June 17, 1941. J. A. MADALA 2,246,052

PROCESS OF MAKING MOSAIC

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Fig. 1.

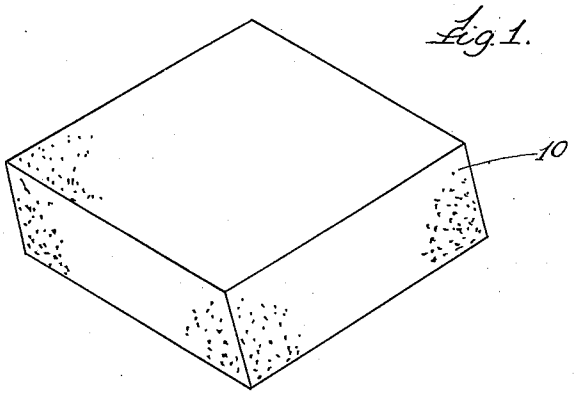


Fig. 2.

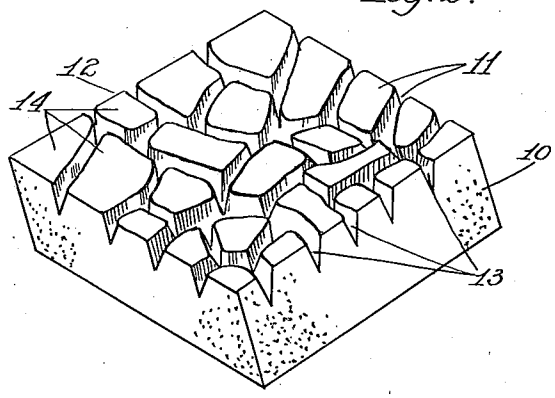


Fig. 3.

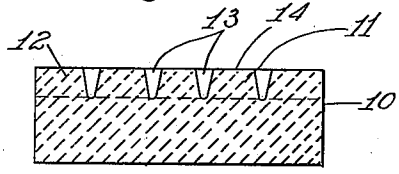


Fig 4

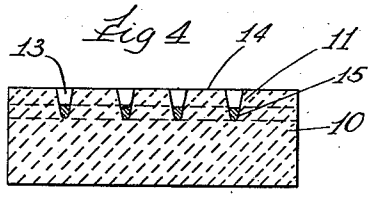
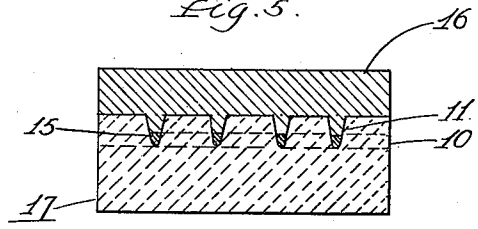


Fig. 5.



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Fig. 6.

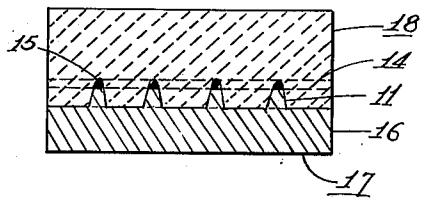


Fig. 7.

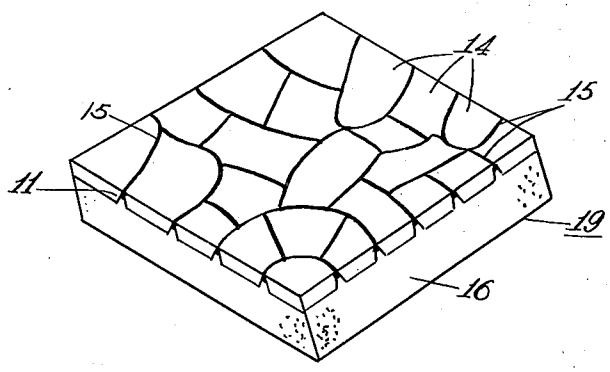


Fig. 8.

