

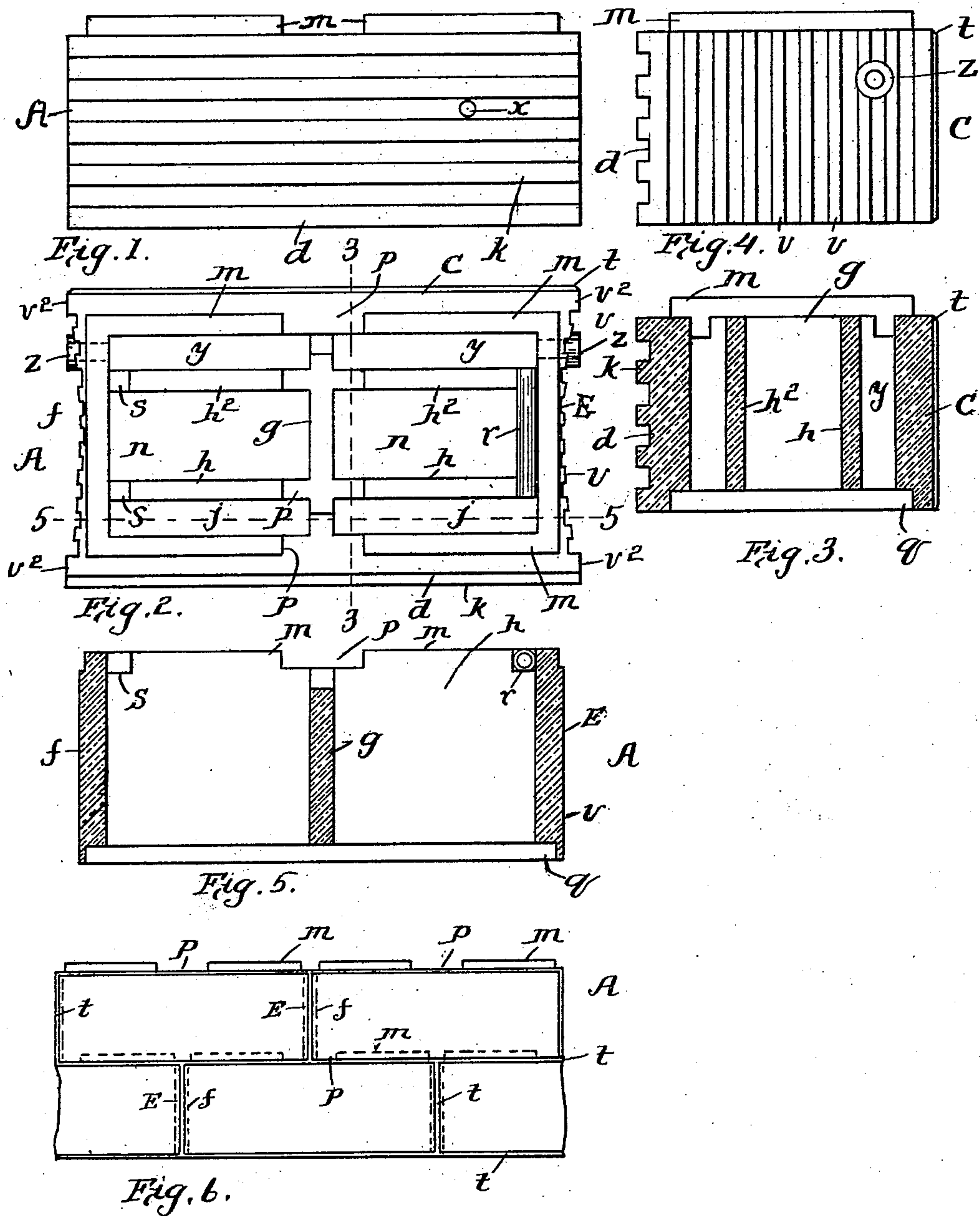
**No. 689,523.**

**Patented Dec. 24, 1901.**

**S. T. TRUMBULL.**  
**BUILDING BLOCK.**

(Application filed Nov. 21, 1900.)

(No Model.)



Witnesses:  
H. B. Davis.  
C. W. Wilbur

Inventor:  
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att'y



# UNITED STATES PATENT OFFICE.

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## BUILDING-BLOCK.

SPECIFICATION forming part of Letters Patent No. 689,523, dated December 24, 1901.

Application filed November 21, 1900. Serial No. 37,314. (No model.)

*To all whom it may concern:*

Be it known that I, SOLOMON T. TRUMBULL, of Gloucester, in the county of Essex and Commonwealth of Massachusetts, have made certain new and useful Improvements in Building-Blocks, of which the following is a description sufficiently full, clear, and exact to enable any person skilled in the art or science to which said invention appertains to make and use the same, reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1 is a side elevation of one of my improved building-blocks; Fig. 2, a top plan view of the same; Fig. 3, a cross-section on line 3 3 in Fig. 2; Fig. 4, an end elevation; Fig. 5, a vertical longitudinal section on line 5 5 in Fig. 2, and Fig. 6 an elevation showing two courses of blocks and the manner of lapping joints in building.

