

No. 611,763.

Patented Oct. 4, 1898.

E. S. THOMAS.

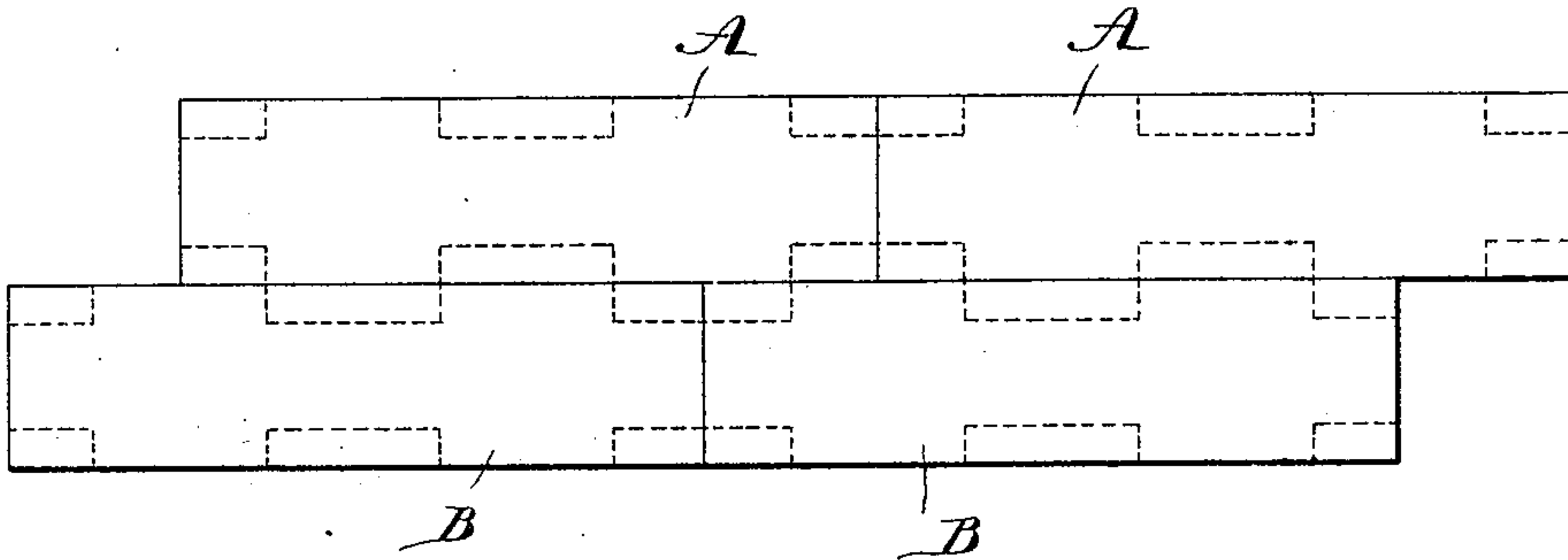
TILE.

(Application filed July 28, 1897.)

