

A. VAN CAMP.

PAVEMENT.

No. 173,520.

Patented Feb. 15, 1876.

Fig. 1.

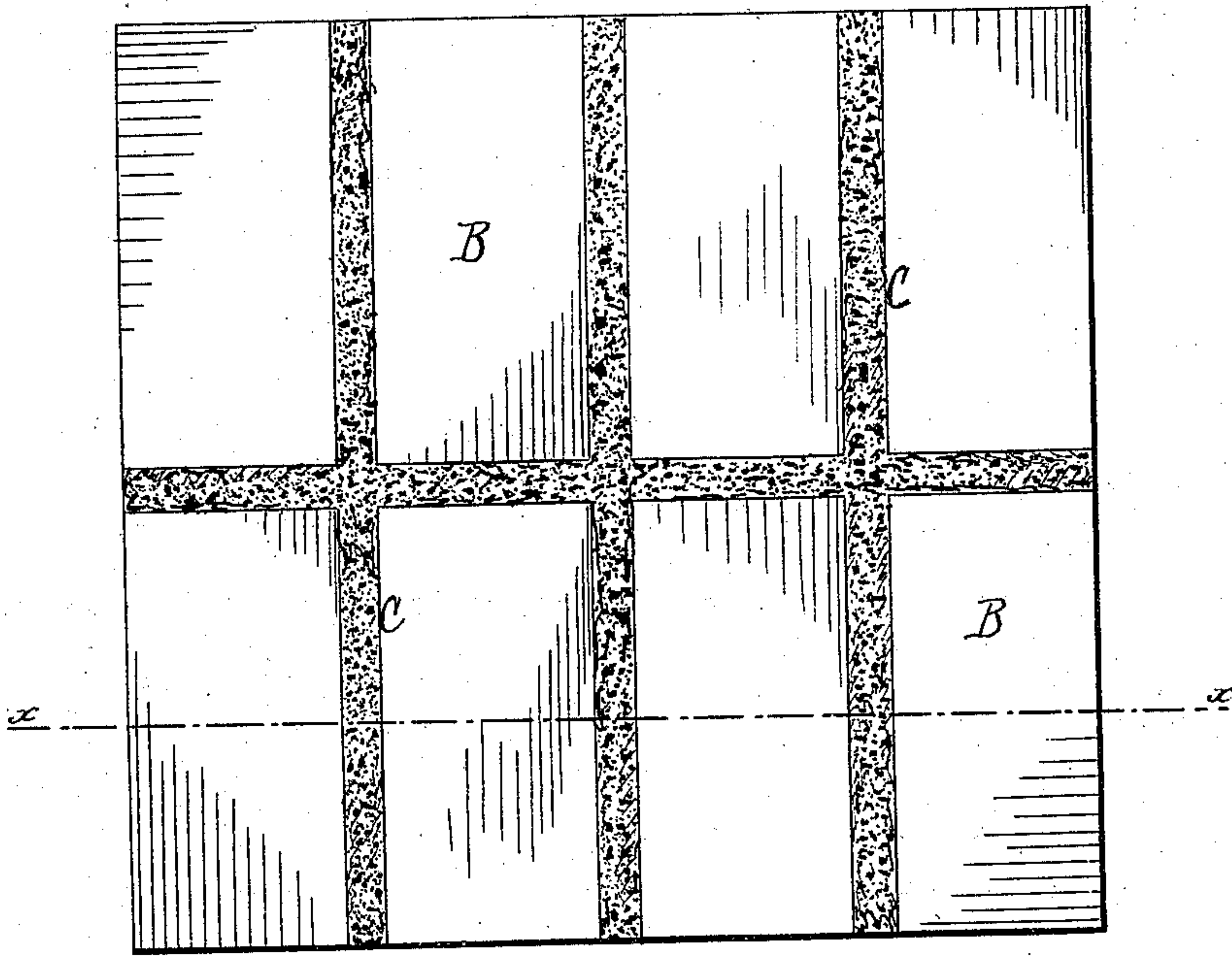
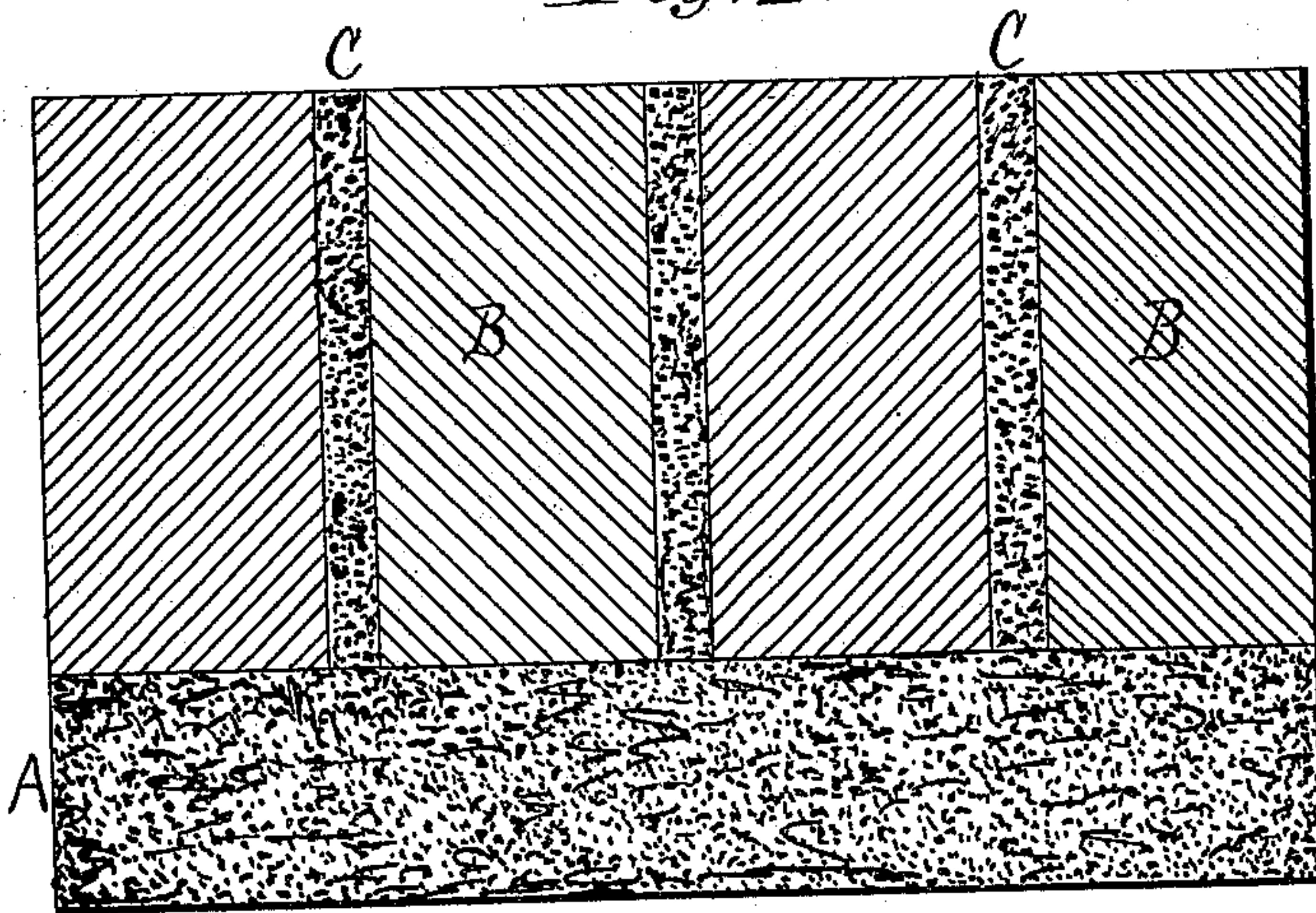


