

(No Model.)

2 Sheets—Sheet 1.

A. CHASE.  
TILE FASTENING.

No. 282,164.

Patented July 31, 1883.

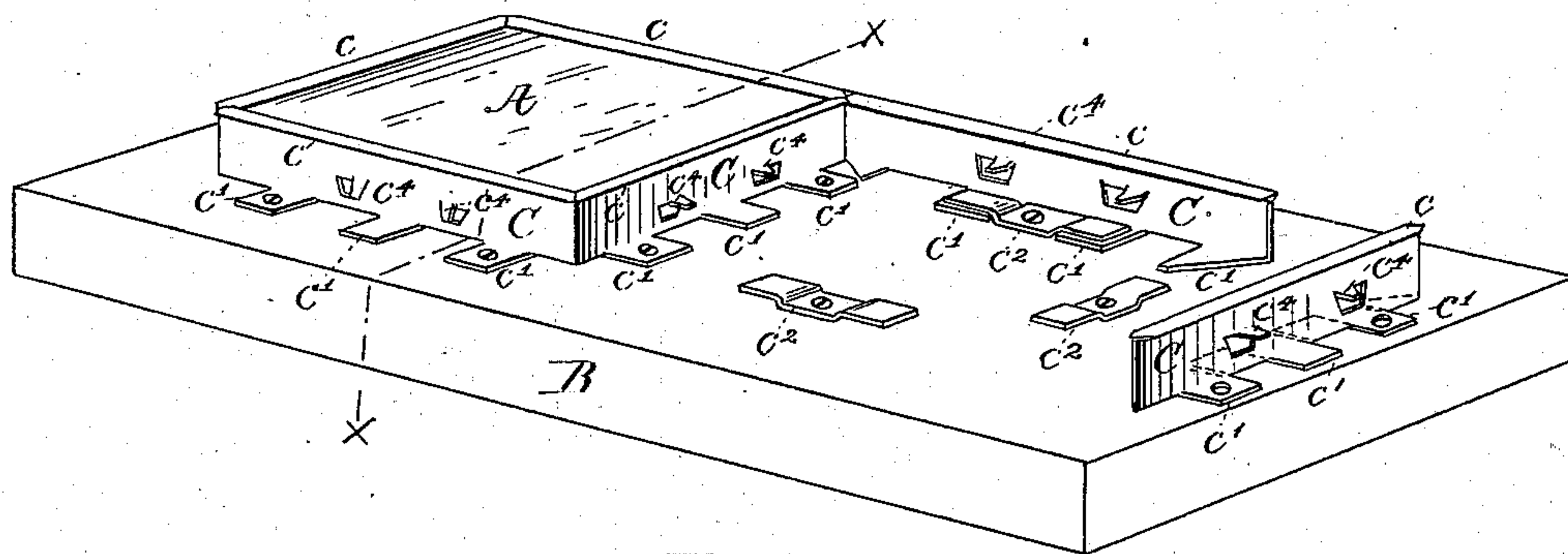


Fig. 1.

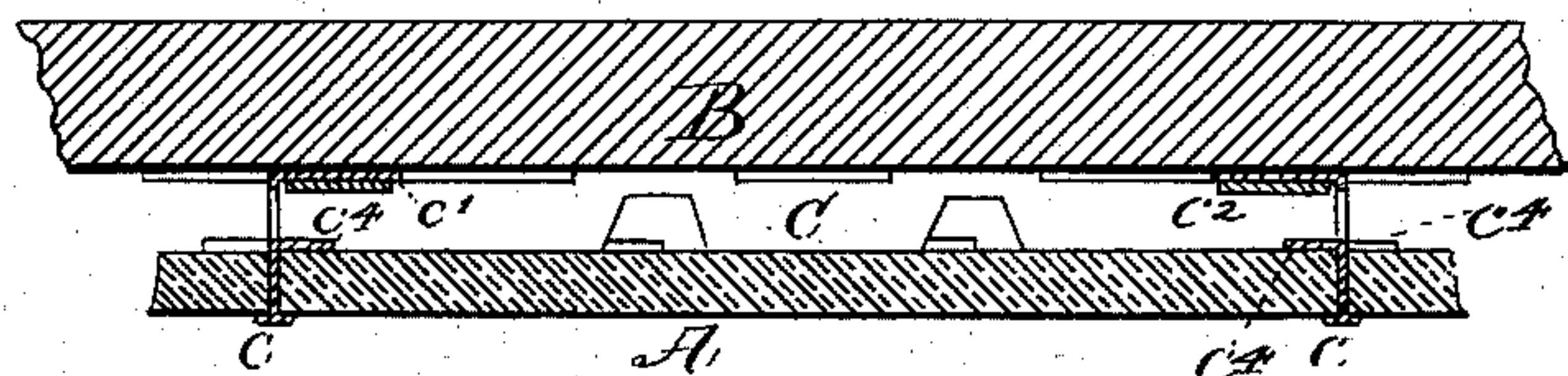


Fig. 2.

