

April 19, 1949.

A. JOHNSON
METHOD OF MOLDING SURFACE ORNAMENTED
BUILDING BLOCKS

2,467,590

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2 Sheets-Sheet 1

FIG. 1

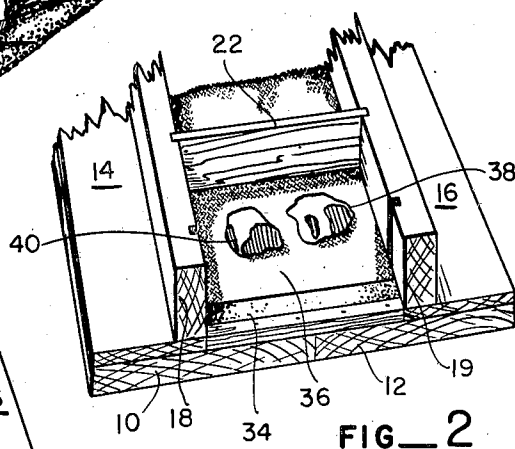
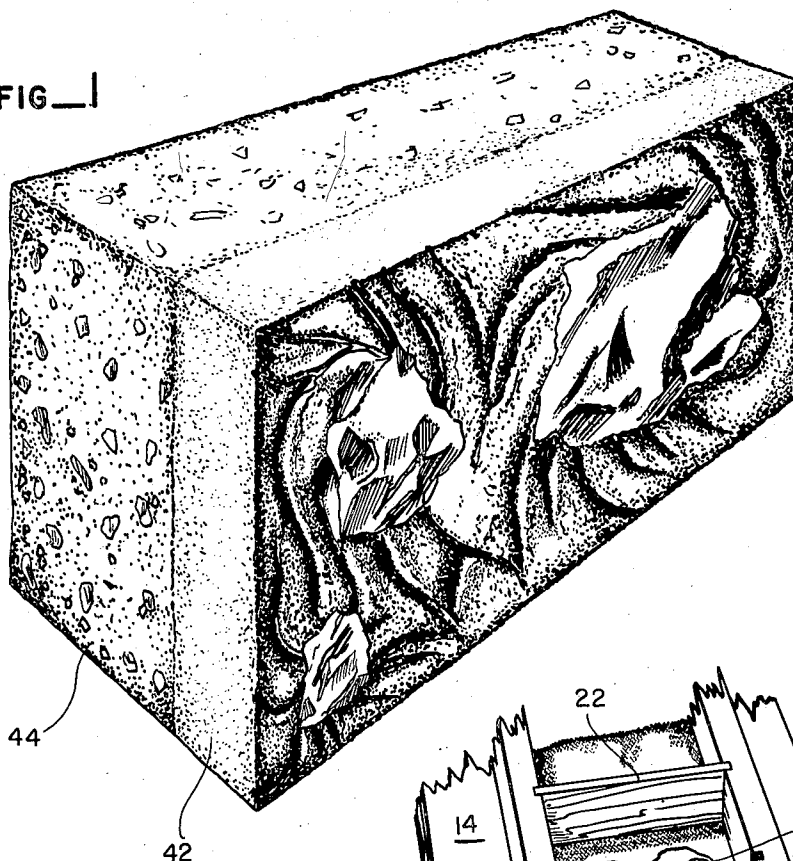


