Dec. 14, 1943. N. J. MORTIMER 2,336,949

METHOD OF MOLDING BUILDING BLOCKS

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Fig. 1.

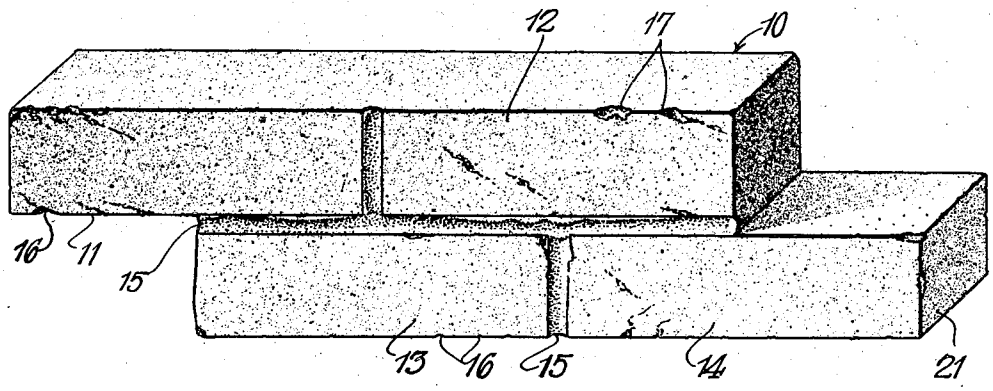
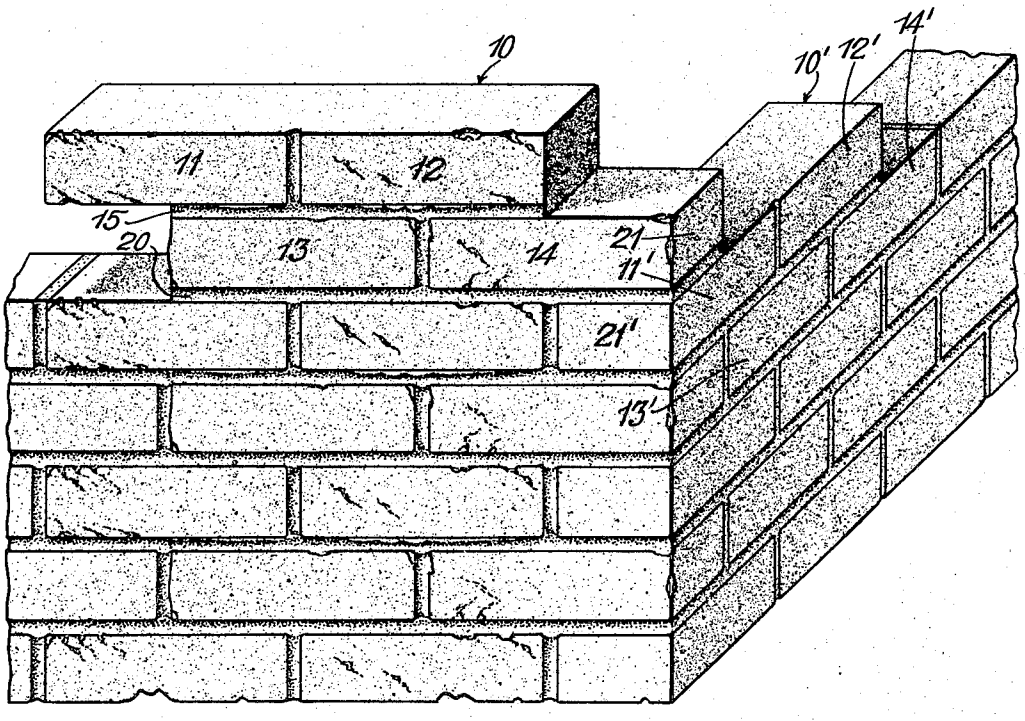


Fig. 2.



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Fig. 3.

