S. B. Ellithorp.

Iron Pavement.

No. 15,479. Patented Aug. 5, 1856.

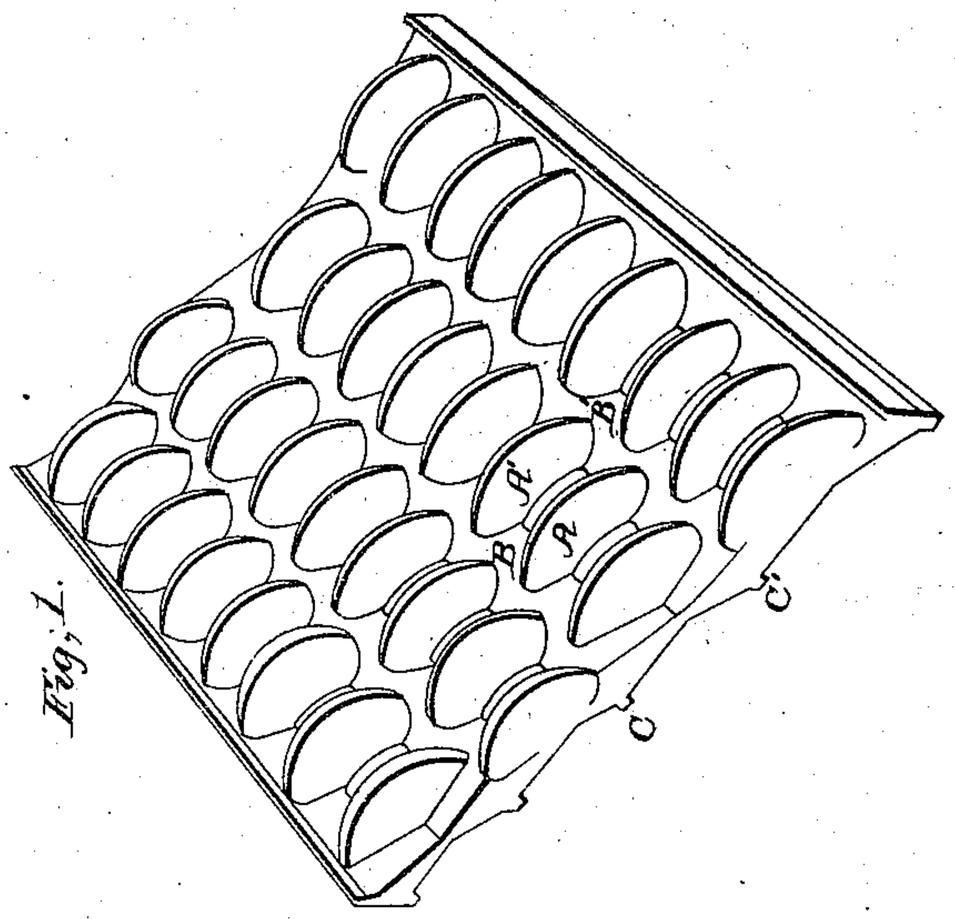

Fig. 1.

