, such as is described and claimed in an application filed by me October 7, 1885, Serial No. 179,178.

I am aware that it is not new to secure railroad-rails in position by embedding the same in a composition of asphaltum or residuum of coal-tar, pulverized rock-quartz, gravel, and sand; and such I do not claim.

Having thus described my invention, what I claim, and desire to secure by Letters Patent, is—

1. A pavement or roadway composed of a Trinidad-asphalt-concrete wearing-surface, having the curbstones and rails which form the street-rail railroad partially embedded in

the hydraulic concrete forming the base of the pavement, as set forth.

2. A street - pavement composed of a hydraulic-concrete base and a Trinidad-asphalt-concrete wearing-surface, in combination with the rails D, embedded in the hydraulic-cement base and asphalt concrete, as set forth.

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

AMZI L. BARBER.

Witnesses:

R. M. RICHARD,
ROBERT E. MORRIS.