J. J. WHITACRE.

BUILDING BRICK.

APPLICATION FILED NOV. 27, 1918.

1,323,514.

Patented Dec. 2, 1919.

2 SHEETS—SHEET 1.

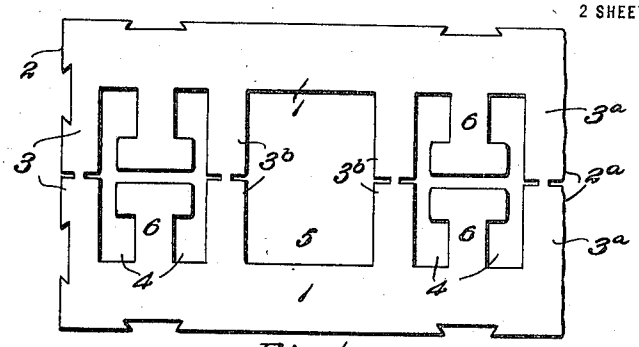


Fig. 1.

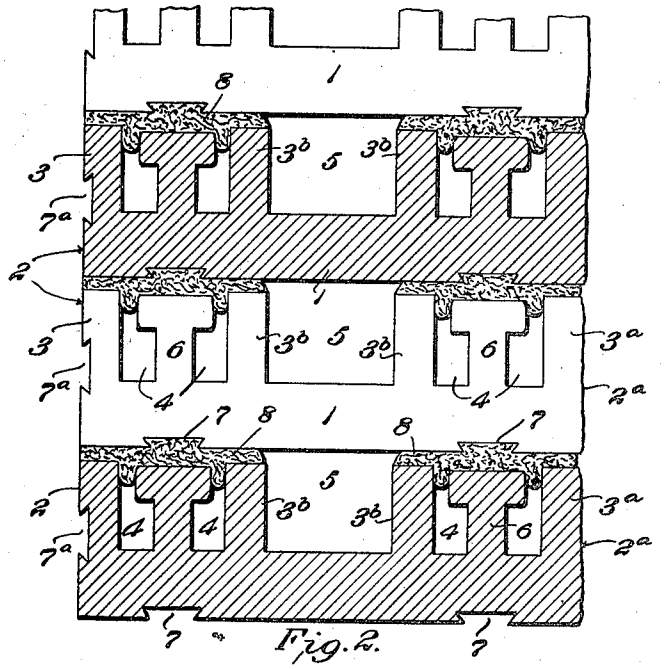


Fig. 2.

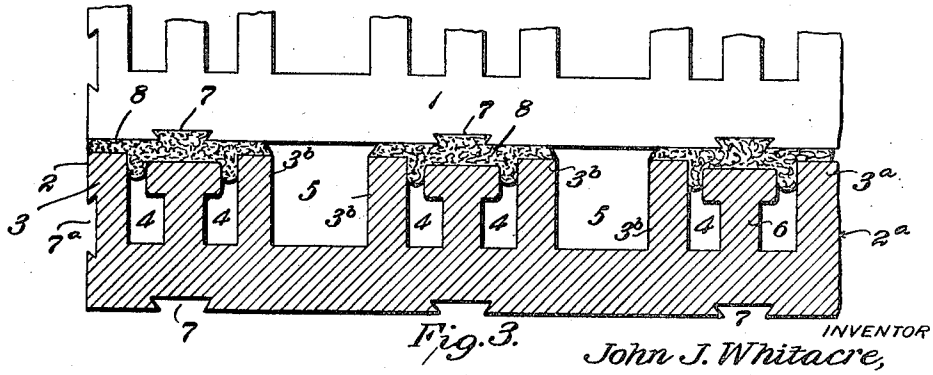


Fig. 3.

INVENTOR

John J. Whitacre,

By Frease, Merkel, Sayrell & Bond

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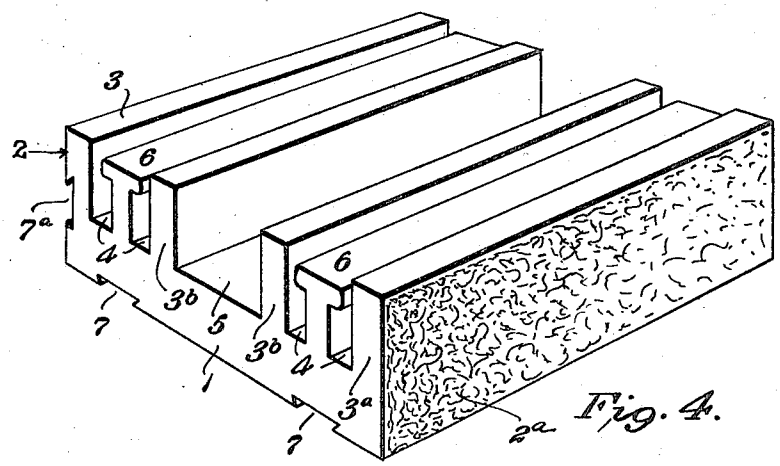


Fig. 4.

