

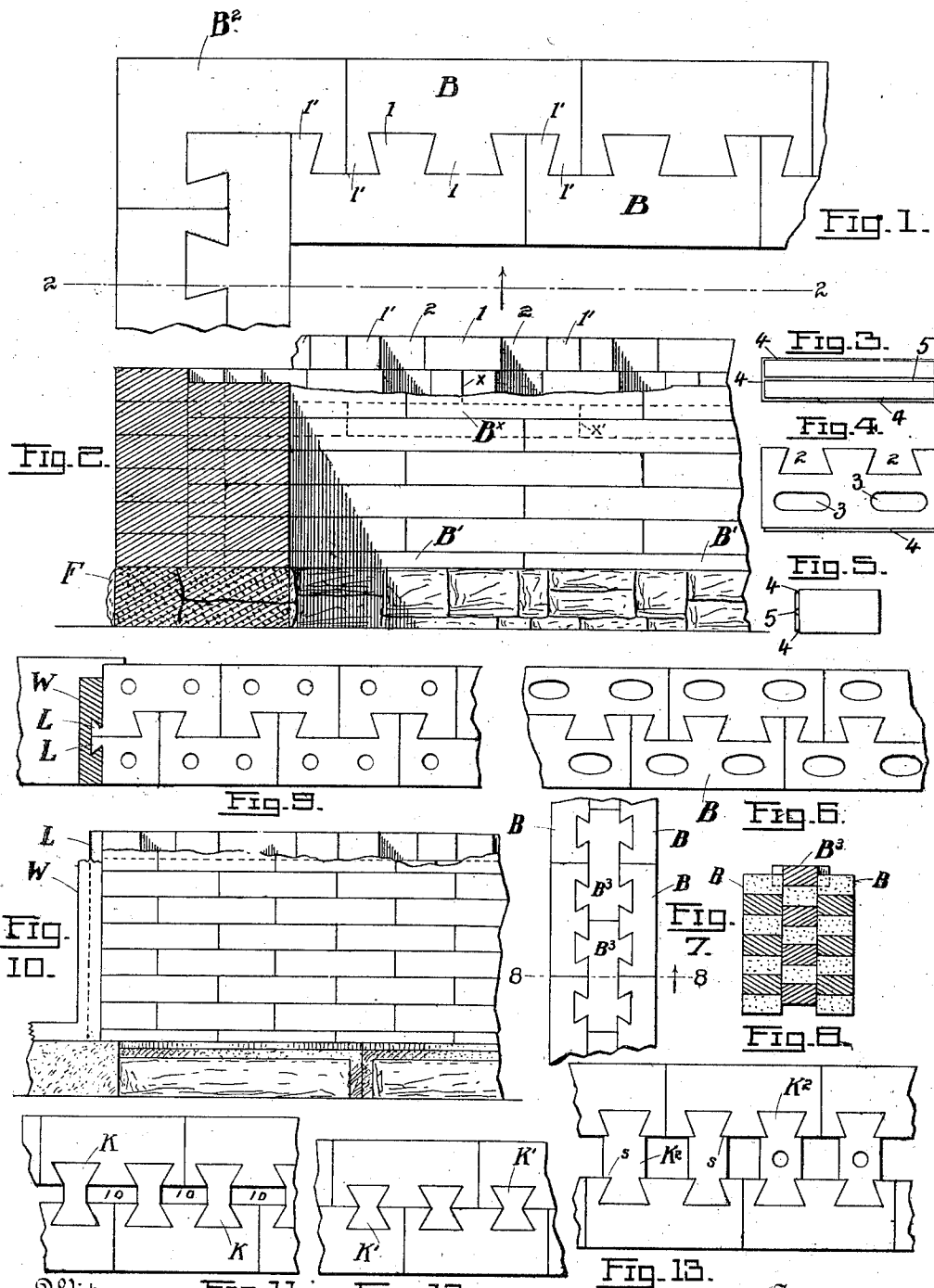
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A. H. MOSES.
MASONRY WALL AND BRICKS FOR SAME.

(Application filed Oct. 10, 1901.)

(No Model.)



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UNITED STATES PATENT OFFICE.

ALFRED H. MOSES, OF ST. LOUIS, MISSOURI, ASSIGNOR TO J. N. MOSES & CO., OF ST. LOUIS, MISSOURI:

MASONRY WALL AND BRICKS FOR SAME.

