

Feb. 28, 1967

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3,305,982

INTERLOCKING BLOCK BUILDING CONSTRUCTION

Filed Nov. 13, 1963

3 Sheets-Sheet 1

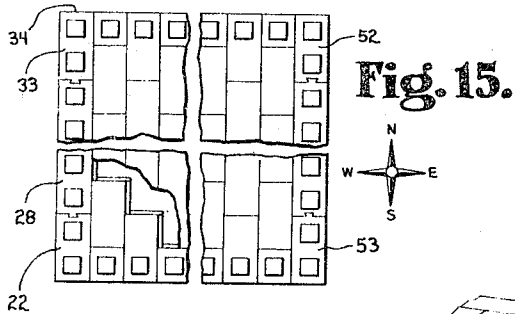
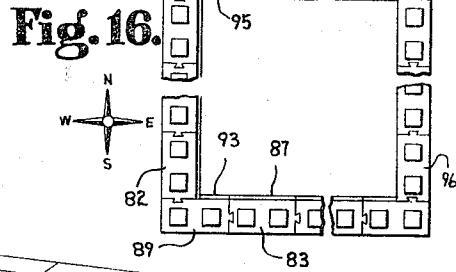
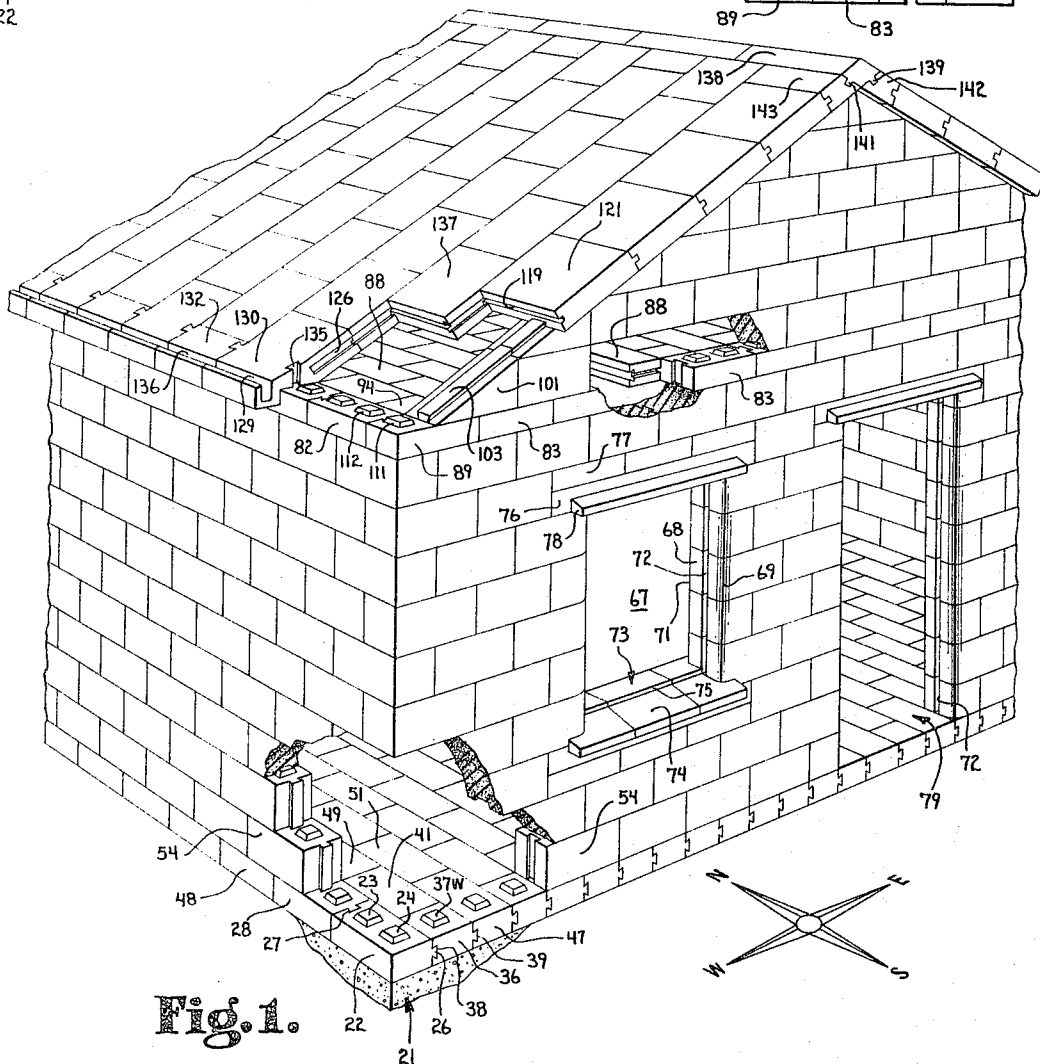


Fig. 1.