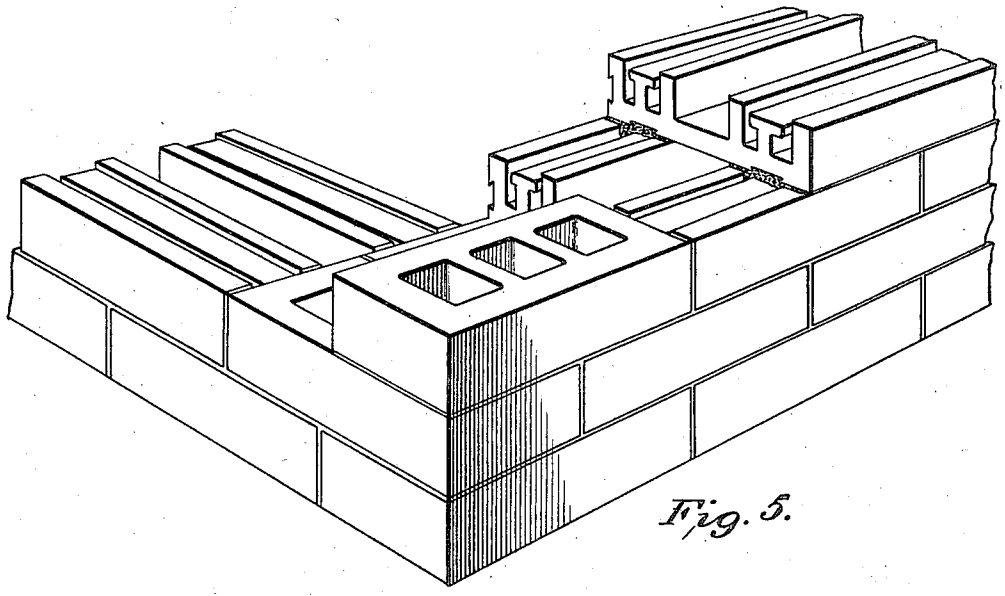


Fig. 5.

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UNITED STATES PATENT OFFICE.

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

BUILDING-BRICK.

1,323,514. Specification of Letters Patent. **Patented Dec. 2, 1919.**

Application filed November 27, 1918. Serial No. 264,306.

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 plurality of continuous longitudinal air channels in each course of bricks, and to separate the beds for the mortar joints for preventing the formation of a continuous layer of mortar 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 and partition walls longitudinally weakened along the median line for ready separation at the place of use into bricks having bed or body plates with upstanding ribs forming air channels along each side and in the median portion of each brick; and by providing an upstanding T-rib of brick material in each side channel partially closing the opening thereof and forming a bearing for a mortar joint, 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 drawing 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 a 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 of 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 an air channel 4 along each side of the brick, and a longitudinal air channel 5 in the median portion thereof.

In each side air channel is provided a longitudinal upstanding T-rib 6 intermediate the face and partition ribs and preferably made slightly shorter than the same; the top of which rib partially but not entirely closes the opening of the channel 4 to such an extent as to prevent the dropping of any considerable amount of mortar downward into the air channel, and at the same time forms a bearing for a mortar joint for which a lateral bearing is formed by the ends of the adjacent ribs.

The bottom and inner face of the bricks are provided with the usual longitudinal grooves 7 and 7^a for engaging the mortar or plaster used in building 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-eights inches so that the brick may be laid flatwise in a wall and will present a face corresponding to 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 T-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 without, however, dropping down to any extent past the head of the T- rib; which prevents the side channels from being filled with mortar.

A sufficient amount of mortar is used to form a suitable layer on the tops of the ribs and to enter the longitudinal grooves 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 formed along the the median line of a twelve inch wall as shown in Fig. 3.

The mortar joints 8 are limited in width to the tops of the ribs forming the side air channels 4, and do 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 air channel on the outer side of the T-rib and next in the air channel on the inner side of the T-rib, before such water or moisture can reach the air channel 5 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 brick.

I claim:

1. A brick comprising a continuous bed or body plate having upstanding side and partition ribs forming air channels along each side and in the median portion of the brick, with an upright T-rib in each side channel partially closing the opening thereof.

2. A brick comprising a continuous bed or body plate having upstanding side and partition ribs forming air channels along each side and in the median portion of the brick, with an upright T-rib in each side channel partially closing the opening thereof, the T-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 air channels along each side and in the median portion of the brick, with an upright T-rib in each side channel partially closing the opening thereof, there being longitudinal grooves in the bottom face of the brick opposite the side 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 air channels along each side and in the middle portion of the wall, and an upstanding T-rib in each side channel partially closing the opening thereof, 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 air channels along each side and in the middle portion of the wall, and an upstanding T-rib in each side channel slightly shorter than the adjacent ribs and partially closing the opening of the channel, with mortar joints 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 air channels along each side and in the middle portion of the wall, and an upstanding T-rib in each side channel partially closing the opening thereof, there being longitudinal grooves in the bottom face opposite the side channels, and a mortar joint laid on the tops of the ribs and entering the grooves to interlock the bricks.

JOHN J. WHITACRE.