FIG. 2

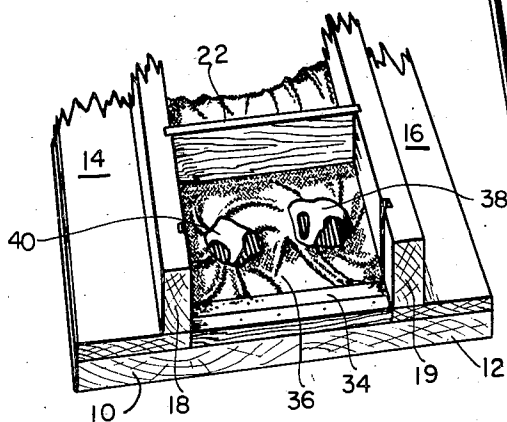


FIG. 3

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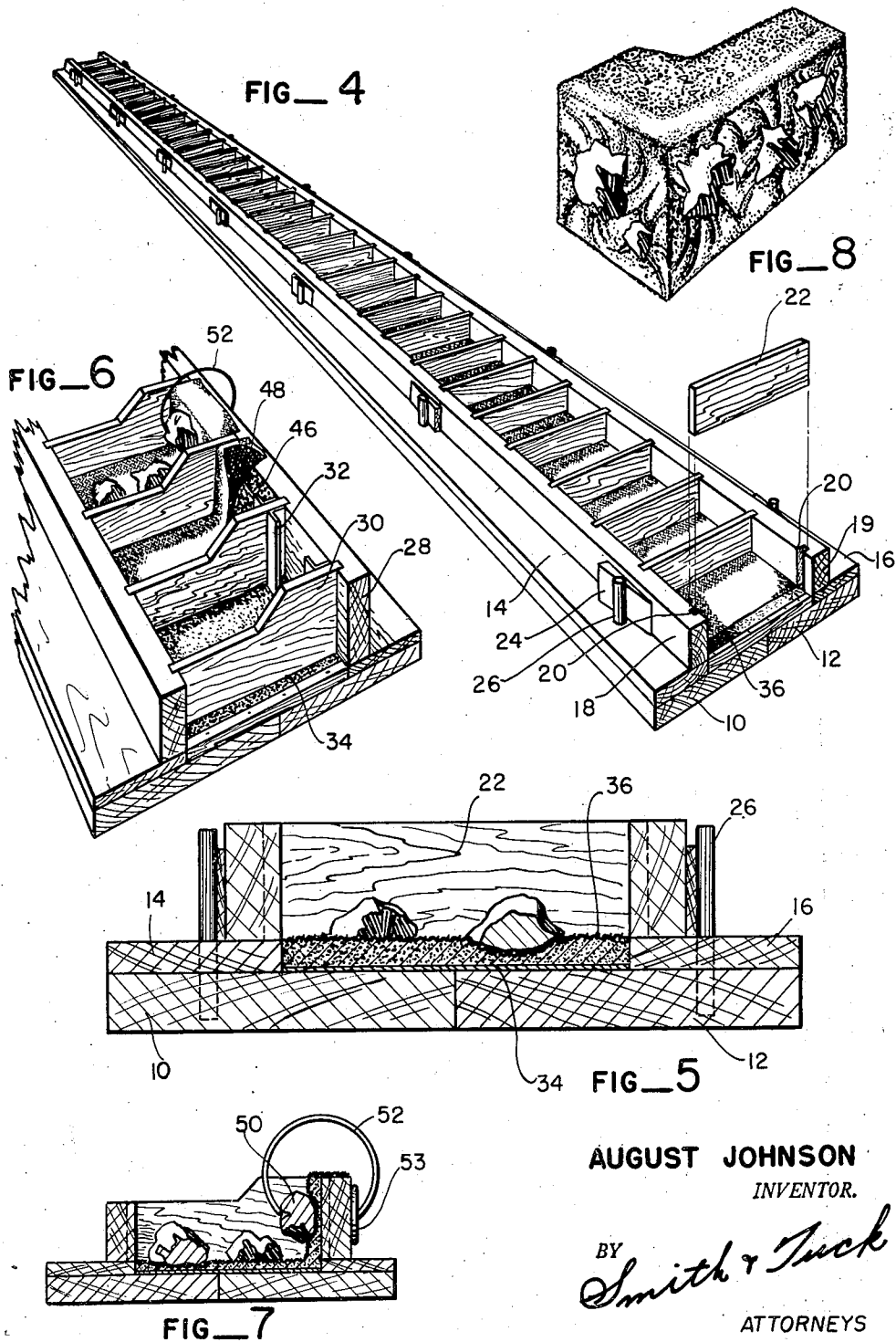
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METHOD OF MOLDING SURFACE ORNAMENTED BUILDING BLOCKS

August Johnson, Seattle, Wash.

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1 Claim. (Cl. 18—61)

1

My present invention relates to the art of manufactured building blocks and, in more particular, to method of molding surface ornamented building blocks.

