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T. SEWALL & G. M. KEENE.

BUILDING BLOCK.

APPLICATION FILED APR. 9, 1906.

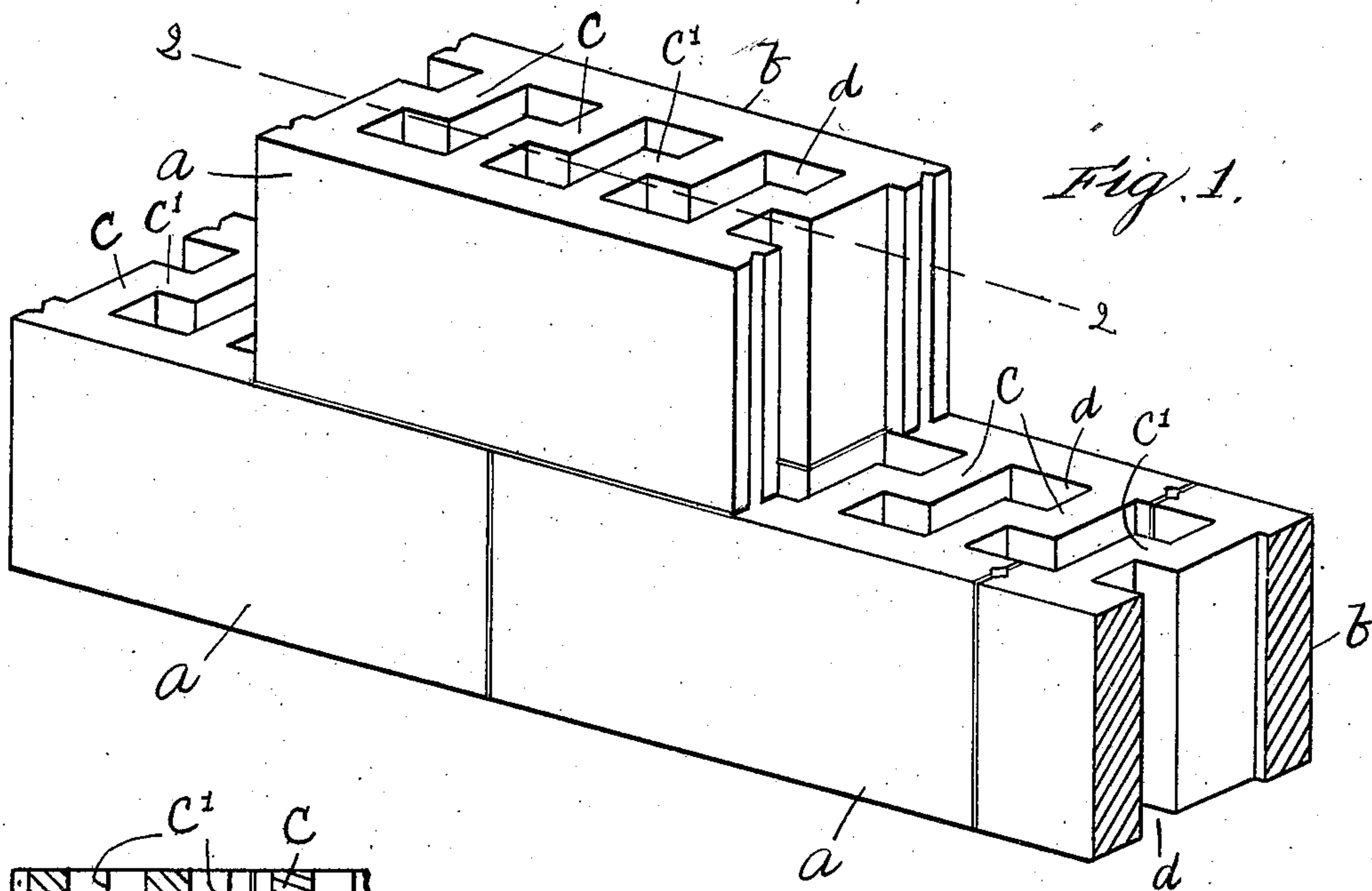


Fig. 1.

