

No. 734,022.

PATENTED JULY 21, 1903.

A. C. WATERMAN.  
BUILDING BLOCK AND WALL CONSTRUCTION.

APPLICATION FILED MAY 5, 1902.

NO MODEL.

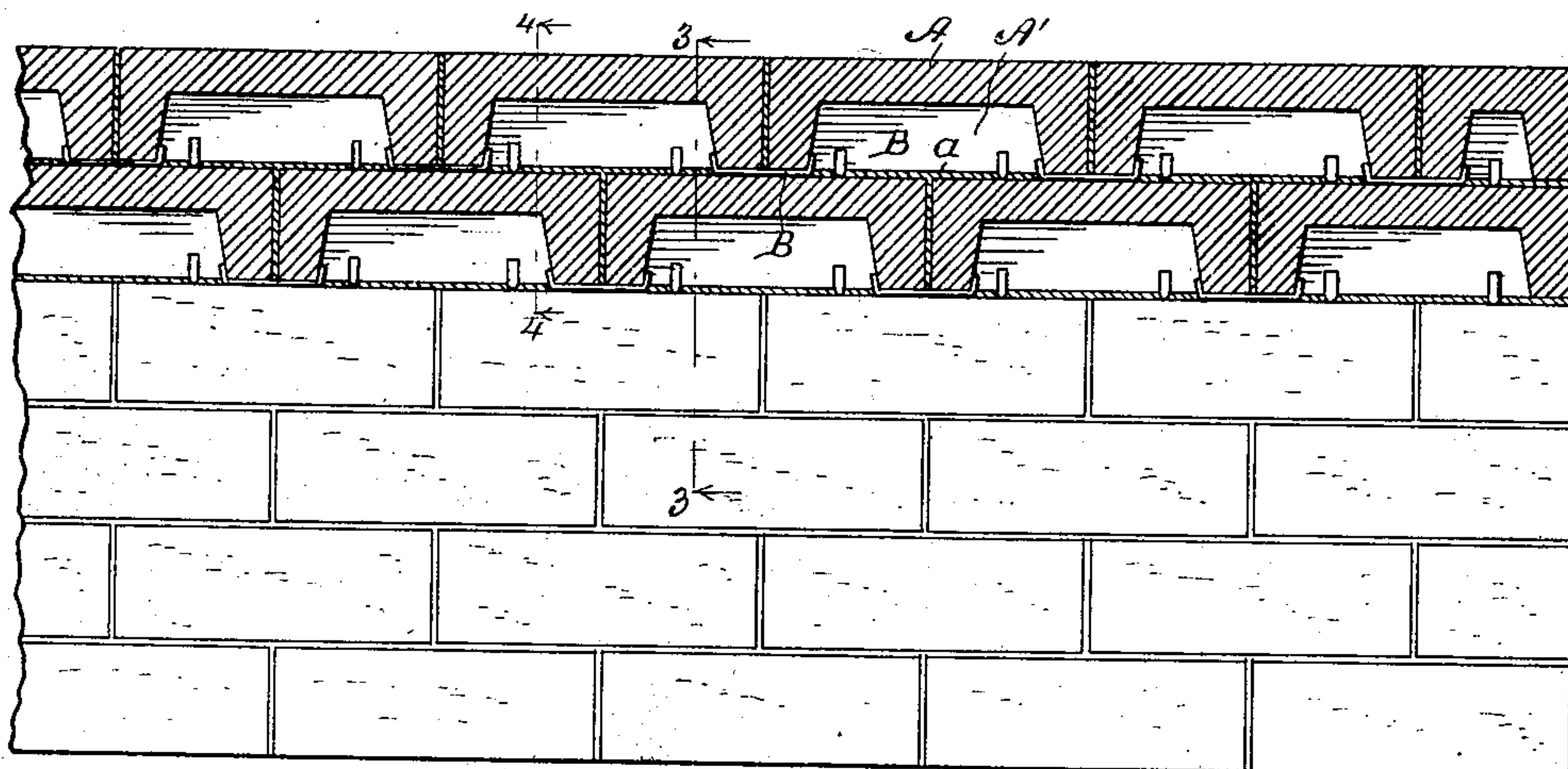


Fig. 1.