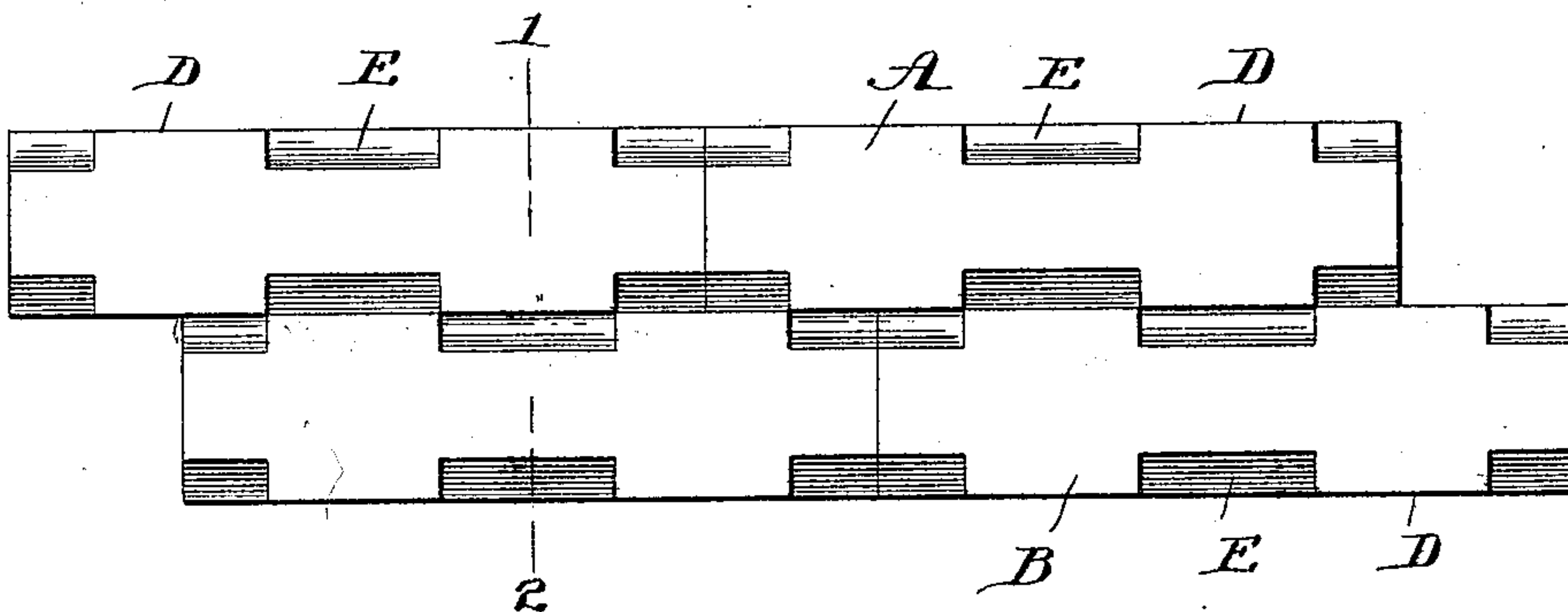
(No Model.)