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3 Sheets-Sheet 2

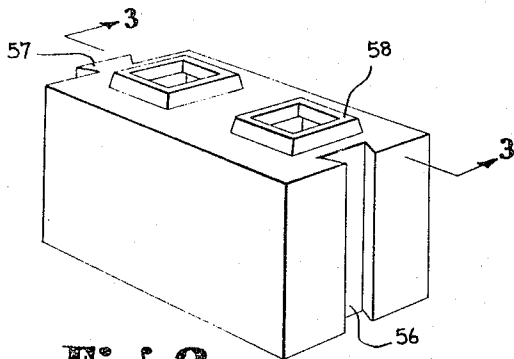


Fig. 2.

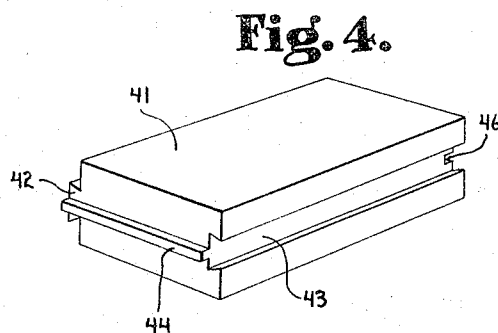


Fig. 4.

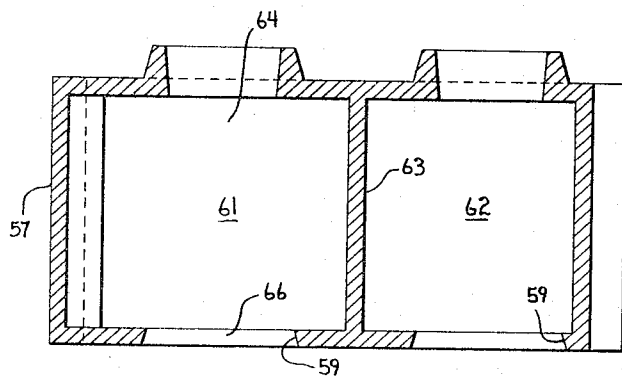


Fig. 3.

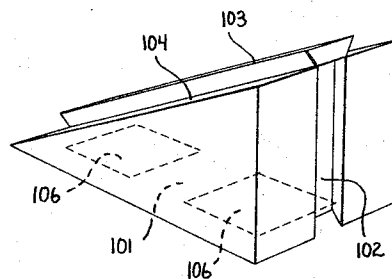


Fig. 5.

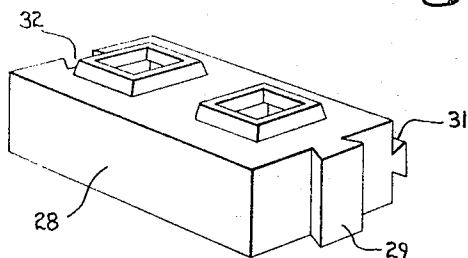


Fig. 6.

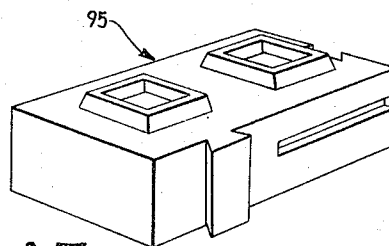


Fig. 7.

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3 Sheets-Sheet 3

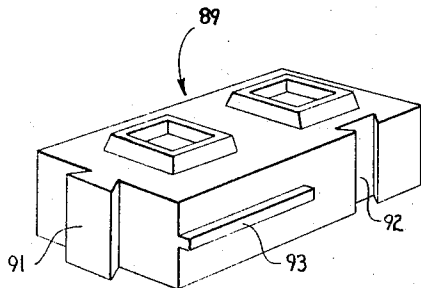


Fig. 8.

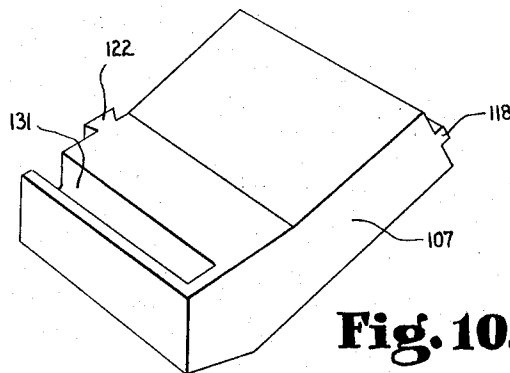


Fig. 10.