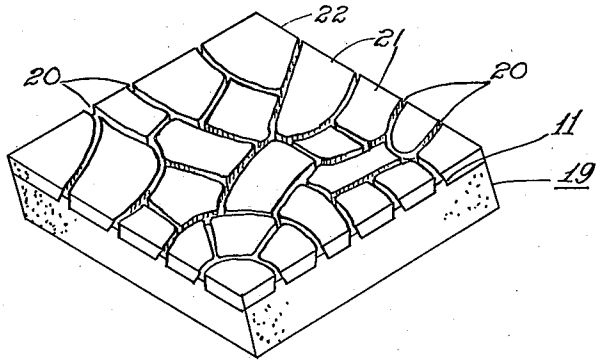
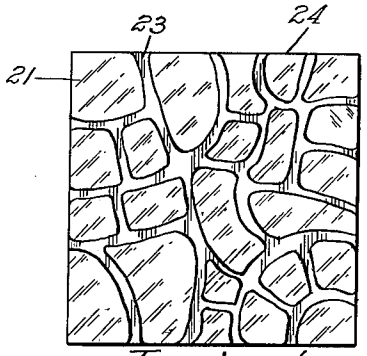


Fig. 9.



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Patented June 17, 1941 2,246,052

UNITED STATES PATENT OFFICE

2,246,052

PROCESS OF MAKING MOSAIC

Joseph A. Madala, Chicago, Ill.

Application November 22, 1940, Serial No. 366,597

7 Claims. (Cl. 41—24)

This invention relates to a process of making mosaic.

Among the objects of my invention is to provide a method whereby mosaic may be made without the necessity of placing each individual piece of the design in place. With my process many separated parts may be formed by means of moulding, routing out or otherwise forming the design. My process achieves greater speed and economy in the formation of mosaic, and provides means for proper duplication of a desired design. Since the parts forming my completed products are spaced by the removal of the burnable cement or other equivalent binding and separating member, my process produces true and not imitation mosaic. Because my process leaves gaps between the spaced parts after removal of the binder-separator, the proper laying of glaze on the parts is facilitated and over-running or contact of the glaze during firing is avoided. The gaps also provide spaces for the receipt of proper finishing cement. My invention also contemplates such other objects, advantages and capabilities as will later more fully appear and which are inherently possessed by my invention.

While I have shown in the accompanying drawings a preferred form of my invention in the process of making mosaic or tile designs, yet I desire it understood that the same is susceptible of modification and change without departing from the spirit of my invention.

Referring to the drawings Fig. 1 is a perspective view of a block; Fig. 2 is a perspective view and Fig. 3 a sectional view of the block after the design has been formed; Fig. 4 is a sectional view of the block after the burnable cement has been added to the grooves; Fig. 5 is a sectional view after the top design bearing surface of the block has been covered by a backing, and Fig. 6 shows the same upside down with the backing as the bottom support; Fig. 7 is a perspective view with the upper excess portion removed; Fig. 8 is a perspective view of the mosaic after the burnable cement has been removed, and Fig. 9 is a plan view of the finished mosaic.

In the preferred form of my process selected to illustrate my invention, I form a block 10 of clay, plastic or any other suitable material, as shown in Fig. 1, and cut, press, mould, or otherwise form a design 11 in its upper portion 12, as shown in Figs. 2 and 3. The design is formed so that there are a plurality of substantially deep grooves 13 extending in desired directions, some grooves intersecting other grooves, and separating areas 14.

I then add a quantity of burnable cement 15 to the grooves 13, as shown in Fig. 4. The burnable cement does not fill the grooves, but is placed at the bottoms of the same.

The top design bearing surface 12 is then covered with a backing 16 of high temperature cement, as shown in Fig. 5. In further steps of my process the article 17 shown in Fig. 5 is turned upside down so that backing 16 becomes the bottom support, as shown in Fig. 6.

The former lower and now upper excess clay or plastic portion 18 is now cut away or otherwise removed down to the now bottom portions of the areas 14, as shown in Fig. 7. The areas 14 are held together by the burnable cement 15 which acts as a binder. The product 19 thus produced is fired in a suitable oven removing the burnable cement 15, leaving interstices 20 between former areas 14, forming segments 21 and presenting a true mosaic 22, as shown in Fig. 8.

The segments 21 are then treated by the adding of chemicals for desired colors; finishing cement 23 is added to the interstices 20 and mosaic 22 is then fired to form the finished mosic 24, shown in Fig. 9.

