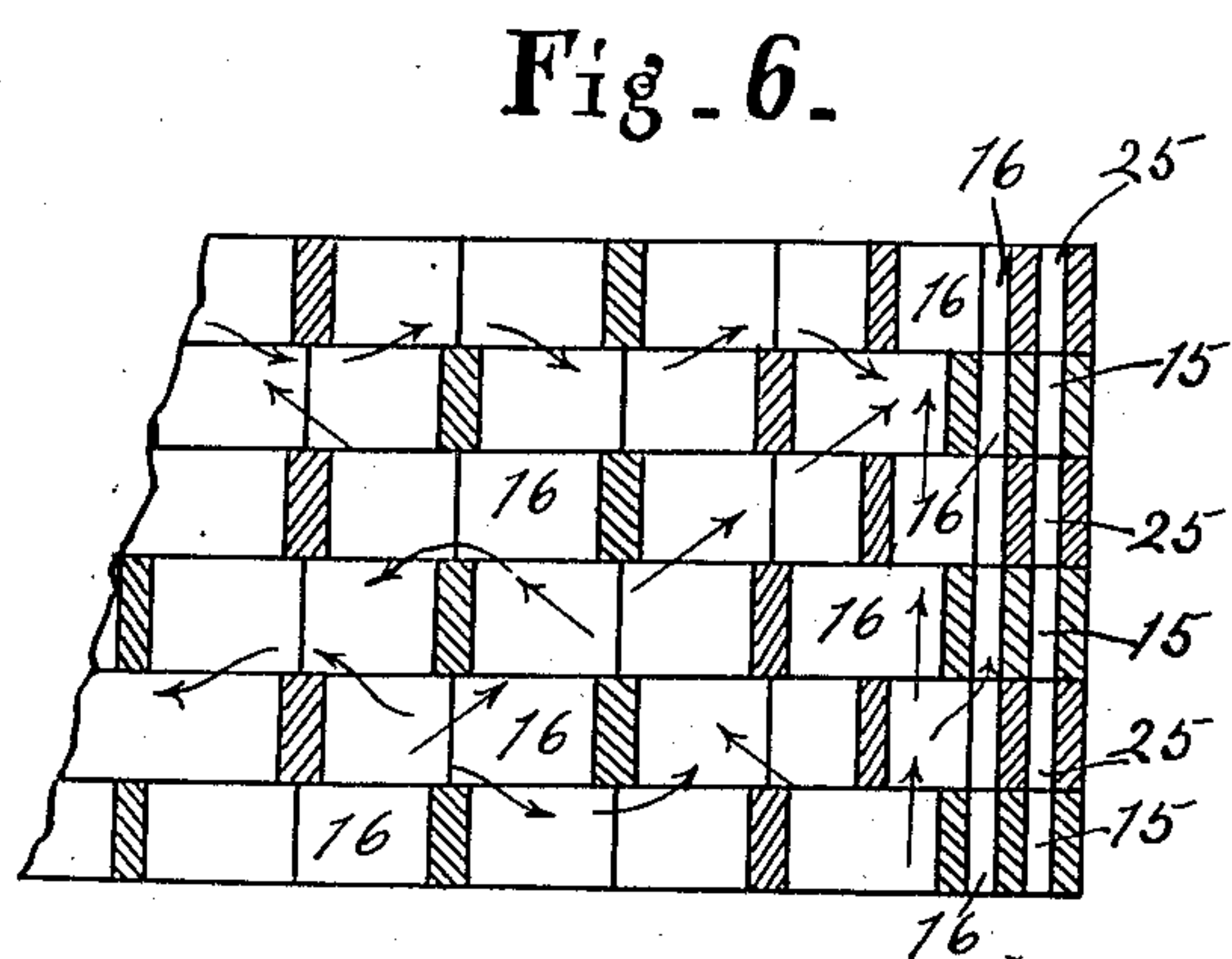
