

No. 835,027.

PATENTED NOV. 6, 1906.

A. LOUGH.
CONCRETE BUILDING BLOCK.
APPLICATION FILED FEB. 10, 1905.

FIG. 1.

ELEVATION OF WALL

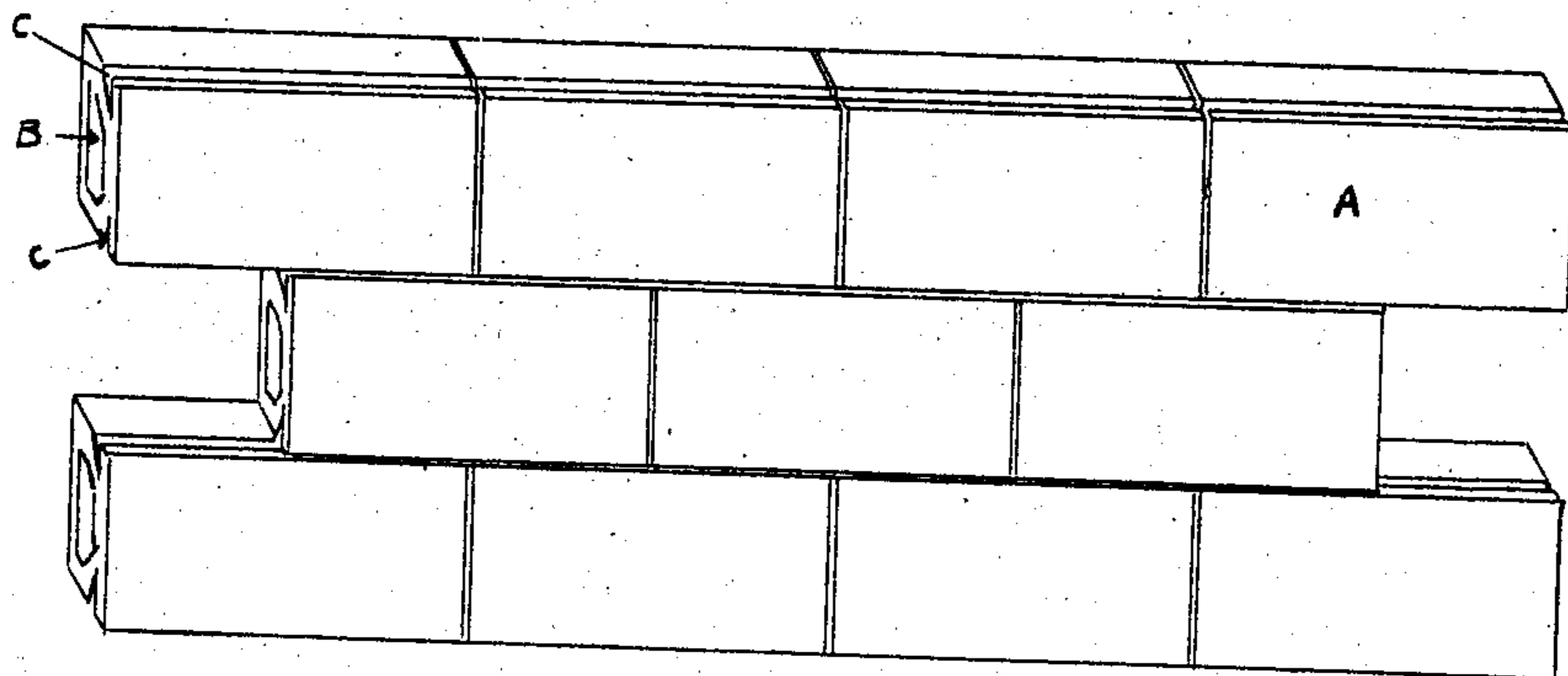


