GEORGE H. CHINNOCK.

Improvement in Wood Pavement.

No. 126,521. Patented May 7, 1872.

Fig. 1.

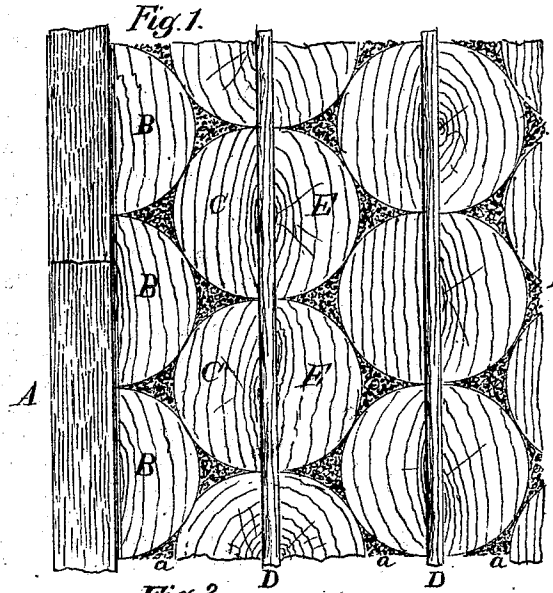


Fig. 2.

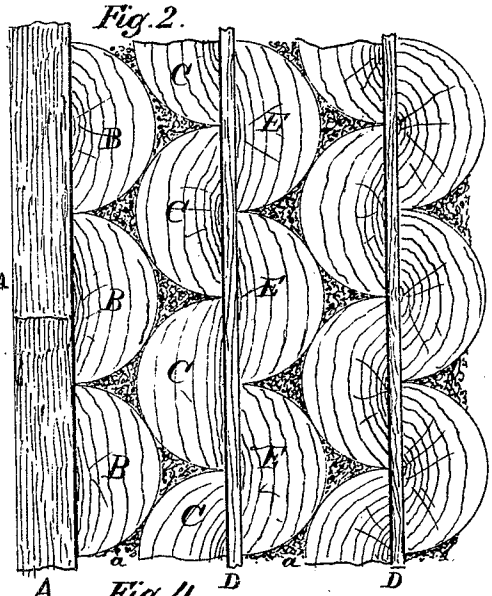


Fig. 3.

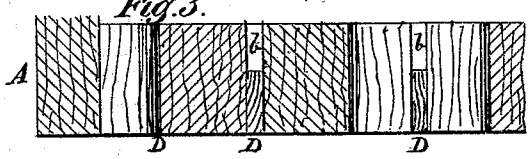
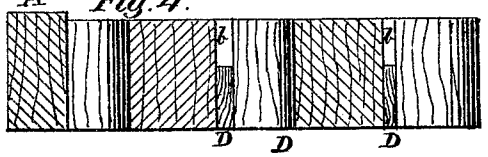


Fig. 4.



Witnesses:

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By James L. Norris.

Atty.

UNITED STATES PATENT OFFICE.

GEORGE H. CHINNOCK, OF NEW YORK, ASSIGNOR TO CHARLES E. EVANS, OF BROOKLYN, NEW YORK.

IMPROVEMENT IN WOOD PAVEMENTS.

Specification forming part of Letters Patent No. 126,521, dated May 7, 1872.

To all whom it may concern:

Be it known that I, GEORGE H. CHINNOCK, of the city, county, and State of New York, have invented a new and useful Improvement in "Combined Concrete and Wooden Pavements," of which the following is a specification:

This invention relates to that class of pavements in which wooden blocks are arranged upon a concrete foundation, the intermediate spaces between which blocks are filled with broken stone or gravel, and the whole covered with an asphaltic composition. Such pavements have, in some cases, been formed by arranging cylindrical blocks in a vertical position upon a concrete foundation, said blocks being continuously placed against each other, the intermediate spaces left being filled with gravel or broken stone, and the entire top surface covered with an asphaltic composition; or in other cases, blocks of rectangular shape have been employed and arranged upon a concrete foundation in rows, having between each row small strips, of a length equal to the blocks employed, the said strips being driven down between the blocks so as to act as wedges when the whole is covered with an asphaltic composition. To improve upon such pavements is the object of my invention, which consists in arranging in parallel rows, upon the previously-prepared foundation of a street or sidewalk, semicircular wooden blocks, having interposed between their flat surfaces a separating strip of wood, in such a manner that if the flat surfaces of the blocks located on each side of the strip faced each other, they would represent, in outline, the figure of a circle, the compartments formed between the surfaces of the said blocks, and between the blocks by the separating-strip, being filled with plastic concrete or other composite matter, so as to unite with each other and with the blocks on all sides, the whole, when "set," being bound firmly together and cemented to the foundation, the said separating-strip acting both as a strengthening-brace, and as a guide for placing with facility the blocks in position.