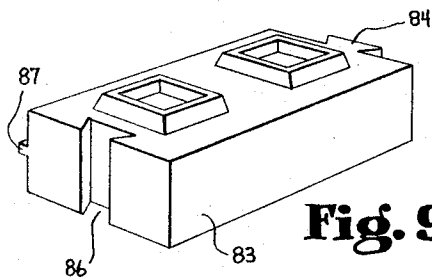


Fig. 9.

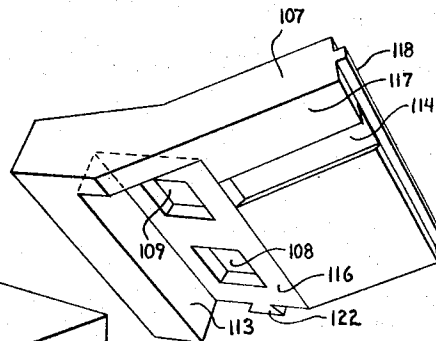


Fig. 11.

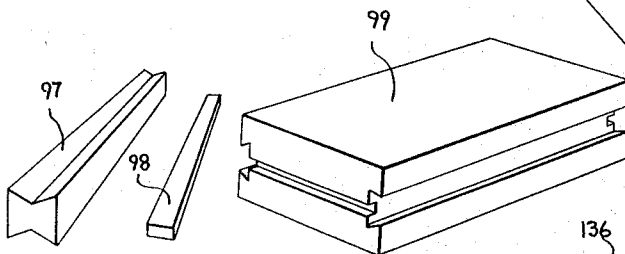


Fig. 14.

Fig. 17.

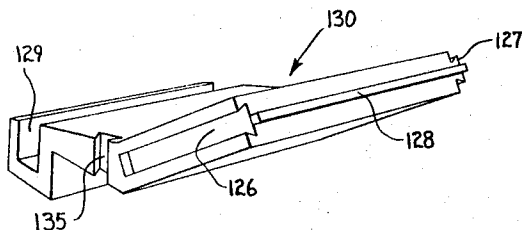


Fig. 13.

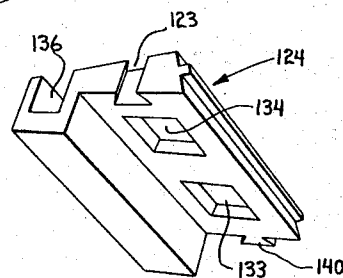


Fig. 12.

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3,305,982 INTERLOCKING BLOCK BUILDING CONSTRUCTION

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Filed Nov. 13, 1963, Ser. No. 323,440
2 Claims. (Cl. 52—90)

This invention relates generally to building construction and more particularly to means and a method whereby a comparatively inexperienced and unskilled person can construct a building with very little or no difficulty.

Heretofore, construction of buildings has usually been undertaken and successfully accomplished only by persons of considerable skill and experience. Moreover it has required a substantial investment in the way of time and labor as well as construction materials and tools. Moreover, even in the most simple types of building constructions heretofore known, it is almost essential that two persons be available for construction of certain portions of the building, and particularly the roof construction.

In most building constructions heretofore known, in order to have satisfactory surfaces for both the exterior and interior of the building, it is necessary to employ various types of building materials in the building walls. This usually necessitates tedious and time consuming finishing operations both on the exterior and interior walls of the building. Also various finishing operations are always required on the floors and ceilings of the building.

Another common characteristic of conventional building construction is the fact that much cutting and fitting is required in the construction. Furthermore many of the structural components employed are heavy and bulky and therefore difficult to handle.

It is therefore a principal object of the present invention to provide a building construction and components therefor such as to enable even the unskilled person to construct a very acceptable and desirable building with ease.

A further object is to provide a building construction requiring a minimum of time and labor.

A further object is to provide a building construction which eliminates the necessity for cutting, fitting, and finishing operations of a type normally encountered in building construction.

A further object is to provide a building construction which can employ well known, readily available, and comparatively inexpensive materials.

A further object is to provide a building construction which may be permanent, if desired, and which will retain an attractive appearance for a long period of time with essentially no maintenance.

Described briefly, in a typical embodiment of the present invention, a rectangular concrete footing is provided. However, practically any kind of foundation can be used if it has a reasonably straight surface adapted to support building blocks. Along two sides of the footing and atop the footing there are provided rows of floor side blocks which rest on the footing and which interlock with each other by the use of dovetail tongue and groove arrangements, each of the blocks having upwardly projecting mitered projections on its top or upper surface. The floor side blocks along one wall of the building have dovetailed tongues on the inside surfaces thereof whereas the floor side blocks on the opposite wall of the building have dovetailed grooves on the inside surfaces thereof.

