No. 744,480. PATENTED NOV. 17, 1903.

H. L. BYNUM.

HOLLOW BUILDING BLOCK.

APPLICATION FILED JAN. 30, 1903.

NO MODEL. 2 SHEETS—SHEET 1.

Fig. 1.

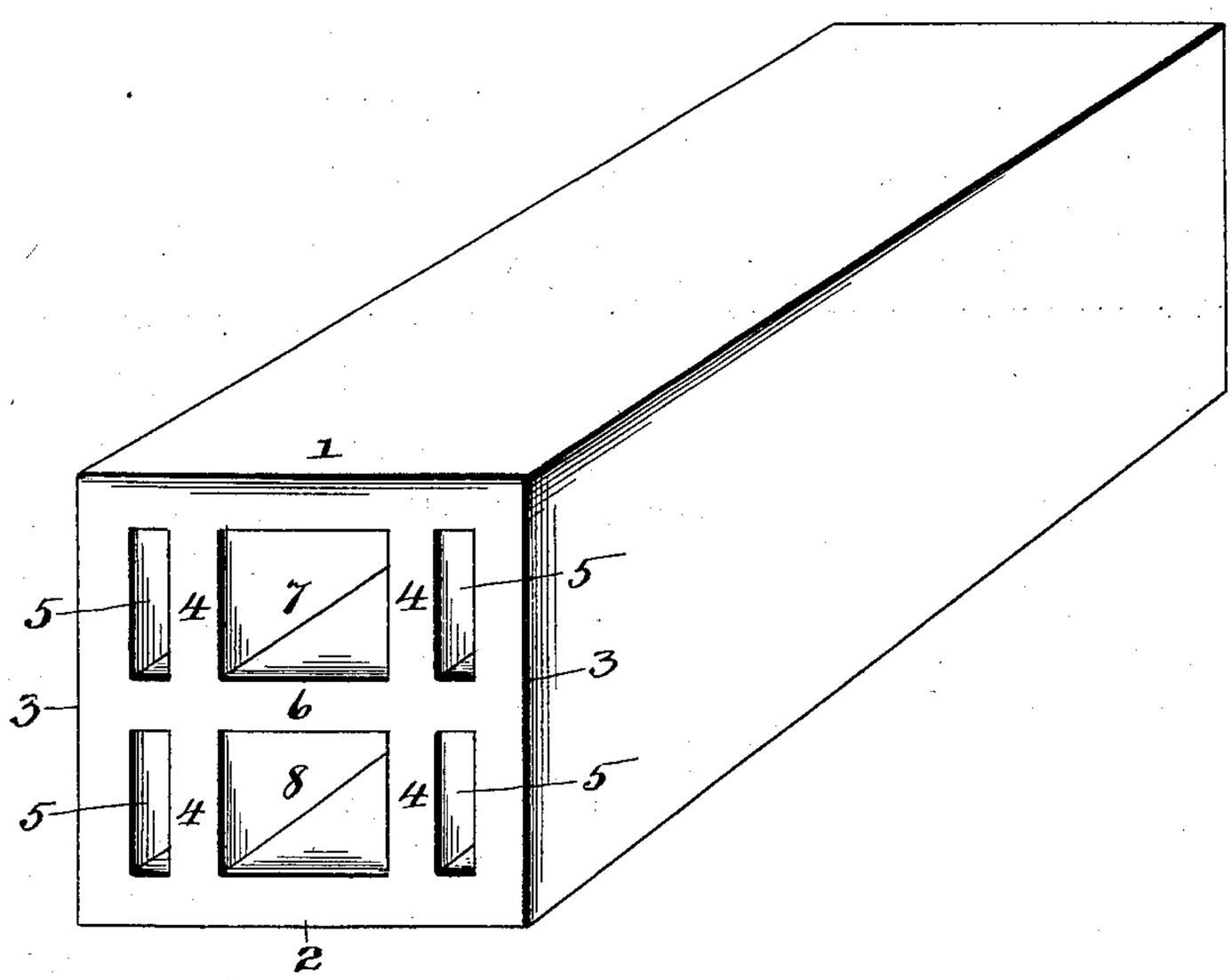
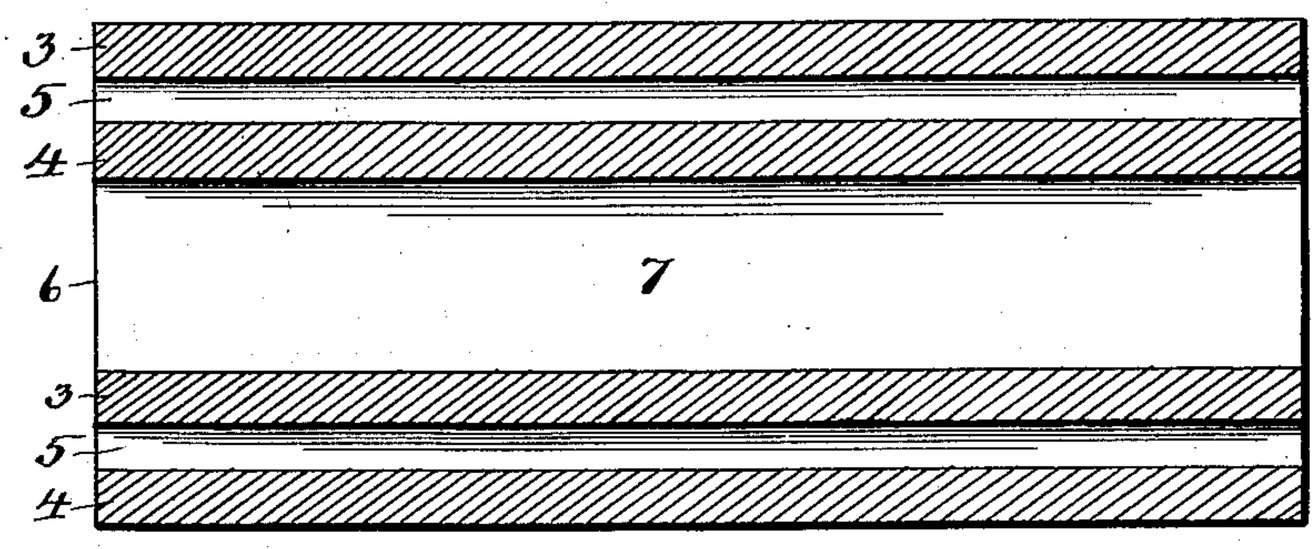


