

(No Model.)

F. M. VOGAN.
METALLIC ROOFING PLATE.

No. 567,700.

Patented Sept. 15, 1896.

Fig. 1

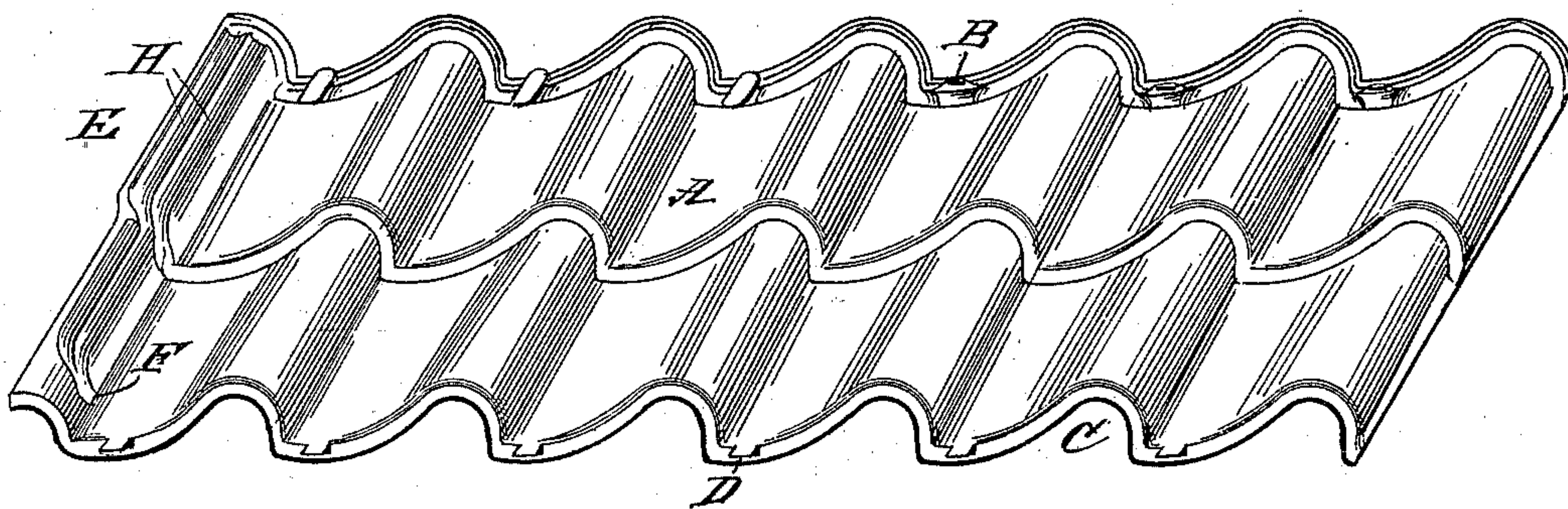


Fig. 2

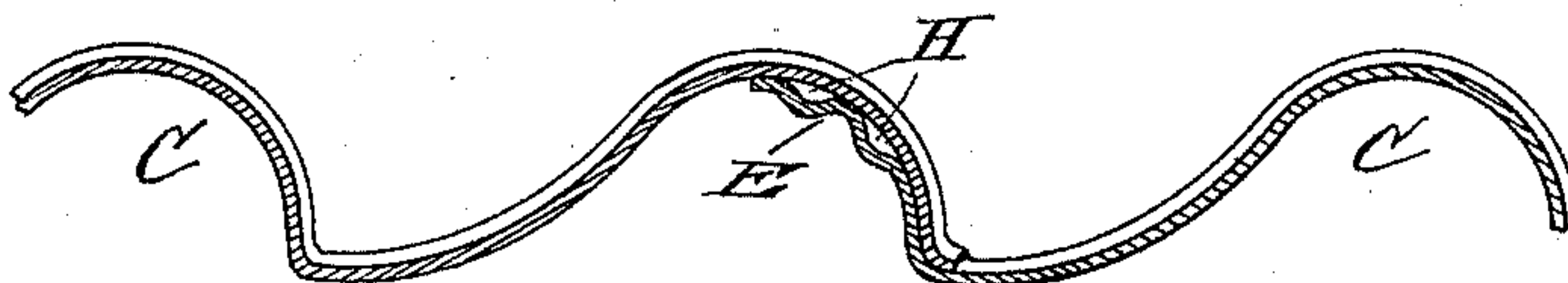


Fig. 4

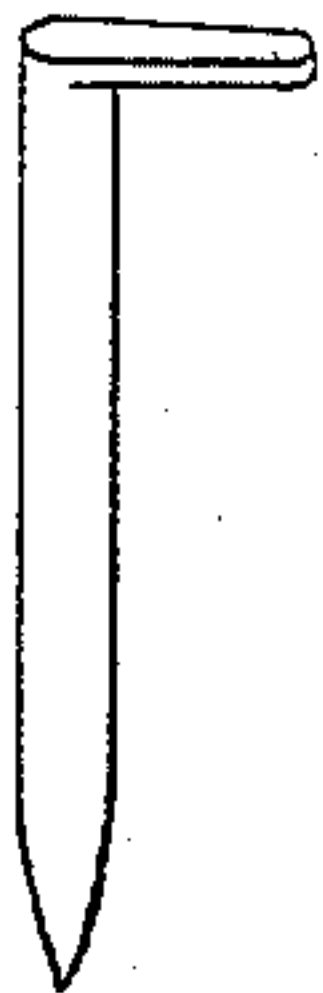
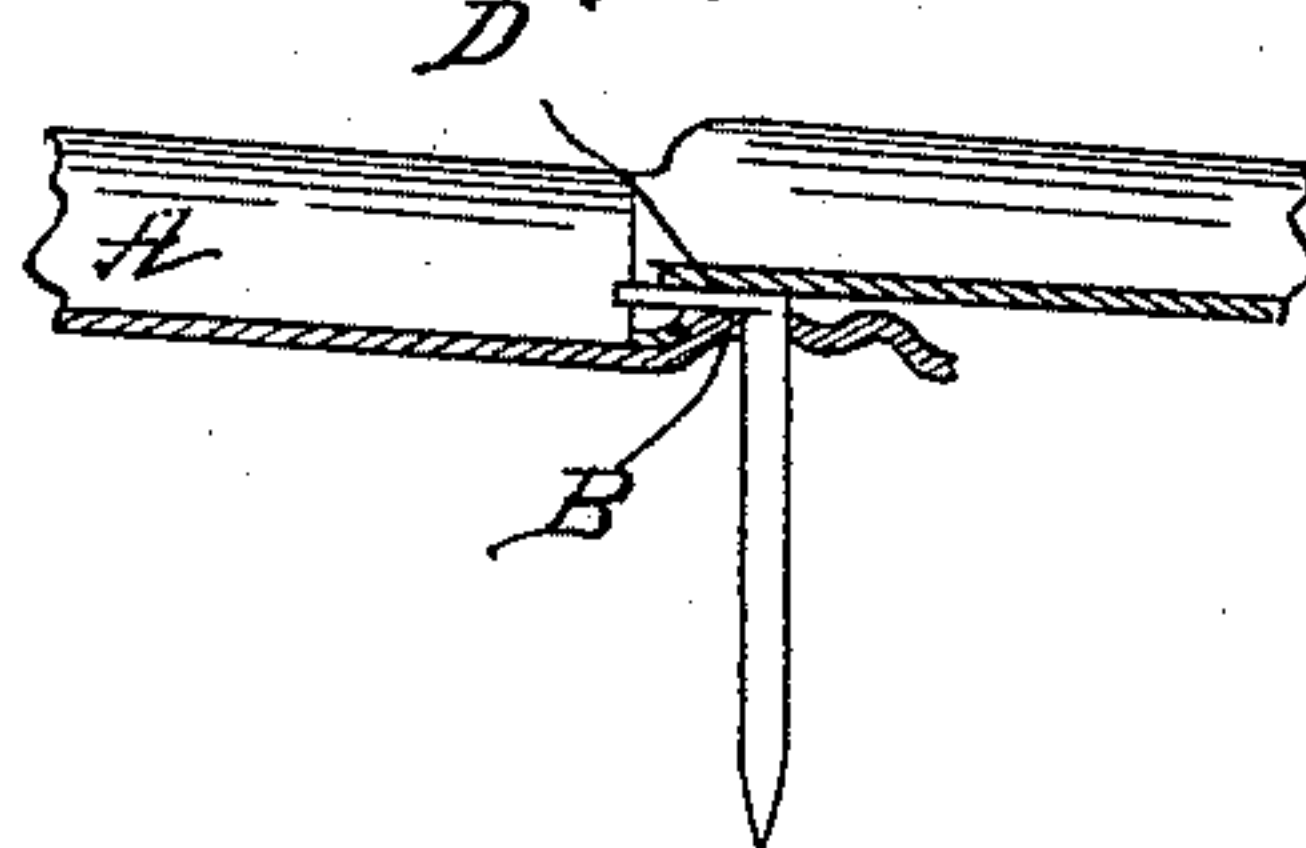


Fig. 3



WITNESSES

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UNITED STATES PATENT OFFICE.

FRANK M. VOGAN, OF CANTON, OHIO.

METALLIC ROOFING-PLATE.

SPECIFICATION forming part of Letters Patent No. 567,700, dated September 15, 1896.

Application filed November 11, 1895. Serial No. 568,548. (No model.)

