E. J. BARTELLS.

PAVING BLOCK.

APPLICATION FILED JAN. 10, 1916.

1,222,061. Patented Apr. 10, 1917.

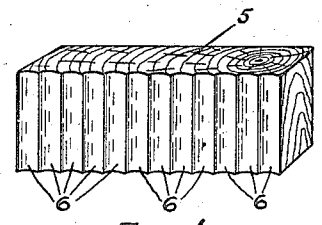

FIG. 1

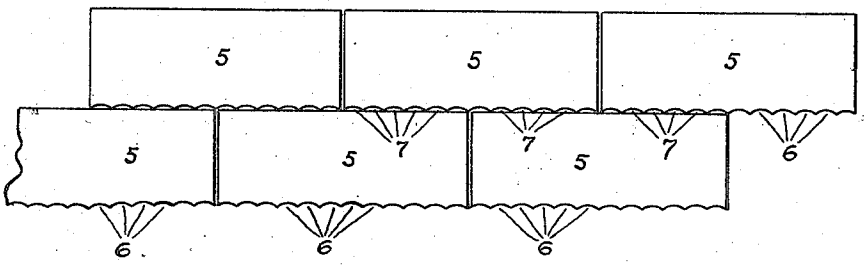

FIG. 2

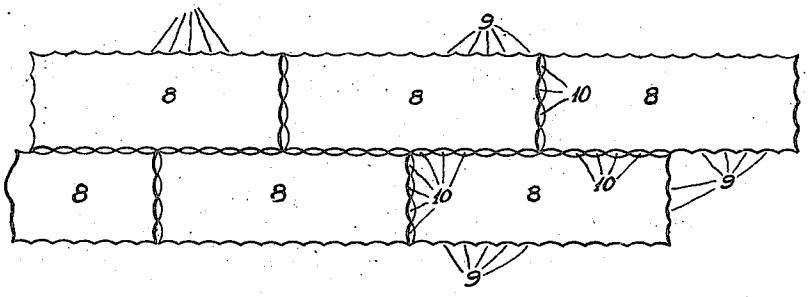

FIG. 3

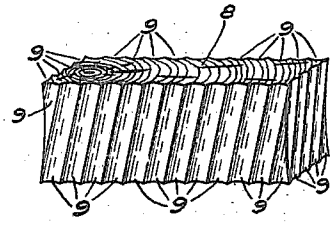

FIG. 4

WITNESS

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PAVING-BLOCK.

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To all whom it may concern:

Be it known that I, EDWIN J. BARTELLS, citizen of the United States, residing at Seattle, in the county of King and State of Washington, have invented a certain new and useful Improvement in Paving-Blocks, of which the following is a specification.

My invention relates to improvements in paving blocks, and the object of my invention is to provide paving blocks for street pavements, preferably made of wood, each of which paving blocks shall be of such form that when it is disposed with other paving blocks of like form to pave a street then certain portions of it shall make such contact with adjacent other blocks as shall form interstices therebetween, within which interstices may be disposed a quantity of suitable material, as asphaltum, coal tar and gravel, whereby adjacent ones of said paving blocks may be secured permanently in their positions irrespective of changes in them that may be caused by expansion and contraction due to variations in temperature; another object of my invention is to provide paving blocks which shall be so formed that when they are disposed in the form of a street pavement there shall be interstices between adjacent ones of them of such form that when said interstices are filled with gravel, coal tar and sand or other suitable material, then all of said paving blocks shall be securely fastened or locked against relative vertical movements.

I accomplish these objects by paving blocks of the forms illustrated in the accompanying drawings wherein Figure 1 is a view in perspective of one form of paving block embodying my invention while Fig. 2 is a plan view of a plurality of the same as they may appear when embodied in a street pavement; Fig. 3 is a plan view of a plurality of paving blocks embodying a modified form of my invention as they may appear when embodied in a street pavement while Fig. 4 is a view in perspective of one of the paving blocks shown in Fig. 3.