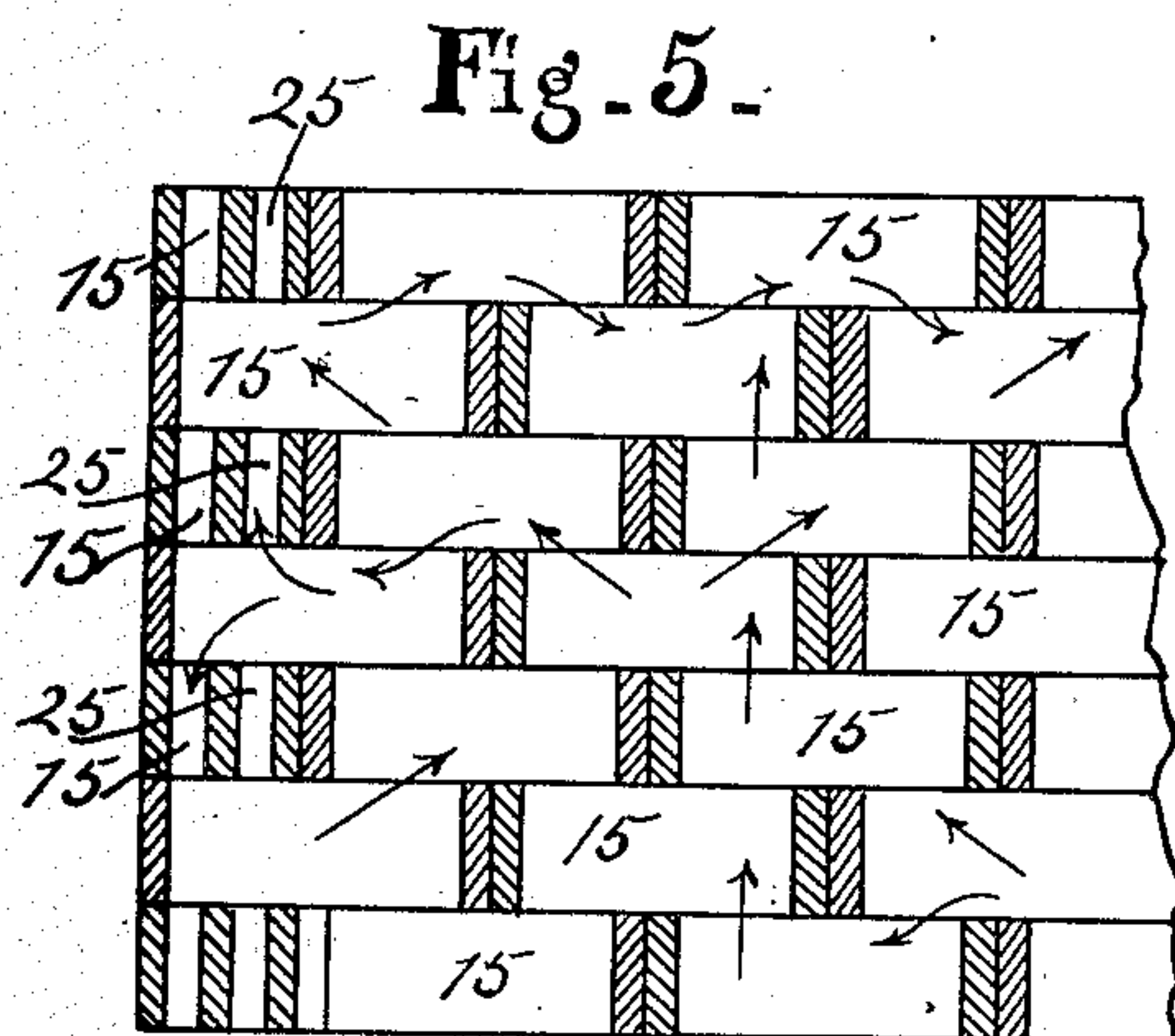
