

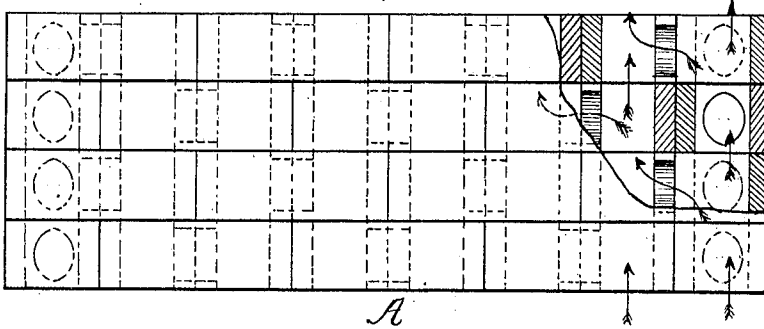
No. 869,615.

PATENTED OCT. 29, 1907.

W. W. BIRNSTOCK.
BUILDING BLOCK AND WALL.
APPLICATION FILED DEC. 21, 1906.

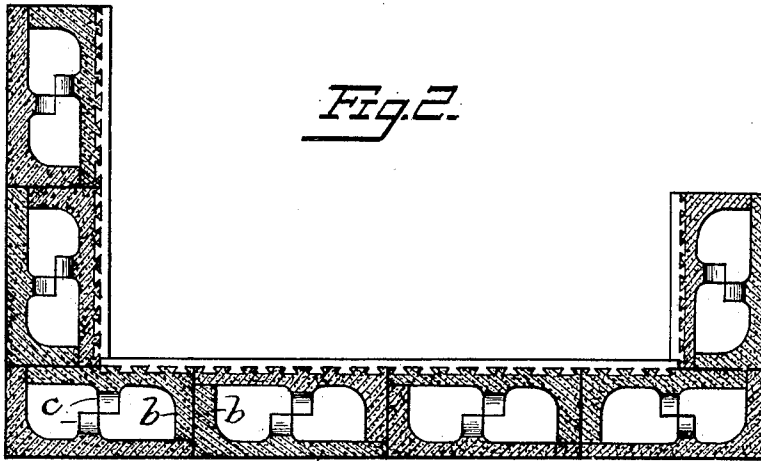
2 SHEETS—SHEET 1.

Fig. 1.



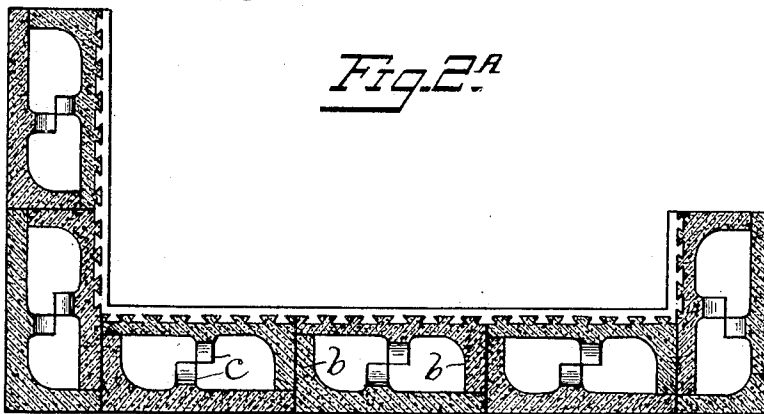
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Fig. 2.



