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DECORATIVE TtL SURFACES AND METHODS
OF FABRICATING THE SAME

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This invention relates to improvements in decorative tile surfaces of the type known as "ceramic-mosaics," and methods of fabricating the same.

The surfaces, such as floors and walls, of the ceramic-mosaic type heretofore manufactured and laid have conventionally been composed of a series of tile panels which comprise sections of a floor or wall and are of suitable configuration and dimensions. Each of such sectional panels is in itself composed of a multiplicity of tile units or pieces of suitable shapes including colored design-forming tile units which are arranged in and held together in the panel to form sectional parts of a complete, predetermined floor or wall design. The tile units are conventionally retained in panel formation by mounting the same upon backing or foundation sheets of paper or the like of a dimension similar to aggregate dimensions of the units in the panel. A section of an artistic floor or wall design is produced by an arrangement or positioning of tile units of one or more colors in relation to other tile units of a different color. It is necessary in order to produce the planned design to position or place these panels in a given order relatively to each other, and one of the edges of each of the tile panels has heretofore been identified as the top or leading edge by indicating on the foundation or backing sheets thereof that one of the edges is the top or leading edge which must be properly positioned in order to produce the floor design embodied in the panels. The latter in applying these panels to a floor are instructed to examine this foundation or backing sheet and to apply the panels on the floor with the top or leading edges in a given order or direction for the purpose of producing on the floor the specific design or pattern embodied in the tile panels. Thus, in each panel the design embodied in the tile conventionally was completely predetermined and the identification and positioning of each of the panels in a position relative to other panels which were similarly identified was necessary so that the varying colored tile units of the panels, which, as aforementioned, comprise the design-producing elements, might produce a single specific embodiment design on the floor or wall.

One of the objects of this invention is to utilize panels in the production of a tile floor or wall of artistic design, each of which panels comprises an independent design element capable of uncontrolled and non-sequential integration with other similar design elements in varying positions in the floor or wall.

Another object of this invention is to eliminate the necessity of identifying the top or leading edge of a tile panel.

Another object of this invention is to provide an arrangement in each of the panels of the design-forming elements which will enable the production of a floor pattern having a general artistic design which is capable of modification, without loss of the artistic effect, by varying the relative positioning of the tile panels.

Another object of this invention is the utilization of panels capable of being laid on the floor at random with any one of its edges as the top or leading edge, thus greatly increasing the speed with which the panels may be set by a tile setter.

Another object of this invention is to develop a complete floor design of the tile units which will comprise a free-flowing or meandering floor pattern, and when assembled on the floor this pattern will provide a pleasing appearance, and by avoiding the stated sameness and regularized positioning of lines usually inherent in floors heretofore laid will have an appeal from an artistic standpoint because of its varying and irregular, free-flowing, meandering or unpredictable pattern that is accomplished by setting the panels or sheets on the floor without regard to the laying or setting of one edge of the panel or sheet in the same direction or in a given sequence.

Still another object of this invention is to utilize in the production of a tile floor of the type specified a tile panel having tile units at each of the corners which comprise pivotal points around varying modifications of a free-flowing, meandering and unpredictable pattern hereinbefore specified may be developed without any control whatsoever of the direction in which the tile panels are laid and without any identification of a top or leading edge thereof, and the tile setter is not only not required to examine the reverse side of a tile panel to determine the top or leading edge thereof, but, on the contrary, will be instructed to set or insert the tile panels in any sequence or direction which may occur and without attempting to develop a controlled or predetermined pattern by turning the sheets in such direction as to satisfy an artistic creative urge of his own.

With these and other objects in view, the invention comprises the combination of members and arrangement of parts so combined as to co-operate with each other in the performance of the functions and the accomplishment of the results herein contemplated, and comprises in one of its adaptations the species or preferred form illustrated in the accompanying drawings, in which:

Fig. 1 is a view in plan of a floor composed of a series of identical square tiles embodying the square units colored and positioned to produce modifications of the free-flowing meandering floor pattern illustrated by setting the tile panels with varying edges at the top;

Fig. 2 is a view in perspective of one of the identical tile panels employed in producing the floor illustrated in Fig. 1 and embodying colored tile units so arranged in the panel as to enable production of the free-flowing or meandering pattern shown in Fig. 1 and a series of modifications thereof;

Fig. 3 is a view in plan of the reverse or paper side of the panel shown in Fig. 2;

Fig. 4 is a view in plan showing another floor composed of a series of tile panels shown in Fig. 5, some of which panels are shown in slightly detached relationship;

Fig. 5 is a view in perspective of a square tile panel composed of square tile units arranged to comprise pattern elements adapted to produce as one modification the design of floor shown in Fig. 4;

Fig. 6 is a view in plan of still another form of floor composed of a series of oblong tile panels having square tile units arranged to comprise pattern elements adapted to produce as one modification the design illustrated; and

Fig. 7 is a view in perspective of an oblong tile panel having square tile units comprising design elements for the production of the floor shown in Fig. 6 as one design modification capable of being formed with said oblong panel.

