No. 864,452. PATENTED AUG. 27, 1907.

L. K. DAVIS.

BUILDING CONSTRUCTION.

APPLICATION FILED MAY 19, 1906.

Fig. 1,

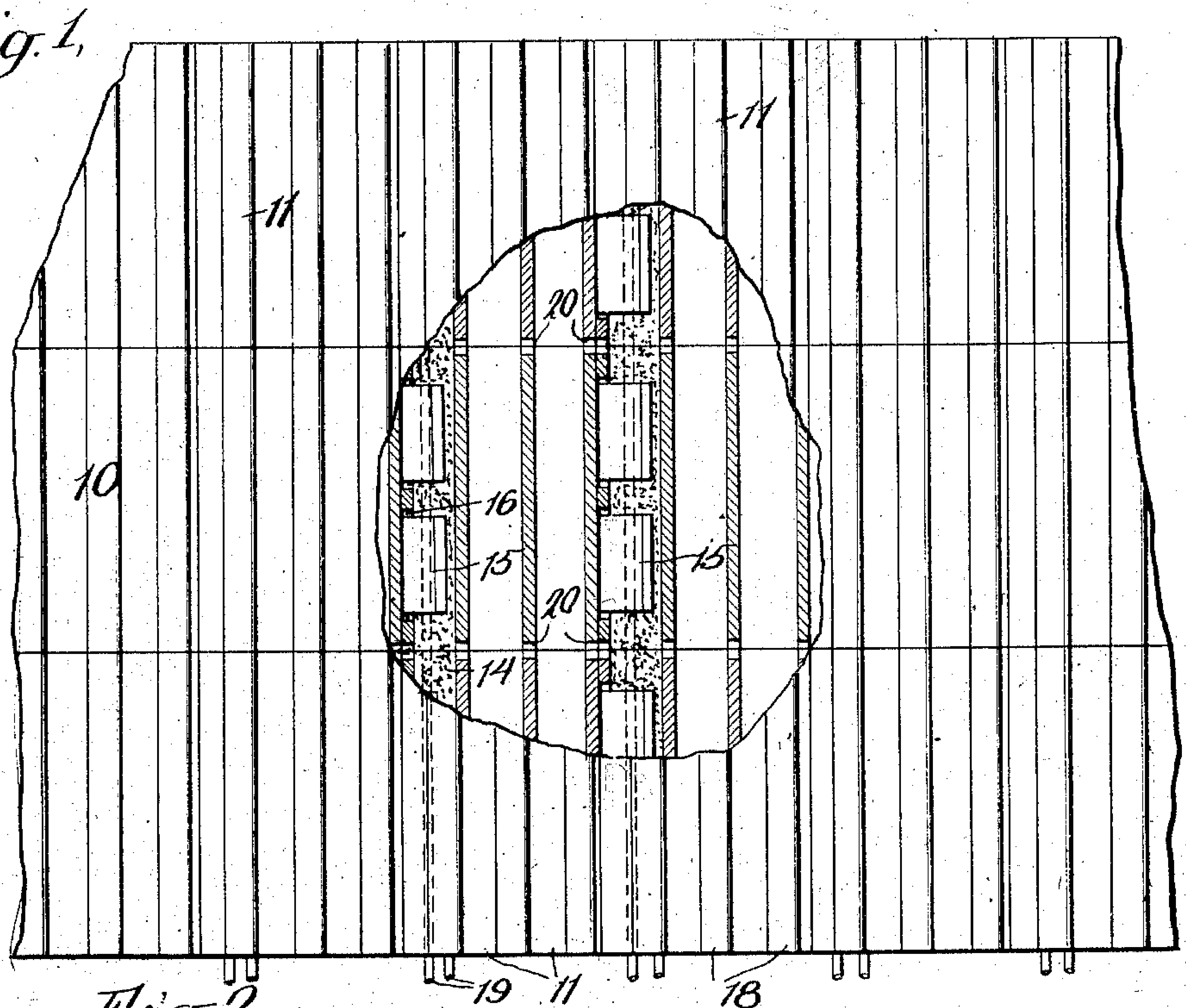


Fig. 2,

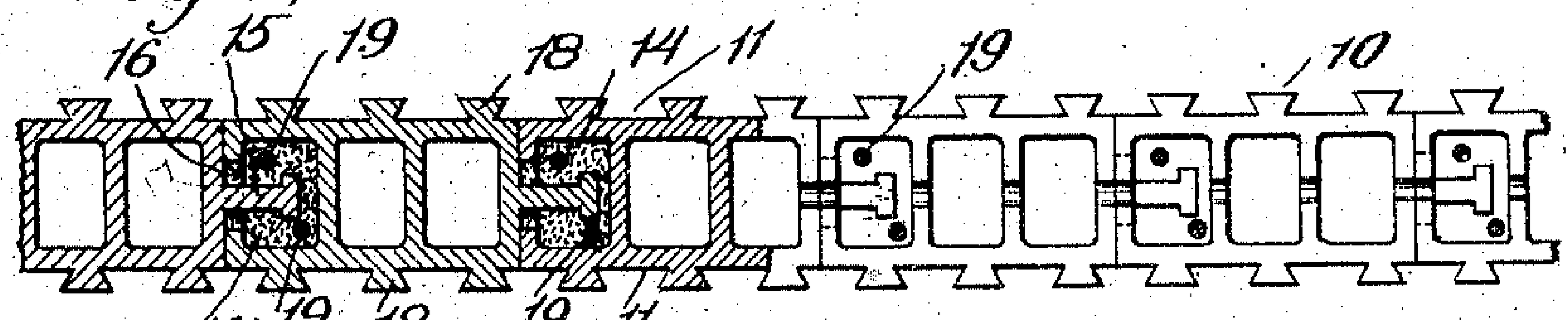


Fig. 3,

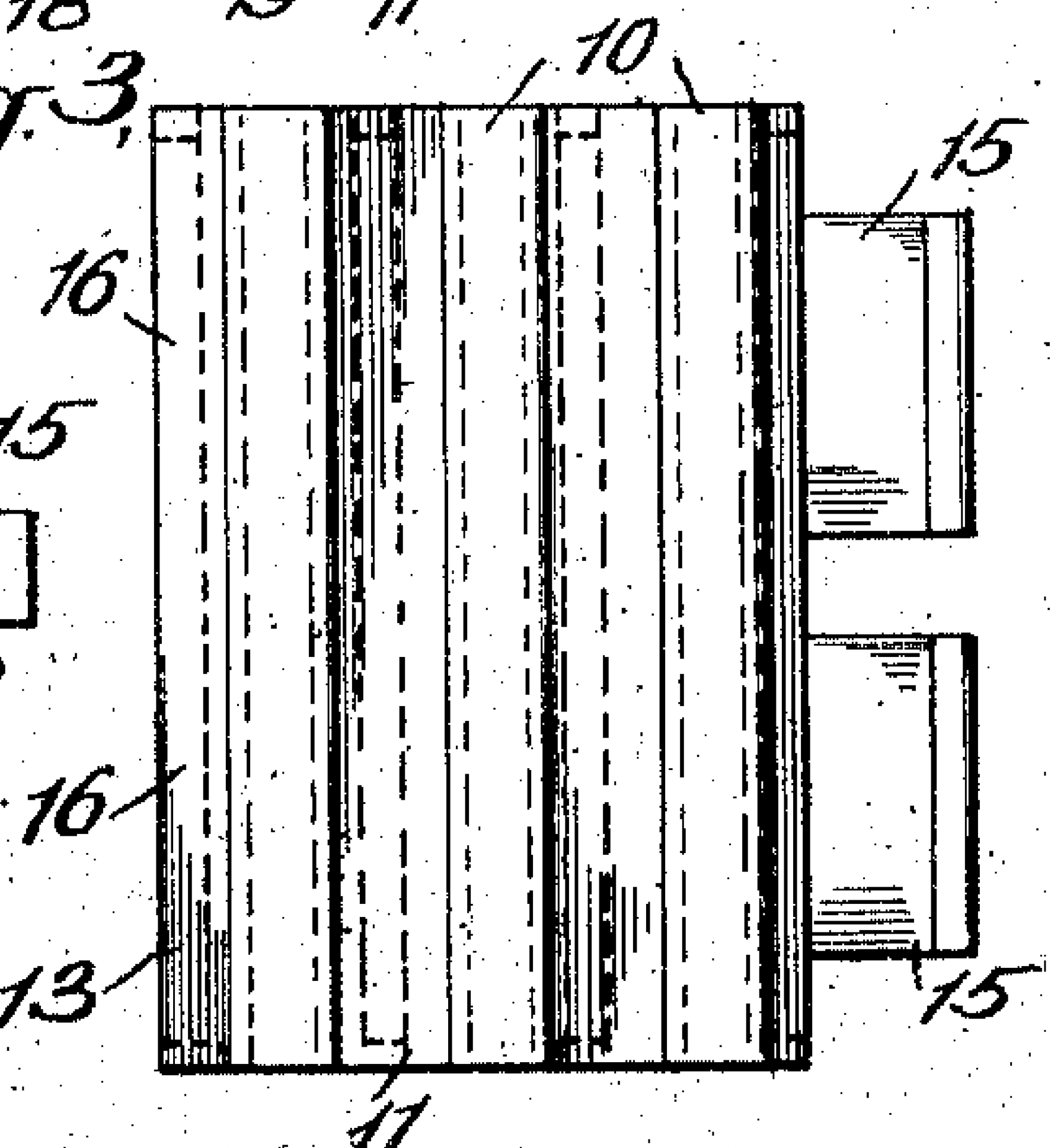


Fig. 4,

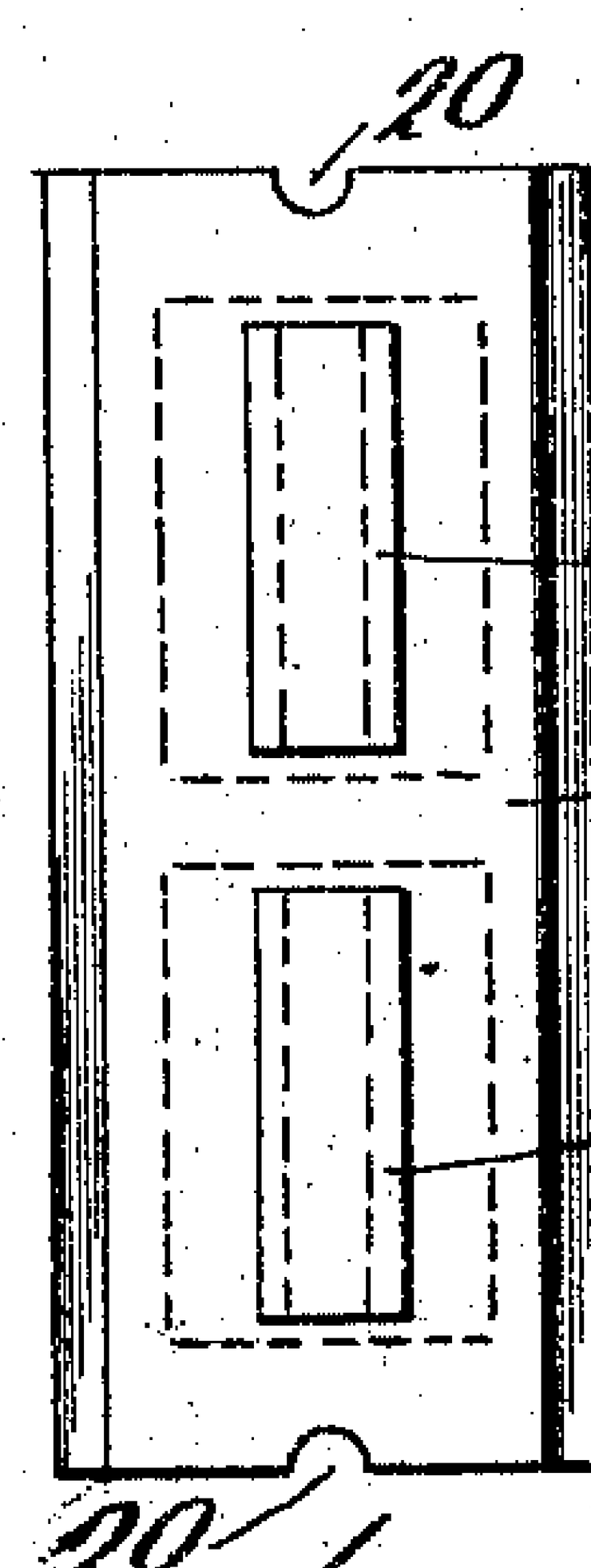
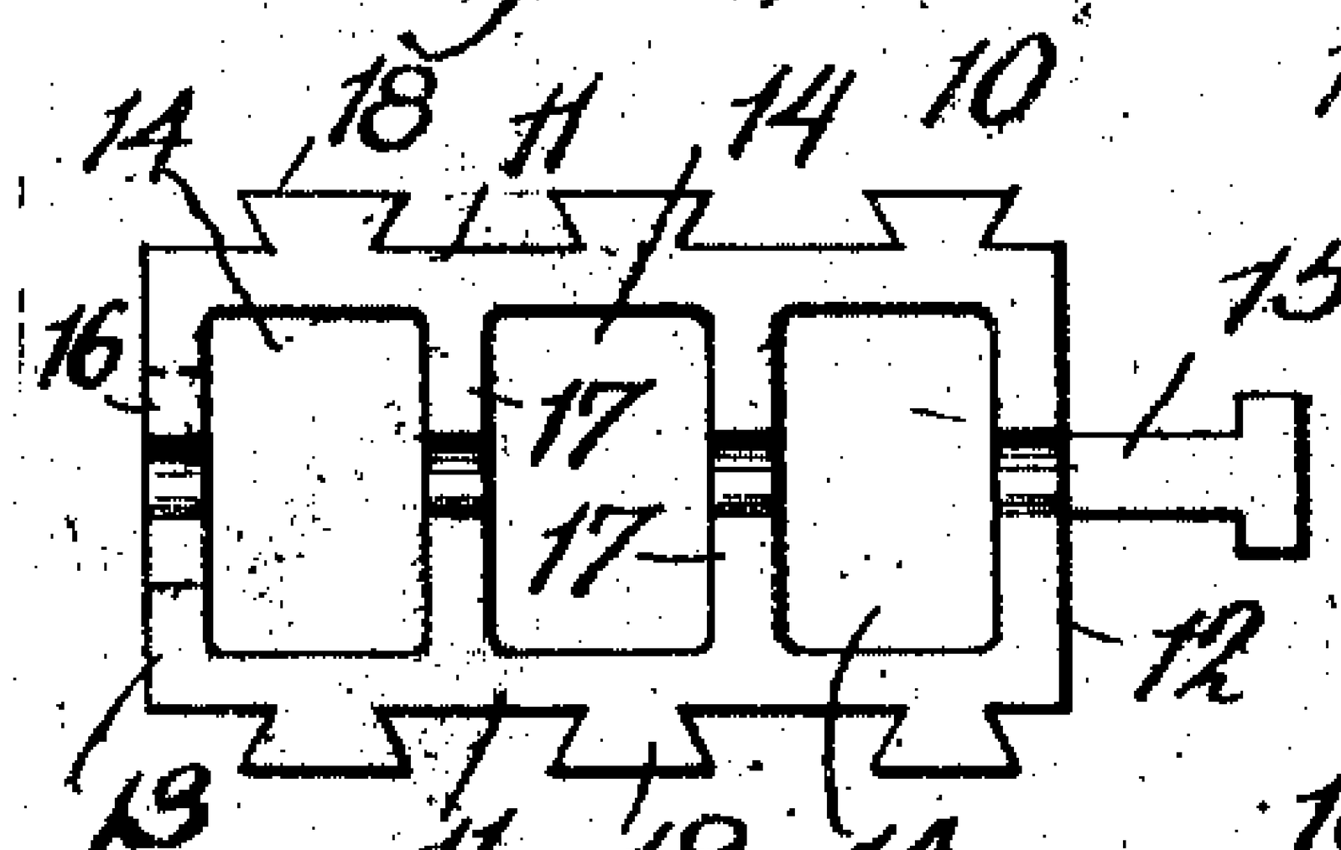


Fig. 5,



WITNESSES:

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UNITED STATES PATENT OFFICE.

LEWIS K. DAVIS, OF NEW YORK, N. Y., ASSIGNOR, BY MESNE ASSIGNMENTS, TO RIBBED CONCRETE BUILDING COMPANY, A CORPORATION OF NEW YORK.

BUILDING CONSTRUCTION.

No. 864,452. Specification of Letters Patent. Patented Aug. 27, 1907.

Application filed May 19, 1906. Serial No. 317,728.

To all whom it may concern:

Be it known that I, LEWIS K. DAVIS, a citizen of the United States, and a resident of the city of New York, in the county of New York and State of New York, United States of America, have invented certain new and useful Improvements in Building Construction, of which the following is a specification.

My invention relates to improved systems of building construction and its object is to provide a simple and inexpensive fire-proof construction for walls or other structures.

I will describe my invention in the following specification and point out the novel features thereof in claims.

