United States Patent
Kirsch

[15] 3,692,458
[45] Sept. 19, 1972

[54] WALL SURFACING DIE FOR SIMULATING BUILDING BLOCKS

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[73] Assignee: H-K International, Inc., Erie, Pa.

[22] Filed: June 22, 1970

[21] Appl. No.: 48,089

[52] U.S. Cl. 425/469, 249/119
[51] Int. Cl. B29c 5/08
[58] Field of Search ..... 25/17 A, 131 R, 131 Z, 1 A, 25/1 B, 1 C, 131 CM; 18/5 L, 12 DS; 264/333; 249/119; 425/469

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Assistant Examiner—John S. Brown
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[57] ABSTRACT

This application discloses a process for forming a layer of masonry-like material on the outside of walls or panels. The process is carried out by using a die which is the same size as the area to be coated. The die is made up of a rigid outside frame with partitions extending between the sides and the ends of the frame. The partitions are rectangular in cross section and are laid out in a pattern which defines the outline of a masonry block of a constructed wall of brick or stone. The material of the partitions have the same thickness as the material to be placed on the wall and the frame of the die is provided with clamps in one embodiment of the invention. The clamps are suitable for clamping it to the panel. In another embodiment of the invention, the die may be supported on suitable supports and lowered into the material after it is placed on the panel or wall.

2 Claims, 5 Drawing Figures

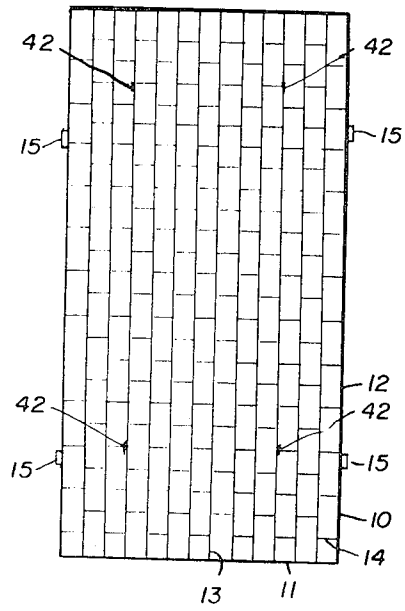


FIG. 1

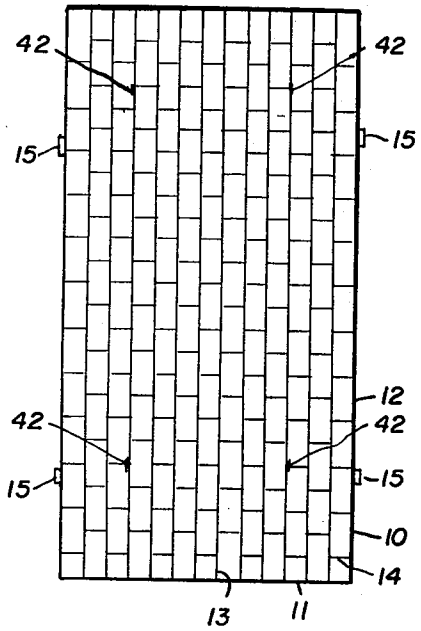


FIG. 4

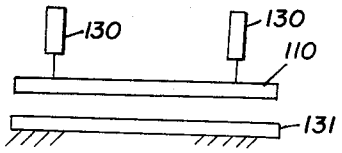


FIG. 2

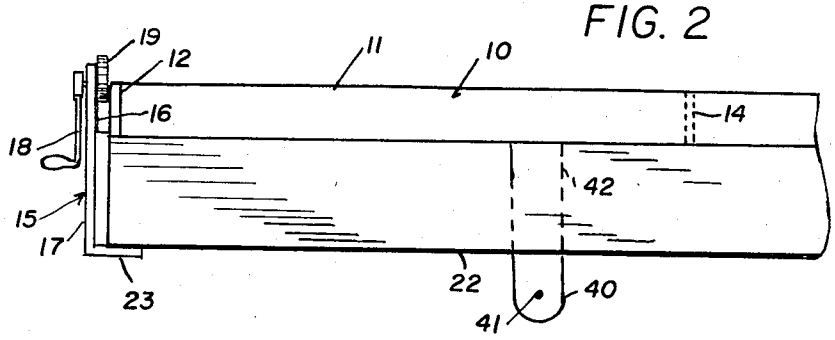
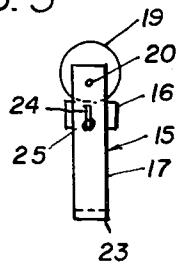


FIG. 3



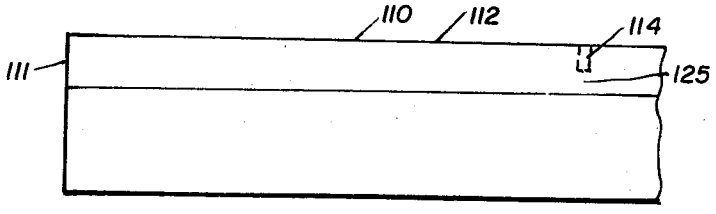


FIG. 5

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WALL SURFACING DIE FOR SIMULATING BUILDING BLOCKS

STATEMENT OF INVENTION

This invention relates to methods and apparatus for applying wall surfacing and, more particularly, to an improved apparatus for surfacing a wall.