A floor is provided in the building by the use of blocks having a dovetailed groove on one side and a dovetailed tongue on the other side, with the blocks being assembled in series across from one wall of the building to the

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opposite wall of the building. These blocks, when assembled, are self-sustaining and extend on to the footings at the front and rear walls of the building and are supported thereby at the front and rear walls. The floor blocks which do rest on the front and rear wall footings have mitered projections on the upper surfaces thereof to receive a course of wall forming blocks.

The side and end walls of the building are formed of blocks having mitered recesses on the under surfaces thereof and mitered projections on the upper surfaces thereof, the recesses and projections being properly sized for tying the successive courses of blocks together. At each end of the wall forming blocks there is a dovetail flange or a dovetail groove for interlocking with successive blocks in the same course.

A row of ceiling side blocks is provided at the sides of the building on top of the upper course of said forming blocks. The ceiling side blocks are identical to the floor side blocks. A set of ceiling end blocks is disposed on the upper course of the end wall forming blocks.

The gable ends of the building are formed by courses of typical wall blocks plus tapered blocks which interlock therewith. The roof is also formed of roof blocks similar to those forming the floor and ceiling but of a slightly larger size. Roof side blocks are provided which interlock with each other and with the adjacent roof blocks as well as with the ceiling side blocks to securely anchor the roof structure to the side walls. The tapered blocks at the gable ends are provided with dovetail flange construction to engage dovetail groove construction in the roof end blocks.

The whole structure is thereby keyed together to provide a structurally sound and yet easily assembled building and not requiring adhesives and fillers in its construction.

The full nature of the invention will be understood from the accompanying drawings and the following description and claims.

FIG. 1 is a perspective view of a portion of a building representing a typical embodiment of the present invention, portions of the building being cut away to illustrate certain structural details.

FIG. 2 is an enlarged perspective view of a wall block of the building of FIG. 1, the block being oriented in a direction showing details not apparent in FIG. 1. In FIG. 2 as in the remaining FIGURES 3—13, the orientation of the blocks is not necessarily the same as their orientation in the drawing of FIG. 1, it being changed in a number of instances in order to better show the complete shape of the block or component.

FIG. 3 is a vertical section through the block of FIG. 2 taken along the line 3—3 and viewed in the direction of the arrows.

FIG. 4 is an enlarged perspective view of a ceiling or floor block.

FIG. 5 is an enlarged perspective view of a tapered gable block.

FIG. 6 is an enlarged perspective view of a floor or ceiling side block.

FIG. 7 is an enlarged perspective view of a ceiling corner block.

FIG. 8 is an enlarged perspective view of another ceiling corner block.

FIG. 9 is an enlarged perspective view of a ceiling end block.

FIG. 10 is an enlarged perspective view of a roof corner block showing the upper surface of the block.

FIG. 11 is an enlarged perspective view of the roof corner block of FIG. 10 but showing the lower surfaces thereof.

FIG. 12 is an enlarged perspective view of a roof side block showing the lower surfaces thereof.

FIG. 13 is an enlarged perspective view of another roof side block of greater length than that shown in FIG. 12.

FIG. 14 is a view showing two types of keys which can be used conveniently in the construction of a building according to the present invention.

FIG. 15 is a schematic top plan view of the floor of the building illustrating the arrangement of the blocks along the sides and ends of the floor.

FIG. 16 is a schematic top plan view of the ceiling of the building illustrating the arrangement of the blocks at the sides and the ends of the building.

FIG. 17 is a perspective view of a universal floor and ceiling block.

Referring to the drawings in detail, it is usually desirable to construct the building according to the present invention by beginning at one corner and adding blocks in all directions. Therefore, assuming that there is a rectangular concrete slab or footing 21, construction can begin by first placing the corner block 22 at the southwest corner of the footing. It will be understood when referring to the building, that the south end is the front end, the north end is the rear end, and the portions facing east and west are the right and left sides, respectively. It is only necessary in the practice of the invention that the footing 21 have sufficient width and sufficiently flat and planar top surfaces to support properly the various blocks which form the outer margins of the building around its perimeter.

The block 22 is generally in the form of a rectangular parallelepiped. It has mitered projections 23 and 24 on its upper face and a dovetail flange 26 on its inside face. The flange 26 is coextensive with the block and is located equidistant between the upper and lower faces of the block. The block also has a vertically extending dovetail groove in its rear end located equidistantly between the outside and inside faces of the block.

When block 22 has been installed, the floor side block 28 is installed. This block, which is much like the floor corner block 22, is a rectangular parallelepiped having a pair of mitered projections on its upper face, one of these projections being hidden by the next course of blocks which rests on the course formed by the block 22, block 28 and the remaining floor side blocks. The floor side block 28 is shown in more detail in FIG. 6. It has a vertical dovetail flange 29 in its front end received by the dovetail groove 27 in the rear end of corner block 22. It also has a horizontal dovetail flange 31 in its inside face, this inside face being termed the inside face to designate its position in the building of FIG. 1. A vertical dovetail groove 32 is provided in the rear end of the block.

