Nov. 20, 1923. 1,474,779

A. ZUR KAMMER

TILE FOR WALLS, FLOORS, CEILINGS, AND THE LIKE

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Fig. 1.

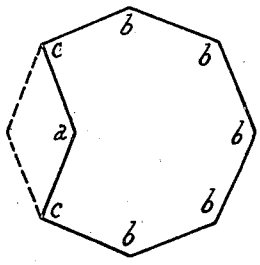


Fig. 2.

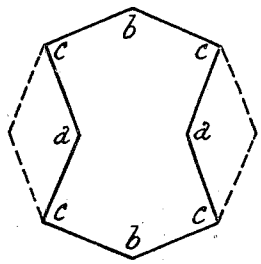


Fig. 3.

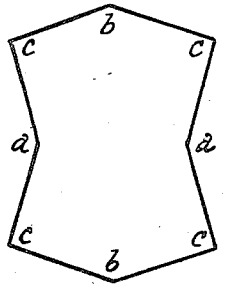


Fig. 4.

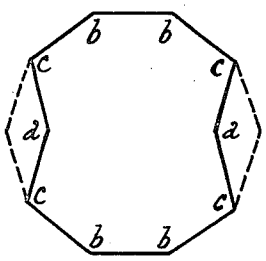


Fig. 5.

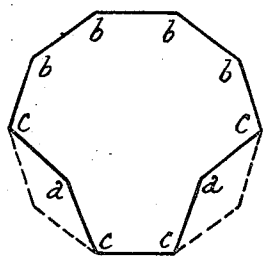


Fig. 6.

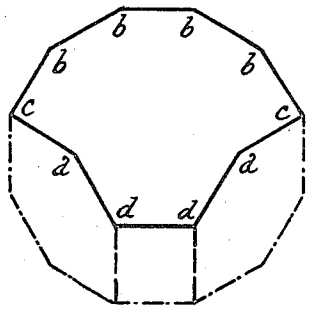


Fig. 8.

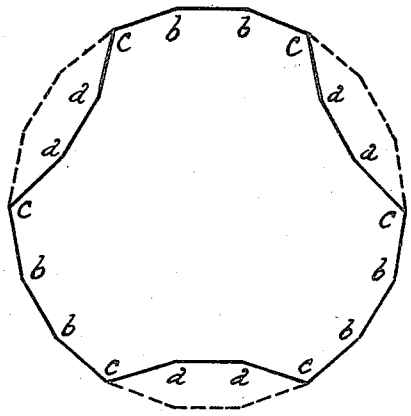
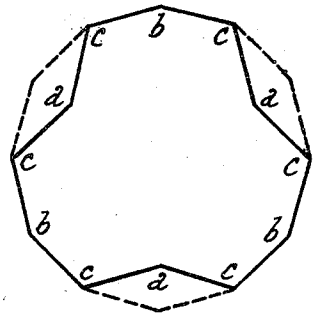


Fig. 7.



Witnesses:

J. H. Stephan

W. J. Peck.

Inventor:

August zur Kammer

Nov. 20, 1923. 1,474,779

A. ZUR KAMMER

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Fig. 10.

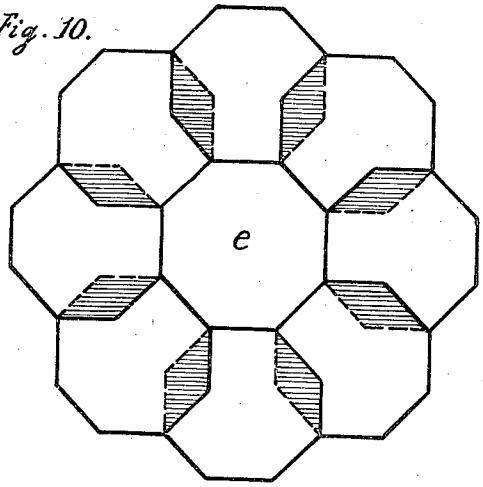


Fig. 9.

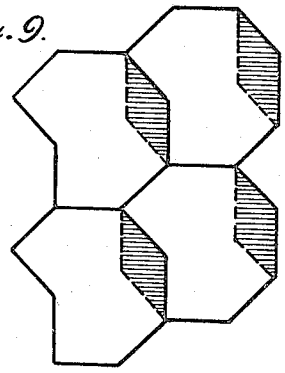


Fig. 11.