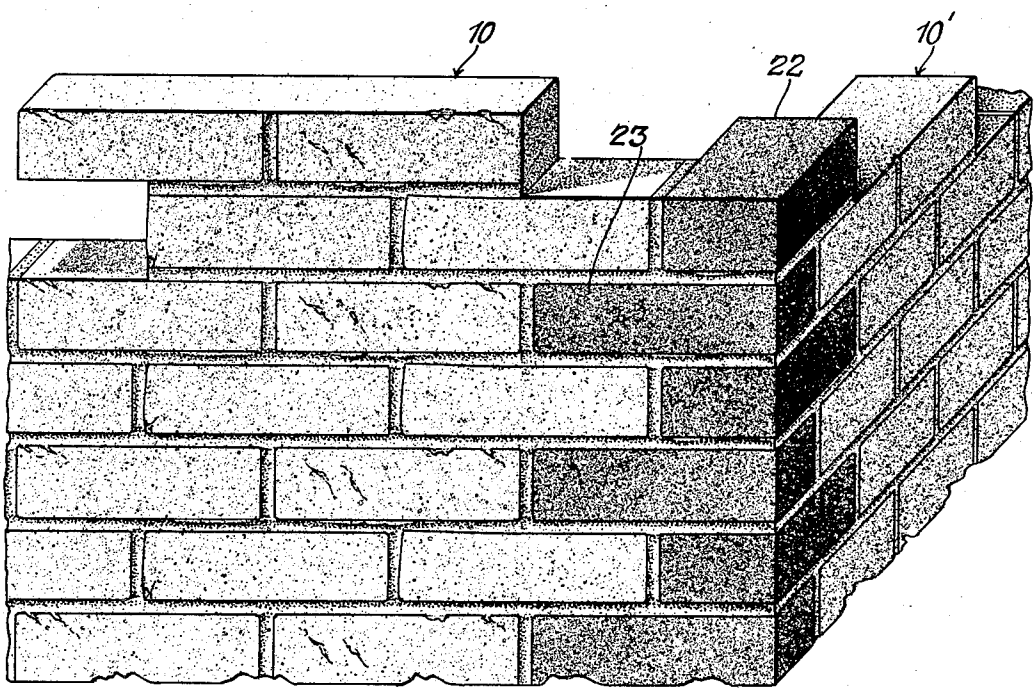


Fig. 4.

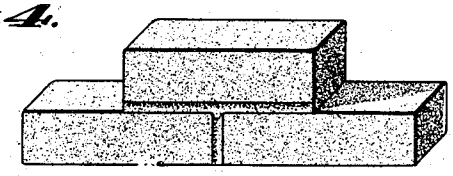


Fig. 5.

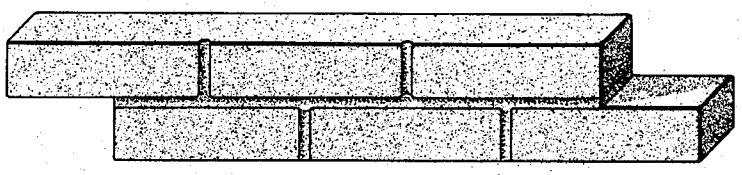
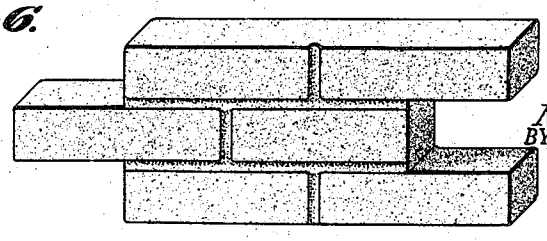


Fig. 6.



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METHOD OF MOLDING BUILDING BLOCKS

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Application July 25, 1942, Serial No. 452,256

1 Claim. (Cl. 25—155)

This invention relates to building blocks and methods of making same, and to the construction of walls thereof. The invention is particularly applicable to the making of building blocks of concrete or the like, or of similar compositions, and in such manner that the faces of each block will simulate in fine detail the faces of a group of brick, so that when the blocks are built into a wall, the wall will have the appearance of having been made of common building brick and with the appearance of manual pointing work between all the brick simulations, uninterrupted at the junctures of the blocks.

It has heretofore been proposed to so form concrete building blocks that the face of each block represents the faces of a plurality of brick and with spaces or channels corresponding in arrangement to pointing work. However, such spaces or channels were of square or rectangular cross section and the brick representations were of uniform regular appearance so that the face of the block, even when inspected at a considerable distance, gave an artificial or mechanical appearance quite noticeably different from the appearance of ordinary manually laid-up brick walls. When such blocks are laid up to form a wall, the necessary actual cement pointing work along the junctures of the blocks also gives an appearance distinctly different from the rigidly geometric pointing simulations on each block itself, and thus exposes the outline of each block and gives the wall an unsightly appearance.

