

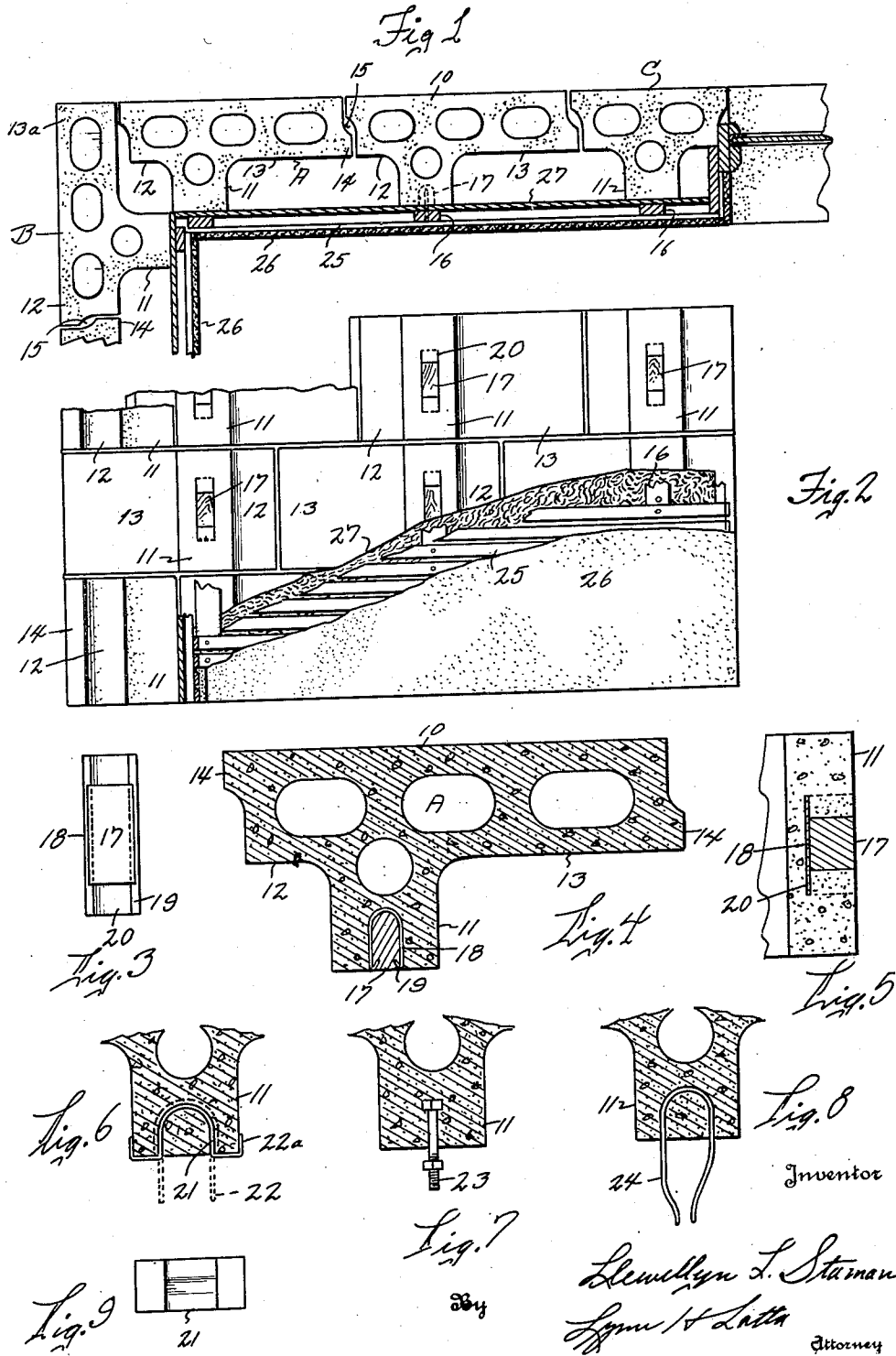
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BUILDING CONSTRUCTION

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BUILDING CONSTRUCTION

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This invention relates to building construction usable primarily in dwelling houses, and embodying concrete blocks as a primary wall-forming medium. Its object is to provide a concrete block structure embodying both an outer wall-forming member, and an integral studding member provided with securing means for attachment of inner wall panelling such as, for instance, a lath and plaster interior finish, whereby the conventional wood studding is eliminated and yet the insulating properties of interstudding air spaces retained.

The invention further contemplates the providing of a very simple, relatively inexpensive, yet enduring wall construction embodying an outer wall formed of articulated moulded material members having integral vertical webs, and an inner wall panel, air spaced from the outer wall member and secured to the faces of said webs, the securing means being such as to lend itself readily to rapid and easy attachment of the inner panelling to the webs.

The invention further aims to provide simple yet effective attachment means, moulded into said webs or studding members so as to form a part thereof.

Another object is to provide a block of such shape as to accomplish the following results, namely:

1. Each block shall have one stud member.
2. It shall be possible to stagger the blocks in alternate horizontal rows without staggering the stud members, i. e., the stud members shall line up to form vertical webs. This is to be possible with blocks of identical shape and size, i. e., a basic block member of which a major portion of the wall is composed.
3. It shall be possible to line up the staggered blocks to form a completely closed, straight wall corner.
4. The stud members shall cooperate with the outer wall members to form, at the wall corner, a corner post that is substantially square in cross-section and of such relative dimensions as to lend added stability at the corners of the building. It shall be in the form of a hollow, substantially closed, column.