FIG. 2. PLAN OF WALL

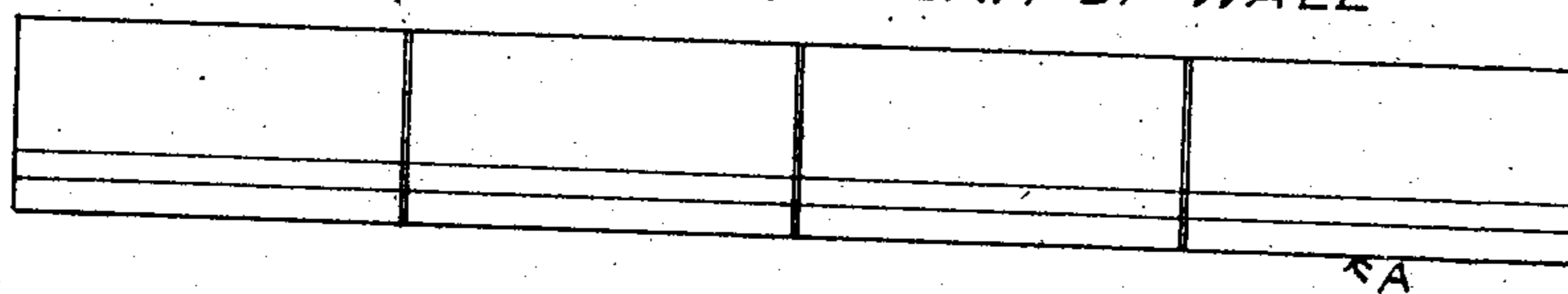
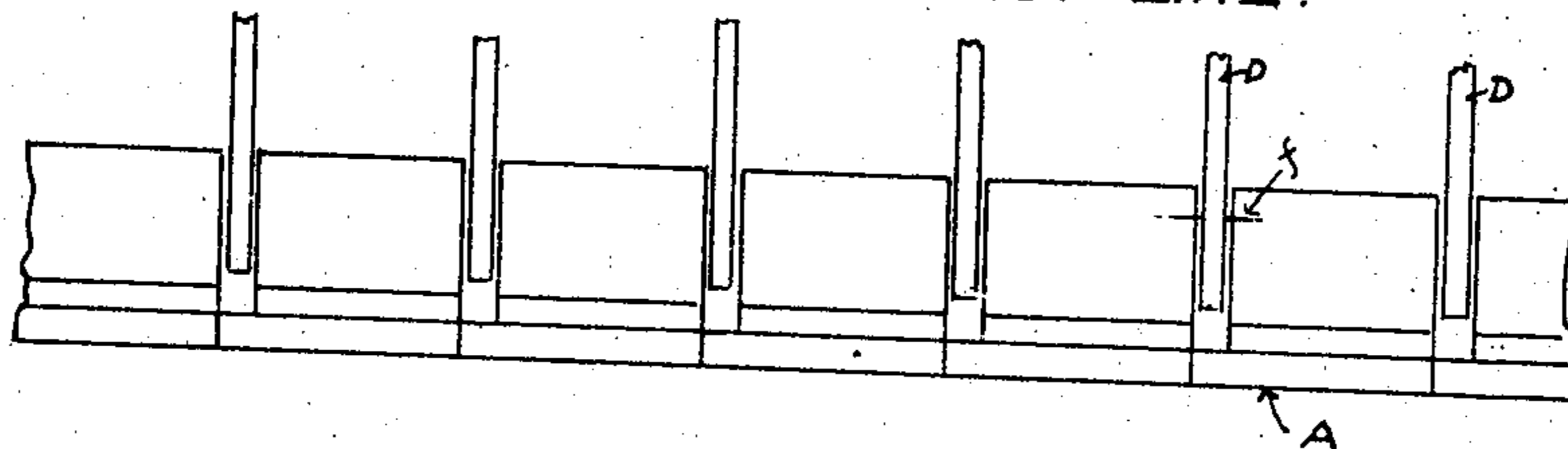


FIG. 4.
PLAN OF WALL AT JOIST LINE.



END SECTION
OF BLOCK. A

FIG. 5.