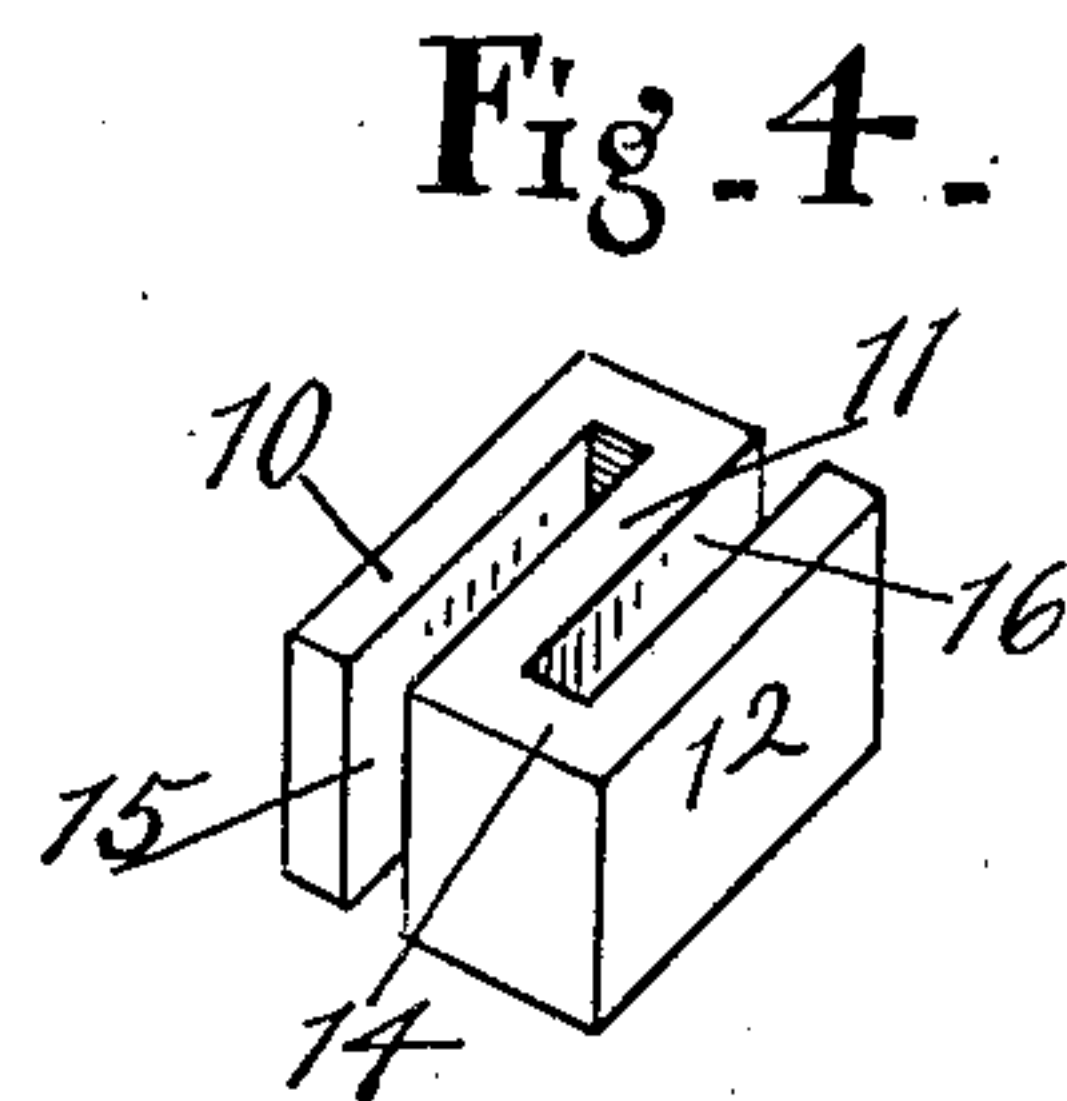
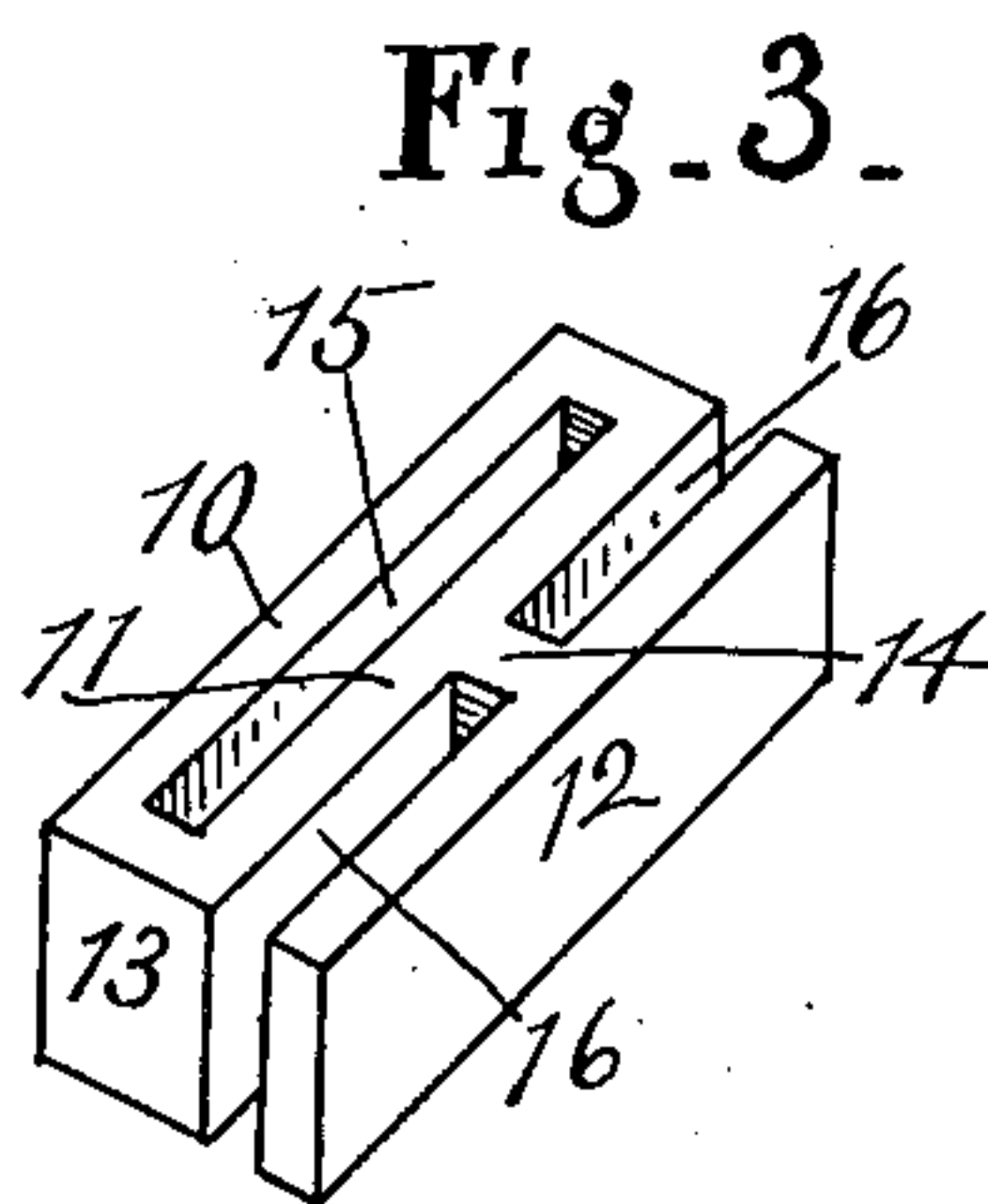