Referring to Fig. 1 of the drawings, throughout which drawings like reference numerals indicate like parts, 5 is one form of a wooden paving block embodying my invention, which paving block 5 is provided with a series of grooves 6 on one of its broader vertical sides, which grooves 6 in cross-section are each of the form of an arc of a circle and are disposed adjacent to each other to extend vertically (in parallel with the grain of the wood) from the bottom edge to the top edge of said vertical side, while the three remaining vertical sides of said paving block 5 are each a plane surface.

When a plurality of blocks, like the paving block 5, are disposed to form a street pavement, then the grooved vertical side of each of said paving blocks 5 will be adjacent to and in engagement with the surfaces of the non-grooved vertical sides of two other paving blocks 5, as shown in Fig. 2, whereby the grooves 6 shall then constitute interstices, as interstices 7, whose form of cross-section will be plano-convex, within which interstices 7 may be disposed coal tar, asphaltum, sand, gravel or other suitable material more rigidly to secure said paving blocks 5 in their normal positions in an obvious manner.

In Fig. 4 I have shown by a perspective view a paving block 8 embodying a modified form of parts of my invention wherein all the vertical sides of said paving block 8 are provided with grooves 9 whose form of cross-section is also like an arc of a circle and all of which grooves 9 are disposed to extend in oblique directions between the bottom and the top edges of said paving block 8, whereby when one of said paving blocks 8 is disposed with a vertical side adjacent to and in contact with the vertical side of another paving block 8 then the axes of the respective grooves 9 of the adjacent sides of two paving blocks will be in oppositely oblique directions so that the interstices, as the interstices 10 of Fig. 3, will obviously be of such complex internal form as will cause said two paving blocks to be locked with respect to relative vertical movements if suitable material, as gravel and asphaltum or the like, be disposed in said interstices 10.

The grooves 9 may be formed so that in their cross-section they may be angular instead of being curved.

Under ordinary conditions of use it is found to be unnecessary to provide grooves 9 on either of the vertical surfaces of the two ends of the paving blocks 8 since said grooves 9 on the larger vertical side surfaces thereof serve to form recesses between adjacent paving blocks 8 which recesses with

suitable material disposed therein will adequately serve to lock said blocks against relative vertical movements.

Obviously, paving blocks of the form of the paving blocks 5 of Figs. 1 and 2 can be manufactured more cheaply than the paving blocks 8 of Figs. 3 and 4 but the latter are a much superior product since the obliquely disposed grooves 9 serve better as a locking element in combination with gravel than do the grooves of the paving blocks 5. A pavement formed of blocks as disclosed by the present application includes many advantageous features over wooden pavements previously patented as has been proved by actual experience, the blocks in a pavement being subjected to changes in the degree of moisture, and it has been found that when so soaked with water, that the blocks expand, causing the sharp ridges forming the divisions of the channels in the faces of the block to cut into the sides of the adjacent block. It is to be noted that when the blocks dry out and contract, the block adjacent to the sharp ridges re-assumes its plane surfaces, thus maintaining such point between adjacent blocks as will keep the blocks tightly in place. In fact, there is always a yielding tight joint between adjacent blocks irrespective of any filling that may be introduced into the intervening spaces.

Manifestly, paving blocks embodying my invention may be made of other material than wood, as for instance, concrete or a mixture of sand and clay; and changes may be made in the dimensions and arrangement of parts of my invention without departing from the spirit thereof.

What I claim is:

1. As an improvement in wooden pavements, a plurality of wooden blocks having individually, contacting sides provided with diagonally arranged concaved grooves extending throughout said sides from bottom to top, whereby the opposite diagonal or crossing grooves filled in with concrete or plastic material will have an interlocking action.

2. A wooden paving block having chosen vertical sides provided with a series of grooves of curved cross section extending in parallelism with the grain of the wood from the bottom edge to the top edge of said block, said grooves being disposed so that the curved cross sectional lines of adjacent ones of said grooves shall intersect each other whereby is provided a ridge whose apex is sharp and whose base is of a width equal to the distance between the apexes of adjacent ones of said ridges.

3. A paving block formed of material capable of expansion and contraction having chosen portions of the outer sides provided with continuous depressions divided by sharpened ridges.

In witness whereof, I hereunto subscribe my name this 27th day of December, A. D., 1915.

EDWIN J. BARTELLS.

Witnesses:
FRANK WARREN,
O. JOHNSON.