H. M. STOW.

Wood Pavement.

No 165,695. Patented July 20, 1875.

Fig. 1.

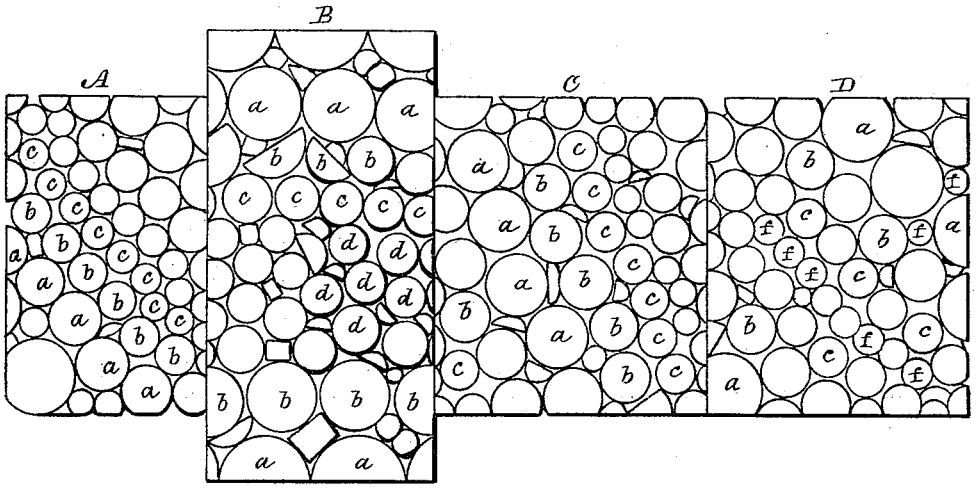
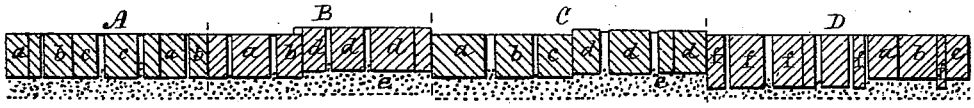


Fig. 2.



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UNITED STATES PATENT OFFICE.

HENRY M. STOW, OF SAN FRANCISCO, CALIFORNIA.

IMPROVEMENT IN WOOD PAVEMENTS.

Specification forming part of Letters Patent No. 165,695, dated July 20, 1875; application filed June 19, 1875.

To all whom it may concern:

Be it known that I, HENRY M. STOW, of San Francisco, in the county of San Francisco and State of California, have invented certain new and useful Improvements in Wood Pavements for Streets, Roadways, &c.; and that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, making a part of this specification, in which—

Figure 1 represents a top plan of my proposed pavement in its several proposed modifications, and Fig. 2 represents a vertical section through the same.

My invention relates to a wood pavement made out of round or split blocks; and its object and purpose are to so arrange, construct, and place such blocks as that those of small end area shall be as capable of sustaining heavy burdens or weights without settling out of place vertically as those of larger areas; and my invention consists, first, in selecting and laying in rows or sections such blocks, round or split, as are of uniform end areas, or nearly so, so that each and every block will be capable of sustaining, without sinking, a uniform or equal weight with those around or adjacent to it; and my invention further consists in setting the blocks of lesser end area upon a higher bed or base than those of greater end area, and then driving the former down to the level of the latter, whereby the sand, gravel, or earth under the blocks of lesser area become more compact and solid than that under the blocks of greater end area; and my invention further consists in using, in round or split block wooden pavements, where blocks of varying end areas are laid in mixed or miscellaneous order, blocks that are increased in length as they diminish in end area, so that those of lesser area may be driven farther into the bed, and so become capable of enduring greater weight without sinking.

To enable those skilled in the art to make and use my invention, I will proceed to describe the same with reference to the drawings, which represent modifications of the several constructions, which may be availed of in carrying out my general plan.