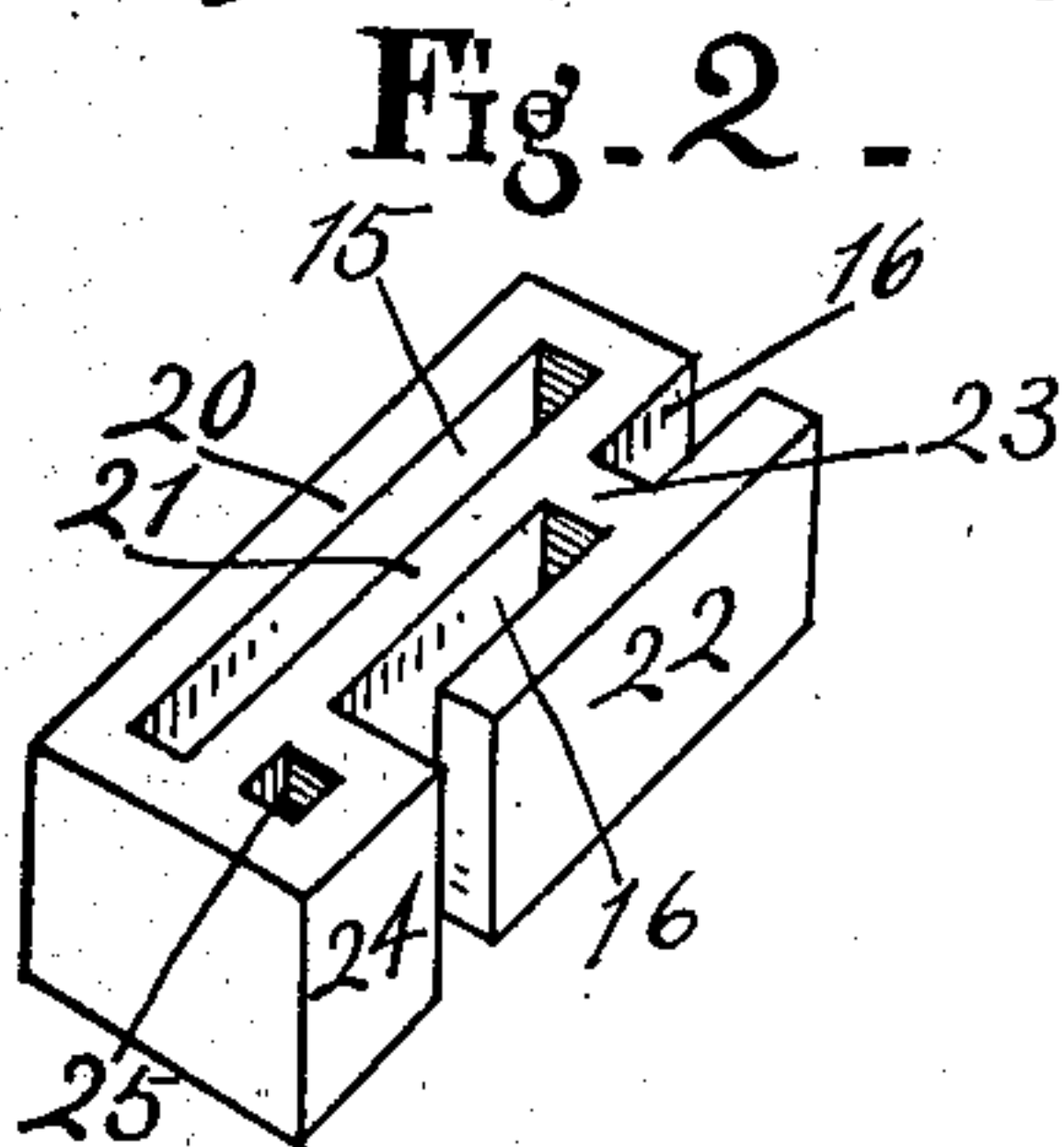
