

No. 817,478.

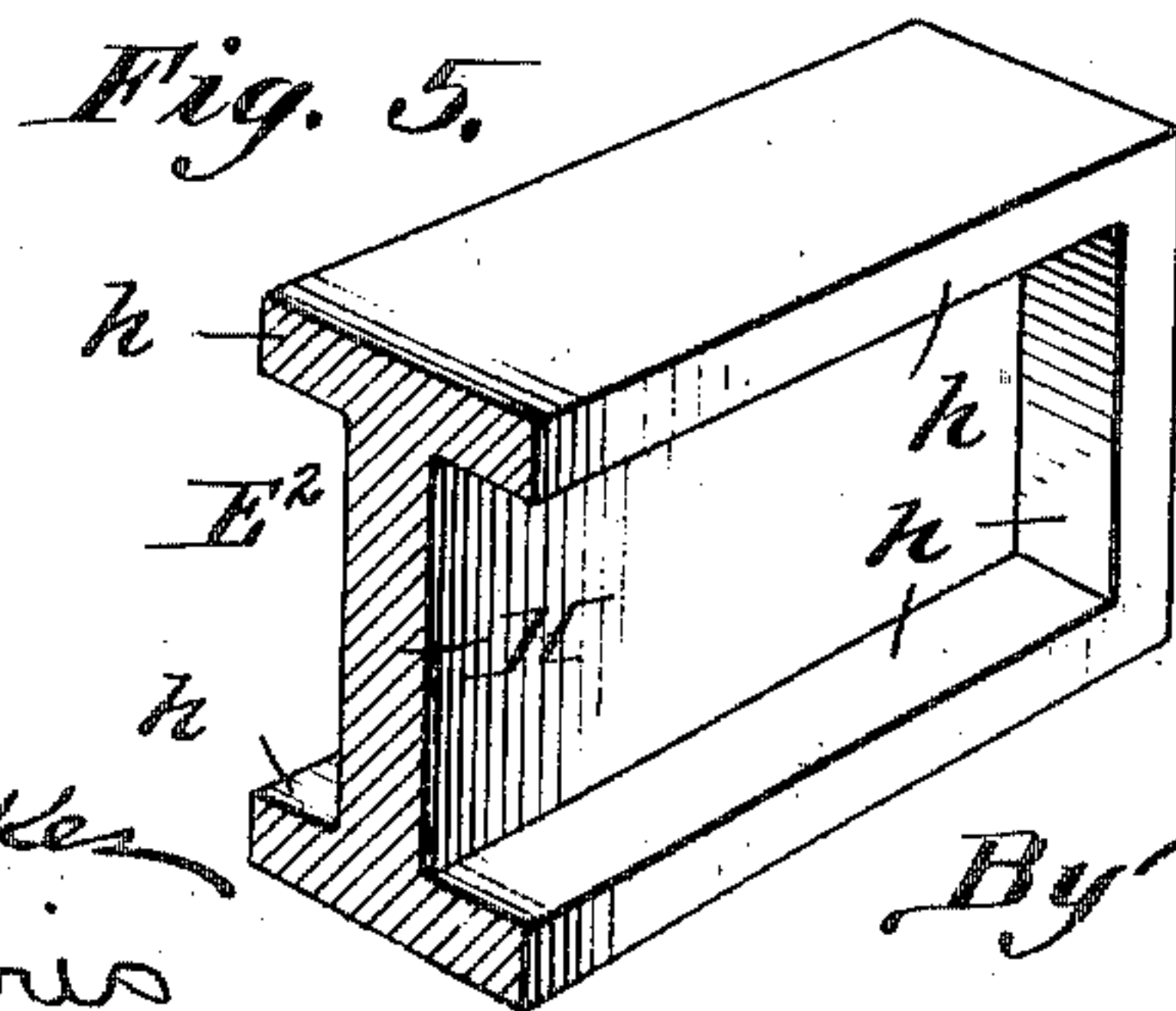
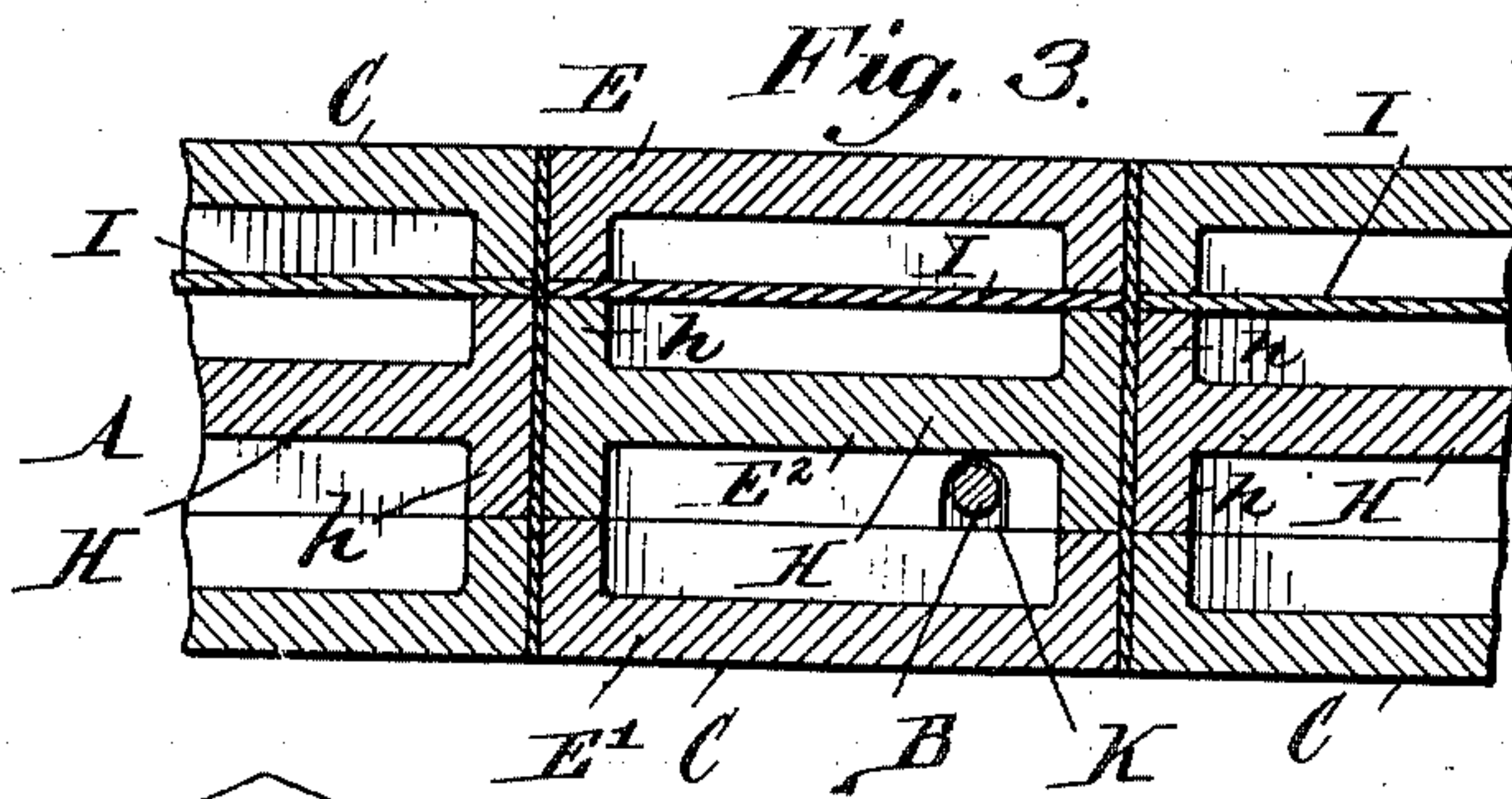