In an ordinary brick wall, there are minor variations and irregularities in each brick as well as minor irregularities in the spacing and angular position of the brick, and in the thickness and character of the pointing between brick. The latter types of irregularities will inevitably occur in laying up the brick, and similar irregularities will occur with concrete blocks, i. e., the thickness of the layer of pointing cement between the blocks will vary and the angular positions and spacings of whole blocks as laid up will vary slightly. Hence with a wall formed of concrete blocks of the type heretofore known and above referred to, the outline of the blocks as distinguished from brick simulations, is further made prominent and unsightly, because the brick and pointing simulations are geometric and regular on each block, but not as between adjacent blocks.

With the present invention, the above noted difficulties are overcome in a simple and inexpensive way and so that walls of concrete building blocks may be constructed at a small fraction of the cost of common brick walls, and yet simulating a wall of common brick in such fine detail, that the difference is not noted even on close inspection.

According to the present invention, the building blocks are made in a mold having a mold face formed by using at a matrix, a portion of an actual laid-up brick wall including the desired type of manual pointing work between bricks. The outline of the mold face is shaped to conform to the outline of a plurality of complete bricks in the actual brick wall, preferably bricks laid up in normal lapped relationship in two or more courses. The face of the concrete block mold is therefore formed to include all of the minor irregularities of actual individual and different brick, as well as any irregularities in the spacing and angular positions of such brick as laid up in a wall. Thus when the finished concrete blocks from such molds are laid up in a wall, any minor irregularities in the angular position and spacing thereof will not be noticeably different from the irregularities between the individual brick simulations. Furthermore, and what is perhaps of more importance, the simulation of the pointing work between brick on each block may, according to this invention, be so made that the pointing work between finished blocks as embodied in a wall will accurately correspond thereto, and hence give the appearance of pointing work free of interruptions between blocks. The form and character of pointing work simulations on each block may be readily made to conform accurately to the type of pointing work which masons of any local region customarily perform. And since the pointing work simulations as cast on the face of the block may if desired, be of the same cement mixture used for the pointing between blocks, all of the pointing on the resulting wall. while involving the minor irregularities of manual work, will not only be of the same character and shape but of substantially the same composition. Hence even after weathering, the joints in the pointing between blocks will not be noticeably exposed.

The concrete block wall of the present invention after being laid up and dried out, is well adapted to be whitewashed or painted to give the exact appearance of whitewashed or white painted brick walls. Also such a whitened concrete wall after weathering, will give the attractive and often desired appearance of a whitened brick wall which has been weathered for a long period. These effects may be en-

hanced by use of suitably tinted or colored concrete mixtures.

Various further and more specific objects, features and advantages of the invention will appear from the description given below taken with the accompanying drawings illustrating by way of example certain preferred forms of the invention. The invention consists in such novel methods, features and combinations as may be shown and described in connection with the examples herein disclosed.

In the drawings,

Fig. 1 is a perspective view showing a concrete building block made in accordance with one embodiment of the invention;

Fig. 2 is a perspective view of a wall including one form of corner construction, made with blocks as of Fig. 1;

Fig. 3 is a view similar to Fig. 2, but showing an alternative form of wall made with blocks as of Fig. 1, but with a corner construction formed with common building brick; and

Figs. 4, 5 and 6 respectively are perspective views of alternative forms of blocks embodying the invention.

In Fig. 1 the building block **10** is so constructed as to represent four common building brick arranged in lapped relationship in two courses, including two bricks in each course. As shown, the representations of the faces of the brick as at **11**, **12**, **13** and **14** are spaced apart by representations of pointing work as at **15**. The block as here shown may be molded or cast of concrete or other suitable known building block composition material. And as above explained, the face of the mold used should be formed by using a portion of an actual brick wall as a matrix. That is, a portion of a brick wall is used which will have an appearance the same as that of the face of the block of Fig. 1 and including brick respectively having various different minor irregularities like those indicated at **16** and **17**, for example, and the brick work being pointed with cement between the bricks, giving the same appearance as indicated at **15**, Fig. 1.

