J. J. WHITACRE.

BUILDING BRICK.

APPLICATION FILED NOV. 27, 1918.

1,323,513.

Patented Dec. 2, 1919.

2 SHEETS—SHEET 1.

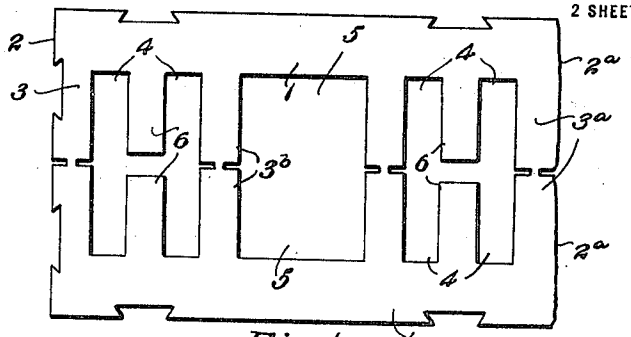


Fig. 1.

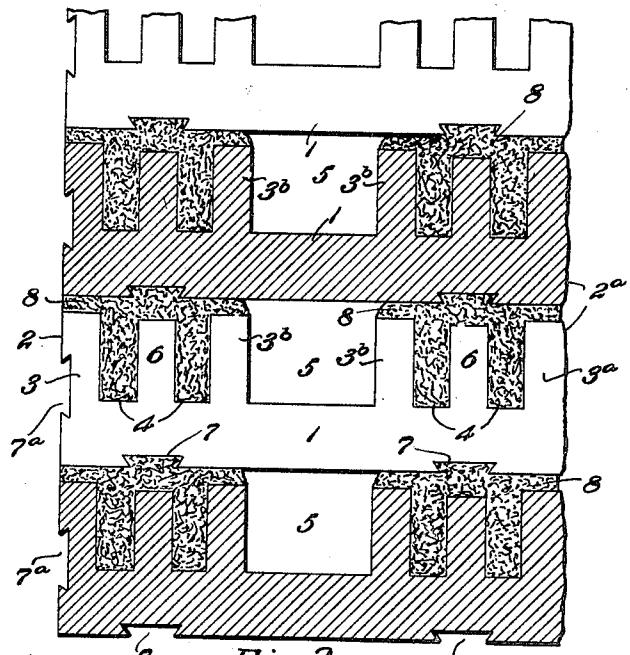


Fig. 2.

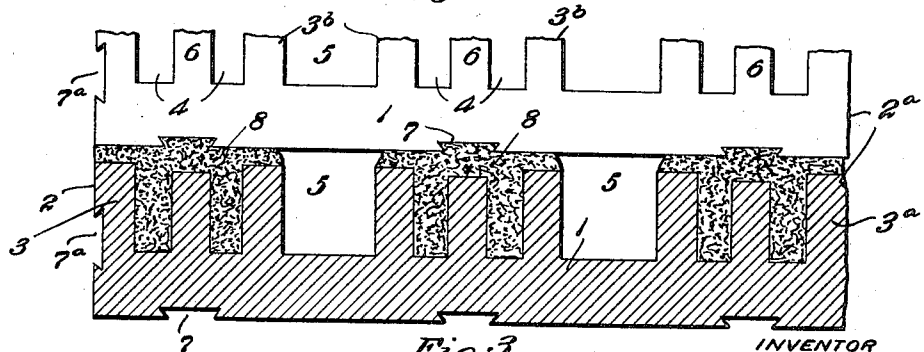


Fig. 3.

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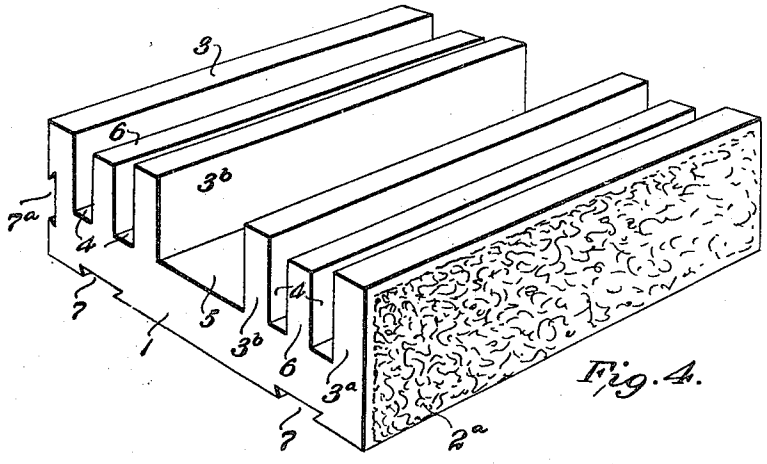


Fig. 4.

