

UNITED STATES PATENT OFFICE.

JAMES C. ANDERSON, OF HIGHLAND PARK, ILLINOIS.

ORNAMENTATION OF BRICK, TILE, &c.

SPECIFICATION forming part of Letters Patent No. 271,590, dated February 6, 1883.

Application filed August 10, 1882. (No specimens.)

To all whom it may concern:

Be it known that I, JAMES C. ANDERSON, a citizen of the United States, residing at Highland Park, in the county of Lake and State of Illinois, have invented certain new and useful Improvements in Ornamentation of Brick, Tile, &c.; and I do 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.

My invention relates to the ornamentation of bricks, tiles, building-blocks, and other bodies of clay having uniform or plain surfaces; and it consists in placing the ornament of whatever kind between the faces of the brick or tile as they are being piled or set in the kiln for burning, so that in the burning of the articles the said ornament will be fixed and become a part thereof.

In carrying out my invention I spread or print the coloring matter, of any desired color or combination of colors, on paper or other suitable material, which will be consumed in the firing and burning of the brick or tile, and leave the color or ornament in place and fixed on the face of the article. The bricks or tiles, having been formed in the usual manner, are laid up or set in the kiln face to face upon their edges, in stretching-courses of two or three bricks high, with fire-spaces between the courses, and then like heading or cross courses are laid, as is usual in setting fine pressed brick in the kilns. The ornaments, of whatever kind, are placed between the bricks and in contact with the face, sides, or edges to be ornamented. When the kiln is properly filled the firing takes place, (a down-draft kiln being preferred,) and as the bricks are slightly softened by the evaporation of the water from the brick, or in the act of driving off what is known as the "water-smoke," the bricks being set one upon the other, the combined weight of the mass above is utilized in compressing the ornament, and the bricks will settle down and embed the ornament therein. In the process of firing, the bricks or tiles pass through two softening periods—the one just mentioned, the other when they have reached a degree of heat when semi-vitrification and shrinkage take place. Before reaching the latter point the paper or other material on which the ornament has been placed is consumed, leaving the ornament im-

pressed and permanently fixed on the brick or tile.

I have already spoken of paper as an example of the material on which the ornament or colors are printed or painted, but I do not wish to confine myself to this, for I can use leaves, plants, &c., to receive the body-color, or the leaves, plants, &c., may be saturated or permeated with the coloring-matter in a liquid or semi-liquid state, the pores and surface being filled or covered with the desired color to represent the leaf, plant, &c., when burned, as it is in a state of nature, or in varied and different colors. It will be understood, however, that I can by this process inlay with or ornament with gold-leaf, silver-leaf, or with any thin ornament or metallic colors not affected by the heat, but such as will be fixed or vitrified in the burning.

The paper I use on which to print or paint the design is by preference what is known as "unsized" paper; but I do not wish to confine myself to paper of any kind or to leaves, as it is obvious that sheets of gelatine, wax, and the like may be employed for this purpose.

I do not wish to confine myself to any particular form of ornament, as it is obvious that geometrical figures may be so arranged that a series of bricks or tiles of a certain series will form the design when placed in position, and that ivy-vines and other climbing plants may be brought out with good effect on the wall or floor of a building. Figures, letters, and, in fact, a vast variety of designs, can thus be produced at a comparatively-slight cost.

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

The method herein described of ornamenting bricks, tiles, &c, the same consisting in placing the paper or other material on which the ornament has been previously printed or placed in vitrifiable or metallic colors between the faces of the bricks or tiles to be ornamented as they are stacked in the kiln, and "fixing" the same thereon by the heat which burns or finishes the article.

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

J. C. ANDERSON.

Witnesses:

LILLIE E. ANDERSON,
F. A. BARNES.