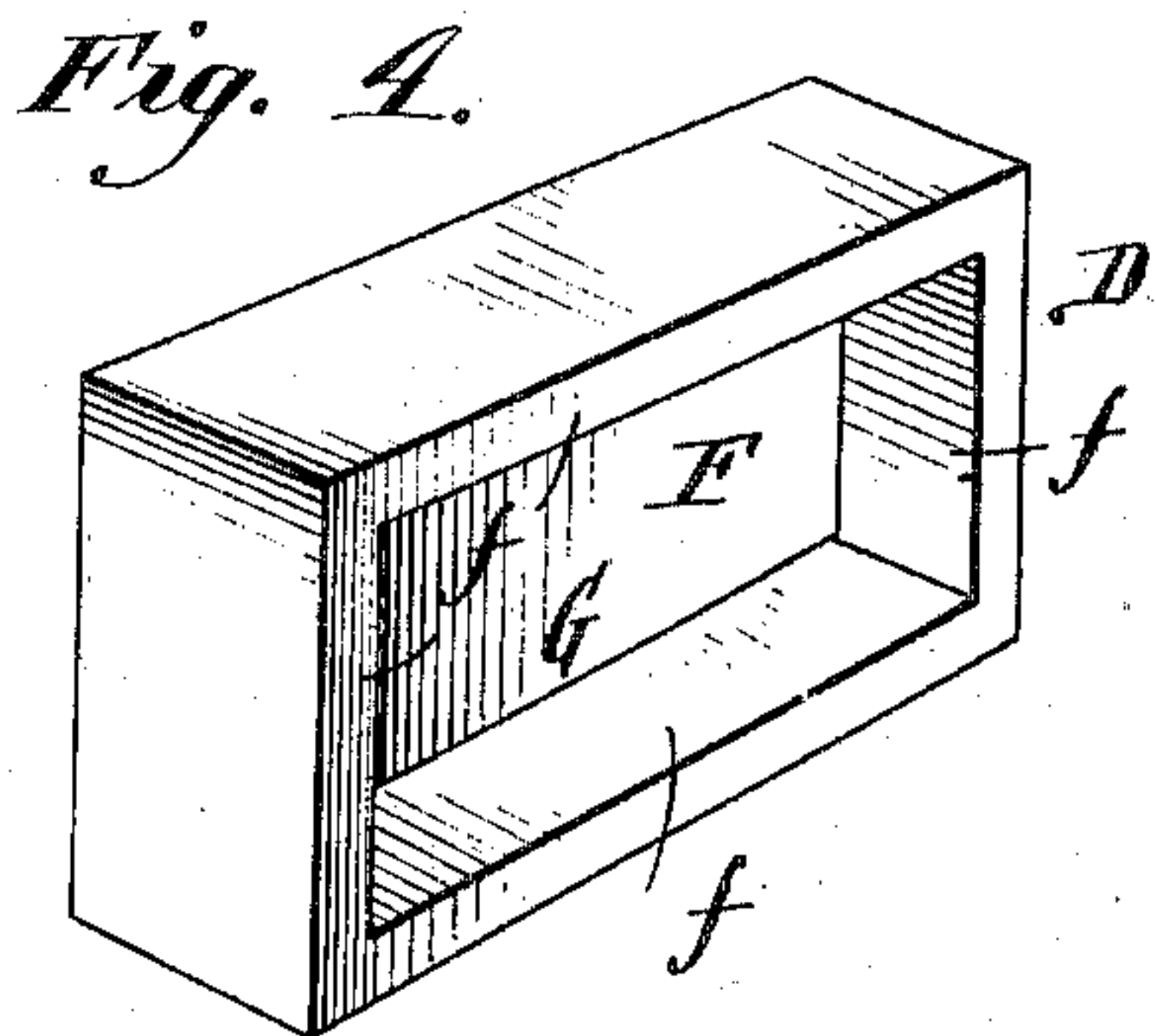
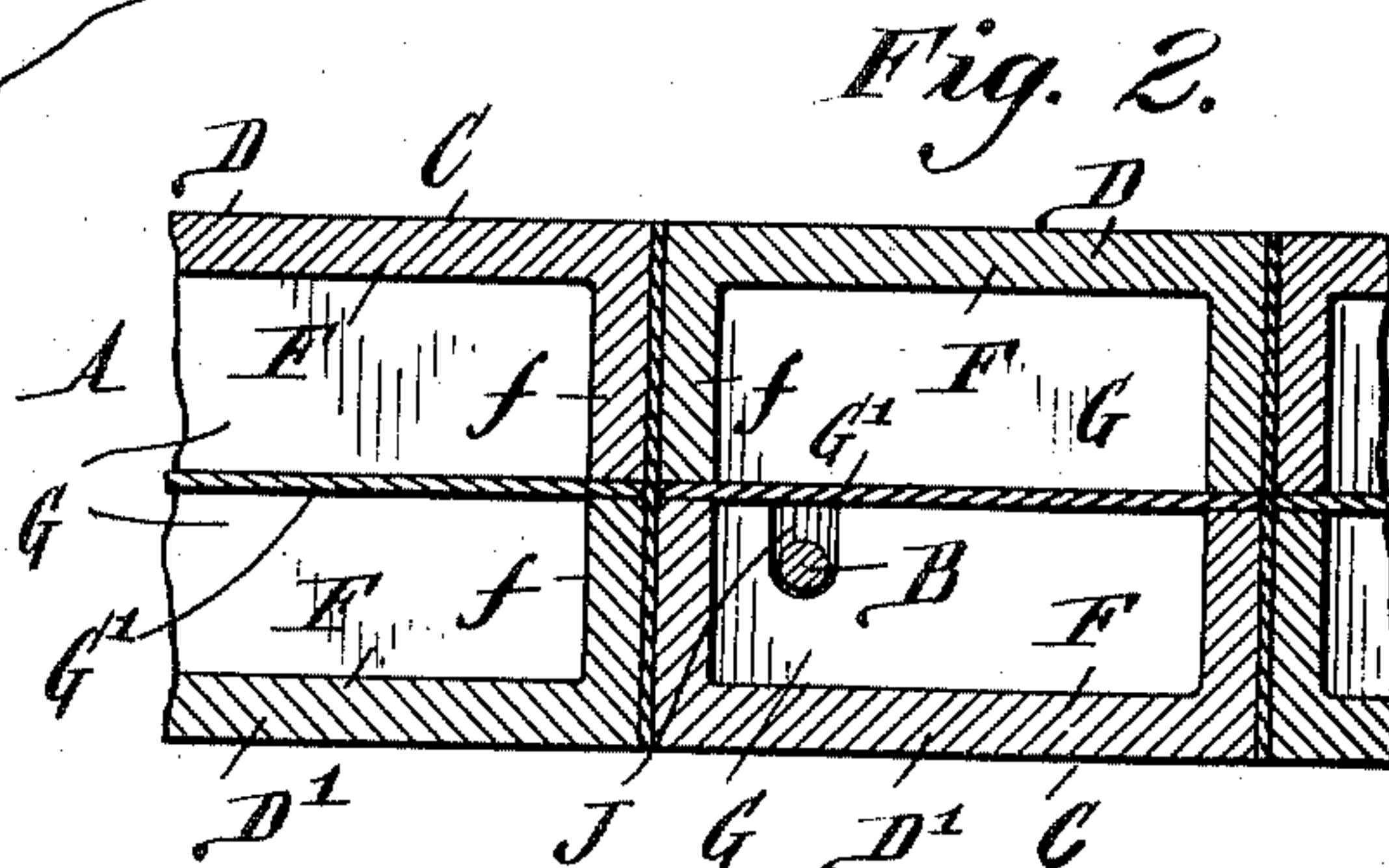
