

No. 650,919.

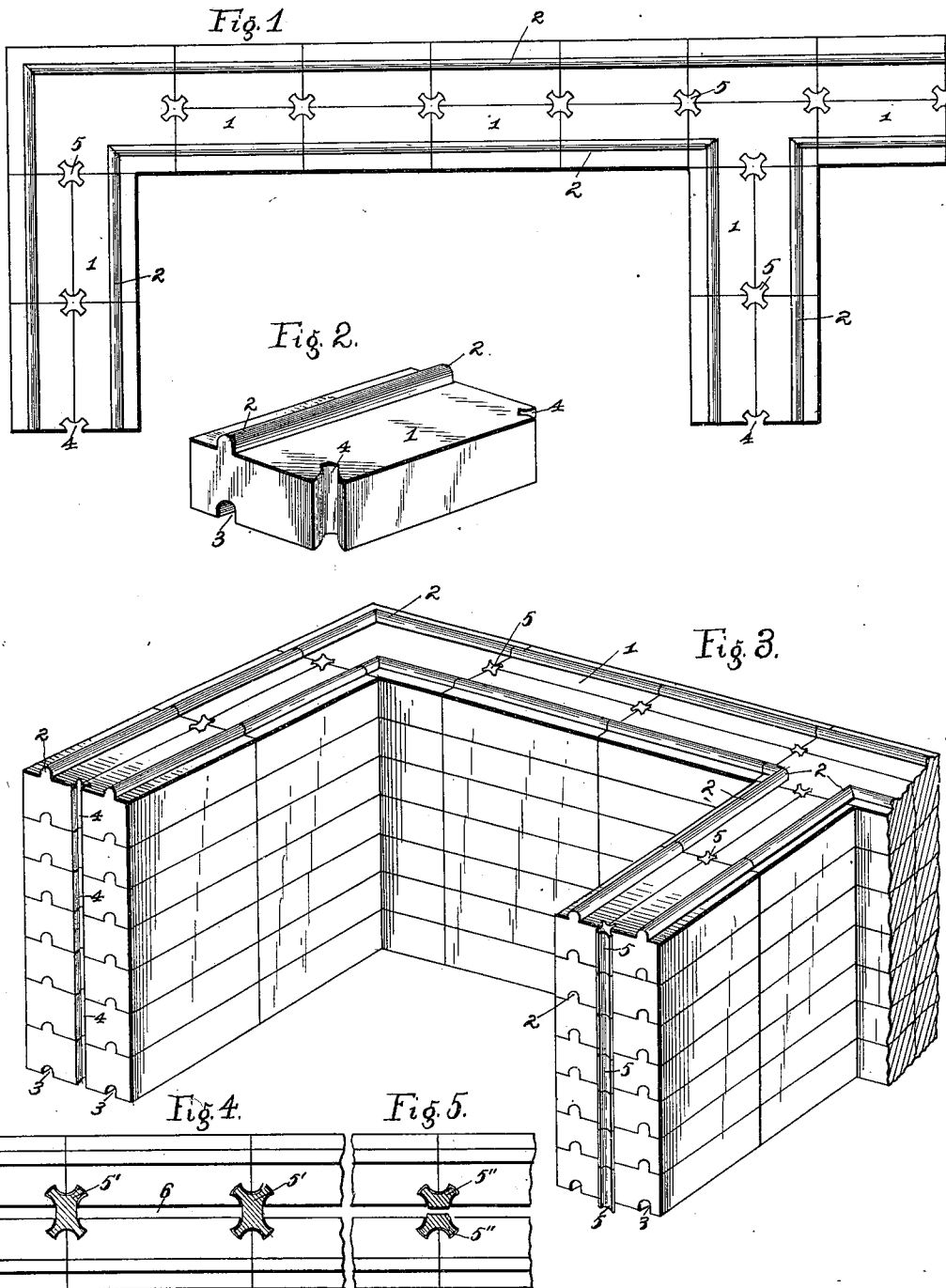
Patented June 5, 1900.

E. H. VORDTRIEDE.
BUILDING BRICK.

(Application filed Jan. 19, 1900.)

(No Model.)

2 Sheets—Sheet 1.



Witnesses

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Fig. 6.

