No. 852,578. PATENTED MAY 7, 1907.

H. G. ROUNDS.

BUILDING BLOCK.

APPLICATION FILED JULY 11, 1906.

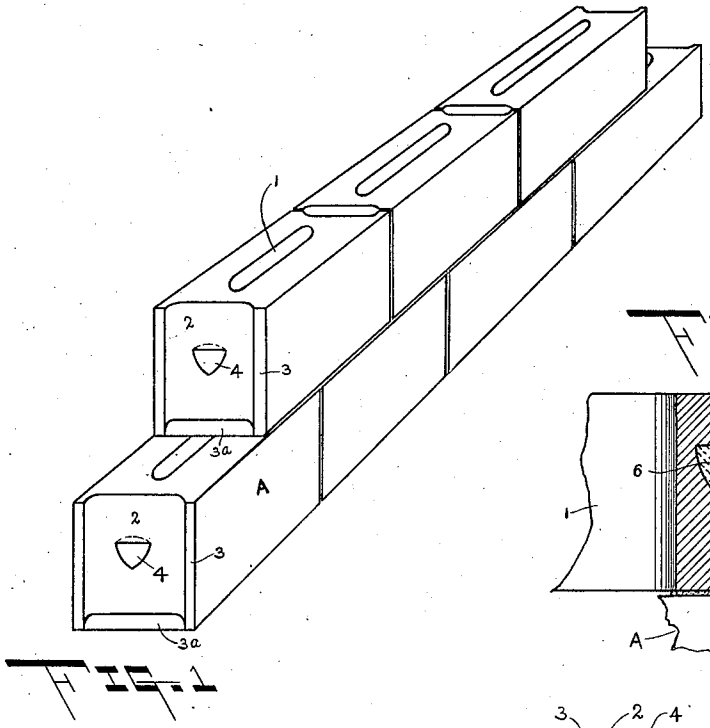


FIG. 1

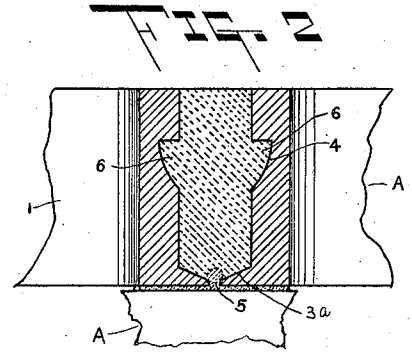


FIG. 2

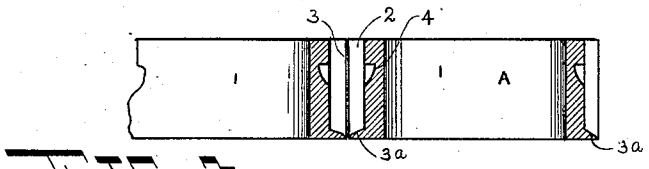


FIG. 3

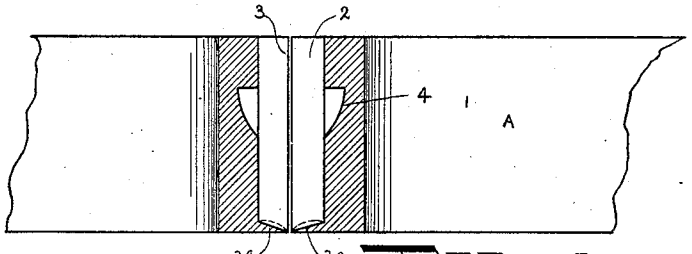


FIG. 4

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BUILDING-BLOCK.

No. 852,578. Specification of Letters Patent. Patented May 7, 1907.

Application filed July 11, 1906. Serial No. 325,738.

To all whom it may concern:

Be it known that I, HERBERT G. ROUNDS, a citizen of the United States, residing at Bay City, in the county of Bay and State of Michigan, have invented certain new and useful Improvements in Building-Blocks; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to building blocks, the present embodiment of which discloses a block having an opening therethrough to reduce the weight and provide an air space in a wall composed of such blocks. I also provide the ends of the blocks with finger holds to enable the operator or mason to handle and place them in position easily.

Hitherto it has been the custom in laying building blocks of the character above set forth, for the mason to lay the binding agent, as mortar, upon the upper course and apply the beading to the ends of the building block, after which the building block is placed in position. It often happens that there is not sufficient space between the end of the last building block of the course and a window opening, for instance, for a building block, and hence it is necessary for the mason before the mortar has set, to shift the blocks farther apart or nearer together in order to leave space to receive the building block between the end of the last building block and the window casing, or to take up the space by increasing the amount of mortar or beading between the ends of the adjacent building blocks. Again, in laying building blocks having an opening therethrough, it needs expert masons to apply the mortar or cement to the upper face of the last course laid, so as to prevent the binding agent from falling through the hole in the block and clogging the latter. Furthermore, it has been the practice heretofore for the mason to not only lay the building blocks, but also to trim them up.

One object of my invention is the provision of means whereby to enable the mason to lay the mortar on the upper course of blocks, then place the building block in position, after which he may lay the next block in the course, while an inexperienced helper may follow him up to place the beading between the ends of the adjacent blocks. Hence no skilled help will be necessary to fill in the joints between adjacent blocks, and the work of laying the blocks is materially simplified, since the mason need only trim up the mortar along the bottom of the block and lay while the assistant can fill in the end joints and trim them up.