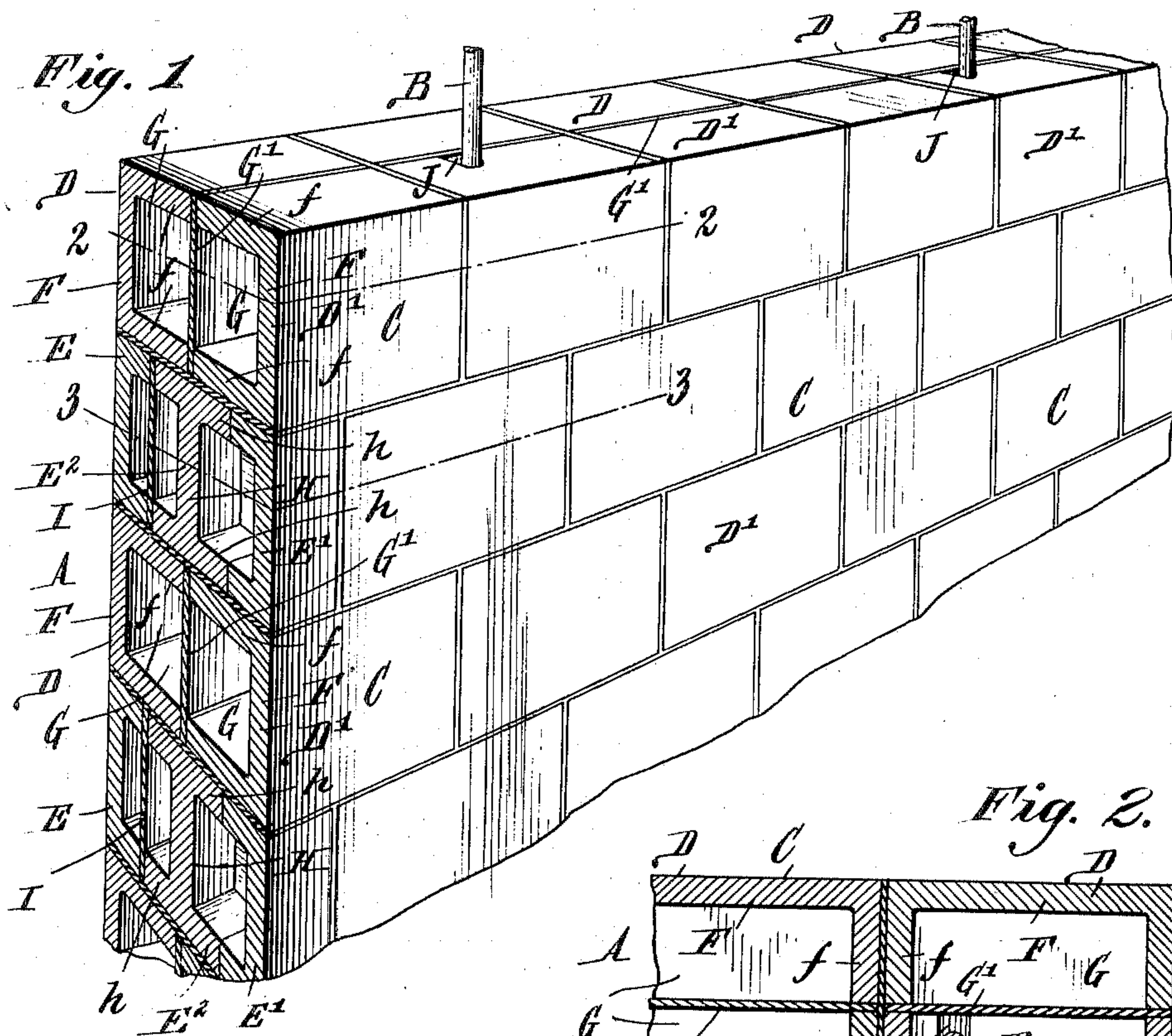
PATENTED APR. 10, 1906.