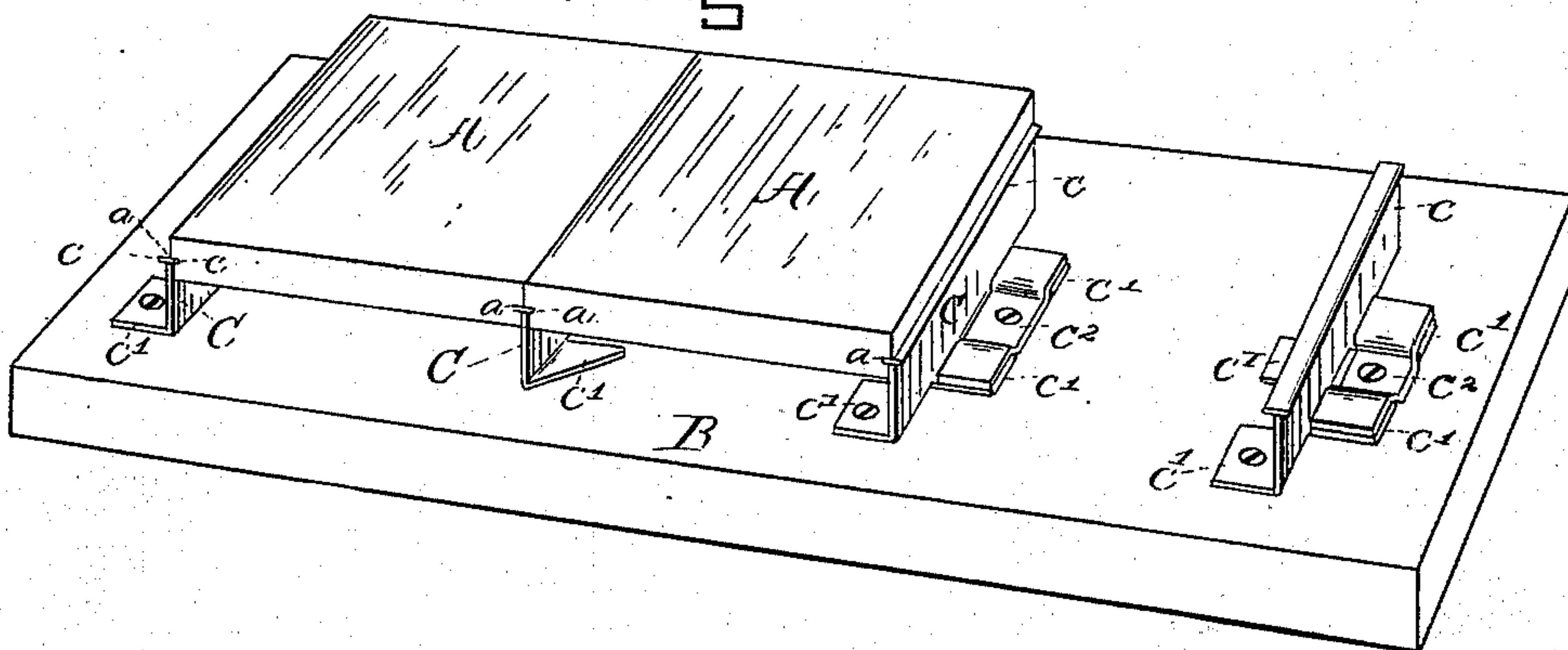


Fig. 3.

WITNESSES

H. L. Fogg.

Jed. Harris

INVENTOR

Albert Chase

by his attys

Clarke & Raymond.

(No Model.)

2 Sheets—Sheet 2.

A. CHASE.  
TILE FASTENING.

No. 282,164.

Patented July 31, 1883.

