No. 834,610. PATENTED OCT. 30, 1906.

F. FOURNIER.

BUILDING BLOCK.

APPLICATION FILED JAN. 8, 1906.

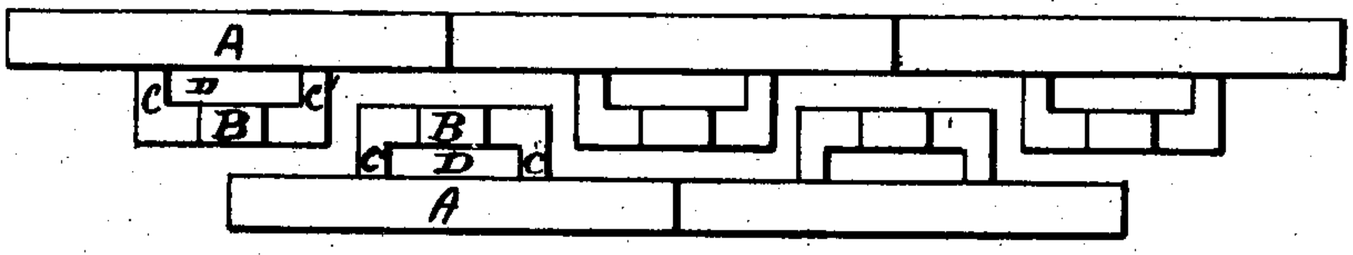

Fig. 1.

