

(No Model.)

G. A. BEDGOOD.
METHOD OF MAKING CONCRETE PAVEMENTS.

No. 510,233.

Patented Dec. 5, 1893.

FIG. 1.

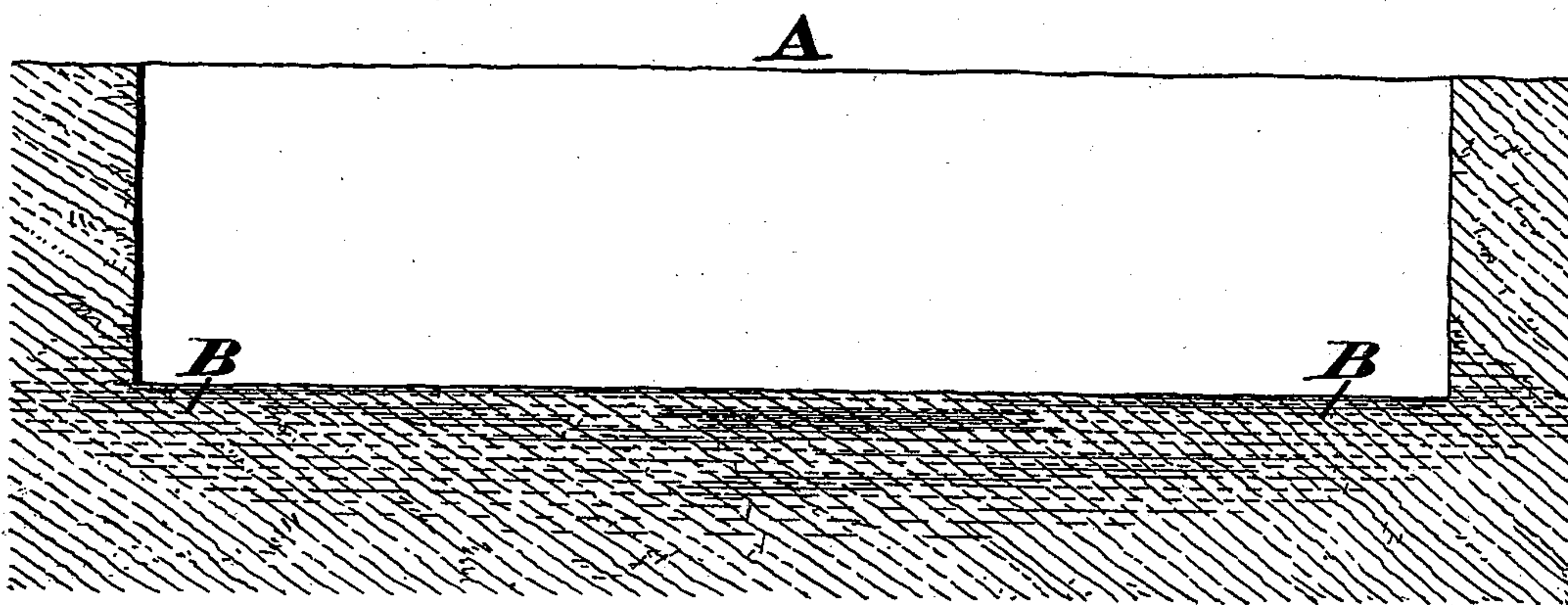
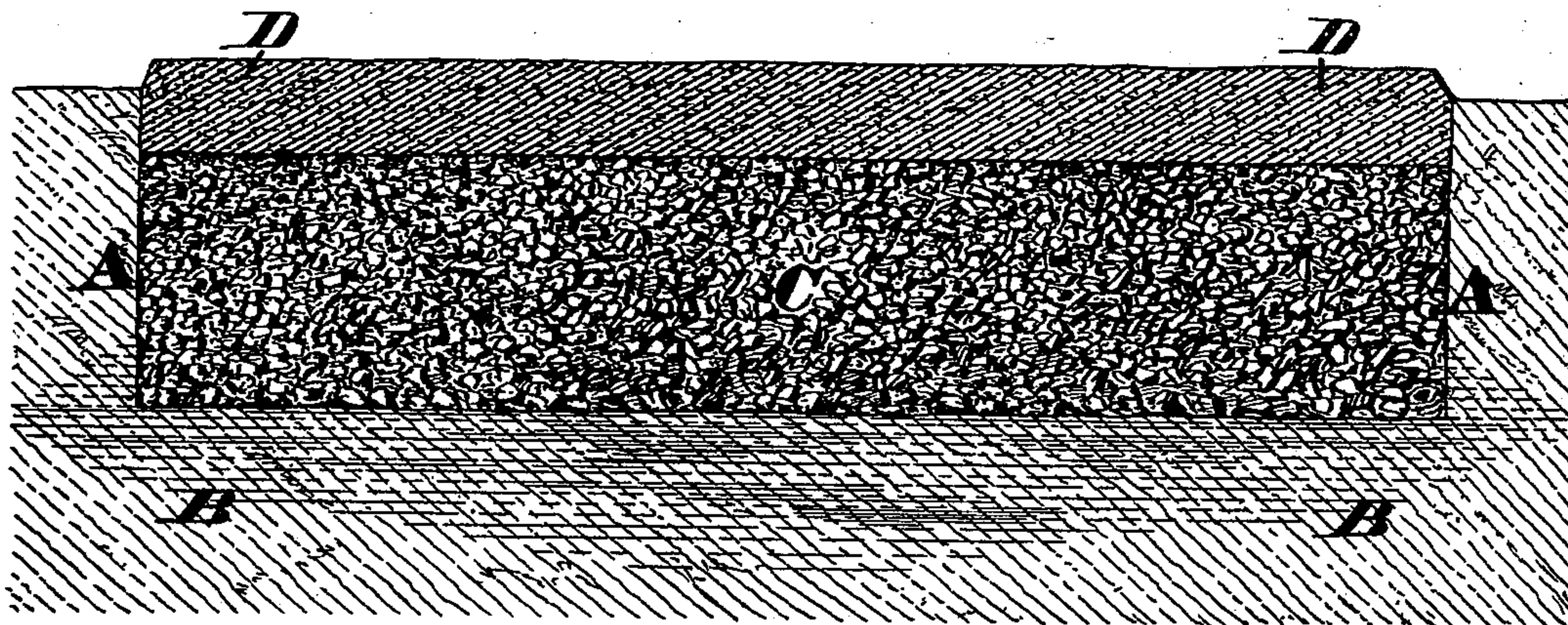