REFERENCE TO PRIOR ART

This disclosure constitutes an improvement over U.S. Pat. No. 2,595,142, which issued Apr. 29, 1952 to John Herck, which shows a cardboard grid pattern which is intended to be chiseled out of the grooves of a plaster material after the plaster has hardened.

OBJECTS OF THE INVENTION

It is an object of the invention to provide an improved wall surfacing die.

Another object of the invention is to provide an improved method of applying a masonry-like coating to the outside of building walls, building panels and the like.

Another object of the invention is to provide an improved building process which is simple in construction, economical to manufacture, and simple and efficient to use.

DESCRIPTION OF THE DRAWINGS

FIG. 1 is a top view of the die according to the invention;

FIG. 2 is an enlarged partial side view of the die shown in FIG. 1;

FIG. 3 is an enlarged view of the clamp shown in FIG. 2;

FIG. 4 is a side view of another embodiment of the invention;

FIG. 5 is a view of another embodiment of the invention.

DETAILED DESCRIPTION OF THE DRAWINGS

Now with more particular reference to the drawings, the die shown in FIG. 1 is indicated generally at **10**. It is made up of a frame having side members **12** and end members **11** connected together in a rectangular grid pattern in the preferred embodiment of the invention. The side members **12** have the lugs **16** welded to them and the lugs **16** have pins **25** which extend through slots **24** in the clamp arms **17** so that the clamp arms **17** can slide up and down on the pins **25**. The upper end of the clamp arm has the axle **20** extending therethrough. On the inner end of the axle, the cam wheel **19** is fixed. On the outer end of the axle, the crank **18** is fixed. The cam rides on lugs **16** and when the cam is rotated from the position shown in FIG. 3, the flange **23** of the clamp is forced against the bottom of the sheet panel **22** thereby clamping the frame to the panel. In a typical example of the frame, the transverse members **14** may be 1 inch thick and three-eighths inch wide and, likewise, the longitudinal members **13** may be one-eighth inch thick and three-eighths inch wide.

In the embodiment of the invention shown in FIG. **5**, the stencil form **110** is identical to that shown in FIGS. **1** through **4**, with the exception that the partitions made by the transverse members **114** and the longitudinal members are approximately three-fourths as deep as the side members **111** and end members. Thus, there will be a space **125** between the longitudinal members and the lateral members **114** below each transverse member which will allow mortar to enter and form a continuous coating of the masonry material coating from one side of the panel to the other, or over the entire surface of the wall.

In the embodiment of the invention shown in FIG. **4**, the frame of the die **110** is indicated as supported on hydraulic cylinders **130** by which the die may be raised and lowered. Thus a panel supported on the support table **131** may have the masonry material spread over its top surface, then the die **110** may be brought into place over top of the sheet of material and brought down into the masonry material thereby forming the masonry pattern. The material may then be struck off the top of the die.

In a typical example of the use of the embodiment shown in FIGS. **1** and **2**, the die **10** will be clamped into place on top of panel **22**. Then masonry-like material made up principally of Portland cement and aggregate will be placed over the top of the die and struck off flush with the top by a straight edge or suitable tool.

The masonry material can, of course, be put in place on the panel **22** before the die **10** is clamped to the panel.

In the embodiment of the invention shown in FIG. **4**, the masonry material would be placed on the panel **131** and either leveled before lowering the die **110**, or, it would be placed on the panel **131** and the die **110** lowered and the excess masonry material struck off from the top surface of the die by a trowel or the like.

Tabs **40** which may be sheet metal strips extend through slots **42** in panel **22** and have nail holes **41** for attaching to studding.

The foregoing specification sets forth the invention in its preferred practical forms but the structure shown is capable of modification within a range of equivalents without departing from the invention which is to be understood is broadly novel as is commensurate with the appended claims.

The embodiments of the invention in which an exclusive property or privilege is claimed are defined as follows:

1. A die to be used in forming a pattern resembling blocks in a layer of hardenable material on a building panel,

said die comprising a frame in the form of a grid of relatively rigid material,

said frame being of a thickness of the desired depth of demarcations defining said pattern,

said frame further comprising laterally and longitudinally extending partitions defining grid openings through said die and being of width approximately equal to mortar joints in masonry walls,

said openings being of the size and shape of said blocks,

said partitions having the thickness of the depth of the desired pattern,

releasable means attached to side edges of said die to removably attach said die to said building panel,

said die being adapted to be supported on a building panel with said openings in said die being filled with a plastic hardenable material,

said die being adapted to be withdrawn from said material before said material hardens whereby said pattern is left in said material when said die is removed.

2. The die recited in claim 1 wherein said die is made of relatively rigid material having substantially the properties of resiliency and rigidity of structural steel.

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