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INTERLOCKING PARTITION BLOCK

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7 Claims. (Cl. 72—38)

This invention relates to interlocking building blocks and more particularly to blocks adapted for wall partition uses and the like.

It is an object of the invention to provide blocks which are adapted to mortise or member together without the use of cementitious adhesive materials between the blocks, whereby a partition wall or the like may be economically constructed and susceptible of being taken apart and reassembled in a new location without injury to the blocks, the same being particularly of advantage for installation in office buildings and the like where new tenants desire a rearrangement of divisional walls.

A further object of the invention is to provide partition blocks which may be readily stacked one upon another in a vertical position for forming walls whereby unskilled labor may be employed during the erection thereof, said wall providing a finished appearance without the use of plaster or similar coverings as heretofore practiced in the art.

A further object of the invention is to provide wall blocks adapted to member together accurately whereby the vertical surfaces thereof may be covered with wall paper or the like, without the joints between the blocks showing through the covering.

Other and further objects and advantages of the invention will be understood from the following description thereof, reference being had to the accompanying drawing, in which:

Figure 1 is a side elevation of the new block, certain parts thereof being broken away.

Figure 2 is a perspective view of the block.

Figure 3 is an edge view thereof.

Figure 4 is a vertical section of the block taken on the line 4—4 of Figure 3.

Figure 5 is a sectional view of a ceiling, wall and floor of a building and showing a fragment of a partition wall constructed in accordance with the present invention in conjunction therewith.

Figure 6 is a vertical section of the new wall taken substantially on the dotted line 6—6 of Figure 5.

Referring now to the drawing for a more particular description, in which like numerals designate like or corresponding parts, 10 indicates a ceiling, 11 a floor and 12 a vertical wall therebetween, said parts being conventional.

The block of this invention is indicated at 13 and is substantially rectangular in cross section and provided with two faces 14 which are oppositely disposed and parallel with respect to each other and, as best shown in Figure 1, are substantially L-shaped in plan and provided with six marginal surfaces therebetween. The marginal surfaces

15 and 16 are of greater length and area than the remaining surfaces indicated at 17, 18, 19 and 20 and disposed at substantially a right angle and are preferably of equal area with respect to each other, providing apexes 21. The surfaces 15 and 16 are each provided with an outwardly projecting tongue indicated at 22 and 23 respectively, said tongues preferably being positioned mid-way between the L-shaped faces 14, the tongue 22 being provided with notches 24 for purposes later described.

The edges provided by the junction of the L-shaped faces and the marginal surfaces 17 to 20 inclusive provide, as best shown in Figure 1, a "step-cut" configuration in plan and said surfaces are each provided with inwardly disposed grooves indicated, respectively, at 25, 26, 27 and 28. The grooves 26 and 28 each contain an outwardly projecting lug indicated at 29 which are adapted to member with the notches 24 of adjacent blocks for purposes later described. It will be understood that the lugs 29 are integral with the main body portion of the blocks 13 and project outwardly therefrom and lie within the plane of their grooves.

The grooves 25 and 28 inclusive are "let into" each other providing a continuous groove upon one-half of the marginal surface of the block. The grooves correspond, in shape, with the tongues 22 and 23 and are adapted to snugly receive the tongues of adjacent blocks.

The block may be provided with any desired number of apertures 30 disposed at right angles with respect to similar apertures 31 for the purpose of conserving material and providing openings through which electric conduit, pipes, loom, wires or the like may be readily inserted. The blocks are manufactured in molds and are preferably composed of a composition of matter, the primary element thereof being gypsum or the like. It will be noted that the marginal surfaces 15 and 16 are of substantially the same area and length with respect to each other and that each thereof is substantially twice the length and area of any of the marginal surfaces 17 to 20 inclusive.

In operation, in order to provide a wall built of a plurality of the blocks 13, a floor strip 32 is first placed on the floor 11 and leveled, said strip being provided with a tongue similar in shape to the tongues 22 and 23 of the block, the tongue of the strip being adapted to member snugly in the grooves 20 of the blocks.

It will be understood that in erecting a wall of the blocks the tongues 22 are placed upwardly in

a horizontal position whereby the notches 24 of the tongues 22 are adapted to receive the lugs 29 of adjacent blocks, said tongues fitting snugly within the horizontally positioned grooves 26 and 28 of adjoining blocks.

In the erection of a wall certain filler blocks are preferably used in lieu of sawing the blocks of this invention and in building a wall, such as is illustrated in Figure 5, a filler block A is first placed upon the strip 32 and against the conventional wall 12. A block 13B of this invention is next placed as shown, it being understood that the block A is provided with tongues adapted to member in the adjacent grooves of the block 13B, and with grooves on the surfaces opposite those having the tongues. A filler block C is now placed on the strip 32, said block being similar to the block A except that it is twice the length of the former. A block D similar to the block C is now placed against the wall 12 upon the block 13B. A block 13E is now membered with the adjoining blocks and the operation continued until the space between the floor 11 and the ceiling 12 is filled in. A filler means, cementitious or otherwise, indicated at 33 may be placed between the ceiling and the last horizontal tier of blocks of the wall 34. The filler may include suitable wedges indicated at 35 for locking the wall to the ceiling.

It will be understood that a wall erected as above described is provided with interlocking means adapted to resist stresses in all directions, the lugs 29 upon membering with adjacent notches 24 of adjoining blocks assist during the erection of a wall and also resist horizontal sliding movements of the blocks of a finished wall particularly those blocks which are positioned at the vertical edges of openings such as are incidental to door ways or the like.

Blocks similar in shape to the block indicated at E in Figure 5 may be used advantageously for certain purposes.

