G. W. LENKERD.

HOLLOW BUILDING BLOCK.

APPLICATION FILED AUG. 21, 1915.

1,255,761. Patented Feb. 5, 1918.

Fig. 1.

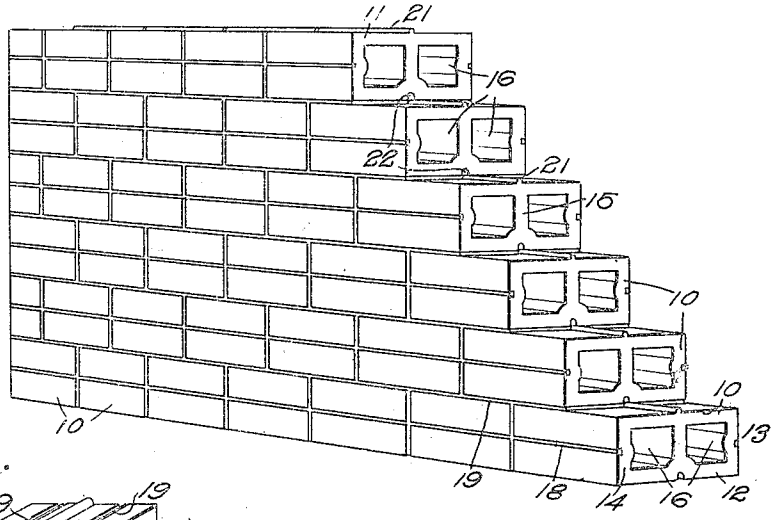


Fig. 3.

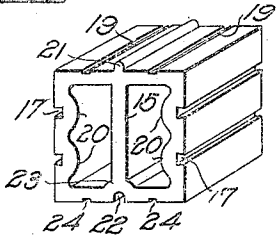
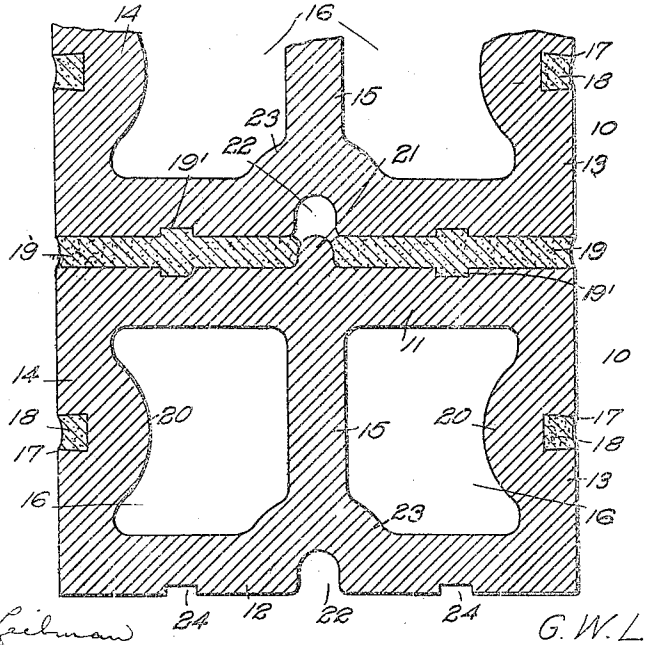


Fig. 2.



WITNESSES

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HOLLOW BUILDING-BLOCK.

1,255,761. Specification of Letters Patent. Patented Feb. 5, 1918.

Application filed August 21, 1915. Serial No. 46,744.

To all whom it may concern:

Be it known that I, GEORGE WASHINGTON LENKERD, a citizen of the United States, and a resident of Indiana, in the county of Indiana and State of Pennsylvania, have invented a new and Improved Hollow Building-Block, of which the following is a full, clear, and exact description.

This invention relates to building construction and has particular reference to a novel type of building blocks.

Among the objects of the invention is to provide a building block having an exterior surface grooved so as to form a wall resembling in appearance an ordinary brick wall with respect to mortar courses.

With the foregoing and other objects in view, the invention consists in the arrangement and combination of parts hereinafter described and claimed, and while the invention is not restricted to the exact details of construction disclosed herein, still for the purpose of illustrating a practical embodiment thereof reference is had to the accompanying drawings, in which like reference characters designate the same parts in the several views, and in which—

Figure 1 is a perspective view of a portion of a wall made of my improved building blocks; and

Fig. 2 is a vertical transverse sectional detail showing more particularly a preferred form of construction and indicating the relation of the binding mortar to the blocks above and below the same.