G. F. FISHER.

BUILDING CONSTRUCTION.

APPLICATION FILED JAN. 30, 1905.

3 SHEETS—SHEET 1.



Witnesses:
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By Emil Neuhack
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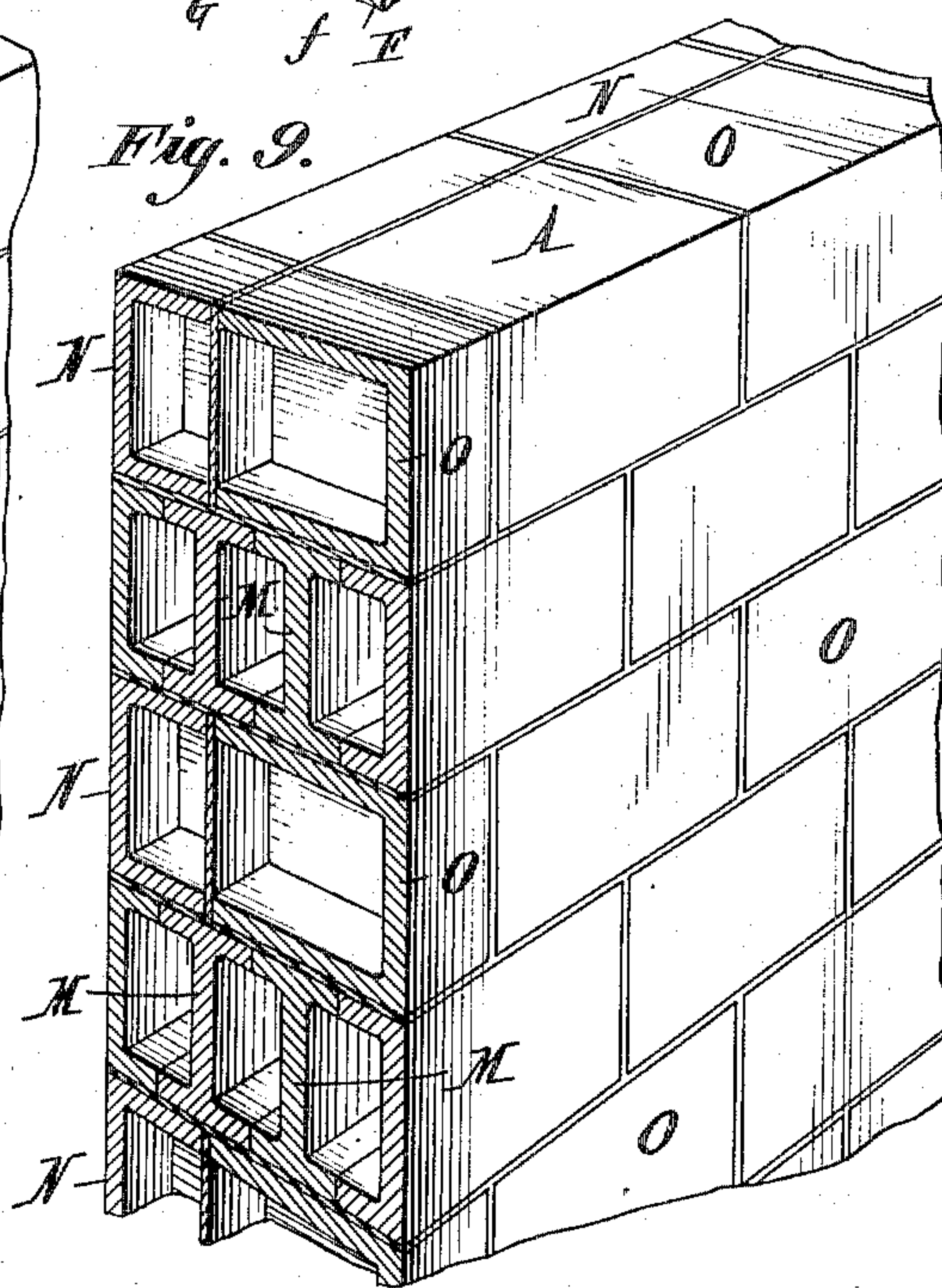
