

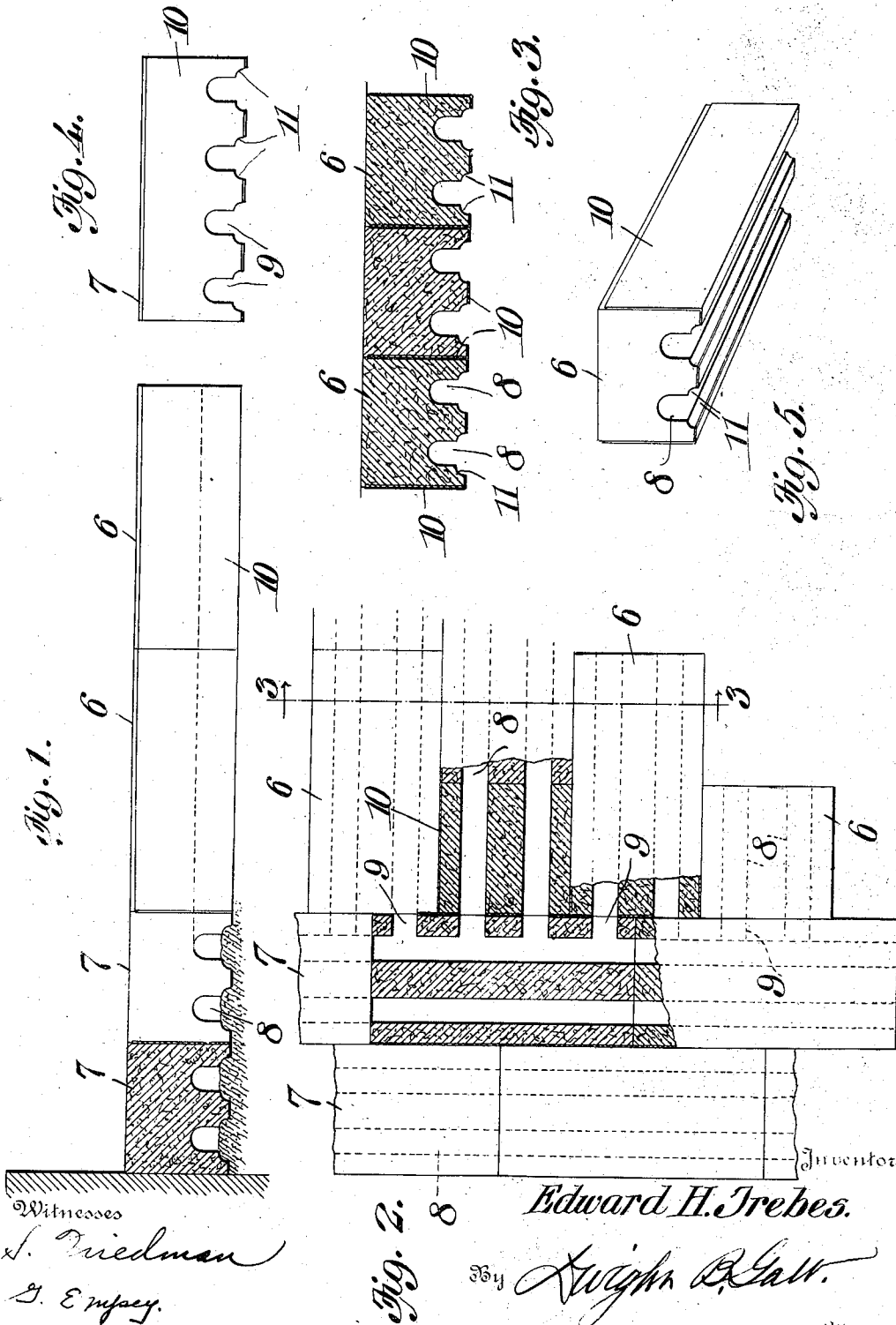
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PAVEMENT, AND METHOD OF LAYING THE SAME

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UNITED STATES PATENT OFFICE.

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PAVEMENT AND METHOD OF LAYING THE SAME.

Application filed November 26, 1915. Serial No. 63,446.