The remaining blocks in the course which lies on the west leg of the footing are identical to the floor side block 28 with the exception of the block at the northwest corner which is designated by the reference numeral 33 in FIG. 15. This block does not have the dovetail groove therein and presents a smooth surface at the rear end of the building because it is the outside surface.

Referring to the front of the building, a short floor end block 36 rests on the footing front leg. This block is a rectangular parallelepiped with a mitered projection 37 centrally located on its upper face. It has a horizontal dovetail groove 38 in one side and a horizontal dovetail flange in the other side. The dovetail groove receives a portion of the dovetail flange 26 of the corner block 22. The rest of the dovetail flange 26 is received by a horizontal dovetail groove in a side of the floor block 41.

Floor block 41, also is shown in greater detail in FIG. 4, wherein the orientation is different from the block in FIG. 1. The block 41 is a rectangular parallelepiped with a dovetail flange 42 in one side thereof and a dovetail groove 43 in the opposite side thereof. It has a straight flange 44 in one end thereof and a straight groove 46 in the other end thereof. Where the expressions straight flange and straight groove are used, this is to distinguish from the dovetail or flaring flanges and grooves, the sides

of the straight flanges and grooves being straight whereas the sides of the dovetail flanges and grooves are flared or tapered. Of course, both the flared and tapered flanges and grooves are straight from end to end to permit sliding of the parts together in interlocking relationship. Thus the dovetail flange 26 of the corner block 22 and the dovetail flange 31 of the floor side block 28 are in alignment when these two parts are assembled together. Likewise the dovetail groove 38 of the floor end block 36 and the dovetail groove 43 of the floor block 41 are in alignment when these two parts are assembled to the dovetail flanges of the blocks 22 and 28.

The floor end short block 36 is followed by a floor end long block 47 which is identical to block 36 except that it is twice as long. It is followed by another short block identical to block 36 which is followed by a long block identical to block 47 and so on across the front leg of the footing. It has been mentioned that it is most convenient to start with the block 22. This can be followed by installation of either the block 28 or the block 36. Once the three blocks 28, 22 and 36 have been placed on the west and south legs of the footing, the block 41 can be conveniently installed. It is installed by placing the block beginning at the north end of block 28 and aligning the dovetail groove of block 41 with the dovetail flange of block 28. It is then slid horizontally to the south until the front end of the block 41 abuttingly engages the rear end of the block 36. At this time, the straight flange on the inside face of the block 36 will have been engaged by the straight groove 46 of the block 41. Thus the block 41 is firmly supported on one side by the blocks 28 and 22 and on one end by the block 36. It will remain there in position without there being any support under the block 41. Thus it is seen that no slab under the floor is necessary as such and only a generally rectangular footing sufficient to support the blocks forming the perimeter of the floor is sufficient.

The floor end long block 47 can be installed conveniently either prior to or subsequent to the installation of block 41. Similarly, the remaining floor front end blocks can be installed before the rest of the floor blocks are installed. However it is not convenient to install all of the floor side blocks before installing sufficient floor blocks, for the reason that the floor side blocks must be installed from a vertical direction because of the vertical dovetail tongues and grooves therein. If they were all installed before the floor was built out sufficiently from the corner in easy steps, it would be necessary to slide the floor blocks to the north of block 41 a substantial distance along the inside surfaces of the floor side blocks before they arrived at their proper locations.

In other words, after the floor block 41 is installed, before adding another floor block it is advisable to install the floor side block 48. Then the floor block 49 can be installed conveniently. Once the floor blocks 41 and 49 are installed, and floor end block 47 is installed, the floor block 51 can be readily installed. All of these blocks are slid into position horizontally sliding in a direction from north to south.

Referring further to FIG. 15, the blocks 52 and 53 at the northeast and southeast corners of the building may be exactly the same as blocks 33 and 22 at the northwest and southwest corners of the building respectively, except that the blocks 52 and 53 have dovetail grooves in their inside faces whereas the blocks 33 and 22 have dovetail flanges in the inside faces thereof. It should be apparent, that the construction of the floor will be facilitated if construction begins at the southeast corner at about the same time that construction begins at the southwest corner and if construction from both corners proceeds at a pace such that it does not require sliding of floor blocks excessive distances.

