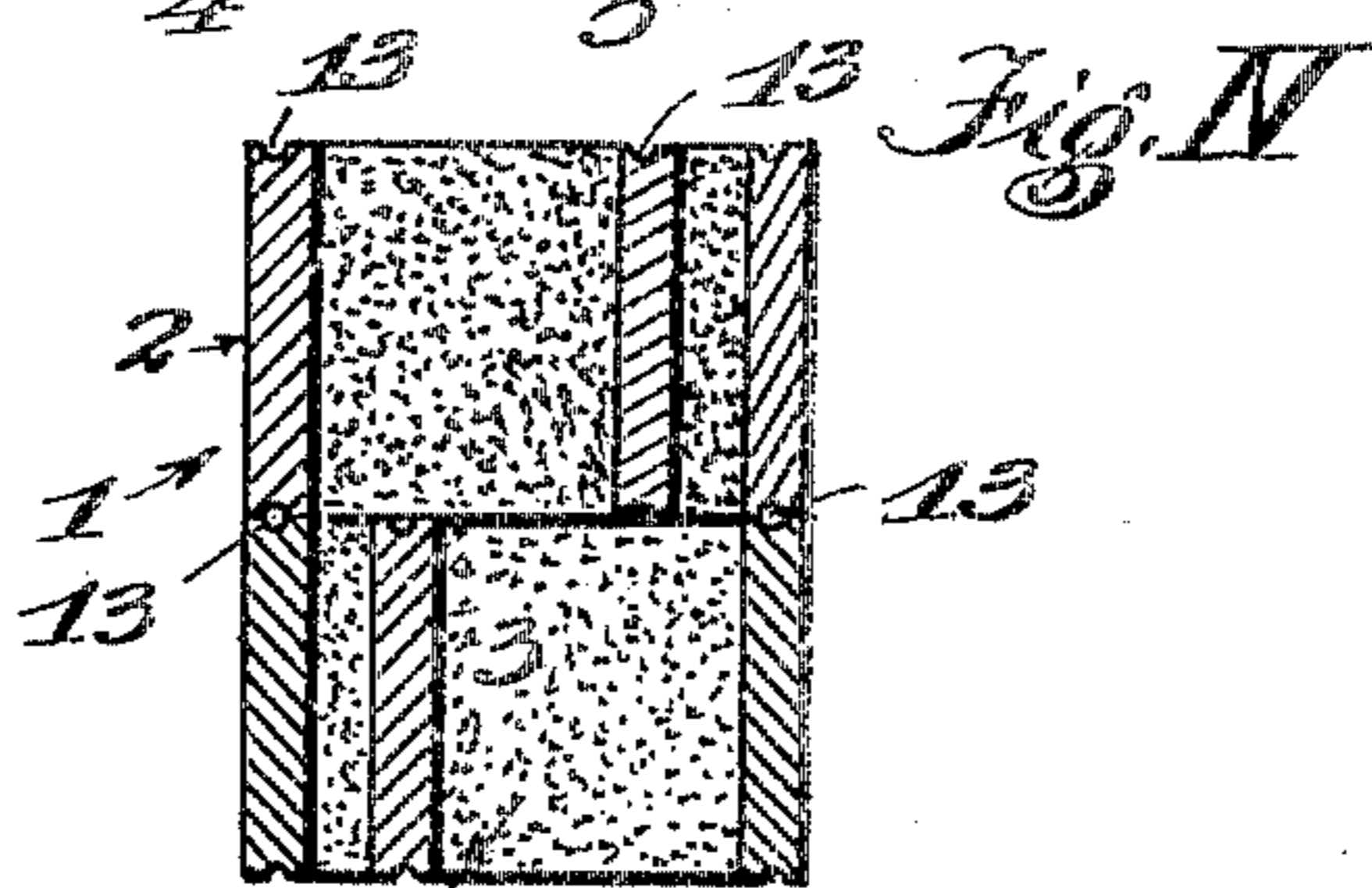
