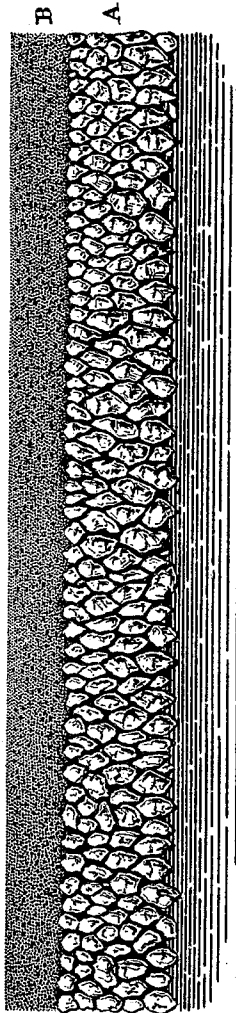


S. R. SCHARF.
ASPHALT SIDEWALK.

No. 176,696.

Patented April 25, 1876.



Attest:
Charles Thurman
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Atty.

UNITED STATES PATENT OFFICE.

SAMUEL R. SCHARF, OF WASHINGTON, DISTRICT OF COLUMBIA.

IMPROVEMENT IN ASPHALT SIDEWALKS.

Specification forming part of Letters Patent No. **176,696**, dated April 25, 1876; application filed March 20, 1876.

To all whom it may concern:

Be it known that I, SAMUEL R. SCHARF, of Washington, in the county of Washington and District of Columbia, have invented a new and useful Improvement in Asphalt Sidewalk; and I do hereby declare that the following is a full and exact description of the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon.

The object of my invention is the production of a smooth and durable concrete asphalt sidewalk; and the novelty therein consists in the manner of making and laying the same, as more fully hereinafter described.

In order that those skilled in the art may be enabled to make my sidewalk, I proceed to describe the same, having reference to the drawing, which represents a vertical section.

In laying my sidewalk, the earth is excavated to a suitable depth and properly rolled, so as to be level and smooth, all soft places being dug out and filled in with hard or suitable material.

Upon this surface thus prepared I place a base, A, constructed as follows: I take screened coarse gravel or broken stone, preferably the latter, in size from one-fourth of an inch to one inch in diameter, and heat the same in any convenient way. When the same is sufficiently heated to a point about the boiling-point of coal-tar, from which about four gallons of what is known as the "heavy oil" in forty gallons of coal-tar have been distilled, I mix with such coarse gravel or stones a sufficient quantity of such distilled coal-tar, (which has been previously heated,) while the same is boiling, to thoroughly coat said gravel or stones.

The gravel or stone thus coated is placed hot upon the ground, prepared as described, to about the depth of one and one-half or two inches, and raked smoothly, and rolled until the same begins to grow stiff.

Upon this base A, as described, I place a top course, B, prepared as follows: I take finely-crushed stone, preferably limestone, and

pass the same through a screen having one-quarter-inch meshes, and heat the same in proper vessels. At the same time I take Trinidad or other natural asphalt, and melt the same in a suitable vessel until it boils. I then mix with the same about one-sixth part, in bulk, of heavy paraffine-oil, and stir in the same thoroughly, keeping the mixture at a boiling heat. The heated fine stone is then stirred into the mixture above described, the heat being maintained under the same, until the composition becomes of a density which will just run and assume a level when poured upon the ground.

This composition is carried hot in suitable vessels and poured upon the base A to the depth of from one-half inch to an inch, and leveled off and smoothed with trowels, smoothing-boards, or other proper appliances. After the same is leveled the surface is dusted with lime, or fine sand, or pulverized soap-stone, or other fine material of similar nature, and smoothed off with smoothing-boards until it begins to set or grow stiff.

When this sidewalk is cold it is fit for use, and will be found to be very smooth and exceedingly durable.

I am aware that a paving composition was patented by A. B. Vandemark in 1871, wherein asphaltum and paraffine-oil, heated together in the same vessel, have been intimately mixed with calcareous stone finely pulverized, and rolled smoothly and solidly, whereby an exceedingly smooth homogeneous pavement, resembling rock, has been produced.

I disclaim the invention described by said Vandemark, which differs from mine, inasmuch as he does not employ asphalt and paraffine-oil in the same proportions, nor mix them at the same temperature, that I do. He uses fine stone-dust, while I use crushed stone. He rolls his pavement to make it hard and smooth, while mine will not permit rolling, and hardens by chemical action; and his pavement becomes very smooth and homogeneous. On the contrary, mine is neither

homogeneous nor smooth, and therefore less slippery and more safe to travel upon in wet or frosty weather.

Having thus described my sidewalk, what I claim as new therein, and my invention, is—

1. The sidewalk composed of the courses A and B, constructed and prepared substantially as described.

2. An upper course for a sidewalk, com-

posed of crushed stone, asphalt, and paraffine, mixed and prepared and laid substantially as described.

This specification signed and witnessed this 18th day of March, 1876.

SAMUEL R. SCHARF.

Witnesses:

M. M. ROHRER,

CHARLES THURMAN.