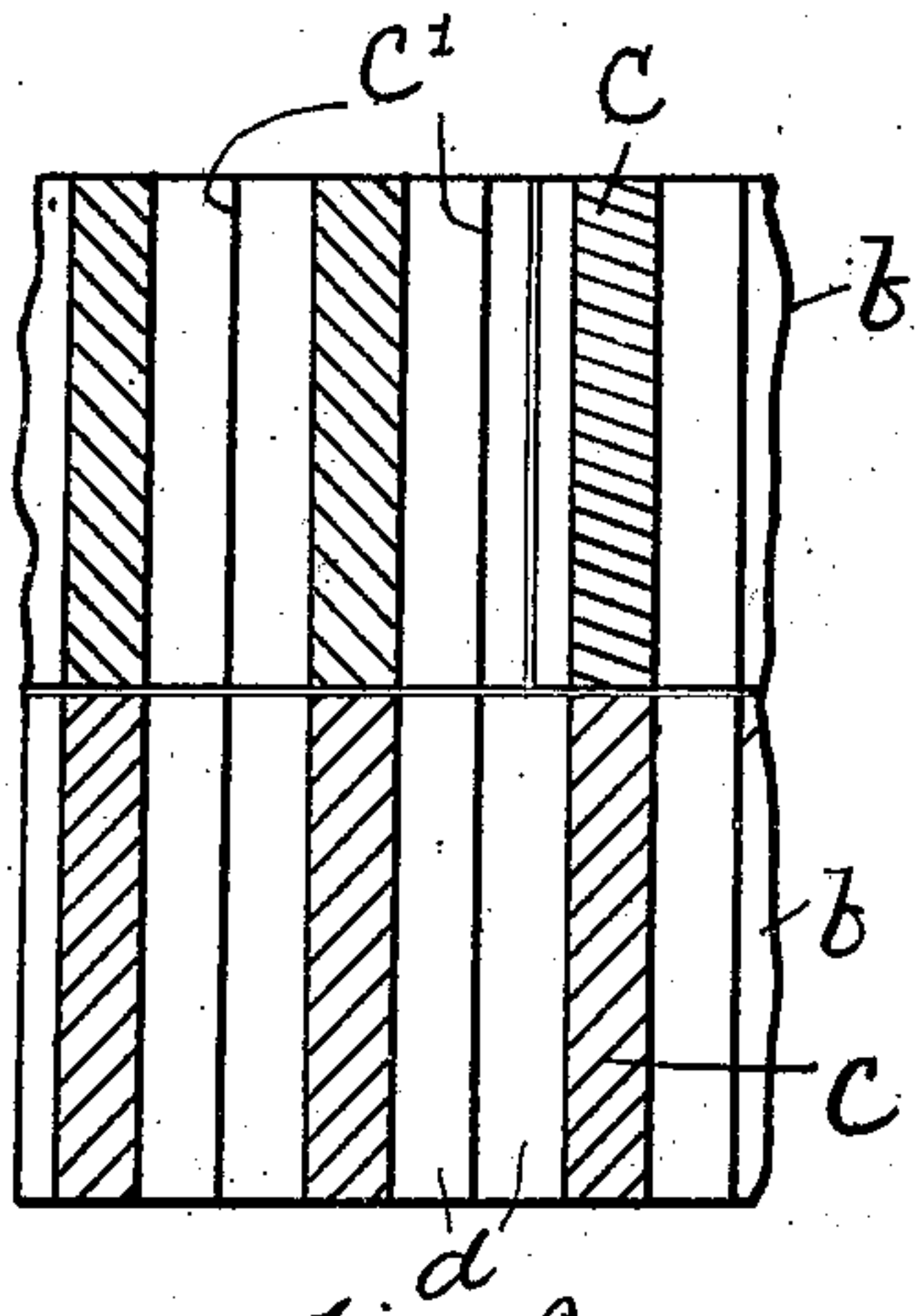


Fig. 2.