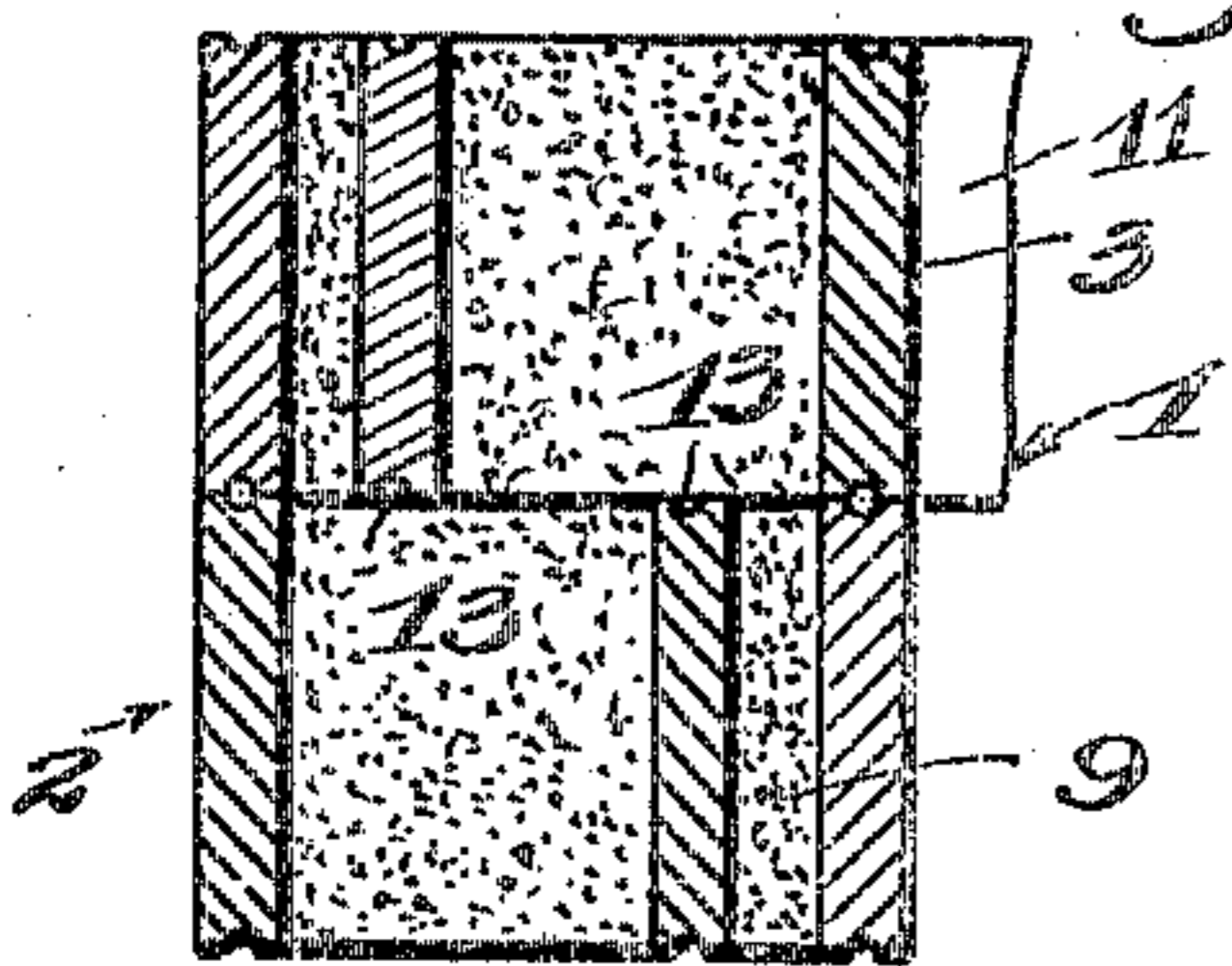
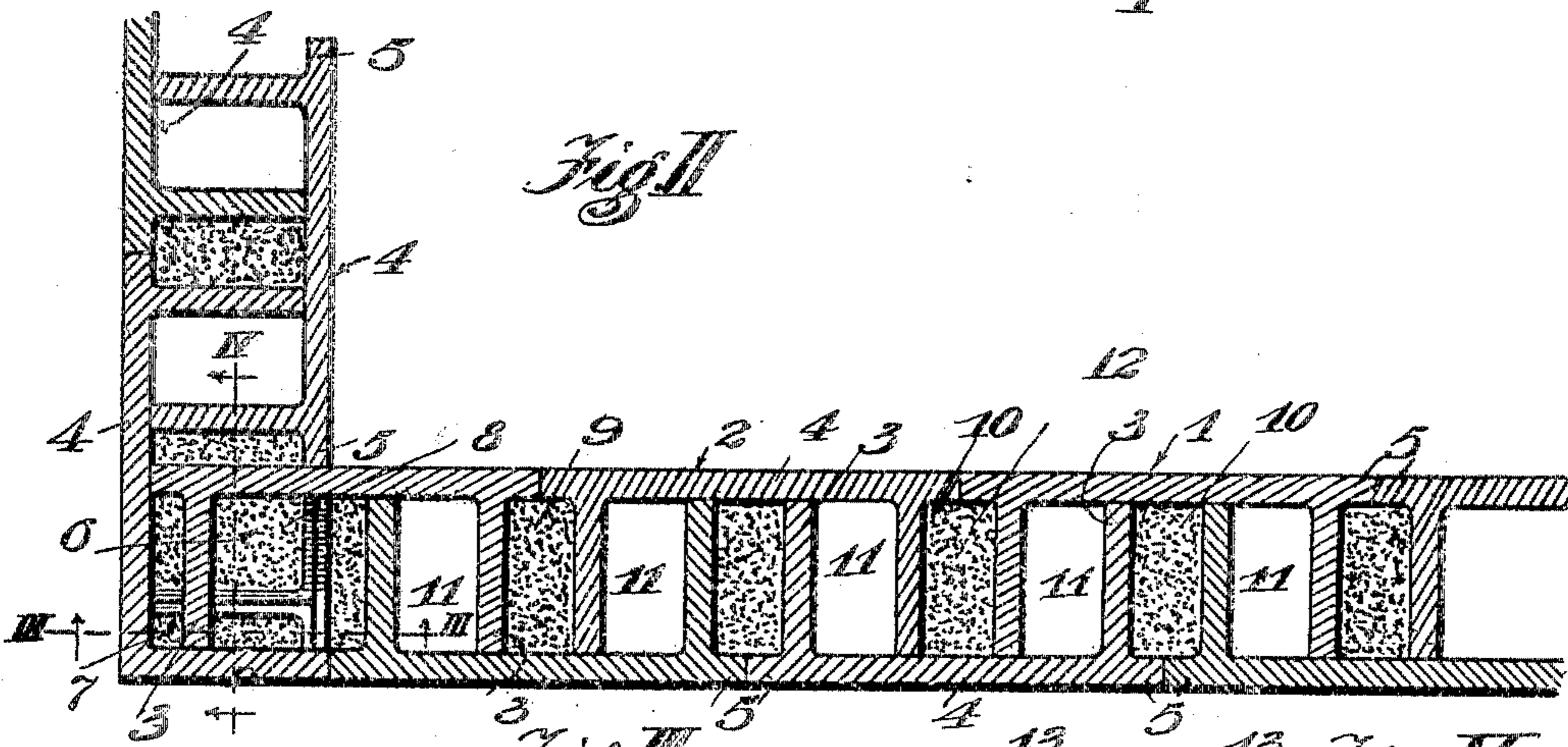
