A. DE CICILIANI.

BUILDING BLOCK.

APPLICATION FILED FEB. 9, 1916.

1,216,550.

Patented Feb. 20, 1917.

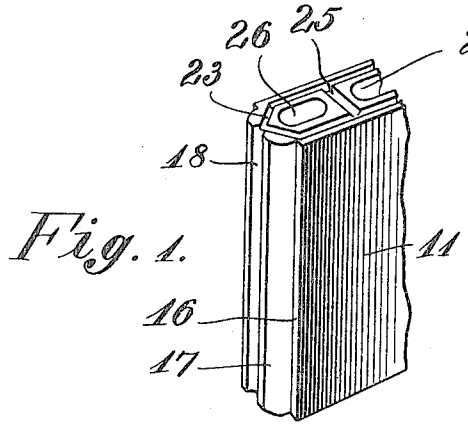


Fig. 1.

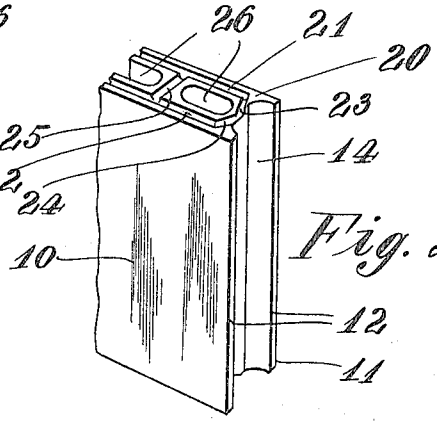


Fig. 2.

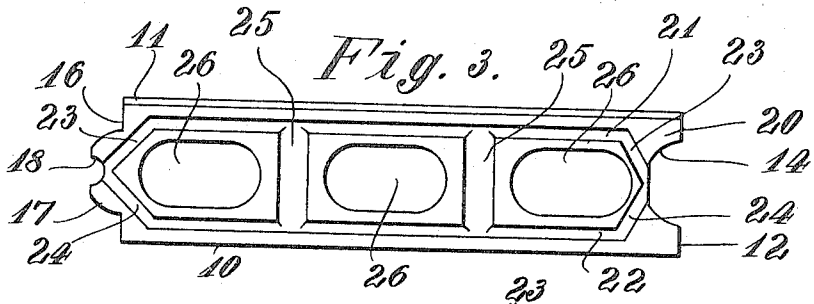


Fig. 3.

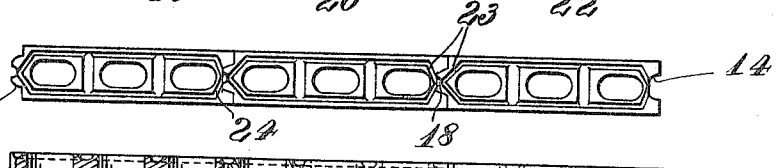


Fig. 4.

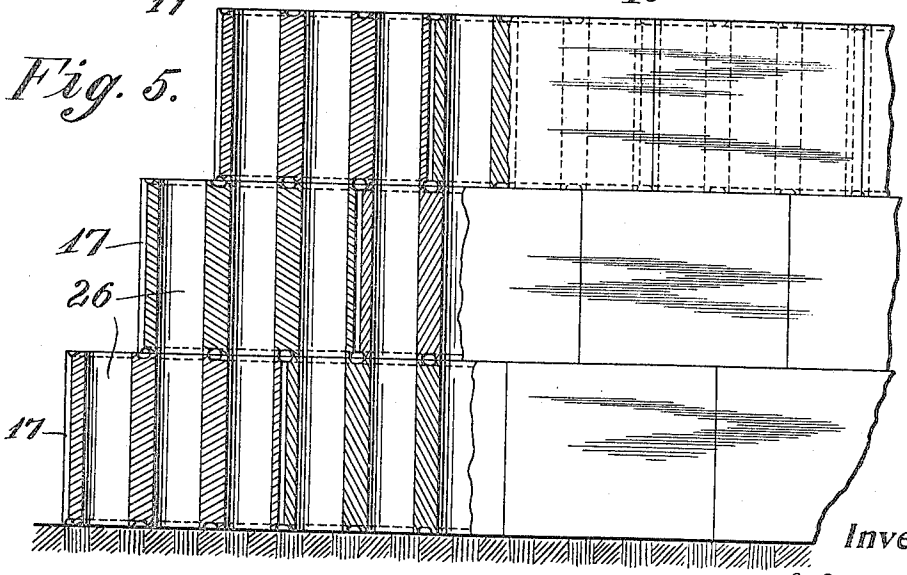


Fig. 5.

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UNITED STATES PATENT OFFICE.

ANTON DE CICILIANI, OF NEW YORK, N. Y.

BUILDING-BLOCK.

1,216,550. Specification of Letters Patent. Patented Feb. 20, 1917.

Application filed February 9, 1916. Serial No. 77,162.

To all whom it may concern:

Be it known that I, ANTON DE CICILIANI, a subject of the Emperor of Austria, and resident of New York, in the county of New York and State of New York, have invented certain new and useful Improvements in Building-Blocks, of which the following is a specification.

