

July 13, 1926.

1,592,476

D. TORRECELLI  
CONCRETE BUILDING BLOCK  
Filed Dec. 28, 1923

FIG. 1

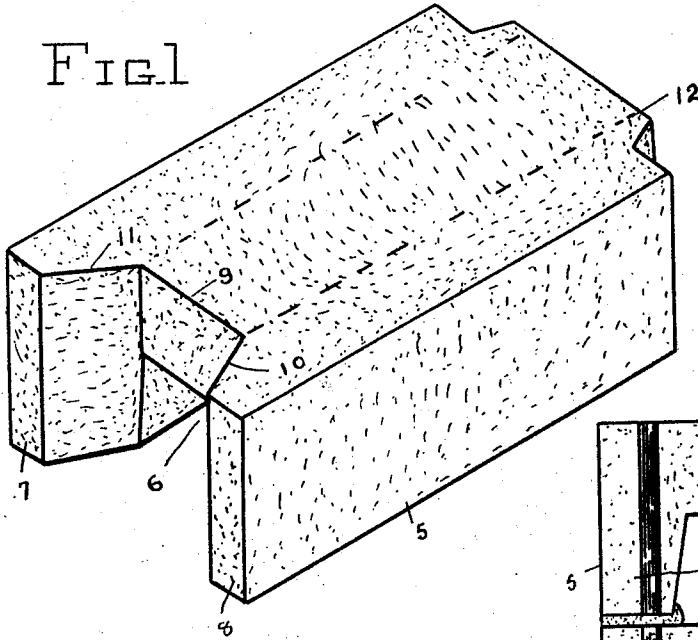


FIG. 3

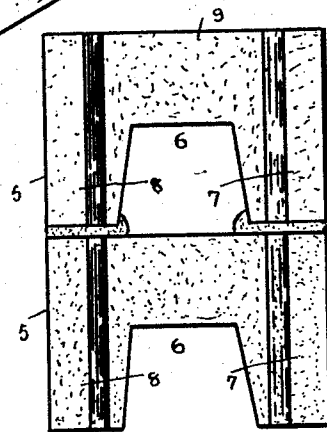


FIG. 4

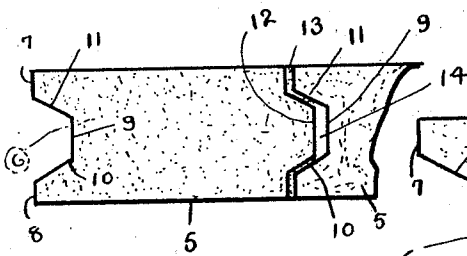


FIG. 5

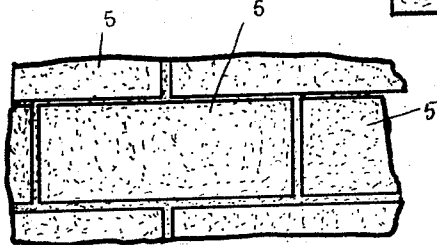


FIG. 2

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# UNITED STATES PATENT OFFICE.

DECIO TORRECELLI, OF SPRINGFIELD, MASSACHUSETTS.

CONCRETE BUILDING BLOCK.

Application filed December 28, 1923. Serial No. 683,252.

This invention relates to improvements in concrete building blocks and its leading object is to provide a building block which can be manufactured in a mould so that its air passages will be open when withdrawn from the mould.

Another object of the invention is the provision of a concrete building block with an air passage extending longitudinally of the block and through the meeting ends of the blocks, so that a wall constructed with the blocks will be provided with air space under all blocks in the same vertical plane and the air space of one horizontal row of blocks will be in communication with the air space of the horizontal rows parallel therewith, through passages formed in the interlocking ends of companion blocks.

Other objects will appear from the following specification of the drawings which illustrate the practical embodiment of the invention. In the drawings,

Fig. 1 is a perspective view of a single block.

Fig. 2 is a bottom plan view thereof.

Fig. 3 is an end view two blocks in superimposed relation.

Fig. 4 is a plan view of two interlocked blocks.

Fig. 5 is a side elevation of a portion of a wall.

Referring to the accompanying drawings 5 designates one of the building blocks, which is composed of cement, concrete or other suitable material, and is preferably formed by cold moulding. The block 5 is formed with a longitudinal air passage or channel 6 in its base, which is located between the legs 7 and 8 which extend from one end of the block to the other end.

One end of the block 5 is formed with a recess 9 and the side walls 10 and 11 of this recess are disposed on outwardly diverging planes. The other end of the block is formed with a locking lug 12, the depth of which is considerably less than the depth of the recess 9, and the sides of this lug 12 converge toward their end face of the lug. The lug of one block is inserted in the recessed end of the adjacent block of the same horizontal row in a wall construction, and the meeting faces of the opposing ends of the blocks are cemented by means of cement or the like 13, as indicated in Fig. 4. It will be seen from an examination of this figure that the base of the recess 9 is not filled with

the cement, so that a normally open air passage 14 is thus formed between the end face of the locking lug and the base of the recess.

When a series of blocks are arranged in interlocked relation the air passages 14 will be in normal communication with the air passages 6 of the blocks of the same horizontal row, and the air passages 6 of one horizontal row will be in normal communication with the similar air passages of each other horizontal row of a building wall.

The cement or mortar which unites each block to its neighbor block of one horizontal row to the adjacent horizontal row is disposed on the head face of the blocks of one horizontal row so that an excess amount of cement may be worked against the inner faces of the legs 7 and 8 to provide widened sealing joints or shoulders for said legs, which will insure against slippage and leakage.

Each block forms a longitudinal arch so that when a horizontal row of blocks has been laid a continuous longitudinal arch is formed. The top face of each block is closed, between the base face of the recess and the end face of the locking lug, so that the arch thus composed will have the greatest supporting strength.

Owing to the sloping side faces and the U-shaped body construction of the entire block it can be moulded with greater economy of time and labor and without danger of producing clogged passages or defective faces. In forming the block a greater density can be obtained, by reason of the fact that pressure can be applied to the concrete from one side of the block.

Owing to the construction of the recess and terminal block a finger space will be provided at the meeting ends of a series of blocks which will enable the workman to have full control of the block while placing it in position or adjusting it after it has been placed in building row formation.

Having described my invention I claim:—

1. A concrete block wall construction comprising a series of concrete blocks arranged end to end in horizontal superimposed rows, each block having a relatively deep longitudinal channel extending from one end to the other end and providing a roof portion thereof of considerable less thickness than the vertical thickness of the block, one end of each block having a recess wide enough to receive the fingers of a human hand, said

recess having outwardly diverging sides, the adjacent block end having a tenon or corresponding shape to the recess and disposed in said recess, said tenon being of less depth than the recess to compose a normally open 5 air passage with capacity sufficient to receive the fingers of a human hand, the under face of the top wall portion of the channel being graspable by the fingers of a hand inserted 10 in said recess, each of said blocks having one such tenon on the opposite end to said recess.

2. A concrete block having a longitudinal channel providing an overlying roof and 15 having a recess on one end and a tenon on

the other end, the recess being deep enough to receive the fingers of the hand of a worker without cramping and the tenon being of less depth than the recess, the tenon of one block entering the recess of an adjacent 20 block in wall forming linear alignment, the distance between the upper face of the block and the underface thereof immediately over the channel being less than the length of human fingers to permit the fingers of a 25 hand inserted in said recess or positioned around said tenon to fold under the channel roof.

Signed by me at Springfield, Mass.

DECIO TORRECELLI.