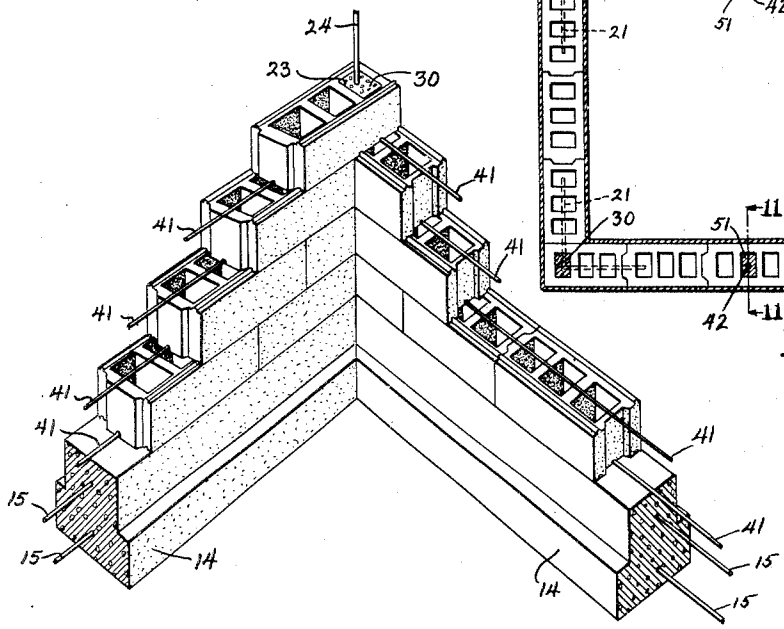
March 5, 1929. A. F. LEWIS 1,704,255

BUILDING CONSTRUCTION AND PLASTIC BLOCK FOR MAKING THE SAME

Filed Feb. 2, 1926 2 Sheets-Sheet 1

Fig. 1



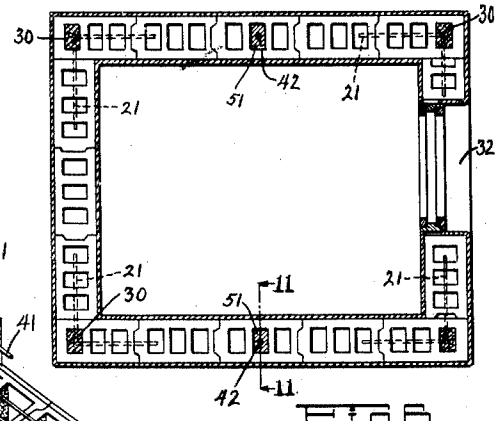




Fig. 6

Fig. 7

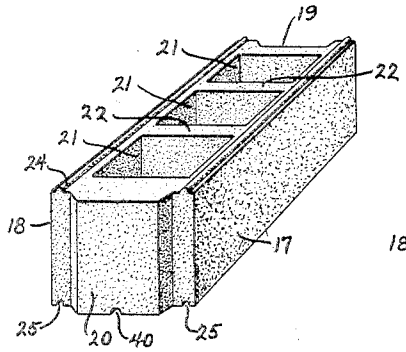



Fig. 8

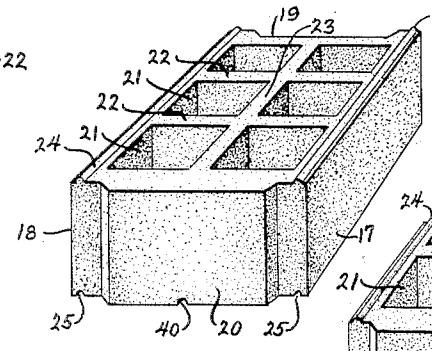



Fig. 9

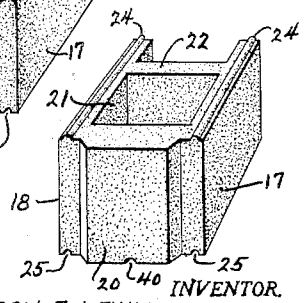
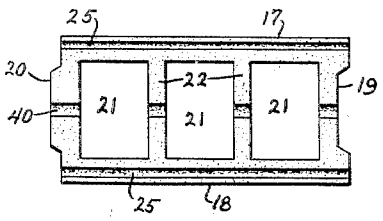