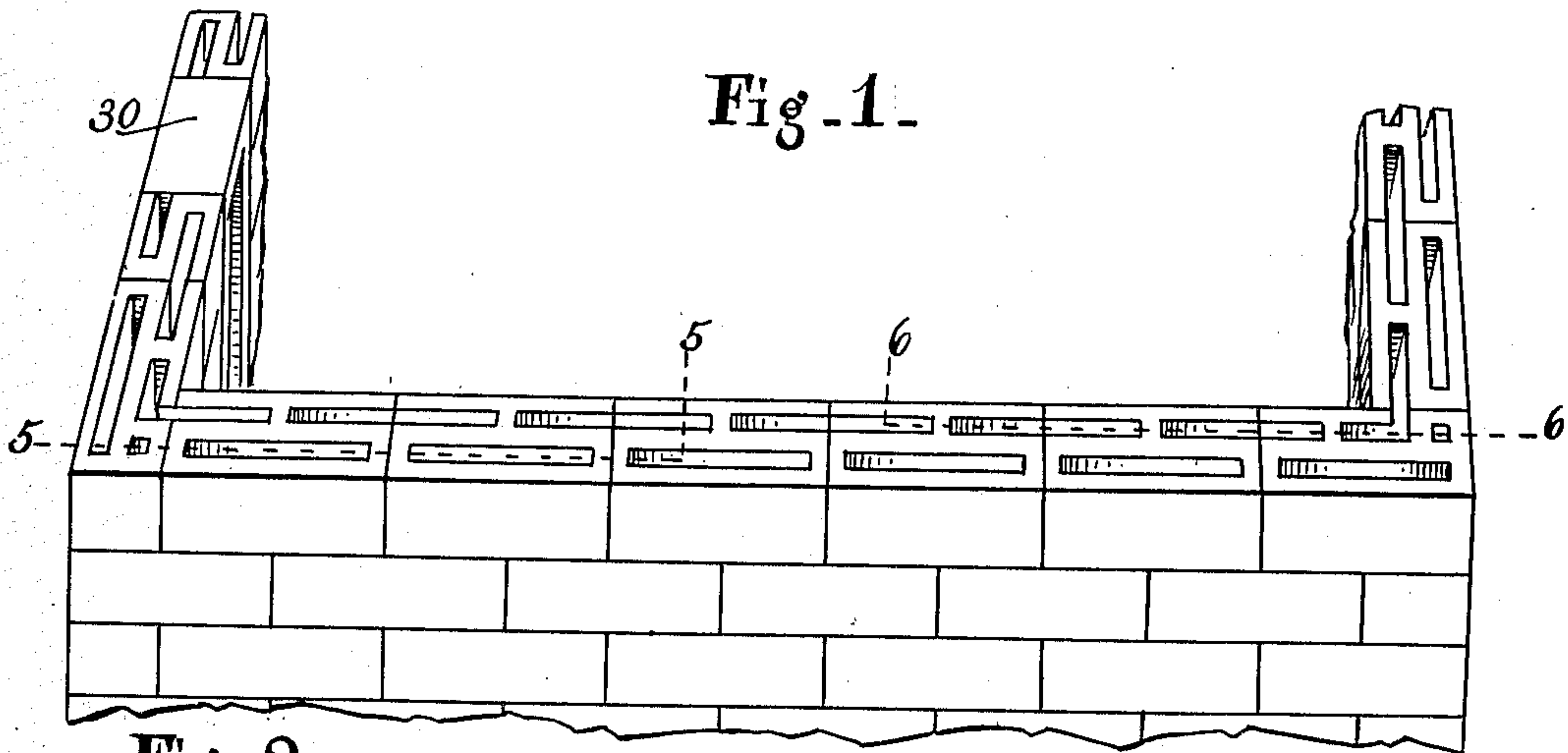