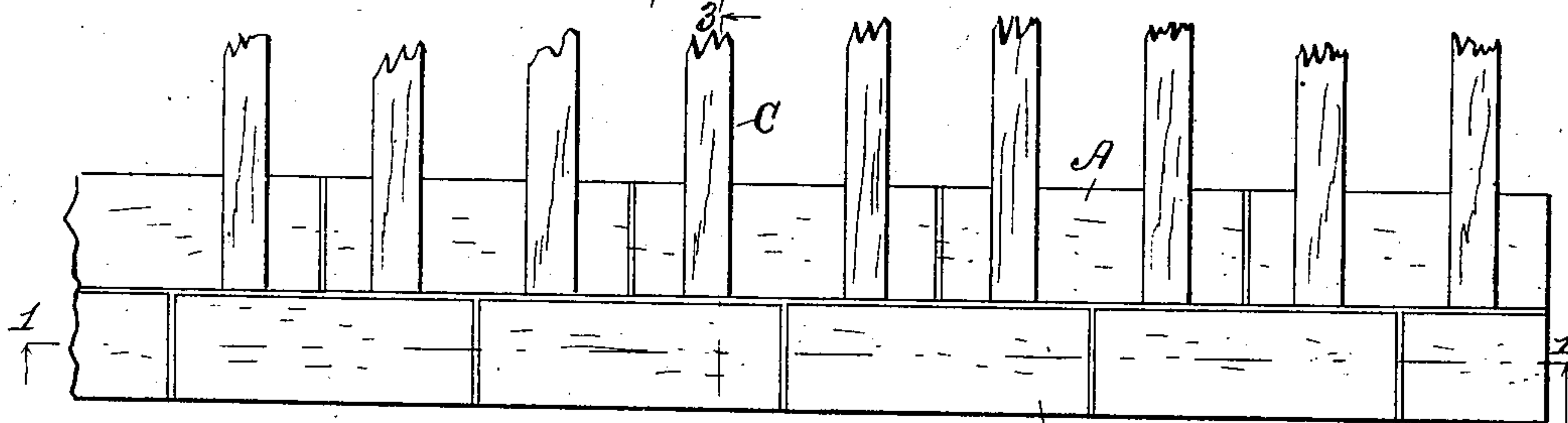


Fig. 2.

