

June 19, 1923.

1,459,344

E. A. RASMUSSEN

BUILDING WALL CONSTRUCTION

Filed Feb. 8, 1922

Fig. 1.

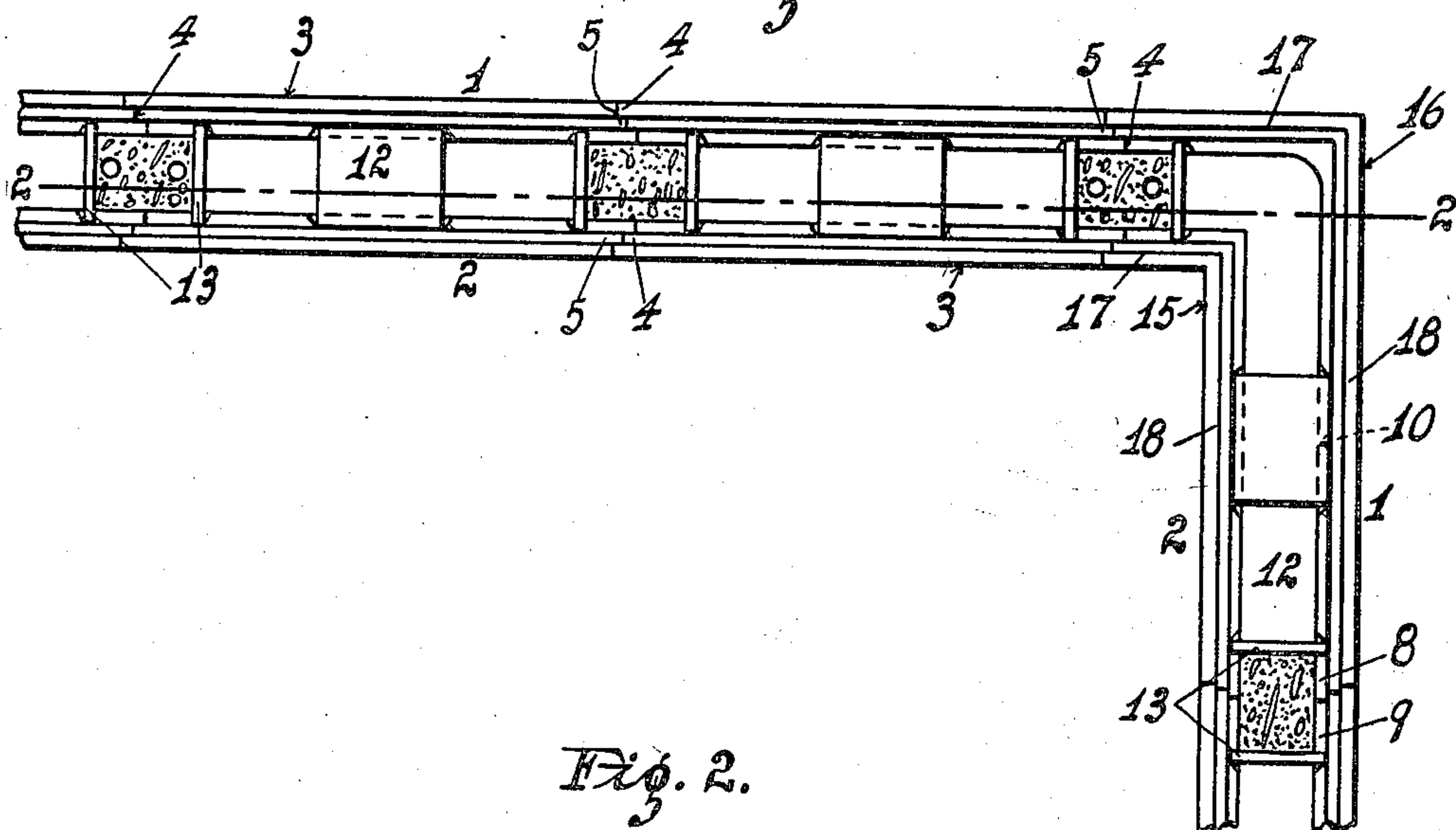


Fig. 2.