Fig. 10




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BUILDING CONSTRUCTION AND PLASTIC BLOCK FOR MAKING THE SAME

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Fig. 2

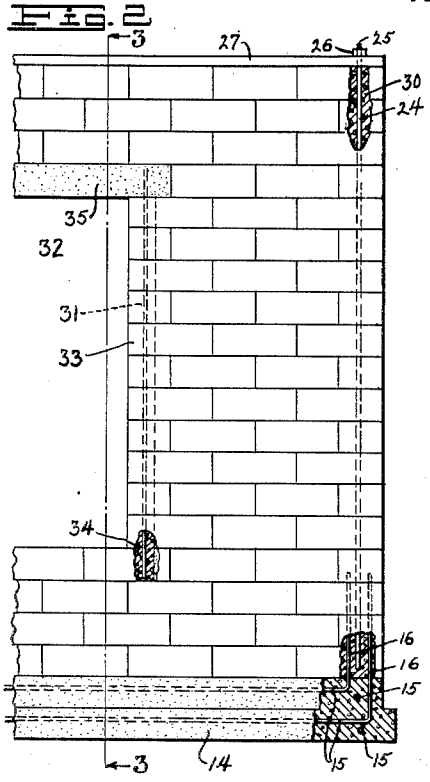



Fig. 3

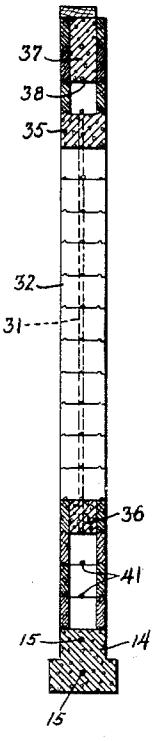



Fig. 4

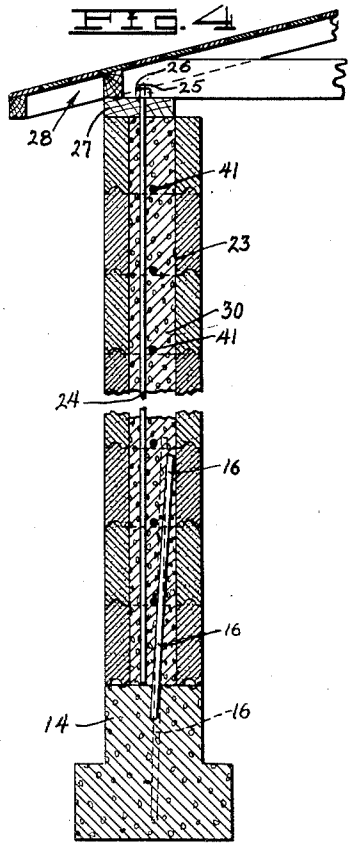



Fig. 5

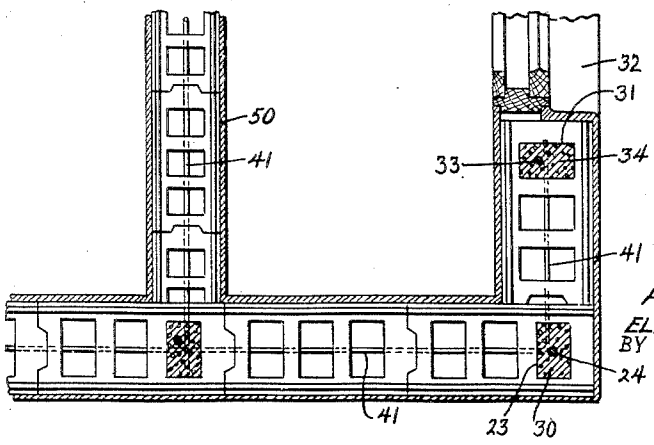
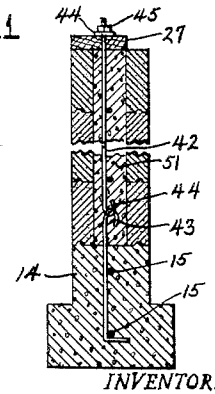



Fig. 11




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# UNITED STATES PATENT OFFICE.

