

No. 753,491.

PATENTED MAR. 1, 1904.

A. F. HOFFMAN.
BUILDING BLOCK.

APPLICATION FILED FEB. 9, 1903.

NO MODEL.

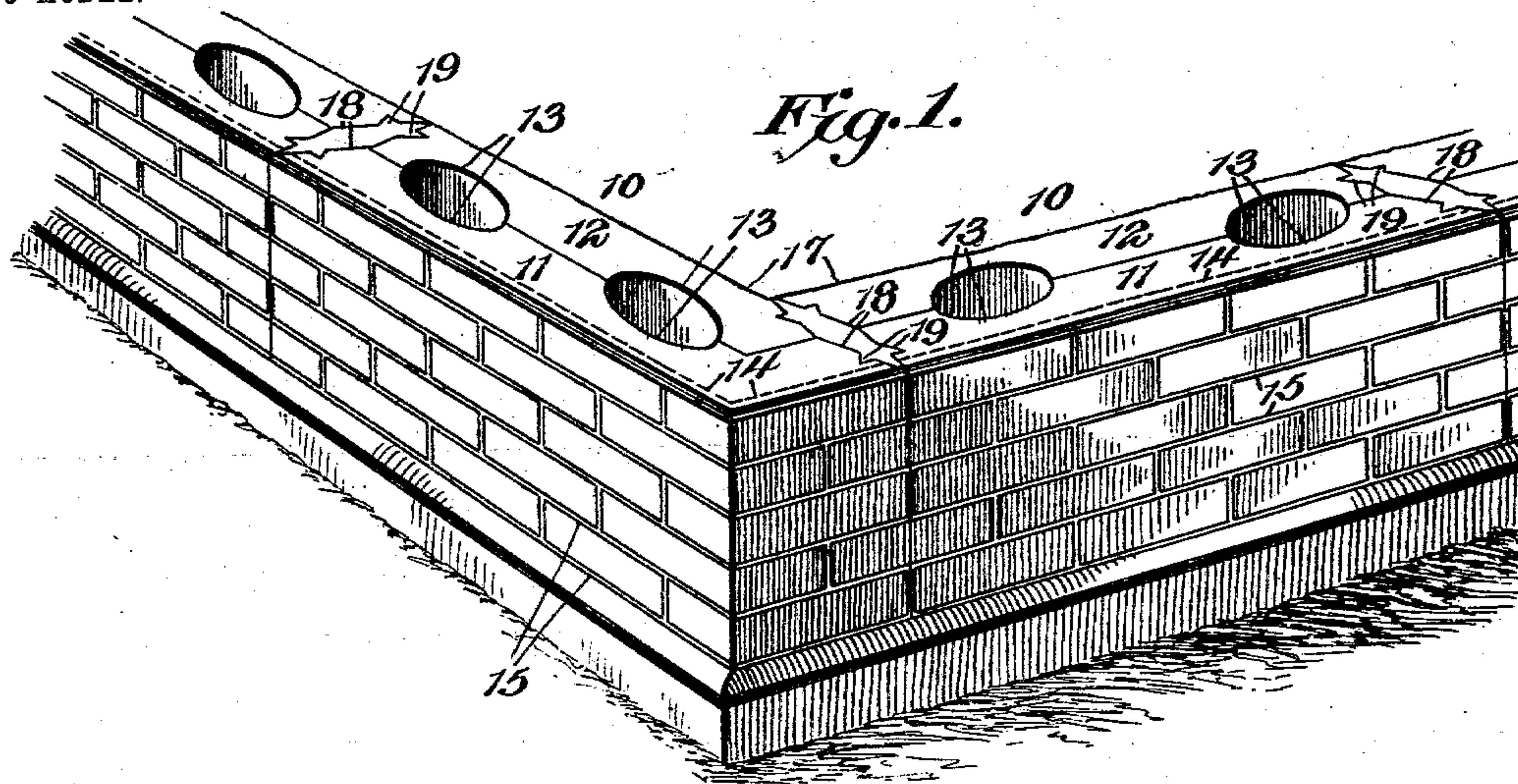
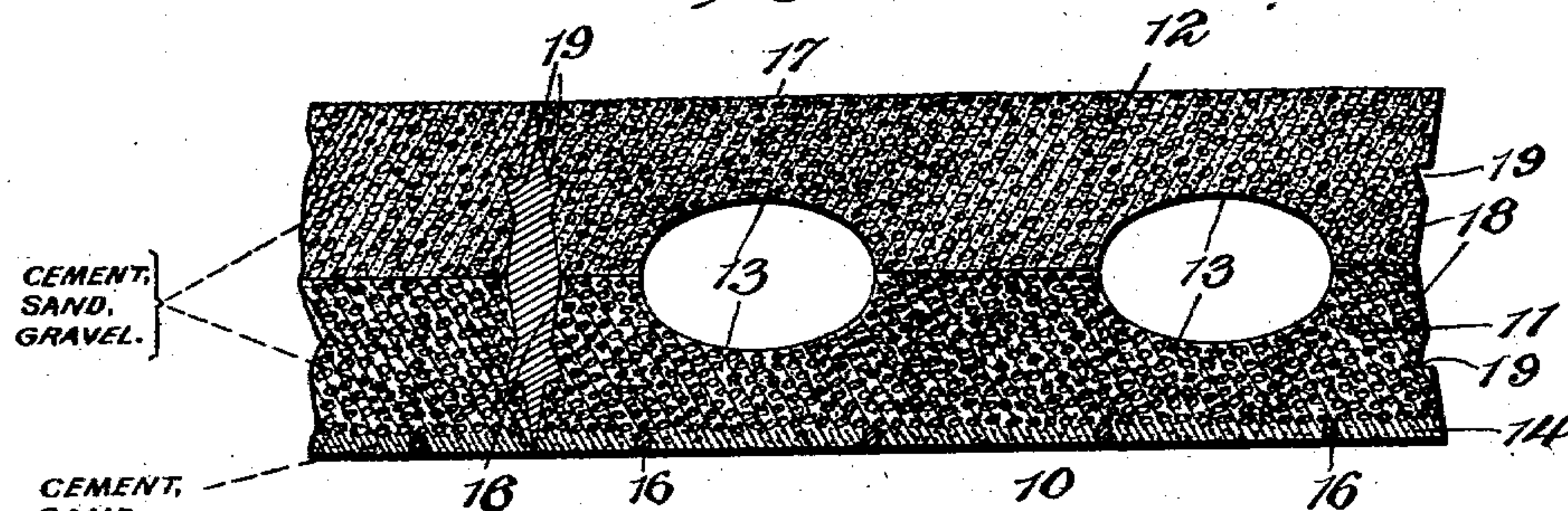