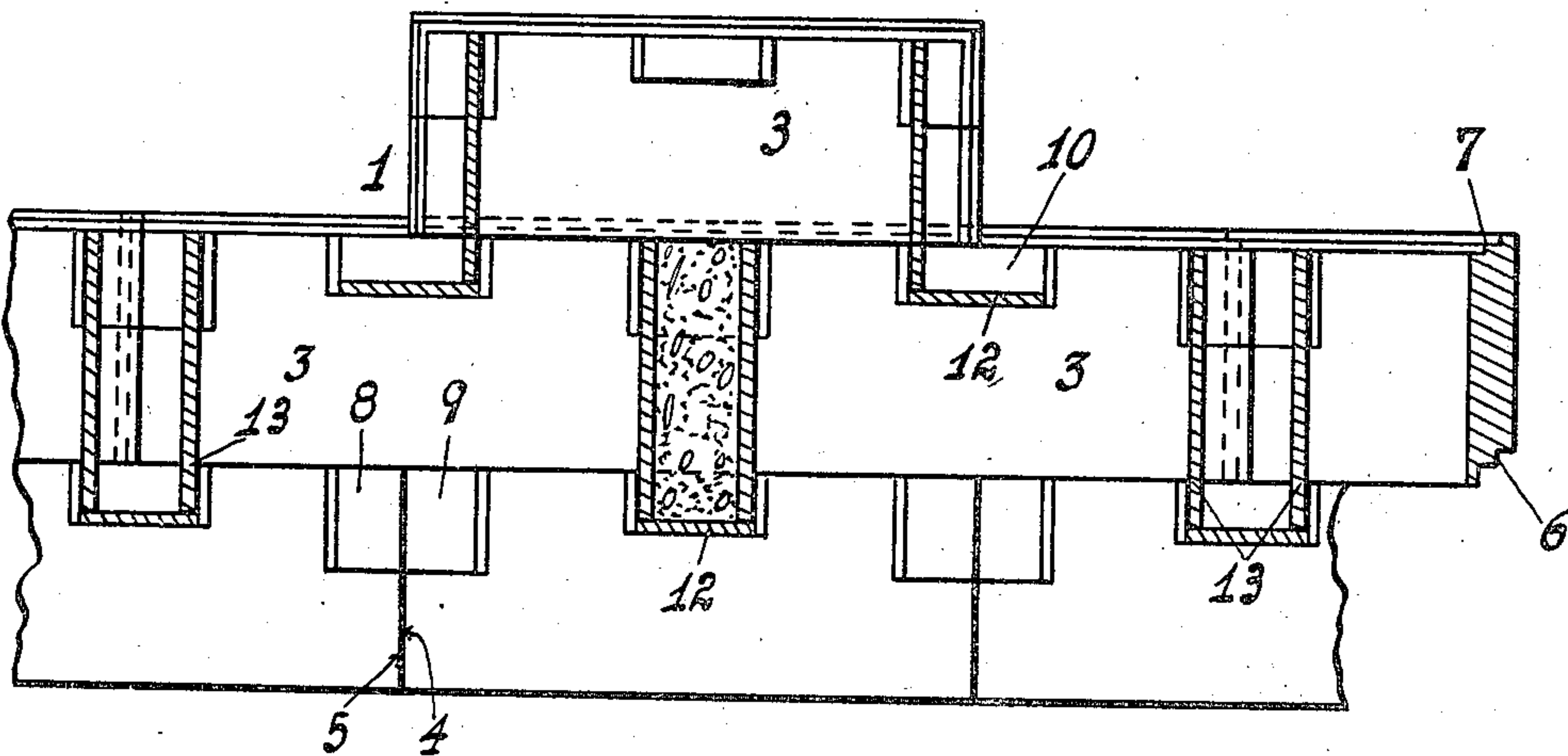


Fig. 3.