A a

Fig. 2A



A a

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William W. Birnstock

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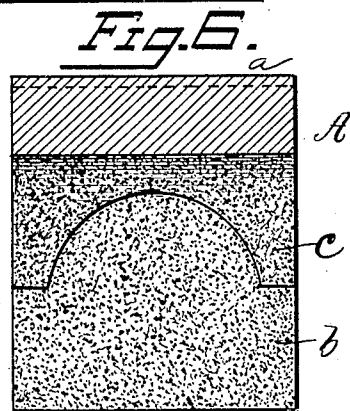
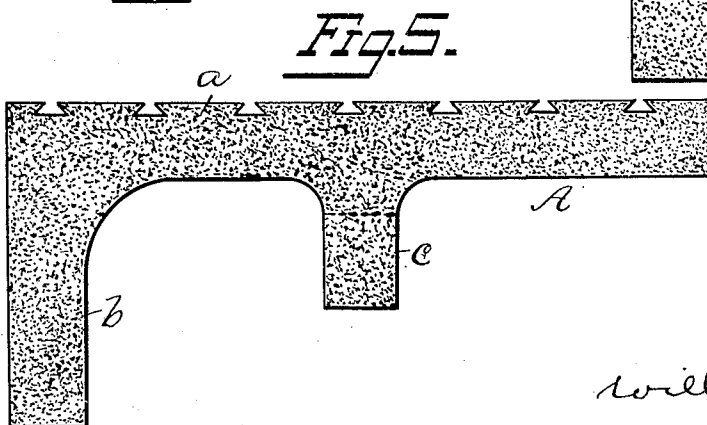
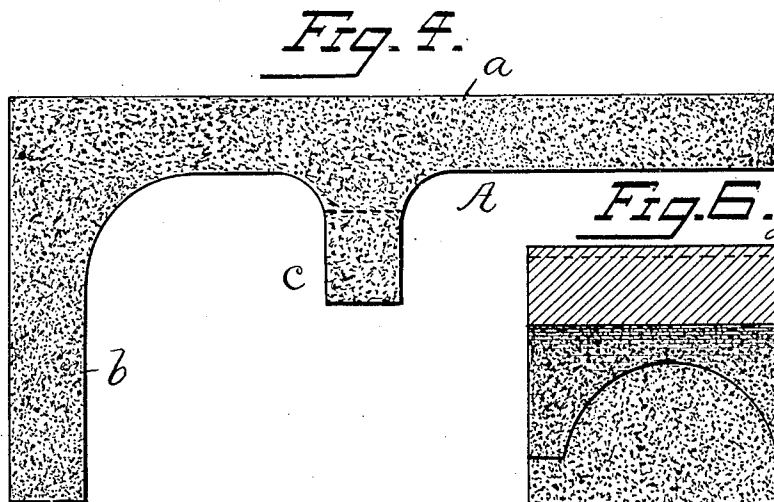
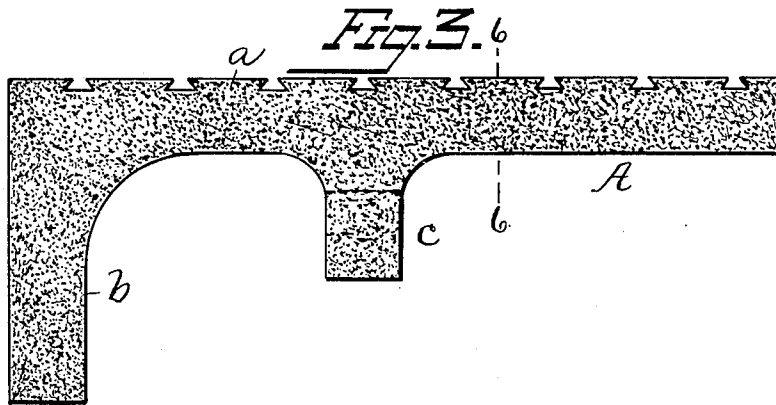
Attorney

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2 SHEETS—SHEET 2.



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UNITED STATES PATENT OFFICE.

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BUILDING-BLOCK AND WALL.

No. 869,615.

Specification of Letters Patent.

Patented Oct. 29, 1907.

Application filed December 21, 1906. Serial No. 348,901.

To all whom it may concern:

Be it known that I, WILLIAM W. BIRNSTOCK, a citizen of the United States, residing at York, in the county of York, State of Pennsylvania, have invented certain new and useful Improvements in Building-Blocks and Walls, of which the following is a description, reference being had to the accompanying drawing and to the letters and figures of reference marked thereon.

My invention relates to improvements in building blocks, made up of concrete, cement or other material, of which artificial stone is usually composed, and it also relates to walls constructed of such blocks.

The object of the invention is to provide building blocks which may be readily molded, which may be easily laid in courses to form substantial walls, with symmetrically broken joints, and with interval air spaces which permit in addition to the vertical currents, inclined currents of air to circulate within the walls.

In an application recently filed by me on the 31st day of October, 1906, Serial No. 341,419, I have claimed a form of hollow building block, and wall constructed of the same, and the present invention is designed as an improvement thereon, the idea being to provide a two pieced block of such construction as will be simple in construction, readily laid, and of distinctive character and design, and possessing features of novelty and advantage not present in two pieced blocks heretofore known.

The invention consists primarily of a building block composed of a body having an inwardly extending projection at one end, an inwardly extending projection intermediate the ends, and parallel with the first projection, both projections being equal in height to the height of the body, the end projections being substantially of greater length than the second projection, which latter is approximately one half as long as the width of the wall for which it is intended, said second projection being so spaced that its side opposite the end projection substantially coincides with the vertical center line of the body. Secondly, it consists in so shaping the second projection as to provide inclined horizontal air passes therethrough. Again, it consists of certain modified structures of the block for use as outer and inner corner blocks. Again, it consists of a wall constructed of such blocks; and finally, it consists of various details of construction and arrangements of parts, all as hereinafter described and referred to in the appended claims.

