No. 783,452. PATENTED FEB. 28, 1905.

E. MORENUS.

BUILDING BLOCK.

APPLICATION FILED AUG. 27, 1904.

2 SHEETS—SHEET 1.

Fig. 1.

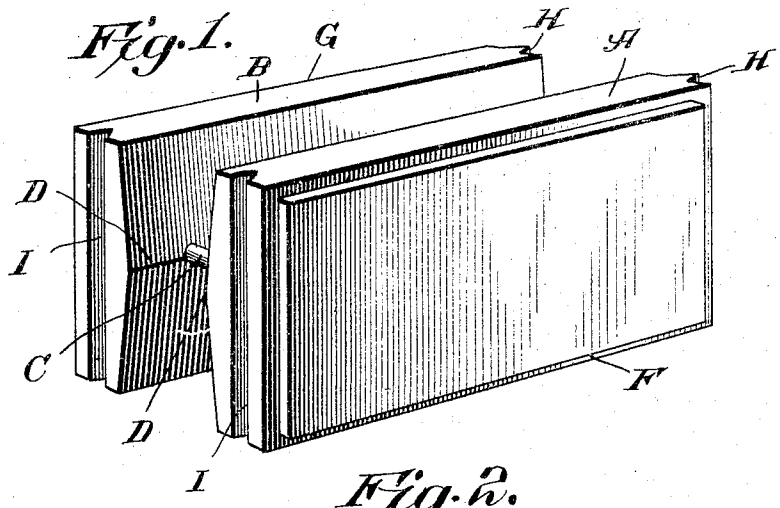


Fig. 2.

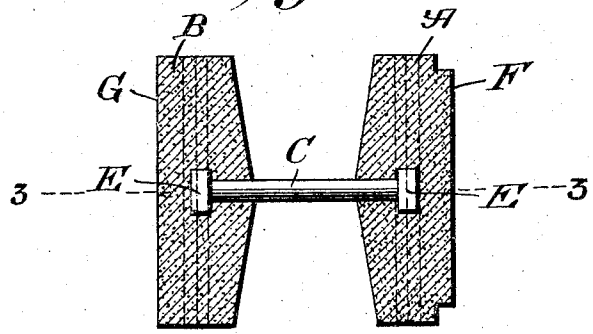
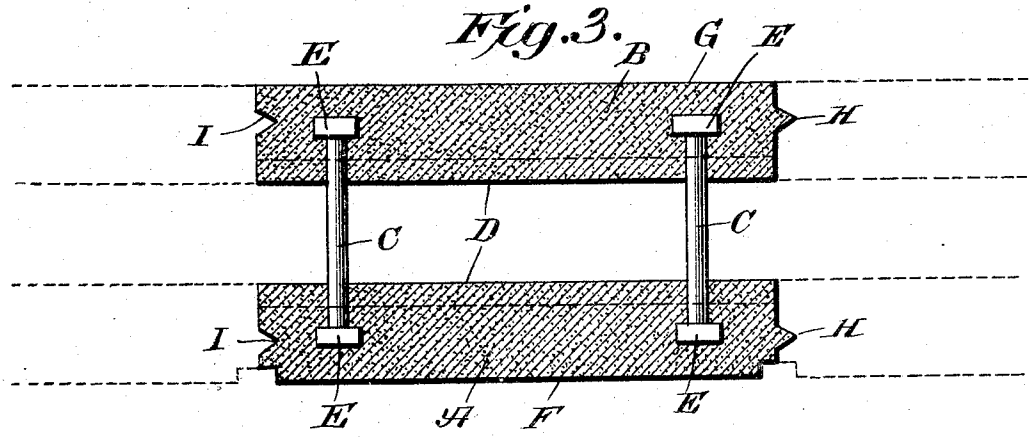


Fig. 3.



Witnesses.

James L. Emery

M. Edith Kime

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2 SHEETS—SHEET 2.

Fig. 4.

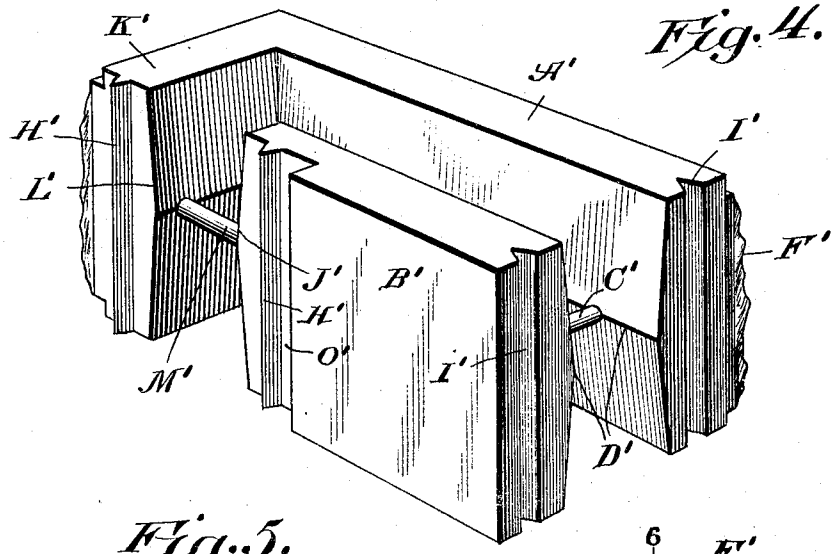


Fig. 5.