In the drawing, Figure 1 is a top view of a section of the improved pavement, showing the semi-cylindrical blocks arranged on each side of a separating-strip, the voids between each being filled with concrete. Fig. 2 is a similar view, showing the semi-cylindrical blocks arranged on each side of the separating-strip so as to break joint with each other. Fig. 3 is a transverse section of Fig. 1. Fig. 4 is a transverse section of Fig. 2.

In laying this pavement the street or sidewalk is first graded, and the earth made solid or compact by rolling, or by other well-known means. The bed, having been thus prepared, is ready to receive the pavement; but it is preferred to form upon the bed a concrete or other composite foundation, constructed in any of the well-known methods capable of resisting the action of frost.

In the drawing the letter A may designate the curbstone, or a binding-strip, which is arranged transversely with respect to the street, upon the prepared foundation. Against this curb or strip A, vertically upon the foundation, is arranged a row of semi-cylindrical blocks, B, their flat surfaces being next to the said curb or strip A, as clearly shown in the drawing. Next to the curved or side edges of the blocks thus located is placed a second row of semi-cylindrical blocks, C C, so that voids or compartments *a a* are created between each, which voids or compartments will, in outline, be of a form depending upon the manner of placing the same in respect to each other. When this row C is thus arranged, I place vertically against the sides of the blocks a separating-strip, D, which is of a height less than that of the blocks, so as to form a chamber, *b*. Against this separating strip D is arranged another row of blocks, E, their flat surfaces fitting nicely against the side of the said of the said strip D, so that a compartment or space, *b*, is formed between the blocks B C the entire length of the row.

By this means the blocks are arranged in parallel rows, and when all or a portion of a pavement is thus constructed, plastic concrete or other composite material is introduced into the spaces *a* around the semicircular portion of the blocks, which will adhere to said blocks, and when "set" or indurated will be flush with their top surface, and bind all firmly together. The spaces *b*, above the strips D D and between the blocks C E, are likewise filled with concrete flush with the top surfaces of the blocks, by which means, when the concrete adheres to the blocks and indurates, parallel

rows of semi-cylindrical blocks are combined with parallel rows of concrete, said concrete, as before stated, being interposed between the flat surfaces of the blocks, by which means a binding and supporting medium is formed for the blocks, and a foot-hold secured for animals.

The blocks before being placed in position may be assorted, so as to have each of nearly an equal size; but such is not really essential, for if the flat surfaces be placed against the strips, as shown, the voids or compartments between the blocks will be of varying sizes; hence only require larger percentage of concrete.

By the employment of the separating-strips the blocks can be laid with ease and facility, it not being necessary to select the position for each block, as is now required.

By combining the concrete, the separating-strip, and the blocks, in relation to each other as shown, and interposing concrete between the flat surfaces of the blocks, a perfect union is formed, so that all portions are firmly cemented together and to the foundation, and a continuous even top surface produced; and when an asphaltic composition is spread over the surface of the pavement, the interposed concrete will act as a binder or connection for uniting with the same.

The blocks will have a slight conical shape, owing to the growth of the timber employed, or the same may be imparted to them, so that, when placed in position and subjected to tamping, they will bind closely upon and support each other; hence preventing portions from sinking or becoming uneven, due to constant travel and heavy draying. They can be laid upon a concrete or other composite foundation, or upon the bed formed by beveling the street, and the top surface may or may not be covered with an asphaltic or other protecting composition. The blocks will, in some instances, be grooved circumferentially, so as to receive the concrete, which, when "set" in the grooves will prevent the concrete rising above the blocks owing to frost and other causes.

I do not claim arranging triangular or other shaped blocks upon a bed, and interposing on all sides of each small strips of wood so as to separate the blocks to form chambers for concrete, as such is not new; but—

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

The row of concrete interposed between the flat surfaces of the semi-cylindrical blocks C E, and upon the strip which separates the same, the said blocks C E being arranged in relation to the blocks B as shown, and the voids *a* between the circular portion of each block filled with concrete, all arranged as herein shown and set forth.

To the above I have signed my name this 1st day of February, 1872.

GEO. H. CHINNOCK.

Witnesses:

JAMES L. NORRIS,

WM. J. PEYTON.