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*Fig. 1.*



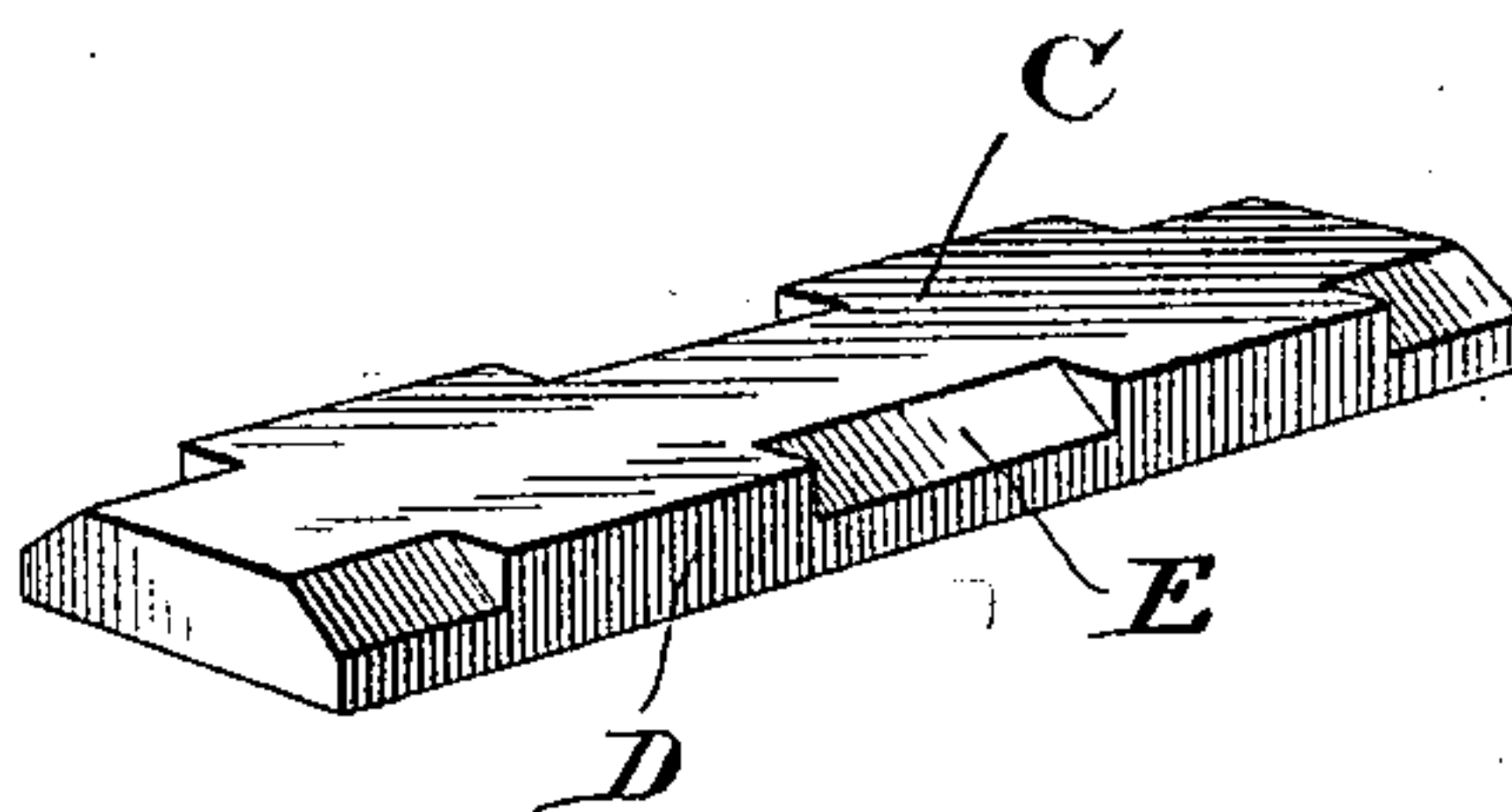
*Fig. 2.*



*Fig. 4.*



*Fig. 5.*



*Fig. 5.*



Witnesses.

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2 Sheets—Sheet 2.

Fig. 10.