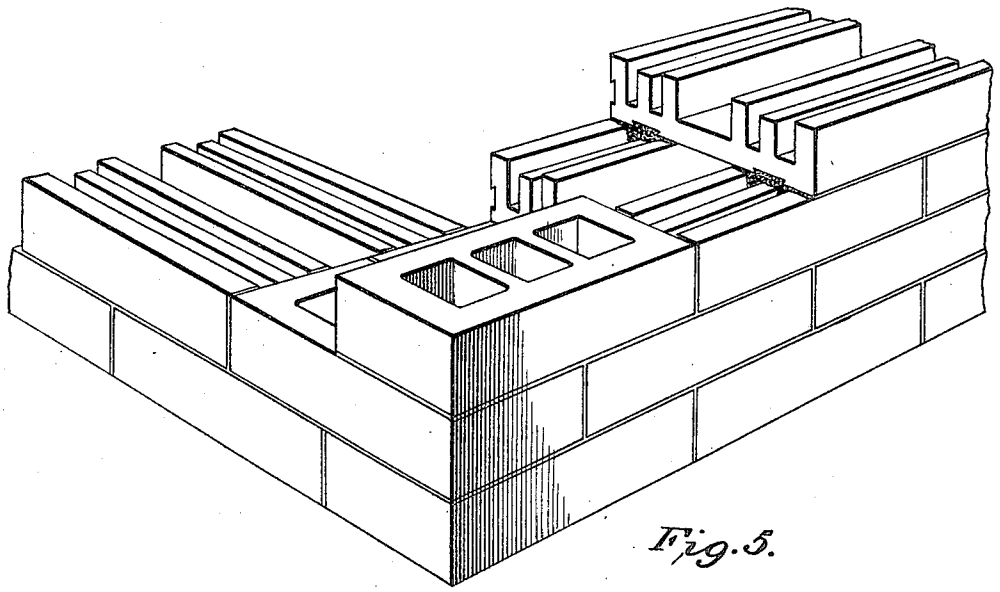


Fig. 5.

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JOHN J. WHITACRE, OF CANTON, OHIO, ASSIGNOR TO THE WHITACRE-GREER FIRE-PROOFING COMPANY, OF WAYNESBURG, OHIO, A CORPORATION OF OHIO.

BUILDING-BRICK.

1,323,513. Specification of Letters Patent. Patented Dec. 2, 1919.

Application filed November 27, 1918. Serial No. 264,305.

To all whom it may concern:

Be it known that I, JOHN J. WHITACRE, a citizen of the United States, and a resident of Canton, in the county of Stark and State of Ohio, have invented certain new and useful Improvements in Building-Bricks, of which the following is a specification.

The invention relates to ribbed bricks for building walls with air channels, and the object of the improvement is to make a brick with ribs or projections on one side only of a bed or body plate, which may be laid in a wall with interlocking joints of mortar.

A further object of the invention is to make a wall with a continuous longitudinal air channel in each course of bricks, which not only separates the brick material comprising the inner and outer faces of the wall, but also separates the corresponding mortar joints and prevents the formation of a continuous layer or bed of mortar to carry water or moisture from the outer to the inner portions of the wall.

The objects of the invention thus set forth in general terms, are attained by making and marketing the brick in the form of a hollow block having side walls and two or more partitions longitudinally weakened along a median line for ready separation at the place of use into bricks having bed or body plates with upstanding ribs forming mortar channels along each side and an air channel in the median portion of each brick; and by providing an upstanding rib of brick material in each mortar channel to divide and partially fill the mortar channel, with the usual longitudinal grooves in the bottom of the brick for interlocking with the mortar of the joint.

A preferred embodiment of the invention thus generally described, is illustrated in the accompanying drawings forming part hereof, in which—

Figure 1 is an end view showing a hollow block cut for breaking into bricks;

Fig. 2, an end section of an eight inch wall made with the improved bricks;

Fig. 3, a section of a twelve inch wall embodying the present invention;

Fig. 4, a perspective view of a brick for making an eight inch wall; and

Fig. 5, a perspective view showing the method of building a wall with the ribbed bricks and ordinary corner bricks.

