No. 873,505. PATENTED DEC. 10, 1907.

B. CERUTTI.

HOLLOW BUILDING BLOCK.

APPLICATION FILED MAY 15, 1907.

Fig. 1.

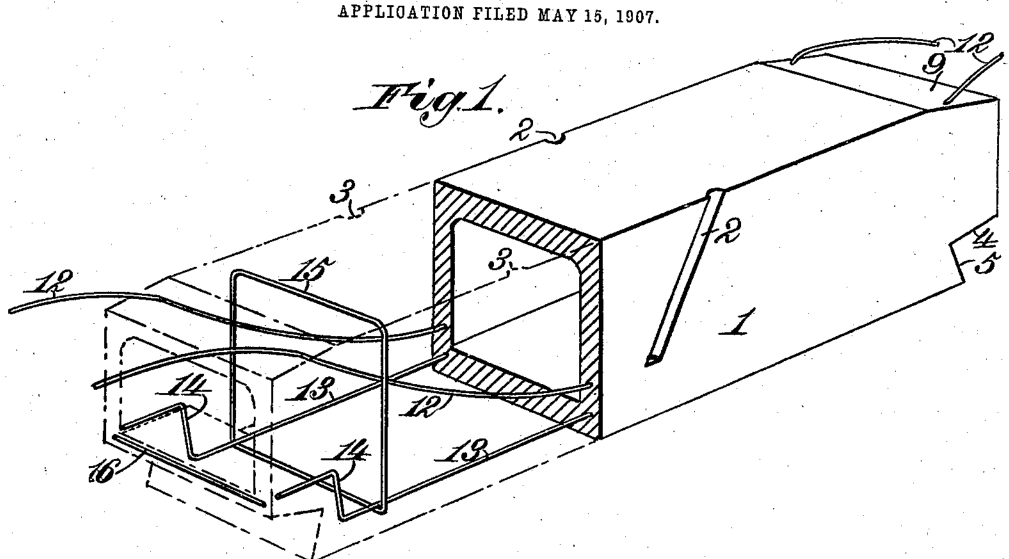


Fig. 2.

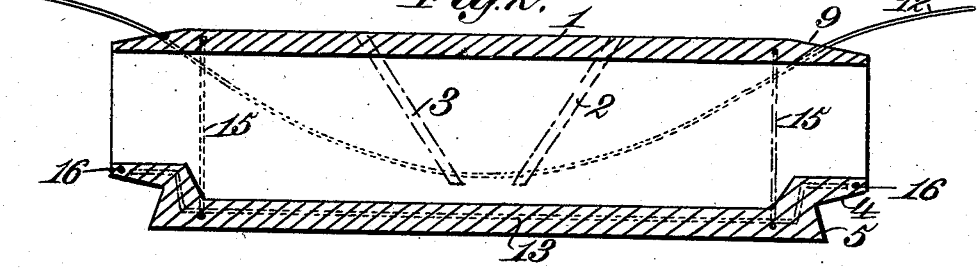


Fig. 3.

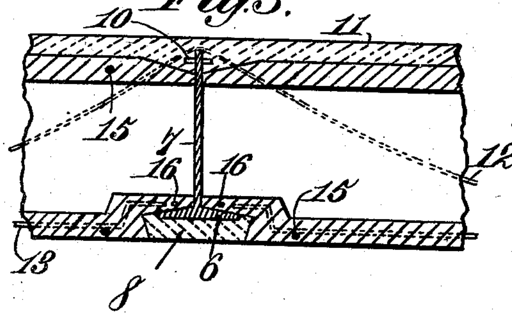


Fig. 4.

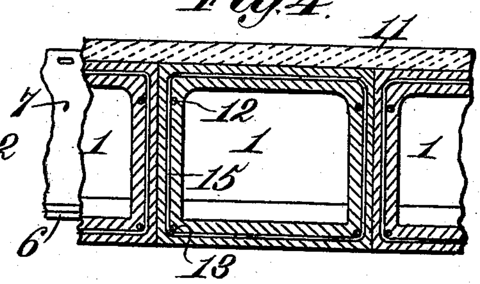
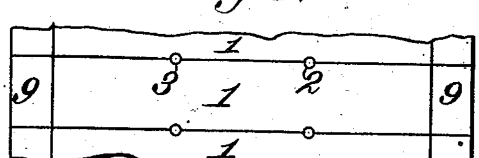


Fig. 5.



Witnesses.

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UNITED STATES PATENT OFFICE.

BENJAMIN CERUTTI, OF HABANA, CUBA.

HOLLOW BUILDING-BLOCK.

No. 873,505. Specification of Letters Patent. Patented Dec. 10, 1907.

Application filed May 15, 1907. Serial No. 373,812.

To all whom it may concern:

Be it known that I, BENJAMIN CERUTTI, subject of the King of Italy, residing at Habana, Republic of Cuba, have invented certain new and useful Improvements in Hollow Building-Blocks, of which the following is a specification.

This invention relates to reinforced hollow building blocks, and aims to provide a hollow building block with means for increasing the strength thereof; with means whereby the side of one block can be secured to the side of an adjacent block; with means whereby the ends of the blocks can be coupled together, and furthermore, with means whereby the ends of two blocks, when abutting, will form channels for receiving a layer of plastic material so as to inclose the supporting beam for the blocks.

