(No Model.)

H. A. DANIELS.

BUILDING BLOCK.

No. 346,734. Patented Aug. 3, 1886.

Fig 1.

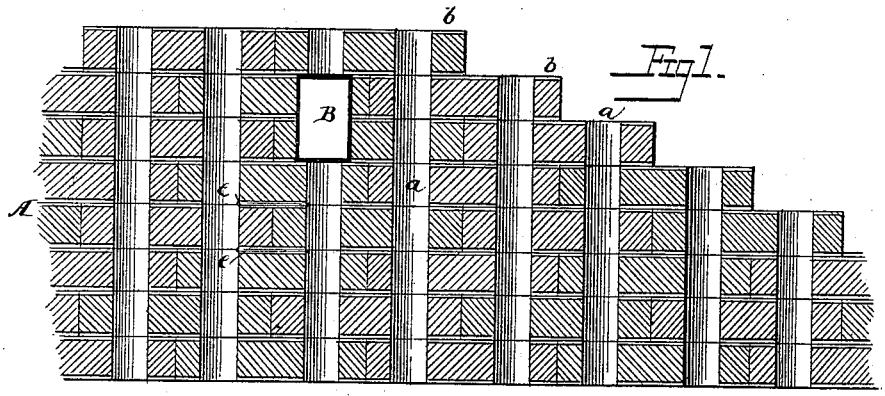


Fig 2.

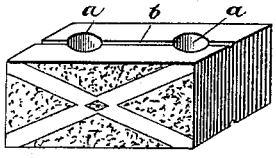


Fig 3.

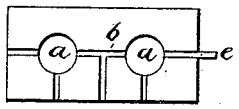
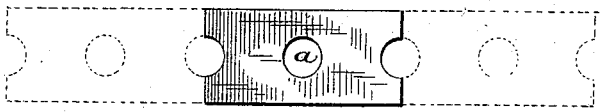


Fig 4.

Fig 5.



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UNITED STATES PATENT OFFICE.

HENRY A. DANIELS, OF YONKERS, NEW YORK.

BUILDING-BLOCK.

SPECIFICATION forming part of Letters Patent No. 346,734, dated August 3, 1886.

Application filed January 15, 1886. Serial No. 188,678. (No model.)

To all whom it may concern:

Be it known that I, HENRY A. DANIELS, a citizen of the United States, and residing at Yonkers, in the county of Westchester and State of New York, have invented certain new and useful Improvements in Building-Blocks, of which the following is a specification.

My invention consists in providing a building-block with certain vertical and longitudinal openings and grooves arranged so that when a wall is built of said blocks it will be provided with vertical and longitudinal openings for the circulation of air; and my invention consists in combining with such blocks certain pins, solid or hollow, lying within the longitudinal grooves, crossing the joints between the blocks and tying them together, and in using the vertical openings for ventilating purposes, all as set forth hereinafter, and as illustrated in the accompanying drawings, in which—

Figure 1 is a sectional elevation of a wall illustrating my invention. Fig. 2 is a perspective view of one of the improved building-blocks. Fig. 3 is a face view of one of said blocks. Fig. 4 is a longitudinal section. Fig. 5 is a face view of one of the blocks, showing a different arrangement of openings.

The improved block may be of any desired shape and proportion. Preferably it is oblong and of about the same proportion as an ordinary building-brick; but for most purposes it is somewhat larger. Vertically through the block extends parallel openings *a*, and along one or both of the horizontal faces extends a groove, *b*, which intersects all the openings *a a*, and when the block is to be used for inside work one of the faces may be suitably ornamented, as shown in Fig. 2. The blocks thus constructed are laid to break joint in the same manner as ordinary bricks, and the openings *a* are so arranged that one of the openings in each block will occupy a position in vertical line with the openings in the overlapping ends of the blocks above and below the said block, so that there will be in the completed wall a succession of vertical flues or openings resulting from the mere laying of the bricks in proper position and without any further attention or labor upon the part of the workmen. It will also be seen that the grooves or channels *b* constitute lateral communications between the vertical openings, and so that the entire structure is channeled vertically and longitudinally, thus permitting such lateral and vertical circulation of air-currents as will most effectually preserve the wall in an absolutely dry condition, while the interior of the building will be much warmer, inasmuch as any air which passes through the wall toward the interior, instead of being thrown into the room surrounded by the wall, will be carried through the channels laterally and upward. The openings *a* may be made of such size as to serve as flues for ventilating purposes for the rooms in the building. Thus the box B may be built into the wall to communicate with one or more of the vertical openings, as shown in Fig. 1, so as to receive on the side within the room the usual register, whereby the current of air from the room to the openings or from the latter to the room will be cut off or regulated at pleasure. When increased strength is required, the channels or grooves *b* may be made use of as means for tying the parts of the wall together. Thus rods or tubes *e* may be extended through said channels, so as to project across the joints between the blocks, thus doweling the various blocks together, while when the dowels are tubular in form the circulation of air is in no manner interfered with. In some instances transverse channels *c* may extend partly or entirely across the faces of the blocks, so as to serve to conduct the air to and from the channels *b* or *a* and out of or into the room.

The improved building-blocks may consist of ordinary clay, or they may be made of any of the various artificial-stone compositions set forth in applications for patents filed by me, or in my Letters Patent No. 297,971. In some instances one of the vertical channels or openings *a* may be in the center of the block, and the ends of the latter may be set so as to form a cylindrical opening with the recess in the ends of the adjacent blocks, as shown in Fig. 5, the end openings in one layer of blocks coinciding with the center openings in the layers above and below.

Without limiting myself to the precise construction and arrangement of parts shown, I claim—

1. A building-block provided with vertical openings intersected by a channel or channels upon one or both faces of the block, substantially as and for the purpose set forth.

2. The combination, in a wall, of a series of building-blocks, each having openings arranged to coincide with those of other blocks, forming continuous vertical channels, and longitudinal grooves forming communications between said channels, substantially as described.

3. The combination, in a wall, of a series of blocks having coinciding openings forming vertical channels and longitudinal grooves, and pins extending into said grooves across the joints between the blocks, substantially as set forth.

4. The combination, in a wall, of blocks having openings arranged to constitute vertical channels, longitudinal grooves, and tubular pins extending in said grooves across the joints between the blocks, for the purpose described.

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

HENRY A. DANIELS.

Witnesses:
HARRY M. DICKINSON,
H. P. STAMFORD.