A further object of my invention is the provision of recesses at the opposite ends of the blocks, which recesses coöperate with the recesses in the adjacent blocks to form pockets to receive and hold the binding agent or grouting, which fills in the finger holds to form a tie between the blocks, and in this regard, a portion of my invention lies in the formation of the bottom walls of the pockets on an incline or slant whereby in laying the blocks a small portion of the mortar laid on top of the last course is caused to protrude up into the space between the adjacent ends of two newly positioned blocks and admitting of the union with such protruding binding agent, of the grouting received in the pocket because of the reduced thickness of the bottom flanges at the ends of the blocks, and thereby greatly strengthening the wall. I also undercut the finger holds so that the plastic binding agent will enter thereinto and form a key.

To these ends my invention consists in certain novel features and combinations of parts together with their equivalents, which will be more fully described hereinafter and particularly pointed out in the claims.

In the accompanying drawings, Figure 1 is a perspective view of a portion of a wall composed of building blocks constructed and laid in accordance with my invention. Fig. 2 is a perspective view in vertical cross-section through a pair of adjoining blocks, Fig. 3 is a top plan view, and Fig. 4 is a detail view of a modified form of my invention.

In the present embodiment of my invention (A) indicates the building block preferably about three feet long, one foot or one foot and a half wide, and having an approximately elliptical opening (1) extending therethrough from top to bottom, said blocks, when laid, adapted to break joints,

whereby a portion of the opening in each block will be overlapped by the opening in the block superimposed thereupon, thereby forming a continuous air space between the opposite sides of the wall. The opposite ends of these blocks are each provided with a recess (2) so formed as to leave a projecting wall or bead around three sides of the end, the upper end of the recess being open, while the opposite sides and bottom of the recess are closed by the bead (3), so that when the adjacent ends of two blocks are brought together, a well or pocket is formed between the adjacent ends of said blocks to receive the binding agent, as mortar or cement, for instance.

The bottom wall of the bead is inclined or reduced from its inner point to its outer edge as shown at 3^a whereby the bottom walls of the pockets are indented and thinnest at the meeting edges of adjacent blocks so that when laying the blocks, the endwise movement of the block being laid toward the set block at the end of the course will cause a feather of the mortar spread beneath the blocks to ooze upward between the thinned edges as at 5 to unite with the grouting filling the pockets.

As a means for facilitating the handling of these blocks, which are very heavy, and for placing them in position, I form a notch (4) in the opposite ends of the blocks, the notches extending upward at an angle to the end face of the block, whereby the mason can pick them up by placing the ends of his fingers in the notches, and positioning the blocks with relation to those already laid in the course without danger of injuring his hands, since the depth of the recess (2) is such as to permit him to place one end of a block snugly against the block already in position and prevent contact of his knuckles with the last named block. The upward incline of the notches is adapted to be filled with the grouting and form a key 6 which binds the blocks firmly together.

In laying the building blocks constructed after my invention, supposing one course to have been already laid, and a portion of the next course, the mason will first apply the mortar or cement to the upper face of the course already laid, taking care that no mortar falls into the aperture through the block, after which he will pick up the next building block to be laid, by means of the notches hereinbefore noted, and place it in position relative to the last block previously laid in the course and push it toward such previously laid block, thus causing a portion of the mortar or cement to protrude between the ends of the blocks to form a feather extending into the pocket owing to the cut away or reduced bottom walls 3^a. An unskilled laborer may follow up the mason and apply a fluid cement to the wells or pockets formed between the adjacent ends of each two blocks, which cement will unite the ends of the blocks and will fill in the notches (4), whereby to form a strong binder or tie between adjacent blocks. The cement or grouting will also commingle with the feather of cement or mortar protruding between the ends of the thinned outer edges of the bottom walls of the pockets to further bind the blocks together, or a coarse grout mixture can be used which can be tamped down until it completely fills the pocket and the notches and is nearly as hard as the blocks themselves. Of course the mason may trim up each of the blocks laid as he goes along, and the helper will do the same relative to the end joints between the adjacent blocks.

It is a further object of my invention to construct these building blocks of the same material as the binding agent to be used in laying them so that when the blocks are laid and the binding agent is applied thereto and after the latter has hardened, a practically integral solid, one-piece wall will be produced.

The blocks being formed similarly at each end obviates the necessity for cutting away any part of the block when laid against a window or other casing. The recesses 2, 2, extend over the entire end faces of the blocks except for the thin bead 3 on each side and on the bottom.

It is evident that changes might be made in the form and arrangement of the several parts described without departing from the spirit and scope of my invention, and hence I do not wish to limit myself to the exact construction herein set forth.

Having thus fully disclosed my invention, what I claim as new is—

1. A building block comprising a body portion vertically recessed at opposite ends, the bottom walls of the recesses being inclined to the lower face of the block to cause the binding agent to form a feather between the abutting ends of two adjacent blocks, the feather projecting into the pocket formed by the recesses of the two adjacent blocks.

2. A building block comprising a body portion vertically recessed at opposite ends and coöperating with the recesses of adjacent blocks to form pockets, the bottoms of said pockets being convergingly inclined toward the lower faces of the blocks to permit a feather of binding agent to protrude into the pocket and unite with the binding agent received in the pocket.

3. A building block comprising a body portion vertically recessed at opposite ends to coöperate with the recesses of adjacent

blocks to form pockets, the bottoms of said pockets being convergingly inclined toward the lower faces of the blocks or indented to permit a feather of binding agent to protrude into the pocket and unite with the binding agent received in the pocket, the end walls of the blocks also provided with undercut notches adapted to receive and be completely filled with the binding agent to form keys in the ends of adjacent blocks.

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

HERBERT G. ROUNDS.

Witnesses:
ROY WALLIS,
A. A. EASTELY.