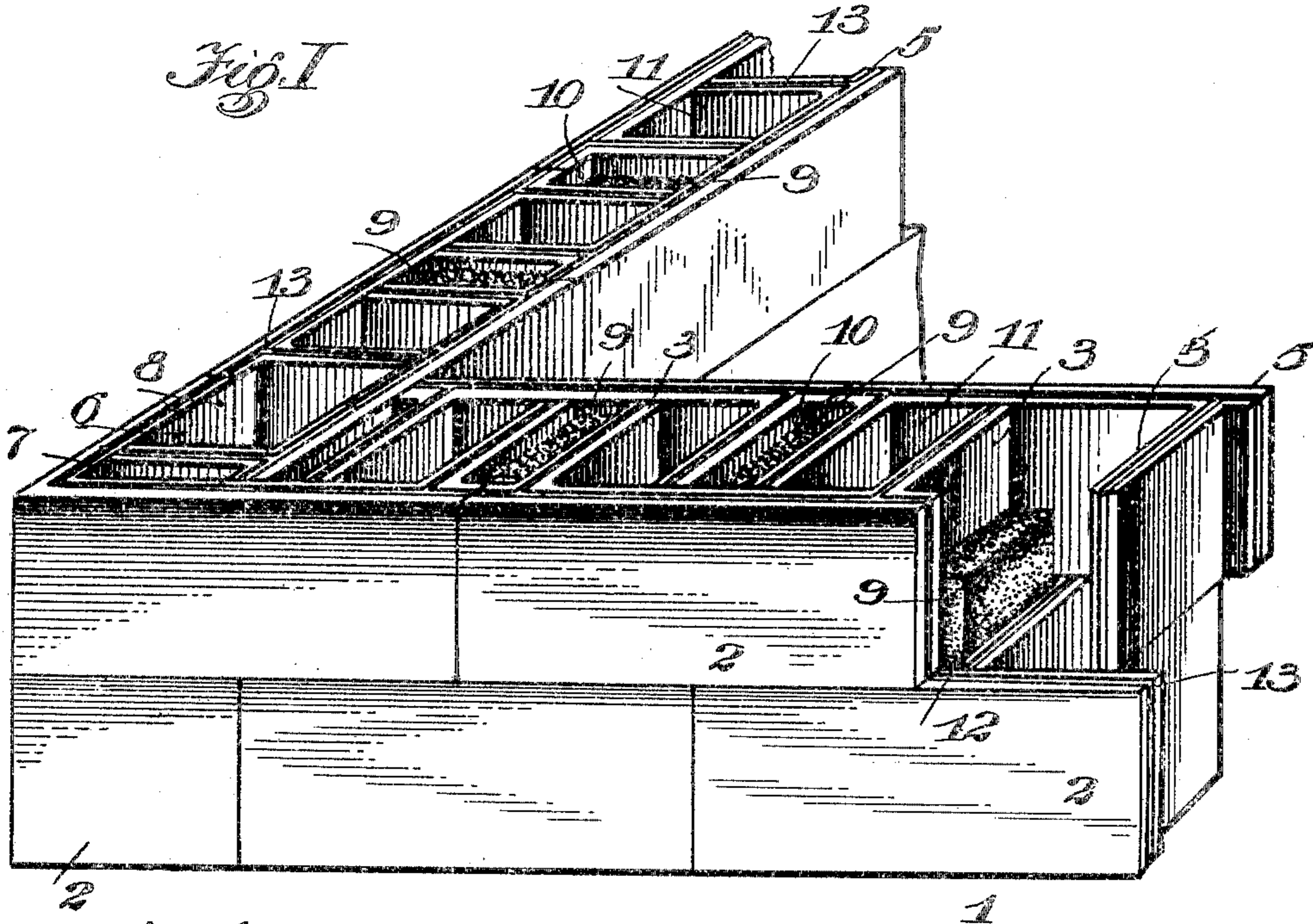