Any time, after installation of floor side and end blocks, erection of walls thereon can begin. For construction of the walls, wall blocks 54 are used, details of which are

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shown in FIGS. 2 and 3. These wall blocks are rectangular parallelepipeds, each having a vertical dovetail groove 56 in one end and a vertical dovetail flange 57 in the other end. Each has a mitered projection 58 on its upper surface and a mitered recess 59 on its lower surface. Most blocks have two mitered projections and mitered recesses. The exterior perimetrical dimensions of the mitered projections are equal to the interior perimetrical dimensions of the mitered recesses thus accommodating the projection of one block into the recess of the next block placed thereon. Thus the interlocking arrangement of all wall blocks is established between courses of blocks. Furthermore it is preferable to break the joints in constructing the various courses of blocks.

As shown in FIG. 3, the blocks are hollow providing cavities 61 and 62 therein separated by a partition 63. Access to each of the cavities such as 61, for example, is provided by way of the aperture 64 in the mitered projection and the aperture 66 in the mitered recess. This construction makes it possible to provide blocks of very light weight and having good insulating properties by the provision of dead air spaces in the blocks. It is contemplated that for the wall blocks as well as the other blocks incorporated in the building construction, inexpensive plastics will be employed, further contributing to the light weight and ease of handling of the blocks as well as their durability and the facility of obtaining desired surface effects and colors therein.

While the various courses of blocks in the walls are interlocked by the mitered projections and recesses in the blocks 54, the interlocking of the various blocks in a single course is provided by the interengagement of the dovetail flanges and dovetail grooves in successive blocks in a course.

It will be recognized that the wall blocks at the corners of the building do not have a dovetail flange at one end and a dovetail groove at the other end but instead have either a vertical dovetail flange or a vertical dovetail groove at one end with the opposite end being smooth.

At the window 67, the wall block 68 may be identical to the remaining wall blocks in the building with the exception that the corners thereof at 69 and 71 may be rounded, if desired, and a straight groove may be provided in the end to receive a window frame. Other configurations may be employed depending upon the type of window to be used. Also a window sill block 73 may be employed having suitable dimensions to provide an overstand or projection beyond the wall surface of two inches or more, as desired. These blocks may have a sloping upper face 74 with a step 75 therein, again to accommodate the window frame. The lower face of the blocks is provided with mitered recesses the same as for the regular wall blocks and which receive the mitered projections of the supporting course of wall blocks.

The window header 76 may be made of a single block one-half the height of the ordinary wall blocks with mitered recesses and projections therein and having a short course of half-height blocks 77 thereon. The overstand from the exterior wall surface of the building provided by the portion 78 may be made to any extent desired.

At the doorway 79 the blocks used may be the same as the blocks 68 at the windows and may have the straight groove 72 receive a door frame, if desired. The header for the door may be the same as that for the window or other types may be employed.

At the top surface of the upper courses of blocks for the various walls there is provided another course of ceiling end and side blocks. The ceiling side blocks are identical to the floor side blocks. For example, ceiling side block 82 is identical to floor side block 23. The are the floor blocks received and supported by the floor end blocks in order to provide a smooth regular appearing exterior surface on the building at this elevation.

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Ceiling end block 83 is an example and is shown in FIG. 9. This block has a vertical dovetail tongue 84 at one end and a vertical dovetail groove 86 in the other end. It has a straight horizontal flange 87 in its inside face which enters and engages the horizontal groove in one side of the ceiling block adjacent thereto. The ceiling blocks 88 are identical to the floor blocks 41 and are disposed in the same orientation as the floor blocks 41. Consequently the ceiling blocks are received and supported by the ceiling side blocks in the same manner as are the floor blocks and they are received and supported by the ceiling end blocks in the same manner as are the floor blocks received and supported by the floor end blocks. Also the manner of construction of the ceiling is the same as that of the floor.

Because of the difference between the ceiling end blocks and the floor end blocks, the ceiling corner blocks are different from the floor corner blocks. By way of example, there is in FIGS. 1 and 8, ceiling corner block 89. This block has a pair of mitered projections on its upper surface and has a vertical dovetail flange 91 in one end. It has a vertical dovetail groove 92 in one face to receive the vertical dovetail flange of the ceiling side block 82. The corner block 89 also has a shortened straight flange 93 which is horizontal and on an inside face thereof to engage the horizontal groove in the short block 94 at the corner. FIG. 7 shows the typical ceiling corner block 95 for the northwest corner of the building. The block for the northeast corner is identical except that it has a horizontal flange instead of the horizontal groove of block 95.

Referring to FIG. 16, the ceiling side block 96 on the east wall is identical to ceiling side block 82 on the west wall with the exception that block 96 has a horizontal dovetail groove therein whereas block 82 has a horizontal dovetail flange thereon. Again it should be mentioned that block 82 is identical to block 28 shown in FIG. 6.