Fig. 3 is a detailed perspective view of a block embodying the same characteristics as those shown in Figs. 1 and 2 but so formed as to represent three bricks instead of two.

Referring now more particularly to the drawings, I show a building block or element 10 of oblong form, and for the purpose of description of the characteristic features, but without in any manner limiting the construction by such description, it may be regarded as of five inches in height, eight inches in width and of a length of eight or twelve inches. The cross section of the block discloses a top portion 11, a bottom 12, side webs 13 and 14, and a vertical central longitudinal web 15. In a block of the dimensions suggested above, these several webs are preferably formed of seven-eighths of an inch thickness, thereby leaving two longitudinal air spaces 16.

Each side flange 13 or 14 is provided with at least one longitudinal groove 17 of a width and depth of about one-half inch, but slightly undercut or dovetailed. The purpose of this groove is to provide a seat for a line of mortar 18 simulating in appearance a layer or edge of mortar 19 between adjacent blocks. The groove 17 is so disposed vertically with respect to the upper and lower edges of the block as to simulate in a finished wall the appearance of ordinary building bricks. Each side web 13 or 14 is provided with a longitudinal reinforcement rib 20 so as to maintain the full strength of the side webs to resist the crushing strains notwithstanding the grooves 17 formed therein. The ribs 20 are curved and merge into the side walls as shown. The thickness of the rib 20 between its inner surface and the bottom of the groove is substantially the same as the thickness of the webs in general.

By the employment of the ribs 20 the side walls are strengthened without materially increasing the weight of the block, thereby enabling a comparatively light block of requisite strength to be cheaply produced, owing to the saving of material and the cost of transportation.

In practice I make these blocks of a vitrified clay or its equivalent, making them practically impervious to moisture, but in the ordinary construction of a wall of this kind, moisture is conveyed through the wall along the layers of cement between adjacent blocks or bricks, subjecting the inner surface of the wall to dampness or moisture, a fact greatly desired to be avoided for obvious reasons. In order to obviate this disadvantage and objection, I provide each block with a longitudinal central rib 21 extending along the top thereof and projecting above the normal upper surface of the block. This rib 21 for a block of the dimensions indicated is made preferably about one-half inch wide and one-half inch high, with a rounded upper edge. The lower or opposite web of the block is formed with a groove 22 adapted to register with the rib 21 of the next adjacent block. The groove 22 is made preferably about five-eighths of an inch in depth and width and provides an air space adjacent the rib 21. In other words, it constitutes a break in the continuity of the layer of mortar 19 so that any moisture which might be conveyed along the mortar will be checked in its course by the air space. That portion of the bottom of the block, as indi-

cated at 23, is curved around the groove 22 as a center to maintain the uniform thickness of the web or body structure. This curved portion 23 in effect constitutes an arch supporting the central web 15 and also stiffens the block so as to resist breakage downwardly between its ends. I also form in the upper and lower webs 11 and 12 longitudinal shallow grooves 24 for the reception of portions of the mortar 19', making thereby a stronger interlock between adjacent blocks.

In the practice of this invention the mortar 19 is spread upon the top 11 of the first course or layer of blocks, the mortar being of a thickness substantially equal to the depth of the rib 21. In fact, the rib 21 may be employed as a gage to assist the mason in spreading the precise thickness of mortar upon the blocks. By applying the full amount of mortar, the mason may strike off the excess thereof by use of the straight edge of his trowel or other tool. When the next block or course of blocks are applied thereon, the proper depth of mortar will be had, but the mortar not being in excess of the desired amount, will not fill the air space in the groove 22.

I claim:—

A building block, comprising a hollow body provided on the exterior of its side walls with longitudinal grooves extending throughout the length thereof and adapted to receive mortar to cause it to simulate a plurality of bricks, and on the inner face of each side wall opposite the groove with a longitudinal reinforcing rib extending the entire length of the body, said rib being curved and gradually merging into the side wall, whereby provision is made for producing a building block, with comparatively thin side walls and having exterior grooves therein, which possesses the requisite strength, without materially increasing its weight.

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Witnesses:
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