No. 793,829.

PATENTED JULY 4, 1905.

A. W. EAGER.
WALL STRUCTURE.
APPLICATION FILED MAR. 16, 1903.



Witnesses

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UNITED STATES PATENT OFFICE.

ABRAHAM WESLEY EAGER, OF LOS ANGELES, CALIFORNIA.

WALL STRUCTURE.

SPECIFICATION forming part of Letters Patent No. 793,829, dated July 4, 1905.

Application filed March 16, 1903. Serial No. 147,921.

To all whom it may concern:

Be it known that I, ABRAHAM WESLEY EAGER, a citizen of the United States, residing at Los Angeles, in the county of Los Angeles and State of California, have invented a new and useful Wall Structure, of which the following is a specification.

An object of this invention is to provide a wall of great tensile and lateral strength and of comparatively light weight and to make convenient provision for leading pipes, wires, &c., up through the wall.

This invention includes a wall structure as a whole and also the blocks from which the wall is built.

The accompanying drawings illustrate the invention.

Figure I is a fragmental view of a wall constructed in accordance with this invention. Fig. II is a plan section of a fragment of the wall at a corner. Fig. III is a vertical section on line III III of Fig. II. Fig. IV is a section on line IV IV of the same view.

This novel wall 1 may be built up of blocks 2, of concrete or other material, molded or otherwise formed and hardened before being placed in the wall. Each of such blocks may comprise two webs 3 and a slab 4, formed integral with said blocks 2 and projecting beyond one or both of said webs to form one or more lugs 5, which form end abutments for the blocks. The wall may be constructed by laying the blocks together reversely, the slabs 4 forming the opposite sides of the wall and the webs 3 of the blocks on one side of the wall being spaced apart by reason of the engagement of the end lugs 5. The webs of the blocks on the one side of the wall engage the slabs of the blocks on the other side of the wall by abutting against said slabs and in laying the wall the blocks are placed with the end webs of two blocks midway between the end webs of an opposite block, and so on with the blocks of each side throughout the wall structure. The webs 3 extend transversely of the wall and are preferably equal in length. It is evident that for corner-blocks the end abutment or lug 5 is desirably omitted, the slab portion 4 and the end web 9 being both lengthened sufficiently to extend