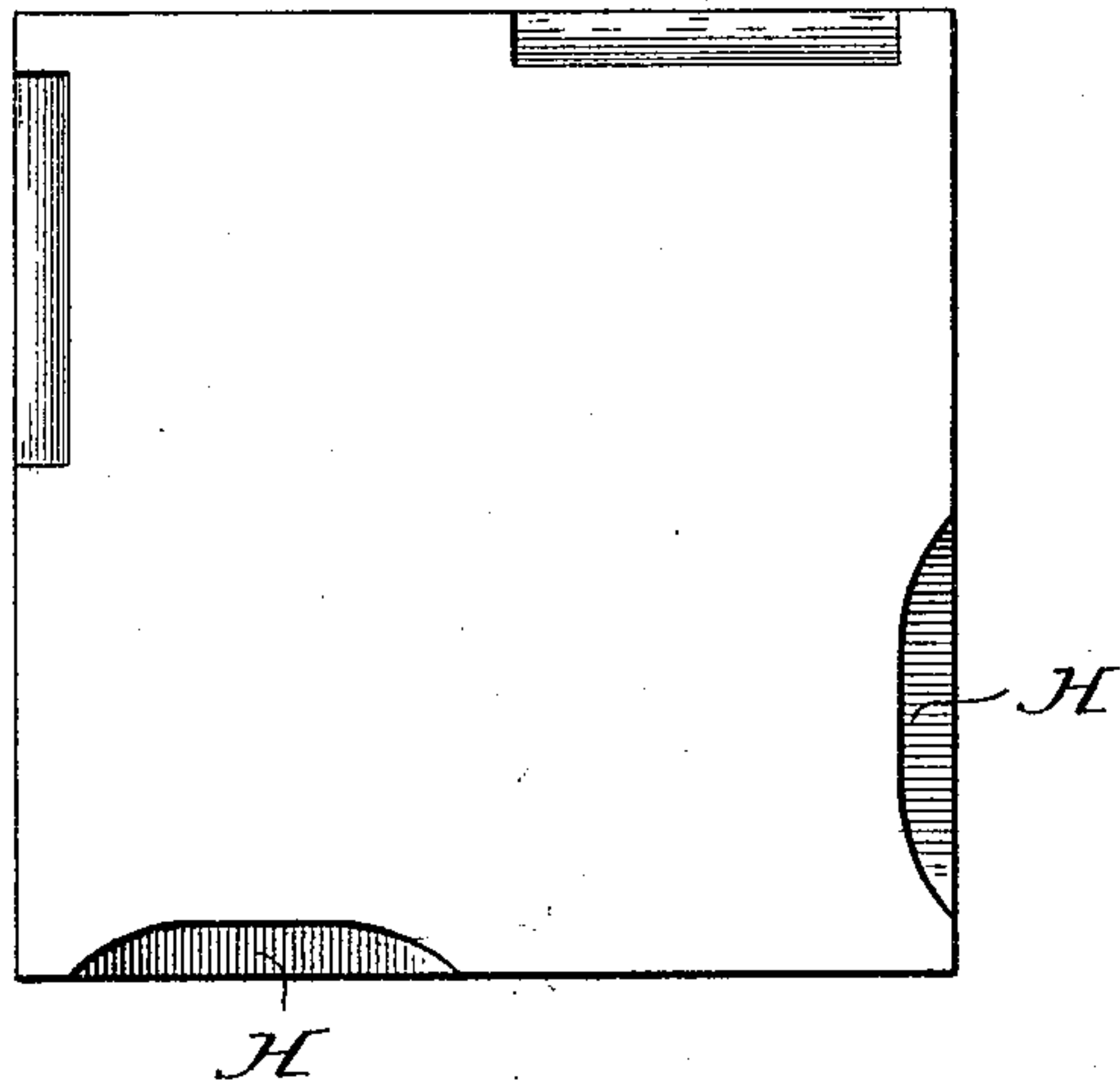
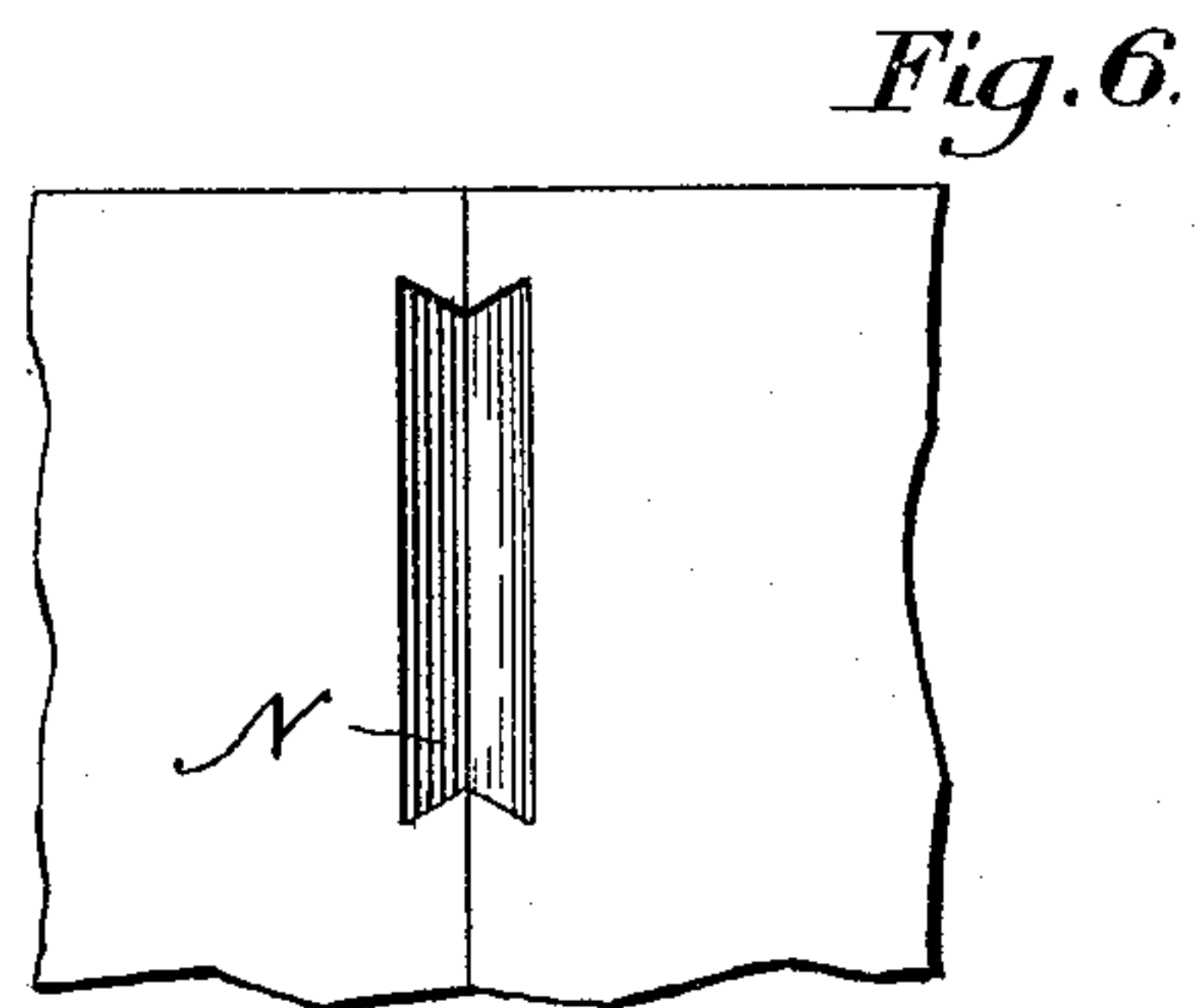
