No. 815,097. PATENTED MAR. 13, 1906.

A. KLAY.

BUILDING BLOCK.

APPLICATION FILED MAY 8, 1905.

Fig. 3.

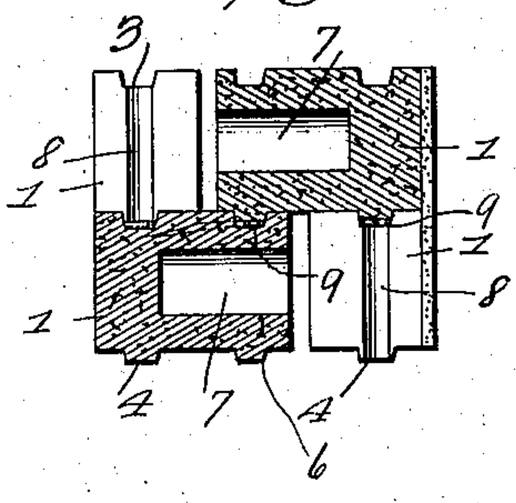


Fig. 5

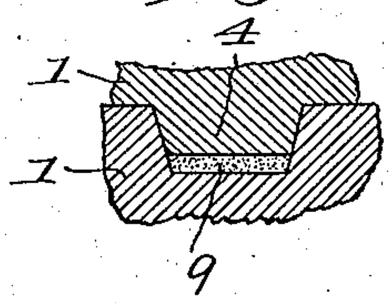


Fig. 1.