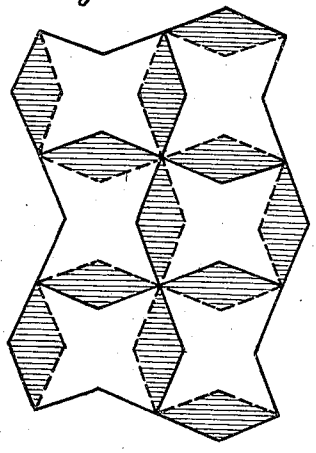
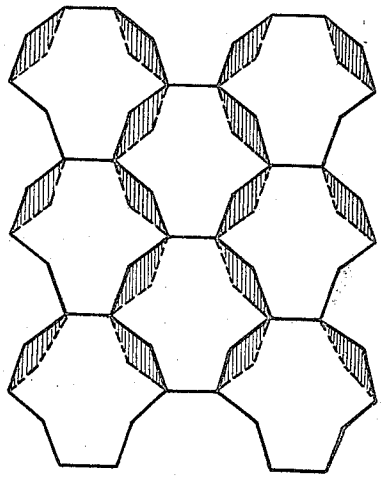


Fig. 12.



Witnesses:

A. A. C. Stephan

W. Peck.

Inventor:

August zur Kammer

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TILE FOR WALLS, FLOORS, CEILINGS, AND THE LIKE

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Fig. 13.

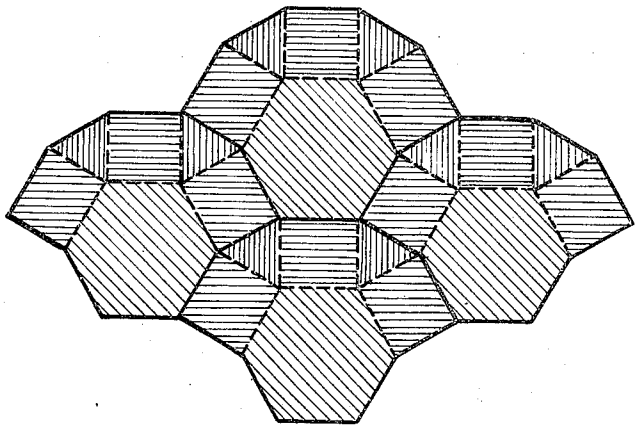
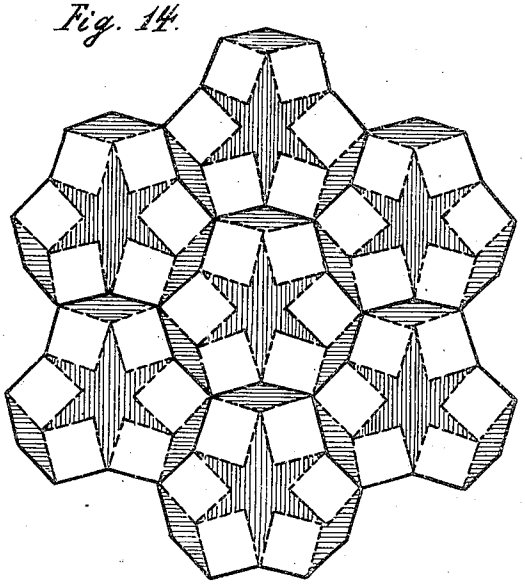


Fig. 14.



Witnesses:

I. H. K. Stephens

W. J. Ch.

Inventor:

August zur Kammer

Patented Nov. 20, 1923. 1,474,779

UNITED STATES PATENT OFFICE.

AUGUST ZUR KAMMER, OF HAGEN, GERMANY.

TILE FOR WALLS, FLOORS, CEILINGS, AND THE LIKE.

Application filed July 8, 1922. Serial No. 573,555.

To all whom it may concern:

Be it known that I, Dr. August zur Kammer, a citizen of the German Republic, and residing at Hagen, Germany, have invented certain new and useful Improvements in Tiles for Walls, Floors, Ceilings, and the like, of which the following is a specification.

This invention relates to a tile surface comprising tiles all of which are of identical shape, each tile consisting of a regular polygon of more than six angles from which equilateral polygons are omitted so as to form reentrant angles which are equal to the outer angles omitted, whereby such tiles when laid on a base will be supplemental to the adjacent tiles and form a continuous surface without requiring an employment of tiles of other shape or of fragment pieces.