With the foregoing and other objects in view, the invention consists of the novel construction, combination and arrangement of parts hereinafter more specifically described and illustrated in the accompanying drawings wherein is shown the preferred embodiment of the invention, but it is to be understood that changes, variations and modifications can be resorted to which come within the scope of the claims hereunto appended.

In describing the invention in detail reference is had to the accompanying drawings wherein like characters denote corresponding parts throughout the several views, and in which—

Figure 1 is a perspective view, partly in section, showing the reinforcing means for the block; Fig. 2 is a longitudinal sectional view of the block; Fig. 3 is a sectional view showing a pair of blocks in position to form a floor; Fig. 4 is a transverse sectional view of two or more blocks broken away, and, Fig. 5 is a top plan of two or more blocks broken away.

Referring to the drawings by reference characters, 1 denotes a block which is hollow and has each side thereof formed with a pair of grooves 2, 3 which extend at an inclination and in an opposite direction with respect to each other. The grooves upon one side of the block oppose the grooves upon the side of an abutting block and the function of the grooves is to receive a cement filling so as to connect the two blocks together; or in other words, the function of the grooves 2, 3 is to receive a binder for two abutting blocks. Each end of the block is cut away so as to form an over-hanging ledge 4 and an inwardly-inclined shoulder 5. The ledge 4 is adapted to be mounted upon one side of the base 6 of an inverted T-shaped supporting beam 7. When a pair of blocks is mounted upon the base 6 a recess is formed and which is adapted to receive a filling of plastic material 8 which embeds the base 6. (See Fig. 3). By such an arrangement the lower face of the ceiling or wall is not interrupted. The block at each end upon the top thereof is beveled, as at 9, and such beveled portion forms a clearance when positioning the blocks in a manner as shown in Fig. 3 to allow the blocks to abut against the supporting beam 7 and to extend below a tie member 10 which is mounted in the top of the supporting beam 7. The blocks after being positioned in a manner as shown in Figs. 3 and 4 have a covering of plastic material placed thereon as at 11, which embeds the top of the beam 7, as well as the tie member 10 and also the projecting ends of the metallic suspension cables 12.

The metallic suspension cables 12 extend from one end of the block to the other and are positioned in a curvilinear manner. Two suspension cables 12 are provided for each block and they are embedded in the side walls of the block and further project from each end of the block so that the cables of one block can be secured to the cables of the other block and also extend over the supporting beams 7. (See Fig. 3.) The cables 12 not only act as a means for connecting the blocks together in a manner as shown in Fig. 3, but also reinforce their respective block. The block is furthermore provided with a reinforcement for the bottom thereof and which consists of a pair of metallic bars 13 extending longitudinally of the block and one arranged at each side thereof. The ends of the bars 13 are bent so as to conform to the shape of the bottom at each end thereof— that is to say, the ends of each of the bars 13 are bent in an angular manner as at 14. Each end of the block is furthermore reinforced by a square metallic frame 15, the frame extending around the rods 13, transversely of the bottom and top and perpendicular in the sides. The cables 12 are adapted to extend through the frame and not at one side thereof. Each of the overhanging ledges 4 at each end of the block is reinforced by a transversely extending metallic bar 16 which is arranged in close prox-

imity to the terminals of the longitudinally-extending bars 13.

What I claim is—

1. A hollow building block adapted to have its ends mounted upon supports and having its opening extending in the direction of its length, and a transversely extending frame embedded in the block and surrounding the opening at each end of the block in close proximity to the supports thereby reinforcing the ends of the block.

2. A hollow building block adapted to have its ends mounted upon supports and comprising a transversely extending frame embedded in the block and surrounding the opening at each end of the block in close proximity to the supports thereby reinforcing the ends of the block, and suspension cables extending through the sides of the block and abutting against the sides of the frame, thereby preventing lateral displacement of the cables in one direction.

3. A hollow building block adapted to have its ends mounted upon supports and comprising a transversely extending frame embedded in the block and surrounding the opening at each end thereof in close proximity to the supports thereby reinforcing each end of the block, and longitudinally extending reinforcing members arranged in the bottom of the sides of the block and abutting against the bottom and sides of the frame to prevent lateral displacement of said members in one direction.

4. A hollow building block adapted to have its ends mounted upon supports and comprising transversely extending reinforcing frames embedded in the block and surrounding the opening at each end thereof in close proximity to the supports thereby reinforcing the ends of the block, suspension cables embedded in the block adapted to abut against said frames to prevent lateral displacement of said cables in one direction, and longitudinally extending reinforcing members abutting against said frames to prevent lateral displacement of said members in one direction.

5. A hollow building block adapted to have its ends mounted upon supports and comprising transversely extending frames embedded in the block and surrounding the opening at each end thereof, longitudinal suspension cables embedded in the block, projecting therefrom, extending through and abutting against said frames, thereby preventing lateral displacement in one direction of said cables, said cables, in connection with the supports, sustaining the block, and longitudinally extending reinforcing members projecting through and abutting against said frames, thereby preventing lateral displacement of said members in one direction.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

BENJAMIN CERUTTI.

Witnesses:

RICARDO MORÉ,

VICTOR NORMAND.