

UNITED STATES PATENT OFFICE.

J. WARREN BROWN, OF WASHINGTON, DISTRICT OF COLUMBIA.

IMPROVED COMPOSITION FOR STREET-PAVEMENTS AND FOR OTHER PURPOSES.

Specification forming part of Letters Patent No. **86,355**, dated February 2, 1869.

To all whom it may concern:

Be it known that I, J. WARREN BROWN, of Washington, District of Columbia, have invented a new Concrete for Paving Streets, Carriage-Ways, Foot-Walks, and for all purposes where concrete so made may be used; and I do hereby declare that the following is a full description thereof, to wit:

To one barrel of coal-tar add one and one-half pound of gum-shellac and ten pounds of asphaltum; or, to one barrel of pine-tar add one pound of shellac and five pounds of asphaltum; to two barrels of coal-tar and one barrel of pine-tar in combination add three pounds of gum-shellac and twenty pounds of asphaltum; or, to three barrels of coal-tar and one barrel of virgin or common turpentine combined add two and one-half pounds of shellac and twenty-five pounds of asphaltum, and the same relative proportions if only the turpentine, shellac, and asphaltum are combined.

The shellac and asphaltum can be dissolved in either the tar or turpentine by heat, the proportions can be changed or varied, as the locality or any special purpose of its use may require, and the asphaltum may be omitted, especially in very warm or very cold climates, by adding about one-tenth to the quantity of the gum-shellac.

Take finely-broken stone, or stone-spalls, coarse or fine gravel, or sharp sand, separately or combined, in full or in part, and in piles from one foot to three or four feet high, and

when the tar or turpentine, separate or combined, is hot, and the shellac and asphaltum well dissolved, pour the solution onto the piles in small quantities, and, at the same time, shovel or rake the mass so formed until the surface of each stone or gravel is covered with the solution.

The ground should be prepared by excavating when necessary and by tamping or rolling the surface.

For streets or carriage-ways, the mixed concrete should be laid in layers of from two to three inches in depth, the coarse material at the bottom, with a layer of the fine and medium-sized gravel combined for the top or finishing surface.

To make the concrete bond, and to give it solidity, each layer should be well rolled with a heavy roller, the proper number of layers and the depth of the entire mass depending upon the wear and weight it is intended to sustain.

For foot-walks, a sufficient depth will be one layer of three inches, or two layers of one and one-half inch each, of the fine and medium-sized gravel combined.

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

The composition herein described for street-pavements and other purposes.

J. WARREN BROWN.

Witnesses:

WM. P. BROWNE,
A. STOLLER.