

# UNITED STATES PATENT OFFICE.

JAMES C. ANDERSON, OF HIGHLAND PARK, ILLINOIS.

## ORNAMENTATION OF BRICKS AND TILES.

SPECIFICATION forming part of Letters Patent No. 264,505, dated September 19, 1882.

Application filed May 13, 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 the Ornamentation of Bricks and Tiles; 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, reference being had to the accompanying drawings, and to the letters and figures of reference marked thereon, which form a part of this specification.

My invention relates to the ornamentation of bricks and tiles, and has for its object the production of such articles with highly-ornamental surface or surfaces in imitation of mosaic, regular, or irregular designs, plants, leaves, flowers, &c., in a cheap and durable manner.

My invention consists broadly in the application of metallic or other vitrifiable colors to the brick or tile in such a manner that said colors form a part of the body of the brick, or, in other words, are pressed into the clay at the time the brick or tile is formed in the mold.

In carrying out my invention, I spread or print the coloring-matter of any desired figure or design, and 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 coloring-matter in place on the article. The pieces of paper or other material having the design printed, stenciled, or otherwise placed thereon in sufficient quantities to form a body are placed upon the lower die-matrix, or in the bottom of the mold used for forming or molding the brick or tile, with the decorated or printed side upward, the paper being next to the die-matrix or bottom of the mold. The mold is then filled with the clay-powder or tempered clay, and pressure applied in the usual way. By molding the articles in this way the coloring-matter is embedded into the surface of the brick, and practically forms an inlay of the decoration, which inlay of coloring is forced into close unison with the clay, the powdered atoms of the clay being practi-

cally driven into the coloring-matter, so as to interlock with it, and when the ordinary burning process of the brick, tiles, &c., takes place the colors are fused, combined, and fixed in the most effectual manner, being, in fact, one solid body, while the paper or other body to which the colors were originally applied has been consumed in the firing.

I have already spoken of paper as an example of the material on which the colors are printed; but I do not wish to confine myself in this particular, for I use leaves, plants, &c., to receive the body of 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., as it is in a state of nature or in varied and different colors.

It will be understood that the coloring-matter is applied to the paper, plants, leaves, &c., in such quantities as will form a substantial body when it is allowed to dry and become hard, so that when the clay which forms the body of the brick or tile is poured in on the coloring-matter it will not be disturbed or injured thereby.

I may find it expedient and desirable to incorporate in the coloring-matter resinous or other material, so as to harden or give body to the coloring-matter, and then spin or mold such material into the desired forms, which can be placed in the mold and embedded in the article without the use of the paper or other backing; or I may coat sheets of paper or other backing with the coloring-matter, and cut therefrom pieces of the desired configuration.

As before mentioned, the coloring-matter must be composed of the metallic oxides or such refractory fusible colors as will not be burned out in the firing, but will be vitrified; also, will present clear-cut and well-defined lines embedded in the face of the article, which will be readily distinguishable from articles decorated by hand upon the surface, or articles that have had the colors applied after being burned or applied on top of the glaze. By my method, when such articles are glazed the coloring or decoration will be under the glazing. This constitutes an important advantage, ren-

dering such colors or decorations permanent and indelible, and presenting a smooth, even surface.

5 The top die-matrix may be used for pressing in the color; but this would render a second operation of the plunger necessary, and a uniform product could not be so readily made; but by placing the design on the lower matrix or bottom of the mold the product can be made 10 cheaper and better. In some instances it may be desirable to have the articles ornamented on two sides, and when this is required the ornamental design is placed both in the lower and upper matrix of the mold.

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

1. The method herein described of ornamenting bricks, tiles, &c., by embedding into 20 the same an ornamental body of vitrifiable colors during the operation of forming such article.

2. The method herein described of ornamenting bricks, tiles, &c., the same consisting in applying metallic oxides or vitrifiable colors to paper, plants, leaves or other inflammable material in the required design, placing said design in the mold, then filling in the clay and applying the requisite pressure to form the brick and embed the design therein, then 30 burning the articles thus formed, in the usual manner, as set forth.

3. As a new article of manufacture, a brick or tile having the characteristics described, the same consisting in having a body of vitrifiable or other coloring matter forming the ornament or design embedded therein and forming a part thereof, as set forth. 35

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

J. C. ANDERSON.

Witnesses:

LILLIE E. ANDERSON,  
W. H. GRUMLEY.