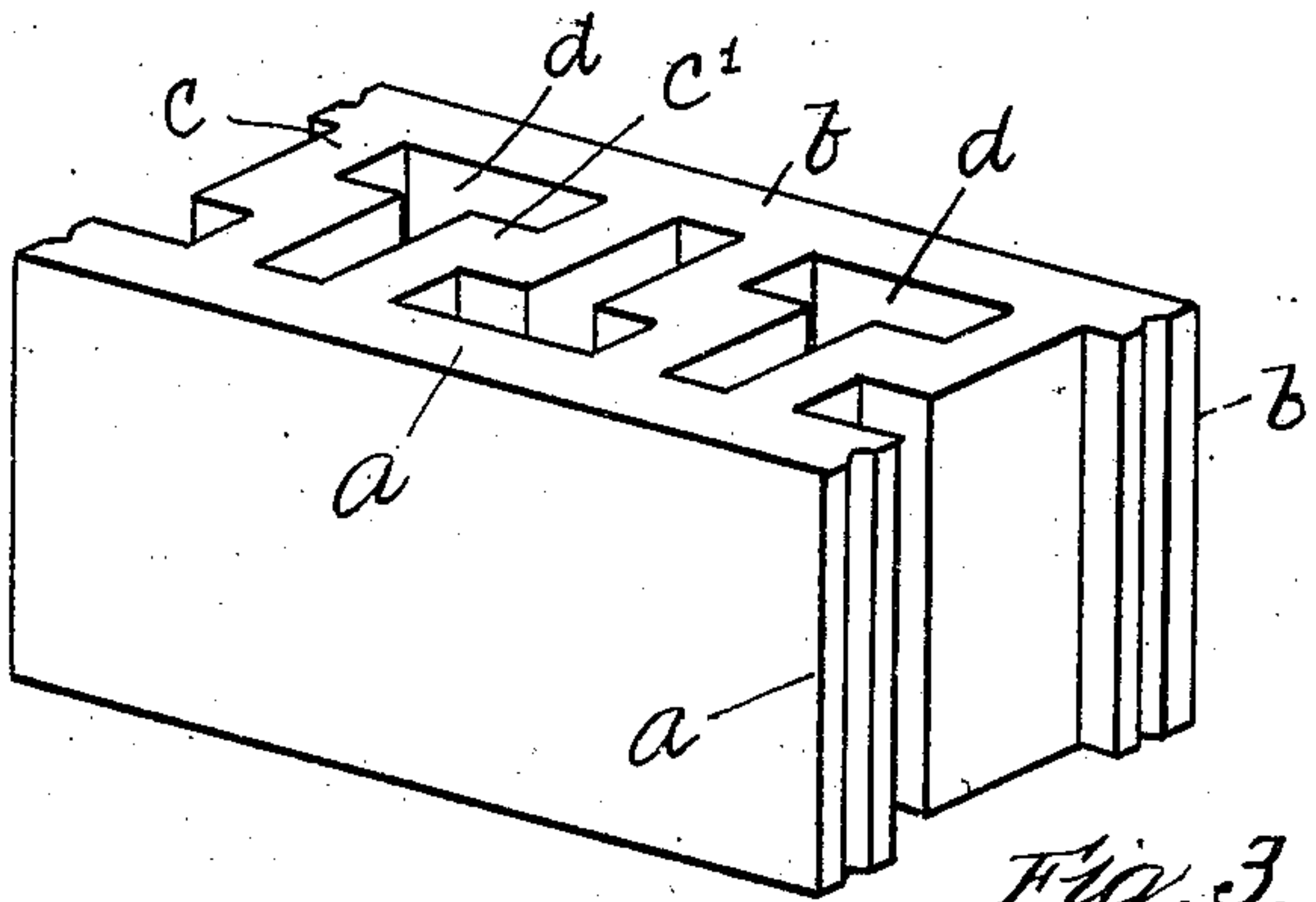


Fig. 3.