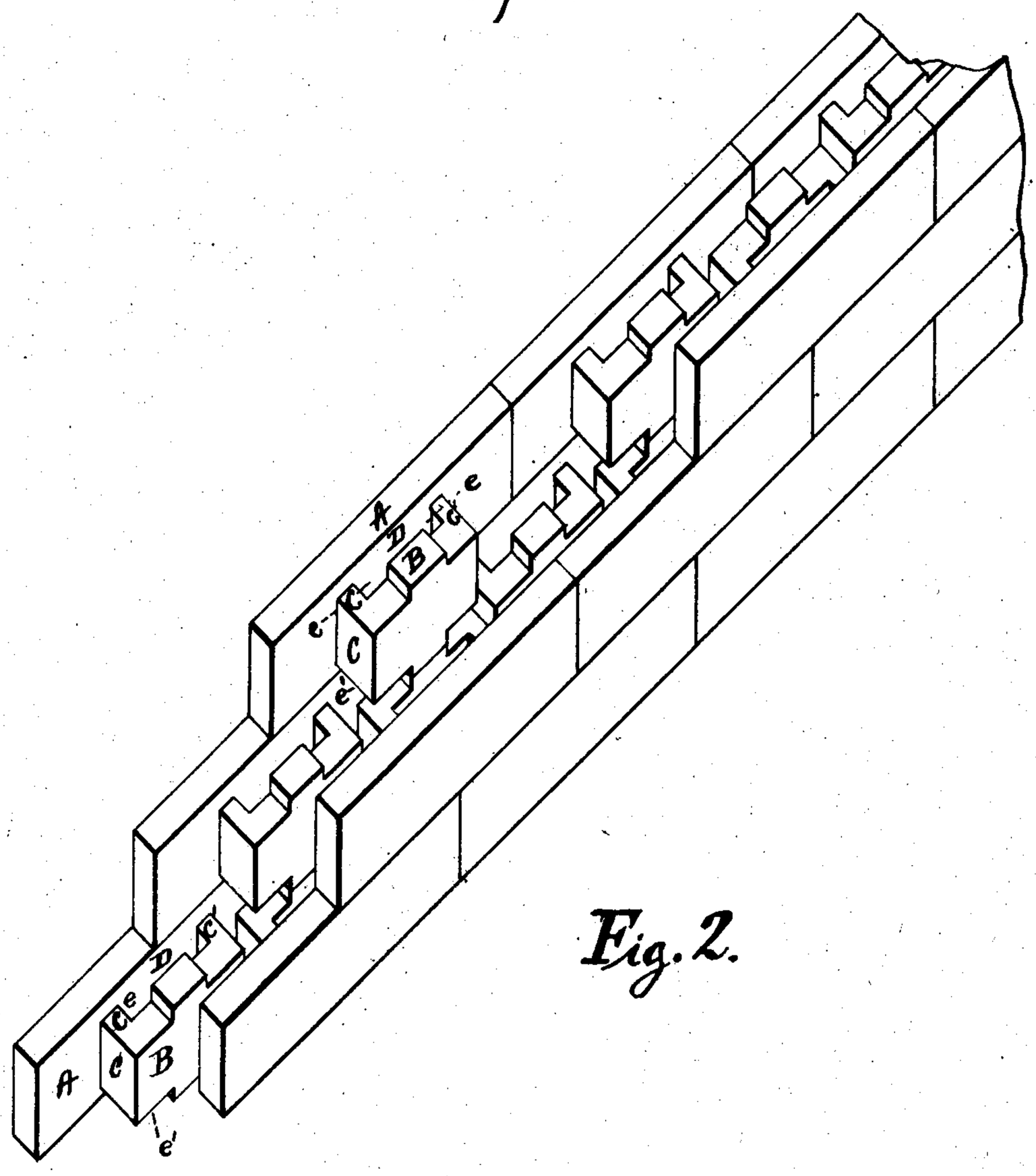

Fig. 2.

WITNESSES.

J. Emmet Sullivan

Edward Bland

INVENTOR.

Frederick Fournier

by Raymond E. Van Cycckle

Attorney

UNITED STATES PATENT OFFICE.

FREDERICK FOURNIER, OF DETROIT, MICHIGAN, ASSIGNOR OF ONE-THIRD TO RAYMOND E. VAN SYCKLE, OF DETROIT, MICHIGAN.

BUILDING-BLOCK.

No. 834,610. Specification of Letters Patent. Patented Oct. 30, 1906.

Application filed January 8, 1906. Serial No. 295,040.

To all whom it may concern:

Be it known that I, FREDERICK FOURNIER, a citizen of the United States, residing at Detroit, in the county of Wayne and State of Michigan, have invented a new and useful Building Block and Wall, of which the following is a specification.

My invention relates to improvements in building blocks and walls; and the objects of my improvement are to construct a block that in combination with others of the same kind will form a wall with continuous interior air-chambers, both horizontal and vertical, opening into each other. I attain these objects by the use of a building-block of the form and construction illustrated in the accompanying drawings, in which—

Figure 1 is a horizontal plan of a course of said blocks laid to form a wall; Fig. 2, a vertical view in perspective of said blocks and wall.

The block itself is a T-shaped block with a hollow core or air-space D in its center, extending vertically and opening laterally at its top and bottom *e* and *e'* to permit the circulation of air, or said block may be described as consisting of two parallel members A and B, integrally connected by two strips or bars C and C', extending laterally from the side of the former member A to the ends of the latter B, thereby holding said members so as to form a vertical air-chamber D between them. By making these strips C and C' of lesser height than the members A and B lateral openings into said air-chamber D are effected at the top and bottom of said block *e* and *e'*, thereby permitting the circulation of air. The height of the member B is the same as that of A, or it may be cut down in part at the extremities of B to the width of the strips C and C', thereby affording still larger lateral openings into the air-chambers D, as illustrated in the drawings.

The member B is opposite the middle of the member A and is shorter than A at each end by more than half the length of itself. In other words, A is more than twice as long as the member B. This proportion is maintained, so that when the blocks are placed as described in the next paragraph there will be a continuous air-space between them.

To form the wall, one course of said blocks is laid end to end with the longer members A forming the exterior face of such wall. A second row of blocks reversed is then laid with its shorter members B placed in the alternate spaces between the shorter members of the first-mentioned row and in line therewith and its longer members A, forming the interior face of said wall. By reference to Fig. 1 it will be seen that a continuous air-chamber is thereby formed extending the entire length of the wall along and between the said shorter members B, arising from the proportion of the blocks, as described in the preceding paragraph.

Each superimposed course is stepped to bind the joints of the course below, and the shorter member B of each block rests upon the shorter member of the opposite block below reversed. Thereby the vertical air-chamber in each block opens at its top and bottom into the above-described continuous air-chamber, which extends horizontally along each course. It will be now readily seen that the lateral openings into said air-chamber D, secured by cutting down the connecting-strips C and C' and the extremities of the shorter member B, as heretofore described, correspond with those of the superimposed block and further facilitate the circulation of air. The vertical air-chamber D is continuous for the entire height of said wall, as are also the vertical air-spaces between the extremities of the shorter members. A line from the front to the rear of said wall will always find an interposing air-chamber.

I am aware that prior to my invention building-blocks have been so constructed that a wall formed therefrom contained air-chambers. I therefore do not claim such a combination broadly; but

What I do claim as my invention, and desire to secure by Letters Patent, is—

1. A building-block consisting of two parallel members; one forming the exterior face of the block, the other forming the interior face and being shorter than the former at each extremity by more than half the length of itself, and integrally connected thereto by two strips or bars, extending laterally from the side of the former to the ends of the latter member, holding said members so as to maintain between them a hollow center space; said strips and the end portions of the shorter member being of lesser height than the remainder of said block, thereby affording

an opening into said center space on each end above and below said lateral strips.

