J. B. PAULSON.

BUILDING BLOCK FOR HOLLOW WALL CONSTRUCTION.

APPLICATION FILED JUNE 30, 1917.

1,300,765.

Patented Apr. 15, 1919.

2 SHEETS—SHEET 1.

Fig. 1.

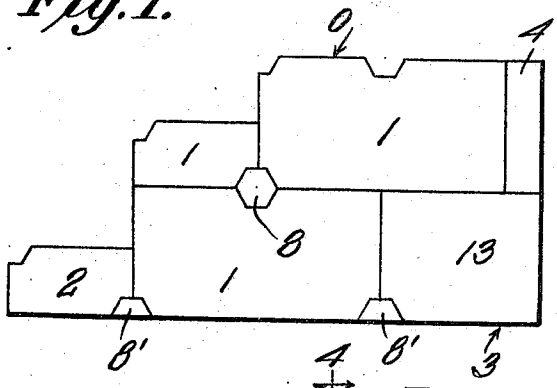


Fig. 2.

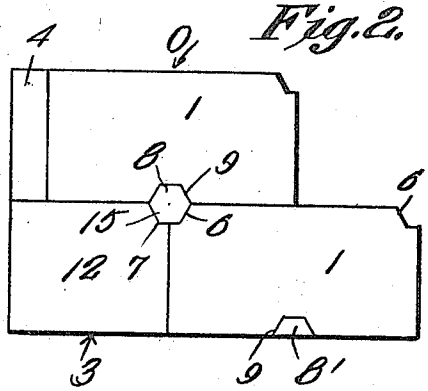


Fig. 3.

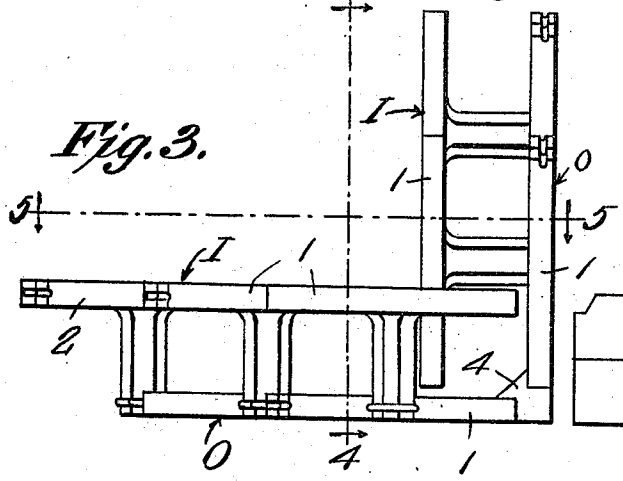


Fig. 4.

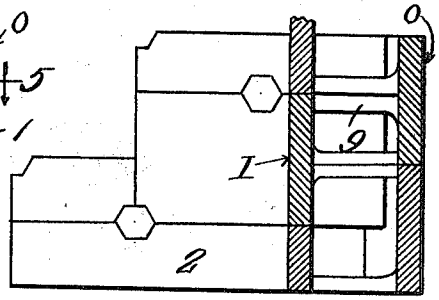


Fig. 5.

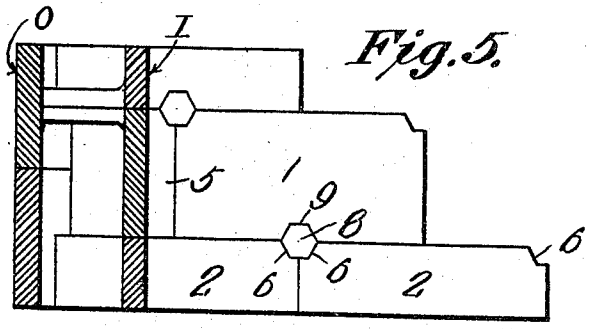
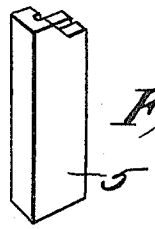


Fig. 6.



WITNESSES

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2 SHEETS—SHEET 2.

Fig. 7.