Over a long period of years there has been considerable development in the manner of making ornamental and structural building blocks and some development in the field of surface facet ornamentation of such blocks. These former methods, however, have either required an extensive amount of work in the final finishing of the blocks or were characterized by finished blocks in which the ornamental materials would be in part overrun with the concrete grout which bonded the ornamental facing to the block proper.

It is to overcome the deficiencies as noted in the methods employed in the past that I have provided my new building block and the method for constructing the same.

The principal object of my present invention is to provide building blocks in which ornamental inserts may be made in the face of the block and which will be clean without any extra work when the block is finished.

A further object of my present invention is to provide a definite means for separating the imbedding material which is used to hold the surfacing materials and ornamental items and maintain a separation from the concrete backing of the block.

A further object of my invention is to provide means whereby the concrete surface between the rocks or other ornamental inserts may be given a definite and artistic configuration.

A further object of my invention is to provide means whereby the essential corner blocks can also be made to carry the same type of ornamentation as the running blocks.

A further object of my invention is to provide an economical method of manufacture of ornamental or facet faced blocks.

Further objects, advantages and capabilities will be apparent from the description and disclosure in the drawings, or may be comprehended or are inherent in the same.

In the drawings:

Fig. 1 is a perspective view showing an ornamental building block made after the teaching of my invention.

Figs. 2 and 3 are perspective views showing the two successive steps in forming configurations of the exposed surface between the insert materials.

Fig. 4 is a perspective view showing the form

2

I have found to be most useful in employing my new method.

Fig. 5 is a typical cross-sectional view through the form of Fig. 4.

Fig. 6 is a perspective view somewhat similar to Fig. 4 excepting it is on an enlarged scale and shows the form used to build corner blocks.

Fig. 7 is a typical cross-sectional view through the form of Fig. 6.

Fig. 8 is a perspective view showing a corner block as made in the forms shown in Figs. 6 and 7.

Referring more particularly to the disclosure in the drawings, the numerals 10 and 12 designate the two planks, which, when abutted, after the showing of Figs. 4 and 5, form the base upon which my blocks are built. Disposed on each side of planks 10 and 12, as will be best observed from a study of Figs. 2 to 7 inclusive, are two thin planks as 14 and 16. These are preferably fixedly secured to planks 10 and 12 respectively. Disposed on edge upon planks or boards 14 and 16 are the end forms of the block as 18 and 19.

Disposed within vertical slots or kerfs 20, formed within the upright members 18 and 19, are a plurality of spacers 22, which form the side walls of my block form. As will be noted in Fig. 5, these spacer members 22 extend at each end so as to overlap on boards 14 and 16 and thus provide for their exact spacing vertically. When all the various spacers 22 are in place, the vertical end wall members 18 and 19 are wedged together, as by the plurality of wedges 24, disposed between the vertical pins 26 and the movable vertical members 18 and 19. In this way, the form may be set up in a rigid manner and securely tightened and, yet, when it comes time to remove the blocks from the form and redress the matrix, the wedges can be driven out and members 18 and 19 lifted out of the base for the easy removal of the blocks.

It is to be noted in Figs. 6 and 7 that in order to make the corner blocks, I substitute for the vertical member 19 the vertical member of greater width, as 28. It is also necessary to provide separators as 30, having an end of increased width as is illustrated in Figs. 6 and 7. It is further necessary when making the corner blocks to provide the vertical, preferably angled, members 32 on each side of the enlarged ends of separators 30 so that the matrix will be held in position during the manufacture of the corner blocks.

In order to manufacture blocks following the principles of my invention, I normally take the

3

base consisting of planks 10 and 12, with the boards as 14 and 16 secured to them, and in the space between boards 14 and 16 I provide a preferably water-proof sheet 34, and for this I have found sheet metal to be the most convenient and adaptable. I then fill the longitudinal recess formed between boards 14 and 16 with a matrix, or pastelike material, formed of a mixture of sand, oil and clay, so that a dough-like consistency is achieved. This material is struck back level with the upper surface of boards 14 and 16 and is approximately one inch thick.

