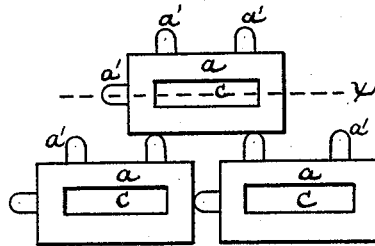


(No Model.)

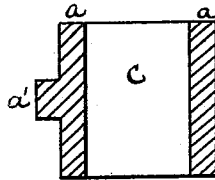
J. S. SCHAEFFER.  
PAVEMENT.

No. 421,618.

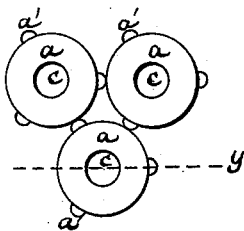
Patented Feb. 18, 1890



*Fig 1.*

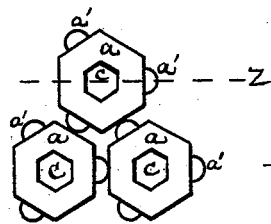
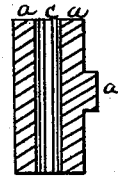


*Fig 2.*



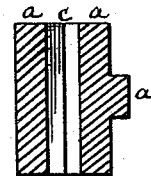
*Fig 3.*

*Fig 4.*



*Fig 5.*

*Fig 6.*



Witnesses:  
E. L. Sherman  
Alfred Gartner

Inventor.  
**John S. Schaeffer,**  
By *His Attorneys, Drake & Co.*

# UNITED STATES PATENT OFFICE.

JOHN S. SCHAEFFER, OF NEWARK, NEW JERSEY.

## PAVEMENT.

**SPECIFICATION** forming part of Letters Patent No. 421,618, dated February 18, 1890.

Application filed August 18, 1888, Serial No. 283,098. (No model.)

*To all whom it may concern:*

Be it known that I, JOHN S. SCHAEFFER, a citizen of the United States, residing at Newark, in the county of Essex and State of New Jersey, have invented certain new and useful Improvements in Pavements; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to letters of reference marked thereon, which form a part of this specification.

The object of this invention is to secure, in the first place, a more thorough and uniform burning and hardening of the brick or block throughout; second, to secure a uniform spacing between the bricks or blocks when laid and to facilitate the laying and spacing of the same, and to secure advantages in other respects over other pavements.

The invention consists in the pavements consisting of bricks or blocks of burned clay, &c., and the peculiar construction and form of paving bricks or blocks, and in their various arrangements and combinations, as will be substantially hereinafter set forth, and pointed out in the claim.

In carrying out my invention I construct my improved bricks or blocks either rectangular, circular, or polygonal, as may be desired, with projections or nibs on the outer sides or edges to secure uniform spacing between them when laid in a pavement. These bricks or blocks are also made with central cavities or hollow centers.

Referring to the accompanying drawings, in which like letters of reference indicate corresponding parts in each of the several figures thereof, Figure 1 is a top plan view of rectangular bricks or blocks embodying my invention, and showing their relation to one another when laid. Fig. 2 is a vertical longitudinal section through line *x*, Fig. 1. Fig. 3 is a top plan view of my improved bricks or blocks made in circular form. Fig. 4 is a vertical transverse section through line *y*, Fig. 3. Fig. 5 is a top plan view of my improved bricks or blocks in a polygonal form; and Fig. 6 is a transverse section thereof through line *z*, Fig. 5.

In said drawings, *a a a* represent bricks or blocks of my improved construction. (Shown in Fig. 1 as rectangular, in Fig. 3 as circular, and in Fig. 5 as polygonal.)

*a' a'* are projections or nibs on the outer sides of the bricks, arranged on one side and one end when of the form shown in Fig. 1, or in three or more places on the outer periphery when the circular form is used, as shown in Fig. 3, or on the outer faces of the sides when the polygonal form is used, as shown in Fig. 5.

*c c c* are central cavities extending entirely through the brick from top to bottom, and of a shape corresponding to the outer edge of the brick, as clearly shown in the drawings, and I find that greater and more perfect effects in the burning and hardening of the brick is obtained. By having this cavity made proportional to the solid part of the brick—as, for instance, in the rectangular form shown in Fig. 1—the width of the cavity is equal to the thickness of either of the sides, in the circular form the diameter of the cavity equal to the thickness of the solid brick ring, and in the polygonal form the width of the opening, as shown on line *z*, Fig. 5, equal to the thickness of the solid brick on the same line *z*.

In laying a pavement with my improved form and construction of bricks or blocks, I first construct a bed or foundation of earth or concrete in the ordinary manner. The bricks or blocks are then laid upon this with their central openings extending from top to bottom and the projections on one brick touching the other, as shown in Figs. 1, 3, and 5. I then fill these central cavities and the intervening space between the bricks or blocks with a composition of asphaltum or coal-tar, or any of the natural products of petroleum, with gravel or sand, which compound can also be mixed with any desired coloring-mixture; or the composition may consist of cement, mortar, or concrete, making a compact mass, and the whole to be thoroughly rammed down with tools adapted for that purpose.

As ordinarily constructed, bricks are made solid, and in burning them in the usual manner the outside receives the greatest quantity

of heat, and necessarily becomes harder upon the outside than they do in the center, thus causing the brick to be of uneven hardness. With my improved construction this objection is obviated, as the brick, being made with a hollow center, is burned uniformly and will be of a uniform hardness, which is of very great utility, as a pavement laid with my improved brick will wear uniformly and not have the unevenness usually found in brick pavements consequent upon uneven hardening from burning.

I do not limit myself to the form or shape of brick or block herein shown or the form or shape of the central cavity, as various changes may be made in both without departing from the scope of my invention.

It is obvious that with my improved bricks a pavement can be laid of any design or figure that may be desired, and the centers and intervening spaces be filled with composition of various colors, so as to produce any effects

in colors or combinations of colors that may be desired.

Having thus described my invention, what I claim as new is—

An improved pavement such as herein described, consisting of bricks or blocks of burned clay or analogous earth with vertically-hollow centers, the width of the said centers being equal to the thickness of the sides of the block, and projections on the outer edges of said blocks, as described, said centers and the spaces between said blocks being filled with a composition, as and for the purposes set forth.

In testimony that I claim the foregoing I have hereunto set my hand this 14th day of August, 1888.

JOHN S. SCHAEFFER.

Witnesses:

OLIVER DRAKE,  
E. L. SHERMAN.