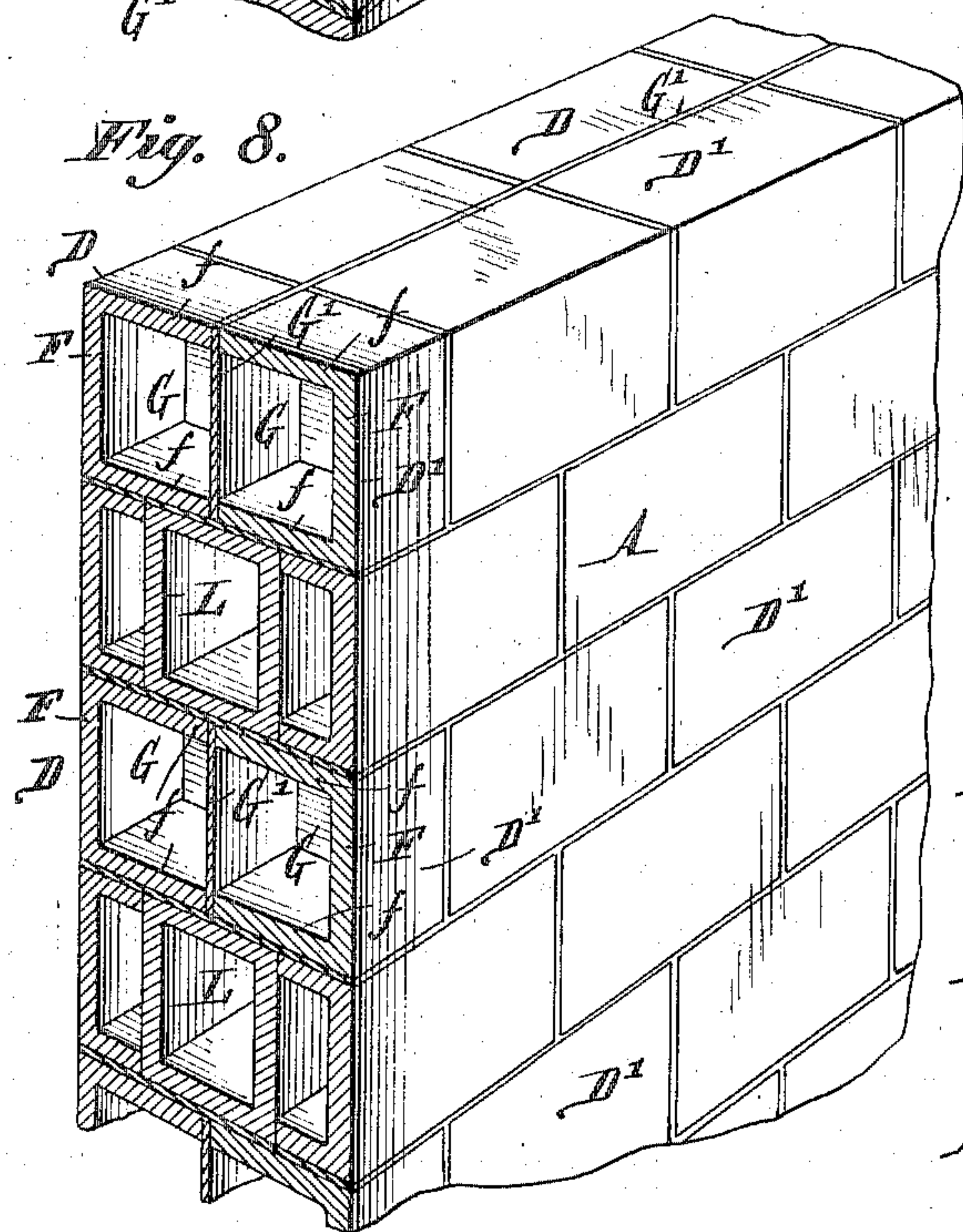
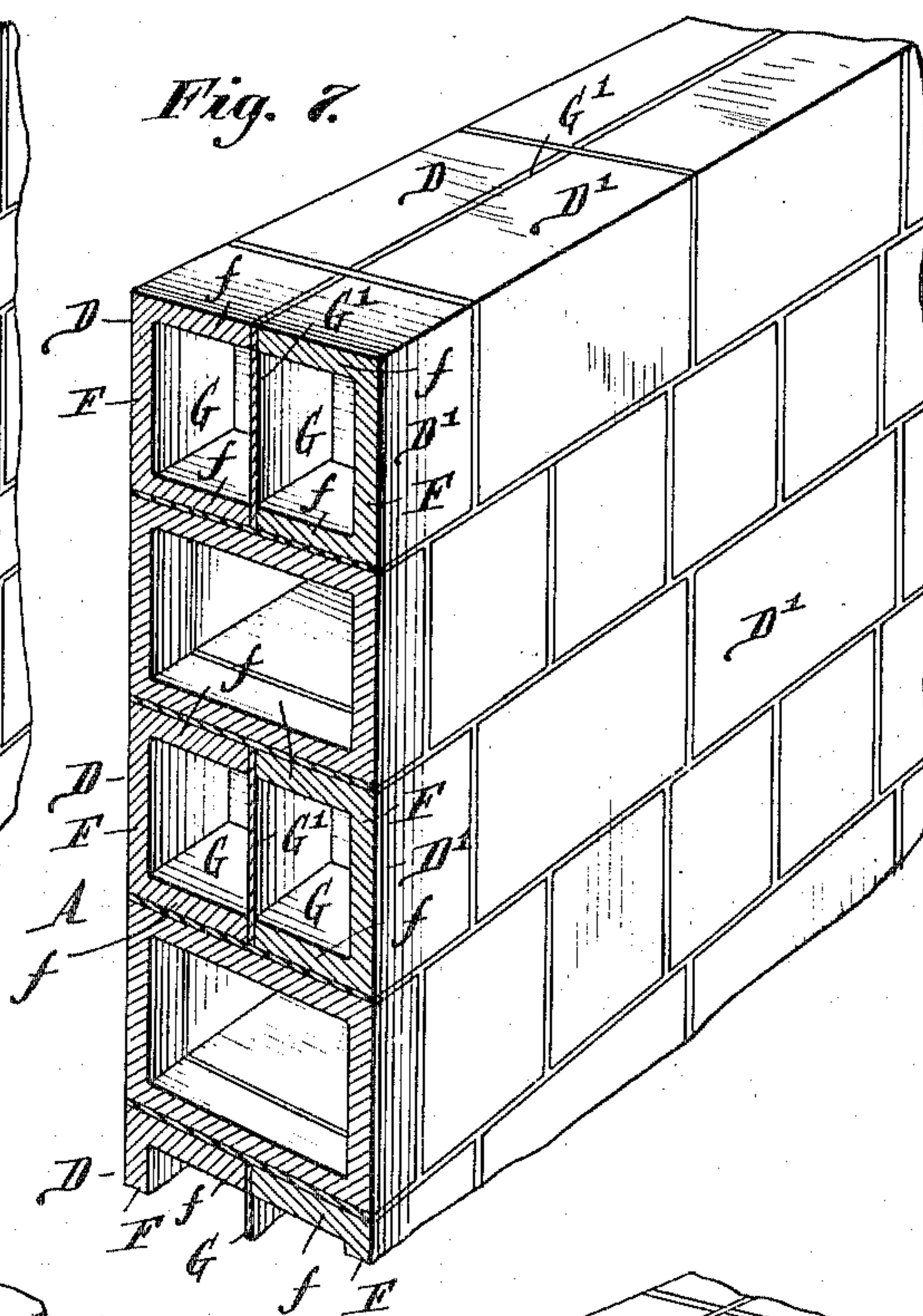
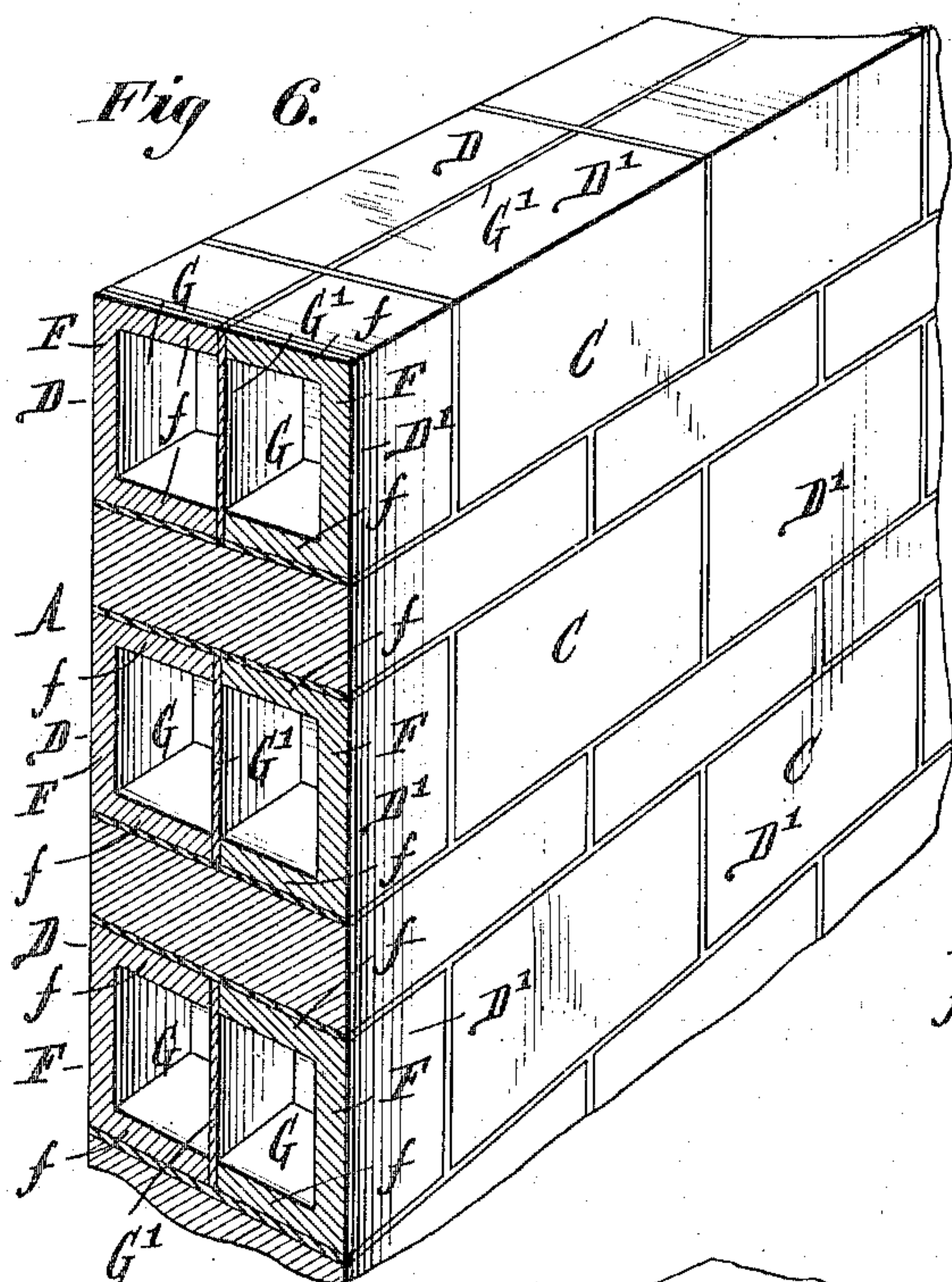
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APPLICATION FILED JAN. 30, 1905.