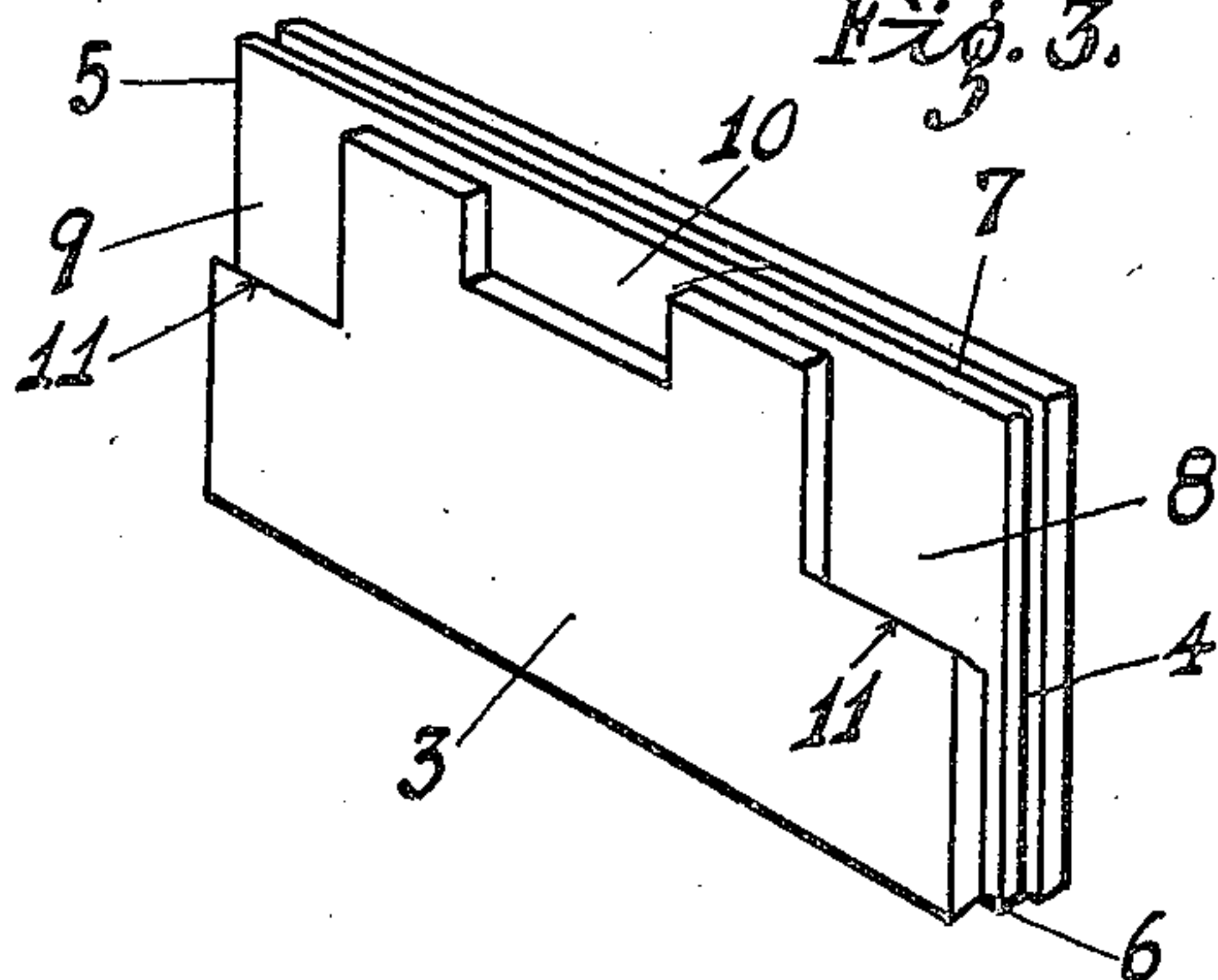
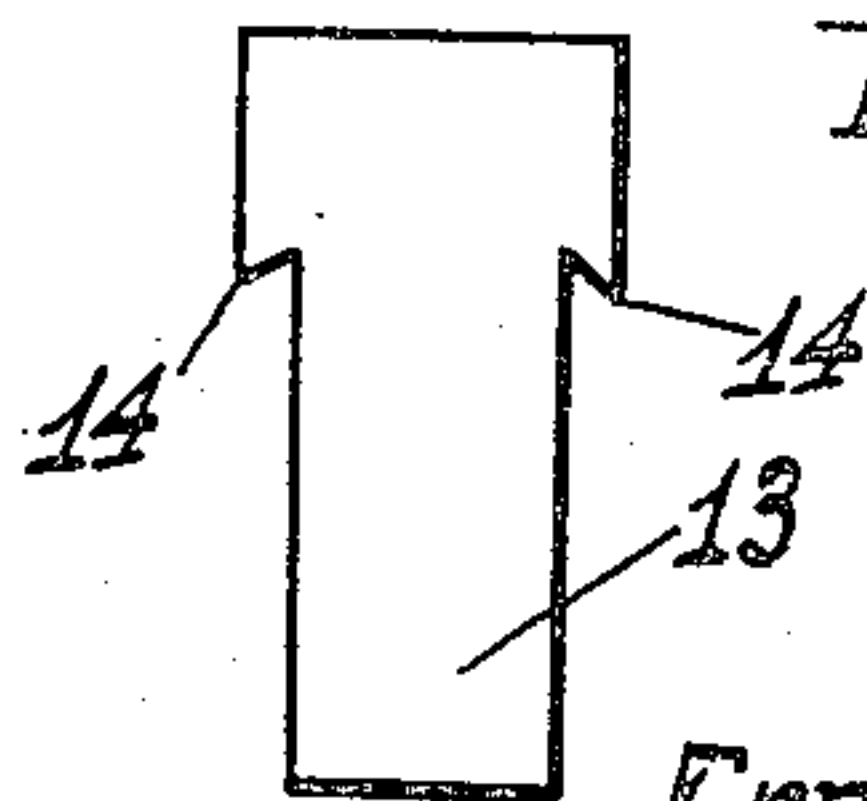