The invention is illustrated in the accompanying drawings, in which,

Figure 1 is an elevation partly in section, of a portion of a wall formed according to my invention; Fig. 2 is a sectional plan view; Fig. 2^a is a similar view on another construction. Fig. 3 is a plan view of one of the blocks

for the wall; Fig. 4 is a plan view of one of the outside corner blocks; Fig. 5 is a plan view of one of the inside corner blocks; and Fig. 6 is a cross section on line 6—6, of Fig. 3.

In these drawings, A represents one of the blocks, which has the body portion *a*, which may or may not have grooves or projections for the ready attachment of plaster. This block has a projection *b*, extending inwardly at one end, which projection except in the case of an outer corner block, is approximately equal in length to the width of wall for which it is intended, less the thickness of the body portion *a* and the proper allowance for a mortar joint.

Each block has a projection *c* parallel the projection *b*, and approximately equal in length to one half the width of the wall for which the block is intended. This projection *b* is so spaced that its outer side, or side opposite the end projection is on the vertical center line of the body, and is formed as shown in Fig. 6, in the shape of a crescent or other suitable form, so as to make an ample horizontal air passage.

For an outer corner block, as shown in Fig. 4, the projection *b* is made substantially equal in length to the width of the wall, less only say one half the allowance for a mortar joint. For an inner corner block, as shown in Fig. 5, the construction is the same as above described, except that the length of the body portion *a* is shorter by an amount about equal to the thickness of the body portion.

In building the wall, the blocks are laid in courses with the bodies on the inner and outer sides of each course reversed, and the outer face of the end projection *b* of one body portion flush with the plain end of the other body portion, thus forming a hollow block with the face of the projecting end and plain end of the block, thus formed, joining with the plain end and the projected end of the adjacent blocks by means of a mortar joint.

Each course is laid in such a manner so as to break joints with the adjoining course, the projected ends of blocks in one course resting upon the intermediate projection of the blocks immediately under and opposite to them. The corners of wall are formed, by blocks shown in Figs. 4 and 5, being reversed to each other, and the edge of projected end of outer body and a portion of the outer face of inner body joining the face of the projected end and the plain end of blocks in that portion of wall running at right angles with the face of the outer corner body, while the plain end of outer corner body and the face of projected end of inner corner body, joins with the face of the projected end and the plain end of block in that portion of wall running parallel with the face of the outer corner body.

The corner blocks of one course also break joints with

the corner blocks of the adjoining course. By this method of wall construction, the corner of intermediate projection of outer body coincides with the corner of intermediate projection of inner body, thus forming by the special shape of the intermediate projection, a horizontal air space of large area, while the inclosure formed by the projected ends of inner and outer bodies, provides an uninterrupted vertical air passage.

The grooves, indentations, or projections on the inner surface of wall, provide a good bonding surface for the plaster, making it unnecessary to use lathing or studing. All vertical and horizontal joints are formed with mortar, thus furnishing a bonding surface horizontally between the ends of each block thus formed, equal to the width of the wall and the height of the block, also between the edges of end projections and a portion of the inner faces of the bodies equal to the height of the block and the width of the end projection, while a horizontal bonding surface is furnished equal to the entire upper and lower surfaces of the body of the blocks thus formed.

Having thus described my invention, what I claim as new and desire to secure by Letters Patent, is:—

1. A building block having a main longitudinal wall of uniform thickness from end to end, and provided at the center and one end only with projections of transverse walls, the end projection being solid and the central projection being recessed, said central projection extending inward from the inner face of the longitudinal wall approximately half the distance which the end wall projects

and being disposed at that side of the longitudinal center of the block nearest the end wall.

2. A wall composed of building blocks, each course comprising inner and outer blocks of like construction, the blocks of superposed courses breaking joint, each block having a solid projection at one end and a recessed projection disposed at that side of the center of the length of the block nearest the solid projection, the ends of the solid projections of contiguous inner and outer blocks in the same course abutting and the solid projections of each inner block of one course resting on the recessed projection of the outer block of the subjacent course and vice versa, thereby forming double transverse portions throughout the entire wall.

3. A wall composed of inner and outer blocks, each including a body portion having a solid projection at one end, and a recessed projection intermediate the ends, and located to one side of the longitudinal center of the block, both projections being of the same height as the body portion, and the recessed projection being of approximately one-half the length of the end projection, the blocks being laid in courses with the end projection of each outer block resting on the recessed projection of an inner block of the subjacent course, the end projection of an inner block resting on the recessed projection of an outer block of the subjacent course, and the end faces of the solid end projections of contiguous inner and outer blocks of the same course abutting, the blocks being so disposed as to form continuous vertical and tortuous approximately horizontal air passages.

In testimony whereof I affix my signature, in presence of two witnesses.

WILLIAM W. BIRNSTOCK.

Witnesses:

J. M. BIRNSTOCK,
GEORGE S. DELLINGER.