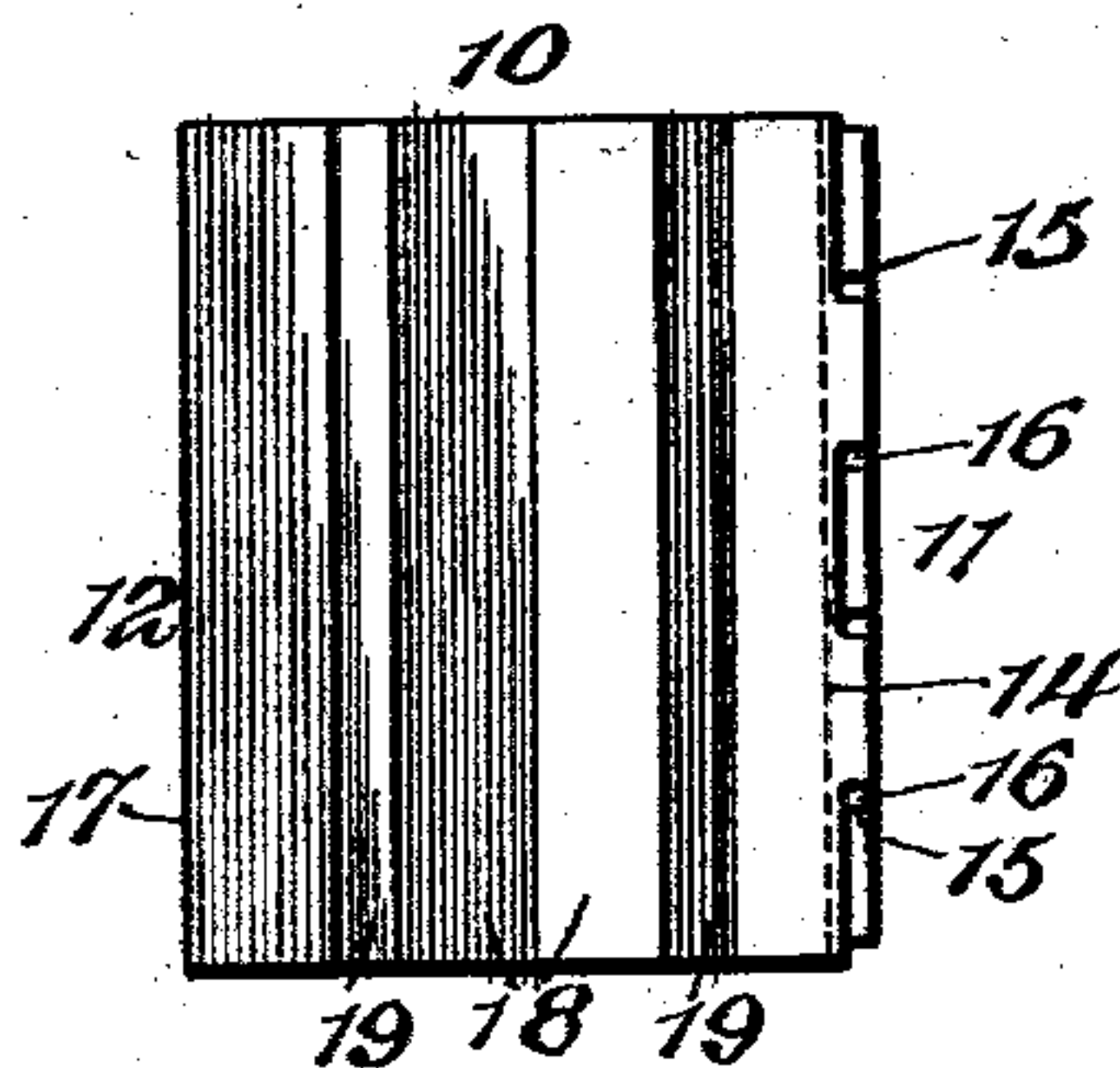
Fig. 2.