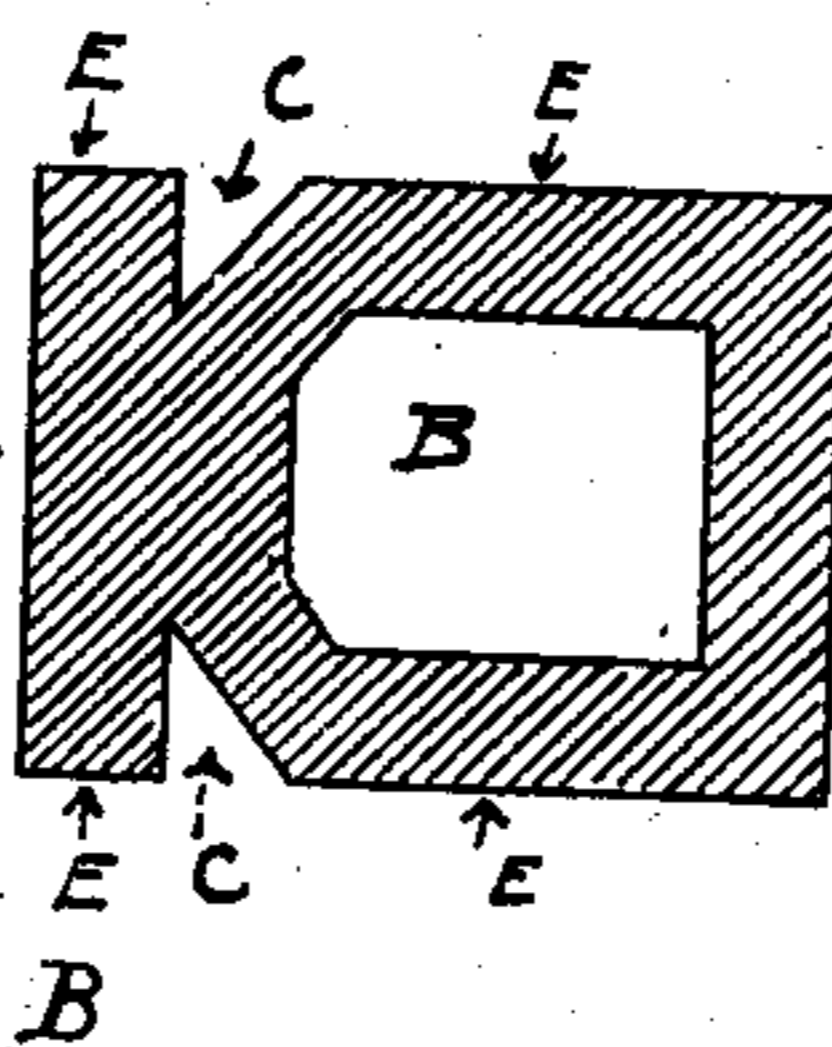
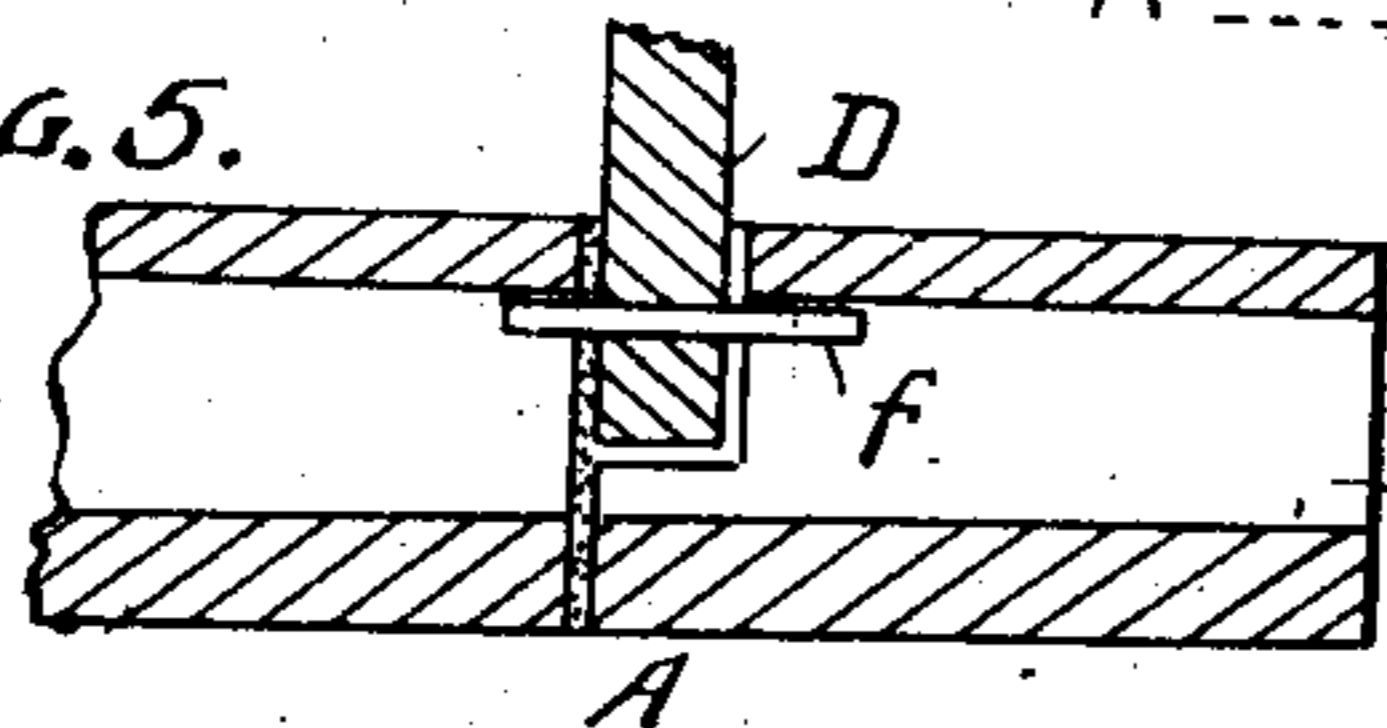


FIG. 3.