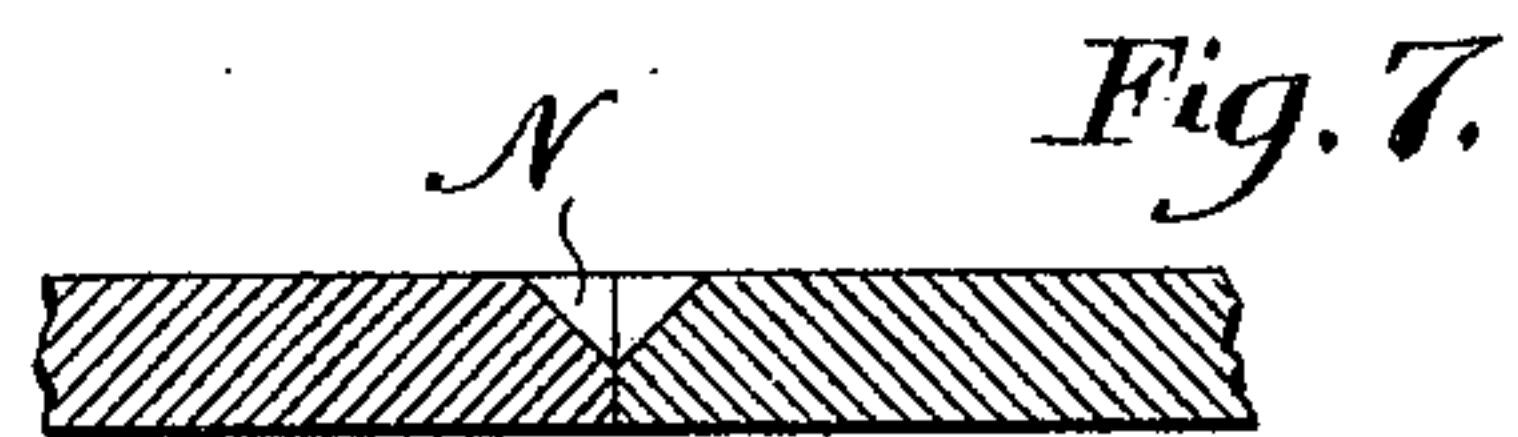