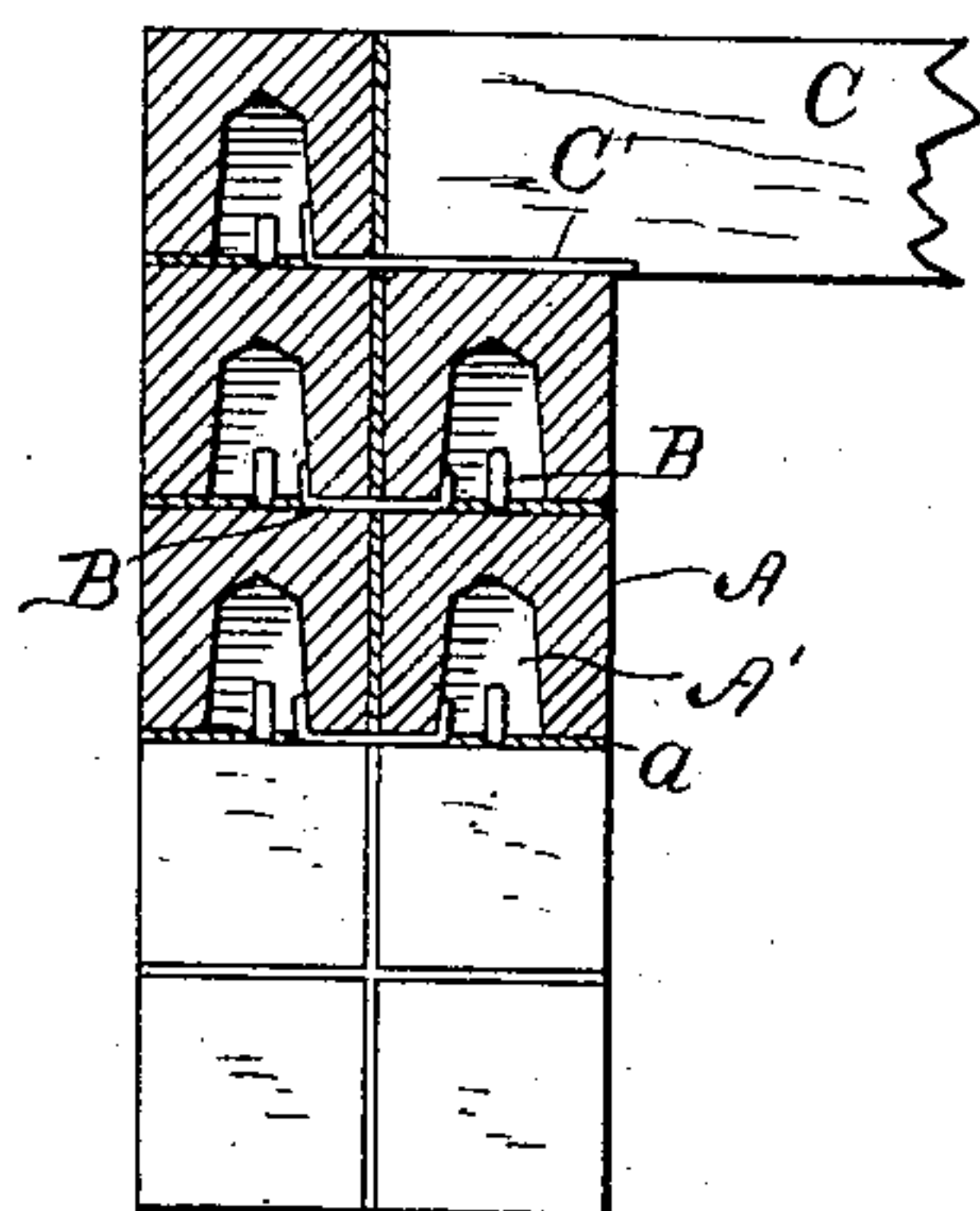


Fig. 3.

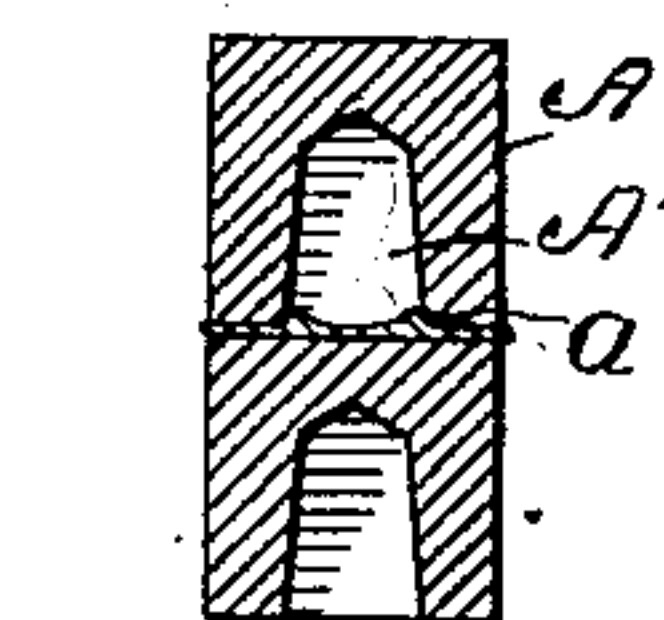


Fig. 4.