I have herein suggested burnable cement 15 for use in my process. This material is effective in acting as a binder for the areas 14, thus preventing them from breaking away and destroying the design. Burnable cement is also easily removed by the firing and by its removal leaves the interstices 20 between segments 21. I do not wish however to be limited to burnable cement, and state that any suitable material may be used which will act as a binder and separator for areas 14 and which may be removed. It is within the contemplation of my invention that the binder-separator may be so constituted that its removal may be effected by chemicals including acid, water, pressure, fire, heat or any other means or agent. The step in the process is therefore not necessarily the firing of the product 19, but the treating of the product 19 to remove the binder-separator 15.

Having thus described my invention, I claim:

1. A process of making mosaic comprising forming a desired design with substantially deep grooves separating areas in the upper portion of a block, adding burnable cement to the bottoms of the grooves, covering the upper design bearing portion of the block with a high temperature resisting backing, removing the lower portion of the block down to the bottom portions of the areas bound together by the burnable cement, firing the block to remove the now exposed burn-

able cement to create interstices between the areas to form segments, and firing the block to finish the mosaic.

2. A process of making mosaic comprising forming a desired design with substantially deep grooves separating areas in the upper portion of a block, adding burnable cement to the bottoms of the grooves, covering the upper design bearing portion of the block with a high temperature resisting backing, removing the lower portion of the block down to the bottom portions of the areas bound together by the burnable cement, removing the now exposed burnable cement to create interstices between the areas to form segments, and firing the block to finish the mosaic.

3. A process of making mosaic comprising forming a desired design with substantially deep grooves separating areas in the upper portion of a block, adding a removable binder-separator to the bottoms of the grooves, covering the upper design bearing portion of the block with a high temperature resisting backing, removing the lower portion of the block down to the bottom portions of the areas bound together by the removable binder-separator, removing the now exposed binder-separator to create interstices between the areas to form segments, and firing the block to finish the mosaic.

4. The process of making mosaic comprising forming a clay block, forming a desired design in the upper portion of the clay block with substantially deep grooves separating areas, adding burnable cement to the bottoms of the grooves, covering the upper design bearing portion of the clay block with a high temperature cement, turning the new block so formed upside down with the backing as a bottom support, cutting away the now upper excess portion of the clay block down to the inner ends of the areas bound together by the burnable cement, firing the article so formed to burn away the burnable cement leaving interstices between the former areas forming segments, adding suitable elements for color and glaze to the segments and firing the same for the finished product.

5. A process of making mosaic comprising forming a desired design with substantially deep grooves separating areas in the upper portion of a block, adding burnable cement to the bottoms of the grooves, covering the upper design bearing portion of the block with a high temperature resisting backing, removing the lower portion of the block down to the bottom portions of the areas bound together by the burnable cement, and firing the block to remove the now exposed burnable cement to create interstices between the areas to form segments.

6. A process of making mosaic comprising forming a desired design with substantially deep grooves separating areas in the upper portion of a block, adding burnable cement to the bottoms of the grooves, covering the upper design bearing portion of the block with a high temperature resisting backing, moving the lower portion of the block down to the bottom portions of the areas bound together by the burnable cement, and removing the now exposed burnable cement to create interstices between the areas to form segments.

7. A process of making mosaic comprising forming a desired design with substantially deep grooves separating areas in the upper portion of a block, adding a removable binder-separator to the bottoms of the grooves, covering the upper design bearing portion of the block with a backing, removing the lower portion of the block down to the bottom portions of the areas bound together by the removable binder-separator, and removing the now exposed binder-separator to create interstices between the areas to form segments.

JOSEPH A. MADALA.

CERTIFICATE OF CORRECTION.

Patent No. 2,246,052. June 17, 1941.

JOSEPH A. MADALA.

It is hereby certified that error appears in the printed specification of the above numbered patent requiring correction as follows: Page 2, second column, line 23, claim 6, for the word "moving" read --removing--; and that the said Letters Patent should be read with this correction therein that the same may conform to the record of the case in the Patent Office.

Signed and sealed this 14th day of October, A. D. 1941.

(Seal)

Henry Van Arsdale,
Acting Commissioner of Patents.