Fig. 2.



Witnesses

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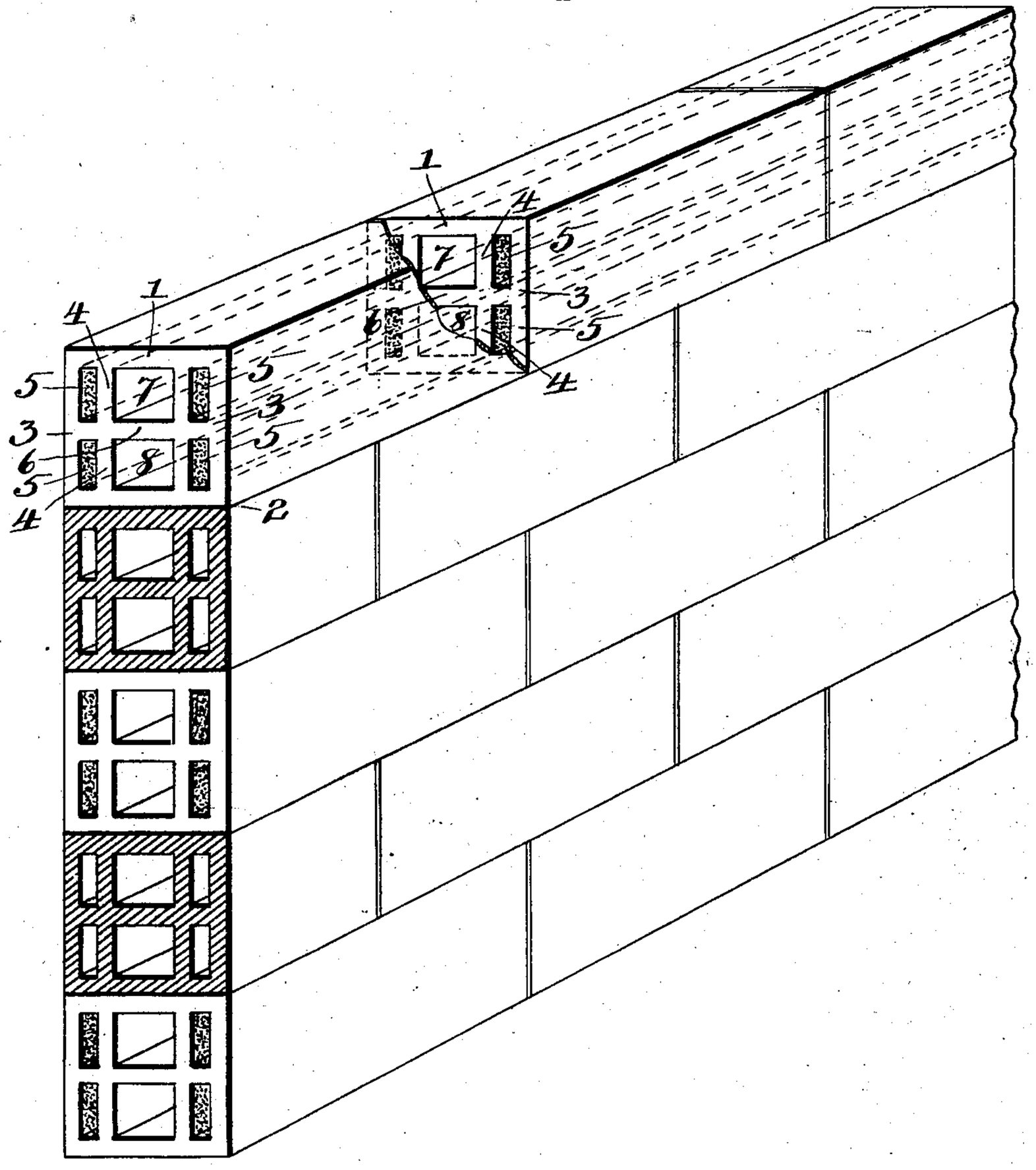
APPLICATION FILED JAN. 30, 1903.

NO MODEL. 2 SHEETS—SHEET 2.

Fig. 3.



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No. 744,480. Patented November 17, 1903.

UNITED STATES PATENT OFFICE.

HENRY L. BYNUM, OF BRAZIL, INDIANA.

HOLLOW BUILDING-BLOCK.

SPECIFICATION forming part of Letters Patent No. 744,480, dated November 17, 1903.

Application filed January 30, 1903. Serial No. 141,133. (No model.)

To all whom it may concern:

Be it known that I, HENRY L. BYNUM, a citizen of the United States, residing at Brazil, in the county of Clay and State of Indiana, have invented certain new and useful Improvements in Hollow Building-Blocks; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to hollow building-blocks, and its object is to provide a block of this character provided with an air-proof and waterproof mortar-joint and having the partitions or walls forming such joint laterally braced and supported, when the block is of such a size to require such support.

To this end my invention is embodied in the construction hereinafter described and claimed.

The block is illustrated in the accompanying drawings, in which—

Figure 1 is a perspective view of my improved building-block, looking at the end thereof. Fig. 2 is a horizontal longitudinal section, and Fig. 3 shows a wall built of my blocks.