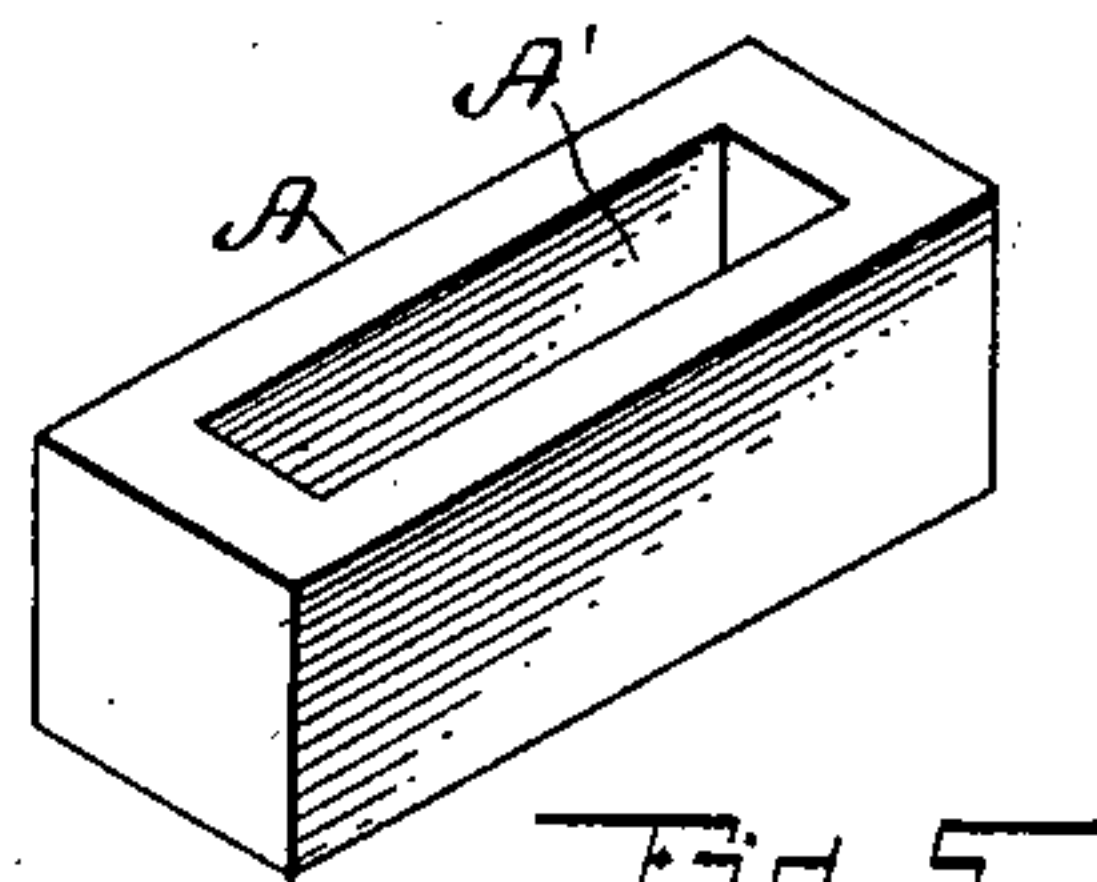


Fig. 5.

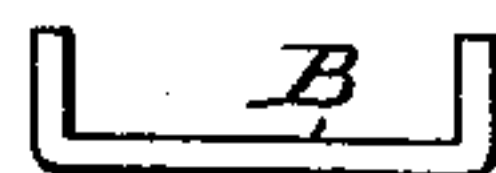


Fig. 6.

Witnesses:

Ethel A. Teller  
Oto A. Earl

Inventor,

Adolphus C. Waterman  
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Att'y.



# UNITED STATES PATENT OFFICE.

ADOLPHUS C. WATERMAN, OF ATHENS, MICHIGAN.

## BUILDING-BLOCK AND WALL CONSTRUCTION.

SPECIFICATION forming part of Letters Patent No. 734,022, dated July 21, 1903.

Application filed May 5, 1902. Serial No. 105,976. (No model.)

