To all whom it may concern:

Be it known that I, GEORGE P. CHAPPELL, a citizen of the United States, residing at New York, in the county of New York and State of New York, have invented certain new and useful Improvements in Methods of Forming Ornamental Tiling, of which the following is a full, clear, and exact description, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to the manufacture of tiling for floors, walls, and the like, and in more particular to the construction of ornamental tiling bearing a design.

One of the objects thereof is to formulate an essentially commercial method readily adaptable for the production of different forms of tiling displaying a wide variety of designs in diverse colors, tints, or otherwise.

Another object is to provide a method whereby the construction of tiling of this character will be materially simplified and cheapened, and which will not require complicated tools or the like.

Further objects will be in part obvious and in part pointed out hereinafter.

This invention accordingly consists in the several steps and relations or order of each of the same to one or more of the others thereof, which will be exemplified in the art hereinafter described and the scope of the application of which will be indicated in the following claims.

In the accompanying drawings, wherein is shown one of various methods of carrying out this art, Figures 1 to 3 inclusive indicate the various steps employed in the manufacture of the tiling; and Fig. 4 indicates a perspective view of the completed article.

In carrying out the illustrative method shown, there is preferably first provided a pattern or "master design" 1 which may be formed upon a sheet 2 of any suitable material, as indicated in Fig. 1, said design being preferably of a different color than the remaining portion of the sheet. It may here be remarked that this specific procedure will result in a reversal of the design in the tile; that is to say, the design on the pattern can conveniently be formed the reverse of that required in the completed article. The next step consists in laying upon the design a sheet 3 of transparent material, such as celluloid or glass, the upper surface of which is preferably oiled in order to prevent the cementitious material from adhering thereto, whereby its removal will not be unduly interfered with. It may here be remarked that this oily film also tends to add to the lustre and polish of the resultant tile. After the transparent sheet is in position, a cementitious material 4 in a more or less plastic state is applied to the upper surface of said sheet 3 in registry with the design underneath. If preferred the design may be formed upon one side of a sheet of transparent material to the opposite side of which the cementitious material may be applied, in which instance, of course, the design will be formed as it is to appear on the tile instead of being formed the reverse thereof, as when a separate sheet is used as above described.

While any suitable cementitious material may be employed in the manufacture of the tile, I prefer to use an oxy-chlorid cement such as that described and claimed in Letters Patent No. 703,640, which were issued to me on July 1, 1902.

The cementitious material may be applied in any suitable manner, the preferred way being illustrated in Fig. 2 in which a holder is shown comprising a nozzle 5 and a collapsible body portion 6 which latter may be formed of rubber or other suitable resilient material, and within which the cementitious material is placed. It will of course be understood that by a slight pressure of the hand upon the collapsible portion of the instrument the cementitious material will be forced out through the nozzle. After applying the material as indicated, it is molded or formed, preferably by means of the nozzle of the instrument itself, in such a manner as to completely overlie the design upon the master design sheet. The cementitious material so molded or formed is then permitted to become more or less hardened, after which the surface of the transparent sheet is covered with a cementitious material 7 of a different characteristic to an extent corresponding preferably to the dimensions of the required tile, a suitable frame or mold 8 being used if desired. The cementitious material 7 may, if desired, be colored to correspond to the color of the background or remaining portion of the pattern. This cementitious material is preferably built up to completely cover the previously molded portion, as clearly indicated in Fig. 3. As soon as the material has hardened sufficiently, the tile may be removed from the transparent sheet.
and any suitable disposition thereof made to permit it to thoroughly dry out and harden. The finished tile will have the appearance indicated in Fig. 4 after its removal from the plate 3.

While the illustration shows a fleur de lis, it will, of course, be understood without further description that a design composed of differently colored portions may also be employed, each portion of which will, of course, be covered by a cementitious material which is colored to correspond therewith.

It will be seen from the above that this invention will permit the manufacturing of a tile which will be artistic and ornamental in appearance, and the manufacture of which will be comparatively simple, thus obviating the necessity of skilled labor.

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

1. The herein disclosed method of forming ornamental tiling which consists in providing a sheet of suitable material having a smooth non-adherent upper exposed surface, projecting upon said surface a quantity of a plastic material and causing it to conform to a predetermined outline, then permitting said applied plastic material to acquire hardness without disturbing or operating upon the same, and then-applying to the exposed portions of said sheet and in contact with said hardened mass of plastic material a suitable quantity of some other cementitious material differing in appearance from said plastic material but adhesive thereto, and permitting the same to harden.

2. The herein disclosed method of forming tiling which consists in providing a pattern having a suitable design, placing a sheet of transparent substance upon the same, applying a plastic material upon said substance in registry with said design so as to substantially overlie said design, and applying a plastic material having a different characteristic than said first plastic material but adhesive thereto to a portion of the transparent substance which is not covered by said first-mentioned material.

3. The herein disclosed method of forming tiling which consists in providing a pattern having a suitable design, placing a sheet of transparent substance upon the same, applying a plastic material upon said substance in registry with said design so as to substantially overlie said design, allowing the same to harden, and applying a plastic material having a different characteristic than said first plastic material but adhesive thereto to a portion of the transparent substance which is not covered by said first-mentioned plastic material.

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

GEO. P. CHAPPELL.

Witnesses:
ROYAL W. FRANCE,
P. A. WOLFF.