SPECIFICATION forming part of Letters Patent No. 707,444, dated August 19, 1902.

Application filed October 10, 1901. Serial No. 78,263. (No model.)

To all whom it may concern:

Be it known that I, ALFRED H. MOSES, a citizen of the United States, residing at St. Louis, State of Missouri, have invented certain new and useful Improvements in Masonry Walls and Bricks for Same, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming a part hereof.

My invention has relation to improvements in masonry walls and bricks entering into the construction of the same; and the same consists in the novel construction of wall and brick more fully set forth in the specification and pointed out in the claims.

In the drawings, Figure 1 is a top plan view of a corner wall constructed with my improved brick. Fig. 2 is a vertical sectional elevation taken on line 2 2 of Fig. 1. Fig. 3 is a face view of a brick provided with marginal and intermediate "pointing" grooves. Fig. 4 is a plan thereof. Fig. 5 is an end view. Fig. 6 is a plan of a wall, showing flues or vertical passages therethrough. Fig. 7 is a plan of a wall having a double intermediate interlocking brick. Fig. 8 is a vertical section on line 8 8 of Fig. 7. Fig. 9 is a plan of a wall composed of a modified or single brick. Fig. 10 is an elevation thereof, and Figs. 11, 12, and 13 are plans of walls whose adjacent courses are connected by locking and spacing keys.

The objects of my invention are to construct a wall which will dispense with the necessity of mortar or other binding material, to enable unskilled persons to construct the walls, to make special provision for ventilating the walls, to reduce the weight of the material entering into the construction of the same without in any wise diminishing the strength of the wall, to form a bond between the bricks by an interlocking system of tongues and grooves which effectually prevent the separation or parting of the bricks under all circumstances, to provide an economical, speedy, and improved method of pointing walls and partitions, thereby excluding wind, rain, moisture, and frost from the spaces between the bricks, to provide an economical, speedy, and improved method of plastering walls and partitions, and, finally, to construct a wall pos-

sessing further and other advantages better apparent from a detailed description of the invention, which is as follows:

Referring to the drawings, and particularly to Figs. 1 to 8, inclusive, B represents a brick provided along its vertical face with a central dovetail tongue 1, corresponding grooves 2 2 on each side thereof, and terminal fractional tongues 1' 1', the latter being adapted to engage the groove of an adjacent brick, thereby interlocking the series of bricks which constitute any given course of the wall into the construction of which the bricks enter. Any given course of bricks interlocks simultaneously with two adjacent parallel courses, a single thickness of one course interlocking with a half-thickness of each of two adjacent parallel courses, (see Fig. 2,) so that the horizontal seams on one face of the wall alternate with the corresponding seams on the opposite face. The vertical seams between the adjacent ends of the bricks in any course break joint with the vertical seams of the adjacent course by reason of the overlapping of the bricks constituting any one course or layer.

In order to cause any single horizontal course to interlock simultaneously with the adjacent and superposed courses in the manner indicated, I first lay upon the foundation F a single course of bricks B' of one-half the thickness of the remaining bricks B of the wall, so that when an adjacent interlocking course of full thickness is laid upon the foundation a portion (one-half) of the full thickness of the bricks of said interlocking course will project above the plane of the upper surface of the course B', such projection serving to interlock with the next layer or course of full thickness laid upon the course B'. This method of laying the several courses is pursued until the wall is completed. A wall constructed of the character of brick herein referred to necessitates a corner-brick B², having a groove of sufficient dimensions to admit not only the end and terminal tongue of the end brick of one wall, but the terminal tongue of the end brick of the adjacent wall, (see Fig. 1,) to effect the necessary bond between the end bricks of the two walls. The angle of the faces of such corner-brick, though in the

majority of cases a right angle, can of course be varied according to the angle subsisting between the two walls. The base of the groove of such corner-brick will be disposed in a plane parallel to one of the vertical faces of the brick.