It will be apparent that in the construction of the floor and ceiling, the necessity of providing right hand and left hand blocks can be avoided if one set of floor and ceiling blocks extending from north to south is provided with dovetail grooves on both sides which are tied together by the key 97 of FIG. 14. Also, it may be advantageous in certain instances to provide a pair of adjacent straight grooves with a key 98 fitted therein. Also, a master floor and ceiling block 99 may be provided as shown in FIG. 17. This block has horizontal dovetail grooves on opposite sides thereof and horizontal straight grooves on the opposite ends thereof. These grooves facilitate the use of the keys 97 and 98 for connection to adjacent blocks such as block 41.

At the front and rear ends of the building are gables. The standard wall forming blocks such as 54 are used at the gable ends. However tapered blocks 101 such as shown in FIG. 5 are employed to receive the ends of the roof. Each of these blocks has a dovetail groove 102 upstanding in an end and an upstanding dovetail flange 103 in the inclined upper surface 104 thereof. The vertical dovetail grooves tie the tapered blocks into the remaining blocks of the course and each of the tapered blocks has two mitered recesses in the under side thereof for engagement with the mitered projections of the ceiling end blocks 83. These mitered recesses are designated by the reference numerals 106 in FIG. 5.

Construction of the roof begins at the southwest corner, for example, with a roof corner block 107 shown in FIGS. 10 and 11. This block has mitered recesses 108 and 109 therein which are received on the mitered projections 111 and 112 respectively of the blocks 89 and 82 respectively. The inside 113 engages the outside faces of the blocks 89 and 82. The groove 114 in the block receives the dovetail flange 103 of block 101, interlocking therewith. Block 107 is first assembled with the block 101. The combination is then placed down on

the blocks 89 and 82. The flat underside 116 of the block 107 rests on the upper surfaces of the blocks 89 and 82 whereas the inclined underside 117 of the block 107 rests on the upper face of the tapered block 101. A straight flange 118 is provided at the upper edge to engage the straight groove 119 of a roof end block such as block 121 (FIG. 1).

Block 107 has a vertical dovetail flange 122 therein which engages the vertical dovetail groove 123 of a short roof side block 124 which is shown in enlarged form in FIG. 12 (not shown in FIG. 1). This block 124 has a pair of mitered recesses 133 and 134 in the under side thereof which receive the mitered projections of ceiling side blocks thereunder.

A roof side long block 130 (FIG. 13) adjoins the roof side short block 124 and is identical thereto with exception of having a longer inclined span. It also has a dovetail groove 126 in one side of the inclined span and a dovetail flange 127 in the other side thereof and a straight flange 128 on the upper edge thereof. It has a gutter channel 129 near the outer margin thereof like the gutter channel 131 of the roof corner block 107. The roof side block 130 has mitered recesses in the underside thereof like block 124 to receive mitered projections of the ceiling side blocks to which it is mounted. The channel 136 is identical to that of the block 124 and these channels in the various roof side blocks provide a rain gutter. The vertical dovetail groove 135 of block 130 receives the vertical dovetail flange 140 of block 124.

The main roof blocks 137 are identical to the floor and ceiling blocks, with the exception of their size. Also, during installation, they are slid downwardly at an angle toward the west wall of the building. The roof end blocks 121 are much like the roof blocks but are longer and have the dovetail grooves in the underside thereof which are received on the dovetail flanges of the tapered blocks in the gables. The construction of the east portion of the roof is identical to that of the west portion.

At the peak 138 of the roof is a special block having a pair of straight flanges 139 and 141 therein to receive special roof blocks 142 and 143 respectively.

In the construction of the building in general, it is not necessary to use any adhesives at all. It is also not necessary to use interior supports for the ceiling, floor or roof. Interior partitions can be made if desired in the same manner as are the exterior walls. It is usually desirable to use some type of clear plastic sealer on the roof to prevent water leakage.

If desired, clear plastic can be used in a number of the roof and ceiling blocks for interior natural lighting. As mentioned previously, the wall, floor and ceiling and roof materials can be obtained in a variety of colors and surface finishes. Therefore finishing of the exterior and interior of the building is not necessary. Moreover, decoration can be formed right into the block surfaces if desired.

From the foregoing description, it is observed that the present invention makes it possible to achieve all of the objects set out herein and other objects, advantages, features will also become apparent to those skilled in the art.

While the invention has been disclosed and described in some detail in the drawings and foregoing description, they are to be considered as illustrative and not restrictive in character, as other modifications may readily suggest themselves to persons skilled in this art and within the broad scope of the invention, reference being had to the appended claims.

