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METHOD OF COLORING WHITE TRANSPARENT CRUSHED MARBLE, SILICA, OR THE LIKE FOR MAKING COLORED ART MARBLE, TERRAZA, OR THE LIKE

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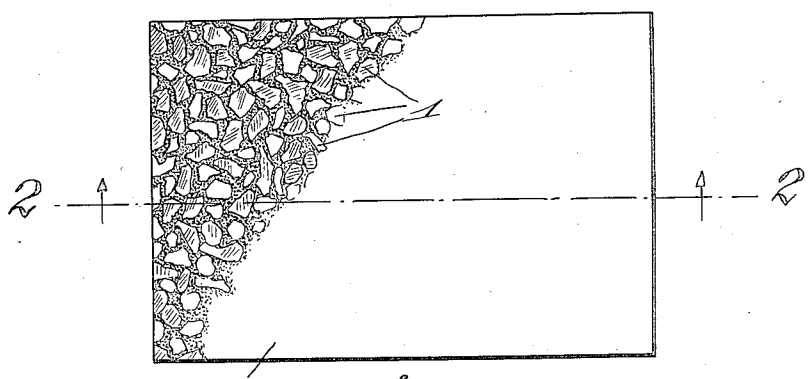


Fig. 1.



Fig. 2.

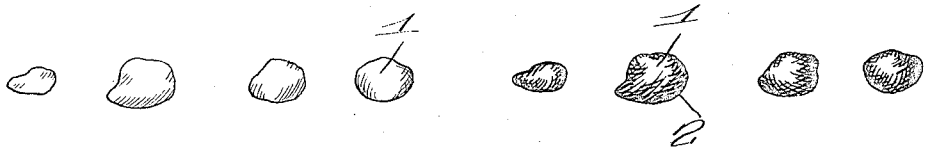


Fig. 3.

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METHOD OF COLORING WHITE TRANSPARENT CRUSHED MARBLE, SILICA, OR THE LIKE FOR MAKING COLORED ART MARBLE, TERRAZA, OR THE LIKE.

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To all whom it may concern:

Be it known that JACOB WEBER, a subject of Yugoslavia, residing at Mansfield, in the county of Richland and State of Ohio, has invented certain new and useful Improvements in methods of coloring white transparent crushed marble, silica, or the like, for making colored art marble, terraza, or the like, of which the following is a specification.

This invention is directed to a method of making ornamental slabs, pillars, or the like in any desired number and arrangement of colors, with any desired mottled or mosaic effect.

It has been heretofore proposed to secure the desired results by molding in a cement or other base small particles of marble or like material of different natural colors, and this method, while fully effective, necessitated the securing of sufficient quantity of the naturally-colored materials. While this is entirely feasible, though expensive, it was objectionable in that the colored materials for the particular work were not always at hand.

It is also imperative in a marble surface that the appearance of transparency of depth be preserved, as otherwise the effect is merely that of a painted surface.

The present method seeks to overcome the objection to previous methods, and to preserve the depth or transparency of the finished product, while permitting the use of any and all colors as may be required, without necessitating the use of naturally colored materials.

In carrying out the method small, irregular or regular shapes of the material required in its natural or white color are employed. These shapes are subjected to a surface coloring, which may be had in several ways. For example a suitable paint or pigment mixture may be applied to these chips, or a liquid cement may be colored the desired color and the chips placed therein until coated. The colored chips are allowed to dry and harden, if cement coloring is used, and then these chips of the various colors required for the particular work are molded into the required form with a cement base. The surface then presents the colored appearance imparted by the colored chips. This surface is then finished by being cut down to an even surface and polished if desired. This cuts off the colored surface of the chips, and again presents the natural or white surface of such chips. The coloring on the back and sides of the chips has not been disturbed, however, and this coloring shows through the transparent or semitransparent chips, and so presents the colored appearance. The elimination of the surface coloring gives the "depth" to the article, and thus fully and completely simulates the naturally-colored material.

Of course, any and all colors are immediately available, and with a requisite quantity of white or naturally colored chips, any and all mottled appearances or mosaics may be readily obtained.

If desired the cement in which the colored chips are molded may be colored, thus giving the effect of a colored base, this also to some extent being reflected through the chips.

Any natural transparent or semitransparent material may be used, as marble, quartz, mica spar, or the like, though with the unusually hard materials the surface is preferably cut and smoothed with an acid, as muriatic acid.

Another object attained by the invention herein described is to provide means of using colored marble or other transparent material for stucco work and the like, and further the method herein described of coloring the marble can be used for the purpose of coloring transparent material for roofing and the like.

The details of the invention are illustrated in the accompanying drawings, in which:

Fig. 1 represents a face view of an article, such as a slab, constructed by the method described.

Fig. 2 is a transverse section thereof.

Fig. 3 represents several chips.

The chips 1, of irregular shape, or of regular shape if preferred, are in natural color, in this instance white. The coloring, represented by the heavy line 2 in Fig. 2, is applied to the outer surfaces of the chips. After the color has hardened, a cement base 3 is supplied with the requisite number of chips of the various colors desired, and molded into the required shape. After hardening the article is surface cut, thus taking off the upper color surface of the chips, as clear from Fig. 2. The remaining color on the bottoms and sides of the chips, indicated by the heavy lines in Fig. 2, will show through the body of the chips and through

the upper uncolored surface, giving the effect of "depth" and naturally enhancing the color effect.

Obviously the chips may be of some regular designed outline, as squares, triangles, or roughly represent figures or articles, and when treated by the present method a desired mosaic effect, with full depth and transparency may be obtained.

Where the chips are colored by the application of colored cement, it is desirable to allow the chips to harden such covering and color by allowing them to set for a day or two to cure, thus causing the colored covering to approach the hardness of the stone to which it is applied.

Having thus described the invention, what is claimed as new, is:—

1. The herein described method, consisting in molding independent and artificially colored chips into an article form, and then finishing the surface of the article by removing the coloring from those portions of the chips at such surface.

2. The herein described method consisting in molding an article having artificially colored independent sections of refractory materials embedded in the surface thereof, and finishing the surface of the article by cutting away the exposed coloring of such materials.

3. The herein described method consisting in coloring independent marble chips, molding such in a cement base to form an article, and cutting away the exposed colored surfaces of the chips, whereby to permit the coloring of the embedded portions of the chips to show through, to provide the effect of transparency and depth.

4. In a process for making slabs for flooring or art stone work, treating cement with a lime-proof coloring material, mixing uncolored marble chips therewith, separating the colored chips, molding the chips so colored into the desired form with a base, and cutting the surface thereof to remove the exposed color of the chips, to permit the color of the embedded portions of the chips to show through such cut surface.

5. The method of using white marble chips in color effects, consisting in coloring such chips by mixing same with cement brought to the desired color, permitting the coloring matter to harden on the chips, molding independent chips of various colors with a cement base into an article, and cutting away the surface coloring of the chips.

6. An artificial stone or like article made up of independent artificially-colored chips of transparent or semi-transparent material embedded in a base, the surface coloring being removed to render the chips transparent to expose the embedded colorings.

7. An artificial stone or like article made up of independent artificially-colored chips of transparent or semi-transparent material embedded in a base, for the purpose of providing material for stucco work or roofing as described and set forth.

In testimony whereof I affix my signature.

JACOB WEBER.