

UNITED STATES PATENT OFFICE.

CHARLES BURGESS, OF ROCHESTER, NEW YORK.

IMPROVEMENT IN CEMENT WALKS, PAVEMENTS, AND ROADS.

Specification forming part of Letters Patent No. **107,756**, dated September 27, 1870.

To all whom it may concern:

Be it known that I, CHARLES BURGESS, of Rochester, in the county of Monroe and State of New York, have invented a new and valuable Improvement in Cement Walks; and I do hereby declare that the following is a full, clear, and exact description of the composition and construction of the same.

My invention has reference to cement walks and pavements; and it consists in the use and method of putting down the following composition: coarse sand, twenty-five parts; coal-tar, five parts; rosin, four parts; asphaltum, five parts; soap-stone, pulverized, two parts; water, lime, four parts; sulphuric acid, one-eighth part; pulverized slate, two parts.

Having prepared a bed of tarred gravel by rolling it thoroughly, my dressing, composed of the ingredients above named, usually in the proportions given, is laid on about three inches thick and rolled with a hot roller, usually over one-half a ton in weight.

My pavement, in consequence of the use of the hot roller, has no offensive odor, and readily becomes hard, like stone, of which it has very much the appearance. The use of the hot roller also serves to melt down all lumps of tar should there be any on the surface of the walk. After being exposed to the heat of the roller there will be no softening of the composition of the pavement when acted on by the heat of the sun.

A narrow trench is formed on each side of the road-bed by means of a core of planking or otherwise, the earth being rammed thoroughly on each side thereof. The core being then removed, the trench is filled with my composition, thus forming on each side of the road-bed a continuous fender or guard, which will prevent the percolation of moisture to the bed, and entirely obviate the cracking or part-

ing of the cement covering by the action of the frost. These lateral guards of composition should vary in depth according to the climate; but they should in all cases extend below the frost-line.

The soap-stone in the composition will give my walk a grayish, stony appearance, lightening it, and thereby partially reflecting the rays of the sun. It also absorbs, in a great measure, the tar, and assists materially in producing the requisite rigidity. The sulphuric acid serves to counteract and destroy the unpleasant odor of the tar.

The slate also assists to give the stony appearance of the walk, and is regarded as serving chiefly to give the necessary firmness and rigidity. It unites readily with the tar, having a great affinity therefor.

The tar used in the preparation of my composition is prepared by burning. A barrel of tar is placed in a suitable potash-kettle, and exposed to the action of fire for about twenty minutes by igniting the tar. This should be stirred constantly during the burning process.

What I claim as my invention, and desire to secure by Letters Patent, is—

1. Guards or fenders of composition extending downward into the ground on each side of the road-bed below the frost-line, substantially as specified.

2. The composition herein described, when compounded of the ingredients, in the manner, and of the proportions specified, and applied for use as and for the purpose mentioned.

In testimony that I claim the above I have hereunto subscribed my name in the presence of two witnesses.

CHARLES BURGESS.

Witnesses:

J. S. GARLOCK,
WM. T. MOORE.