

UNITED STATES PATENT OFFICE.

JOSEPH HAY AMIES, OF PHILADELPHIA, PENNSYLVANIA, ASSIGNOR TO THE AMIES ASPHALT COMPANY, OF PHILADELPHIA, PENNSYLVANIA, A CORPORATION OF SOUTH DAKOTA.

ROAD CONSTRUCTION.

945,999.

Specification of Letters Patent.

Patented Jan. 11, 1910.

No Drawing.

Application filed March 3, 1909. Serial No. 481,173.

To all whom it may concern:

Be it known that I, JOSEPH HAY AMIES, a citizen of the United States, residing at Philadelphia, in the county of Philadelphia and State of Pennsylvania, have invented a certain new and useful Improvement in Road Construction, of which the following is a specification.

My improvement has reference to the construction of country roads, and relates in particular to the use therefor of stones such as are abundant in the locality where such roads are being built.

My method of construction follows:—The rock, procured at, or contiguous to the road I am about to construct, is blasted small enough to admit of breaking with sledge and napping hammers. These blasted stones are broken to about six inches in size and are then laid on the bottom grade and well chinked in. If this is well done, no rolling will be required. I now take a batch quantity of the soil readily secured from the bottom or sides of the road and mix it with crushed calcium oxid. The calcium oxid will take up the moisture of the soil and convert it and in slacking will pulverize the lumps of the soil and heat the mass to such a degree as to make it easy to mix when thus heated with asphaltic cement. I immediately place this bituminized soil on the heavy stone base described. An ordinary heavy roller will be sufficient to compress this mass and fasten it firmly to the base.

I have now described a superior road construction, that will meet present demands. The cost of construction and maintenance will be very low. The treatment I give the soil prepares it to receive the asphalt and this association will not rot the asphalt as would be the result by other methods. The calcium oxid will take up the volatile elements of the fluxing oils and of the asphalt and fixes them. I thus practically eliminate aging and make my road surfacing indifferent to changes in temperature.

The process is reduced to utmost simplicity and can be adopted by all road builders. The proportion of asphalt to be used with any given amount of soil cannot be exactly stated because soils differ, but it will not vary much, by weight, from 10% of asphalt, 6% of calcium oxid and 84% of soil.

What I claim is:—

The herein described method of building roads and the like which consists in taking soil and mixing therewith calcium oxid, then mixing with the mass asphaltic cement and the like and then placing the bituminized soil upon a heavy stone foundation, substantially as described.

In testimony whereof I hereunto sign my name.

JOSEPH HAY AMIES.

Witnesses:

WILLIAM J. JACKSON,
S. F. KOCH.