(19) Europäisches Patentamt
European Patent Office
Office européen des brevets

(11) **EP 1 862 608 A2**

(12) **EUROPEAN PATENT APPLICATION**

(43) Date of publication:
05.12.2007 Bulletin 2007/49

(51) Int Cl.:
E04F 13/02 *(2006.01)* ***E04F 13/14*** *(2006.01)*
E04F 21/04 *(2006.01)*

(21) Application number: **07010414.6**

(22) Date of filing: **25.05.2007**

(84) Designated Contracting States:
AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IS IT LI LT LU LV MC MT NL PL PT RO SE SI SK TR
Designated Extension States:
AL BA HR MK YU

(30) Priority: **01.06.2006 IT MC20060067**

(71) Applicant: **GIVETTI ALESSI, Rossano**
63011 Casette D'ete Di Sant'Elpidio a Mare (AP) (IT)

(72) Inventor: **GIVETTI ALESSI, Rossano**
63011 Casette D'ete Di Sant'Elpidio a Mare (AP) (IT)

(74) Representative: **Baldi, Claudio**
Viale Cavallotti, 13
60035 Jesi (AN) (IT)

(54) **Method for wall covering with old-brick imitation tiles**

(57) A method for covering a wall with old-brick imitation tiles comprises the steps of: using a mould that consists in a container (1) with upper opening; pouring a liquid inside the container (1) to moisten the container walls; spreading a layer of sand (2) on the bottom of the mould so that it adheres on the container walls; filling the container (1) with highly sticky malleable mortar; positioning the container (1) on the wall (P) while the mortar is still malleable; detaching the container (1) from the wall (P) in such a way that a tile (T) adheres to the wall; repeating these steps until the wall (P) is completely covered with tiles (T); and puttying the gaps between adjacent tiles (T).

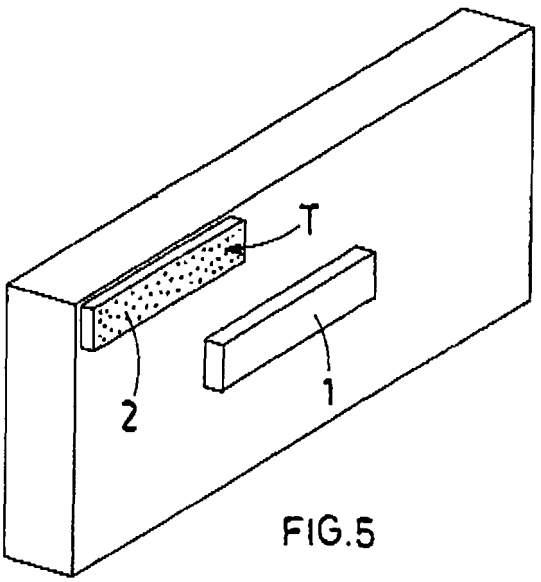


FIG.5

EP 1 862 608 A2

Description

[0001] The present patent application relates to a method used to cover walls with old-brick imitation tiles.

[0002] The method of the invention is one of the building techniques used to cover walls, of the type designed to reproduce the external aspect of old stone or brick buildings.

[0003] The large majority of modern buildings is made of pre-fabricated panels or hollow blocks that are treated on the surface with a layer of coating finished with painting.

[0004] Today, the terra cotta bricks and stone blocks that were commonly used for buildings are getting less and less popular, due to high manufacturing and labour costs, being reserved to special cases, such in the case of the restructuring of old buildings. Whenever the aesthetics of old stone or brick walls is desired, walls are made of concrete or hollow blocks and covered with tiles, with dimensions and surface finish that imitate stone blocks or old bricks.

[0005] The tiles are realised with the same techniques used to manufacture traditional tiles or coating for walls and flooring.

[0006] The said tiles are put in after trimming the walls to be coated, since a smooth, flat surface is required to make the tiles adhere firmly by means of a suitable layer of adhesive.

[0007] However, because of the flat, rigid configuration, the said tiles are not suitable to cover curvilinear walls.

[0008] In a similar case, tiles with reduced dimensions are used to realise a broken line that surrounds the curvilinear profile of the wall as close as possible.

[0009] However, it appears evident that perfectly curvilinear wall covering is impossible to obtain with imitation bricks.

[0010] On the other hand, it is impossible to form covering tiles with a curvilinear profile and different radius, in order to satisfy all types of building requirements.

[0011] Such a possibility is ruled out by the extremely high production costs of customised lots of tiles designed to imitate old stone blocks or terra cotta bricks.

[0012] The purpose of the present invention is to devise a method for wall covering with stone and old-brick imitation tiles, which provides for the use of tiles formed in the building site, in such a way that the said tiles are self-formed on the wall on which they are applied.

[0013] More precisely, according to the said method, the tiles are put in when they are not dried yet and are still able to get plastically formed.

[0014] The self-forming relates both to the curvilinear profile of the tile and to the surface finish of the back side of the tile, that is to say the side designed to adhere to the wall to be covered.

[0015] This eliminates the need to trim the wall perfectly, since wall irregularities, such as small cavities or protuberances, may be compensated by the self-forming of the back side of the tile.