FIG. 2.



Attest.
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METHOD OF MAKING CONCRETE PAVEMENTS.

SPECIFICATION forming part of Letters Patent No. 510,233, dated December 5, 1893.

Application filed June 29, 1893. Serial No. 479,165. (No model.)

To all whom it may concern:

Be it known that I, GEORGE A. BEDGOOD, a citizen of the United States, residing at Cincinnati, in the county of Hamilton and State of Ohio, have invented certain new and useful Improvements in Methods of Making Concrete Pavements; and I do hereby declare the following to be a full, clear, and exact description of the invention.

My invention comprises a novel method of constructing non-freezing concrete-pavements, sidewalks, roadways, &c., the principal steps in this method being shown in the accompanying drawings, in which—

Figure 1 is a cross section of an excavation within which the base of a pavement is to be laid. Fig. 2 is a similar section of a complete pavement.

In order to illustrate my method of making pavements, I will suppose that a sidewalk is to be constructed, in which event the first step will be the digging of an excavation A, of the same length and width as the pavement, and of any suitable depth. The distance the excavation is carried down will be determined by the nature of the ground, but need not exceed six or eight inches, unless the sidewalk is to be laid where frost penetrates a great way. After the excavation is made, its bottom is thoroughly saturated with oil, as indicated at B, crude petroleum being preferred on account of its cheapness, although the invention is not limited in this respect. The oil is poured into the trench without preparing the latter in any manner, so as to preserve a natural foundation for the pavement, which base cannot be injured by frost. The next step consists in filling the trench or excavation almost full of a concrete or grouting C, prepared as follows: I take about equal parts of hydraulic cement, and gravel or pulverized stone, and mix them with a brine composed of twenty pounds of salt and fifty gallons of water, more or less, rock salt being generally used for this purpose. Before this concrete, or other filling, has hardened, I ram it very thoroughly, so as

to produce an even, upper surface, which ramming causes some oil to work up through the interstices of said filling. The concrete C is now covered with a finishing layer of cement mixed with the above-described brine, which last coat D may be two or three inches thick. Portland cement is generally used for this finishing coat, and when it is dried, the pavement is saturated with as much crude petroleum as it will absorb. This act completes the method of construction, and affords a safe pavement to walk upon, as the final coat of oil prevents frost and ice forming on the wearing surface D, and rendering it slippery.

The first or lower coat of oil B performs an important part in preserving the pavement, as it renders it impossible for frost to penetrate the base of the structure.

In preparing roadways for heavy traffic, the excavation A may be two or three feet deep, and the filling rammed therein may be made of rubble instead of gravel. Finally, the cement coating D may be mixed with a coloring medium, so as to add to the finished appearance of the pavement.

I claim as my invention—

1. The within-described method of laying pavements &c., which method consists in making an excavation in the ground, then saturating the bottom of said excavation with oil, and finally packing said excavation with a concrete filling, for the purpose stated.

2. The within-described method of laying pavements &c., which method consists in making an excavation in the ground, then saturating the bottom of said excavation with oil, then packing said excavation with a concrete filling, then covering this filling with a cement coat, and finally saturating said coat with oil, for the purpose stated.

In testimony whereof I affix my signature in presence of two witnesses.

GEORGE A. BEDGOOD.

Witnesses:

JAMES H. LAYMAN,
HENRY VARWIG.