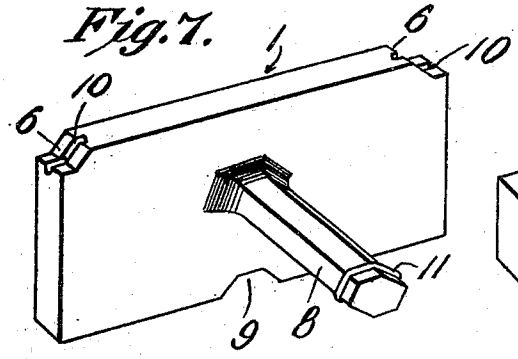


Fig. 8.

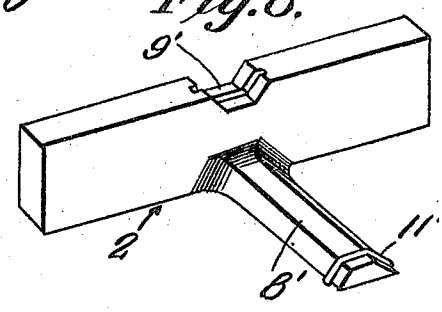


Fig. 9.

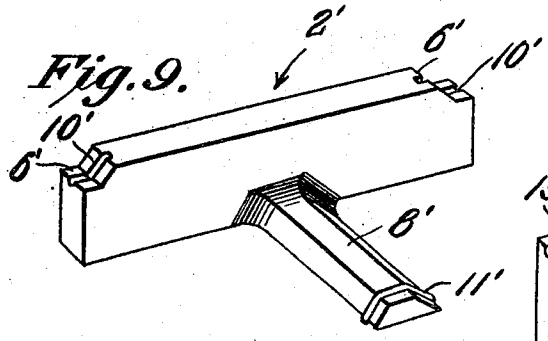


Fig. 10.

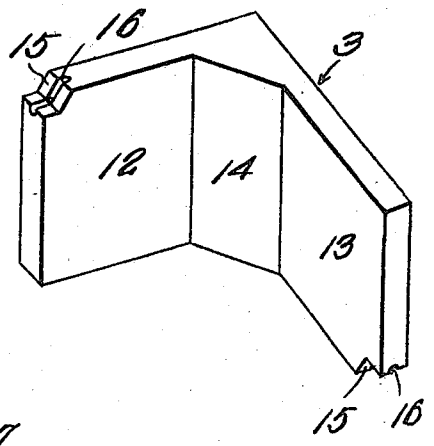
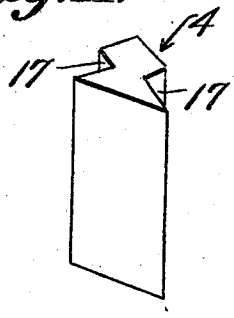


Fig. 11.



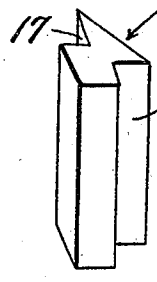


Fig. 12.

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UNITED STATES PATENT OFFICE.

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BUILDING-BLOCK FOR HOLLOW-WALL CONSTRUCTION.

1,300,765. Specification of Letters Patent. Patented Apr. 15, 1919.

Application filed June 30, 1917. Serial No. 177,931.

To all whom it may concern:

Be it known that I, JOHN B. PAULSON, a subject of Sweden, but having declared my intention of becoming a citizen of the United States, residing at Ridgefield Park, in the county of Bergen and State of New Jersey, have invented certain new and useful Improvements in Building-Blocks for Hollow-Wall Constructions, of which the following is a specification.

This invention relates to building blocks or bricks of the type used in the construction of hollow or double walls.

The object of the invention is to provide blocks of this character so constructed that no mortar or other adhesive is required for holding them together and yet they will be retained reliably in operative engagement.

Another object is to provide a block of this character having a smooth finished outer face with a connecting shank extending from its opposite face.

With the foregoing and other objects in view, which will appear as the description proceeds, the invention resides in the combination and arrangement of parts and in the details of construction hereinafter described and claimed, it being understood that changes in the precise embodiment of the invention herein disclosed may be made within the scope of what is claimed without departing from the spirit of the invention.

In the accompanying drawings:—

Figure 1 represents a front elevation of one corner of a portion of a building constructed with the blocks constituting this invention,

Fig. 2 is a similar view of the other side or right-angular portion of the corner,

Fig. 3 is a top plan view thereof,

Fig. 4 is a vertical section taken on the line 4—4 looking in the direction of the arrow,

Fig. 5 is a similar view taken on the line 5—5 of Fig. 3 looking in the direction of the arrow.

