

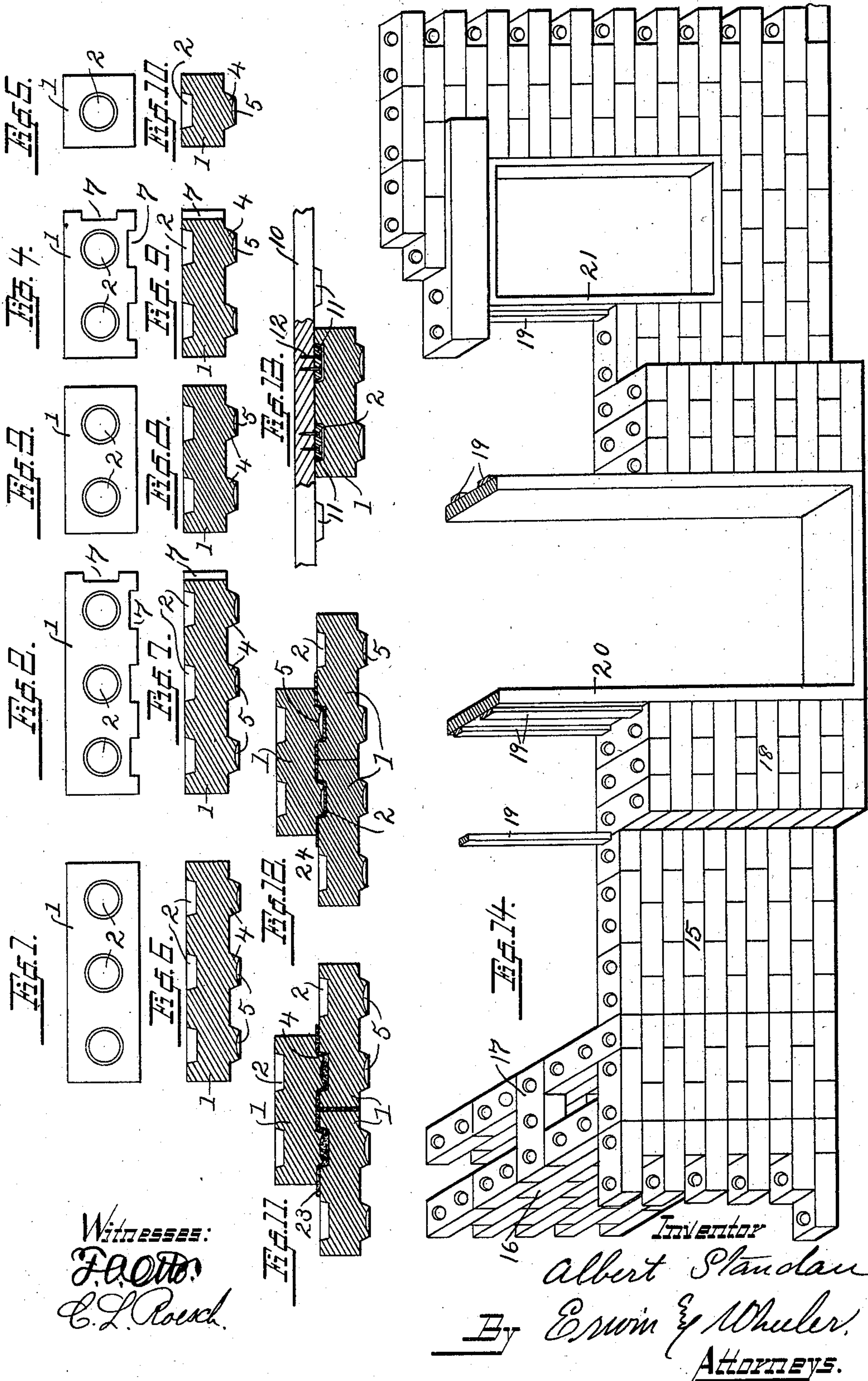
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Patented Oct. 21, 1902.

A. STANDAU.  
BUILDING MATERIAL.

(Application filed Apr. 25, 1902.)

(No Model.)



Witnesses:  
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# UNITED STATES PATENT OFFICE.

ALBERT STANDAU, OF TERRE HAUTE, INDIANA.

## BUILDING MATERIAL.

SPECIFICATION forming part of Letters Patent No. 711,541, dated October 21, 1902.

Application filed April 25, 1902. Serial No. 104,613. (No model.)

*To all whom it may concern:*

Be it known that I, ALBERT STANDAU, a citizen of the United States, residing at Terre Haute, county of Vigo, and State of Indiana, have invented new and useful Improvements in Building Material, of which the following is a specification.

My invention relates to improvements in building material, with especial reference to the formation of interlocking blocks adapted to mutually reinforce each other in such a manner that the structure will be held together independently of the use of mortar or equivalent material.

My invention may be applied to blocks constructed of brick, stone, tile, or wood and may be advantageously used not only in connection with the construction of buildings—such as houses, barns, stores, &c.—but may be also applied to the construction of toys and toy buildings.