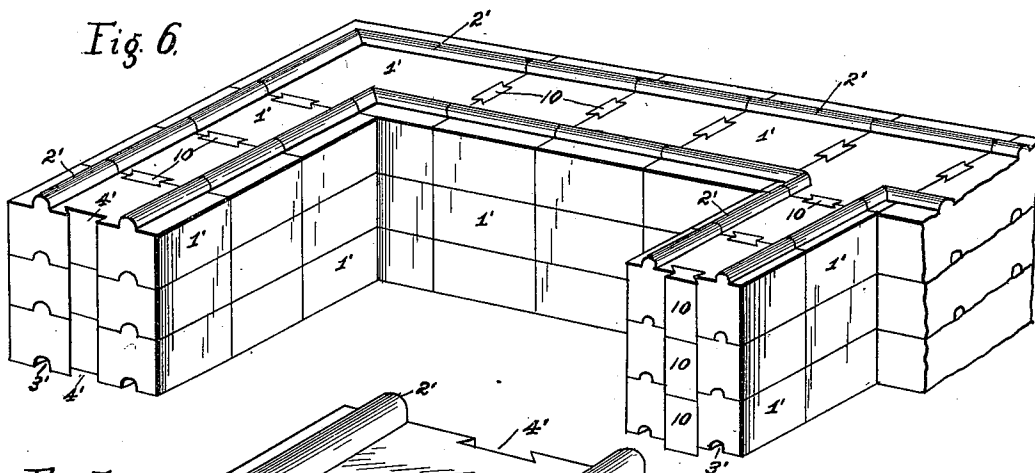


Fig. 7.

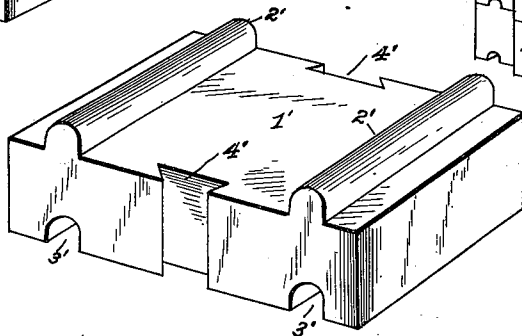
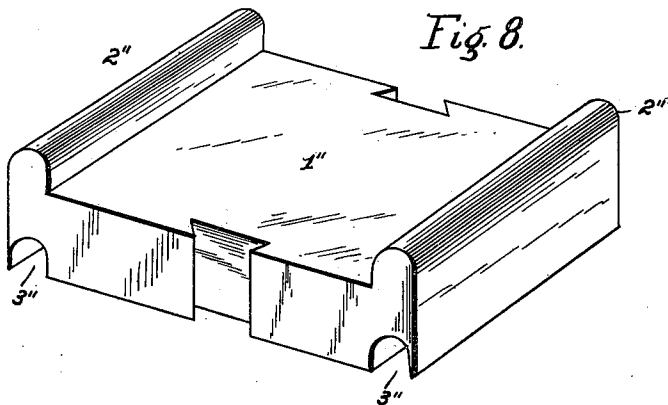


Fig. 8.



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UNITED STATES PATENT OFFICE.

ERNEST HENRY VORDTRIEDE, OF ST. LOUIS, MISSOURI.

BUILDING-BRICK.

SPECIFICATION forming part of Letters Patent No. 650,919, dated June 5, 1900.

Application filed January 19, 1900. Serial No. 2,026. (No model.)

To all whom it may concern:

Be it known that I, ERNEST HENRY VORDTRIEDE, a citizen of the United States, residing at St. Louis, in the State of Missouri, have invented certain new and useful Improvements in Building-Bricks, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming a part hereof.

- 10 My invention has relation to improvements in building-bricks to be made of any suitable material; and it consists in the novel construction of brick more fully set forth in the specification and pointed out in the claims.
- 15 Referring to the drawings, Figure 1 is a top plan of a section of wall built with my improved bricks. Fig. 2 is a perspective view of a detached brick. Fig. 3 is a perspective view of a section of wall built with my bricks.
- 20 Fig. 4 is a top plan of two courses of bricks, showing a ventilating-space between the inner and outer layer of bricks, the keys being shown sectionally for purposes of better illustration. Fig. 5 is a similar view showing a sectional key to make the air-space continuous
- 25 along any longitudinal course of bricks. Fig. 6 is a perspective view of a section of wall, showing the application of a modified form of brick. Fig. 7 is a perspective of a detached brick under the modification referred to, and Fig. 8 is a perspective of a detached brick illustrative of still another modification.

- The object of the present invention is to construct a brick which can be interlocked
- 35 with its neighbor below, above, or on the same plane therewith without the use of mortar, the bond between the several courses entering as a constructive feature of the brick itself. A brick of this character can be made
- 40 light, cheap, and durable, being especially applicable for portable or temporary structures. For permanent structures, where the use of a small quantity of cement may be necessary or desirable, my present brick is admirably
- 45 adapted, as it can be made light and the brick so spaced as to form air-passages in the walls, either for purposes of ventilation or to serve as non-conductors of heat. Walls of that character would enter into the construction
- 50 of hospitals, hotels, refrigerators, ice-houses, cellar construction, storage-buildings, furnaces, ventilating-shafts, and the like. By

making a series of interlocking bricks the outer walls of a building can be readily tied and braced by partition-walls which form a part of the same structure, thus bracing the building in every direction.