[0016] These and other purposes have been achieved by the present invention, whose main characteristics are illustrated in the first claim.

[0017] The method according to the present invention provides for using a mould consisting in a small container with upper opening, in which a liquid is poured to moisten the walls and favour the detachment of the formed tile.

[0018] The bottom of the container, which has been previously moistened, is covered with a layer of sand, in order to provide a porous finish on the side of the tile that will remain visible.

[0019] After preparing the mould, the same mould is filled with mortar obtained by mixing different components, whose main characteristic is high-stickiness, since the method of the invention provides for gluing the formed tile to the wall to be covered before the mortar dries, that is to say when the same mortar has a high-modelling capacity.

[0020] In view of the above, by placing the mould against the wall to be covered, the tile contained in the mould is adhered to the wall, while the container that houses the tile is separated from the tile thanks to the detachment properties of the liquid or substance used to moisten the internal walls of the mould.

[0021] After removing the container, the tile adheres to the wall showing the side that was previously in contact with the bottom of the mould.

[0022] This side will be permeated by the sand that had been previously spread inside the container.

[0023] Once all tiles have dried, the gaps between the tiles are puttied and the entire surface of imitation bricks is brushed to remove the excessive sand from the tiles, whose surface porosity and irregularity will depend on the quantity and size of the sand used.

[0024] The use of sands with different colours in association with different colours of mortar allows to obtain a numberless amount of chromatic combinations, that is to say a numberless amount of old imitation bricks.

[0025] The method of the invention provides for the perfect covering of a curvilinear wall.

[0026] In such a case, the mould is simultaneously pressed and rotated against the wall to be covered, in such a way that the mortar gradually adheres along the curvilinear profile of the wall. When the mortar dries, a tile with curved profile perfectly following the profile of the curvilinear wall is obtained.

[0027] For major clarity, the description of the invention continues with reference to the enclosed drawings, which are intended for purposes of illustration only and not in a limiting, sense, and illustrate the various steps of the method of the invention.

- Figure 1 is a view of the mould that consists in a container with parallepiped shape.
- Figure 2 is a view of the mould of fig. 1 with a layer of sand on the bottom.
- Figure 3 is a view of the mould of fig. 2 filled with the

mortar used to form the tile for wall covering.

- Figure 4 is a view of the mould positioned against the wall to be covered.
- Figure 5 is a view of a tile that has just been removed from the container.
- Figure 6 is a view of a wall covered with the method of the invention, before brushing the excessive sand from the tiles.
- Figure 7 is a view of a wall covered with the method of the invention, after brushing the excessive sand from the tiles.

[0028] The method according to the present invention provides for using mortar, whose main characteristic is high-stickiness.

[0029] The said mortar can be a prepared product of the type found on the market or can be obtained by mixing different components, such as: water, sand, concrete, lime and colouring agents.

[0030] With reference to the aforementioned figures, the method of the invention provides for:

a) using a mould that consists in a container (1) with upper opening, as shown in fig. 1;
b) pouring a liquid inside the container (1) to moisten the walls;
c) spreading a layer of sand (2) on the bottom of the mould, which adheres on the walls of the mould (as shown in fig. 2), because of the liquid used to moisten the walls;
d) filling the container (1) with malleable mortar (3), as shown in fig. 3;
e) positioning the container (1) on the wall (P) to be covered when the mortar is still malleable, as shown in fig. 4;
f) detaching the container (1) from the wall, in such a way that the tile (T) adheres to the wall, as shown in fig. 5, which shows the grains of sand (2) attached to the surface of the tile (T) facing the observer;
g) repeating the operations from (a) to (f) until the wall (P) is completely covered with tiles (T);
h) puttying the gaps between adjacent tiles (T);
i) finally, cleaning the entire wall made of imitation bricks with a brush to remove the excessive sand attached to the tiles, as shown in fig. 7.

[0031] After brushing, the surface of the tiles (T) will be characterised by irregularity and porosity (4) depending on the quantity and size of the sand (2), providing the aged worn-out look that is typically caused by time and atmospheric agents.

Claims

1. Method for wall covering with old-brick imitation tiles, **characterised by** the fact that it provides for:

a) using a mould that consists in a container (1) with upper opening; 1;
b) pouring a liquid inside the container (1) to moisten the walls;
c) spreading a layer of sand (2) on the bottom of the mould, which adheres on the walls of the mould because of the liquid used to moisten the walls;
d) filling the container (1) with highly-sticky malleable mortar (3);
e) positioning the container (1) on the wall (P) to be covered when the mortar is still malleable;
f) detaching the container (1) from the wall (P) in such a way that the tile (T) adheres to the wall;
g) repeating the operations from (a) to (f) until the wall (P) is completely covered with tiles (T);
h) puttying the gaps between adjacent tiles (T).

2. Method for wall covering with old-brick imitation tiles as claimed in the preceding claim, **characterised by** the fact that it provides for brushing the entire surface of old-imitation bricks, after the puttying operation described in h).