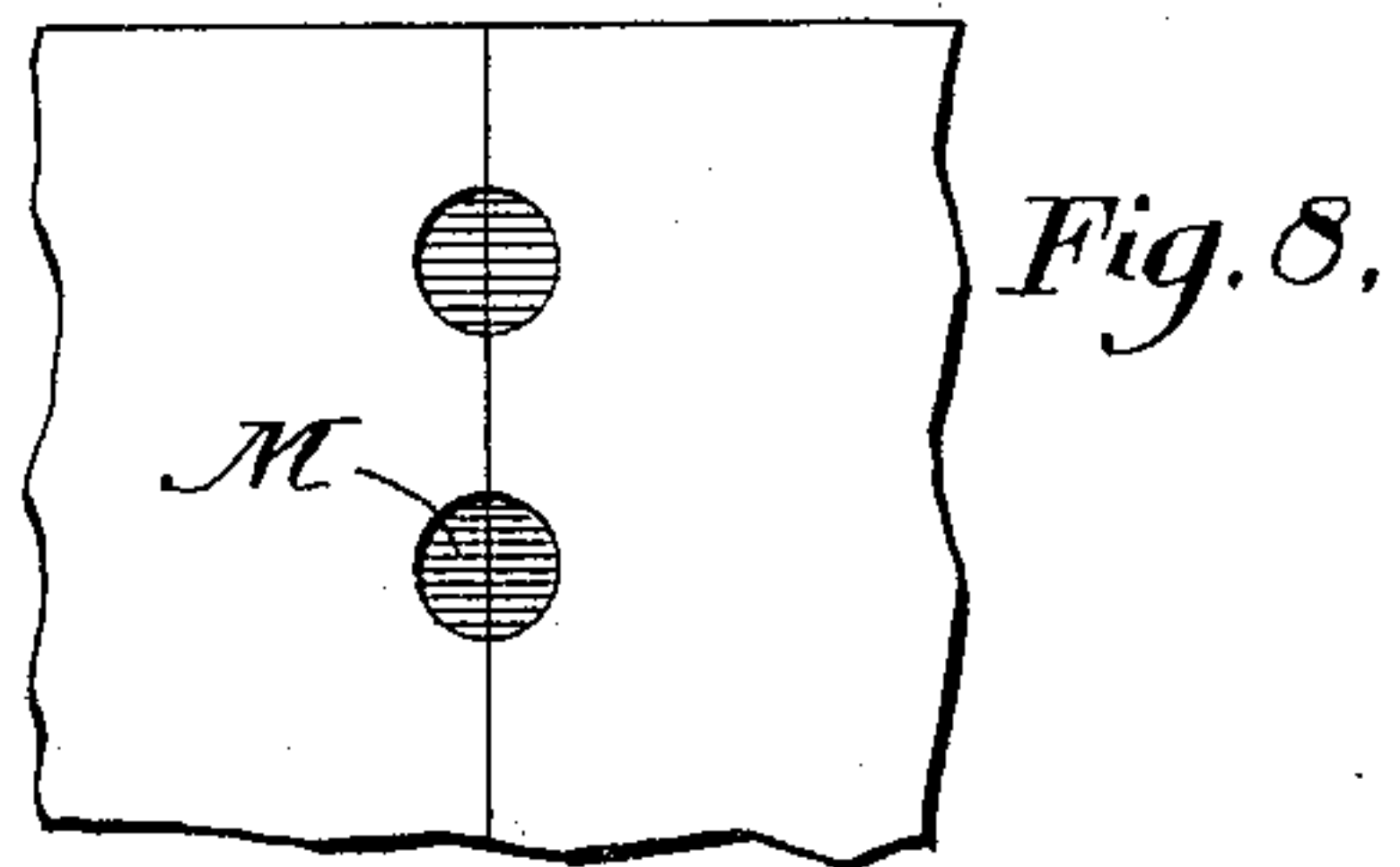
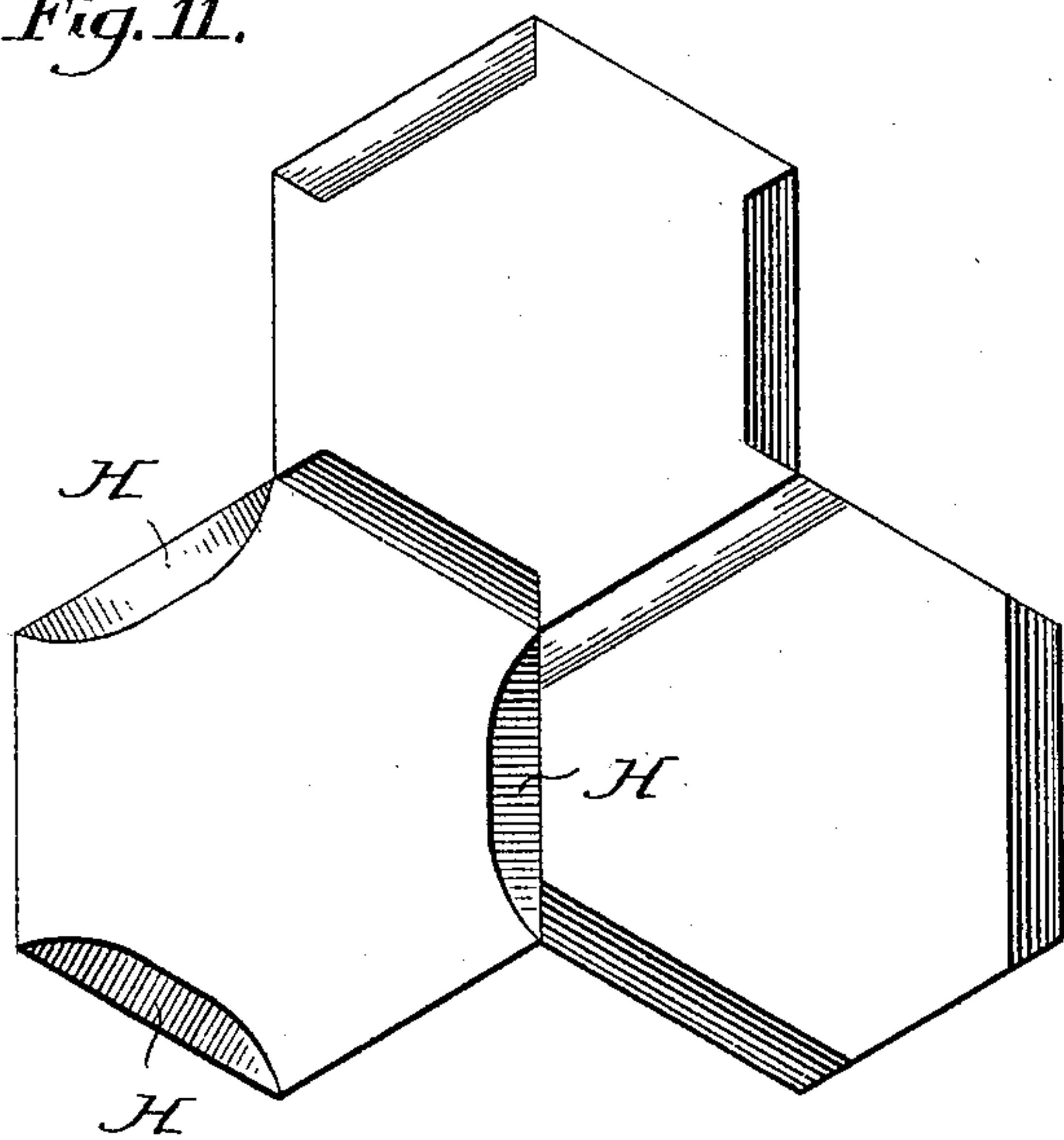