around the end member of the meeting wall and to close the joints, as will be understood from the drawings. The blocks are proportioned so that in turning a corner slab 4 may be inserted into a corner 6, with its end abutment 5 engaging the inside of the slab of said corner-block, thus leaving at the corner two hollow spaces 7 and 8, both of which are desirably filled with grout 9 in completing the construction of the wall. The spaces 7 and 8 of the one course will be transposed with relation to the spaces 7 and 8 of the course above and below the same, so that when said spaces are filled with grout the corner will be perfectly interlocked with artificial stone formed in place around webs of the corner-blocks. When the blocks are placed together, as above described, opposing webs of adjacent blocks, with abutment portions of the blocks on one side of the wall and the central portion of the slab on the other side of the wall, will form spaces 10, which may be termed "joint" spaces, while between said joint spaces interspaces 11 are provided, formed by intermediate portions of the slabs and the webs abutting thereagainst. The joint spaces 10 between the adjacent webs and slabs and abutments of adjacent blocks are desirably filled with grout 9, thus forming artificial strong bonds between the blocks from top to bottom of the wall, the interspaces 11 being left open or uncemented to give a light, cheap, and non-conducting wall. The spaces 10 and 11 between the slabs and bonds will be continuous from top to bottom of the wall, the webs 3 being in vertical alinement, and the grout in the spaces 10 will form stone piers or studding in places spaced apart at one-half the lengths of the blocks.

It is to be understood that I do not limit myself to the exact construction shown or the exact location of the webs, as in a shorter or lower wall, for instance, I would place the webs 3 close to the ends of the lugs or abutments 5, thereby creating less space 10, which requires less concrete.

I deem it desirable to make the slabs and in some instances to make the webs nine inches wide and ten inches high and the abutments or lugs two inches in length, while the

slabs, including the end abutments or lugs, form a twenty-four-inch face; but these proportions may be varied. With blocks of the proportions stated the concrete piers or stud-
 5 dings 12 will be nine by four inches and the open interspaces 11 would be five by nine inches, while the webs would be one and one-half by nine by ten inches and the slabs, including the abutments, would be one and
 10 one-half by twenty-four by ten inches.

It is possible to so exaggerate the abutments as to diminish the space between the webs on the slab so that the webs of the slab might be only two inches, more or less, apart,
 15 and when the wall was completed the spaces between such closely-juxtaposed webs might be filled with concrete, the same being a practical reversal of the form shown, in which the juxtaposed webs belong to different lots; but
 20 I do not deem such an exaggeration as the desirable form of this invention.

If desired, the proportions may be greatly changed. For instance, the end abutments
 5 may project one-fourth or one-half inch, so that the spaces between the webs to be filled with concrete might be one-half inch or more, if desired, and be filled with liquid grout; but all such changes are within the
 25 skill of the constructor and may be employed at pleasure without departing from the spirit
 30 of this invention.

The upper and lower edges of each block are formed with grooves 13. Thus when the blocks are laid in the wall the grooves may be
 35 filled with cement, which when hardened will form a key which locks the blocks from shifting.

By referring to Fig. II it will be seen that when the blocks are placed together in the
 40 manner hereinbefore described they naturally tend to form a straight wall, owing to the positions and equal lengths of cross-webs 3. Hence an inexperienced person may lay a straight wall with but little difficulty.

45 What I claim, and desire to secure by Letters Patent of the United States, is—

1. A wall formed of blocks, each block comprising a slab with webs projecting therefrom and abutment portions beyond the

webs to space the blocks, the blocks on the
 50 opposite sides of the walls being reversely arranged with their webs extending across to abut against the slabs of opposing blocks and the blocks in adjacent courses breaking
 55 joint, with their webs in vertical alinement, forming vertical channels and cement filling in some of said channels forming a studding separated by open vertical channels.

2. A wall formed of courses of blocks, each block, comprising a slab with webs project-
 60 ing therefrom and end abutment portions beyond the webs, the blocks in each course being reversely arranged on the opposite sides of the wall with their end abutments in con-
 65 tact and their webs extending across to contact with the central portions of opposing slabs to form joint spaces between said central portions, the adjacent webs and the end
 70 abutments, and interspaces between the intermediate portions of the slabs and adjacent webs, and cement filling in the joint spaces forming a studding separated by inter-
 spaces.

3. A corner construction for two meeting walls, each wall built up of break-joint
 75 courses of blocks, formed of slabs with webs and with end abutment portions, the end block of one wall abutting against the inside of the end block of the other wall in each
 80 course, and corner-blocks formed of slabs with end webs extending around the end of the end block in the other wall and abutting against the end web and end abutment there-
 85 of to form spaces at each side of said end web, the corner-blocks in adjacent courses being transposed to transpose said spaces, and cement filling in said spaces, forming corner-studding interlocking with the meeting walls.

In testimony whereof I have signed my name to this specification, in the presence of
 90 two subscribing witnesses, at Los Angeles, in the county of Los Angeles and State of California, this 11th day of March, 1903.

ABRAHAM WESLEY EAGER.

Witnesses:

GEORGE T. HACKLEY,
 JULIA TOWNSEND.