Like letters of reference indicate corresponding parts in the different figures of the drawings.

My invention is designed especially as an improvement in the device shown and described in United States Letters Patent No. 312,305, granted to me February 17, 1885, for improvements in building-blocks; and it relates especially to novelties of construction in glass or vitreous building-blocks whereby the same are materially improved without increasing cost or labor in applying.

In the drawings, A represents the block or brick, considered as a whole. These may be of any size or general shape desired and are constructed of glass or similar vitreous material, preferably molded. These blocks, which are preferably about twelve inches long, are of suitable width and depth and comprise parallel side walls *c d*, connected by concaved end walls *e f*. Two central vertical partitions *h* run lengthwise of the block and are transected by a central cross-partition *g*, forming six rectangular compartments open at top and bottom.

The outer wall *d* of the block is provided with a series of longitudinal parallel flanges or flutes *k*, formed or cast integral therewith. These flanges, flutes, or bosses serve all the

purposes of lathing in the construction of a building from the blocks.

Around each of the rectangular compartments at the top of the block there is a vertical flange *m*, terminating adjacent the cross-partition *g* (see Fig. 2) to form a space *p* for admitting the edge of a second course of blocks. The lower edge of the inner wall of said compartment is rabbeted, as shown at *q* in Figs. 5 and 3, to receive the flange *m* of an under course of blocks, as indicated in Fig. 6 by dotted lines. The edges of the parallel walls are beveled at *t*, so as to leave a space between two courses of blocks that may admit of mortar or cement, and thus impart a mortar line or finish to the wall. The concaved end walls *e f* are thus formed so that when the ends of two blocks are butted in a course there will be a space, oval-shaped in plan, into which mortar or cement can be filled without exposing on the outer face of the wall and impart additional strength. These ends are also provided with a series of parallel indentations forming flutes or bosses *v*, into which the mortar will take and hold the blocks against lateral movement. The outer bosses *v*<sup>2</sup> at each end of the oval are in the same plane as shown in Fig. 2. In the end or side wall may also be formed one or more bolt-holes (see Fig. 5) for securing the block to wooden frames, as becomes necessary in various portions of a building—such as floor-timbers, casings, &c. Opening through the concave end walls *e f* into the chambers *y*, Fig. 2, formed by the partitions, are air-holes *z*, provided exteriorly with annular flanges, as shown, whereby the openings in adjacent bricks may be butted, and thus form a continuous air-passage in corresponding compartments in the wall-courses. These annular flanges prevent the mortar closing said openings. In the top of each partition *h* *h*<sup>2</sup> at its outer end there is a groove or indentation *s*, in which may be disposed a glass tube *r*, connecting the chambers *y* with the outer chambers *j j* across said partitions.

In the use of my improvement the blocks are laid in courses, breaking joints as in Fig. 6, the end walls *e f* overlapping the ends of



flanges  $m$  of the block below and dropping into the space  $p$  between said flanges. The middle  $n$  or any or all of the compartments in these blocks and the spaces formed by the abutting ends may be filled with cement, and as compartments of succeeding courses register with those below solid piers of mortar result, inclosed in vitreous matter.

As many compartments as desired may be employed, as will be readily understood. I preferably leave the outer compartments of each course empty of cement to form air-chambers, because glass will "sweat" and the moisture gather in it to a disagreeable degree. To lend added decoration, the inner faces of these outer walls of the compartment may be painted in various colors. Moreover, the glass may be colored in the mass and not be affected so long as the cement is in the inner or middle compartments.

The faces of the blocks or bricks may be ornamented with any artistic designs in molding them, in a manner which will be understood without a more explicit description.

My particular purpose in connecting the chambers  $y$  with the air-ports  $z$  and thence across partitions  $h$  by the tubes  $r$  with chambers  $j$  is to utilize the present systems of heating and cooling by compressed air. This may be driven into any one of the blocks wherever located in the wall and brought to

any temperature desired, a heating apparatus independent of any of the usual being thus supplied.

I do not confine myself to fluting the ends or sides of the blocks, as by means of bolt-holes  $x$  furring may be attached for lathing; but, if desired, plaster may be applied direct to said flutes.

Having thus explained my invention, what I claim is—

1. A building-block of vitreous material having two or more compartments opening therethrough and flanged air-ports opening through the end walls of one set of compartments substantially as and for the purpose specified.

2. The block A, provided with compartments  $j$ ,  $n$ ,  $y$ , and ports,  $z$ , in combination with the air-tube,  $r$ , connecting compartments,  $y$ ,  $j$ , substantially as and for the purpose specified.

3. A building-block comprising more than two compartments opening therethrough; an air-tube connecting adjacent parallel compartments and air-ports opening through the end walls of one set of compartments.

SOLOMON T. TRUMBULL.

Witnesses:

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