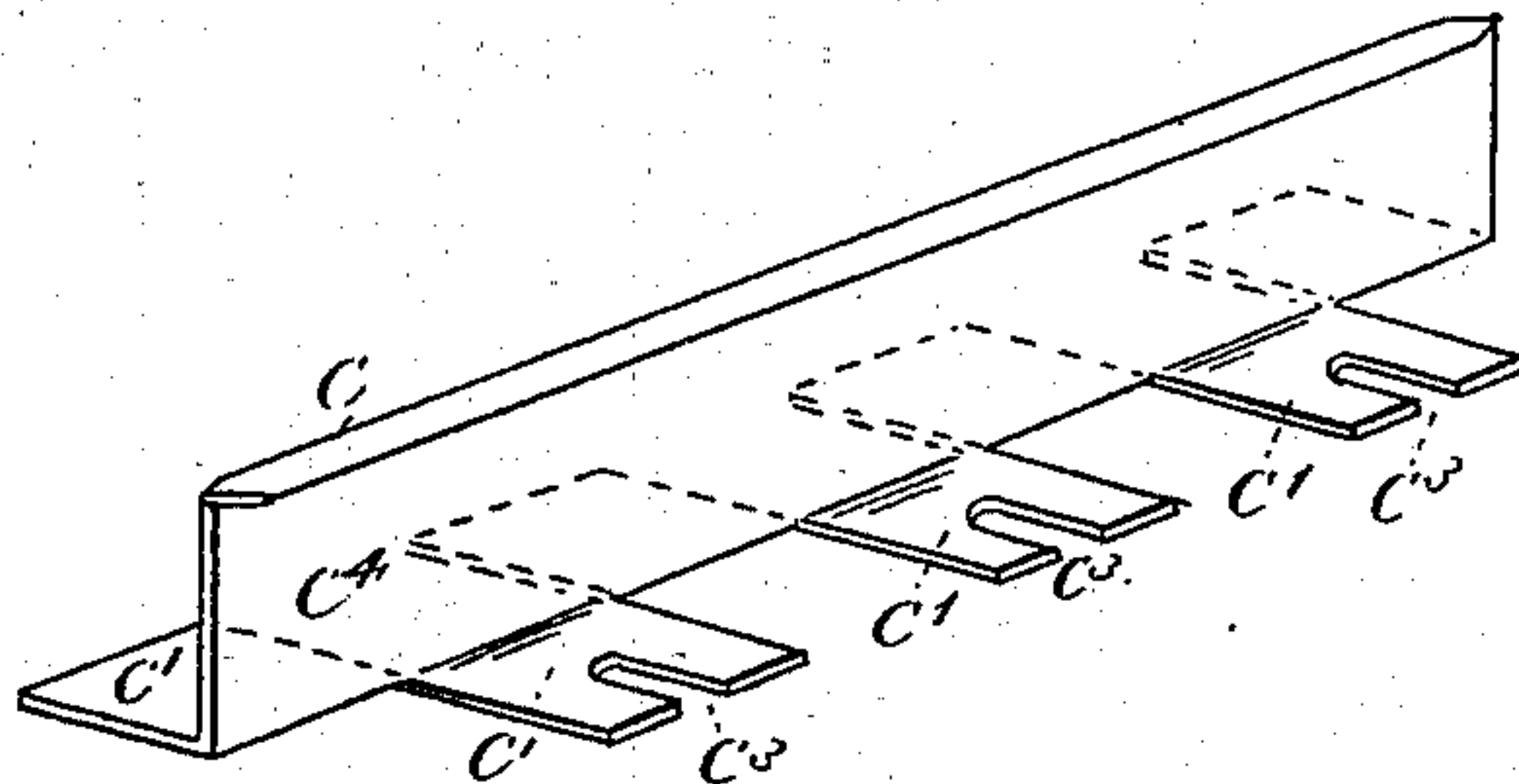


Fig. 4-

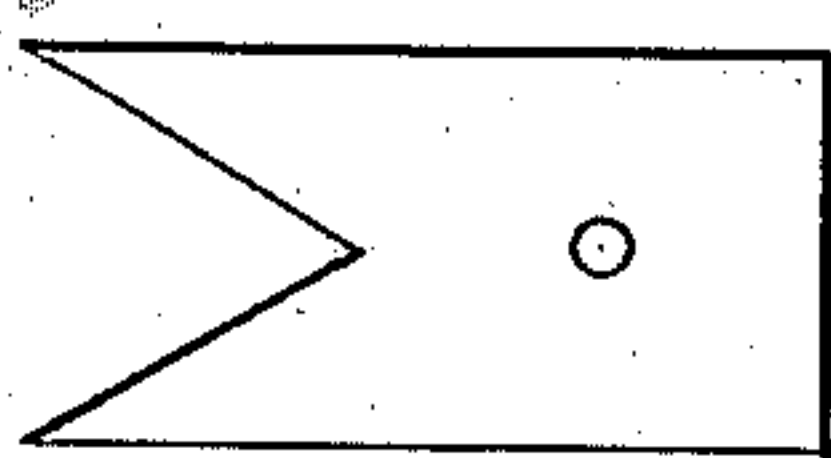


Fig. 5-

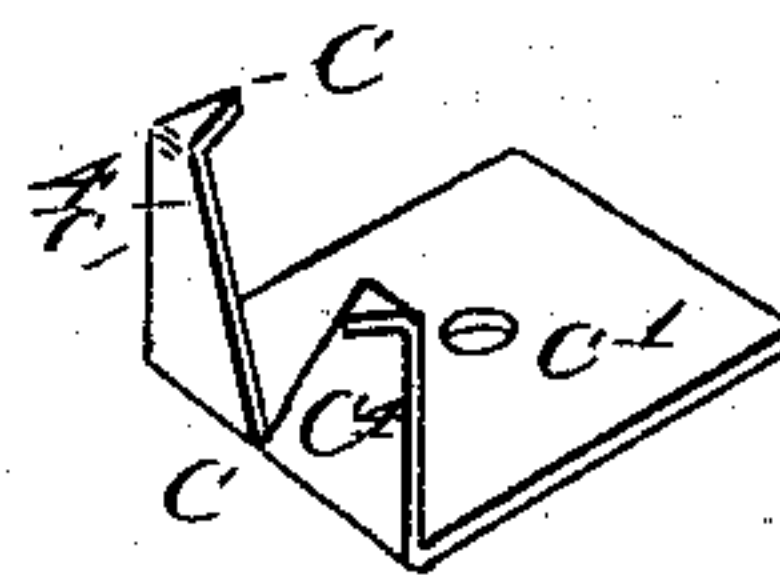


Fig. 6

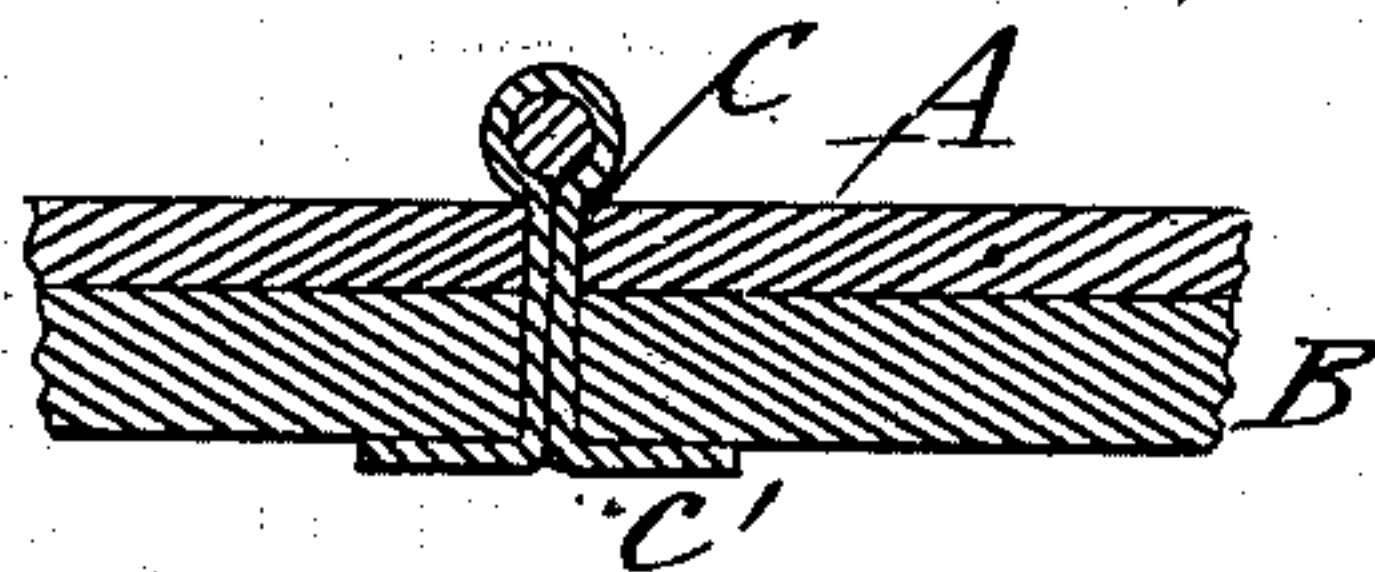


Fig. 7-

WITNESSES

*W. L. Fogg.*  
*Ed. Harris*

INVENTOR

*Albert Chase*  
*by his attys*  
*Clarke & Raymond*



# UNITED STATES PATENT OFFICE.

ALBERT CHASE, OF BOSTON, ASSIGNOR OF ONE-HALF TO CHARLES A. WELLINGTON, OF LEXINGTON, MASSACHUSETTS.

## TILE-FASTENING.

SPECIFICATION forming part of Letters Patent No. 282,164, dated July 31, 1883.

Application filed July 13, 1882. (No model.)

*To all whom it may concern:*

Be it known that I, ALBERT CHASE, of Boston, in the county of Suffolk and State of Massachusetts, have invented a certain new and useful Improvement in Tile-Fastenings, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming a part of this specification, in explaining its nature, in which—

Figure 1 is a perspective view of an inverted section of a ceiling or support, a tile in place, and fastenings therefor and for another tile. Fig. 2 is a cross-section upon the line  $xx$  of Fig. 1, representing the correct position of suspended tiles in relation to their support. Fig. 3 represents a perspective of a modified form of the invention in an inverted position. Fig. 4 is a perspective view of one form of fastening-strip. Fig. 5 is a plan view of a blank from which the form shown in perspective in Fig. 6 is made. Fig. 7 shows in section another form of the invention.