Numerous advantages will be apparent from a detailed description of the invention, which is as follows:

Referring to the drawings, and particularly to Figs. 1 to 5, inclusive, 1 represents the body portion of my improved brick, the same being provided on one face and adjacent to the outer longitudinal edges thereof with a rib or ridge 2, and on the opposite face, directly opposite the rib, is a groove 3, the groove of one brick receiving the rib of the brick immediately below. The rib and groove effect a bond between any two bricks against displacement in a direction at right angles to the said rib and groove. A bond against displacement in a direction parallel to such rib and groove is effected by means of a key connecting two or more bricks along the edges contiguous to those along which the rib and groove are disposed. In the figures referred to each brick has a recess 4 at the meeting edge of the vertical faces respectively contiguous and opposite to the vertical face adjacent to which the rib and groove are disposed, and when four of the bricks are assembled so as to bring their respective recesses together a common recess is formed for receiving a key 5, by which said bricks are locked against displacement, as above specified. As seen in the drawings, each key has four arms or lobes to fit the respective lobed recesses formed at the corners of the bricks. This lobed arrangement effects a bond in two directions, as is obvious, one direction being lengthwise of the brick and the other at right angles thereto. Under the arrangement as described, when two or four bricks are assembled the key 5 will have a rib (and groove) on either side of it, the ribs (and grooves) running at right angles to the common edge along which the recess for the reception of the key is formed.

Where it is desirable to form ventilating or other air-passages 6 between each pair of bricks, an elongated key 5' may be used, as best seen in Fig. 4. In some cases and for some particular horizontal layer or course of bricks a sectional key 5'' may be employed to make

such passage continuous for the entire layer, as best seen in Fig. 5. The key in all cases intercepts the continuity of the seam formed by any two abutting bricks, thereby preventing access of moisture and air from the outer to the inner brick, leaving the inner layers dry and unaffected by moisture or changes in temperature.

The foregoing relates to my double system of brick-laying; but I may carry out a single system on substantially the same principle. This is illustrated in Figs. 6 and 7. Referring to said figures, 1' represents the brick; 2', the ribs or ridges disposed along the upper surface adjacent the sides thereof; 3', the grooves on the opposite face, and 4' a dovetail recess disposed along the vertical face between the two ribs. When two such bricks are assembled, a key or plug 10 is inserted, the purpose being the same as already indicated in connection with key 5.

In Fig. 8 I have shown a modification 1'', in which the ribs 2'' and grooves 3'' are located along the extreme edges of the brick, thus giving the body portion more bearing-surface. Otherwise the brick is the same as the brick shown in Figs. 6 and 7.

The brick here described may be used with or without cement, according to the character of structure or wall to be built. Temporary or portable structures intended for special occasions—such as tents, sheds, and the like—may be built without cement, the bond between the bricks being sufficient.

While the brick shown in the drawings is rectangular, it is apparent that the same may be modified for curved structures, such as cylindrical stacks, arches, and the like.

Having described my invention, what I claim is—

1. A brick comprising a body portion, a rib or ridge disposed along one face thereof adjacent to the edge of the brick, a groove similarly disposed along the opposite face, and a recess formed in the face bounded by the aforesaid faces for the reception of a suitable key against displacement of the bricks in a direction parallel to the ridges and grooves, substantially as set forth.

2. A brick comprising a body portion, a rib or ridge disposed along one face thereof adjacent to the edge of the brick, a groove similarly disposed along the opposite face and a recess formed at the meeting edge of the ver-

tical faces respectively contiguous and opposite to, the face adjacent to which the rib and groove are disposed for the reception of a key against displacement of the bricks in a direction parallel to the ribs and grooves, substantially as set forth.

3. In a combination between two or more bricks, having recesses formed at their abutting ends, a suitable key adapted to be inserted into said recesses, and ribs and grooves formed with the body of the bricks and disposed at an angle to the common abutting edge formed between the bricks, the key binding the bricks against displacement in a direction parallel to the ribs and grooves, substantially as set forth.

4. A brick having a rib and groove disposed in one direction, and a recess formed in the brick in the vertical wall lying contiguous to the vertical wall adjacent to which said rib and groove are disposed, said recess being adapted to receive a key to prevent displacement of the brick in a direction parallel to the rib and groove, substantially as set forth.

5. A brick having a lobed recess formed along one of the vertical walls thereof, and a correspondingly-lobed key adapted to interlock with the lobes of the recess and prevent displacement of the bricks both longitudinally and transversely, substantially as set forth.

6. The combination of four bricks having their ends abutting against one another, recesses formed at the meeting corners of the bricks, and a key inserted into the common recess thus formed, substantially as set forth.

7. The combination of four bricks having their abutting ends provided with lobed recesses located at the meeting corners of the bricks, a lobed key adapted to be inserted into the common recess thus formed, and ribs and grooves disposed respectively along the upper and lower faces of the bricks and running at right angles to the common abutting edge between the bricks, substantially as set forth.

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

ERNEST HENRY VORDTRIEDE.

Witnesses:

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