With these and other objects in view, my invention consists in the construction, combination, and arrangement of the parts hereinafter described, pointed out in my claims, and illustrated in the accompanying drawing, in which:

Fig. 1 is a horizontal sectional view through a wall embodying my invention, taken on a plane dividing two longitudinal rows of blocks,

Fig. 2 is an elevation of the same with parts broken away to better illustrate the construction,

Fig. 3 is a view of a nailing block comprising one form of securing member,

Fig. 4 is a sectional view of one of the blocks,

Fig. 5 is a detail sectional view through one of the stud members embodying a nailing block,

Fig. 6 is a horizontal sectional view through a stud member embodying a modified securing element,

Fig. 7 is a similar view showing another modified form of securing element,

Fig. 8 is a similar view showing a still further modification of the securing element, and

Fig. 9 is a view of the element shown in Fig. 6.

Referring now to Fig. 4, the block which is known as the basic block, comprises an outer wall-forming member 10 and a stud member 11, their respective axes disposed at right angles to each other, and the axis of the stud member intersecting the axis of the outer wall member at a distance from one end of the latter about one third its length. Thus the block is divided by the stud member into a short arm 12 and a long arm 13.

In the basic block, which may be conveniently referred to under the letter A, has the ends of both arms 12 and 13 formed with longitudinally projecting flanges 14, one disposed on the outer side of the block and the other disposed on the inner side thereof. In laying the blocks end to end, the flange of one block will overlap the flange of an adjacent block to form a vertical air space 15, or, if desired, this space may be filled with mortar.

The corner block B has its longer arm 13a squared off as shown in Fig. 1, to form a square corner in the building. Its dimensions are approximately the same as those of the block A.

The first row of blocks is laid with all of the arms 13 pointing in one direction, and the next or alternate row is laid with all of the arms 13 pointing in the opposite direction and with the stud members 11 lined up vertically with those below.

The thickness of the outer wall-forming member 10 is substantially equal to the difference between the lengths of the arms 12 and 13a respectively, so that at the end of a wall the arms 13a will project beyond the ends of the arms 12 in the alternate rows, a distance substantially equal to the thickness of the outer wall portions of the adjoining wall, whereby the spaces thus formed may be completely filled by said adjoin-

ing wall portions to form a closed square corner without interfering with the alignment of the stud members 11. The latter are preferably made substantially as long horizontally as the length of the arms 12, whereby the corners of end studding webs of adjacent walls will substantially abut each other to form a closed corner column as indicated in Fig. 1. Because of the spacing of the stud members from the ends of the blocks, the column thus formed will be a hollow one, of substantial proportions so as to strengthen the structure at its corners.

The special block C is employed for lining up the ends of blocks defining a window or door opening as shown in Figs. 1 and 2.

The inner wall panel may comprise any suitable sheet material secured to the faces of the webs 11. The preferable method of securing is to employ vertical strips 16, into which nails or screws may be driven, and to secure the strips 16 to the webs 11. One form of securing device is the nailing block 17, moulded into each stud member 11, and constructed of some nailable material such as wood, fibre, composition, etc. By "nailable" I mean the ability to be penetrated easily by a nail or screw, and to hold such nail or screw securely against loosening or removal.

The block 17 is mounted in a sheath 18 of sheet metal having inturned flanges 19 received in grooves in the corners of the block and projecting portions 20 of the sheath, when embedded in the concrete block, form a very secure anchor for the nailing block.

Another form of securing element is the anchor 21 (Fig. 6) embedded in the stud member 11 and provided with projecting arms 22 between which the strip 16 may be nailed, suitable openings in the arms 22 being provided to receive the nails. In the moulding of the block, the arms 22 have the shape and position 22a.

Other forms of securing element are the bolt anchor 23 shown in Fig. 7, adapted to project through an opening in the strip 16, and the wire anchor 24 shown in Fig. 8, which may be stapled to the strip 16.

The strips 16 serve as a nailing base for lath 25, where a plaster finish 26 is desired. Con-

ventional forms of wall panelling may also be nailed to the strips 16.

I have shown an inner lining of insulating sheeting 27 interposed between the strips 16 and the stud members 11.

Among the advantages of this invention are: predetermining of the positions of the studding members; eliminating the necessity of erecting a framework of studding independently of the outer wall of the building; eliminating from the frame of the building, perishable studding or other framework; simplifying and cheapening erection; eliminating the possibility of warping of the framework; production of a more fire-proof structure.

I claim as my invention:

1. A building block of moulded material, and a nailing block comprising a sheet metal sheath of U-shaped cross-section and a block of nailable material mounted therein, the sheath projecting beyond the ends of the nailable material and embedded in the building block, and the nailable material being exposed between the arms of the sheath.

2. A building block of moulded material including an outer wall portion and an integral laterally projecting stud member disposed at a distance of approximately one-third the length of the block from one end thereof and having a length approximately equal to that of the shorter arm of said outer wall portion defined between said stud member and an end of the block, and an insert of nailable material moulded into said stud member and forming part of the end face thereof, the thickness of said outer wall being substantially the same as the length of said stud, whereby two of said blocks may be juxtaposed to form a corner of a wall, with the longer arm of one block overlapping the end of the shorter arm of the other block and the corners of the respective studs substantially registering and the end faces thereof forming a substantially closed corner in which the extreme edge regions of two sheets of inner wall panelling may be nailed.

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