E. DEVILLIERS.

Pavement for Streets.

No. 222,025. Patented Nov. 25, 1879.

Fig. 1.

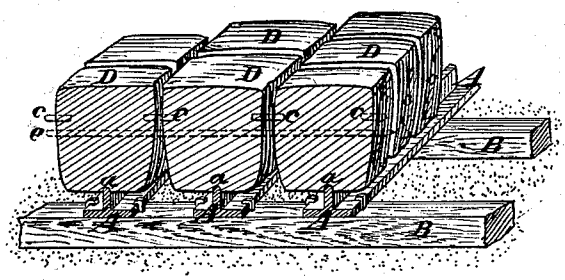
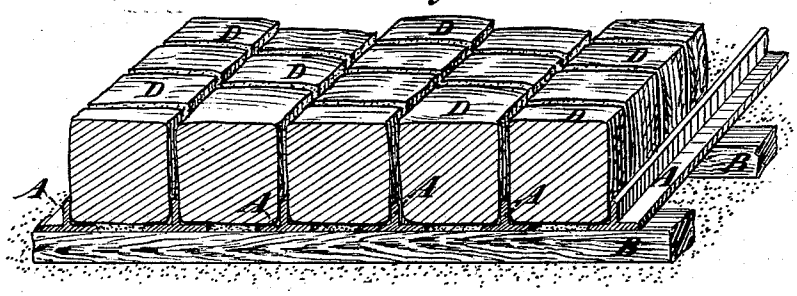


Fig. 2.



Witnesses

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EMILE DEVILLIERS, OF PARIS, FRANCE.

IMPROVEMENT IN PAVEMENTS FOR STREETS.

Specification forming part of Letters Patent No. **222,025**, dated November 25, 1879; application filed September 13, 1879.

To all whom it may concern:

Be it known that I, EMILE DEVILLIERS, of Paris, in the Republic of France, have invented a new and useful Improvement in Pavements for Streets, &c.; and I hereby declare that the following is a description of the same, reference being had to the accompanying drawings.

This invention relates to pavements of which the surfaces consist of paving-blocks of any kind of stone. Its object is to obtain by simple and practical means the binding together of the blocks of stone, and at the same time to obtain for pavements of this kind a bed more stable and more resisting than any that has heretofore been obtained.

It is well known that one of the gravest causes of deterioration of stone pavements consists in the want of solidity of the bed upon which the blocks of stone rest, from which want the blocks sink unequally under the loads which they support; and the examination of a defective pavement shows that the blocks are never broken, but that they have yielded unequally under the action of the incessant circulation of vehicles and of atmospheric causes.

It may be understood, then, that a pavement of which the blocks are bound together upon a stable, though elastic, foundation will have very great durability.

In accompanying drawings, Figures 1 and 2 illustrate in perspective two different modifications of my new system of paving.

As may be seen in each of the figures of the drawings, I arrange under each row of paving-blocks D a bar, A, which may, as shown in Fig. 1, penetrate slightly into a groove, *a*, provided for the purpose in the lower parts of the blocks. These bars, to which I give preferably the transverse sectional form of a simple inverted T, are secured by means of bolts or clamps to cross-ties or transverse sleepers B, which may be made of wood or metal, and each of which is long enough to support several of the bars A. These longitudinal and transverse pieces A B are, like the blocks C, embedded in sand, employed as in the ordinary pavements.

To complete the binding together of the blocks arranged as just above indicated, they may be bound together transversely by tenons *c*, as indicated in dotted lines in Fig. 1, or, more simply, by inserting between the blocks metallic slips *e*, which prevent all lateral displacement under the action of the passage of the heavy loads which the pavement may receive.

In the modification shown in Fig. 2 the metallic bars A, instead of being placed under the centers of the stones, are arranged under the spaces between two ranges or rows of blocks, in which case the central webs of the inverted-T-shaped supporting-bars enter the said spaces, while the blocks rest upon the bottom flanges of the said bars. I consider this arrangement of the bars to enter into the spaces between the blocks, as shown in Fig. 2, to be equivalent to their arrangement to enter grooves in the bottoms of the blocks, as shown in Fig. 1.

The cross-ties B, instead of being of wood, may be of any metal whatever that may be desired.

I will remark that generally I prefer to make the bars A of no very great length, in order to provide for taking them up when it is necessary to dig a hole in the ground to insert pipes for gas, water, &c.

What I claim as my invention is—

1. In a stone pavement, the combination, with the stone blocks, each separated from the other, of metallic longitudinal bars A, each constructed with a vertical web and two lateral flanges, or T-shaped in cross-section, for supporting the stones, and transverse sleepers B, upon which the metallic bars are arranged and supported, all substantially as and for the purpose described.

2. In a stone pavement, the combination of transverse sleepers B, longitudinal metallic bars A, having vertical webs and two lateral flanges, or T-shaped in cross-section, and plain stone blocks D, arranged between the T-shaped bars, with the outer edges of the bases of the stones resting on the lateral flanges of said bars, and the vertical web of the same projecting between the adjacent sides of the stones, and serving to separate the stones and maintain them in such position, substantially as described.

EMILE DEVILLIERS.

Witnesses:

EUG. DUBUIS,

POZZO DI BORGO.