

No. 784,062.

PATENTED MAR. 7, 1905.

N. MONSHAUSEN.
ENAMELED SHEET METAL BUILDING TILE.

APPLICATION FILED NOV. 27, 1903.

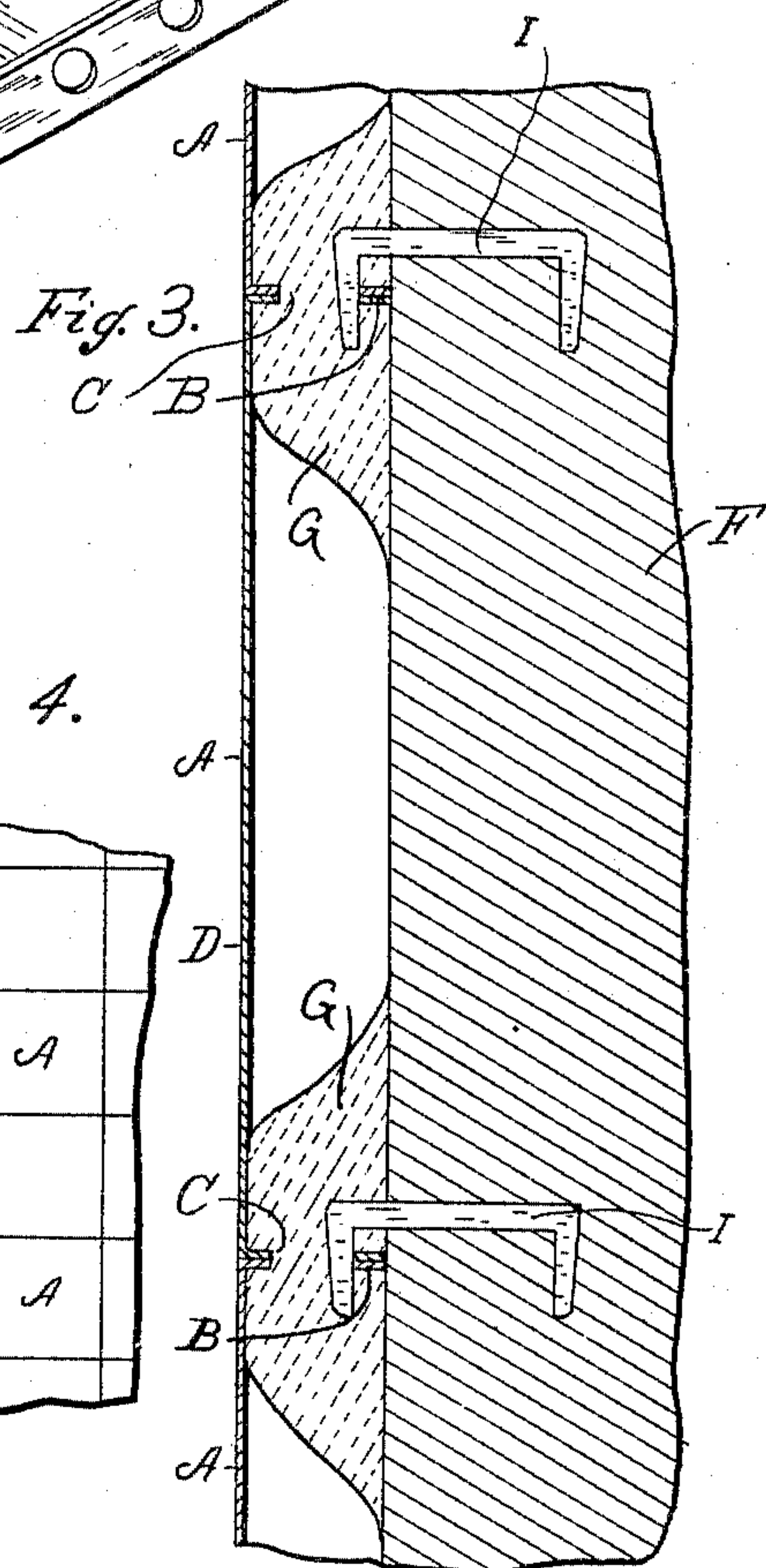
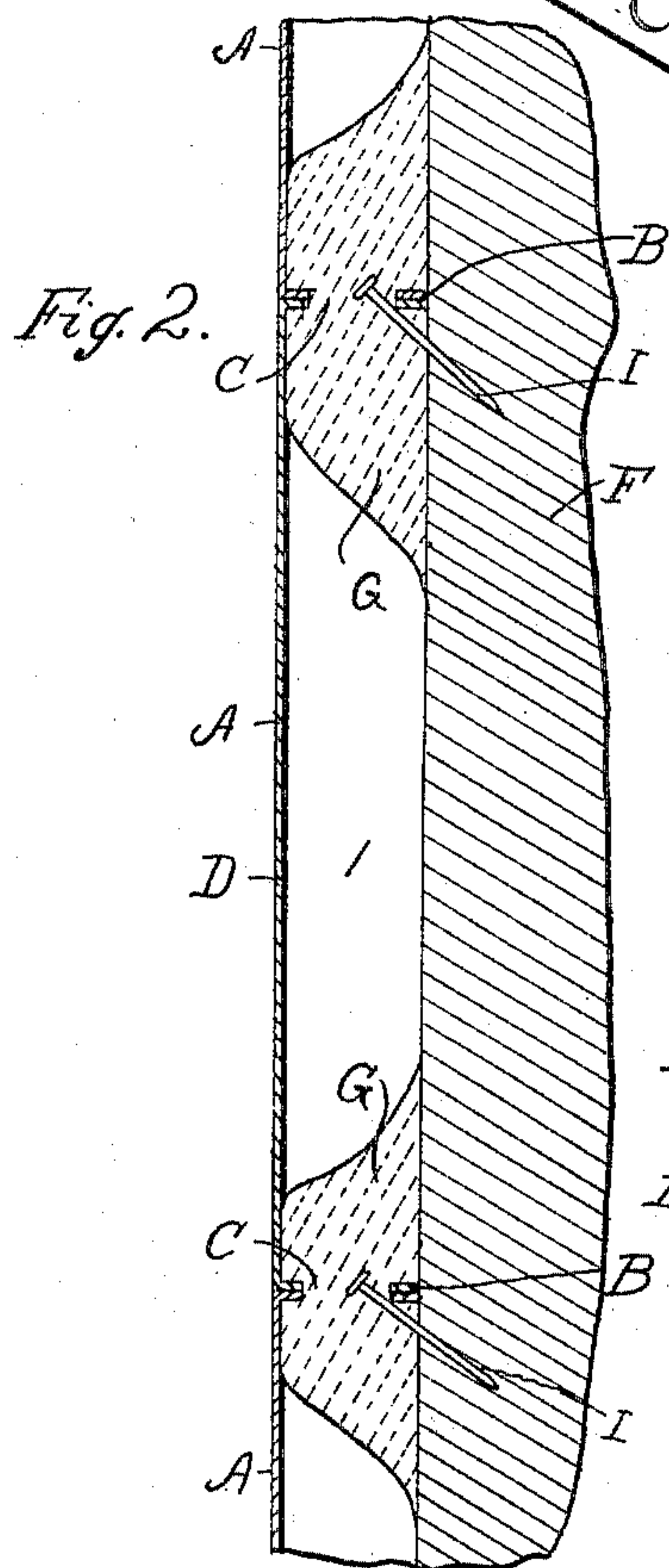