3 SHEETS—SHEET 2.



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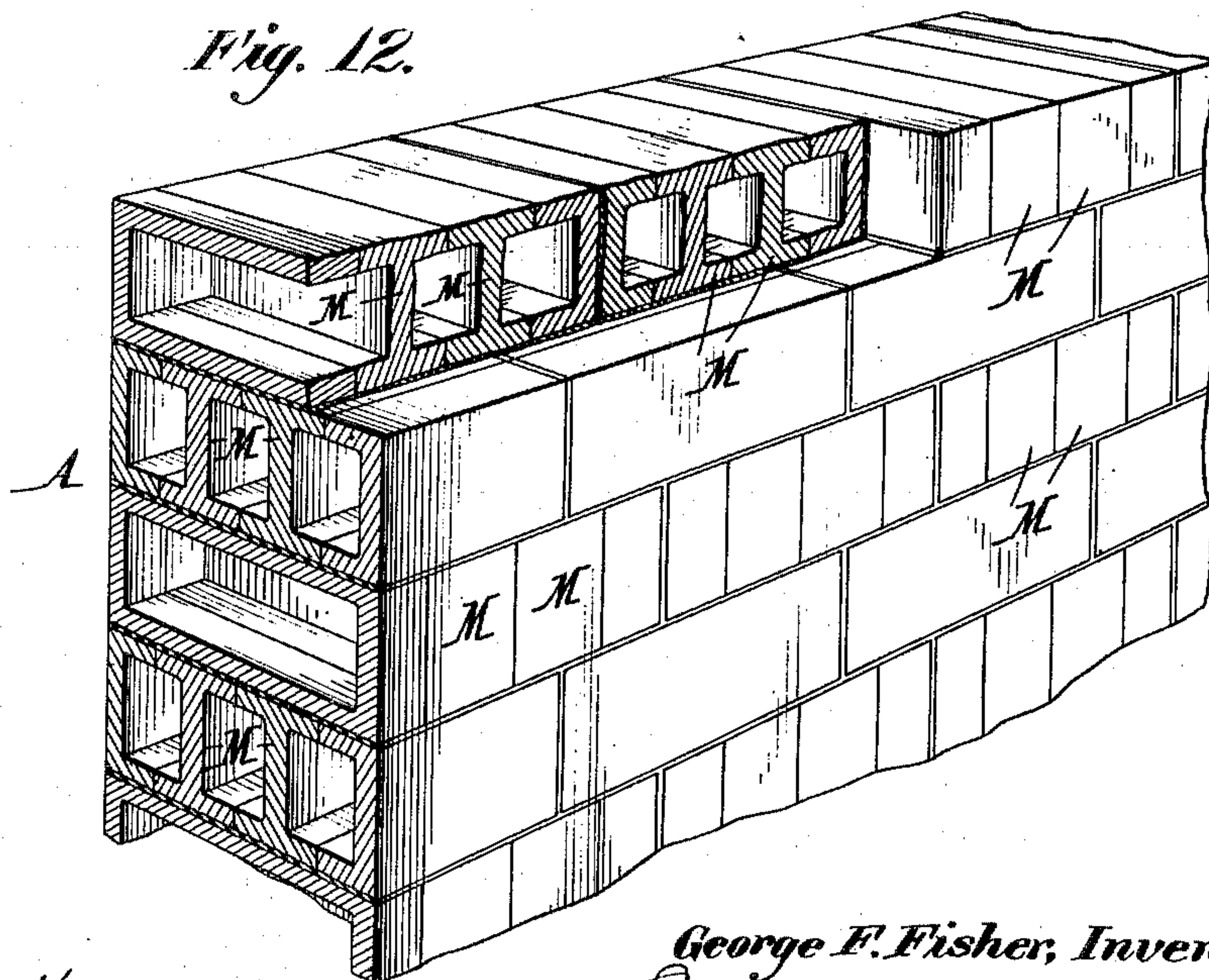
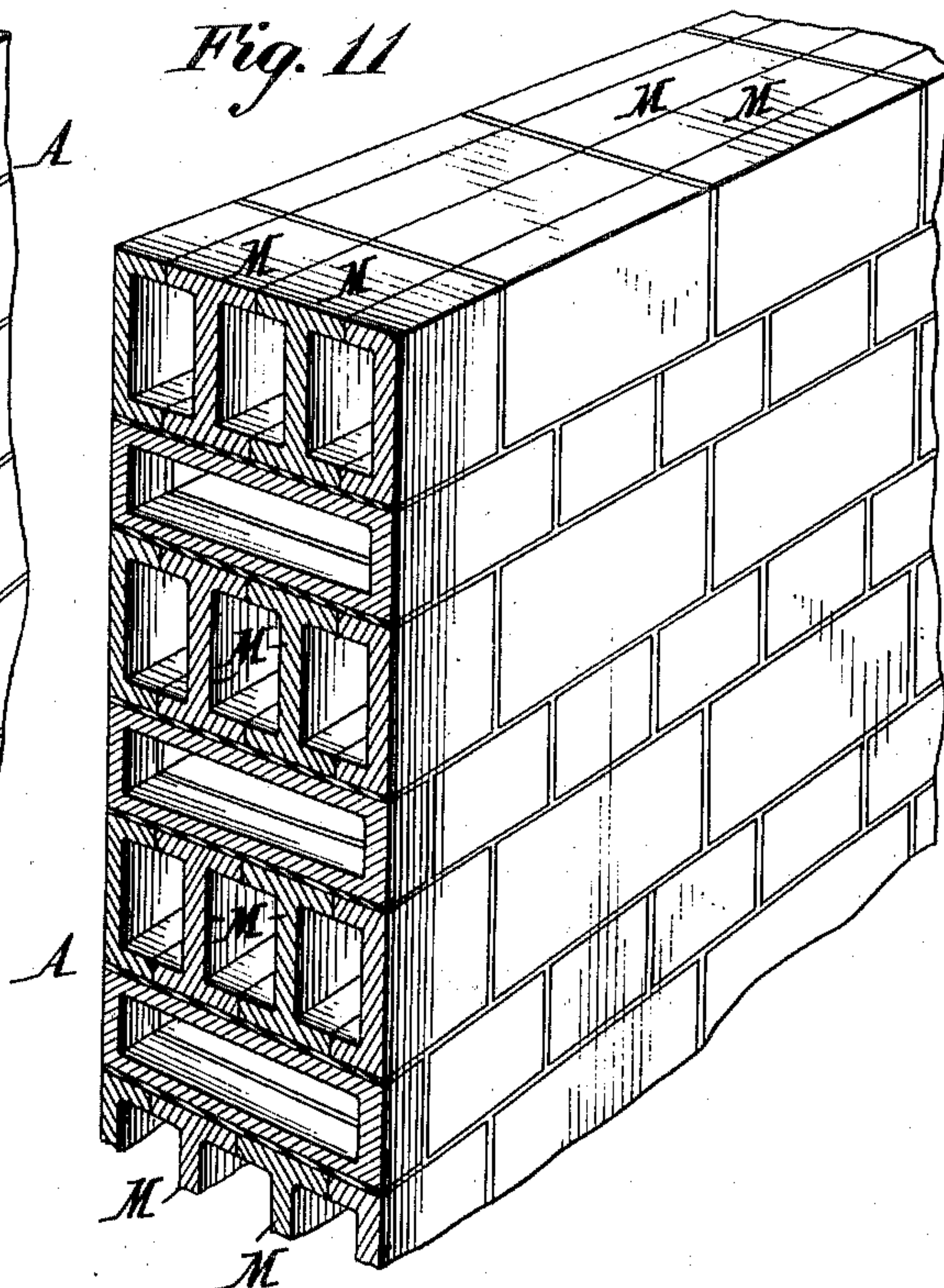
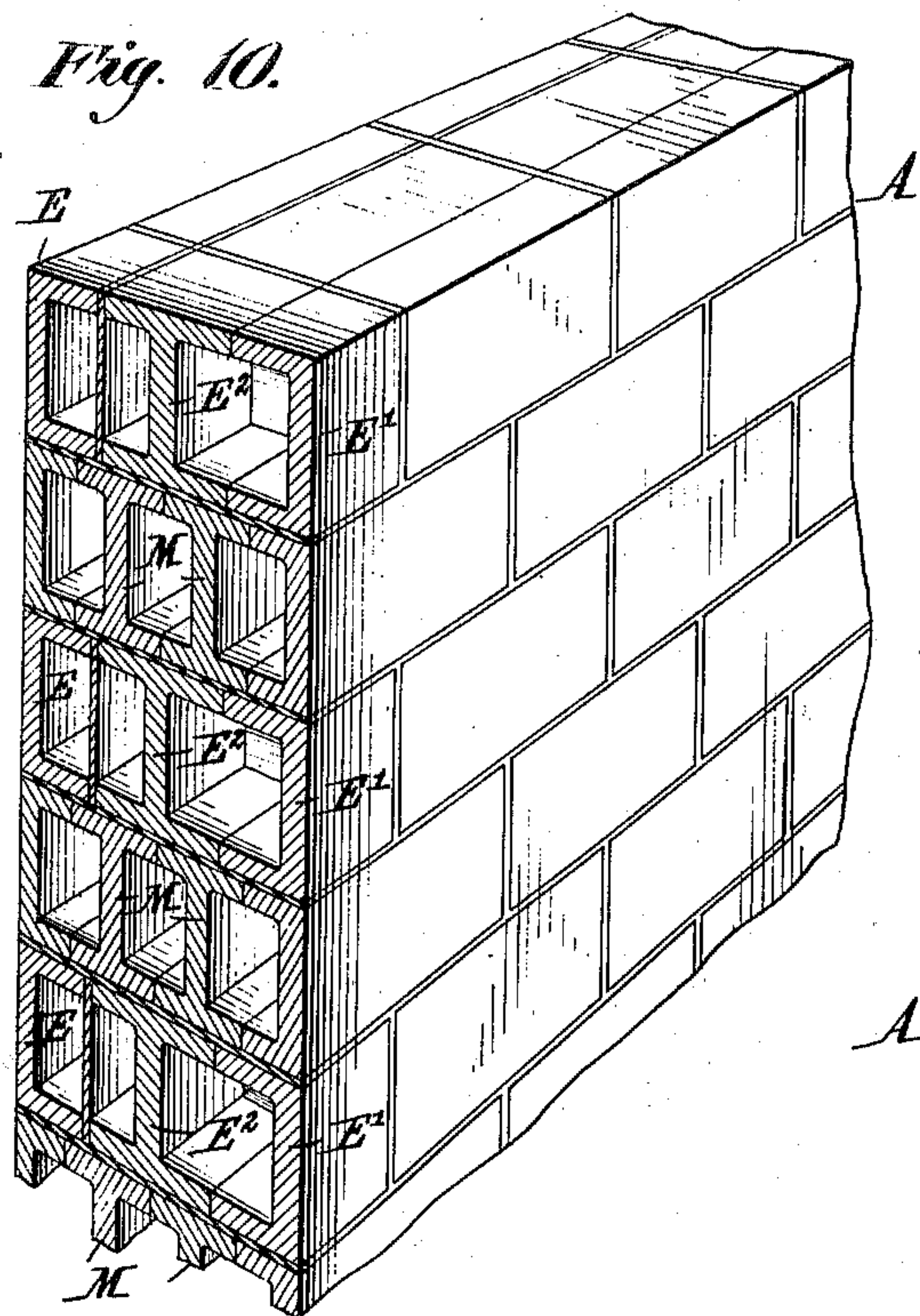
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3 SHEETS—SHEET 3.



