T. NEW.

Paving and Flooring Tiles.

No. 206,601. Patented July 30, 1878.

*Fig. 1.*

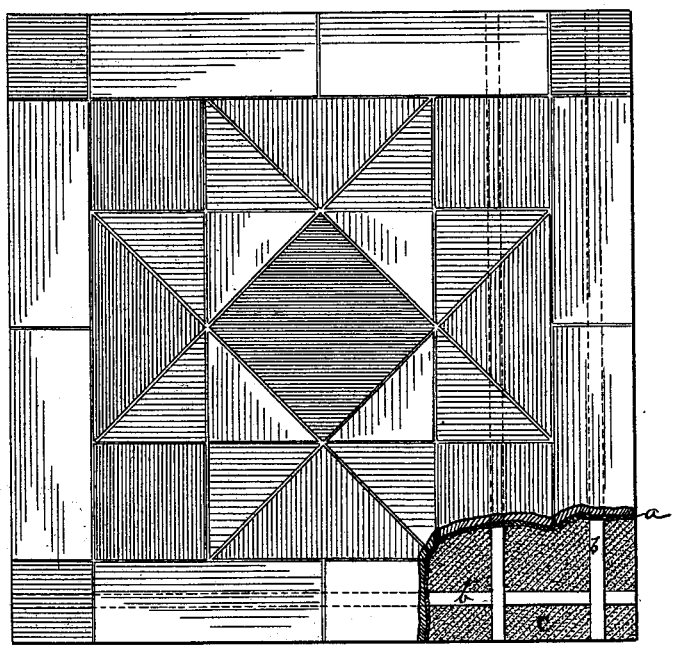
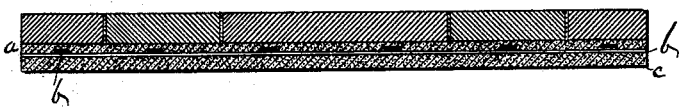



*Fig. 2.*




*Witnesses:*

C. Clarence Poole

Richd. A. Gaus

*Inventor:*

Tobias New

by A. H. Evans & Co

attys

# UNITED STATES PATENT OFFICE.

TOBIAS NEW, OF NEW YORK, N. Y.

## IMPROVEMENT IN PAVING AND FLOORING TILES.

Specification forming part of Letters Patent No. **206,601**, dated July 30, 1878; application filed July 9, 1878.

*To all whom it may concern:*

Be it known that I, TOBIAS NEW, of New York, county and State of New York, have invented a new and Improved Method of Manipulating and Laying Flooring and other Tiles; and I hereby declare the following to be a full, clear, and exact description of the same, reference being had to the accompanying drawing, making part of this specification, in which—

Figure 1 is a plan of a section of the tiles, with a portion broken away to shown the binding-pieces. Fig. 2 is a cross-section of a bound section of tiles.

The object of my improvement is to manipulate by cheap labor, and so reduce the cost of laying small tiles to a minimum, and to entirely do away with the difficulty of nicking or chipping the edges of the tiles, as is done now by the several handlings after they are made before laying. The great objection or drawback to the use of small tiles, which are necessary in the formation of beautiful designs or figures at the present time, is the long time required in laying them and the high price paid for skilled labor.

My invention consists in putting together, for sale or use, small pieces of tiles, to form large blocks or sheets of suitable and convenient size for shipping, handling, and subsequently laying in their final destination.

In order that those skilled in the art may make and use my invention, I will proceed to describe the manner in which I have carried it out.

The design or pattern, which is usually furnished by the architect, will be placed before the operative, who will select the tiles for one portion or section of the design, placing them on a board, face up. (The work will be done on a bench, table, or suitable place for the workman to perform the work with the greatest ease and rapidity.) When he has completed a section of the design as large as will be practicable for transportation, a small curb is placed around them. He will then lay over the tiles so placed a cover, which shall have a plain, smooth, and level surface. The board upon which the tiles were placed and the cover upon the tiles are then reversed. Now, the tiles are lying, face down, upon a level surface. Upon the now upper surface (which is the under surface of the tile) I spread a thin layer of cement, *a*, (usually plaster-of-paris or Portland cement, or cement of an asphaltic nature may be used,) sufficient to fill all of the interstices between the tiles. I then place thin metal strips *b* across the blocks at right angles. Wire in straight pieces or in the form of a screen may be used, but usually thin sheet-metal strips, from two to three sixteenths inch in width, will be found the cheapest and answer the purpose. After these strips are placed another layer of cement, *c*, may be added, which will bond the strips to the tile sufficiently strong to resist breaking by handling, transportation, and laying. The last layer of cement will set in a few minutes, when they may be reversed and left on a smooth surface to harden. Now the tiles will be face up, and if any of the cement should have gone through the joints and spread upon the face-surface of the tiles, it may be sponged off. The next section of the design will now be taken in the same manner as above described, and so on until the whole figure or design for the room, floor, or hallway shall have been constructed. These blocks will be from one to two feet square, and in many cases will contain one hundred or more different pieces, and will require but little if any more time in the laying than would be used to one of the small pieces under the present method.

By my improvement the plain level surface upon which the tiles are placed, face downward, is certain to produce entire uniformity of the whole surface without either level or straight-edge. They are sure to be well and strongly cemented, as the cement must be mixed fresh; consequently they will stay in place and will not loosen by wear. The metal strips placed upon the bottom will materially strengthen and help to keep them in place.

Competent tilers under the present method are very scarce and demand high wages. By my plan any ordinary mechanic can place the blocks on the floor.

Designs for vestibules of houses may be put together in one piece, sent to the building, and laid at about one-fifth of the cost of laying by the present method, besides obtaining better results at the reduced price, thereby

stimulating and increasing the demand for a useful material and industry, of which this country has so large a supply. These blocks or sheets can be boxed for shipment at no greater cost than the loose pieces are now. People in the country can select the design, have the tiles made into the blocks and shipped to them, and they can have their floor put down by one man in less time than ten men could do it the other way. I would put up six-by-six tiles in blocks eighteen by eighteen or twenty-four by twenty-four inches square. The final setting of the blocks (forming the completed floor, &c.) will be on a bed of freshly-prepared cement, evenly bedded, which foundation will not differ materially from that used by the present method.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. As a new article of manufacture, a series of tiles forming a design or a section of a design, and provided with a retaining-backing, substantially as set forth.

2. The method herein described of binding together a series of tiles to place them on the market, consisting in cementing to the under sides of the tiles a series of metallic strips, *b*, substantially as described.

TOBIAS NEW.

Witnesses:
GEO. W. GILBERT,
R. B. POWELL.