CEMENT,
SAND,
GRAVEL.

CEMENT,
SAND,
COLORING MATTER,
(SILICATE OF POTASH OR SODA,
CALCIUM OR BARIUM CHLORIDE.)

Fig. 3.



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UNITED STATES PATENT OFFICE.

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BUILDING-BLOCK.

SPECIFICATION forming part of Letters Patent No. 753,491, dated March 1, 1904.

Application filed February 9, 1903. Serial No. 142,616. (No model.)

To all whom it may concern:

Be it known that I, ADDISON F. HOFFMAN, a citizen of the United States, residing at Pittsburgh, in the county of Allegheny and State of Pennsylvania, have invented a new and useful Building-Block, of which the following is a specification.

This invention relates more particularly to building-blocks made up of composite material.

It is the object to provide an article of this character that will withstand a great crushing strain, is light in weight, and can be manufactured at comparatively small cost. Furthermore, a wall constructed of these blocks has the appearance of being built of brick and is very strongly bonded, one of the features of the invention relating to the means by which the blocks of a course are fastened together.

The preferred form of construction is described in the following specification, and illustrated in the accompanying drawings, wherein—

Figure 1 is a perspective view showing a portion of a wall constructed of the improved building-blocks. Fig. 2 is a horizontal sectional view of a part of the same. Fig. 3 is an end elevation of one of the blocks.

Similar reference-numerals indicate corresponding parts in all the figures of the drawings.