No. 860,565.

PATENTED JULY 16, 1907.

J. L. PEETZ.
CONCRETE WALL.
APPLICATION FILED MAY 3, 1906.



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JOHN L. PEETZ, OF KOKOMO, INDIANA.

CONCRETE WALL.

No. 860,565.

Specification of Letters Patent.

Patented July 16, 1907.

Application filed May 3, 1906. Serial No. 314,937.

To all whom it may concern:

Be it known that I, JOHN L. PEETZ, of Kokomo, county of Howard, and State of Indiana, have invented a certain new and useful Concrete Wall; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, in which like letters refer to like parts.

The object of this invention is the building of walls and structures made of concrete or the like with air chambers communicating with each other horizontally, vertically and diagonally throughout the entire structure. These communicating chambers constitute substantially a single dead air chamber for the entire structure as it extends for the full length and height of each wall and around the corners. The consequence is that the temperature and dryness of the air in said chamber, as a whole, will always be the same because of the ready movement of the air from any part of the wall to any other part thereof. This result is accomplished by providing suitable concrete blocks from which such a wall may be made. There are two series, of air chambers, inner and outer series, separated from each other but both equally extensive and complete throughout the structure.

The nature of the invention will be more fully understood from the accompanying drawings and the following description and claims:

In the drawings Figure 1 is a perspective view of a structure illustrating my invention, the lower part of the structure being broken away. Figs. 2, 3 and 4 are perspective views of the three sorts of blocks made and used for the structure. Fig. 5 is a vertical section on the line 5—5 of Fig. 1. Fig. 6 is a vertical section on the line 6—6 of Fig. 1.

The main body of the structure is made up of similar blocks, all formed as shown in Fig. 3. Each of these blocks has an outer wall 10, a middle wall 11, an inner wall 12, end walls 13 and connecting walls 14. A chamber 15 lies within and between the outer and middle walls 10 and 11 and the end walls 13. An open end space 16 lies between the middle wall 11 and the inner wall 12 and on each side of the connecting wall 14. These chambers and spaces extend vertically throughout the depth or height of the block. The connecting wall 14 connects the inner wall 12 with the middle wall 11 at a point midway between the ends of said walls.