Fig. 2.



Witnesses:

Edwin James.

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per J. E. J. Holmead,

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UNITED STATES PATENT OFFICE.

AARON VAN CAMP, OF WASHINGTON, DISTRICT OF COLUMBIA.

IMPROVEMENT IN PAVEMENTS.

Specification forming part of Letters Patent No. **173,520**, dated February 15, 1876; application filed July 28, 1875.

To all whom it may concern:

Be it known that I, AARON VAN CAMP, of Washington city and District of Columbia, have invented certain Improvements in Pavements, of which the following is a full, clear, and exact description, reference being had to the accompanying drawing and the letters of reference marked thereon, making part of this specification, in which—

Figure 1 is a top-plan view. Fig. 2 is a cross-section on the line *x x*, Fig. 1.

My present invention is an improvement in pavements, and consists in forming the same in the following manner, and of the following ingredients or elements: A base of suitable concrete, bricks or half-bricks set on end on the concrete bed, the bricks having been previously saturated in a solution or mastic consisting of asphaltum and dead-oil, or other product or residuum of petroleum, and the bricks then locked or cemented together in such manner as to insure the formation of a solid block, and one in which the concretion is of such a character as to avoid all danger of the disintegration or separation of the ingredients.

The construction and operation of my invention are as follows: In a mold of the desired form and dimensions I pour any suitable concrete composition; any composition that would make a good pavement alone will do, or such a composition, for instance, as asphaltum, or an asphalt compound, mixed with crushed stone, sand, and gravel will produce.

I desire it distinctly understood that I do not limit or restrict myself in this connection to the use of any single composition, as there are many which might be advantageously used for the purpose desired—that is, to form a base and binder for my concrete block. Into the molds I pour a sufficiency of this composition, that, after the same has been thoroughly rammed with hot tamps to provide a base, A, for the block, say of about from one and a half or two inches in thickness. On this base A I seat on their ends bricks B B. Before being placed on the concrete base the bricks are thoroughly saturated in a composition consisting of asphaltum and dead-oil, or other product or residuum of petroleum, melt-

ed and thoroughly mixed together. Previous to being immersed and boiled in the composition the bricks are heated to expel all moisture, and to cause them freely to absorb the composition, so that their outer surfaces will not only be coated, but their pores and all interstices shall be filled with the composition.

This saturation of the brick with a composition of the character described adds greatly to their toughness and durability, and renders them perfectly impervious to moisture.

The bricks B B may be whole and perfect bricks; but I contemplate using, in general, half or broken bricks, not only on account of their cheapness, and which is a most important consideration, but because in using nine-inch bricks the pavement is unnecessarily thick. These bricks are relatively so arranged as to leave a vertical open space extending entirely around each brick, and which is filled in with a binder, C, of concrete, similar to that used for the base A, and which is securely packed and rammed in and around the bricks, perfectly locking or cementing them together by means of calking-irons, such as are used in driving down concrete or cement between the blocks of wooden pavements. The concrete C, thus inserted between the bricks B B, not only adds greatly to the durability of the bricks, but destroys the smooth surface which the bricks placed in close contact would produce, and which smooth surface is a great disadvantage, especially in cold and wet weather, as the moisture freezing on the same renders it so slippery that it is dangerous for travel.

While I have described my improvement as consisting of blocks, I desire it understood that I do not limit or restrict myself to the block form, as the concrete, in connection with the bricks, may be laid in the usual manner—that is, the concrete bed A may be laid or spread the entire width of the street or roadway, and pressed with tamps and rollers, and the bricks treated by being first heated and boiled in the composition of asphaltum and dead-oil, &c., and placed and secured on the bed precisely as described in forming the blocks, both for the pavement and for forming the gutters. When the pavement is composed of blocks the blocks are laid on the street or

roadway, the same having been previously properly prepared and furnished with a suitable foundation, with a slight space between the blocks, and which is filled in with melted asphaltum.

In streets where there is a great deal of travel granite blocks may advantageously be substituted for the bricks, the granite blocks being treated precisely as are the bricks.

What I claim as new, and desire to secure by Letters Patent of the United States, is—
A concrete pavement or concrete blocks, con-

sisting of a base, A, bricks or granite blocks B B, treated as stated, and the binder C, the whole being constructed, combined, and arranged substantially as described.

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

A. VAN CAMP.

Witnesses:

EDWIN JAMES,
JOS. T. K. PLANT.