2. A building-block comprising two parallel members; one forming the exterior face of the block; the other forming the interior face and being shorter than the former at each extremity by more than half the length of itself, and being integrally connected thereto by strips or bars extending laterally from the sides of the former, so as to hold said members separate with an air-space between them.

3. A building-block consisting of two parallel members of unequal length integrally connected with strips or bars extending from the side of the longer member to the ends of the shorter, forming therewith a vertical air-chamber in the middle of said block, said lateral strips and the end portions of said shorter member being of lesser height than the remainder of said block; the shorter member being opposite the middle of the longer member, and less than half the length of same, thereby affording a continuous horizontal air-space between said blocks when they are placed in a wall.

4. A wall comprising a plurality of building-blocks consisting of two parallel members of unequal length integrally connected by two lateral strips or bars holding said members so as to maintain between them a hollow center space, said wall consisting in each course of two parallel rows of blocks; the longer members of said blocks forming the outer and inner faces of said wall respectively, and the shorter members of said two rows of blocks being arranged in one line, alternately connected with the outer and inner faces, and forming a support for the corresponding members of the course above, the blocks of the superimposed courses being stepped, with their middle over the ends of those below to bind the joints of same; the shorter members of the inner blocks on the course above coming over and resting upon the shorter members of the outer blocks of the course below and vice versa, thereby affording continuous air-spaces both horizontal and vertical in said wall, substantially as shown and described.

5. A wall comprising a plurality of building-blocks consisting of two parallel members, of unequal length integrally connected by two lateral strips or bars holding said members so as to maintain between them a hollow center space, said wall consisting in each course of a row of said blocks placed end to end with their longer members forming the exterior face of said wall and a second row of said blocks reversed with their shorter members placed in the alternate spaces between the shorter members of the first row, and in the same line therewith; their longer members forming the interior face of said wall, with the ends of the same opposite the middle of the blocks in the other row; said two rows of blocks not touching at any point and forming a continuous air-chamber along the middle of said wall; the longer members of the superimposed courses being stepped to bind the joints of those in the course below and the shorter member of each block resting upon the shorter member of the opposite block below reversed substantially as described.

6. A wall comprising a plurality of building-blocks consisting of two parallel members of unequal length integrally connected by two lateral strips or bars holding said members so as to maintain between them a hollow center space, said wall consisting of one row of blocks laid end to end with the longer members forming the exterior face of such wall and a second row of said blocks reversed laid end to end with the shorter members placed in the alternate spaces between the shorter members of the first-mentioned row and in line therewith, with a continuous air-chamber extending the entire length of the wall along and between the said shorter members; and the longer members of said second row forming the interior face of said wall; each superimposed course being stepped to bind the joints of the course below; and the shorter member of each block resting upon the shorter member of the opposite block below reversed; the vertical air-chambers being continuous for the entire height of said wall, with lateral openings into the above-described horizontal continuous air-chambers, afforded by making said lateral strips connecting said members of lesser height than the remainder of said block.

7. A wall comprising a plurality of building-blocks consisting of two parallel members, one forming the exterior face of the block, the other forming the interior face and being shorter than the former at each extremity by more than half the length of itself and integrally connected thereto by two strips or bars extending laterally from the side of the former to the ends of the latter member, holding said members so as to maintain between them a hollow center space; said strips and the end portions of the shorter member being of lesser height than the remainder of said block, thereby affording an opening into said center space on each end above and below said lateral strips; and in which said wall each course consists of two parallel rows of said blocks, the longer members of which form the outer and inner faces of said wall respectively, and the shorter members of said two rows of said blocks, being arranged in one line, alternately connected with the outer and inner faces, and forming a support for the corresponding members of the course above; the blocks of the superimposed courses being stepped with

their middle over the ends of those below to bind the joints of the same; the shorter members of the inner blocks on the course above coming over and resting upon the shorter members of the outer blocks of the course below and vice versa, thereby affording continuous air-spaces both horizontal and vertical in said wall, substantially as shown and described.