ANSON F. LEWIS, DECEASED, LATE OF SANTA BARBARA, CALIFORNIA, BY ELIZABETH LEWIS, OF SANTA BARBARA, CALIFORNIA, ADMINISTRATRIX, ASSIGNOR TO MORTARLESS TILE MACHINE COMPANY, OF SANTA BARBARA, CALIFORNIA, A CORPORATION OF CALIFORNIA.

## BUILDING CONSTRUCTION AND PLASTIC BLOCK FOR MAKING THE SAME.

Application filed February 2, 1926. Serial No. 85,421.

This invention relates to a building construction and to plastic blocks for making the same.

The general object of the invention is to provide an improved building wall which although strong and durable is nevertheless flexible.

Another object of the invention is to provide a building wall comprising a plurality of unitary blocks so arranged that the wall may flex whereby the finish on the walls will not be cracked by jars to which the building is subjected.

Another object of the invention is to provide a wall comprising a plurality of unitary blocks wherein the end blocks are connected together in rigid relation.

A further object of the invention is to provide a wall comprising a monolithic foundation having unitary blocks laid substantially dry thereon, and wherein novel means is provided for holding certain of said blocks in assembled relation.

A further object of the invention is to provide an improved building block.

Other objects of the invention will be apparent from the following description taken in connection with the accompanying drawings, wherein:

Fig. 1 is a perspective view of a portion of a building embodying the features of my invention;

Fig. 2 is a side elevation of a wall embodying the features of my invention;

Fig. 3 is a section on line 3—3 Fig. 2;

Fig. 4 is a sectional view through a corner of the building embodying the features of my invention;

Fig. 5 is a horizontal sectional view showing details of my invention;

Fig. 6 is a horizontal sectional view showing the outer walls of a building;

Figs. 7, 8 and 9 are perspective views showing a single block, double block, and half block respectively, embodying the features of my invention, and

Fig. 10 is a bottom plan view of a block embodying the features of my invention.

Fig. 11 is a vertical sectional view of a modified form of my invention.

Referring to the drawing by reference characters I have indicated a building embodying the features of my invention generally at 10. This building as shown includes end walls 11 and side walls 12 although it will be understood that other arrangement of the walls may be made if desired without departing from the features of my invention.

In practising my invention, I preferably first build a concrete foundation indicated generally at 14. This foundation may be provided with longitudinally extending reinforcing members 15 which may be arranged in any desired fashion.

In the preferred form the ends of certain of the foundation reinforcing members, as shown at 16 in Figs. 2 and 4, are bent vertically so that they will protrude above the foundation for a purpose to be presently described. Other foundation reinforcing members extend around the corners of the foundation.

Upon this foundation I arrange a plurality of unitary blocks which are illustrated in Figs. 7 to 10 inclusive. These blocks are preferably made of concrete and are provided with parallel planar front and back faces 17 and 18.

One end of each block is preferably recessed as at 19 while the other end is provided with a tongue 20 which corresponds with the shape of the recess 19 so that contiguous blocks may be interlocked.

The blocks are shown as provided with a plurality of cavities 21. These cavities are defined by transversely extending partitions 22. In some of the blocks I may provide a central longitudinal partition 23 as shown in Fig. 8. This I call the double block. I may also make half blocks as shown in Fig. 9 if desired.

Extending along the top of each block adjacent each edge thereof I provide a rib 24. These ribs are preferably rounded and are adapted to fit within recesses 25 in the bottom of the blocks to interlock the blocks firmly.

In laying the wall the blocks are preferably laid dry, that is, there is no mortar used for holding the blocks in assembled relation. On account of the fact that in making, shipping and storing the blocks the upper and lower faces become slightly scratched, I have found it very desirable to paint or coat the abutting top and bottom faces of the blocks with a coating of neat liquid cement to fill the pores. This coating may be dried before the blocks are laid as it does not have any appreciable binding effect and it may be entirely omitted

when desired. The wall, as laid with or without the coating mentioned, is flexible and the blocks in the intermediate portions of the wall are sustained by their weight and the weight of the superimposed building.