Upon the matrix I spread out a piece of fabric 36. This fabric may be of various types in accordance with the degree of configuration desired in the finished block. The thinnest material that I found capable of satisfactory use is cheese cloth. However, when the space between the various insert rocks or other objects is desired to have a configured surface, the depth of these configurations can be increased by using a heavier or stiffer material. Muslin is practical in many cases and for maximum configuration, the lighter forms of canvas or duck may be so used.

With the cloth or veil 36 in place, the various items that it is desired to have show on the finished block are imbedded in the matrix and in so doing press the veils down into the same after the showing of Fig. 5.

If it is desired to have the block surfaces between the insert rocks or tile or other insert figures left smooth, as soon as the rocks are in place a rich grout of concrete and sand is poured over the rocks to seal them and cause them to further bond with the concrete backing of the block. When the grout is partially set but still wet, the balance of the concrete mix is poured into the various holes and the whole struck off level with the top of the vertical members 18 and 19, and thus will be provided a considerable number of blocks all of the same outside dimensions. It has been found, however, that many pieces of work require or desire to employ configured surfacing of the block in between the insert materials, and this form of configuration is accomplished by means illustrated in Figs. 2 and 3. In Fig. 2 I have illustrated, for the sake of clearness, just two rocks as 38 and 40. In order to configure the surface I have found it best to imbed by pressing rocks 38 and 40 into the matrix 34, and as the pressure is applied, to twist the same. This will cause a wrinkling of veil 36 after the showing of Fig. 3. The extent of this wrinkling will be dependent on the consistency of the matrix and the firmness of the material from which veil 36 is produced. An operator soon becomes experienced in wrinkling the material of the veil and by inspection of the mold as in Fig. 3, he can gauge the type of configuration he will have in the finished block.

After the twisting of the rocks or other insert objects is accomplished the procedure is identical with the operation explained for the simple imbedded blocks. First the grout is poured in to

4

a depth normally sufficient to fully cover the rocks and as shown in Fig. 1 at 42. The balance of the mold is then filled with a suitable concrete mix 44 so as to complete the block.

Sometimes it may be desirable to have a raised portion formed in the surface of the finished block. If so, it may be achieved by merely pressing the veil into the matrix to the desired depth and lateral extent. When the concrete is then filled into the mold, a parting will be had at the line of the veil and the desired configuration thus formed.

In the preceding description I have described the making of the usual block as shown in Fig. 1. However, most walls require corners and the corner block must be of special design in order to carry out the ornamental pattern. Such a block I have illustrated in Fig. 8. The block of Fig. 8 is made in the modified form shown in Figs. 6 and 7, in which the bottom matrix 34 is put in as previously described and then by trowelling it in place normally I provide the vertical matrix 46, and the veil must have an extended portion as 48 which, after covering the bottom matrix, will extend upwardly so as to cover the end matrix 46. Rocks as 50 may be then inserted and the veil twisted as previously described and then the rocks secured in place as by the heavy spring wire clamp 52, normally using one such clamp for each rock. I have found it desirable to provide a base as 53 so that each spring member will be sufficiently rigid so as to hold even a rock of uneven contour firmly in place. The grouting is accomplished as in Fig. 4, excepting that the vertical grouting will have to be trowelled into place and be of proper consistency to stay in place until the backing concrete is poured.

It is believed that it will be clearly apparent from the above description and the disclosure in the drawings that the invention comprehends a novel construction of surface ornamented building blocks.

Having thus described my invention, I claim:

The method of making surface ornamented building blocks consisting of coating the outer surface forming portion of a building block mold with a paste-like matrix, spreading a sheet of woven fabric upon the matrix, placing ornamental material on the fabric sheet, partially embedding them into the matrix, placing a cement grout upon the fabric sheet and about the ornamental material, twisting the ornamental material to produce wrinkles in the fabric sheet, and then completing the building block with concrete.

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REFERENCES CITED

The following references are of record in the file of this patent:

UNITED STATES PATENTS

Number	Name	Date
527,416	Federici	Oct. 16, 1894
985,353	Landis	Feb. 28, 1911