Referring now to the drawings, which illustrate a preferred embodiment of my invention, Fig. 1 illustrates a decorative tile floor of the type conventionally known.
as "ceramic mosaics" and comprises twelve identical square panels which I have numbered 1 to 12 inclusive and which, as shown in assembled condition, embody one embodiment or modification of my irregular free-flowing and meandering pattern capable of being employed on a floor or wall of any size. Such an irregular pattern is embodied in the design shown at Fig. 3, in which there are twelve identical square panels which comprise a multiplicity of square tile units slightly spaced from each other and arranged in a series of squares positioned in horizontal and vertical alignment with each other, and, in accordance with my invention, each panel comprises a position-interchangeable design element having its design-forming tile units so arranged as to enable the panels to be capable of independent or random positioning in relation to other panels to produce a novel floor or wall. My novel panels P by uncontrolled and non-sequential integration in a series of positions relatively to other identical panels will thus produce, when assembled on a floor or wall, one modification or embodiment of a general artistic tile design or pattern for a floor or wall.

In each of such panels, the series of tile-units 14 comprising the same comprise background tile-units 14 and design-forming tile-units 14 and said units 14 and 14 are arranged in the same manner as in the embodiment shown in Fig. 2. This is accomplished by so positioning the said design-forming and background tile units relatively to each other and to the edges of a panel as to produce a novel panel design capable, as aforesaid, of being assembled at random in a floor or wall to produce one member of a series of modifications or embodiments of a general uncontrolled, irregular, free-flowing or meandering pattern such as shown in Fig. 1 and which is adapted to be developed by the setting or positioning of the panels in the floor in a varying sequence and without regard to retaining one edge of the panel always in the same direction which would be necessary to procure a controlled design.

In accordance with the preferred form of my invention, the design-forming tile-units 14 are distinctively colored to distinguish them from the background tile-units 14 and the corners of the panel and the tile-units positioned at such corners always comprise tile-units 14 and these corner tile-units are utilized as pivotal or centrally-disposed design-forming members around which my unpredictable, uncontrolled and free-flowing and meandering pattern is developed when no effort is made to restrict the modification of design through control of the direction of the edges of the individual tile panels. Thus, in the tile panel illustrated at Fig. 2 the corner tile-units 14 and a series of additional design-forming tile-units 14 are positioned at each of the corners of the panel and an arrangement of tile-units in the panel is formed in which design-forming units 14 extend from each of such pivotal corners in a general diagonal direction through background tile-units 14 toward the center of the panel. It will be observed that when such panels are assembled as shown in Fig. 1 varying edges may be used as the floor or wall or the panels may be laid without regard to any controlling of the design by the conventional laying of the panels in a controlled given direction and four of the pivotal design-forming tile-units 14 will provide a center around which the general design is developed and from which additional design-forming units radiate in a general diagonal direction such as shown in Fig. 1.

In Fig. 3 I have shown the reverse side or backing-sheet of the tile panel illustrated in Fig. 2, and it will be observed that such reverse side is devoid of any identification in regard to one edge being the top of the panel. I have on the contrary placed on each edge a different number of a series of symbols that will not interfere with a random application or setting of the panels in a floor or wall, but will, if desired, permit a continuous changing of position of the edges of the panels relatively to each other to enable a setter to procure a series of varying modifications of the general design in floors or walls.

In Figs. 4 and 5 I have shown one modification of another general uncontrolled design of a tile floor or wall formed of panels 16 composed of background units 16 and pivotal tile units 17, the latter of which provide a square center formed of four corner design-forming tile-units with diagonally-disposed design units radiating diagonally therefrom through the background tile-units. In this embodiment, a tile panel 16 is formed which is similar in square configuration to the panel shown in Fig. 2. One uncontrolled assembly of such panel units will produce the design modification illustrated in Fig. 4.

In Fig. 4 five of the panels are arranged in detached relationships to the balance of the floor pattern in order more clearly to show that each of the pivotal corner tile-units is represented in the diagonal design pattern and that when the tile panels are assembled, four of these corner tile-units form an integral central portion of the floor design.

In all other respects the tile-units and panels formed thereby are similar to those shown and described in relation to Figs. 1 and 2.