The corner blocks are formed as shown in Fig. 2, all being alike. They consist of an outer wall 20, a middle wall 21 and an inner short wall 22 connected with the middle wall by the connecting wall 23, said connecting wall being about midway of the inner wall 22 and nearer one end of the middle wall 21. The chambers and spaces 15 and 16 are located in this corner block the same as in the main block shown in Fig. 3. From one

end of the middle wall 21 there is a rectangular wall 24 spaced from the end of the inner wall 22 and with a central vertical chamber. 25.

The block shown in Fig. 4 is one-half the length of the other blocks and used with the other blocks to form a straight edge for window and door frames and the like. It, therefore, may be called a half block and is formed exactly like one-half of the main block shown in Fig. 3 and, therefore, I have applied the same reference numerals to the corresponding parts of these two blocks. In building a wall or structure these blocks are placed so as to overlap the ends of each other about one-half their length, as shown in Fig. 1. They are placed with the outer walls 10 outwardly with the structure being built so that longitudinally the spaces 16 register with each other and form chambers corresponding in dimensions substantially with the chambers 15 in the outer portion of the blocks. Thus the chamber 15 of a block is entirely within the block whereas only one-half of the chamber 16 is located within one block. Since the blocks overlap the chambers 15 throughout the structure communicate with each other, one end of one chamber being under the opposite end of another chamber so that currents of air may pass vertically and diagonally in straight lines and horizontally in a similar line as indicated by arrows. The same intercommunication exists between the other chambers 16, as seen in Fig. 6.

The corner blocks are used at the corners of the structure that is built and the chambers and spaces correspond and communicate with the chambers in the small blocks. The small chamber 25 communicates both above and below with the chambers 15, so that there is no part of the structure that is solid or thick but it is wholly formed of skeleton blocks with component walls of substantially uniform thickness, the walls 24 being the same thickness as the walls 20, 21 and 22 and as the walls 10, 11, 12 and 13. Likewise the chambers and spaces have the same width. The same form of corner block may be used in the two different positions shown in Fig. 1, that is extending longitudinally of one side of the structure or of the other.

When a straight edge is to be built, as for a window casing 30, the half blocks shown in Fig. 4 are used. The space 16 in these half blocks registers with the corresponding spaces in the main blocks and the space 15 extends to the window casing. In a structure made of the blocks, therefore, there is air space all around the window casing and there is no air space about the window casing, above or below it, that is not in communication with the other air spaces or series of air spaces, so that there is a general distribution of heat and humidity of the air in said chambers and spaces. One advantage of a structure made of these blocks is that there is no portion that is not protected by an air chamber or space;

the end walls and the connecting walls in each block have on one side of them an air chamber, so that there is no opportunity for heat or humidity to be transmitted through solid concrete to the inside of the structure.

5 What I claim as my invention and desire to secure by Letters Patent is:

1. A structure formed of blocks of concrete or the like in which each block has outer, middle, and inner longitudinal walls separated by spaces with the walls connecting
10 only the ends of the outer and middle longitudinal walls, and a wall connecting only the middle portions of the middle and inner longitudinal walls, the blocks forming said structure half overlapping each other, substantially as set forth.
- 15 2. A structure formed of blocks of concrete or the like having corner blocks with outer, middle and inner walls spaced apart, the inner wall being shorter than the middle wall and a wall connecting the middle and inner wall and a hollow wall at the end of the middle wall spaced from
20 the inner wall, and blocks for the main body of the structure having outer, middle and inner walls spaced apart,

the two outer walls being connected by end walls and the middle and inner walls being connected centrally by a wall.

3. A structure formed of blocks of concrete or the like in which the sides of the structure are formed of blocks
25 each of which has outer, middle and inner longitudinal walls separated by spaces with the walls connecting only the ends of the outer and middle longitudinal walls and a wall connecting only the middle portions of the middle and inner longitudinal walls, the blocks forming said structure
30 half overlapping each other and the corners of the structure formed of corner blocks with outer, middle and inner walls spaced apart, the inner wall being shorter than the middle wall and a wall connecting the middle and inner
35 wall and a hollow wall at the end of the middle wall spaced from the inner wall, substantially as set forth.

In witness whereof, I have hereunto affixed my signature in the presence of the witnesses herein named.

JOHN L. PEETZ.

Witnesses:

CONRAD WOLF,
EDWIN E. RUSSELL.