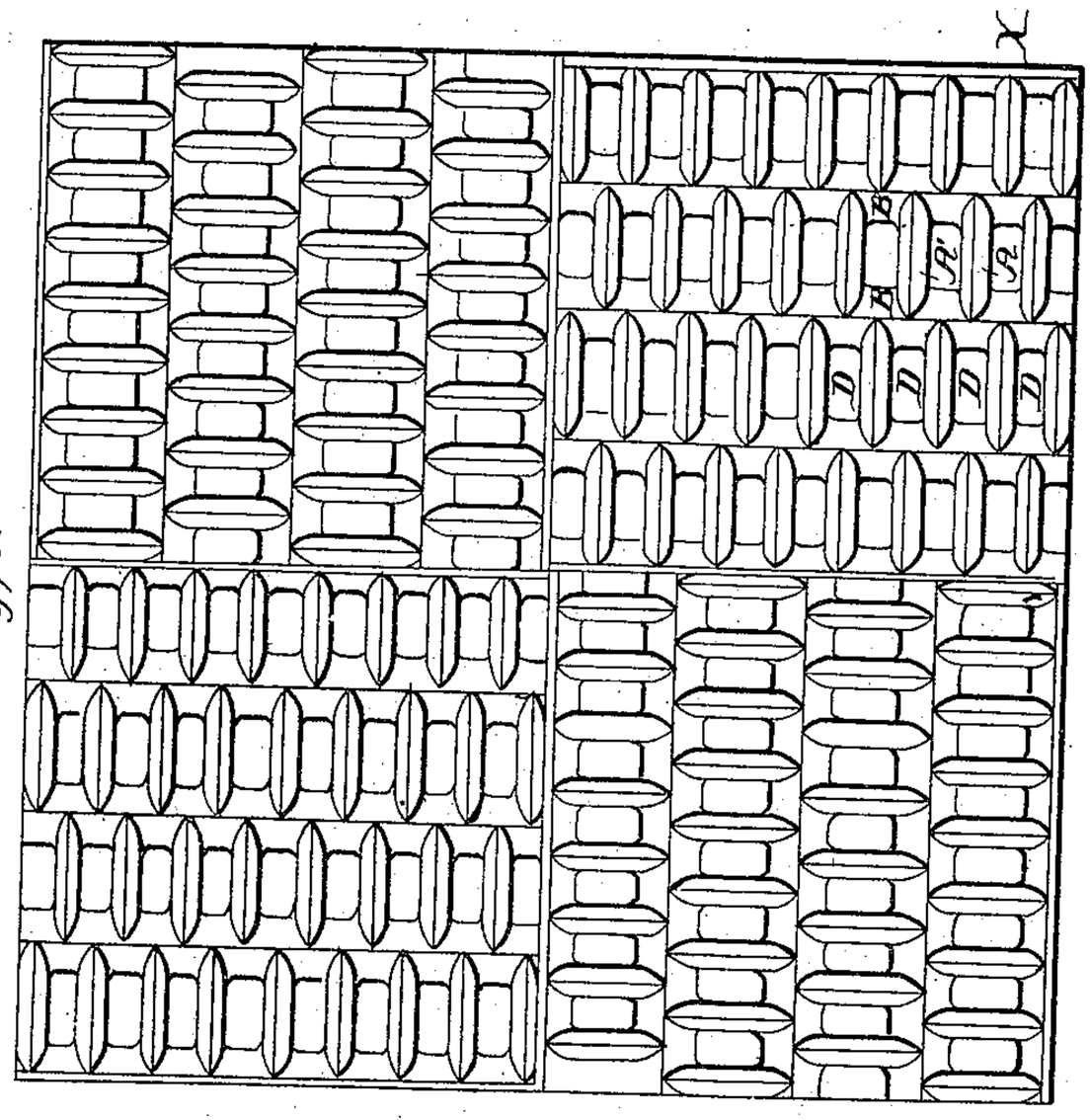

Fig. 2.

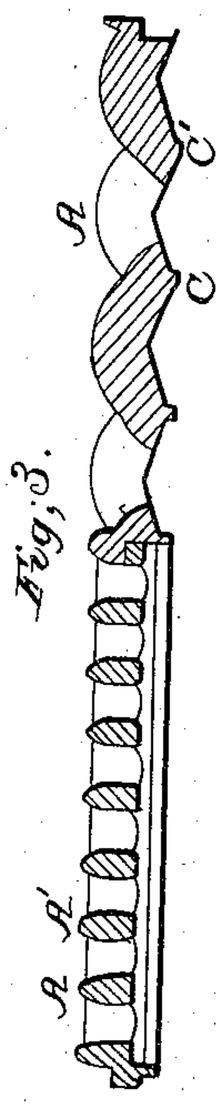

Fig. 3.

Witnesses;
H. Hardy
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UNITED STATES PATENT OFFICE.

SOLOMON B. ELLITHORP, OF NEW YORK, N. Y.

METAL PAVEMENT.

Specification of Letters Patent No. 15,479, dated August 5, 1856.

To all whom it may concern:

Be it known that I, SOLOMON B. ELLITHORP, of the city, county, and State of New York, have invented a new and Improved Metal Pavement; and I do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawings and to the letters of reference marked thereon. .

The nature of my invention consists in a metal block for pavements, made with a series of groined arches that will insure a proper foot-hold to animals traveling over it without being liable to injure their feet, and also present an easy carriage-way for vehicles, and with interstices between the arches, to be filled with cement, gravel or sand for the double purpose of lessening the weight of the block and retaining it firmly in position.

Figure 1, is a perspective view of one of the blocks; Fig. 2, a plan of four of the blocks cast in one piece; Fig. 3, a transverse section through the line *x x* Fig. 2.

The block is formed of a series of groined arches A, A′ springing from the ridge or string-pieces B, B′ and joined together in sections so that their position in each adjoining section alternates. The bottoms of the string pieces have the rabbets C, C′ upon them for the purpose of more firmly compressing the bed in which the blocks are laid to keep them more securely in position. D interstices between the arches, to be filled with cement, gravel or sand (whichever shall be used to form the bed for the blocks to be laid upon) for lessening the weight of metal and the cost of the block, and to retain it more firmly in position.

I make the blocks of cast-iron (on account of its cheapness, durability and the convenience of getting them manufactured) about ten inches square and about two inches deep. They can be laid down with the arches all running longitudinally or all running transversely to the street or road or alternately as shown in Fig. 2, and can be cast in single blocks or in sections of four or more blocks as may be found most economical and convenient in practice. They can be laid down on a bed or foundation of sand or gravel, the same as is used for the common cobblestone pavement, with the center of the street or road bed crowning, so that they will fit tight together when pounded down and traveled over, and need no other securing, or they may be halved into each other, as shown in Fig. 3, when it may be deemed essential to obtain greater firmness.

The interstices between the arches are to be filled up to within a short distance of the crowns of the arches with cement, gravel or sand, leaving the points projecting sufficiently to catch the corks of the horses' shoes when traveling over them, and it will be perceived by an examination of Fig. 2 that it would be nearly a matter of impossibility to avoid catching on some one or more of them, at the same time that the crowns of the arches are sufficiently near together to present a practically continuous track for vehicles. Its advantages are, that it can be made and laid down cheaper than any other form or description of metal pavement in use—is equally durable—affords a better foot-hold for animals passing over it and an equally good carriage-way for vehicles traveling upon it and can be easier taken up and replaced to get at the water, gas or drain pipes in the street or road.

I do not confine myself to the shaped block shown in the drawings, as they may be made hexagonal or octagonal and retain the principle of my improvement.

I do not claim the use of metal blocks for pavements, nor the use of blocks with groined arches without interstices between the arches nor the use of cement, gravel or sand to fill the interstices of metal blocks for pavements, but

What I do claim as my invention and desire to secure by Letters Patent is—

A metal block for pavements formed of a series of groined arches alternating in position and connected to ridges or string pieces, with interstices between the arches to be filled with cement, gravel or sand as herein described.

S. B. ELLITHORP.

Witnesses:
H. HARDING,
M. HASKELL.