Fig. 4.



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UNITED STATES PATENT OFFICE.

ERNEST A. RASMUSSEN, OF OAKLAND, CALIFORNIA.

BUILDING-WALL CONSTRUCTION.

Application filed February 8, 1922. Serial No. 535,051.

To all whom it may concern:

Be it known that I, ERNEST A. RASMUSSEN, citizen of the United States, residing at Oakland, in the county of Alameda and State of California, have invented certain new and useful Improvements in Building-Wall Constructions, of which the following is a specification.

My invention is a building wall construction which may be cheaply manufactured and cheaply and rapidly erected, and when erected is substantial and durable.

Referring to the annexed drawing in which my invention is illustrated and which forms a part of this specification:

Figure 1 is a plan view of a fragment of my wall structure.

Figure 2 is a vertical section of a portion of my wall structure taken on line 2—2 of Figure 1.

Figure 3 is a perspective of one of the wall slabs.

Figure 4 is a side view of one of the wall keys.

My wall structure includes an outer wall unit 1 and an inner wall unit 2 spaced a short distance within said outer unit. The wall units are each composed of a plurality of slabs 3 preferably rectangular in shape, laid end to end horizontally and superimposed side-edgewise in staggered relation like bricks in a brick wall. The ends of the slabs are formed with double rabbets 4 and 5 respectively, the rabbets 4 being undercut toward the inner side of the slabs and the rabbets 5 being undercut toward the outside of the slabs so that the slabs may be laid end to end with the rabbets 4 and 5 of adjacent slabs interengaging each other. The lower and upper longitudinal edges of the slabs are formed with double rabbets 6 and 7 respectively, the rabbets 6 being undercut toward the outside of the slabs and the rabbets 7 being undercut toward the inside of the slabs so that the slabs may be superimposed upon each other with the rabbets 6 and 7 of the immediately superimposed slabs interengaging each other. The interengaging ends of the slabs of each horizontal row staggered with relation to the interengaging ends of the slabs immediately above and below. On the inside of each slab are recesses 8 and 9 and 10, the recesses 8 and 9 being square and extending from the upper corners of the slab, and the recess 10 being rectangular and extending from the upper edge of

the slab to a vertical depth less than that of the recesses 8 and 9. When erected the recesses 8 and 9 of adjacent slabs register with each other and form single recesses which rest directly over the recesses 10 in the slabs immediately below, and the recesses 8 and 9 and 10 of the slabs of the outer wall unit lie opposite corresponding recesses in the inner wall unit. The lower edges 11 of the recesses 8 and 9 are undercut or dovetailed while the side edges of said recesses are beveled outwardly. Plates 12 are placed between the outer and inner wall units 1 and 2, and rest upon the lower edges of opposite recesses 10 in said wall units. Keys 13 consist of rectangular plates formed with undercut shoulders 14 at their side edges near the tops thereof. These keys are placed in pairs between the outer wall unit and the inner wall unit, with the keys of each pair spaced a short distance apart, so that each pair rests upon a plate 12 and the shoulders 14 of the keys of the pair rest respectively on the lower edges 11 of the opposite recesses 8 and 9 in the outer and inner wall units directly above the plate, one key engaging the side edge of the recess 8 and the other key engaging the side edge of the recess 9, and the upper edges of the keys coinciding with the upper edges of said recesses. Cement or concrete is poured between the keys of each pair upon the plates 12 and when hard binds the walls together at their joints, and effectively seals the vertical joints between the slabs. The corner slabs 15 and 16 of the inner and outer wall units may be formed with slab members 17 and 18 extending at right angles to each other. These slabs are otherwise the same as the slabs 3.