In the example shown at A the round blocks are shown of uniform length, but of varying diameter—say, of from two or three to ten inches in diameter. These blocks, after having been sawed, are assorted, so as to keep those of uniform, or nearly so, diameter, together. These assorted blocks are then laid down upon their sand or other foundation in rows or sections diagonally or straight across the roadway, so that those of uniform, or nearly so, end surface shall constitute such rows or sections as shown at *a a a*, *b b b*, and *c c c*, in which condition they will maintain greater uniformity and smoothness of surface; and the blocks of smaller diameter may be laid in the central portion of the roadway, and the larger ones at the curb, or vice versa; but I prefer the smaller ones in the center, as the jar or pounding motion of carriages or wagons drawn over them is less and more regular what there is of it, while their capacity to sustain weight is also uniform, and so too is the maintenance of their surface more uniform. The usual sand or gravel and chinking between the blocks, and the ramming or rolling, to make the whole firm and solid, are resorted to, and need not be particularly described.

In the example shown at B the same general plan of procedure is carried out, the only change being that the blocks *d* of smaller end areas are set upon a bed, *e*, of a grade some one or two inches higher than that of the larger ones; and these higher set blocks, when rammed down to the level of the larger ones, have a much more solid and compact foundation under them, and are thus capable of resisting heavy burdens or weights without settling.

In this modification round and split blocks are intermingled, but in lines or groups of comparatively uniform end areas, those of smaller diameters or end areas in the central portion of the structure, and the larger at the sides, which, however, as above stated, may be reversed. The sand and gravel filling and the chinking in are done in the usual way.

In the example shown at C the same general plan of procedure as that at B is carried out, the only change being that the lines, groups, or sections of larger and smaller diametric blocks are alternated across the line of roadway. Here, too, the blocks of lesser end areas are set upon a higher base or grade

of foundation, and then rammed or rolled down to the level of those of greater end areas. The usual filling and chinking are followed, as in the other examples.

In the example shown at D, the same general plan of proceedure is carried out, the only change being that the blocks *f* of smaller end areas are cut an inch or two longer than those of greater end areas, in which case they can be set on the same grade or bed as the larger ones, but will stand higher than the latter. When these longer blocks are driven down to the level of the shorter ones they will stand upon a harder and more compact foundation, and thus be able to sustain, without yielding, as great pressure as the blocks of greater end area. In this case the usual sand and gravel filling, chinking, ramming or rolling are adopted. The chinking in all cases is best done when the space is filled, say, half full of sand, and the chinking driven down against, into, and through the sand, or even into the bed sand or foundation.

When the blocks are laid, rammed, or rolled, sanded or interstitially filled in with gravel and chinked, they are then covered with hot coal-tar, concrete, or composition, such as are known and used in top-dressing wood pavements, again sanded or covered with gravel, and finished.

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

1. In a pavement made of round or split blocks of wood of varied diameters or end areas, the arrangement of such blocks in lines, sections, or groups, so that those of uniform, or nearly so, end areas shall constitute such lines, sections, or groups, whereby each and every block will be capable of sustaining without sinking an uniform or equal weight with those around or adjacent to the same, substantially as described.

2. In a pavement made of round or split blocks of wood of varied diameters or end areas, the arrangement of such blocks in lines, sections, or groups, those of lesser end area being set upon a bed or foundation of a higher grade or level than those of greater end areas, and then rammed down to a level with the other blocks, as and for the purpose described.

3. In a pavement made of round or split blocks of wood of varied diameters or end areas, but of different lengths, the arrangement of such blocks in lines, sections, or groups as that the blocks of lesser end areas, but of greater length, may set upon the same level bed or foundation, and be rammed or driven down to a level with the other larger blocks, so that those of lesser end area setting upon or in a more solid bed will be capable of sustaining, without yielding, as great a weight as the larger ones, substantially as described.

HENRY M. STOW.

Witnesses:
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