3. Method for wall covering with old-brick imitation tiles as claimed in the preceding claims, **characterised by** the fact that the mortar (3) is a mix of the following main elements: water, sand, concrete, lime and colouring agents.

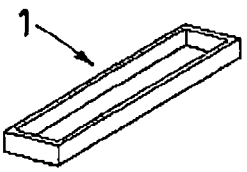


FIG. 1

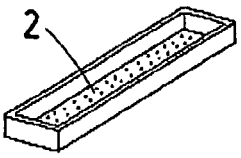


FIG. 2

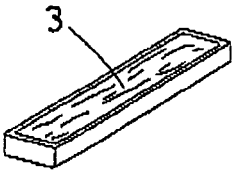


FIG. 3

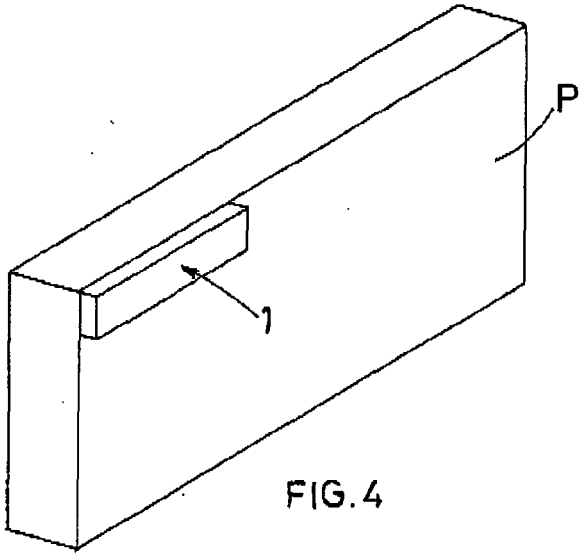


FIG. 4

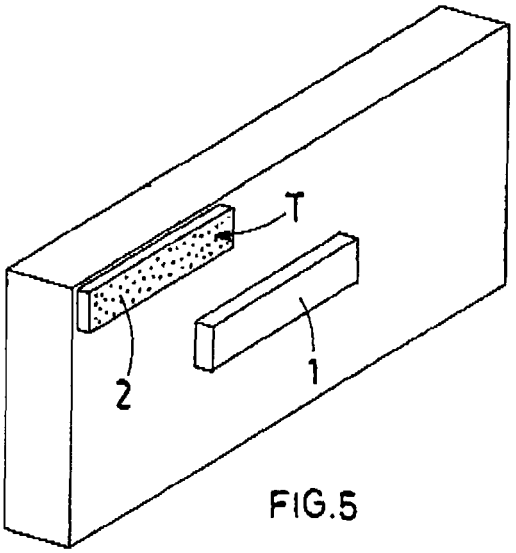


FIG. 5

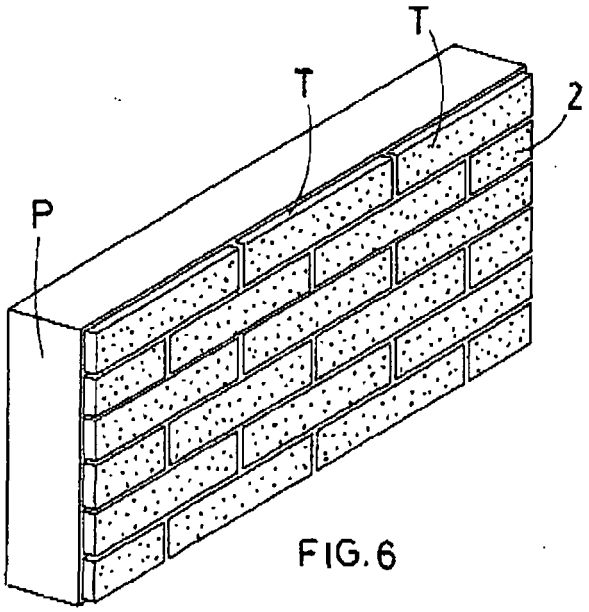


FIG. 6

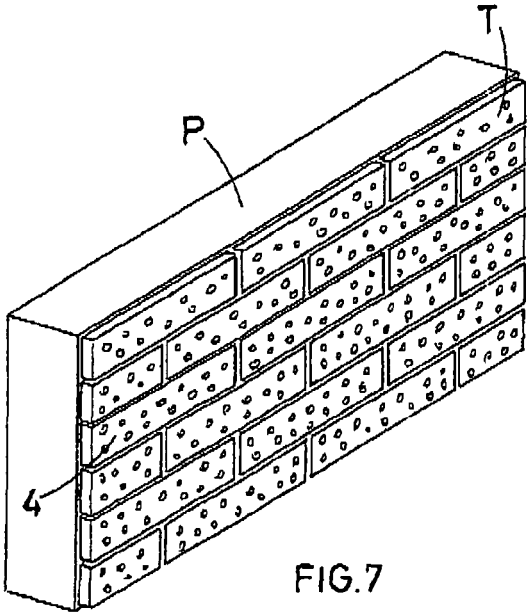


FIG. 7