Fig. 11.



Witnesses.

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# UNITED STATES PATENT OFFICE.

EVALENA S. THOMAS, OF LINDENWOLD, NEW JERSEY.

## TILE.

SPECIFICATION forming part of Letters Patent No. 611,763, dated October 4, 1898.

Application filed July 28, 1897. Serial No. 646,171. (No model.)

*To all whom it may concern:*

Be it known that I, EVALENA S. THOMAS, a citizen of the United States, residing at Lindenwold, in the county of Camden and State of New Jersey, have invented certain new and useful Improvements in Tiles, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming a part of this specification.

My invention relates to the construction of tiles for floorings and such like uses, and has for its object to construct a tile which will present vertical adhering surfaces for cementing the tiles to the floor and to each other without destroying the continuity of its flat exterior face; and for this purpose my invention consists in constructing the under surface of a tile along its vertical sides or edges with alternate recesses, such recesses presenting either perpendicular faces leading upward to a point less than to the top surface or vertically-inclined faces leading from the flat base of the tile to or near the flat top surface thereof; also, in certain details of construction hereinafter mentioned.

In the accompanying drawings, illustrating my invention, Figure 1 is a plan view of the top surface of four such tiles placed in position. Fig. 2 is a plan view of the base or under side of four such tiles placed in position. Fig. 3 is a plan view of the under face of a single one of such tiles. Fig. 4 is a lateral cross-section of a pair of such tiles in position, taken through the line 1 2 of Fig. 2; and Fig. 5 is a like view of another mode of laying the same tiles. Fig. 6 is a plan view of the under side, and Fig. 7 a section, of the same tile with a dovetail recess. Fig. 8 is a plan of under side, and Fig. 9 a section, of same tile with the recess in semicylindrical form; and Figs. 10 and 11 under side plan views of several tiles in position, showing modified embodiments of the same principle of construction.