*To all whom it may concern:*

Be it known that I, ADOLPHUS C. WATERMAN, a citizen of the United States, residing at the village of Athens, in the county of Calhoun and State of Michigan, have invented certain new and useful Improvements in Building-Blocks and Wall Construction, of which the following is a specification.

This invention relates to improvements in building-blocks and wall construction.

The objects of the invention are to provide an improved wall construction in which suitable air-chambers are provided in the wall itself, thus avoiding the use of studding and lathing for that purpose.

Another object is to provide an improved wall construction and blocks therefor which may be formed of a minimum amount of material and is at the same time very strong.

A further object is to provide an improved form of building-block for use in such a wall.

Further objects will definitely appear in the detailed description to follow.

I accomplish the objects of my invention by the devices and means described in the following specification.

The invention is clearly defined, and pointed out in the claim.

A structure embodying the features of my invention is fully illustrated in the accompanying drawings, forming a part of this specification, in which—

Figure 1 is a detail elevation view, partially in section, taken on line 1 1 of Fig. 2, of a structure embodying the features of my invention—that is, my improved wall made of my improved blocks. Fig. 2 is a top plan view of the same, showing the arrangement of the blocks A and manner of uniting the joists to the wall. Fig. 3 is a detail cross-sectional view taken on line 3 3 of Fig. 1. Fig. 4 is a detail cross-sectional view taken on line 4 4 of Fig. 1. Fig. 5 is a perspective view of one of the blocks A in an inverted position. Fig. 6 is an elevation view of one of the binding-links B.

In the drawings all of the sectional views are taken looking in the direction of the little arrows at the ends of the section-lines, and similar letters of reference refer to similar parts throughout the several views.

Referring to the lettered parts of the draw-

ings, A represents one of my improved building-blocks, which is formed of a suitable artificial-stone composition, preferably of Portland cement, and this is formed hollow on the under side, as at A'. The opening A' is substantially cone-shaped or formed with upwardly-converging walls, the cavity terminating in an apex, so that the same may be easily molded, and, further, so that the blocks shall possess the advantages of an arch structure.

In the construction of a wall the blocks A are placed in a double tier opening downward, and a layer of suitable mortar or cement, as *a*, is flushed across the top of the blocks, and a second layer or row of blocks are placed on the same while the cement or mortar is still pliable, so that each opening is entirely sealed from the outside air. The layers break joints, so that when the wall is completed there is substantially a continuous line of air-chambers composed of separate sealed chambers throughout the entire structure.

In laying blocks they are firmly bound together both sidewise and endwise by loops of metal B, which firmly unite or bind together the adjacent blocks. The joists C are provided with upwardly-pointing metal hooks C' at their ends, and these are placed to engage in an opening in one of the blocks of the outer tier as the same is laid, so that they are firmly held in place, and the two walls of the building are also bound together, as clearly appears in Figs. 2 and 3. In a wall constructed in this manner it is not necessary to provide any air-spaces other than those in the wall itself, and the form of building-block economizes very greatly on material and at the same time possesses great strength, as it has all of the advantages of the arch principle. A further advantage is that by forming the blocks with upwardly-converging sides terminating in an apex the core used in molding can be removed without rupturing the block in any manner. A very satisfactory structure may be formed with the binding-loops B omitted. However, as a wall constructed with the same is very inexpensive and as they prevent any rupture of the same they are very desirable.

I have illustrated and described my invention in detail in the form preferred by me. I am aware, however, that it is capable of con-

siderable structural variation without departing from my invention.

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

In a wall, the combination of building-blocks of artificial-stone composition hollowed on their under sides to form a series of arches, said blocks being arranged in a series  
10 to break joints; loops B arranged to engage ad-

jacent blocks and secure them to each other; and a suitable mortar between the blocks whereby they are retained in position and said openings are sealed, for the purpose specified.

In witness whereof I have hereunto set my  
hand and seal in the presence of two witnesses. 15

ADOLPHUS C. WATERMAN. [L. S.]

Witnesses:

ETHEL A. TELLER,

OTIS A. EARL.