No. 795,265. PATENTED JULY 25, 1905.

C. O. BRANDELL.

CONCRETE BLOCK.

APPLICATION FILED SEPT. 22, 1904.

Fig. 1.

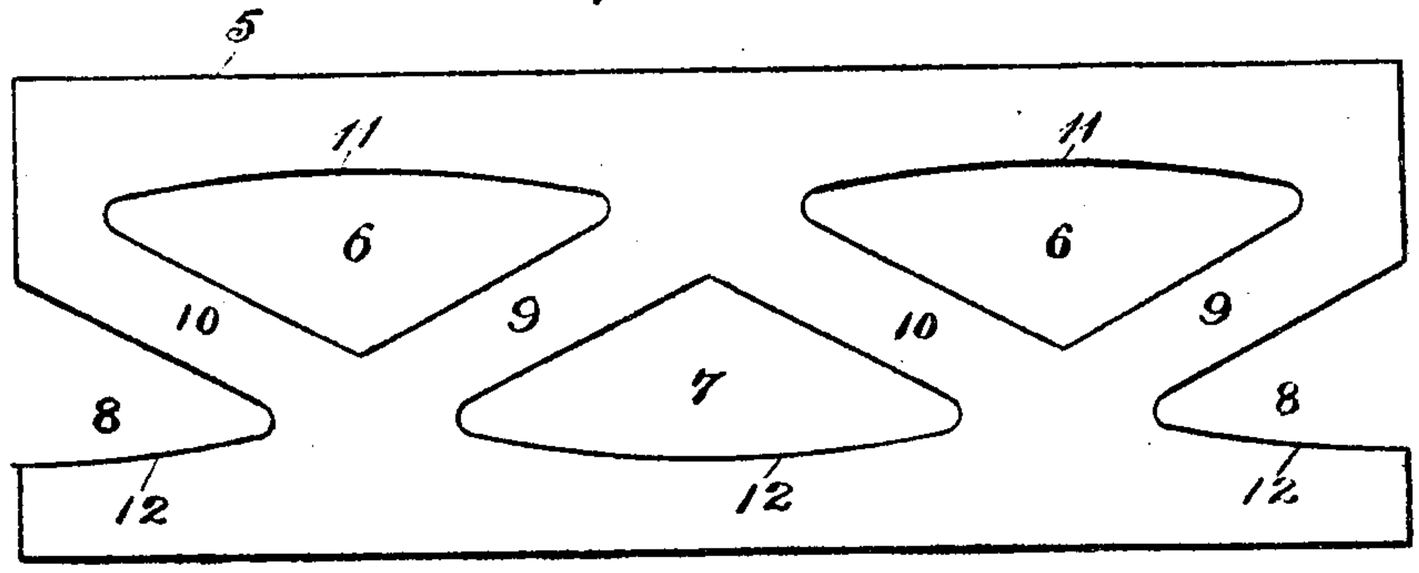
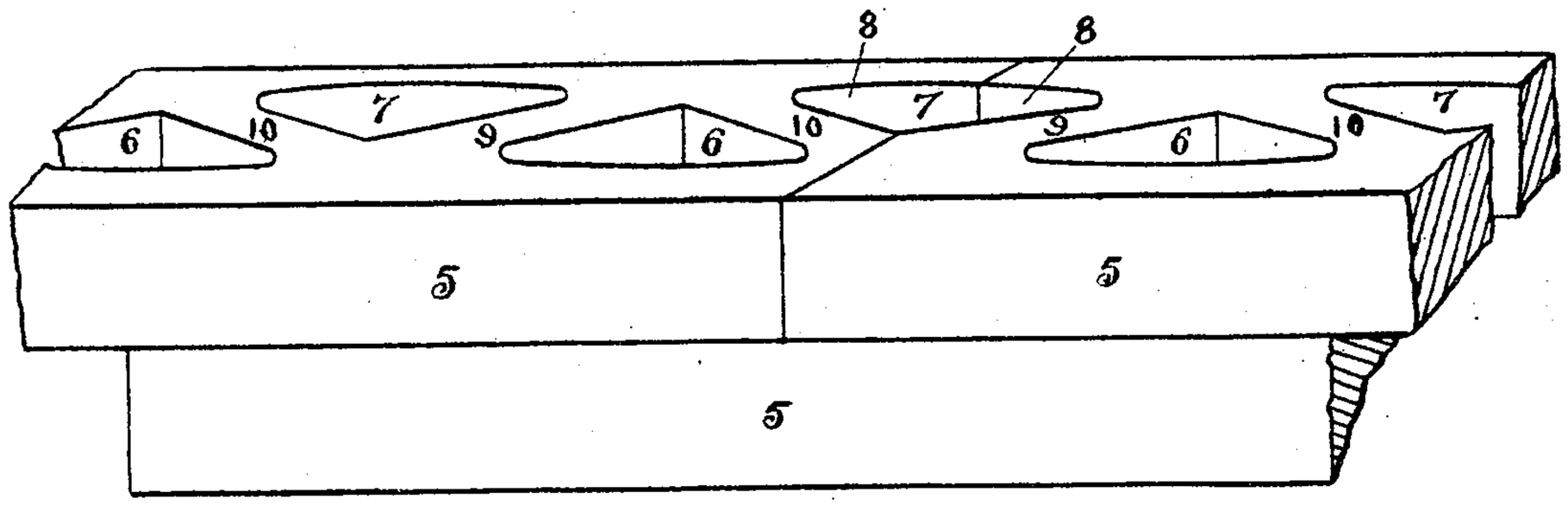


Fig. 2.