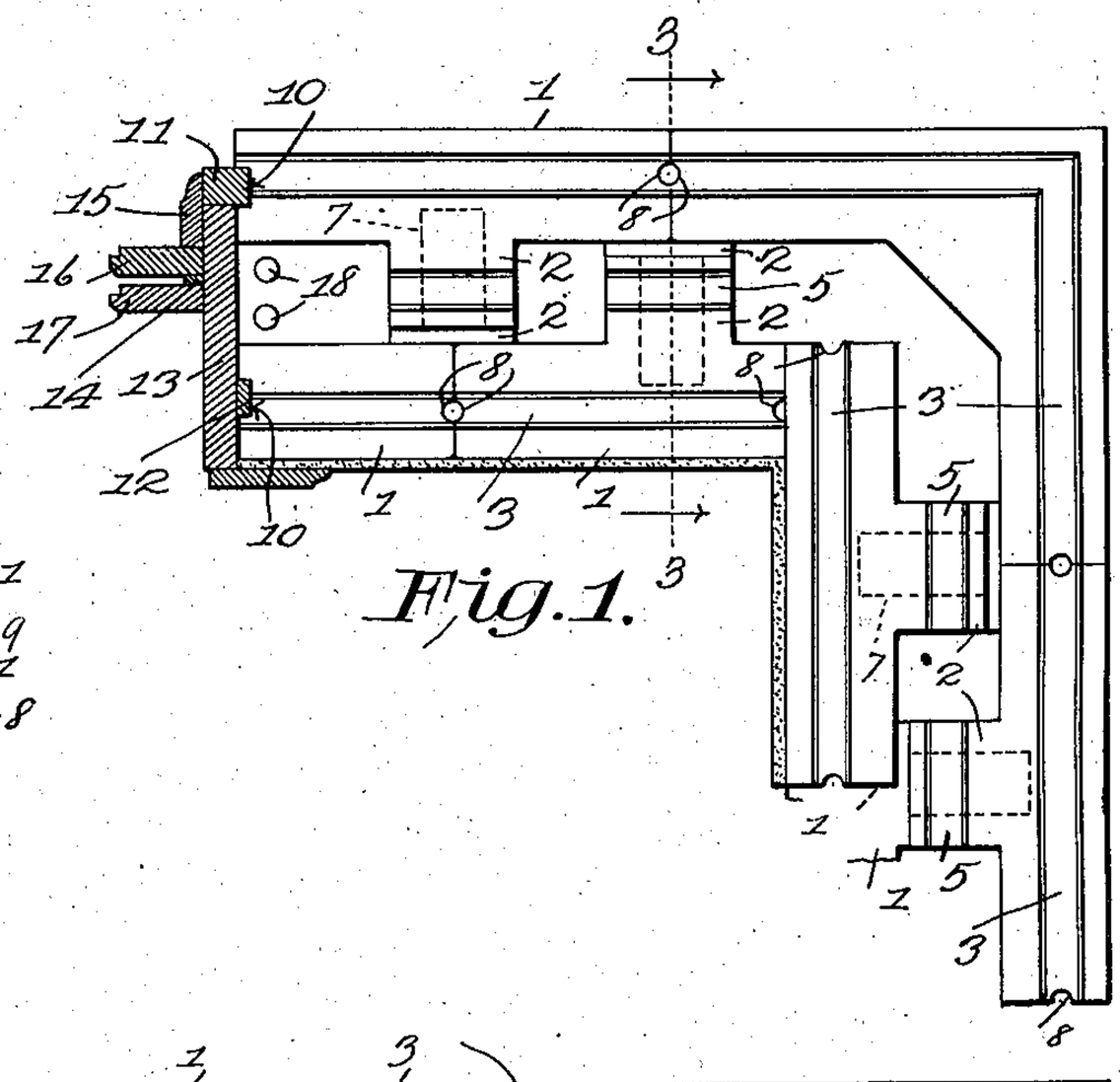


Fig. 4.

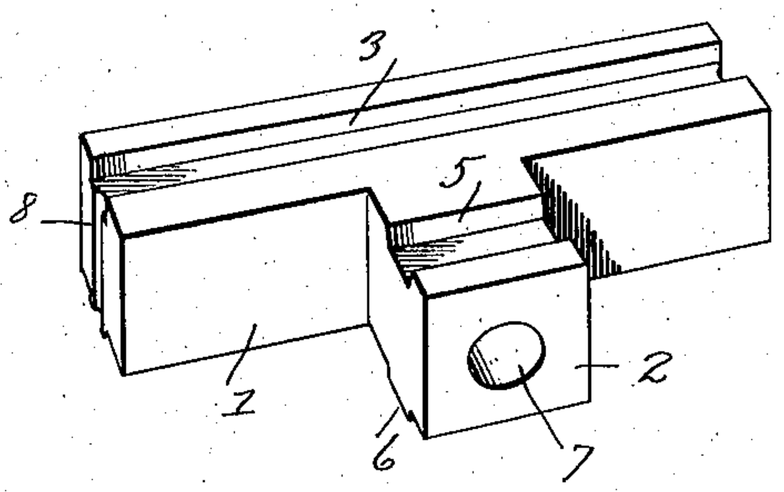
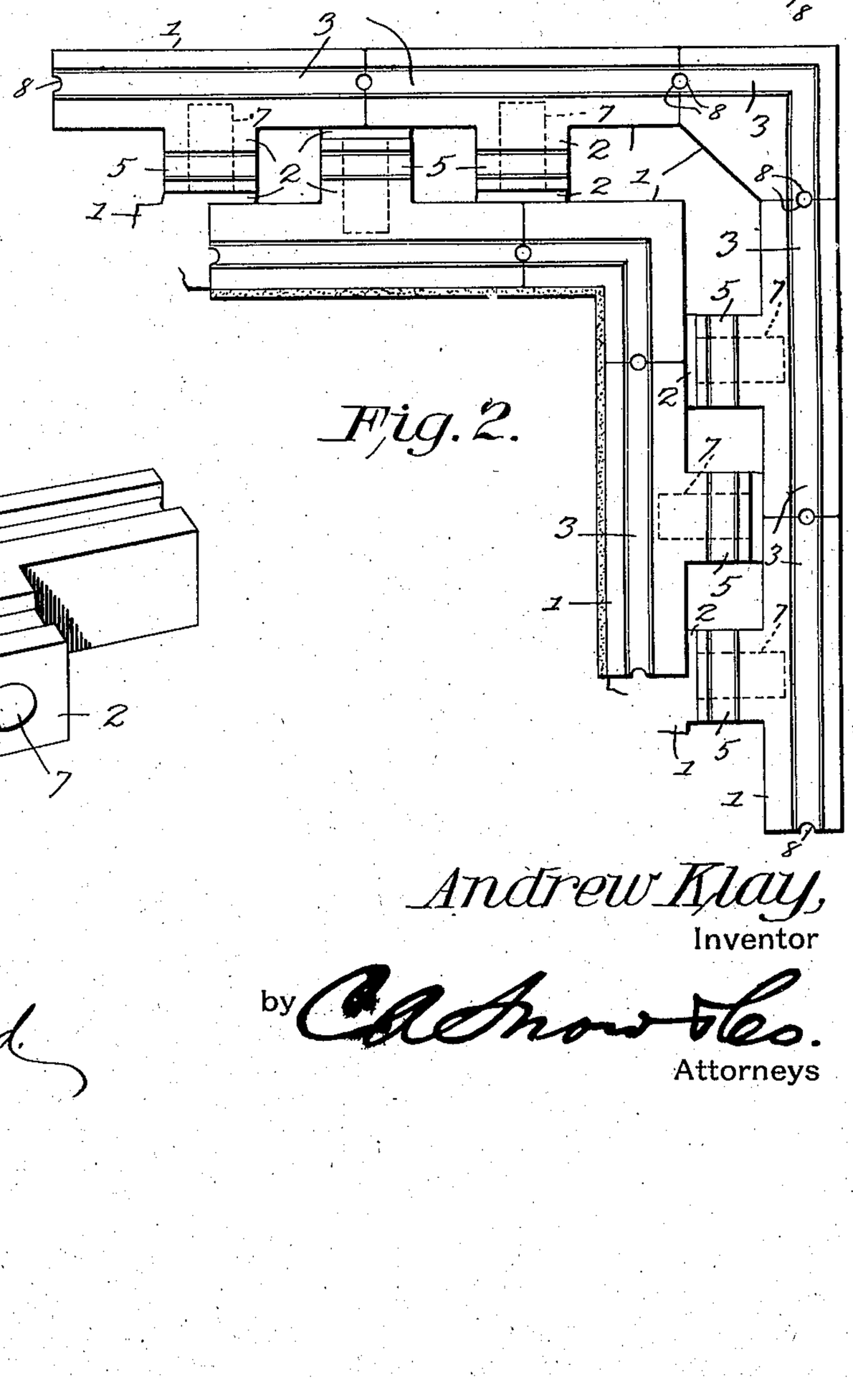