Referring to the drawings, Figure 1 represents, in side elevation, a portion of a wall built according to my invention, one part of said view being shown in section. Fig. 2 is a plan view of the wall shown in Fig. 1. Fig. 3 is a detail view of a tile of special construction which I use in carrying out my invention. Figs. 4 and 5 are, respectively, end and plan views of the tile shown in Fig. 3.

Like characters of reference designate corresponding parts in all of the figures.

10 designates a tile which is preferably constructed, as shown, with a rectangular body having vertical sides 11, 11 and ends 12 and 13. This body is made hollow with apertures through it. Two T-shaped plates 15, 15 project from the side 12 of this body. On the opposite side 13 slots 16, 16 are provided which extend through the surface of the block into one of the apertures 14. Ribs 17, 17 may be provided to extend vertically through the central portion of the block or tile. These blocks or tiles may be made of vitrified clay or of any other desired material, and they are sometimes constructed with inwardly flaring ribs 18, 18 which project from the sides 11, 11 of the blocks.

In using tiles or blocks of the construction above described they may be set up, as shown in Figs. 1 and 2, with the projecting plates 15, 15 of each tile inserted through the slots 16, 16 and into one of the apertures 14 of the next adjacent block. Other layers or tiers of blocks may be placed directly above these in the same corresponding position. Rods or pipes 19, 19 may then be inserted through the apertures 14, 14 into which the projecting plates 15, 15 are extended. For convenience of construction these rods or pipes may be made in short sections joined together in any suitable manner. The apertures into which these pipes have been inserted may then be filled with cement or concrete in a semi-liquid form. The cement is then allowed to harden in the apertures about the projecting plates 15, 15 and the rods 19, 19. The cement or concrete will cling directly to the inner surface of these blocks and will thereby become a portion of the wall itself. The body of concrete in these apertures will securely lock together the parts of the adjoining blocks and also the various layers of blocks through which it passes.

It may be seen that the concrete thus forms vertical columns or bodies extending through the wall, and that these vertical bodies are surrounded by surfaces of the vitrified clay product of which the blocks are composed. The tiles may have formed in them, if desired, grooves 20, 20 on their upper and lower surfaces. Some of the liquid cement will flow into these grooves and tend to hold the adjoining layers more securely in alinement.

The material of which the blocks are made may be glazed if desired, in which case the projecting ribs 18, 18 may be used. This will afford a holding or binding surface for plaster or other material. The design of the tile and the details of construction are capable of wide variation. These concrete columns or bodies are formed by the semi-liquid concrete being poured into the apertures in the blocks and no other molds or forms are necessary.

A wall built according to this invention may be quickly set up. The construction is inexpensive and the wall is strong and light, and absolutely fire-proof. As only every third one of the apertures 14, 14 are filled with concrete the others form air spaces in the wall which has the advantage of removing dampness from the wall.

What I claim is.—

1. A wall comprising a plurality of building blocks, each block having a hollow body open at the top and bottom, a slot through one end of each block, and a plate projecting from the opposite end of the block, the plate of one block being arranged to project through the slot of the adjacent block of the same layer into its hollow body, and a concrete filler for the hollow body, said filler surrounding said projecting portion and thereby locking adjacent blocks of the same layer together, and extending vertically through the wall.

2. A wall comprising a plurality of building blocks, each block having a hollow body open at the top and bottom, a rib dividing the interior of each block into separate chambers, a pair of slots through one end of each block into one of the chambers, and a pair of T-shaped plates projecting from the other end of each block, said plates being arranged to pass into the chamber of the adjacent block in which is said slot, and a concrete filler for the chamber into which the plates project.

3. A wall comprising a plurality of continuous vertical bodies of concrete reinforced by steel rods, a plurality of building blocks, each of said blocks having a hollow body,

a slot through one end of each block, and a plate projecting from each block into the next adjacent block through its slot, said concrete bodies being arranged to fill the hollow body and to surround the projecting plates.

4. A wall comprising a plurality of continuous vertical bodies of concrete reinforced by steel rods, a plurality of building blocks, each of said blocks having a hollow body open at the top and bottom, a rib dividing the interior of each block into separate chambers, a slot through one end of each block into one of the chambers, and a T-shaped plate projecting from the other end of each block into the chamber of the next adjacent block in which is the slot, said concrete bodies being arranged to fill the chamber into which the plates project.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

LEWIS K. DAVIS.

Witnesses:

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ELLA TUCH.