In the following description reference is had to the accompanying drawings, in which—

Figure 1 is a top view of one of my improved blocks adapted for ordinary use. Fig. 2 is a similar view showing a form of block used for engagement with beams, studding, &c. Figs. 3, 4, and 5 illustrate the embodiment of my invention in smaller blocks than those shown in Figs. 1 and 2. Figs. 6 to 10, inclusive, are sectional views, respectively, of the blocks shown in Figs. 1 to 5, inclusive. Fig. 11 is a sectional view showing two of the blocks superposed upon each other in the interlocking position with mortar interposed. Fig. 12 is a similar view of the same in which paper or other packing is used as a substitute for the mortar. Fig. 13 is a view illustrating means for tying the blocks to cross stringers or beams, and Fig. 14 is a perspective view of a portion of a building embodying my improved construction.

Like parts are identified by the same reference characters throughout the several views.

In Figs. 5 and 10 I have illustrated my invention in its simplest form, the same comprising a block 1, having square upper and lower faces, the upper face being formed with a central depression 2. The lower surface of the block is formed with a corresponding projection 4, having a concave base 5. The ob-

ject of the concavity is to provide the projection 4 with an annular wedge-shaped edge which readily penetrates the mortar or other packing. A considerable advantage is thus secured over flat-surfaced projections, especially as regards the upper courses of the blocks, where no great weight is applied to force the blocks into the mortar or packing. It is also of advantage where the structure is left uncompleted for a period, in which case the mortar would become set and the upper courses of the blocks prevented from settling therein to the described positions. As the projections penetrate the mortar or packing the latter is forced upwardly in the concavities and also in the space surrounding the projection, thus forming interior and exterior supporting columns which increase the strength of the structure where mortar is employed and render the same more impervious to air where loose packing is used. When one of these blocks is placed upon another, the projection 4 of one block is adapted to fit within the cavity 2 of the block beneath it, the blocks being thus made to interlock, so as to prevent them from slipping laterally. The larger blocks, such as are shown in Figs. 1, 3, 6, and 8, are merely multiples of the units illustrated in Figs. 5 and 10. For example, if three of the blocks shown in Fig. 5 were placed in a row and united integrally together they would produce the form of block shown in Fig. 1, while two of the blocks of Fig. 5 if integrally united would produce the block shown in Fig. 3.

Referring to the construction shown in Figs. 2 and 4, it will be observed that it is the same as that shown in Figs. 1 and 3, with the exception that one or more of the side faces are provided with recesses 7, these recesses extending across the block from top to bottom or from one side to the other and are adapted to receive a supporting or strengthening beam, girder, or stringer, or any other part of the structure to which my invention is applied.

In Fig. 13 I have illustrated a stringer 10 applied to the upper surface of one of my improved blocks. The under surface of the stringer 10 is provided with projections 11, preferably of wood, which are secured to the beam or stringer by means of spikes 12.

Referring now to Fig. 14, in which my in-



vention is applied in the construction of a building, it will be noted that as each block constitutes either a unit or a series of units, all of equal size, the blocks may be made to  
 5 coöperate in a great variety of ways for the construction of a solid building-wall. For example, the wall shown at 15 comprises a single tier of blocks, laid one upon another in a manner to break joints, whereby each  
 10 block is made to interlock with one or more blocks underneath it. The cross-wall shown at 16 is a double wall and is formed to not only interlock with the wall 15, but the two portions of the walls 16 are made to interlock  
 15 with each other by transverse blocks, such as are shown at 17. A thicker wall is illustrated at 18, in which blocks of the character shown in Fig. 4 are combined with blocks of the character shown in Fig. 2 and are arranged  
 20 in vertical alternation, with studding 19 extending vertically in the recess 7. A door-casing 20 is illustrated as secured to the studding 19. A window-casing is also shown at 21, similarly secured in position. In this case  
 25 the window-sill is secured to the blocks underneath it in the manner illustrated in Fig. 12. Where my invention is applied in the construction of permanent buildings, mortar is preferably employed, being interposed be-  
 30 tween the blocks and between the interlocking recesses and projecting portions thereof, as shown at 23 in Fig. 11; but where the buildings are temporary in character it is sufficient to interpose building-paper—such as asbestos  
 35 fiber or any other form of packing, as illustrated at 24 in Fig. 12—as I do not depend upon the mortar to impart strength to the

structure, but merely use it for the purpose of rendering the joints air-tight.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. A building-block, comprising one or more like units, each unit being provided with a recessed upper surface and a corresponding pro-  
 45 jection on its lower surface, adapted to fit the recess of a similar block, each projection being provided with a concave base whereby the pressure of the projection into the mortar or other packing in the recesses of an ad-  
 50 jacent block is concentrated, and the packing forced upwardly within and around the projection, to form internal and external binding-columns.

2. A structure composed of a series of  
 55 blocks, each having interlocking recesses and projections, and the blocks and the recesses being formed to interlock interchangeably, and both laterally and longitudinally with each other, some of said blocks being provided  
 60 with channels in their side surfaces, adapted to receive other portions of the structure, such as cleats, studding, or tie-beams; the door-frames, window-frames, &c., being provided with bars or cleats on their outer surfaces,  
 65 adapted to fit the side recesses of the blocks, whereby the entire structure may be held together by the interlocking blocks and frame.

In testimony whereof I affix my signature in the presence of two witnesses.

ALBERT STANDAU.

Witnesses:

HENRY MEYER,  
 GEO. TERHOUST.