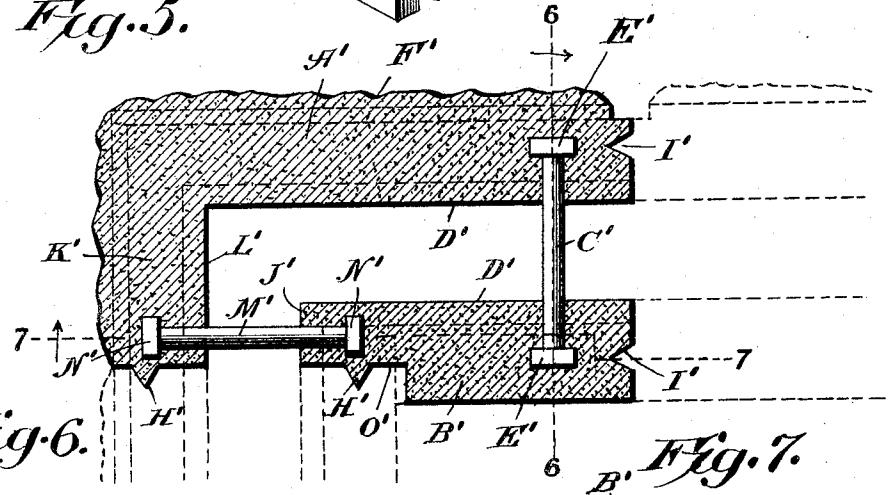


Fig. 6.

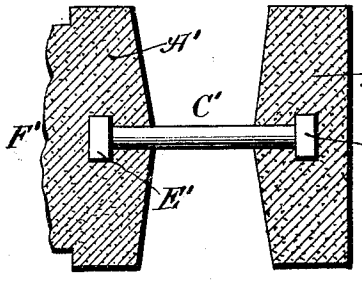
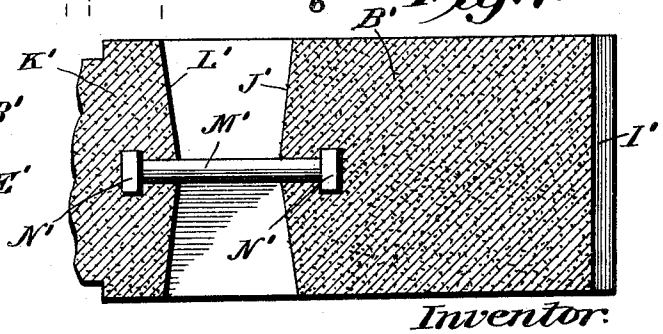


Fig. 7.



Witnesses.

James L. Ewing

W. Edith King

Inventor:

Eugene Morenus

No. 783,452. Patented February 28, 1905.

UNITED STATES PATENT OFFICE.

EUGENE MORENUS, OF CLEVELAND, NEW YORK.

BUILDING-BLOCK.

SPECIFICATION forming part of Letters Patent No. 783,452, dated February 28, 1905.

Application filed August 27, 1904. Serial No. 222,404.

To all whom it may concern:

Be it known that I, EUGENE MORENUS, a citizen of the United States, residing at Cleveland, county of Oswego, and State of New York, have invented certain new and useful Improvements in Building-Blocks, of which the following is a specification.

This invention relates to that type of building-blocks constructed of cement, concrete, or other analogous composition.

The object is to provide a novel article of the above character that can be manufactured with the greatest ease, is economical in the amount of material employed, and yet is not only strong and durable, but provides a dead-air space of sufficient area to insure an excellent insulation against the transmission of heat.

In the accompanying drawings, forming a part of this specification, Figure 1 is a perspective view of a building-block constructed in accordance with the present invention. Fig. 2 is a vertical cross-sectional view therethrough. Fig. 3 is a horizontal sectional view of the same on the line 3 3 of Fig. 2. Fig. 4 is a perspective view of a corner-block and is in the nature of a modification of the block shown in Figs. 1, 2, and 3. Fig. 5 is a horizontal sectional view through this corner-block. Fig. 6 is a vertical cross-sectional view on the line 6 6 of Fig. 5, and Fig. 7 is a vertical longitudinal sectional view on the line 7 7 of Fig. 5.

Similar reference-letters designate similar parts throughout the several views.

