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C. A. HARRIS.

BUILDING BRICK.

APPLICATION FILED DEC. 31, 1903.

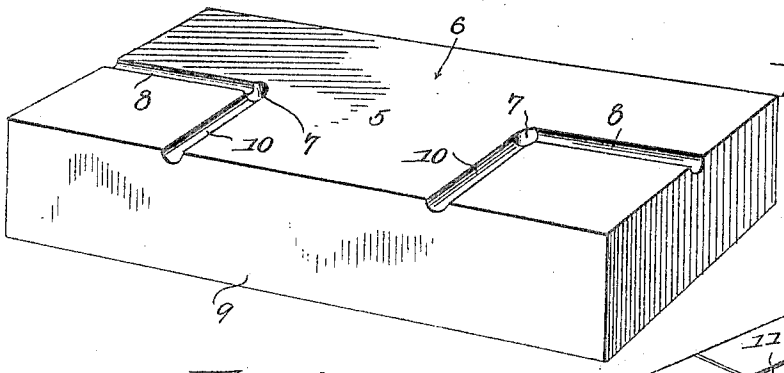


Fig. 1.

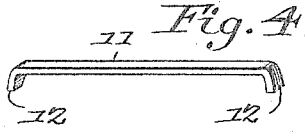


Fig. 4.

Fig. 2.

Fig. 3.

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BUILDING-BRICK.

No. 802,566. Specification of Letters Patent. Patented Oct. 24, 1905.

Application filed December 31, 1903. Serial No. 187,385.

To all whom it may concern:

Be it known that I, CHARLES A. HARRIS, a citizen of the United States, residing at Massena, in the county of Cass and State of Iowa, have invented new and useful Improvements in Building-Bricks, of which the following is a specification.

This invention relates to an improved building brick or block, and more particularly to means for tying or bonding two or more of said bricks together when laid into a wall or partition.

The object of the invention is to provide a simple, durable, and efficient building-brick of this character capable of being manufactured at a small cost and which may be used with or without the tie bands or rods.

A further object of the invention is to form the upper surface of the brick with a plurality of grooves or channels which extend from suitable openings or sockets to one side and end of the brick, so that when said bricks are laid side by side or end for end the grooves of adjacent bricks will register and form a seat for the reception of the rods or bands, thereby effectually preventing independent longitudinal and lateral movement of the several bricks comprising the wall or partition.

The invention consists in the construction and novel combination and arrangement of parts hereinafter fully described, illustrated in the accompanying drawings, and pointed out in the claims hereto appended, it being understood that various changes in form, proportion, and minor details of construction may be resorted to without departing from the principle or sacrificing any of the advantages of this invention.

In the accompanying drawings, forming a part of the invention, Figure 1 is a perspective view of a brick or block constructed in accordance with my invention. Fig. 2 is a perspective view of a portion of a wall, showing the manner of laying and bonding or tying the bricks. Fig. 3 is a transverse sectional view. Fig. 4 is a detail perspective view of one of the tie rods or bands detached.

Similar numerals of reference indicate corresponding parts in all the figures of the drawings.

The brick 5 is preferably rectangular in shape, as shown, and may be molded or otherwise formed of terra-cotta, cement, concrete, or other suitable material. The upper surface 6 of the brick is formed with a plurality of depressions or sockets 7, spaced inwardly from the ends of the brick and preferably of a depth equal to approximately one-third the thickness of said brick. Extending inwardly from the opposite ends of the bricks and communicating with the sockets or depressions 7 are seating grooves or channels 8, and arranged at right angles to the channels 8 and extending from the edges 9 of the bricks to said sockets or depressions are similar seating grooves or channels 10.

The grooves or channels 8 are preferably disposed in longitudinal alinement at the center of the brick, so that when two or more bricks are laid into a wall the grooves in the ends of adjacent bricks will register and form a continuous seating-groove for the reception of a tie rod or band 11. The tie rod or band 11 is formed of a bar of metal or other suitable material, the opposite ends of which are bent downwardly to form depending lugs or spurs 12, adapted to engage the sockets or depressions 7.

The walls of the sockets or depressions are preferably inclined toward the center of the brick, as shown in Fig. 3, to facilitate molding and also to permit the cement or mortar used in laying the bricks to entirely surround the depending lugs, and thereby prevent accidental displacement of the same.

The depressions are of sufficient size to receive the abutting ends of adjacent tie-rods, so as to permit the construction of the wall, (shown in Fig. 2,) in which the bricks of the several courses are securely tied or banded both longitudinally and laterally, thereby effectually preventing independent displacement of said bricks.

In constructing chimneys where but a single tier of bricks are employed the lateral tie-rods are dispensed with, the grooves or channels 10 being used to receive the cement or mortar, so as to form mortar joints and cause the bricks to more securely adhere one to the other.

The depressions and seating-grooves may be formed in both the upper and lower faces of the brick, and, if desired, the wall may be constructed without the tie rods or bands, in which event the bricks of the several courses will be securely tied together by the cement

or mortar entering the grooves or channels in the abutting faces of said bricks, as will be readily understood.

Having thus fully described the invention, what is claimed is—

1. A brick provided with a plurality of angularly-disposed seating-grooves, and depressions or sockets formed at the intersection of said grooves.

2. A brick having a plurality of angularly-disposed seating-grooves formed in its upper face, and depressions or sockets disposed at the intersection of said grooves.

3. A brick having a plurality of angularly-disposed seating-grooves formed in its upper face and extending to the end and one edge of the brick, and depressions or sockets disposed at the intersection of said grooves.

4. A brick having a plurality of angularly-disposed seating-grooves formed in its upper face, and depressions or sockets of greater depth than the seating-grooves disposed at the intersection of the latter.

5. A brick having a plurality of angularly-disposed seating-grooves formed in its upper face, and depressions or sockets disposed at the intersection of said grooves and having their walls inclined toward the center of the brick.

6. A brick having a plurality of sockets or depressions formed in its upper face and spaced inwardly from its end walls, and longitudinal seating-grooves extending from the opposite ends of the block and communicating with said sockets, there being similar seating-grooves extending from said sockets to one edge of the brick.

7. A brick provided with a plurality of sockets or depressions, the walls of which are inclined toward the center of the brick, there being a plurality of angularly-disposed seating-grooves formed in the upper face of the brick of less depth than the sockets and intersecting at the latter.

8. A wall formed of a plurality of bricks each comprising a body portion having a plurality of angularly-disposed tie-receiving grooves formed in its upper face and provided with depressions or sockets at the intersection of said grooves, said bricks being laid side by side in superposed courses with the end grooves of abutting bricks on one side of the wall disposed in alinement and with the side grooves of the bricks on both sides of the wall also disposed in alinement, and tie-rods seated in the several grooves and provided with depending lugs for engagement with the sockets or depressions.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

CHARLES A. HARRIS.

Witnesses:
EDNA E. KARAS,
GILBERT M. HARRIS.