Fig. 6 is a detail perspective view of one of the filler blocks employed.

Fig. 7 is a similar view of one of the whole blocks,

Fig. 8 is a similar view of one of the half blocks employed,

Fig. 9 is a similar view of another half block,

Fig. 10 is a similar view of one of the corner blocks,

Fig. 11 is a similar view of one of the corner fillers taken from the inside, and

Fig. 12 is a similar view of the block shown in Fig. 11 taken from the outside.

As illustrated in Figs. 1 to 5, the blocks constituting this invention are shown employed in the construction of a corner of a double walled building, whole blocks 1, half blocks 2, and corner blocks 3 being used with corner fillers 4 and an inner wall section filler 5. The half blocks 2 are used in the lower and upper courses of the inner member or section I of the double wall in order that the connecting shanks of the blocks of the two sections may be properly engaged with the recesses formed therefor in the cooperating blocks of the opposite wall section or member.

The whole blocks 1 shown in detail in Fig. 7 are each made substantially rectangular in form with recesses 6 in its upper corners, said recesses being here shown in the form of a fourth of a hexagon so that when two of these blocks are arranged end to end the registering recesses in their upper corners will form semi-hexagonal seats as shown at 7 in Fig. 2 and which are designed to receive the free ends of the connecting shanks 8 of the coöperating blocks. A semi-hexagonal recess 9 is formed in the lower edge of each block 1 midway the ends thereof as is shown clearly in Figs. 2 and 7 and which is designed to fit over the upper portion of one of the connecting shanks 8 of a coöperating block as is shown clearly in Fig. 2. These shanks 8 as here shown are hexagonal in cross section, although obviously they may be of any other desired cross sectional contour and when the cross section thereof is changed it is to be understood that the recesses formed in the edges of the blocks to form seats for these shanks must be correspondingly changed.

Each recess is provided midway its width with a longitudinally extending groove 10 which is designed to receive a laterally projecting rib 11 formed circumferentially around the free ends of the shanks 8 at points spaced inwardly from the terminals thereof a distance corresponding to the distance between the grooves 10 and the outer faces of the blocks so that when these shanks

are positioned with the ribs 11 engaged with the grooves 10 the terminals of said shanks will be arranged flush with the outer faces of the wall as is shown clearly in Figs. 1 to 5.

In Fig. 8 a half block 2 is shown which is similar in construction to the lower half of block 1, said block 2 having a semi-hexagonal recess or seat 9′ formed in the edge thereof parallel to that which carries the shank 8′, said shank being semi-hexagonal in cross section. This shank 8′ is also provided with a rib 11′ arranged circumferentially around its annular face or periphery, the lower flat face thereof having no rib formed thereon as obviously none is needed, as this flat portion of the shank is designed to rest on the floor or supporting base of the wall as is shown clearly in Figs. 1, 4 and 5.

The half block 2′ shown in Fig. 9 corresponds in shape to the upper half of block 1 being provided in its opposite corners with recesses 6′ which correspond in shape to the recesses 6 in block 1 and are provided midway their width with similar grooves 10′. It will thus be seen that when half blocks 2 and 2′ shown in Figs. 8 and 9 are placed together with the flat faces of their shanks 8′ in engagement, they will form a block corresponding exactly in shape to the block 1 shown in Fig. 7. These half blocks are designed to be used on the lower and upper courses of the inner wall of a building in order that the connecting shanks may be properly engaged with the recesses 9 formed in the lower edges of blocks 1 which are used in constructing the outer section O of the wall as is shown clearly in Figs. 1 to 5.