To all whom it may concern:

Be it known that I, EDWARD H. TREBES, a citizen of the United States, residing at Tampa, in the county of Hillsborough and State of Florida, have invented certain new and useful Improvements in Pavements and Methods of Laying the Same, of which the following is a specification.

This invention relates to pavements, and particularly to block pavements, aiming primarily to provide means whereby a roadway, street or walk may be laid quickly and easily, and which when properly laid, will provide a smooth and even wearing surface, capable of withstanding the strains and pressures incident to the travel of heavy vehicles thereover, as well as rough usage, with the least possible danger of the wearing surface becoming wavy or distorted.

A further object of the invention is to provide a pavement of the character described, in which the blocks are formed of a bituminous material, such as asphalt, and which, after being laid, may be taken up in whole or in part without destroying or disfiguring the blocks to preclude their further use.

The invention further aims to provide a pavement of block construction, so arranged or laid as to be free of crevices or voids at the juncture of the several blocks, thus obviating the noises incident to vehicle travel over the pavement, as well as preventing the standing of water upon the pavement, and the seepage thereof to the foundation of the roadway.

A still further object of the invention is to provide a block roadway or street in which the blocks may be manufactured at comparatively low cost and at a saving in material, without sacrificing the elements of durability and efficiency.

With these objects in view, together with others which will appear as the description proceeds, the invention resides in the novel combination and arrangement of parts all as will be described more fully hereinafter, illustrated in the drawings, and particularly pointed out in the claims.

The invention will be best understood with reference to the accompanying drawings, wherein—

Fig. 1 is a side elevation, partly in section, of a roadway or pavement laid in accordance with my invention, Fig. 2 is a plan view, partly in section of the fragmentary pave-

ment illustrated in Fig. 1, Fig. 3 is a sectional view taken on the line 3—3 of Fig. 2, Fig. 4 is a side elevation of one of the improved gutter blocks employed in carrying out the invention, and Fig. 5 is a detail perspective view of one of the improved roadway blocks, the view illustrating particularly construction of the under surface thereof.

The invention comprehends broadly the arrangement of a plurality of paving blocks, each laid with their sides and ends abutting, and while no claim is made to the materials employed in constructing the blocks, I preferably use blocks of a bituminous composition, such as asphalt, which possess toughness, elasticity and durability, and which may be manufactured or produced at comparatively low cost. Between the abutting faces of each of the blocks, I insert a thin sheet of material, preferably water-proofed, to prevent the blocks adhering to each other as is the case with pavements of the block construction now generally in use. The invention further comprehends broadly the arrangement of ducts or channels beneath the roadway and preferably formed in the under face of the blocks to carry off water which may accumulate between the roadway or pavement and its foundation, and to permit the circulation of air beneath the pavement to insure dryness at the foundation.

Referring particularly to the drawings, 6 indicates generally a block used in the construction of the roadway, and 7 the improved gutter blocks employed in carrying out the invention. Each of the blocks 6 is provided in its under surface with spaced channels or grooves 8, the channels in each of the blocks extending longitudinally thereof, and so arranged that when the blocks are properly laid, the channels 8 will register or aline with the channels of the next adjacent block to provide ducts extending preferably transversely of the roadway or pavement. The gutter blocks are also provided with the longitudinally extending channels, and the side of each of the gutter blocks is provided with openings or transverse channels 9, communicating at one end with the longitudinal channel, and at the other end with the side wall of the block, and the said transverse channels 9 being so spaced as to register or aline with the longitudinal channels in the roadway blocks 6. By this arrangement it is apparent that moisture or water gaining access to the

under surface of the blocks will be carried off, the water flowing to the channels beneath the gutter blocks, from which it may be drained in any preferred manner.