Heretofore it has been customary to fasten tiles to, upon, or in walls, ceilings, or in other vertical, horizontal, or suspended positions by means of plaster or cement, in which the tiles are set or embedded, or by means of bolts or screws whose heads project upon the surface of the tiles, and shanks pass through holes or recesses in the tiles and through or into the support behind. The plaster or cement fastening is expensive, not easily used, not well adapted for providing a uniform level or plane to the tiles, permanently secures the tile in place, so that their removal is very likely to injury them, while at the same time dampness or moisture destroys its holding-power. The screw and bolt fastenings demand that the tile be practically mutilated, in order that they may be used, as it is necessary to form thereon disfiguring holes or recesses at considerable expense and trouble for the reception of their shanks.

This invention overcomes the objections and defects above named, and has other advantages which are mentioned in describing its construction and application.

It consists of thin metal pieces or strips arranged to project from the surface to which the tiles are secured, between the tiles, and

having flanges which enter grooves in the sides of the tiles, or which lap upon their surface.

These metal holding-strips may be secured to their support, wall, or ceiling in such a way as to permit the expansion and contraction thereof, if desired. They may also have portions adapted to be turned from the body of the strip upon the backs of the tiles, to serve as stops or as clamps in holding the tiles at a given height or level or against the flanges.

In the drawings, A represents the tiles; B, the frame or support or backing in, to, or upon which the tiles are adapted to be secured. C are the fastening or holding strips. They are preferably made of thin metal, and with the flanges or projections  $c$  upon the outer edge, which project upon the surface of abutting tiles or into grooves  $a$  cut therein. The holding-strips also have the arms  $c'$  integral therewith and bent at right angles thereto, which rest upon and are fastened to the support or backing by means of screws passed through holes therein, or by means of the cross pieces or plates  $c''$ , which are shaped to receive the arms  $c'$ , as represented, and are fastened to the supports or backing by screws. When this last-named construction is employed, provision for the creep of the backing or support in relation to the tiles upon expansion or contraction is permitted, as the arms of the holding-strips are not rigidly fastened to the cross-plates, but are simply supported thereby. Of course a limited extent of creep, and perhaps a sufficient extent, would be obtained by providing the arms with slots  $c^3$  and screws. The arms  $c'$  may project from one or both sides of the fastening-strip, as desired. When the construction shown in Figs. 1 and 2 is employed, it is desirable that the tiles be held against the flanges, in order that they may be firmly supported and at a uniform level or plane; and I have furnished the strips for this purpose with the clamping or holding lugs or projections  $c^4$ , which are formed from the strip itself, and which are bent upon the back of the tiles, as shown in said figures. As many of these holding-lugs or clamping-projections may be used as are necessary, and they may be arranged to be folded in opposite directions, so that one set shall fold under a tile upon one