To all whom it may concern:

Be it known that I, FRANK M. VOGAN, a citizen of the United States, and a resident of Canton, county of Stark, State of Ohio, have
5 invented a new and useful Improvement in Metallic Roofing-Plates, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, making part of this specification.

10 My invention relates to metallic roofing-plates made in imitation of the well-known Spanish tile; and it consists in certain improvements therein to overcome the capillary attraction between the plates at the overlapping
15 edges thereof and in the novel means of fastening the various plates to each other and to the roof, as will be more fully set forth in the specification, and illustrated in the accompanying drawings, constituting a part hereof.
20 The well-known Spanish or terra-cotta tiles are burdensome, and their weight makes it necessary to proportionately strengthen the entire superstructure. They are easily broken, become detached from the roof, and to
25 repair the same necessitates the removal of the entire roof.

Therefore my invention has for its object the imitation in sheet metal of any of the well-known forms of the Spanish or terra-
30 cotta tile.

In the accompanying drawings, in which like letters indicate like parts wherever employed, Figure 1 is a perspective view of my invention, showing one sheet having six double
35 or twelve single tiles stamped in one sheet. Fig. 2 is a longitudinal section showing two sections joined together. Fig. 3 is a section through the upper part of one plate and the lower part of another plate, showing the manner of fastening the plates to each other and
40 to the roof by means of the cleat-nail. Fig. 4 is a perspective view of the malleable cleat-nail.

Reference being had to the drawings, letter
45 A represents a sheet of tiling, preferably of the standard width, showing two rows of six tiles each, which may be of any of the well-known designs or configurations, one of which is shown in the drawings. The tiles may be
50 either stamped out separately or in sheets, as shown in Fig. 1. Upon the upper part of each sheet or tile there is formed a ridge con-

forming to the shape of the tiles, of a height not greater than the offset at the lower end of the sheet. This ridge performs the dual
55 purpose of stiffening the sheet and providing a properly elevated and drained point, at which the protected nail-hole may be made, as B. At the lower end of the sheet there is provided an offset C, conforming to the general
60 shape of the tile, which laps or covers the raised or ridged portion of the next sheet below. Out of this offset and at the top thereof there is formed a covered nail-hole D, in line with the nail-hole in the ridge heretofore described,
65 and by means of which the lower part of the sheet is slipped over the nail-head protruding from the ridge of the upper part of the next sheet below, and the two are then fastened
70 securely to each other and the roof, as shown in Fig. 3. The advantage gained by this novel method of fastening the sheets to each other and the roof is that the nail-holes are not only covered, so as to prevent leakage,
75 but their location is such as to cause a continuous pressure of the sheets upon the roof, and at the same time the formation of the tile allows of expansion and contraction of the metal. The nail by which the sheets are fastened together and to the roof is a malleable
80 L-shaped nail, thus forming a hook, and when hooked through the upper sheet permitting of its being turned down, thus closing and coping the opening. At the left-hand edge of each sheet there is formed a convex por-
85 tion E, conforming to and of a height not greater than the convex portions of the tiles, so that it may be covered or lapped by the tile upon the next sheet. Upon this convex portion there are stamped two or more drain-
90 ing-gutters H, which are the length of one tile, or substantially so. The lower ends of said drains or gutters are turned inwardly to empty onto the tile next below, as shown at F, thus interrupting or preventing capillary attrac-
95 tion between the sheets. Should any moisture be drawn up between the plates, it is caught and returned to the outer surface of the sheet by one or both of these draining gutters or ways, thus preventing absolutely
100 any moisture passing between the plates and reaching the roof underneath.

On applying my invention to the roof of a building one row of sheets is applied to the

sheathing-board next to the eaves, each sheet overlapping or housing the edge of the one next to it, as is shown in Fig. 2. The cleat-nails are then driven into the raised or ridged portion of the upper part of the sheets. The lower edge of each sheet of the next course is fastened to the preceding course and to the roof by the covered nail-holes in the lower edge of the sheets being slipped over the cleat-nails protruding from the upper edge of the sheets in the lower course. The cleat-nails are then driven down and covered. This operation is repeated until the entire roof is covered.

Having thus fully described the nature and object of my invention, what I claim, and desire to secure by Letters Patent, is—

1. In a metallic roofing-plate of the configuration of a tile, the upturned convex edge, having stamped thereon the draining ways

or gutters, the lower ends thereof turned to empty on the outer surface of the tile, substantially as and for the purpose described.

2. In metallic roofing-plates of the configuration of a series of tiles, the raised nail-holes in the upper edge of one sheet in combination with the L-shaped nail-cleat, and the covered nail-hole formed out of the offset, or lower edge of the next and overlapping sheet, by means of which the sheets are securely fastened to each other and to the roof, substantially as described.

In testimony whereof I have hereunto set my hand this 1st day of November, A. D. 1895.

FRANK M. VOGAN.

Witnesses:

W. K. MILLER,
BURT A. MILLER.