5 The ducts in the gutter blocks may, if desired, be connected by suitable pipes with the sewer system.

In order that the blocks when once laid may be removed without destroying or injuring the same, a sheet of substantially thin impervious material 10, such as oiled or paraffined paper, is inserted between the blocks to prevent the adhesion of the blocks with each other. A sheet of impervious material may also be inserted between the block bottoms and the road bed to insure the blocks against becoming rigid to the road or pavement foundation. Owing to the fact that the ends of each of the blocks are of comparatively restricted area, I dispense with the use of the oiled paper at their juncture, however, I reserve the right to apply the paper at the juncture of the block ends if I so desire. The paper is applied to the side or end walls of the blocks so as to terminate a short distance from the wearing surface thereof, in order that the exposed surfaces of the adjacent asphalt blocks may be permitted to engage and adhere to each other. This arrangement permits of the blocks being firmly secured to each other adjacent their upper edges to insure a perfect connection between the blocks and to present an even, unbroken, monolithic surface, capable of withstanding the strains incident to the passage of heavy traffic without becoming wavy or distorted, as well as to insure against the seepage of water to the foundation of the pavement. After the blocks have been laid in the above described manner, it is apparent that the abutting exposed portions of the bituminous blocks will adhere to each other, and coagulate, whereby the cracks or voids at the juncture of the blocks will be obviated. By reason of the fact that the greater portions of the areas of the side or end walls of the blocks are separated by the impervious sheets, the said areas will be prevented from adhering, so that the blocks may be easily pried loose should it be required to remove the pavement, either in part or in whole. The relatively narrow margin by which the blocks are connected will prove sufficient to lend stableness or rigidity to the pavement, and yet enables the blocks to be readily separated without disfiguring the same.

The channels are so arranged in the under surface of each of the blocks as to not detract from the durability of the same, and to prevent shifting of the blocks with relation to the foundation, the under surface of each block is cut away as at 11 to provide a longitudinally extending shoulder at the juncture of each of the channels

with the under surface of the block. As shown particularly in Fig. 1 of the drawings, the blocks may be embedded in the foundation on such distance as will insure a firm grip at the juncture of the above described shoulders with the pavement foundation. The bottoms of the gutter blocks may be similarly shouldered to insure the same against sliding or shifting, either longitudinally or laterally.

It may be found expedient to encase each of the blocks with the oiled paper instead of inserting strips of the material between the adjacent edges of the blocks and between the under surface and the foundation, and it is to be understood that should I so desire, I may resort to such changes in the details of construction as may be found necessary without departing from the spirit of the invention as defined by the claims.

I claim:

1. The method of constructing a pavement of blocks of viscous material which consists in inserting sheets of thin material of smaller size than the sides of the blocks between the adjacent faces of the closely laid blocks so that portions of said adjacent faces will be exposed to each other.

2. The method of constructing a pavement of asphalt paving blocks consisting of enclosing the sides and bottom of each block in a sheet of thin paper, the said paper terminating a short distance inwardly from the wearing surface of each block, and the said blocks laid with their ends and with the covered and exposed portions respectively of their sides abutting.

3. An asphalt paving block having its bottom surface provided with a pair of spaced parallel longitudinally disposed channels, the said channels being relatively deep and coextensive with the block providing a central and edge rib, the central rib being of greater width than the edge rib and each rib being formed at the juncture of the channels with the block bottom with a longitudinal shoulder, and a casing of impervious material for each block.

4. As an article of manufacture, a paving block formed of asphalt, a shell of material enclosing said block and tightly fitting the same, and the said shell terminating upon the sides and ends of the block a short distance below the upper face thereof.

5. A paving block comprising a body formed of viscous material such as bitumen or asphalt, a covering for the sides of said body formed of thin smooth material, and the said material terminating inwardly from an edge of the body, whereby portions of the block sides are exposed.

6. A paving element comprising a body of asphaltic material having thin layers of protective material upon its opposite faces, said layers being arranged to terminate a sub-

stantial distance below the wear surfaces of the adjacent paving elements between which the said body is fitted.

5 7. A paving element comprising a body formed of viscous material, a covering for the sides of the body, and the said covering terminating inwardly from an edge of the body, whereby portions of the body sides are exposed.

10 8. A paving element comprising a body of asphaltic material having thin layers of protective material upon its op-

posite faces, said layers being arranged to terminate a substantial distance below the top of the body and also below the wear surfaces of the adjacent pavement parts between which the body is fitted. 15

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

EDWARD H. TREBES.

Witnesses:

H. J. SEELY,
C. J. POWELL.