The invention claimed is:

1. A building comprising: a foundation having front and rear end walls and left and right-hand side walls; a first course of floor side blocks on one of said side walls, said course including blocks each having a ver-

tical dovetail groove in one end and a vertical dovetail flange in the other end and a horizontal dovetail flange in one side and projections in the upper surface thereof, with the dovetail flanges in the ends thereof interlocking with the dovetail grooves in the ends of adjacent blocks; a plurality of superimposed courses of side wall forming blocks disposed on said floor side blocks, each of said side wall forming blocks having recesses in the underside thereof receiving the projections of the upper surfaces of the next lower course of blocks and each of said side wall forming blocks having projections on the upper surfaces thereof to project into recesses of blocks in the next higher course of blocks, and each of said side wall forming blocks having a vertical dovetail flange in one end thereof and a vertical dovetail groove in the other end thereof, with each block in a course having the dovetail flange thereof received by the dovetail grooves of an adjacent block in the course; and a course of ceiling side forming blocks received on the upper course of side wall forming blocks, said ceiling side forming blocks having recesses in the underside thereof to receive the projections on the upper surfaces of the upper course of side wall forming blocks, and said ceiling side forming blocks having one end with a vertical dovetail flange in said one end of said ceiling forming blocks and another end with a vertical dovetail groove in said another end of said ceiling forming blocks, with the dovetail groove of one block in the course receiving the dovetail flange of an adjacent block in the course, each of said ceiling side forming blocks having an inside face and a horizontal dovetail flange on the inside face of said ceiling side forming blocks; and a floor comprising a plurality of courses of floor forming blocks in side-by-side relationship, said floor forming blocks having a horizontal dovetail groove in one side thereof and a horizontal dovetail flange in the opposite side thereof and a horizontal straight groove in one end thereof and a horizontal straight flange in the other end thereof, the adjacent blocks in a course having the straight flange of one received in the straight groove of the other and with adjacent courses of blocks having dovetail flanges of one course received in the dovetail grooves of the next adjacent course, said floor including floor end forming blocks having projections on the upper surfaces thereof with said floor end forming blocks being mounted on an end wall of said foundation, said floor end forming blocks having a straight horizontal flange in one end thereof to enter a straight horizontal groove in the next adjacent floor forming block, whereby said floor forming blocks are interlocked with each other and with the floor side and end forming blocks to provide a self sustaining floor requiring no intermediate supports between the side and end walls of said foundation; and a ceiling having a plurality of blocks with a horizontal dovetail flange in one side thereof and a horizontal dovetail groove in the other side thereof and a straight flange in one end thereof and a straight groove in the other end thereof, the blocks being arranged in courses with the blocks in one course being interlocked with each other by means of the interengagement of the straight flanges and grooves of adjacent blocks in the course, and successive ceiling courses being laid horizontally in side-by-side relationship, with the horizontal dovetail flanges of one course engaging the horizontal dovetail grooves of the next adjacent course of blocks, and the course of ceiling blocks adjacent said ceiling side forming blocks having the dovetail grooves thereof received on the dovetail flanges of the ceiling side forming blocks; ceiling end forming blocks disposed on one of said end walls of said building and having a vertical dovetail flange in one end and a vertical dovetail groove in the other end and projections in the upper surface thereof and a straight horizontal flange in the inside face thereof, said ceiling end forming blocks having the straight horizontal flange thereof projecting into and supporting the straight hori-

zontal groove of the next adjacent ceiling forming block, whereby said ceiling is supported by said side and end walls without intermediate supports; and a roof comprising roof side forming blocks disposed on said ceiling side forming blocks, said roof side forming blocks having recesses in the underside thereof to receive projections of said ceiling side forming blocks and having a channel in an outer marginal portion thereof and having a vertical dovetail groove in one end thereof and a vertical dovetail flange in the other end thereof whereby adjacent roof side forming blocks are interlocked with each other, every second successive one of said roof side forming blocks having a dovetail groove in one side thereof in a sloping portion thereof and a dovetail flange in the other side of a sloping portion thereof and a straight flange in an upper end of said sloping portion thereof, and a plurality of roof forming blocks mounted in courses beginning with each of said roof side forming blocks, each block of a course of said roof forming blocks having a dovetail flange in one side thereof and a dovetail groove in the other side thereof and a straight flange in one end thereof and a straight groove in the other end thereof, the straight groove being in the lower end thereof and received on the straight flange of the next lower roof forming block, the dovetail flange and grooves of each course of said roof forming blocks being interengaged and interlocked with the dovetail flanges and grooves of blocks of the next adjacent courses of roof forming blocks.

2. In a building structure, roof side forming blocks having first and second mitered recesses in the underside of said blocks for receiving mitered projections on a building wall, and said blocks having a marginal portion and a gutter channel in said marginal portion of said blocks and having opposite ends with a vertical dovetail groove in one of said ends of said blocks and a vertical dovetail flange in the other end of said blocks whereby adjacent roof side forming blocks may interlock.

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