The accompanying drawings show, by way of example, plan views of different shapes of tiles constructed according to the present invention, the original shapes of the same being in Figs. 1, 2 and 3 equilateral octagons, in Figs. 4, 5 and 6 equilateral decagons, in Fig. 7 an equilateral dodecagon, and in Fig. 8 an equilateral octodecagon, Figs. 9 to 14 inclusive representing various tile compositions.

In the tile shown in Fig. 1, an equilateral tetragon (rhomb) is omitted from a regular octagon and thereby one reentrant corner is formed, of which the inner angle a is exactly as large as any of the five outer angles b, namely 135°, while the two angles c are 90°.

In the tile shown in Fig. 2, two oppositely located rhombs are omitted from a regular octagon, so that two reentrant corners are formed, of which the inner angles a are exactly as large as the two outer angles b, namely 135°, the four angles c being again 90° each.

The tile shown in Fig. 3 corresponds to that shown in Fig. 2, with the exception that the angles a and b are 150°, that is equal to the angles of a regular dodecagon.

In the tile shown in Fig. 4, two oppositely located rhombs are omitted from a regular decagon, while in the tile shown in Fig. 5 two rhombs separated by one side of the regular decagon are omitted. In both cases, the angles c are 108° each.

The tile shown in Fig. 6 is also an equilateral decagon with two reentrant corners, but derived from a regular dodecagon (see dot-and-dash lines) from which two equilateral hexagons and one square have been omitted, the angles a corresponding to the angles b and being 150° each, while the two angles c are 90° each and the two angles d 120° each.

In the tile shown in Fig. 7, three rhombs are omitted from a regular dodecagon and uniformly distributed, e. g. separated by each two adjacent sides of the latter, the angles a and b being 150° each and c 120° each.

In the tile shown in Fig. 8, three equilateral hexagons are omitted from a regular octodecagon and uniformly distributed, e. g. separated by each three adjacent sides of the latter.

The continuation for the number of sides 24, 30, 36, and so on, follows per se.

As to the formation of the tiles, it may be supposed that the tiles shown in Figs. 2 and 3 are produced by putting an isosceles triangle to the sides of a square alternately outwards and inwards, while those shown in Figs. 7 and 8 are produced by putting an isosceles triangle, or an isosceles trapezoid respectively, to the sides of a regular hexagon alternately inwards and outwards. As a general rule it follows that when putting one and the same plane to the sides of a square as well as of a regular hexagon alternately inwards and outwards, an area can be gaplessly filled-out by means of a plurality of equal figures thus produced.

Fig. 9 represents a gapless composition of identical tiles shown in Fig. 1, Fig. 10 the same composition in groups around a pillar e, Fig. 11 a gapless composition of identical tiles shown in Fig. 2, Fig. 12 a gapless composition of identical tiles shown in Fig. 5, Fig. 13 a gapless composition of identical tiles shown in Fig. 6, and Fig. 14 a gapless composition of identical tiles shown in Fig. 7. Obviously, other compositions lie within the scope of the present invention.

The compositions of identical tiles show few joints only, which, besides, lie at an angle to each other, and smaller angles than 90° do not occur.

By subdividing the upper surface of the tiles in regular sections, such as, for instance, indicated by the dotted lines in Figs.

9 to 14 inclusive, a picture of regular polygonal identical tiles appears in the different compositions, by the parts omitted being figuratively supplemented by the adjacent tiles. Such subdivision can be effected in any appropriate way and fashion.

A particularly effective composition with the aid of such superficial subdivisions is obtained by colouring the subdivisional sections of the tiles in any desired various way and design, as indicated by the different colour lines in Figs. 9 to 14 inclusive.

What I claim, is:

1. A tile surface comprising tiles all of which are of identical shape, each tile consisting of a regular polygon of more than six angles from which equilateral polygons are omitted so as to form reentrant angles which are equal to the outer angles omitted, whereby such tiles when laid on a base will be supplemental to the adjacent tiles and form a continuous surface, substantially as set forth.

2. A tile surface comprising tiles all of which are of identical shape, each tile consisting of a regular polygon of more than six angles from which equilateral polygons are omitted so as to form reentrant angles which are equal to the outer angles omitted, whereby such tiles when laid on a base will be supplemental to the adjacent tiles and form a continuous surface, the upper surface of each tile being so subdivided in regular sections that the parts omitted from one tile are figuratively supplemented by the adjacent tiles, substantially as and for the purpose set forth.

DR. AUGUST ZUR KAMMER.

Witnesses:
S. F. K. STEPHAN.
WM. BETRY.