In some cases it may be desirable (see Figs. 3, 4, 5) to provide the brick with openings 3 3 for affording ventilating ducts or passages for the completed wall and passages for electric wires, gas-pipes, and the like, and in order to prevent access of moisture, air, dirt, frost, and the like into the seams separating any two contiguous courses or layers the bricks may be provided with marginal dovetail grooves 4 4, serving (when the bricks are laid) to form grooves or depressions in the face of the wall for the purpose of pointing said wall. Again, should it be desirable on an inside wall to cover the same with plaster the face of the brick can be further provided with a longitudinal dovetail groove 5 for the reception of the plaster, the latter in time hardening in said groove and forming a solid rib or key by which the body of the plaster is held securely to such wall. The shape of the ventilating openings is immaterial, and while shown elliptical in Fig. 4 they may be oval, as seen in Fig. 6, or, in fact, of any shape. The wall thus far described contemplates a thickness of two bricks only; but it is apparent that the same principle of construction may be followed with three or more bricks interlocking in the manner already indicated. In Figs. 7 and 8 I have shown a wall of three bricks, the middle brick B³ being virtually the brick B, but with the grooves and tongues duplicated on each vertical face thereof, and in building the wall the said center brick B³ is made to break joint with the course of bricks B on either side thereof, the opposite layers B being disposed in different horizontal planes from those of the bricks B³. The brick thus far described is characterized by a central dovetail tongue, with a corresponding dovetail groove on each side thereof, the latter being bounded by the terminal fractional (half) tongues, adapted to engage one of the grooves of one interlocking brick and the adjacent side of a corresponding groove of the next succeeding interlocking brick, (see Fig. 1,) and as a brick in any course interlocks simultaneously with two bricks of one adjacent course occupying a relatively higher plane and two bricks of another adjacent course occupying a relatively lower plane it follows that a single brick is interlocked with four bricks. This is obvious from Fig. 2, where the brick B^x on the outer course respectively interlocks with the bricks on either side of the seams or joints X X', a portion of the outer course of bricks being removed to show the inner course.

In Figs. 9 and 10 I have shown a modified form of brick having but a single dovetail recess, with a half-dovetail tongue on each side thereof, the manner of interlocking the several bricks being the same as in the main

forms. In this form (or in either form, in fact) I may provide the end series with marginal vertical wedge-shaped lugs L, jointly forming a dovetail adapted to be let into a window-frame W, thereby securing the latter firmly in position.

Referring again to the main form, and particularly to the illustrations shown in Figs. 11, 12, and 13, it may, for purposes of thickening the wall, be desirable not to interlock the bricks directly, but to connect them by suitable dovetail keys adapted to enter the recesses of the bricks in each side. Thus in Fig. 11 I employ a spacing key or brick K, separating the courses a suitable distance, forming flues 10 in the wall. In Fig. 12 I employ a locking-key K', by which the two courses are held in actual contact, and in Fig. 13 I employ a spacing-key K², having shoulders s to better reinforce the general construction.

The brick may of course be made of any suitable material, natural or artificial.

Having described my invention, what I claim is—

1. In a wall, a brick having a series of tongues and grooves disposed on one of the vertical faces thereof, and suitable marginal grooves for "pointing" purposes, substantially as set forth.

2. A wall composed of a series of layers or courses interlocking along their vertical faces with a similar adjacent series, the individual bricks being provided with alining openings disposed parallel to such interlocking faces and collectively forming flues through the completed wall, substantially as set forth.

3. A wall composed of a series of layers or courses of brick, a second adjacent and similar series, and keys disposed in different planes from said courses for locking the series together, substantially as set forth.

4. In a wall, a brick having a series of tongues and grooves disposed on one of the vertical faces thereof, a series of marginal grooves along the opposite vertical face, and an additional dovetail groove disposed along the face of the brick, substantially as set forth.

5. In a wall having a series of interlocking and overlapping bricks, a corner-brick having its faces disposed at an angle to one another, and having a groove on the inner face of one member thereof, said groove being adapted to receive the adjacent ends of the abutting bricks located at the corner of the wall, substantially as set forth.

6. In a wall, a corner-brick having its faces disposed at an angle to one another and having grooves disposed along the inner faces of its respective members adapted to interlock simultaneously with corresponding tongues of the adjacent bricks of two courses of the walls meeting at such corner, substantially as set forth.

7. A wall comprising a series of overlapping bricks interlocking with one another by

tongues and grooves disposed along the vertical faces of the bricks, in combination with corner-bricks, one member of each of which is provided with a groove on the inner face thereof for the reception of the adjacent ends of the abutting bricks located at the corner of the wall, substantially as set forth.

8. In a wall, a brick having a dovetail groove disposed on one of the vertical faces thereof, terminal fractional tongues forming the outer bounding walls of the groove, and

a tongue or lug projecting from one end of the brick adapted to lock with the vertical member of a window-frame, substantially as set forth.

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

ALFRED H. MOSES.

Witnesses:

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