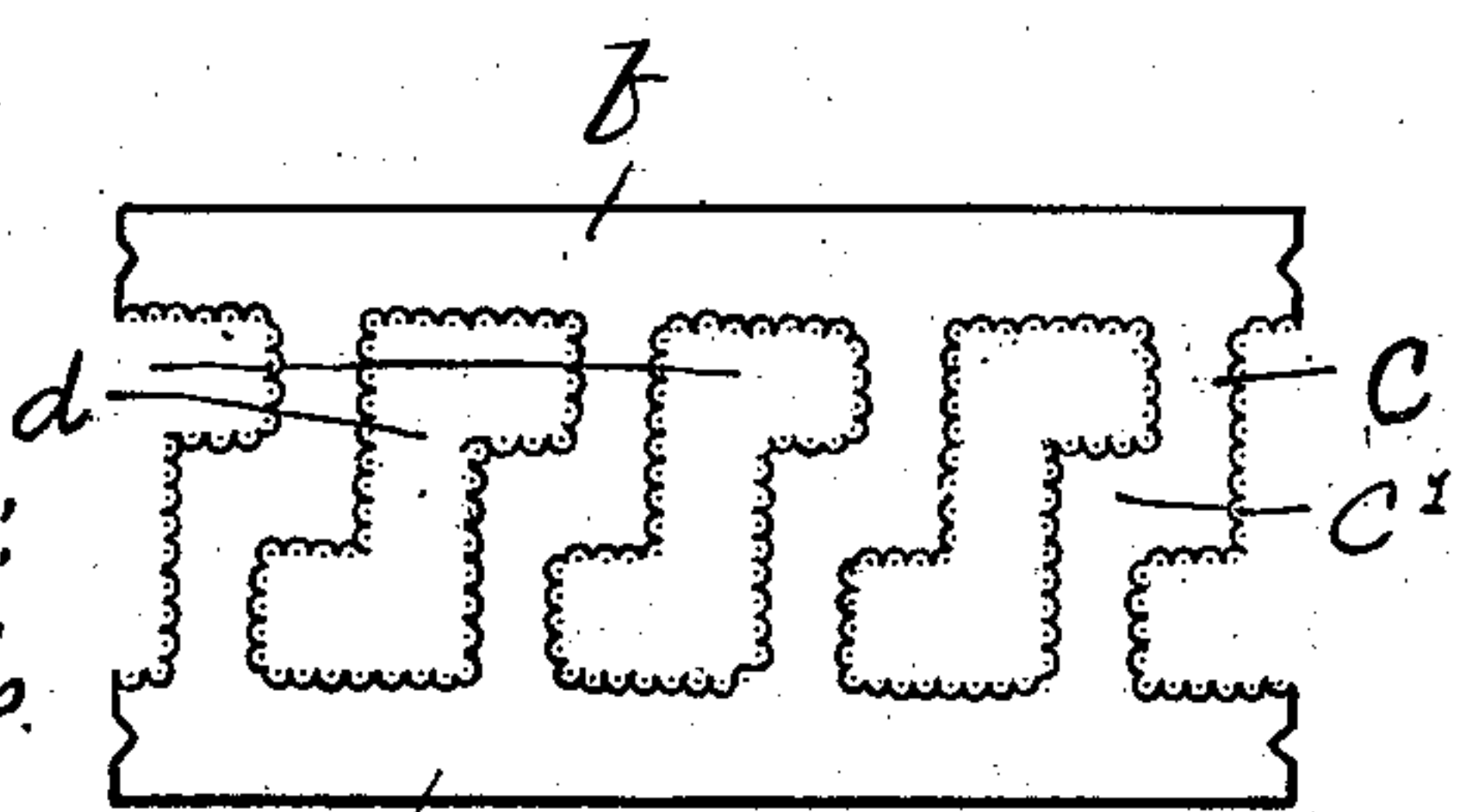


Fig. 4.

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UNITED STATES PATENT OFFICE.

THOMAS SEWALL AND GEORGE M. KEENE, OF BOSTON, MASSACHUSETTS.

BUILDING-BLOCK.

No. 844,416.

Specification of Letters Patent.

Patented Feb. 19, 1907.

Application filed April 9, 1906. Serial No. 310,701.

To all whom it may concern:

Be it known that we, THOMAS SEWALL and GEORGE M. KEENE, of Boston, county of Suffolk, State of Massachusetts, have invented
5 an Improvement in Building-Blocks, of which the following description, in connection with the accompanying drawings, is a specification, like characters on the drawings representing like parts.

10 This invention relates to building-blocks composed, essentially, of concrete or cement mixed with sand or other ingredients, and has for its object to so improve the construction of the block that the area and number of
15 paths or courses from the outer wall to the inner wall, which are liable to be penetrated by the moisture from the atmosphere, are reduced to the minimum and direct courses avoided by diverting them and the courses
20 made much longer than the distance between said outer and inner walls and large surfaces exposed between the outer and inner walls, and as a result the inner wall of the block will not become dampened, and therefore
25 may receive upon it directly the plaster without the interposition of the usual furring and also that inner air-spaces are formed, which prevent the passage through the wall of heat or cold.