Fig. 2.



Witnesses

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ANDREW KLAY, OF BLUFFTON, OHIO.

BUILDING-BLOCK.

No. 815,097. Specification of Letters Patent. Patented March 13, 1906.

Application filed May 8, 1905. Serial No. 259,418.

To all whom it may concern:

Be it known that I, ANDREW KLAY, a citizen of the United States, residing at Bluffton, in the county of Allen and State of Ohio, have invented a new and useful Building-Block, of which the following is a specification.

This invention relates to building-blocks; and its object is to produce a new and useful form of block which is capable of being conveniently handled in the erection of walls and constructed to enable the binding of adjacent blocks by a minimum amount of mortar which is not exposed at the joints, whereby an attractive form of wall is produced, and the mortar is not subjected to the damaging effects of the weather.

A further object of the invention is to construct the block so that a plurality of blocks may be assembled in relatively compact relation in a wall and at the same time produce dead-air spaces therein for the exclusion of frost, dampness, and the like. Moreover, the block is constructed to have the relatively broad bearing, so as to obtain the desired binding or holding efficiency when the blocks are united to form a wall.

It is also designed to produce a form of block to enable the convenient and efficient connection of window-frame with the wall.

With these and other objects in view the present invention consists in the combination and arrangement of parts, as will be hereinafter more fully described, shown in the accompanying drawings, and particularly pointed out in the appended claims, it being understood that changes in the form, proportion, size, and minor details may be made within the scope of the claims without departing from the spirit or sacrificing any of the advantages of the invention.

In the accompanying drawings, Figure 1 is a plan section of a corner portion of a wall, showing the manner of uniting one side of a window-frame with the building-blocks of the present invention. Fig. 2 is a similar view showing a different arrangement of corner-blocks. Fig. 3 is a cross-sectional view on the line 3 3 of Fig. 1. Fig. 4 is a detail perspective view of a building-block of the present invention. Fig. 5 is an enlarged fragmentary sectional view illustrating the tongue-and-groove connection between adjacent blocks.

Like characters of reference designate corresponding parts in each and every figure of the drawings.

Referring at first more particularly to Fig. 4 of the drawings, it will be seen that the present block includes a rectangular, preferably oblong, body 1, which is provided midway of its ends with a lateral extension 2, which is flush with the top and bottom faces of the body of the block. Throughout the top face of the block and midway between its opposite sides extends a longitudinal groove or channel 3, the side walls of which converge downwardly, as clearly shown in Fig. 3, the ends of the groove or channel intersecting the opposite ends of the block. Upon the under face of the block there is a pendent longitudinal rib 4, substantially corresponding in size and shape to the groove or channel 3, with the exception that the channel is somewhat deeper than the rib. In the upper face of the projection 2 there is a groove or channel 5, parallel to the groove or channel 3, and upon the under side of the projection or extension there is a rib 6, corresponding to the channel 5. In the extension 2 there is an air-chamber 7, which has its inner end closed and its outer end opening through the outer end of the extension. In each end of the block there is an upright substantially semicylindrical groove 8, which intersects the channel 3 and the rib 4.