Witnesses:
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UNITED STATES PATENT OFFICE.

GEORGE F. FISHER, OF NORTH TONAWANDA, NEW YORK.

BUILDING CONSTRUCTION.

No. 817,478.

Specification of Letters Patent.

Patented April 10, 1906.

Application filed January 30, 1905. Serial No. 243,316.

To all whom it may concern:

Be it known that I, GEORGE F. FISHER, a citizen of the United States, residing at North Tonawanda, in the county of Niagara and State of New York, have invented certain new and useful Improvements in Building Constructions, of which the following is a specification.

My invention relates to improvements in building constructions and to hollow blocks used in such constructions.

The object of my invention is to provide for the erection of exterior and interior walls of buildings by the use of separable building-blocks having in contiguous courses or layers a different number of parts or sections, every alternate course or layer being constructed of blocks having similar sections.

Further objects are to provide a system of construction with hollow composition blocks so that the blocks can be molded in parts and the parts used interchangeably, to provide building-blocks which can be molded in sections and be used in the construction of walls of more than ordinary thickness, and also to provide for a perfect bonding of the blocks and the parts thereof.

Still further objects are to provide the blocks, or, more properly, certain sections of the blocks, with notches in the edges thereof, said notches being in vertical alinement to allow uprights or vertical rods to be inclosed, and also to interpose between the sections of the blocks a strip or sheet of felt or other suitable paper to prevent moisture reaching the inner side of the wall.

Still further objects are to provide each block with a dead-air space entirely inclosed by the walls of one of the sections of the blocks and the paper held between the sections.

The invention consists in laying alternate courses of blocks with two-part blocks, each part or section having a facing wall, and inwardly-extending top, bottom, and end walls having their edges in opposing relation, with a strip or sheet of paper held between the edges, if desired, and in laying the intermediate courses with blocks formed in one part or more than two parts, but preferably in three parts or sections, of which the two outer or facing parts or sections are similar to but narrower than the sections of the two-part blocks, and an intermediate part having a central vertical wall connecting opposite end walls and the top and bottom walls, all

of which extend from opposite sides of the central wall at the marginal portions thereof, thereby forming an I-shaped cross-section, the edges of the top, bottom, and end walls of the intermediate part or section being held in opposing relation to the edges of like walls in the facing parts or sections of the blocks. In this manner the joints are properly broken and a secure bond of the blocks obtained. A strip of suitable paper or other material may be placed between the opposing edges of the intermediate section and one of the facing sections.

It further consists in providing opposite-extending or marginal walls of the intermediate section of certain three-part blocks and corresponding walls of one section of the certain two-part blocks with notches extending inward from the edges of said extending or marginal walls, so as to completely inclose supporting-bars within the wall, said notches being alined.

Referring to the drawings, Figure 1 is a sectional elevation of a wall constructed according to my invention. Fig. 2 is a horizontal section taken on line 2 2, Fig. 1. Fig. 3 is a horizontal section taken on line 3 3, Fig. 1. Fig. 4 is a perspective view of one of the sections of the two-part blocks, which is similar to but wider than the facing sections of the three-part block. Fig. 5 is a sectional perspective view of one of the intermediate sections of the three-part block. Figs. 6 to 12 are modified forms of my invention.

Referring to the drawings in detail, like letters of reference refer to like parts in the several figures.

The reference-letter A designates the wall, and B the rods or uprights, forming part of the building-framework and supporting the floors of a building.

C represents the blocks, which are formed in parts or sections to facilitate the molding of the same.