side of a holding-strip, while the other set shall be used with the tile upon the other side thereof. This manner of supporting or securing tiles is not only cheap and strong, but when the flanges of the holding-strip project upon the surface of the tiles and are continuous, or very nearly so, a metal frame or setting is provided, which may be made to increase the beauty of the tiles by contrast or otherwise. If this effect is not desired, the metal flanges may be made narrower and shorter and of the same color as the tiles, and in such case they would not be distinguished from the tiles.

It will be observed that the holding-strips are adapted to fasten in place tiles of average thickness, and to place them or set them so that their upper ornamental surfaces shall be on the same plane or level, because the holding-strips are of the same height and the flanges of the same thickness, and that the strips are made of sufficient height to take in the thickest tiles of ordinary make, and the clamps or projections are of a length to fasten the thickest or thinnest tiles upon the flanges.

It will be noticed, also, that by fastening the holding-strip by cross-straps the strips may be moved upon the support for the purpose of adjustment to the size of the tile, and that, therefore, less exactness in placing the strip is required; also, that the tiles can be readily removed without damage and others substituted, and the design easily and cheaply varied; also, that the holding-strip may be made as shown in Fig. 7—that is, folded at or near the center of the length and the end or ends passed through holes in the support or backing and turned in or clinched on the other side; and the flange in such cases is provided either by flattening the folded edge or by inserting a wire or rod and spreading it; also, that each of the holding-strips, excepting those upon the outer edge of the outer tile, may serve to hold the tiles on both sides thereof; also, that this method of fastening does away with the necessity that otherwise exists of carefully preparing the tile-supporting surface; also, that the holding-strips form substantially a metal joint between the undivided tiles, in that it locks or fastens their contiguous edges together, while it also serves to support the united tiles in position; also, that the fastening is applicable to all kinds of tile-work, and that when used as a floor or otherwise plaster and cement can be used additionally.

I am aware that the Patent No. 239,846, granted Jacob Ring for a portable floor, describes a device for uniting pieces of wood to

each other and to a suitable support, and that Patents No. 129,826, dated July 23, 1872, and No. 115,471, dated May 30, 1871, granted Hodson and Brown, describe in an improvement in fire-proof roofs a metallic lathe or fastening of peculiar construction; but I consider that neither patent shows or describes the subject-matter of my invention, as they do not describe a fastening-strip adapted to be used for ornamental purposes and struck up or formed from sheet metal, having a fastening-arm, *c*, integral with the web of the fastening and bent at right angles thereto, and a stop or clamping-spur, *c'*, also integral with the web and adapted to be bent out from the web at an angle, and, if desired, of a length to render it adaptable for tiles, panels, &c., of varying thicknesses.

Having thus fully described my invention, I claim and desire to secure by Letters Patent of the United States—

1. A device for holding and supporting tiles and other like articles, having the flange *c* at or near the outer edge of a thin metallic plate or web, and the arms *c'*, integral with the web or plate and bent at an angle thereto, all substantially as and for the purposes described.

2. The metallic holding-strip *C*, having flange *c*, and the clamps or stops *c'*, integral therewith, all substantially as and for the purposes described.

3. A tile or panel holding device adapted to hold a tile or panel by means of the flange *c*, having arms *c'* integral therewith, and adapted to be fastened to a wall, ceiling, or other support in a manner to permit of the movement of the holding device thereon, all substantially as and for the purposes described.

4. The combination of the tile or panel holding strip *C*, having a flange, *c*, and the arms *c'*, integral therewith, with the cross plate or plates *c''*, fastened to the ceiling, wall, or other support, all substantially as and for the purposes described.

5. The combination of the tiles or panels *A* with metallic supporting-strips, fastened at their inner edges by arms *c'* to a suitable support, and extended between and about the tiles or panels, and having flanges which lap upon the outer edge of the tiles or panels and serve to hold them together and to the support, and to provide a continuous ornamental border thereto, all substantially as and for the purposes described.

ALBERT CHASE.

Witnesses:

F. F. RAYMOND, 2d,  
WILLARD C. FOGG.