

UNITED STATES PATENT OFFICE.

NAPOLEON B. HEAFER, OF BLOOMINGTON, ILLINOIS.

IMPROVEMENT IN ROAD-BEDS.

Specification forming part of Letters Patent No. 112,034, dated February 21, 1871.

To all whom it may concern:

Be it known that I, NAPOLEON B. HEAFER, of Bloomington, McLean county, Illinois, have invented a new Mode of Making Road-Beds, of which the following is a specification.

To enable others skilled in the art to prepare the material used by me and to make my improved street and road beds, I describe my process as follows:

The material which I use for street or road beds is fused earth, which I prepare from the present earth, soil, or clay found in place on natural streets or roads. When said streets or roads have been properly graded, as may be necessary, I plow up or otherwise loosen the surface earth to a sufficient depth, and, without any other preparation, pass it through any proper pressing-machines, the same or similar to such as are now in common use for making bricks of moist clay, and I thus reduce the material to blocks. When the earth to be used is deficient in organic matter, or, from any cause, requires a more than ordinarily intense heat for its fusion, I mix with it, before being pressed, a portion of powdered anthracite or other coal in the same quantity and manner as is frequently practiced for burning brick, to assist in intensifying the heat. After the blocks of moist earth have

been thus prepared by pressure, I build them into a kiln on the street, or in the road at the place from which the earth for making the pressed blocks has been taken, distributing through the flues and openings of the kiln, in the manner practiced by the burners of brick-kilns, small quantities of fine-broken anthracite or other coal to furnish additional fuel, and then, proceeding to burn this kiln with fuel in the manner of a brick-kiln, I increase the heat until the pressed blocks are reduced to a state of fusion or semi-fusion. The resulting masses when broken up constitute the material with which I make my improved street or road beds and I break up and spread that material on the street or road where it has been collected and burned with little or no transportation.

Having fully described my mode of preparing and using fused earth for making street and road beds, what I claim as my invention, and desire to secure by Letters Patent, is—

The pulverized matter herein described, when prepared in the manner and of the materials specified, and used to form a road-bed.

NAPOLEON B. HEAFER.

Witnesses:

E. R. ROE,

L. L. HOOVER.