Having described my invention, I claim:

1. A wall construction including an inner unit, an outer unit, each unit comprising slabs laid end to end in horizontal rows superimposed upon each other, the end joints of each row being staggered with relation to the end joints of adjacent rows, the ends of the slabs being rabbeted to interengage each other, the lower and upper edges of the slabs being rabbeted to interengage each other, recesses formed on the inside of the slabs at the upper corners thereof so that the corner recess of each slab registers with the corner recess of the adjacent slab, the lower edges of said corner recesses being undercut, the slabs being also formed on their inside at their upper edges with plate

supporting recesses directly below the registering corner recesses, plates placed between the outer and inner wall units upon the lower edges of opposite plate supporting recesses, keys formed with undercut shoulders arranged in pairs spaced a short distance apart and placed so that each pair rests upon a plate and the undercut shoulders thereof engage the undercut lower edges of the corner recesses above said plate, and a cement filling between each pair of keys.

2. A wall construction including an inner unit, an outer unit, each unit comprising slabs laid end to end in horizontal rows superimposed upon each other, the end joints of each row being staggered with relation to the end joints of adjacent rows, the ends of the slabs being double rabbeted to interengage each other, the lower and upper edges of the slabs being double rabbeted to interengage each other, recesses formed on the inside of the slabs at the upper corners thereof so that the corner recess of each slab registers with the corner recess of the adjacent slab, the lower edges of said corner recesses being undercut, the slabs being also formed on their inside at their upper edges with plate supporting recesses directly below the registering corner recesses, plates placed between the outer and inner wall units upon the lower edges of opposite plate supporting recesses, keys formed with undercut shoulders arranged in pairs spaced a short distance apart and placed so that each pair rests upon a plate and the undercut shoulders thereof engage the undercut lower edges of the corner recesses above said plate, and a cement filling between each pair of keys.

3. A wall construction including an inner unit, an outer unit, each unit comprising slabs laid end to end in horizontal rows superimposed upon each other, the end joints of each row being staggered with relation to the end joints of adjacent rows, the ends of the slabs being rabbeted in opposite directions to interengage each other, the lower and upper edges of the slabs being rabbeted in opposite directions to interengage each

other, recesses formed on the inside of the slabs at the upper corners thereof so that the corner recess of each slab registers with the corner recess of the adjacent slab, the lower edges of said corner recesses being undercut, the slabs being also formed on their inside at their upper edges with plate supporting recesses directly below the registering corner recesses, plates placed between the outer and inner wall units upon the lower edges of opposite plate supporting recesses, keys formed with undercut shoulders arranged in pairs spaced a short distance apart and placed so that each pair rests upon a plate and the undercut shoulders thereof engage the undercut lower edges of the corner recesses above said plate, and a cement filling between each pair of keys.

4. A wall construction including an inner unit, an outer unit, each unit comprising slabs laid end to end in horizontal rows superimposed upon each other, the end joints of each row being staggered with relation to the end joints of adjacent rows, the ends of the slabs being double rabbeted in opposite directions to interengage each other, the lower and upper edges of the slabs being double rabbeted in opposite directions to interengage each other, recesses formed on the inside of the slabs at the upper corners thereof so that the corner recess of each slab registers with the corner recess of the adjacent slab, the lower edges of said corner recesses being undercut, the slabs being also formed on their inside at their upper edges with plate supporting recesses directly below the registering corner recesses, plates placed between the outer and inner wall units upon the lower edges of opposite plate supporting recesses, keys formed with undercut shoulders arranged in pairs spaced a short distance apart and placed so that each pair rests upon a plate and the undercut shoulders thereof engage the undercut lower edges of the corner recesses above said plate, and a cement filling between each pair of keys.

In testimony whereof I affix my signature.
ERNEST A. RASMUSSEN.