8. A wall comprising a plurality of building-blocks consisting of two parallel members, one forming the exterior face of the block, the other forming the interior face and being shorter than the former at each extremity by more than half the length of itself, and being integrally connected thereto by strips or bars extending laterally from the sides of the former, so as to hold said members separate with an air-space between them and in which said wall each course consists of two parallel rows of said blocks, the longer members of which form the outer and inner faces of said wall respectively and the shorter members of said two rows of said blocks being arranged in one line, alternately connected with the outer and inner faces, and forming a support for the corresponding members of the course above; the blocks of the superimposed courses being stepped with their middle over the ends of those below to bind the joints of the same; the shorter members of the inner blocks on the course above coming over and resting upon the shorter members of the outer blocks of the course below and vice versa, thereby affording continuous air-spaces both horizontal and vertical in said wall, substantially as shown and described.

9. A wall comprising a plurality of building-blocks consisting of two parallel members of unequal length integrally connected with strips or bars extending from the side of the longer member to the ends of the shorter, forming therewith a vertical air-chamber in the middle of said block said lateral strips and the end portions of said shorter member being of lesser height than the remainder of said block, the shorter member being opposite the middle of the longer member and less than half the length of the same, thereby affording a continuous horizontal air-space between said blocks when they are placed in a wall; and in which said wall each course consists of two parallel rows of said blocks, the longer member of said blocks forming the outer and inner faces of said wall respectively, and the shorter members of said two rows of blocks being arranged in one line, alternately connected with the outer and inner faces, and forming a support for the corresponding members of the course above; the blocks of the superimposed courses being stepped with their middle over the ends of those below to bind the joints of the same; the shorter members of the inner blocks on the course above coming over and resting upon the shorter members of the outer blocks of the course below and vice versa, thereby affording continuous air-spaces both horizontal and vertical in said wall, substantially as shown and described.

10. A wall comprising a plurality of building-blocks consisting of two parallel members, one forming the exterior face of the block, the other forming the interior face and being shorter than the former at each extremity by more than half the length of itself and integrally connected thereto by two strips or bars extending laterally from the side of the former to the ends of the latter member, holding said members so as to maintain between them a hollow space; said strips and the end portions of the shorter member being of lesser height than the remainder of said block, thereby affording an opening into said center space on each end above and below said lateral strips; said wall consisting in each course of a row of said blocks placed end to end with their longer members forming the exterior face of said wall, and a second row of said blocks reversed with their shorter members placed in the alternate spaces between the shorter members of the first row, and in the same line therewith; their longer members forming the interior face of said wall, with the ends of the same opposite the middle of the blocks in the other row; said two rows of blocks not touching at any point and forming a continuous air-chamber along the middle of said wall; the longer members of the superimposed courses being stepped to bind the joints of those in the course below and the shorter members of each block resting upon the shorter member of the opposite block below reversed, substantially as described.

11. A wall comprising a plurality of building-blocks consisting of two parallel members, one forming the exterior face of the block, the other forming the interior face and being shorter than the former at each extremity by more than half the length of itself, and being integrally connected thereto by strips or bars extending laterally from the sides of the former, so as to hold said members separate with an air-space between them; said wall consisting in each course of a row of said blocks placed end to end with their longer members forming the exterior face of said wall, and a second row of said blocks reversed with their shorter members placed in the alternate spaces between the shorter members of the first row, and in the same line therewith; their longer members forming the interior face of said wall, with the ends of the same opposite the middle of the blocks in the other row; said two rows of blocks not touching at any point and forming a continuous air-chamber along the middle of said wall; the longer members of the super-

imposed courses being stepped to bind the joints of those in the course below and the shorter members of each block resting upon the shorter member of the opposite block below reversed, substantially as described.

12. A wall comprising a plurality of building-blocks consisting of two parallel members of unequal length integrally connected with strips or bars extending from the side of the longer member to the ends of the shorter, forming therewith a vertical air-chamber in the middle of said block said lateral strips and the end portions of said shorter member being of lesser height than the remainder of said block, the shorter member being opposite the middle of the longer member and less than half the length of the same, thereby affording a continuous horizontal air-space between said blocks when they are placed in the wall; said wall consisting in each course of a row of said blocks placed end to end with their longer members forming the exterior face of said wall, and a second row of said blocks reversed with their shorter members placed in the alternate spaces between the shorter members of the first row, and in the same line therewith; their longer members forming the interior face of said wall, with the ends of the same opposite the middle of the blocks in the other row; said two rows of blocks not touching at any point and forming a continuous air-chamber along the middle of said wall; the longer members of the superimposed courses being stepped to bind the joints of those in the course below, and the shorter members of each block resting upon the shorter member of the opposite block below reversed, substantially as described.