Referring to the drawings, 1 is the top wall of the block, and 2 the bottom thereof. These blocks range from six inches to thirty-six inches in length, and the outer side walls 3 are preferably from one-half inch to one and one-half inches in thickness, according to the size of the block. Within the body of the block are independent inner walls or partitions 4, extending through the length of the brick and of a similar thickness and spaced relatively near to the outer side walls 3, leaving side air-chambers 5 between said inner and outer walls. These inner independent walls are spaced relatively near to the outer walls, so that as great an air-chamber as possible may be left in the center of the block and yet sufficiently distant therefrom, so that the mortar-joint formed by the ends of these walls, as hereinafter explained, will be fully protected from the outside air and weather by reason of the intervening side air-chambers. We have thus the ordinary hollow building-block with all of its advantages, such as keeping a house warm in winter and cool in summer, owing to the ventilation of the walls when said walls thereof are formed of such blocks, and a saving in material and cheapness of construction and in the time of construction, owing to the large sizes in which the blocks can be made, and in addition thereto such a joint as will give the wall built of such blocks a construction as solid as though built of the ordinary small solid brick, for the reason that the extra inner mortar-joint is fully protected, and therefore permanent, as above stated. Both outer and inner walls are laterally braced and supported in the larger-sized blocks by a central horizontal wall 6, extending from and between the two outer walls and preferably of a similar thickness therewith. The interior hollow part of the larger blocks is thus divided into two large chambers or spaces 7 and 8 and the smaller side air-chambers 5 into upper and lower chambers. The inner walls 4 form extra mortar-joints when the bricks or blocks are placed end to end. The mortar is applied not only to the end faces of the outer walls 3 and top and bottom 1 and 2, but also to the end faces of the inner walls 4, which latter when joined to the walls of an adjacent block form an extra inner mortar-joint that will be inclosed and will be protected from air and water, and will therefore form a permanent and secure connection and will not be subjected to the ordinary washing-out action of the mortar by the rain. The extra mortar also adds to the resistance power of the block.

It is thus seen that each tier of a wall or other structure built of my blocks will have a large continuous longitudinal air-chamber throughout its entire length, thus insuring a free circulation of air and a good system of ventilation, but will also be of solid construction notwithstanding the relatively small area on which the mortar is applied, owing to my novel means employed in joining the blocks.

In my blocks the ends are cut off straight and fit closely together without flanging or interfitting, the mortar filling making a strong joint.

Having thus described my invention, what I claim is—

1. A wall composed of tiers of hollow building-blocks each block being of greater length than its height and width and having a pair of inner walls or partitions parallel to the

outer walls spaced relatively near thereto and arranged longitudinally of said blocks, whereby the blocks of each of said tiers are divided into large longitudinal air-chambers between said inner walls and small longitudinal air-chambers between said inner and outer walls on each side of said blocks, and mortar or cement placed on and in the ends of said side air-chambers on each block forming extra dowels or keys when hardened whereby the blocks of each tier of said wall are securely joined together and their joints protected from the weather, substantially as described.

2. A wall composed of tiers of hollow building-blocks each block being of greater length than its height and width and having a pair of inner walls or partitions parallel to the outer walls spaced relatively near thereto and arranged longitudinally of said blocks, whereby the blocks of each of said tiers are divided into large longitudinal air-chambers between said inner walls and small longitudinal air-chambers between said inner and outer walls on each side of said blocks, and mortar or cement placed on and in the ends of said side air-chambers on each block forming extra dowels or keys when hardened whereby the blocks of each tier of said wall are securely joined together and their joints protected from the weather, and a horizontal longitudinal support extending between the outer walls of each block and midway of the said air-chambers, substantially as described.

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

HENRY L. BYNUM.

Witnesses:
R. L. SHATTUCK,
M. E. RECTOR.