The corner block 3 shown in Fig. 10 is designed for use at the corner of the outer section O of a wall as is shown clearly in Figs. 1 and 2. This block 3 has right-angularly extending arms 12 and 13 with a thickened portion 14 at their meeting ends. The arm 12 has a recess 15 at its outer upper corner and arm 13 at its lower outer corner corresponding in shape to the recesses 6 of blocks 1, and 6′ of blocks 2 so that they will operate in conjunction with said recesses to form semi-hexagonal seats when the blocks 1 are arranged end to end against the ends of these arms 12 and 13, said recesses 15 being also provided midway their width thereof with longitudinally extending grooves 16 to receive the ribs of the shanks of the blocks in connection with which they are to be used. This block 3 as shown constitutes a corner block of the lower course of a wall construction, two courses thereof being shown with two of the whole blocks 1 arranged edgewise thereon and the space at the corner formed by the meeting ends of these blocks 1 being filled by the corner filler blocks 4 shown in Figs. 11 and 12. These blocks 4 are provided with longitudinally extending recesses 17 in their opposite edges, said recesses being triangular in cross section and which are designed to receive the ends of the blocks 1 as is shown clearly in Fig. 3, said recesses 17 forming a dovetailed connection between the two blocks 1 arranged at the corner of the outer section of the wall.

In assembling these blocks to form the corner of the building shown in Figs. 1 to 5, the block 3 is arranged as shown in Figs. 1 and 2 with one arm 13 arranged on one side of the building and the other arm 12 on the other side thereof. Two of the blocks 1 are shown arranged with their ends disposed adjacent the ends of the arms 12 and 13, the block 1 on the side of the building on which arm 12 is disposed having recesses 6 in its upper corners, one of which registers with the recess 15 formed at the adjacent corner of arm 12 and which when united provides a semi-hexagonal seat to receive the shank 8 of one of the blocks of the inner wall I. Block 1 which is used in connection with arm 13 has recesses at its lower corners and a recess in its upper edge midway its length. The other blocks 1 of the outer course are arranged to break joint with the blocks below as shown in Figs. 1 and 2 and the corner fillers 4 connect them at the angle of the corner as shown in Figs. 1, 2 and 3.

It is to be understood that the blocks 1 and 2 may be arranged with recesses positioned to suit the construction of the wall in which they are intended. The corner blocks 3 have recesses in two of their outer corners to register with corresponding recesses in blocks engaged endwise therewith for the purpose of forming pockets for the shanks of the blocks of the inner wall section. The corner fillers 4 are provided with right angle grooves 17 in opposite sides for interlocking engagement with the ends of the adjacent angularly disposed walls, as shown in Figs. 1, 2, and 3 of the drawings.

From the foregoing description, taken in connection with the accompanying drawings, the advantages of the construction and of the method of operation will be readily apparent to those skilled in the art to which the invention appertains and while I have described the principle of operation of the invention together with the device which I now consider to be the best embodiment thereof, I desire to have it understood that the device shown is merely illustrative and that such changes may be made as are within the scope of the claimed invention.

I claim:—

1. A hollow wall corner construction for a building comprising an outer wall section composed of a right-angular corner block having recesses in two of its outer corners,

blocks for endwise engagement with said corner block and having recesses to register with the recesses in said corner block, blocks disposed edgewise on those of the course below and in break joint relation, corner filler blocks having right angle grooves for interlocking engagement with the ends of the blocks on the adjacent angularly disposed walls, and an inner wall section comprised of blocks having shanks for engagement with the recesses in the blocks of said outer wall section.

2. A hollow wall corner construction for a building comprising a right angular outer corner block, adjacent angularly disposed wall blocks engaged with said corner block, the last mentioned blocks and the corner block being provided with registering recesses to form semi-hexagonal pockets, blocks disposed edgewise on those of the course below and in break joint relation, inner wall blocks having shanks to be received in said pockets of the outer wall blocks, and a corner filler block construction for certain courses, in order to obtain the break joint arrangement of the blocks of the different courses.

3. A hollow wall corner construction for a building comprising an outer wall section including a right angular corner block, side wall blocks engaged with said corner block, a corner filler block resting upon the first mentioned corner block, said corner filler block having vertical grooves in its opposite sides for interlocking engagement with the ends of the blocks on the adjacent angularly disposed walls, shanks carried by the outer wall block, an inner wall section formed of inner wall blocks, shanks carried by the last mentioned blocks, the shanks of the blocks included in the outer wall section being received in pockets in the corners and edges of said blocks of the inner wall section, the shanks of the blocks of the inner wall section being received in the pockets formed in the corners and edges of the blocks of the outer wall section, and means for locking said shanks in their pockets and preventing separation of said wall sections or movement of the same toward one another.

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

JOHN B. PAULSON.

Witnesses:
WILLIAM S. FOWLER,
JOHN E. BURCH.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."