

C. C. F. OTTO.

Pavements.

No. 147,016.

Patented Feb. 3, 1874.

Fig. 1

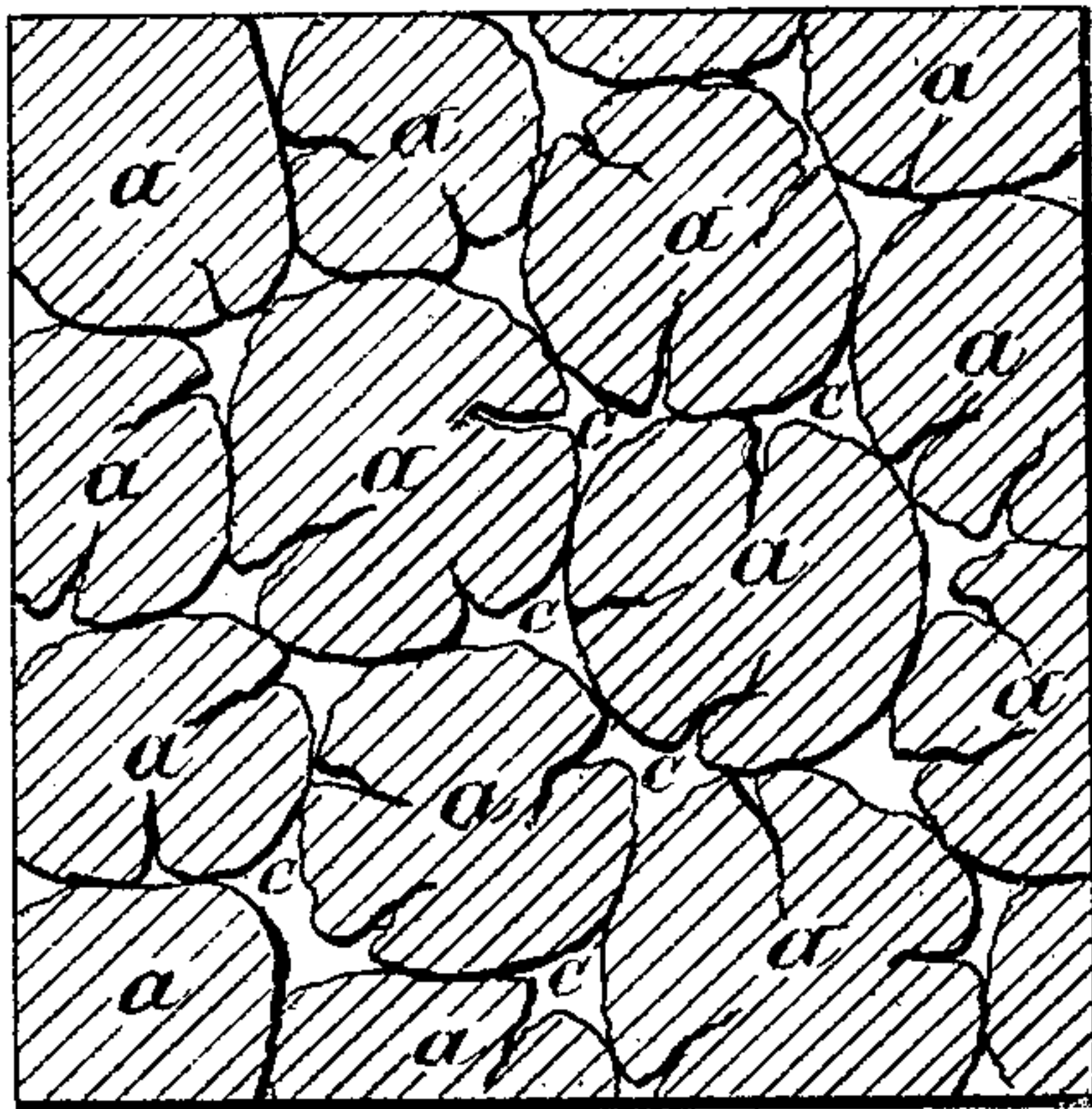
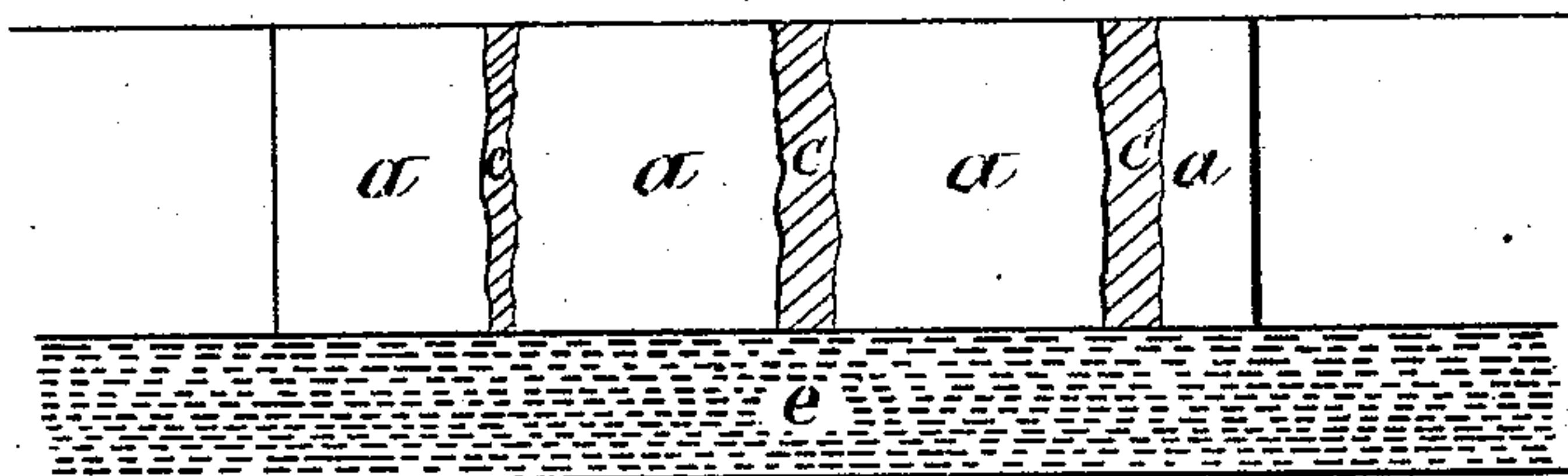