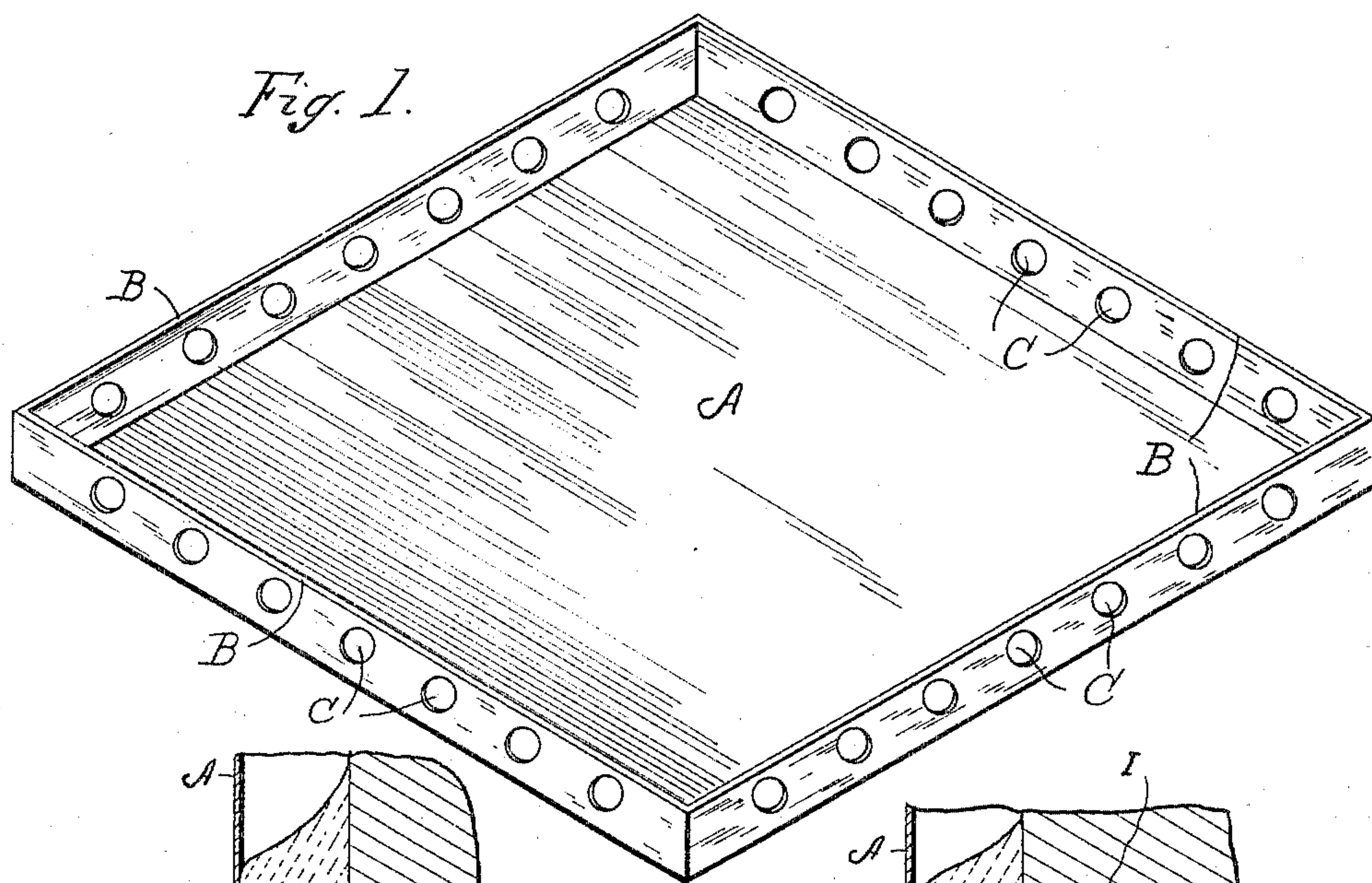
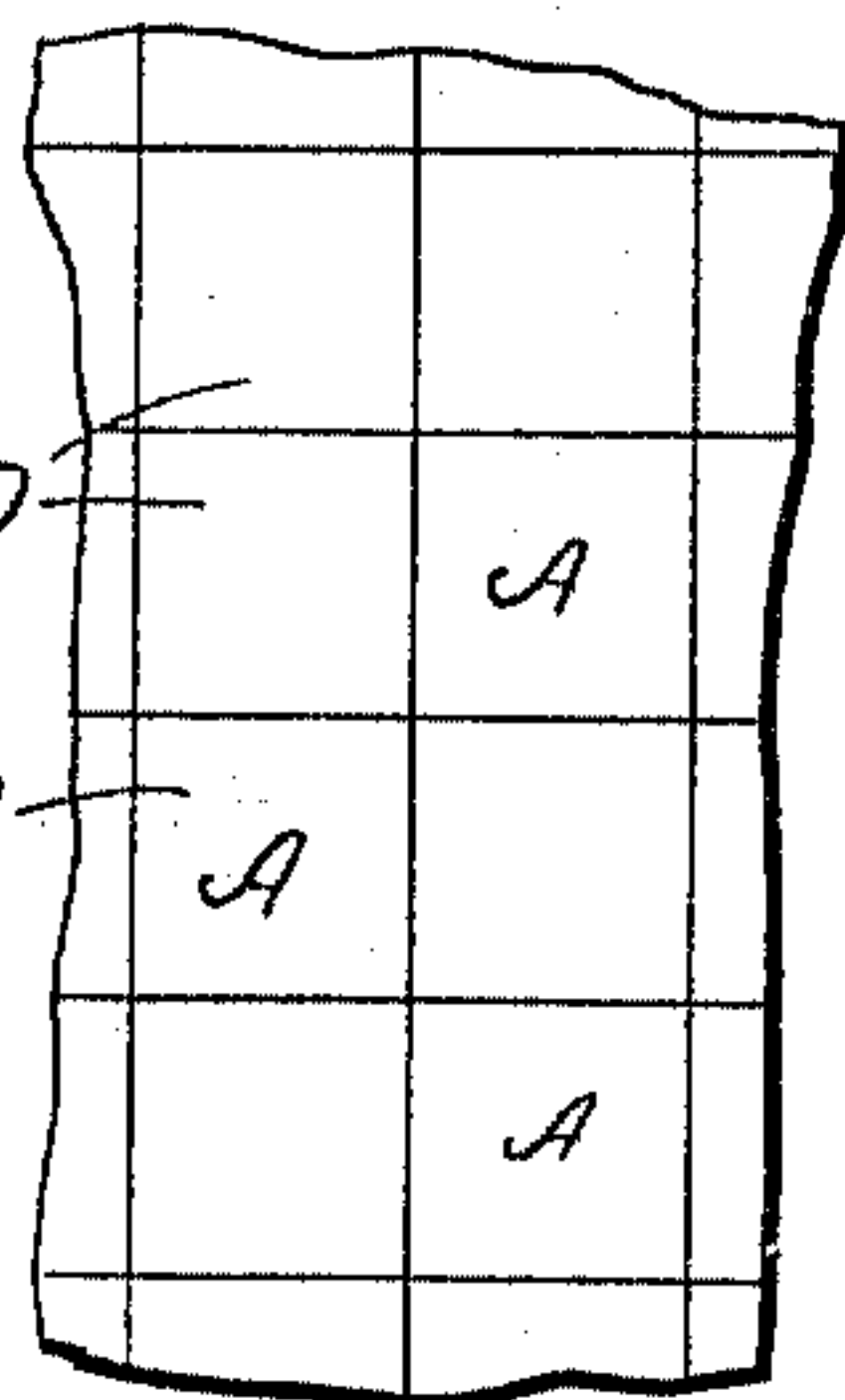