In the embodiment herein set forth each block is designated as a whole by the reference-numeral 10 and is formed of a front section 11 and a rear section 12, the two sections being arranged to be placed flat against each other in the manner illustrated. The sections are provided in their coacting sides with vertically-disposed cavities 13, which are aligned when the sections are together, so as to form vertical openings through the block. The sections are constructed of composite material comprising cement, sand, and gravel, and the front section 11 is provided with a facing-coat 14. This coat consists of cement, sand, and coloring-matter, the latter of which may be of any hue desired—as, for instance, red—to represent ordinary brick. Silicate of potash or soda and calcium or barium chlorid may also be incorporated in this facing-coat

to make the same impervious to moisture. These materials are of course employed in their unfused state and incorporated with the other elements of the facing-coat by mixing or similar treatment. These last two ingredients may, however, be omitted, as desired; but while they tend to weaken the cement slightly this is not a serious defect, as there is no particular weight applied to the coating. The decorative face thus provided is cut by intersecting grooves 15 in the manner illustrated to represent bricks, and these grooves are filled by cement 16, (shown more clearly in Fig. 3,) which cement is of contrasting color to the brick in order to more clearly bring out the lines of demarcation thus formed. If desired, however, the fillings 16 may be cast integral with the remainder of the block, in which case they will of course be of the same color as the facing. The rear face 17 of the inner section, and therefore of the block, is preferably roughened, so as to obtain a suitable surface to which plaster can be applied.

The ends of the blocks are provided with recesses which are of a width equal to the width of said blocks. These recesses are formed by beveling the ends 18 of the sections in opposite directions, so that when the sections are placed in coacting relation said recesses will be formed, as will be evident by reference to Fig. 2. Retaining-pockets 19 extend into the ends of the sections from the recesses thus formed.

In use these blocks are placed end to end, as shown in Figs. 1 and 2, and the space between said ends is filled with mortar or cement. The arrangement of the grooves in the front faces of the blocks is such that the ends of certain of the bricks come on the line of juncture of the blocks, while in others said line of juncture passes across the center of the bricks. Where the latter is the case, the blocks come directly together, so that the joint may be as fine as possible, and will thus not be displayed, though it will of course be understood that this joint need not be as accurate where it passes between two bricks. The snug joint sought for is readily obtained by having only the inner and outer faces of the blocks adjoining, as this permits the edges

thus formed being brought directly together, while permitting of a comparatively large bond of cement or mortar between the blocks. It will of course be understood that the different courses are laid one on the other and bonded in the usual manner.

In constructing the blocks the sections are molded separately, so as to permit the ready formation of the central openings and also of the beveled ends. The grooves in the outer faces are formed in the molds and the cement fillings 16 are placed therein before the cement is fully set, so that said fillings become incorporated with the block and will not fall out. When thicker walls are desired, the rear sections are made greater in width, while the front sections remain the same. It will therefore be apparent from the above description that these blocks will withstand great crushing strains, are comparatively light and inexpensive, and can be readily manufactured. It will also be noted that the blocks in a course are strongly bonded together, and these bonds also serve to hold the sections in coacting relation, thus performing double functions.

From the foregoing it is thought that the construction, operation, and many advantages of the herein-described invention will be apparent to those skilled in the art without further description, and it will be understood that various changes in the size, shape, proportion, and minor details of construction may be resorted to without departing from the spirit or sacrificing any of the advantages of the invention.

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

40 1. A building-block having its outer face provided with intersecting grooves, and ce-

ment filling the grooves and terminating short of the outer face of the block.

2. A building-block formed of composite material and having a colored cementitious outer face that is provided with intersecting grooves, and cement filling the grooves.

3. A building-block comprising front and rear sections formed of cement, sand and gravel, the front section having a colored cementitious facing coat having intersecting grooves to represent a plurality of bricks.

4. A building-block having an outer waterproof coat comprising a cementitious binder, a silicate, and a chlorid.

5. A building-block having an outer waterproof coat containing unfused silicate and chlorid.

6. A building-block consisting of sections made up of cement, sand and gravel, the outer section having a facing coat of cement, sand and coloring material, said coat being provided with intersecting grooves which are filled with cement.

7. A building-block having recesses in its ends and pockets of the width of the block and extending into said block from the recesses.

8. A building-block formed of front and rear sections, the ends of which are beveled in opposite directions, so that when the sections are placed together recesses will be formed in the ends of the block, said ends being also provided with inwardly-extending pockets.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two witnesses.

ADDISON F. HOFFMAN.

Witnesses:

WM. J. LINDSEY,
FRED J. LOES.