The underlying principle of this invention resides in forming the blocks in alternate courses or alternate blocks arranged in broken-ashlar style or any other irregular arrangement of blocks of a different number of parts, so as to securely bond the blocks, or to provide single-piece blocks for every alternate course and in the intermediate courses provide blocks of a plurality of parts, or when building a broken-ashlar wall or arranging the blocks in any other irregular form have single-piece blocks arranged be-

tween blocks formed of a plurality of parts, and therefore in the preferred construction illustrated in Figs. 1 to 3 the blocks of alternate courses are formed in two sections D D', while the blocks of intermediate courses are formed in three sections E E' E². The sections of the two-part blocks comprise each a vertical facing wall F and inwardly-extending top, bottom, and end marginal walls f, whereby a depression or chamber G is formed in each section. The edges of said marginal walls of the two sections forming said block are arranged in opposing relation, and between said edges a sheet of paper G' or other suitable material is held to form a dead-air space in the depression or chamber of one of said sections. The outer or facing sections of the three-part blocks are similar to, but narrower than, the sections of the two-part blocks to provide sufficient space between the same for the intermediate sections E², each of which latter comprises a vertical wall H and top, bottom, and end marginal walls h, extending outward and inward from the marginal portions of said vertical wall, said sections being therefore of I formation in cross-section, with closed ends to form opposite depressions. The edges of the marginal walls of the facing sections are held in opposing relation to the marginal walls of the intermediate sections, and between the edges of the marginal walls of the latter section and the edges of the marginal walls of one of the facing sections a sheet of paper I is held to form a dead-air space inclosed by the walls of the intermediate section and said sheet of paper. I also provide the top and bottom marginal walls of one of the sections of certain two-part blocks with notches J, which are to receive the supporting-rods of the building-frame, and similar notches K are formed for a similar purpose in the top and bottom marginal walls of the intermediate sections of certain three-part blocks, the notches of the two-part and three-part blocks being in alignment.

It is apparent from the foregoing that in order to properly break longitudinal joints in the blocks forming a wall it is necessary to have the joints of alternate courses to one side of the vertical longitudinal center, and as it is a difficult matter to hollow out the block-sections when wider than eight inches the blocks in alternate courses must be formed in three sections. By this arrangement proper bonding is obtained and all sides of the blocks are closed. This provides full bearing for the blocks and complete mortar seams extending from the outer to the inner face of the wall.

In Fig. 6 I have shown one-piece solid blocks arranged between layers of two-part blocks, while in Fig. 7 the one-piece blocks are similarly arranged, but are shown of hollow construction.

In the modification shown in Fig. 8 the blocks are arranged in alternate courses of two-part and three-part blocks, the two-part blocks being similar to those illustrated in Figs. 1 to 3, while each of the three-part blocks comprises facing sections similar to those shown in Figs. 1 to 3 and an intermediate hollow section L, rectangular in cross-section.

In the modification shown in Fig. 9 the blocks are set in alternate courses of two-part and four-part blocks. In this construction each of the four-part blocks comprises two intermediate sections M, each being similar in construction to, but narrower than, the intermediate sections of the three-part blocks shown in Fig. 1, and two facing blocks similar to, but narrower than, those of the three-part blocks. Each of the two-part blocks comprises a narrow section N and a wide section O, providing a longitudinal joint to one side of the center.

In Fig. 10 a further modification is shown in which blocks are set in alternate layers of three-part and four-part blocks. This construction is particularly adapted for walls twenty-four or more inches in thickness. The three-part blocks in this construction are similar to the three-part blocks shown in Fig. 1, with the exception that each section is somewhat wider, and the four-part blocks are similar to the four-part blocks shown in Fig. 9. This construction provides for a secure bonding of the parts, and it is apparent that the arrangement of intermediate sections between the facing-sections can be extended to embody any number of sections so long as the longitudinal joints are broken in contiguous courses.

In the modification shown in Fig. 11 the blocks are set in alternate layers of single and four-part blocks, the latter being similar to the four-part blocks shown in Fig. 9, and the single blocks being hollow and preferably shorter than the four-part blocks, it being a difficult matter to mold a hollow one-piece block of considerable length.

In Fig. 12 I have shown all the courses formed of blocks comprising four sections, said blocks being similar to the four-part blocks shown in Fig. 9. In this construction, however, I set the blocks of every alternate course at a right angle to the contiguous courses—that is to say, the blocks are set crosswise and lengthwise of the wall in alternate courses.

I wish to add that under the principle involved in this invention I can quickly and cheaply mold blocks of any size, as each block consists of sections which can be used in any number to form the desired thickness of block and irrespective of the number of sections used can be laid between other blocks of a different number of sections or between solid blocks or one-piece hollow blocks

of small lengths. Moreover, each block being complete in itself, irrespective of the number of sections used and having all sides closed, renders the invention adaptable to all styles of masonry, such as broken-ashlar and various other styles in which irregular courses are used.

Having thus described my invention, what I claim is—

10 1. A hollow building-block consisting of a plurality of sections, each block comprising facing sections having depressions on their inner sides, and an intermediate section having depressions on both sides, the depressions
15 of the intermediate section being in opposing relation to the depressions in the facing sections, thereby forming an air-space between the intermediate section and each facing section.

20 2. A hollow building-block consisting of a plurality of sections, each block comprising two facing sections having depressions on their inner sides, and a plurality of intermediate sections having depressions on both
25 sides, thus forming a plurality of air-spaces separated by vertical walls.

30 3. A hollow building-block consisting of a plurality of sections, each block comprising two facing sections, and an intermediate section having depressions on both sides, thus forming two air-spaces separated by a vertical wall.

35 4. A hollow building-block consisting of a plurality of sections, each block comprising two facing sections having depressions on their inner sides, and an intermediate section, thus forming two air-spaces separated by said intermediate section.

40 5. In a building, a wall formed of hollow separable blocks and having the blocks in alternate courses formed of a different number of sections to provide for proper bonding.

45 6. In a building, a wall formed of hollow separable blocks set in courses, the blocks in every alternate course being divided into any desired number of sections, and the blocks of intermediate courses being divided into a different number of sections.

50 7. In a building, a wall formed of hollow separable blocks set in courses, the blocks of one course comprising two sections having depressions in opposing faces, and the blocks of the contiguous courses comprising two facing sections having depressions on their in-

ner sides, and an intermediate section having depressions on both sides.

8. In a building, a wall formed of hollow separable blocks set in courses, every alternate course being constructed of blocks formed in two sections having opposing depressions
60 and a sheet of paper between said sections, and the intermediate courses being constructed of blocks comprising two facing sections having depressions on their inner sides, an intermediate section having depressions on
65 both sides, and a sheet of paper between the intermediate section and one of said facing sections.

9. In a building, a wall formed of hollow separable building-blocks set in courses, each
70 block comprising a plurality of sections having opposing depressions bounded by marginal walls to form completely-closed hollow blocks, the blocks in alternate courses being set lengthwise and crosswise of the wall;
75 thereby forming disconnected dead-air spaces in the wall.

10. In a building, a wall formed of hollow separable blocks arranged in courses and having depressions in the opposing sides thereof,
80 the blocks of each course having a different number of sections than the blocks in the courses above and below.

11. In a building, a wall formed of hollow separable building-blocks, each block having
85 a different number of sections than the blocks above and below the same.

12. A hollow separable building-block having an interlining held between the hollow sections to form an air-space.

13. A hollow separable building-block closed on all sides and having an interlining held between the sections thereof to form a dead-air space in one of said sections.

14. In a building, a wall consisting of superposed blocks, every alternate block being separable and comprising a plurality of chambered parts forming a hollow block closed on all sides, and suitable intermediate blocks, said intermediate blocks providing a proper
95 bond for the separable blocks.

In testimony whereof I have affixed my signature in the presence of two subscribing witnesses.

GEORGE F. FISHER.

Witnesses:

EMIL NEUHART,
MAY F. SEWERT.