H. B. WALBRIDGE.

Stone-Pavement.

No. 197,752. Patented Dec. 4, 1877.

Fig. 1.

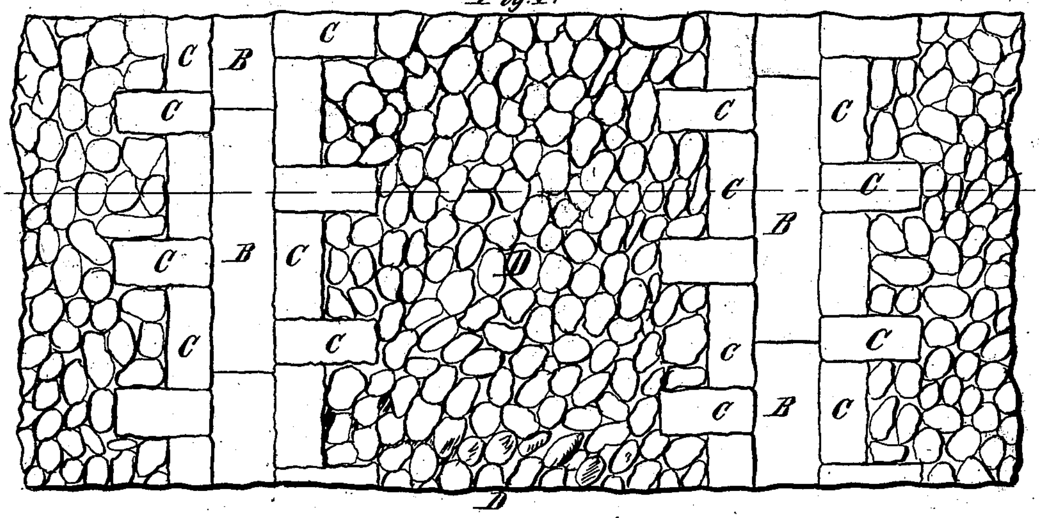
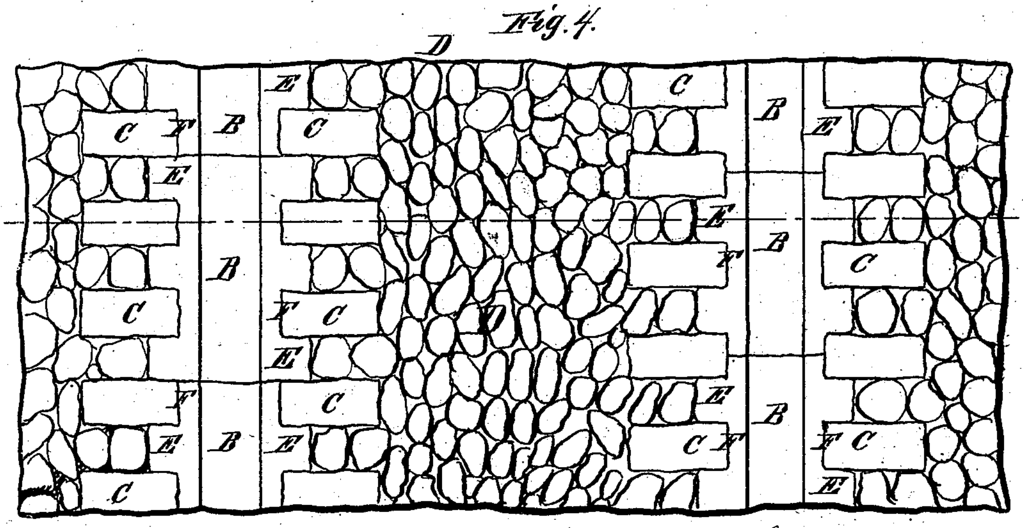


Fig. 2.

Fig. 3.

Fig. 4.



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IMPROVEMENT IN STONE PAVEMENTS.

Specification forming part of Letters Patent No. **197,752**, dated December 4, 1877; application filed September 12, 1877.

To all whom it may concern:

Be it known that I, HENRY B. WALBRIDGE, of Brooklyn, county of Kings, and State of New York, have invented certain new and useful Improvements in Road-Pavements, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, and to the letters of reference marked thereon.

Figure 1 is a plan view of my improved pavement; Fig. 2, a vertical section thereof; Fig. 3, a section exhibiting a modified manner of forming the wheel-track and its borders, and Fig. 4 a plan view thereof.

Like letters in all the figures indicate corresponding parts.

The object of my invention is to provide a pavement for roadways which shall afford a firm and durable foot-hold for horses, a smooth and easily-accessible track and guide for the wheels of vehicles, and which shall at the same time be capable of being laid by ordinary workmen, and taken up for repairs or laying of pipe, &c., the same as ordinary stone pavements.