Referring to the first form of the invention, the block consists of spaced sections comprising a facing member A and a backing member B, these members being connected by tie elements C, that are preferably in the form of rods constructed of any desirable material. The sections or members A B are composed of cement, concrete, or other composite material, and their inner opposing faces taper in opposite directions from the central line or ridge D. The tie-rods bridge the space between these ridges and enter the sections or members, at the same time having at their ends heads E, which are preferably, though not necessarily, made integral with the rods. Furthermore, the heads E are angular, so that they will not turn. The outer face F of the outer section or member A may be formed into the shape of dressed stone or into any desirable configuration. The outer face G of the inner member or section B will constitute a part of the inner face of the completed wall and may be roughened or otherwise formed for the purpose of receiving and retaining plaster or for any other use. The corresponding ends of the sections or members A B at one end of the block are provided with longitudinally-projecting tongues H, while their opposite ends have similarly-formed recesses I, that are adapted to receive the tongues of the adjacent section, as will be evident and as is indicated in Fig. 3.

The blocks are laid in the ordinary manner, such as is well known in the art of masonry, the tongues of one block fitting in the grooves of the next adjacent, and thus by this interlocking engagement providing a strong and durable wall.

Among the numerous advantages residing in this structure the following are believed to be worthy of note: In the first place a very strong and durable block is secured with a minimum amount of material, and a wall built of such blocks is provided with a continuous dead-air space, the comparatively few and small connections bridging the same constituting but insignificant conductors of heat or cold. Furthermore, the tie-rods, having heads which are embedded directly in the members or sections, (the latter being cast about said heads,) are securely held against detachment and as securely hold the sections or members in proper position. Furthermore, the thickness of the blocks at the places where the heads are embedded perform two functions. By having the blocks tapering in opposite directions they may be readily cast in a mold about the ends of the tie-rods, and, furthermore, a thicker body is thus provided at said tie-rods and about the heads thereof, so that the danger of breakage at these points is minimized.

As an example of how the invention may be modified attention is invited to the construction illustrated in Figs. 4 to 7. The

block here shown is intended for the corner, and while the shape thereof is somewhat changed an inspection will show that the various advantageous features of novelty are still present. A front section or facing member A′ is provided which is in the form of a right angle, though any other angle may be employed, depending, of course, upon the angle of the corner. A rear section or backing member B′ is also provided, the inner longitudinal face thereof being spaced from the inner longitudinal face of the facing member A′ and being connected therewith by one or more tie-rods C′. These inner opposing faces taper in opposite directions from the central lines or ridges D′, at which points the said tie-rods enter the members, said rods having the usual heads E′. The outer face F′ of the facing member or section A′ is in this instance cut or otherwise formed to represent rough stone, though, as already stated, the configuration is not important. Furthermore, the ends of the sections at one end of the block have projecting vertical tongues H′, while the opposite ends have correspondingly-shaped grooves I′, the difference being that the tongues H′ are disposed at the rear side of the block, so that they will coöperate with the end of a block abutted against the rear of the same at right angles thereto, as indicated in Fig. 5. In this modification the manner in which the end of the block is constructed is an important feature. It will be observed that the inner end J′ of the inner section or backing member B′ terminates short of the rearwardly-projecting extension K′ of the facing member A′ and that said end J′ tapers in opposite directions from a central line. The inner face L′ of the extension K′ is likewise tapered in opposite directions, and a tie-rod M′, constructed similarly to the tie-rod C′, connects the extension K′ and the end J′ and has heads N′ embedded therein. The tie-rod M′ thus extends longitudinally of the block. It is also to be observed that the rear portion of said block, which is provided with the tongues H′, is cut away, thereby forming a seat O′ for the coacting end of the next block, as indicated in Fig. 5. As already stated, this is an example of a modification of the invention, and an inspection of the claims hereto appended will clearly indicate to those skilled in the art that this invention is not limited to the two forms shown, but is open to other changes and modifications.

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

1. A building-block comprising spaced members that have thicker intermediate portions, said members tapering from the intermediate portions to opposite edges.

2. A building-block comprising spaced members that have thicker intermediate portions, said members tapering from the thicker portions to opposite edges, and connections between the thicker intermediate portions.

3. A building-block comprising spaced members having longitudinally-disposed intermediate portions thicker than the marginal portions, said members tapering to the said marginal portions, and connections between the portions having heads embedded in the thicker portions.

4. A building-block comprising spaced members having their inner opposing faces provided with central longitudinally-disposed ridges, said members tapering in opposite directions from the ridges to their opposite edges.

5. A building-block comprising spaced members having their inner opposing faces provided with central longitudinally-disposed ridges, said members tapering in opposite directions from the ridges toward their opposite side edges, and tie-rods connecting the members and having heads embedded therein, said rods entering the members at the ridges.

6. A building-block comprising a facing-section having a rearwardly-projecting extension, a backing-section spaced from the facing-section, having one end spaced from the extension, the opposing inner faces of the sections being provided with longitudinally-disposed ridges and said sections tapering in opposite directions from said ridges, a tie-rod connecting the sections and having terminal heads embedded therein, and another tie-rod extending longitudinally of the sections and connecting the backing-section and the extension, said latter tie-rod also having heads that are embedded in said extension and backing-section.

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

EUGENE MORENUS.

Witnesses:
JAMES L. EDDY,
M. EDITH KIME.