(No Model.)

A. PELLETIER.

Method of Laying Pavement.

No. 242,689. **Patented June 7, 1881.**

Fig. 1.

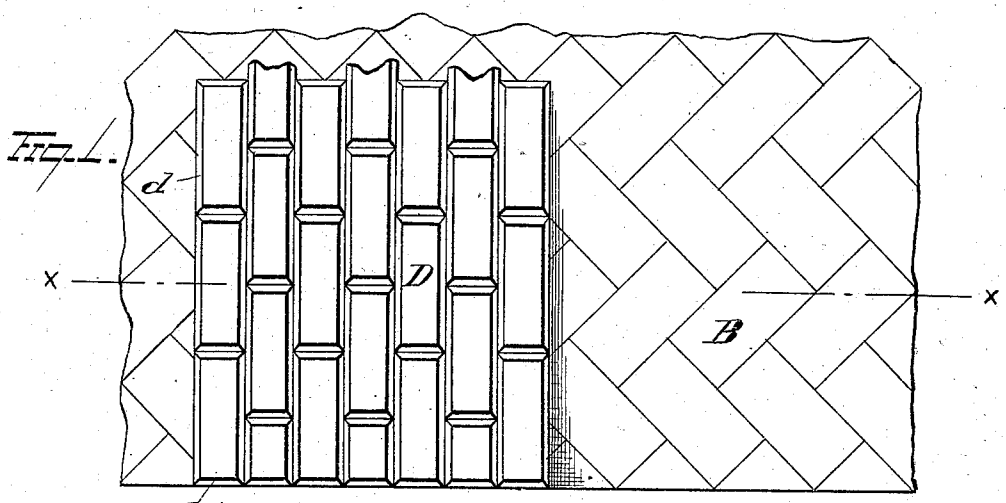


Fig. 2.

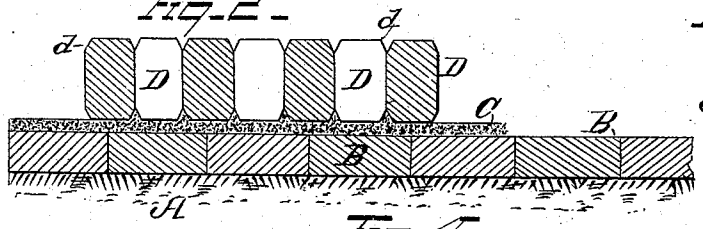


Fig. 3.

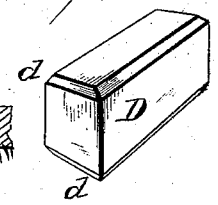
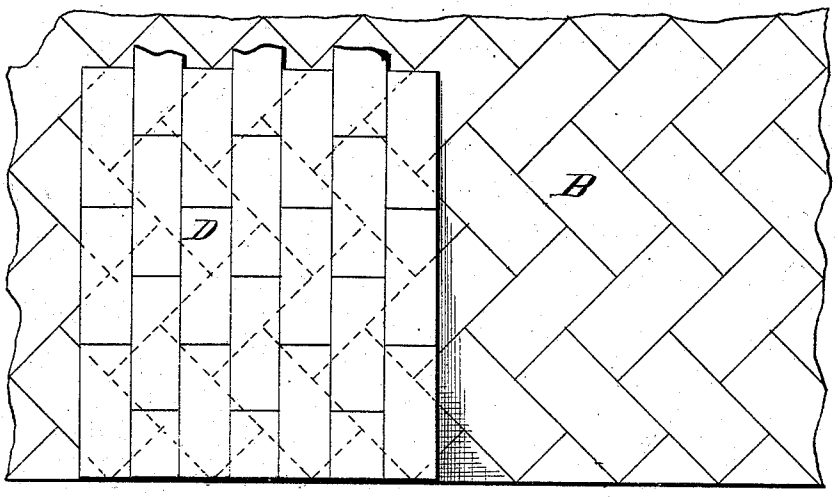


Fig. 4.



WITNESSES

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UNITED STATES PATENT OFFICE.

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METHOD OF LAYING PAVEMENTS.

SPECIFICATION forming part of Letters Patent No. 242,689, dated June 7, 1881.

Application filed December 6, 1880. (No model.)

To all whom it may concern:

Be it known that I, ANTONIO PELLETIER, a citizen of the United States, residing at Washington, in the county of Washington and District of Columbia, have invented certain new and useful Improvements in Method of Laying Pavements; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to letters or figures of reference marked thereon, which form a part of this specification.

This invention relates to an improved pavement and method of laying the same; and the novelty consists in the forms of the blocks and the manner of arranging the same with relation to each other and to the service to be performed, as will be more fully hereinafter set forth, and specifically pointed out in the claims.

The object of the invention is to provide a pavement both the foundation and pavement proper of which may be removed, taken up, or replaced readily for repairs, or to obtain access to water or gas pipes and sewers without injury to adjacent portions of the pavement, and also in providing reversible blocks having important and useful distinguishing features, which form the pavement proper.