In addition to modifying the usual concrete block molding procedure so as to embody a mold face using an actual brick wall as a matrix, the outline of the mold should preferably be so shaped as to correspond to several complete brick in their proper lapped relationship. That is, the mold should be shaped for example so that the brick representation **11** will extend out beyond the brick representation **13** for a distance equal to one-half the length of one brick. Similarly, the brick representation **14** may be made to extend in the other direction for a distance equal to about one-half its length beyond the representation of brick **12**. When a block of this shape is built into a wall, it will be apparent, as shown in Fig. 2, that the only pointing work necessary will be along the outlines of complete brick, and no joints dividing each complete brick representation will be necessary.

The manner in which the blocks as of Fig. 1 may be constructed into a wall, including the corner construction, will be apparent from an examination of blocks **10** and **10'**, as shown, in the wall of Fig. 2. That is, the blocks as at **10** may be laid up by a bricklayer with pointing work as at **20** at the junctures of the blocks, such pointing work being of the same character and general appearance as that which formed the matrix for the pointing representation **15** on each block itself. Thus, for example, rough cement pointing work as at **20** may be made to merge into the pointing representations on each block without any apparent interruption, and so that except upon closest inspection, the lines of juncture of the various blocks at the face of the wall cannot be discerned. While rough cement pointing work is shown by way of example, other types of pointing may readily be used, provided the pointing representations on the blocks are of a character which the mason who builds the wall is readily able to imitate in pointing up the blocks.

In forming a corner construction with the blocks as of Fig. 1, it will be noted that blocks as at **10'** may simply be so placed that their protruding brick representations as at **11'** will underlie, at right angles, protruding brick representations as at **14** of blocks such as at **10**. In cases where blocks of this type are to be used at the corners of a wall, the end faces as at **21**, **21'** of the brick representations as at **11** and **14** should preferably also be molded or cast in accordance with the end of an actual brick used as a matrix. However, this is not essential since even if the ends of alternate bricks at the corner do appear more regular and hence slightly different from the remainder of the brick representations, the effect is not objectionable under most circumstances.

With the wall construction as shown in Fig. 3, blocks as at **10**, **10'** may be laid up the same as in Fig. 2, except that at the corners in each course, one or more ordinary brick as at **22**, **23** may be interposed, these bricks of alternate courses respectively being placed at right angles as shown.

The wall faces as of both Figs. 2 and 3 are well adapted to be whitewashed or painted white, and after such treatment the wall will give the exact appearance, even on close inspection, of a whitewashed or painted wall made of common building brick. And after such a white wall has weathered, it will give an appearance sometimes considered highly desirable, of a common brick wall whitened by lime-like exudations or weathered whitewash. If desired, this effect may be enhanced by incorporating suitable known red or other coloring materials in the composition from which the block is made, or in that part of the composition used at the faces of the block. With the construction of Fig. 3, a desirable effect may be obtained by whitewashing or painting the portions of the wall made of the blocks, while leaving the corner bricks as at **22**, **23** with their natural color, thus giving the wall the appearance of having a strengthened or special corner construction.

While the block of Fig. 1 embodying representations of four brick provides a convenient size for most purposes, it will be understood that the invention is applicable to blocks of other sizes having, for example, representations of three, six or more brick arranged as shown in Figs. 4, 5 and 6, or combinations thereof. Fig. 4 shows a block embodying a plurality of brick representations in two courses, including two in the lower course and one in the upper course. This block is well adapted for use at corners or ends of walls where insufficient space is available for the four brick block as of Fig. 1. The block of Fig. 5 embodies representations of three brick in each of two courses, and Fig. 6 embodies representations of two brick in each of three courses. These larger blocks are adapted for rapid construction of inexpensive walls.

I claim:

Method for forming building blocks adapted for the construction of walls simulating brick walls, which comprises taking a small group of building brick having at least slight variations in shape, manually laying same with cement in conventional lapped arrangement and with manual pointing work which includes the normal irregularities of such pointing, using the face of the assembly thus laid as a matrix for forming the face of a mold for casting the building blocks, forming the outline of such mold face to conform to the outline of a plurality of complete brick as embodied in a plurality of courses, and casting the blocks against such mold face whereby said brick, as to shape and position, and the normal irregularities and character of the pointing thereof, are simulated on the face of each block, such blocks thus being adapted to be laid up to form a wall with the brick simulations lapped at the lines of juncture of the blocks, and with conventional manual pointing of cement between blocks matching and merging uninterruptedly with the adjacent pointing simulations on the blocks, thereby concealing the existence of joints between the actual pointing of the blocks and the pointing simulations on each block at the junctures of the blocks.

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