30 A building-block comprehending this invention is composed of an outer wall and an inner wall and a plurality of intermediate partition-walls between said outer and inner walls, each of which is formed with an offset
35 portion intermediate its length, whereby air-spaces are produced between said outer and inner walls at both sides of said partition-walls.

40 The building-blocks embodying this invention when superimposed and staggered so as to break joints will have their partition-walls and interposed air-spaces respectively arranged in vertical alinement, which is important.

45 Figure 1 shows in perspective a portion of a building-wall, showing the blocks. Fig. 2 is a vertical section of a portion of the wall shown in Fig. 1, taken on the dotted line 2 2. Fig. 3 is a perspective view of a modification
50 to be referred to. Fig. 4 is a plan view of one of the blocks shown in Fig. 1, the sides of its partition-walls being corrugated.

55 The building-block will be made of any desirable dimensions, but preferably of rectangular form, and is composed of an outer wall *a* and an inner wall *b* and a plurality of parti-

tion-walls *c* between said outer and inner walls. The outer and inner walls will be of any desirable thickness, and so also will be the partition-walls. Each partition-wall *c* is
60 formed at a point intermediate its length with an offset portion *c'*. By providing the partition-walls with an offset portion it will be seen that the direct course for the passage of moisture from the outside atmosphere
65 from the outer wall to the inner wall is diverted and the liability of the moisture passing through them is reduced to the minimum. Furthermore, by providing the partition-walls with offset portions the length of said
70 walls is materially increased between the outer and inner walls, they being considerably longer than the distance between said walls, thereby further reducing the liability of the moisture passing through them and
75 effecting the inner wall.

Between the several partition-walls air-spaces are provided which ordinarily will be "dead" air-spaces, and said air-spaces will be of such shape as may be incidentally formed
80 by the construction of the partition-walls. These air-spaces are represented at *d* and, as shown, are bounded by the outer and inner walls and the partition-walls. Each air-space thus extends from the outer wall to
85 the inner wall, while its sides are formed by the partition-walls. By offsetting or otherwise increasing the length of the partition-walls large surfaces are presented to the air-spaces in order that the evaporation of the
90 moisture may be augmented, and thus in a measure assist in preventing the moisture from reaching the inner wall.

The opposite sides or faces of the partition-walls which are exposed to the air-spaces
95 may be corrugated, if desired, or otherwise irregularly formed to increase the area of the exposed surfaces to the air-spaces.

The offset portions of the partition-walls may all extend in one direction, as shown in
100 Fig. 1, or they may extend in opposite directions, as shown in Fig. 3, and in such case air-spaces will be provided which extend from the outer to the inner wall, the opposite sides of which are formed by the partition-
105 walls.

Each block will have as many partition-walls as desired, the number being immaterial, although they should be so arranged with respect to the length of the block that
110 half-spaces will be formed at the ends of the block in order that when the blocks are

abutted together similarly-shaped air-spaces will be formed at the adjoining ends of the blocks as are formed in the blocks. This is particularly desirable in providing for using
5 the blocks in a building-wall where it is desired to so arrange the blocks that the air-spaces and the partition-walls will all be arranged in vertical alinement.

The outer ends of the blocks will be formed
10 with recesses which are adapted to be filled with mortar or cement when the blocks are abutted together to form keys between the blocks.

Having thus described our invention, what
15 we claim as new, and desire to secure by Letters Patent, is—

1. A building-block composed of an outer wall and an inner wall and two or more partition-walls extending from said outer wall to
20 said inner wall, each formed with an offset portion intermediate its length, whereby air-spaces are provided in the block at both sides of said partition-walls which extend from the outer to the inner walls, the air-

spaces at each end of the block being one- 25
half the size of the air-spaces within the block, substantially as described.

2. A building-wall consisting of blocks, each composed of an outer wall and an inner wall and a plurality of partition-walls extend- 30
ing from said outer to said inner wall each formed with an offset portion intermediate its length, whereby air-spaces are provided in the block between the outer and inner walls at both sides of said partition-walls, said 35
blocks being staggered, and so disposed relative to each other that the air-spaces and also the partition-walls are arranged in vertical alinement, substantially as described.

In testimony whereof we have signed our 40
names to this specification in the presence of two subscribing witnesses.

THOMAS SEWALL.
GEORGE M. KEENE.

Witnesses:

B. J. NOYES,
H. B. DAVIS.