This invention relates to improvements in building construction material, and particularly to a form of hollow tile or brick used in connection therewith.

The principal object of the invention is to provide a tile or block having inter-engaging end surfaces and also means for locking the adjoining layers together vertically, besides having cavities or recesses formed therethrough, providing for a circulation of air and reduction of weight.

Another object is to provide means whereby a plastic lock forced between the upper and lower layers of the wall, is also filled in between adjacent blocks in the same row, whereby the entire construction, when dry, is firmly bound and held together, and finally, to provide means whereby that the blocks may be further reinforced, or united by inserted rods or tubes so as to resist any lateral pressure caused by the wind or otherwise.

These and other objects, such as non-transmission of sound, prevention of entrance of insects, and animals, the provision of highly finished interior surfaces susceptible of receiving high polish, and to furnish a surface which is non-combustible, as well as non-absorbent, are attained by the novel design and combination of the tiles or blocks hereafter described and shown in the accompanying drawing, in which:—

Figure 1 is a fragmental perspective view, showing the upper and side edge of a block made in accordance with the invention.

Fig. 2 is a similar view looking at the same block from the opposite edge.

Fig. 3 is a top plan view of a complete block.

Fig. 4 is a view showing an assemblage of blocks looking from the top, and

Fig. 5 is a broken side elevation showing an assemblage of blocks, parts being in section and indicating the arrangement of reinforcing means.

While it is known that hollow tile or blocks of this description are not broadly new, the configuration of the adjacent edges at top, bottom, and sides, as set forth, are thought to be novel, and known to be eminently practical.

In the construction of the block, which is made by molding suitable material or composition of materials in any desired shape, proportion and size, one of the faces as 10, may be formed against the highly finished surface of the mold, so as to present a smooth and level surface in itself without further treatment.

This may be provided for by first partially filling the mold with a composition capable of receiving a smooth surface, as lime, plaster, etc., thereafter filling in other substances for the body of the block, as sand, ashes, straw, sawdust, cinders, cork or the like, while the opposite side 11 may be formed of water-proof cement, smooth, rough, granulated or to represent stone, the composition being of a nature to resist the action of moisture or water, or in other words to be completely water-proof, so that the same may be used in connection with bath-rooms, kitchens, and the like, in place of expensive tiling commonly employed.

One of the side edges as 12, is formed with a longitudinal cavity extending its entire length, semi-circular in cross section, as at 14, while the opposite side edge 16 has formed upon it a corresponding rib or projection 17, suited to engage within the cavity 14, and having on its extreme front edge a groove 18 for purposes further described.

The tops and bottoms of each block are formed with level surfaces 20, which are interrupted by grooves 21 and 22, the same being angularly formed at the ends, as at 23 and 24, so as to meet at the center of the block, the terminal points being in registration with the recess 18, as previously mentioned.

Grooves 25 extend between the side grooves 21 and 22, connecting the same or forming channels therebetween, so that plastic material used as a binder will flow into and completely fill the grooves or channels, portions of the plastic material flowing down the groove 18, filling any cavities between the next adjacent row of blocks and which, after hardening, form a key binding the several blocks firmly together.

Openings 26 of relatively large cross sectional area, formed in such manner and shape as may be desired, extend longitudinally through the blocks allowing air to

pass through from one strata or layer to the next adjacent; at the same time these openings materially lighten the blocks and require less material in construction than if made solid.

In Fig. 5 several layers or rows are shown assembled, and it will be noticed that in each succeeding row, the joints are broken so that the openings 26 are substantially in alinement, at the same time the grooves 18 will be in alinement with the grooves 25 in layers of tiles therebelow, so that all openings may be readily filled by the key material, which being forced while in a plastic or semi-fluid condition under pressure flows in the channels and fills the grooves at the top of the blocks, fills the vertical grooves 18 and rising enters and fills the corresponding grooves in the bottom of the blocks.

From the foregoing it may be seen that a construction is provided which is relatively inexpensive, and which may be erected without special experience by common labor; that the construction is such as to completely prevent the transmission of sounds, heat or cold, as well as to be impervious to the weather, and that animals and insects cannot pass therethrough, furnishing in effect a high-class hygienic construction, having unusual strength and rendering the building unusually comfortable.

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

In a building block having at one end a single projecting rib, extending its full height, and a corresponding channel in the other end of a recess formed in the extreme outer part of said rib, said block having straight surfaces at its upper and lower sides, a pair of longitudinal recesses formed in the top and bottom of said blocks, each recess extending contiguously along the side edges, converging recesses jointed at their outer ends with said longitudinal recesses, the point of convergence being in register with the ends of said rib recess, transverse recesses extending at intervals between said longitudinal recesses, and openings formed through said block between said converging recesses and the next adjacent transverse recess and also between pairs of said transverse recesses, all substantially as shown and described.

Signed at New York, in the county of New York and State of New York, this 5th day of February, 1916.

ANTON DE CICILIANI.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."