Witnesses:

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UNITED STATES PATENT OFFICE.

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CONCRETE BUILDING-BLOCK.

No. 835,027.

Specification of Letters Patent.

Patented Nov. 6, 1906.

Application filed February 10, 1905. Serial No. 245,150.

To all whom it may concern:

Be it known that I, ARLANDO LOUGH, a citizen of the United States, and a resident of Estherville, in the county of Emmet and State of Iowa, have invented certain new and useful Improvements in Concrete Building-Blocks, of which the following is a specification.

This invention aims to provide improvements in building-blocks of that type which are designed to be used for constructing building-walls having no continuously-solid portions from the outer to the inner sides thereof. The superior qualities of walls of this class from the standpoint of resisting the penetration of frost, dampness, and heat have been fully demonstrated; but the building-blocks heretofore made for constructing walls of this class have been composed of block structure weakened by the provision of specially-arranged air-cavities in one instance or such blocks have used such an amount of plastic material in their composition as to make them very expensive.

The object of this invention, therefore, is to secure a construction of block of the type above mentioned having the necessary advantageous qualities remarked upon, but embodying the structure, and utilize a minimum amount of material, yet possess a maximum amount of strength and durability.

For a full description of the invention and the remarks thereof and also to acquire a knowledge of the details of construction and the means for effecting the result reference is to be had to the following description and accompanying drawings, in which—

Figure 1 is a perspective view showing a partially-constructed building-wall composed of blocks made in accordance with this invention. Fig. 2 is a plan view of the wall. Fig. 3 is a transverse sectional view through one of the building-blocks. Fig. 4 is a plan view of a wall at the joist-line, showing the manner of setting joists in the wall. Fig. 5 is a sectional view showing clearly the arrangement of parts shown in Fig. 4 with reference to the means for tying the joists to the blocks of the wall construction.

Corresponding and like parts are referred to in the following description and in the drawings by the same reference characters.

The block A, embodying the invention, comprises a body hollow throughout its length, as shown at B. The hollow portion B of the block is made as large as practicable

without weakening the structure and of course forms a large air-space between the outer and inner sides of the same. The front wall of the block A is transversely thickened, and longitudinal cavities C extend into the thickened wall aforesaid from the upper and lower sides of said block. The cavities C are of somewhat triangular form in cross-section, being reduced toward their inner extremities, which extremities overlap the main hollow portion B of the block. The term "overlap" as used herein is in the same sense as now commonly used in this art. The wall of the blocks in which the cavities C are formed being thickened, it is seen that the block structure is not weakened by the arrangement of these cavities, and, further, those portions of the body of the block which separate the hollow portion B from the cavities C are thickened to further reinforce the block structure in an obvious manner.

The arrangement of the cavities C with regard to the hollow portion B forms a block in which there are no continuously-solid portions from the front to the rear in a straight line, and such structure is advantageous in that frosts, dampness, or heat must necessarily take a tortuous path in order to penetrate a wall constructed of blocks as above described. The blocks are therefore designed to afford maximum protection so far as penetration of frost, dampness, and heat is concerned. Further, the mortar surface of blocks (indicated at e) presents a maximum surface to receive the mortar, and it will also be noted that when the upper layer of blocks has been placed in position on the wall the latter is thereby finished and no capping or other finishing is required for completion of the wall structure, this accomplishing quite a saving of expense in building construction.

Another feature of the invention is comprised in the special manner of securing the joists of a building to the wall, and for this purpose certain blocks will be molded with recesses at one end thereof, said recesses intersecting the hollow portion and extending from the rear side of the block, but terminating, preferably, at the point adjacent the outer walls of the cavities C. The recesses in the ends of the various blocks are adapted to receive the ends of the joists D, and since said joists do not project entirely through the blocks the outer finish or surface of the wall is unbroken. Suitable ties f are laid by

endwise movement in the hollow portions B of the adjacent blocks A, between which ends of the joists are received, and these ties are preferably pins passing through the end portions of the joists, and thereby effectively tying or securing the joists to the wall structure. The outer surface of the blocks may of course be rock-faced, tool-faced, or any other stone-imitating design may be used.

10 Having thus described the invention, what is claimed as new is—

In building-wall construction, the combination of a wall composed of building-blocks, each of said building-blocks being continuously hollow throughout its length, certain
15 blocks having adjacent end portions thereof

spaced apart, joists having the ends thereof seated on the wall by being arranged in the spaces between adjacent end portions of the blocks thereof, the ends of the joists being provided with transverse openings, and longitudinal ties consisting of pins inserted endwise into the hollow portions of the blocks between which the ends of the joists are received and passing through the openings in
25 said joists to secure the latter to the wall.

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