The invention consists, essentially, first, in a paving-block formed of concrete in the form of a right-angled parallelogram, having each of its upper and lower longitudinal and transverse edges beveled, and adapted to be readily reversed and present a new side as one becomes worn; second, in a foundation formed of blocks of béton or concrete, of right-angled parallelogram form, laid in such a manner as to break joints—that is to say, the first row of blocks are laid at an angle of forty-five degrees from the plane of the curb, the corner of each block impinging thereon, and each block overlapping one-half of the adjacent block, and the second row of blocks similarly arranged with relation to each other, but each block placed at a right angle (ninety degrees) with the adjacent blocks of the first row, and so on until the space between the curbs is filled, it being understood, of course, that the triangular spaces next to each curb are filled with proper blocks of same material; third, in a pavement laid upon a foundation, as described, formed of concrete blocks of right-angled parallelogram shape, and having beveled upper and lower edges, so as to be readily reversed in case of wear, said blocks being laid at right angles with the plane of the curb, and in such a manner that each block will bear upon three or more of the foundation-blocks.

In the accompanying drawings, which form a part of this specification, Figure 1 represents a plan view of the improved pavement, with a portion of the pavement proper removed to show the foundation. Fig. 2 represents a longitudinal section, showing the foundation, surface-blocks, and intervening layer of sand; and Fig. 3, a perspective view of one of the surface or paving blocks. Fig. 4 shows, in dotted lines, the bearing of the paving-blocks upon the foundation-blocks.

Referring to the drawings, the letter A indicates the natural road-bed properly rolled and sanded for the reception of the foundation rectangular concrete blocks B, which are properly laid to break joints, as shown, and which may have their top and bottom edges beveled. After the foundation has been properly laid, a layer, C, composed of silicious sand is applied, and the paving-blocks D are laid, but according to a different arrangement from that of the foundation-blocks. The latter are laid in rows, each row parallel with the plane of the curb, but each block laid at an angle of forty-five degrees from said plane, and the rows alternately arranged at such angle, while the paving-blocks are laid at a right angle with the plane of the curb, each block bearing upon three or more (according to the size of said block) of the foundation-blocks, as shown in Fig. 4.

The paving-blocks D have each of their upper and lower longitudinal and transverse edges beveled, as shown at *d*. This construction gives the upper surface of the pavement when laid a series of V-shaped channels running at right angles to each other, and affords a serviceable foothold for draft-animals, and

prevents sliding or falling of animals employed in lighter and quicker service, as shown and described in my Patent No. 230,492, of 1880.

It will be observed, however, that by beveling each and every of the upper and lower edges of the paving-blocks they may be readily turned to present a new surface as soon as the surface in use has been worn down, and this feature has peculiar efficiency in places where frequent and heavy loads are passing—*i. e.*, at railroad-depots, in front of wholesale stores, commission and ware houses, and the like.

It will further be observed that the bevel *d* upon opposite sides of the paving-blocks D may be of different pitches—that is to say, the incline upon one side may be greater than that upon the other, and this difference may be utilized in adapting the blocks for different uses, such as carriage-drives and heavy-draft streets, and also affords a choice of sides upon any given street to suit different exigencies.

The béton for both or either the foundation or paving blocks may be of any desired description or material, constructed by molding and heavy pressure; but the invention is especially designed to be used in connection with the béton or concrete compounds composed of broken stone or gravel, hydraulic lime of tiel, terra-alba, hydraulic lime or cement, or any similar cement, and silicious sand, oxide of iron, and a chloride either of iron, manganese, or calcium, as described in Letters Patent granted me October 29, 1879, No. 221,096, for improvement in concrete pavements; or both or either of the blocks may be formed of the combination of pure asphalt or bitumen, silicious sand, carbonate of lime, or the specified equivalent, talcose silicate, coal-ashes, and a metallic oxide and chloride, as set forth in said patent, and which compound is preferred for certain climates and conditions.

Various modifications may be made in the manner of laying the block B without sacrificing the advantages of my invention, the essential feature of which consists in having three or more of the said blocks B furnish bearing for each of the paving or surface blocks.

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

1. Paving-blocks formed of concrete, having their upper and lower longitudinal and transverse edges beveled, so as to form, when laid, V-shaped channels running at right angles to each other, and adapted to be reversed at will, substantially as herein specified, for the purpose set forth.

2. The foundation described, formed of concrete blocks of right-angled parallelogram form, laid with relation to each other in such a manner that each paving-block will bear upon three or more of the said foundation-blocks, substantially as set forth.

3. The pavement formed of the paving-blocks D, having upper and lower beveled edges, *d*, in combination with the foundation formed of blocks B, arranged in relation to the said paving-blocks in such a manner that each of the latter will bear upon three or more of the foundation-blocks B, and with an intervening layer of sand, as and for the purposes set forth.

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

ANTONIO PELLETIER.

Witnesses:
J. R. NOTTINGHAM,
WILLIAM FITCH.