Witnesses:

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CONCRETE BLOCK.

No. 795,265. Specification of Letters Patent. Patented July 25, 1905.

Application filed September 22, 1904. Serial No. 225,418.

To all whom it may concern:

Be it known that I, CLAUS O. BRANDELL, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Concrete Blocks, of which the following is a specification.

This invention relates to improvements in blocks to be used for building or structural purposes, and while it is more especially applicable to blocks made of stone concrete, yet it can be used in brick, terra-cotta, and the like; and it consists in certain peculiarities of the construction, novel arrangement, and operation of the parts thereof, as will be hereinafter more fully set forth and specifically claimed.

The object of the invention is to afford a concrete block which by reason of its peculiar construction or formation shall be stronger and will possess other structural advantages, besides affording more complete protection against frost than by the concrete building-blocks heretofore made.

Other objects and advantages of the invention will be disclosed in the subjoined description and explanation.

In order to enable others skilled in the art to which my invention pertains to make and use the same, I will now proceed to describe it, referring to the accompanying drawings, in which—

Figure 1 is a plan view of a concrete block embodying my invention, and Fig. 2 is a perspective view of a portion of a wall constructed of blocks embodying my invention.

Like numerals of reference refer to corresponding parts throughout both views of the drawings.

The reference-numeral 5 represents the block, which may be made of any suitable size and material, but preferably of concrete and rectangular in shape, as shown. The block is provided near one of its sides with two or more openings 6, which are arranged in a longitudinal row and are substantially triangular in shape, as shown in the drawings. The block 5 is formed near its other side with an opening 7 and at each of its ends with half-length openings 8, which when the ends of the blocks 5 are caused to meet, as shown in Fig. 2, in building the wall or structure the half-length openings in each block will form a complete opening of the same shape as that indicated by the reference-numeral 7, which it will be seen is also substantially triangular in shape. By reference to the drawings it will be seen that the walls of the openings 6 and 7 adjacent to the sides of the block are slightly arched outwardly and that the walls of the half-length openings 8 adjacent to the side of the brick are also slightly curved outwardly, so that when the ends of the blocks meet or are placed together, as shown in Fig. 2, walls outwardly arched on their inner surfaces will be provided thereby. It will be observed that the apices or angles of the openings 6 are located on lines drawn about midway between the adjacent ends of the openings 7, while the angles of the openings 7 will be located on lines drawn about midway between the adjacent ends of the openings 6; but the angles of the openings 6 will be located to one side of a longitudinal line drawn through the adjacent ends of the openings 7, while the angles of the openings 7 will be located to one side of a longitudinal line drawn through the adjacent ends of the openings 6, thus providing diagonal portions 9 and 10 between the equilateral sides of the openings 6 and 7, which diagonal portions serve as braces and, together with the curved or arched walls 11 and 12 of the openings 6 and 7, respectively, strengthen the block against lateral pressure or blows.

In the foregoing where reference has been made to the openings 7 it will be understood that when the ends of the blocks 5 are placed together, as shown in Fig. 2, the half-length openings 8, being joined, will constitute the full-length opening 7.

In using the blocks they are placed one on the other, as shown in Fig. 2, so that the openings in the lower block will register with those in the upper block, thus forming air-spaces which will extend through the entire series of blocks. By arranging the apertures or openings as above specified, and shown in the drawings, it is evident that the frost will have a longer path from the outer to the inner surface of the block to traverse than it would if the walls of the openings were located longitudinally with respect to the sides of the block.

While I have shown the block arranged in two longitudinal rows of openings, one of said rows of two full-length openings and the other row having one full-length opening and two half-length openings, yet I do not desire to be limited to the number of rows of open-

ings or to the number of openings in each row, as I may vary the same without departing from the spirit of my invention.

Having thus fully described my invention, what I claim as new, and desire to secure by Letters Patent, is—

A concrete block having a plurality of longitudinal rows of openings substantially triangular in shape, the wall of each opening adjacent the side of the block being outwardly arched, partitions diagonally disposed in one direction and separating said openings on one side, and partitions diagonally disposed in the opposite direction and separating said openings on the other side, substantially as described.

Signed at Chicago, Illinois, September 20, A. D. 1904.

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