In Figs. 6 and 7 I have shown another modification of still another general uncontrolled design of a tile floor or wall which is similarly formed of panels 19, each composed of square background and design-forming tile-units 20 and 21 similar to the tile-units of the panels shown in Figs. 1, 2 and 4 and 5. In this embodiment, however, the tile panel 19 is oblong in configuration, but the dimension of the long edges of the oblong tile panel is preferably twice the dimension of the width or relatively short edges of such panel to enable complete interchangeability of such panels in a floor or wall. The design-forming tile-units of Figs. 6 and 7 also include a pivotal corner unit 21 and when the panels are assembled in a floor or wall four of these pivotal corner units provide an aggregate square centered formed of such pivotal design-forming tile-units and additional design-forming units radiate diagonally from this aggregated center through the background tile-units in a manner similar to that shown in Figs. 1, 2, 4 and 5.

In this embodiment, I have shown in Fig. 6 one uncontrolled assembly or modification of the general design embodied in such panel units. This assembly, as shown, embodies six positions-interchangeable panels 19 of the type shown in Fig. 7 disposed in lengthwise positions but it will be understood that because of the dimensional characteristics of these panels some of them might, if desired, be placed crosswise or transversely where others might be positioned vertically. This embodiment is similar to the embodiments hereinafore described.

Having described my invention, I claim:

1. A decorative tile surface of the type known as ceramic mosaics comprising a series of assembled rectangular panel members, each panel member being formed of a backing sheet diagonal bound tiles comprising a multiplicity of square tile units composed of background tile units and design-forming tile units positioned and connected together relatively to each other to form said rectangular panel member, each of said rectangular panel members having at each of its corners a design-forming tile unit provided with a rectangular corner registering with and conforming to the angularity of the corner panel, said design-
5 forming tile units having additional design-forming members extending from said design-forming tile units at the corner of the panel through background tile units toward the middle of the panel, said corner tile units forming, when a series of said panels are positioned in such assembled tile surface, a series of parts of a center of design in one decorative tile surface of an uncontrolled pattern formed of said design-forming units within said background units in such tile surface, said decorative tile surface comprising one member of a plurality of decorative tile surfaces adapted to be formed by said series of panel units.

2. In a method of fabricating decorative tile surfaces of the type known as ceramic mosaics, the steps of forming a tile panel by mounting and arranging on a backing member of rectangular configuration a multiplicity of tile units embodying background units and design-forming units to form an integral part of a complete design of a ceramic mosaic, positioning at least one of said tile-forming units at each corner of each panel to provide in each panel a design-forming corner tile unit adapted upon assembly of a series of panels in a tile surface to produce with other corner tile-forming units a design center composed of the abutting design-forming corner tile units of said series of tiles and around which design center varying modifications of a free-flowing, unpredictable, meandering pattern may be developed irrespective of the direction in which the tile panels are positioned relatively to each other, and setting a series of such tile panels in a random sequence in a finished tile surface to develop therein said uncontrolled, meandering pattern.

3. In a method of fabricating decorative tile surfaces of the type known as ceramic mosaics, the steps of forming a tile panel by mounting and arranging on a backing member of rectangular configuration a multiplicity of tile units, each having an identical rectangular shape and embodying background units and design-forming units to form an integral part of the complete design of a ceramic mosaic, positioning at least one of said rectangular tile-forming units at each corner of each panel to provide in each panel a design-forming corner tile unit adapted upon assembly of a series of panels in a tile surface to produce with other corner tile-forming units a design center composed of the abutting design-forming corner tile units of said series of tiles and around which design center varying modifications of a free-flowing, unpredictable, meandering pattern may be developed irrespective of the direction in which the tile panels are positioned relatively to each other, and setting a series of such tile panels in a random sequence in a finished tile surface to develop therein said uncontrolled, meandering pattern.

4. In a method of fabricating decorative tile surfaces of the type known as ceramic mosaics, the steps of forming a tile panel by mounting and arranging on a backing member of rectangular configuration a multiplicity of tile units, each having an identical rectangular shape and embodying background units and design-forming units to form an integral part of the complete design of a ceramic mosaic, positioning, in a design formation extending in a meandering pattern from each of the corners of said panel through the background tile units toward the center of the panel, at least one of said rectangular tile-forming units at each corner of each panel to provide on each panel a design-forming corner tile unit adapted upon assembly of a series of panels in a tile surface to produce with other corner tile-forming units a design center composed of the abutting design-forming corner tile units of said series of tiles and around which design center varying modifications of a free-flowing, unpredictable, meandering pattern may be developed irrespective of the direction in which the tile panels are positioned relatively to each other, and setting a series of such panels in a random sequence in a finished tile surface to develop therein said uncontrolled, meandering pattern.

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