In the construction of floorings, walls, &c., of superficially rectilinear tiles of this character a base or stratum of cement is first laid down upon the floor and the tiles then placed thereon closely contiguous to each other to form a solid floor, and the vertical sides or

edges of the tiles meeting each other closely it is obvious that the tiles will be held in position only by the adherence of the cement to the under face thereof, as there is necessarily no adhesion nor room for adhesion of the cement to the vertical sides of the tile-blocks. In the construction of solid flooring with tiles of this character I have discovered that if the tile be constructed with open-bottomed edge recesses along its vertical sides extending from the base upward to a point less than the plane of the top surface, so that when laid in the bed of cement the tiles will present vertical or vertically-inclined sides to the cement, the tiles will be held in position very much longer than though reliance were placed solely on the adhesive force of the cement to the flat under face of the tile, and they will, moreover, be cemented to each other. This construction overcomes a very great defect in tile floors of this character, in which it is matter of common knowledge that the tiles constantly become loose. With tiles constructed according to my invention, as described, the tiles preferably being laid relatively to each other as shown in Fig. 4, the interstice formed between two adjoining tiles presents, first, a perpendicular side of one contiguous tile, and, second, a vertically-inclined side of the adjoining tile, against both of which surfaces the adhesive force of the cement operates, and thus the tiles are not only held by the adhesive force of the cement to the floor or stratum on which they are placed, but they are cemented to each other by means of the interstice formed between them by constructing them in the manner described.

While I prefer to lay the tiles relatively to each other as shown in Fig. 4, the same effect in principle, though to a less degree, may be had by laying the tiles as shown in cross-section in Fig. 5.

In the drawings, A A and B B represent four such tiles in position on a floor as I prefer to lay them relatively to each other. By reference to Fig. 1 it will be seen that the upper flat face presents precisely the same surface as tiles of present ordinary construction—that is to say, the continuity of the top surface is unbroken by the application of my



invention, which relates exclusively to the under portion of the tile, which is to be presented to the cement.

Referring to Fig. 3, C represents the flat under surface of the tile, and D represents one of its perpendicular rectilinear sides. E represents one of the edge recesses, with vertically-inclined faces alternating at regular intervals, such faces proceeding from a point on the flat under surface of the tile upward and outward to near the edge of the flat upper face of the tile. While these vertically-inclined faces are shown in the drawings as flat, it is obvious that they may be curved—that is to say, presenting vertically-inclined convex or similarly-inclined concave surfaces—as indicated at H in Figs. 10 and 11; or the recesses may be semicylindrical, as at M, Figs. 8 and 9, so that when two such tiles are placed side by side a cylindrical interstice will be formed between them, and in either event it will enable the adhering cement not only to fasten each of them independently to the stratum or floor by adhesion to the flat under face of the tile, but will furthermore cement the contiguous tiles to each other by the adhesion of the cement to their perpendicular sides at intervals and to their vertically-inclined sides at intervals.

By reference to Figs. 6 and 7 it will be seen that the form of inclined faces at intervals shown in Fig. 3 may be increased in effectiveness by dovetailing the corners at N.

By reference to Fig. 11 will be seen a modification of the invention, involving the same principle, in which are shown hexagonal tiles in which the side face is not a recess, but extends along the edge of the tile, but, as before, proceeding upward from the base to a point less than the top surface of the tile.

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

1. An improved tile for floorings, &c. having perpendicular rectilinear sides constructed with alternate recesses therein presenting alternate perpendicular and vertically-inclined faces respectively; substantially as described.

2. A flooring or the like, composed of tiles placed contiguous to each other in the same horizontal plane, such tiles having their vertical sides or edges constructed with open recesses extending from the base of the tile upward to a point less than the top surface thereof, and thereby forming open bottom interstices or recesses between the adjoining tiles below the upper or wearing surfaces thereof; substantially as described.

In testimony whereof I have hereunto affixed my signature this 28th day of June, A. D. 1897.

EVALENA S. THOMAS.

Witnesses:

MAUD THOMPSON,  
THOMAS F. GROSS.