Similar numerals refer to similar parts throughout the drawings.

As shown in Fig. 4, each brick for an eight inch wall is made with a bed or body plate 1 extending in width continuously from the inner to the outer faces 2 and 2^a formed by the inner and outer upstanding ribs 3 and 3^a, of the brick, within which ribs are spaced the upstanding partition ribs 3^b forming a mortar channel 4 along each side of the brick and a longitudinal air channel 5 in the median portion thereof.

In each mortar channel is provided a longitudinal upstanding rib 6 intermediate the face and partition ribs and preferably made slightly shorter than the same; which rib divides and partially fills the channel and serves to reduce the amount of mortar required to fill the same, and also increases the bearing strength of the bricks along the mortar joints thereof.

The bottom and inner faces of the bricks are provided with the usual longitudinal grooves 7 and 7^a for engaging the mortar or plaster used in the building of a wall; which grooves may be dove-tailed in the usual manner; and the outer face 2^a of each brick is preferably made about eight inches long with a depth of two and three-eighths inches so that the brick may be laid flatwise in a wall and will present a face corresponding to the ordinary standard brick, with which it may be combined in the construction of a wall.

The bricks are also preferably made either eight inches or twelve inches, or some other multiple of four inches in width, so as to form an eight inch wall as shown in Fig. 2, or a twelve inch wall as shown in Fig. 3; in which latter event, an additional pair of partition ribs 3^b with an intervening filler rib, 6, may be provided along the median line of the brick, so as to increase the strength of the wall and provide an additional mortar joint along the middle thereof.

In the construction of a wall, the bricks are laid with their bed or body plate downward, and mortar is applied to the tops of the upstanding ribs and fills more or less of the divided channel 4 at the sides of the filler rib. A sufficient amount of mortar is used to form a suitable layer on the tops of the ribs and to enter the longitudinal groove 7 in the bottom of the superposed brick, so

as to form an interlocking mortar joint 8 between the bricks along each side of the wall. A similar joint may be provided along the median line of a twelve inch wall—as shown in Fig. 3.

The mortar joint 8 however is not continuous through the wall, and does not extend across the air channel 5; and it is evident that any water or moisture which may run or seep along the mortar joint from the outer face of the wall, will be trapped, first in the bottom of the divided mortar channel located outside the filler rib and next in the divided mortar channel located inside the filler rib, before such water or moisture can reach the air channel in the median portion of the brick; and it is also evident that no water or moisture can pass beyond the air channel 5 so as to affect the inner portions of the wall, and much less the inner face formed by the inner ribs of the brick.

I claim:

1. A brick comprising a continuous bed or body plate having upstanding side and partition ribs forming mortar channels along each side and an air channel in the median portion of the brick, and having an upright rib in each mortar channel dividing and partially filling the same.

2. A brick comprising a continuous bed or body plate having upstanding side and partition ribs forming mortar channels along each side and an air channel in the median portion of the brick, and having an upright rib in each mortar channel dividing and partially filling the same, the filler rib being slightly shorter than the side and partition ribs.

3. A brick comprising a continuous bed or body plate having upstanding side and partition ribs forming mortar channels at each side and an air channel in the median portion of the brick, and having an upright rib in each mortar channel dividing and partially filling the same, there being longitudinal grooves in the bottom face of the brick opposite the mortar channels therein.

4. Hollow wall construction comprising superposed bricks each having a bed or body plate extending the full width of the wall, with upstanding side and partition ribs forming mortar channels along each side and an air channel along the middle portion of the wall and an upstanding rib dividing and partially filling each mortar channel, with mortar joints between the ribs of one brick and the bottom of a superposed brick.

5. Hollow wall construction comprising superposed bricks, each having a bed or body plate extending the full width of the wall, with upstanding side and partition ribs forming mortar channels along each side and a longitudinal groove in the bottom face opposite the mortar channel, an upstanding rib dividing and partially filling each mortar channel, the filler rib being shorter than the side and partition ribs, with a mortar joint between the ribs of one brick and the bottom of a superposed brick.

6. Hollow wall construction comprising superposed bricks, each having a bed or body plate extending the full width of the wall with upstanding side and partition ribs forming mortar channels along each side, an upstanding rib dividing and partially filling each mortar channel, there being longitudinal grooves in the bottom face opposite the mortar channels, and a mortar joint laid on the tops of the ribs and entering the divided channels and the grooves to interlock the bricks.

JOHN J. WHITACRE.