13. A wall comprising a plurality of building-blocks consisting of two parallel members, one forming the exterior face of the block, the other forming the interior face and being shorter than the former at each extremity by more than half the length of itself and integrally connected thereto by two strips or bars extending laterally from the side of the former to the ends of the latter member, holding said members so as to maintain between them a hollow center space; said strips and the end portions of the shorter member being of lesser height than the remainder of said block, thereby affording an opening into said center space on each end above and below said lateral strips; said wall consisting of one row of said blocks laid end to end with the longer members forming the exterior face of such wall and a second row of said blocks reversed laid end to end with the shorter members placed in the alternate spaces between the shorter members of the first-mentioned row and in line therewith, with a continuous air-chamber extending the entire length of the wall along and between the said shorter members; and the longer members of said second row forming the interior face of said wall; each superimposed course being stepped to bind the joints of the course below; and the shorter members of each block resting upon the shorter member of the opposite block below reversed; the vertical air-chambers being continuous for the entire height of said wall, with lateral openings into the above-described horizontal continuous air-chambers afforded by making said lateral strips connecting said members of lesser height than the remainder of said block, substantially as described.

14. A wall comprising a plurality of building-blocks consisting of two parallel members, one forming the exterior face of the block, the other forming the interior face and being shorter than the former at each extremity by more than half the length of itself, and being integrally connected thereto by strips or bars extending laterally from the sides of the former, so as to hold said members separate with an air-space between them; said wall consisting of one row of said blocks laid end to end with the longer members forming the exterior face of such wall and a second row of said blocks reversed laid end to end with the shorter members placed in the alternate spaces between the shorter members of the first-mentioned row and in line therewith, with a continuous air-chamber extending the entire length of the wall along and between the said shorter members; and the longer members of said second row forming the interior face of said wall; each superimposed course being stepped to bind the joints of the course below; and the shorter members of each block resting upon the shorter members of the opposite block below reversed; the vertical air-chambers being continuous for the entire height of said wall with lateral openings into the above-described horizontal continuous air-chambers afforded by making said lateral strips connecting said members of lesser height than the remainder of said block, substantially as described.

15. A wall comprising a plurality of building-blocks consisting of two parallel members of unequal length integrally connected with strips or bars extending from the side of the longer member to the ends of the shorter, forming therewith a vertical air-chamber in the middle of said block said lateral strips and the end portions of said shorter member being of lesser height than the remainder of said block, the shorter member being opposite the middle of the longer member and less than half the length of the same, thereby affording a continuous horizontal air-space between said blocks when they are placed in the wall; said wall consisting of one row of said blocks laid end to end with their longer members forming the exterior face of such wall and a second row of said blocks reversed laid end to end with their shorter members placed in the alternate spaces between the

shorter members of the first-mentioned row and in line therewith, with a continuous air-chamber extending the entire length of the wall along and between the said shorter members; and the longer members of said second row forming the interior face of said wall; each superimposed course being stepped to bind the joints of the course below; and the shorter members of each block resting upon the shorter member of the opposite block below reversed, the vertical air-chambers being continuous for the entire height of said wall, with lateral openings into the above-described horizontal continuous air-chambers afforded by making said lateral strips connecting said members of lesser height than the remainder of said block, substantially as described.

16. The combination in a wall of a plurality of building-blocks comprising a primary member connected by strips or bars to a parallel secondary member shorter than said primary member, said connecting-strips and the end portions of said secondary members being of lesser height than the remainder of the block; the primary members of said blocks being laid to form an exterior and an interior wall opposed to and entirely separated from each other by an intervening air-space, wherein rest said secondary members alternately connected with said exterior and interior walls superimposed upon each other in separate vertical columns with continuous vertical air-spaces between said columns themselves and the exterior and interior walls respectively, said vertical air-spaces being laterally connected by reason of the lesser height and the alternation of the said connecting strips or bars.

17. The combination of a plurality of building-blocks, comprising a longitudinal primary member connected by strips or bars of lesser height to a shorter parallel secondary member, said primary members laid to form a hollow wall the exterior and interior faces of which are opposed to and entirely separated from each other by an intervening air-space, except as the blocks of said wall are held bound together by said strips alternately connecting them to said parallel secondary members, superimposed upon each other in separate vertical columns along the center of said intervening air-space thereby affording continuous vertical air-spaces between said columns themselves and the exterior and interior walls respectively; continuous horizontal air-spaces are afforded by the alternation of said connecting lateral strips or bars and by their lesser height.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

FREDERICK FOURNIER.

Witnesses:
J. EMMET SULLIVAN,
J. EDWARD BLAND.