To accomplish this the invention consists in combining, with a cobble or other rough stone horse-track, a sunken wheel-track of smooth stone or other material, and a bordering of cut or hammered stone for protecting the wheel-track, all of which will be first fully described, and then pointed out in the claims.

The ordinary cobble-stone pavement is regarded as the most durable and cheapest of the regular pavements; but the extreme roughness of its upper surface is a serious objection to its general use upon the most frequented roads of towns and cities. This roughness, however, affords one of the best foot-holds for the horses, and is therefore desirable for many reasons. The asphalt and other expensive composition pavements are mainly objectionable upon the grounds of cost and repairs, and the difficulty with which they are taken up and relaid in the event that it be desired to lay or repair water-mains, gas-pipe, and the like. My improvements are designed to overcome these several objections; and they consist in arranging the component parts of my pavement substantially as follows:

The road-bed A, of sand, gravel, or concrete, is properly and suitably formed to receive the blocks which make up its roadway. Upon this are laid the two wheel-tracks B B, distant from each other about the gage of ordinary wagons and carriages, each having a breadth at top (say about six inches) sufficient to provide for any ordinary variations in the usual gage, and at the same time offer a limited area of smooth surface upon which the horse's foot would be liable to slip, but sufficient room for the uneven travel of the wheel. These wheel-track blocks are preferably of stone, and may advantageously be made of blue-stone flagging, granite, hard sand-stone, &c.

To prevent the wheels from accidentally leaving their tracks, regular granite paving-blocks or other prepared stones are placed upon each side of the tracks B B, their upper surfaces being about two inches above said tracks, thereby affording guidance for the wheels, and an effective protection against rutting along the lines of the stones B B, which are in the direction of the travel. The blocks C C, which in such construction form this protecting border, may be of any desirable size—preferably about four by ten or twelve inches; and in order that they shall be most effective for the purposes intended, they should be placed substantially as in the plan—that is, end to side—or so as to break joints with each other, and thus obviate the formation of ruts, which would otherwise be liable to occur.

It is intended that one or more of these pairs of wheel-tracks shall be placed in each roadway, their relative positions depending upon the circumstances in each case, and the gutters at the sides should be formed as most convenient. These arrangements or features it has not been deemed necessary to illustrate.

Referring now to Figs. 3 and 4, I proceed to describe the construction of said wheel-tracks, with their borders, by the use of flags or blocks of stone, of greater width than the wheel-track, having said track and borders formed on their upper surface by the cutting of a groove therein of the requisite width and depth. Such flags or blocks should be about six or eight inches wider than the wheel-track, and be so notched at about equal interspaces on either side as to admit the insertion therein of paving-stones having a longer surface

than the depth of such notches, so breaking joints, as and for the reason above stated.

E E are the solid blocks, having the notches F F cut therein to receive the prepared stones C C, and B is the sunken wheel-track along the center of the blocks. The notches F F may be cut by any suitable means, and may be variously disposed along the edges of the blocks, preferably so as not to materially weaken them at the ends.

When constructed in accordance with either of the above-described modes, and in good workmanlike manner, this pavement will be found to possess the following points of superiority, viz: A smooth, or practically smooth, surface for the travel of the wheels; a firm and durable foot-hold for the animals; a preventive against the formation of ruts, as in the heretofore-known tramways; ease of access to or withdrawal of the wheels from their tracks; an exposure of a very limited area of smooth surface for contact of the animal's feet; facilities for taking up, relaying, and repairing; and extreme simplicity and cheapness, when considered in connection with the numerous advantages attending its use.

I am well aware of the numerous forms of tramways wherein a smooth wheel-surface is employed in connection with the rougher horse-tracks. These, I desire it understood, are in no manner comprehended by my claims.

In illustration of the true scope of my invention, it may be further stated that the smooth wheel-track may be formed between the border-blocks C C, of asphalt or other composition pavement, laid upon a suitable foundation of stone, wood, or other substance.

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

1. In a pavement of the character herein specified, the combination of the sunken wheel-tracks and the prepared border and guiding blocks, arranged to break joints with each other, substantially as shown, for the purpose of obviating rutting, as specified.

2. The combination of the solid blocks E E with their grooved wheel-tracks B B, their notched sides F F, with the paving-blocks inserted therein, and the cobble-stone horse-track D D, substantially as shown and described.

In testimony that I claim the foregoing I have hereunto set my hand in the presence of two witnesses.

HENRY B. WALBRIDGE.

Witnesses:
CH. E. WINCKELMANN,
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