It will be understood that in erecting a vertically aligned wall the above-mentioned filler blocks may be readily cut from blocks shaped like the block 13 by means of a common hand saw without nicking the marginal edges of the faces 14, the gypsum composition of the blocks being susceptible of being sawed in a manner which does not injure the smooth finish of the faces 14 nor mar the appearance of wall paper when applied thereto. As shown in Figure 5 the apexes 21 at the junction of the arms of the L are snugly received in the recesses provided between the arms of a contiguous block providing a smooth finished wall, the tongues and grooves of abutting blocks being engaged or interfitted to bond the blocks of the wall together, the latter being of the thickness of a single block. It will be noted that as thus described the joints of the bond are equal in length to adjacent portions of the blocks and interrupted in all directions for stiffening the wall and that the bond is provided without the use of extraneous material such as cement, iron, stay-rods and the like providing a bonded wall construction the blocks of which may be readily and manually taken apart, without injury thereto or breakage of the corners thereof, the blocks being simply lifted one from another, the same being permissible on account of the non-use of cementitious material or the like, whereby the blocks are reusable in a like erected or arranged wall, old wall paper being readily removed by moistening the latter.

From the foregoing description it is thought

to be obvious that an interlocking partition block, constructed in accordance with my invention, is particularly well adapted for use by reason of the convenience and facility with which it may be assembled and operated, and it will also be obvious that my invention is susceptible of some change and modification without departing from the principles and spirit thereof and for this reason I do not wish it to be understood as limiting myself to the precise arrangement and formation of the several parts herein shown in carrying out my invention in practice except as herein claimed.

I claim:—

1. A building block comprising a body rectangular in cross section and provided with two oppositely disposed faces of substantially L-shape having six marginal surfaces between said faces, two of said surfaces being of greater area than any of the remaining four surfaces and of equal area with respect to each other, an outwardly projecting tongue on each said greater area surface, and grooves disposed in each said remaining surface certain of said tongues having spaced notches therein, and lugs within certain of said grooves adapted to seat in said notches to hold the abutting blocks against edgewise movement.

2. A building block comprising a body rectangular in cross section and provided with two oppositely disposed faces of substantially L-shape having six marginal surfaces between said faces two of said surfaces being of greater area than any of the remaining four surfaces and of equal area and disposed at a right angle with respect to each other, an outwardly projecting tongue on each said greater area surface, and corresponding grooves disposed in each said remaining surface certain of said tongues having spaced notches therein, and lugs within certain of said grooves adapted to seat in said notches to hold the abutting blocks against edgewise movement.

3. A building block comprising a body rectangular in cross section and provided with two oppositely disposed faces of substantially L-shape positioned parallel with respect to each other and having six marginal surfaces between said faces two of said surfaces being of greater area than any of the remaining four surfaces and of equal area and disposed at a right angle with respect to each other, an outwardly projecting tongue on each said greater area surface, one of said tongues being provided with a notch, grooves disposed in each said remaining surface, and a lug positioned within the plane of a groove and disposed substantially opposite to said notch.

4. A building block comprising a body rectangular in cross section provided with two substantially L-shape oppositely disposed faces having six substantially rectangular shaped marginal surfaces between said L-shaped faces, two of said marginal surfaces being disposed at a right angle with respect to each other and of greater area than the remaining four rectangular surfaces, each of said greater area surfaces being provided with an outwardly projecting tongue, and corresponding grooves disposed in each said remaining surface certain of said tongues having spaced notches therein, and lugs within certain of said grooves adapted to seat in said notches to hold the abutting blocks against edgewise movement.

5. A vertical wall including a plurality of blocks, each block having two oppositely disposed faces of like contour in plan, each face having two arms disposed at right angles to each other providing an apex at the junction of the arms and

- a recess between said arms, and surfaces disposed between the faces having tongues and grooves, said blocks being so arranged in the wall that the apexes of the blocks are snugly received in the recesses of abutting blocks with the tongues engaged in the grooves of contiguous blocks, whereby the blocks of the wall are bonded together without the use of extraneous means, the joints of said bond being equal in length to adjacent block portions and interrupted in all directions for stiffening the wall, said wall being of single block thickness and adapted to be manually taken apart without injury to the blocks for reuse in a like arranged wall, certain of said tongues having spaced notches, and lugs in certain of said grooves adapted to seat in said notches to hold the abutting blocks against edgewise movement.
6. A building block having two oppositely disposed faces of like contour in plan having two arms disposed at right angles to each other providing an apex at the junction of the arms and a recess between said arms, and surfaces disposed between the faces having tongues and grooves, whereby a plurality of such blocks may be erected and aligned vertically to form a wall of single block thickness in which the apexes of the blocks are snugly received in the recesses of abutting blocks with the tongues and grooves thereof interfitted for providing a bond without the use of extraneous means, the joints of said bond being interrupted in all directions for stiffening the wall, said erected blocks adapted to be manually taken apart without injury to the blocks for reuse in a like erection, certain of said tongues having spaced notches, and lugs in certain of said grooves adapted to seat in said notches to hold the abutting blocks against edgewise movement.
7. A building block provided with two oppositely disposed faces of like contour in plan, and a plurality of surfaces disposed between the marginal edges of said faces, said surfaces having tongues and grooves, whereby a plurality of such blocks may be erected and aligned with the tongues fitting into the grooves of contiguous blocks to form a vertical bonded wall of single block thickness without the use of extraneous means, the joints of the bond being interrupted in all directions for stiffening the wall, said erected blocks adapted to be manually taken apart without injury to the blocks for a reuse in a like erection certain of said tongues having spaced notches, and lugs in certain of said grooves adapted to seat in said notches to hold the abutting blocks against edgewise movement.

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