The reinforcing members which have their ends bent to extend around the corner of the building are shown at 21. These members serve to hold the foundation together while the reinforcing members 15 which have their ends 16 bent upwardly to fit within the cavities 26 of the corner blocks serve to hold the foundation and wall together. In building the wall the blocks may be arranged in any desired fashion, but in the preferred form the partitions will be staggered so that there will be no vertical alignment of such partitions since better air circulation is thus provided. The end blocks, however, are arranged so that there will be a continuous space 23 where the two blocks overlap. This space serves to accommodate the reinforcing portions 16. Other reinforcing members 24 are also provided as shown in Fig. 4. These reinforcing members are arranged in the vertical alignment cavities and are provided with upper extremities 25 which are threaded to receive nuts 26 for holding planks 27 in place. Upon these planks the roof structure 28 may be supported. After the side wall has been partially completed or after it has been entirely completed, I fill the cavities 23 with concrete 30 to thus form a continuous vertically extending column of concrete in which the reinforcing members 16 and 24 are embedded.

In a similar manner I may provide vertically aligned cavities 31 adjacent the sides of the window and door openings 32 as shown in Fig. 2. In these cavities 31 I arrange reinforcing rods 33 and the cavities are then filled with concrete 34. The cavities 23 and 31 may both be filled with concrete without inserting the reinforcing members, although I prefer to provide the reinforcement.

Across the top of the window opening or other opening, I may arrange a solid concrete lintel 35 and also across the bottom of the window I may arrange another solid concrete lintel, or I may fill the blocks at the bottom to form a lintel 36. In order to provide a solid top for the wall I may fill the cavities in the upper courses with concrete 37 around the entire wall. This concrete is secured in place by means of a layer of paper or other material 38 which serves to prevent the concrete from falling into the spaces between the lower blocks before it sets.

The individual blocks may be provided with grooves 40 in their lower face for the purpose of receiving reinforcing rods 41 for holding the wall in proper relation.

From the foregoing description it will be apparent that I have provided a wall wherein the supporting foundation is of a solid monolithic nature and wherein the corners and the portion directly adjacent to each opening is provided with a solid column of concrete and wherein about the entire perimeter about the top of the building a solid body of concrete is provided and wherein intermediate these portions the blocks are laid loose. As a result of this construction the building is held firmly together as a unit, but at the same time, great flexibility is given to the walls so that the severe shocks or jars will not cause the building to collapse and will not affect the finish of the building in any manner.

If the wall is of any considerable length, I may provide reinforcing rods 42 in the cavities intermediate the ends of a wall. When using this type of wall the foundation may be provided with a reinforcing member having a hook 43 and the rod 42 will have a hook 44 which will preferably be inserted through the block cavities after the wall has been completed and will be anchored in position with its hook in engagement with the hook 43. A washer 44 may be arranged upon the plank 27 and a nut 45 may be fastened upon the rod 42 to hold the parts in assembled relation.

Buildings made with my blocks may be provided with partitions 50. Where these partitions join the side wall, I prefer to place a reinforced column of concrete 51 (see Fig. 5) as previously described.

Having thus described my invention, I claim:

1. In a building construction, a foundation, a wall comprising a plurality of hollow interlocking plastic blocks arranged upon said foundation, the cavities in said blocks being in alignment, a reinforcing member embedded in said foundation and having a hooked portion thereon projecting into said aligned cavities, a reinforcing member extending through said cavities and having means thereon for engaging said hooked portion, and means to anchor the upper portion of said second mentioned reinforcing member to the wall.

2. A wall comprising a foundation having a plurality of unitary blocks laid thereon, said foundation having reinforcing members therein, said blocks being hollow and said reinforcing means at certain portions extending upward into the aligned cavities in the blocks, other reinforcing means connected to said reinforcing members and arranged in aligned cavities within the blocks and extending vertically towards the top of the wall and a filling of cement about said reinforcing means and in the cavities adjacent thereto.

3. A wall comprising a plurality of hollow plastic blocks each having parallel end portions and parallel front and back faces, one end portion of each block including a single tongue portion and the other end portion of each block including a recessed portion, said

tongue portion being of a shape complemental to the shape of the recessed portion, said end portions being in direct engagement and said tongues directly fitting the walls of said recessed portion so that the entire ends of each block engage the entire ends of the adjacent blocks, said blocks having a plurality of cavities therein defined by transversely extending partitions integral with the blocks, a projecting rib extending along the top of said blocks adjacent each edge thereof and a groove extending along the bottom of said blocks adjacent each edge thereof.

In testimony whereof, I hereunto affix my signature.

ELIZABETH LEWIS,
*Administratrix of the Estate of Anson F. Lewis.*