Fig. 2



WITNESSES .

George S. Booth *Carl Christian Ferdinand Otto*
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INVENTOR .

UNITED STATES PATENT OFFICE.

CARL C. F. OTTO, OF SYRACUSE, NEW YORK.

IMPROVEMENT IN PAVEMENTS.

Specification forming part of Letters Patent No. **147,016**, dated February 3, 1874; application filed May 26, 1873.

To all whom it may concern:

Be it known that I, CARL CHRISTIAN FERDINAND OTTO, of Syracuse, in the county of Onondaga, in the State of New York, have invented a new and useful Improvement in Wooden Pavements, of which the following, taken in connection with the accompanying drawings, is a full, clear, and exact description.

The object of my invention is to furnish a material for pavements which shall be firm, durable, and transportable; and it consists in a block or slab made of hard-wood blocks, prepared as hereinafter described, set upon end, and cemented together with a compound of asphaltum, clay, and sand.

In the drawings, *aa* are the hard-wood blocks; *cc*, the compound of asphaltum, clay, and sand.

Figure 1 is a top view of my invention; Fig. 2, a cross-section of the same.

In manufacturing these paving blocks or slabs, the hard-wood blocks *aa* are first saturated with sulphate of iron and ferrocyanide of potassium, (2KCy , $\text{FeCy} + 3 \text{ aqua}$), which process prevents the fermentation of the sap, and preserves the wood. They are then kiln-dried, which causes them to crack and form receptacles for the compound of asphaltum, *cc*. They are then placed in molds, and the heated compound of asphaltum, clay, and sand poured

around and between them, cementing them together, and forming a solid block or slab which is transportable and ready for use in paving.

A pavement constructed of these blocks will be firm and durable, because the wood will swell and the asphaltum shrink when wet, and vice versa, the wood will shrink and the asphaltum swell when heated or dry.

The compound of asphaltum, clay, and sand is made of about the proportion of one-tenth clay, nine-tenths sand, and two parts asphaltum, varying according to the quality of the component parts.

I claim—

The combination of hard-wood blocks, which have been saturated with sulphate of iron and ferrocyanide of potassium, and kiln-dried, as herein specified, with a compound of asphaltum, clay, and sand, for the purpose of forming blocks for paving, substantially as and in the manner set forth.

In testimony whereof I have signed my name and affixed my seal, in the presence of two attesting witnesses, at Syracuse, in the county of Onondaga and State of New York, this 23d day of May, 1873.

CARL CHRISTIAN FERDINAND OTTO. [L. S.]
Witnesses:

GEORGE H. BOOTH,
WILLIAM B. HUBBARD.