In the erection of a wall, as exhibited in Figs. 1, 2, and 3, it is made two blocks in thickness, the blocks of each wall-section being arranged end to end, so as to have their upright grooves 8 register or mate, and the wall-sections are arranged to break joints—that is to say, the extensions 7 are located opposite the joints of the respective other wall-sections—the two sections being separated by a longitudinal interspace which produces a dead-air space. The blocks are of course placed one upon the other with the extension of each block lying upon the extension of the next below block in the opposite wall-section with the ribs of one block fitting in the corresponding channels of the other block, a suitable quantity of mortar (shown at 9 in Fig. 3 of the drawings) being previously placed in the channels 3 and 5. The quantity of mortar employed should be sufficient to fill the space between the bottom of each rib and the bottom of the channel which receives the rib, so as not to be displaced from the channel when the blocks are assembled, whereby

the faces of the blocks come into mutual contact and the mortar is not exposed at the joints between the blocks. This feature of not exposing the mortar is very important in that it not only presents an attractive form of wall, but houses and protects the mortar against the damaging effects of the weather. The upright sockets produced by the registered upright grooves 8 are filled with mortar, so as to bind together the ends of abutted blocks and at the same time to close the joints between the ends of the blocks. When the blocks are thus assembled in a wall, there is a relatively large dead-air space between the inner and outer sections of the wall, which effectually excludes frost, dampness, and the like. The blocks of one section are not only interlocked throughout that section by means of the tongue-and-groove or rib-and-channel connections, but the two sections are interlocked by means of the extensions 2, as most clearly illustrated in Fig. 3 of the drawings, which effectually prevents any tendency of the wall-sections bulging outward or separating, whereby the walls are maintained true and not liable to get out of plumb.

The purpose of the air-spaces 7 in the extensions 2 is to bring the dead-air space well into the centers of the respective blocks, so as to repel frost and dampness before the latter can entirely penetrate the block.

To enable the convenient setting up of window-frames in connection with the present form of wall, it is proposed to provide relatively large vertical grooves or seats 10 in the exposed ends of those blocks which define the window-openings, as shown in Fig. 1 of the drawings, said grooves or seats being designed to receive upright wooden strips 11 and 12, to which the window frame or jamb 13 is nailed, the usual parting-strip 14 and blind-stop 15 being secured to the frame 13 and the sashes 16 and 17 arranged to run between the parting-strip 14 and the blind-stop 15 and back of the parting-strip in the usual manner. In connection with this mounting of the window-frame it will be noted that the portion of the dead-air space between the wall-sections adjacent the window-frame constitutes a chamber for the reception of the usual sash-weights, which have been indicated at 18.

Having fully described the invention, what is claimed is—

1. A building-block provided in one face with a longitudinal channel and upon its opposite face with a longitudinal rib corresponding in size and shape to the channel, the channel exceeding the rib in depth, there being an intermediate extension of the block flush with the channel and rib faces thereof, said extension being provided in one face with a channel substantially parallel to the first-mentioned channel and upon its opposite face with a rib substantially parallel with the first-mentioned rib, the rib of the extension corresponding substantially in size and shape to the channel thereof with the channel exceeding the rib in depth.

2. A wall including sections separated by a vertical interspace, each section being made up of superimposed blocks having intermediate lateral extensions flush with the tops and bottoms of the blocks and resting upon the extensions of the respective next below blocks of the other wall-section, each extension being shorter than the width of the space between the wall-sections.

3. A wall including sections separated by a vertical interspace, each section being made up of superimposed blocks having intermediate lateral extensions flush with the tops and bottoms of the blocks and resting upon the extensions of the respective next below blocks of the other wall-section, each extension being shorter than the width of the space between the wall-sections, and a socket and projection interlocking connection between the adjacent extensions.

4. A wall made of blocks having their upright ends abutted in mutual contact and provided with registering grooves, which are closed by the contacting ends of the blocks and mortar filling the grooves only.

5. A building-block provided with an intermediate extension which is flush with the top and bottom of the block and is provided in one horizontal face with a channel disposed longitudinally of the block and upon its other horizontal face with a rib corresponding to the channel.

6. A building-block having an intermediate lateral extension flush with its top and bottom faces, said extension being provided with an air-chamber opening outwardly through the outer end of the extension.

7. A building-block provided in one horizontal face with a longitudinal channel open at opposite ends, the other horizontal face being provided with a longitudinal rib corresponding to the channel, the ends of the block being provided with upright grooves, and an intermediate lateral extension flush with the top and bottom of the block, one horizontal face of the extension being provided with a channel substantially parallel with the first-mentioned channel, the opposite face of the extension being provided with a rib substantially parallel with the first-mentioned rib, and the extension being provided with an air-chamber opening through the outer end of the extension.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two witnesses.

ANDREW KLAY.

Witnesses:
FRANK A. EATON,
G. H. LEWIS.