

UNITED STATES PATENT OFFICE.

LORENZO P. TEED, OF ERIE, PENNSYLVANIA, ASSIGNOR OF TWO-THIRDS HIS
RIGHT TO THEO. F. NOBLE AND W. W. LYLE, OF SAME PLACE.

IMPROVEMENT IN PAVING COMPOSITIONS.

Specification forming part of Letters Patent No. **197,685**, dated November 27, 1877; application filed
June 22, 1877.

To all whom it may concern:

Be it known that I, LORENZO P. TEED, of Erie, in the county of Erie and State of Pennsylvania, have invented a new and useful Improvement in Paving Compositions; and I do hereby declare the following to be a full, clear, and exact description thereof.

My invention consists in mixing sand, gravel, slaked lime, and coal-tar in such proportions and in such a manner as to form a compound, which, when placed in molds, will solidify, thereby forming blocks for use in paving streets or walks, or for tiling roofs, or for building purposes of any kind.

My compound is composed of the following ingredients, and in the proportions and compounded in the manner following: Of fine clean sand, clean gravel, and slaked lime, I take equal or about equal parts. These I put in a kettle, and boil them perfectly dry. I then take coal-tar and boil it in another kettle until all the water it may contain is evaporated and much of the gas is expelled. I then mix into the coal-tar, while yet hot, a sufficient quantity of the hot lime, gravel, and sand compound to bring the mixture to about the consistency of mortar fit for use.

While this compound is yet hot, I put it in molds of such form as I desire, and there it is allowed to cool. No pressure is required or applied, for the compound solidifies or "sets" as it cools, and comes from the mold a solid block fit for use for paving or building purposes.

If desirable, the mixture may be spread upon the earth for paving while hot, and then allowed to cool, in place of being first formed into blocks.

The quantities of sand, lime, and gravel may be somewhat varied, but I believe it is best to use them in about equal amounts, and I presume other substances might be added without harm; but the mode of compounding should not be materially altered.

By pouring my compound into molds while hot, or while yet pliable, and thus forming a

block, I am enabled to carry on the business of paving in such a way that the pavement can be laid without filling the street with disagreeable odors, for the work of compounding may be carried on outside of the city, and at points where the sand and gravel can be obtained without transportation. These blocks when thus formed may also become an article of trade, the same as brick and stone now are.

I am aware that blocks of concrete for paving, &c., have been heretofore made; but the compound of which such blocks were made, and the mode of compounding the same, differed very materially from mine, and the blocks were formed by pressure in molds, while my compound will become perfectly solid or set, when cool, without the use of pressure, and this too, whether placed in molds, like cake-dough, to form blocks, or spread upon the road-bed. Thus, by the use of my compound, the use of heavy steam-rollers in paving is avoided, and if blocks are desired no pressing apparatus is required to form them. This quality of my compound arises from the manner of treating the ingredients while being compounded, and also from the quantity of lime and clean sand used.

What I claim as new is—

1. A paving compound composed of lime, sand, gravel, and tar, in about the proportions, and compounded in the manner, substantially as herein set forth.

2. As a new article of manufacture, a paving or building block composed of lime, sand, gravel, and tar, used in about the proportions, and compounded, substantially as described, and allowed to cool and solidify in molds, as set forth.

In testimony whereof I, the said LORENZO P. TEED, have hereunto set my hand.

LORENZO P. TEED.

Witnesses:

JNO. K. HALLOCK,

JNO. D. MCFARLAND.