Fig. 4.



WITNESSES:

F. A. O. B.
N. B. Taughes.

INVENTOR

Nicolaus Monshausen
BY
Erwin W. W. W.
ATTORNEYS.

UNITED STATES PATENT OFFICE.

NICOLAUS MONSHAUSEN, OF MILWAUKEE, WISCONSIN.

ENAMELED SHEET-METAL BUILDING-TILE.

SPECIFICATION forming part of Letters Patent No. 784,062, dated March 7, 1905.

Application filed November 27, 1903. Serial No. 182,854.

To all whom it may concern:

Be it known that I, NICOLAUS MONSHAUSEN, a citizen of the United States, residing at Milwaukee, county of Milwaukee, and State of Wisconsin, have invented new and useful Improvements in Enameled Sheet-Metal Building-Tile, of which the following is a specification.

My invention relates to improvements in the construction of building-wall finish and in the metallic tile used in connection therewith.

The object of my invention is to provide an enameled tiling resembling in exterior appearance when laid the ordinary glazed brick and clay tile used in the construction of mantels, wainscoting vestibules, &c.

The construction of my invention is explained by reference to the accompanying drawings, in which—

Figure 1 represents a perspective view of one of the tilings. Fig. 2 represents a vertical section of the wall. Fig. 3 represents a vertical section showing a modified form of device for anchoring the tile in place. Fig. 4 represents a front view of a portion of the wall.

Like parts are identified by the same reference-letters throughout the several views.

The respective tiles A are formed from a flat piece of sheet metal, preferably rectangular in shape, by bending the respective sides rearwardly, forming supporting-flanges B B B. The flanges B are preferably formed with a plurality of apertures C, through which the cement or concrete passes and serves as an anchor to bind the respective tiles together on all four sides. When the sheet metal has been thus formed, the exterior surface is covered with a coating of enamel D, which gives to the wall when completed a glossy appearance resembling that of the ordinary glazed tiling. It will of course be understood that when desired ornamental figures may be impressed into the tiles when stamping the same.

F represents the building-wall, against which the tilings A are placed in courses one above another, as shown in Figs. 2 and 3. Preparatory to placing the tiles two courses of cement G G are first placed against the

wall, to which they adhere. These courses form ribs along the sides of the wall, the distance between the longitudinal center lines of such ribs being substantially equal to the distance between the flanges B B of the tile. The lower course of tiling is then laid against the wall, when the lower retaining-flange B engages in the lower course of cement, and the upper flange B engages in the upper course, the cement being of such consistency as to flow through the apertures C of the respective flanges. The first course of tiles being laid, it is retained in place by a plurality of nails or staples I, which are driven diagonally into the wall F through the apertures C, while the head of said nails engage against the sides of such apertures. It will be understood that the tile-retaining staples or nails are driven immediately after each successive course is laid and before the next succeeding course is added. The nails or staples thus inserted serve to hold the tiles in place while the cement is setting or drying. The head ends of the nails are left to protrude through the opening in the tile-flange, thus forming an anchorage for the next succeeding tile above which it is placed on and against it. Thus the tiles are laid the same as bricks in an ordinary brick wall, except that nails are driven through the openings in one course of the tilings before the next succeeding course is laid. When the first course of tiles have been thus laid, a third series of cement is placed against the wall for the reception of the upper edge of the next succeeding series of tiles. This being done, the next succeeding series of tiles is laid upon the first, as indicated, and the process thus described is continued from the bottom to the top of the wall until the same is completed. The holes through the flanges B B are much larger than the nails, leaving room for a considerable body of cement in the holes, whereby the tiles are secured to the supporting-wall by the cement, which acts as a non-metallic staple. This staple of cement when dry is principally relied upon to hold the tiles in position against the supporting-wall, the nails being only necessary to hold the tiles until the cement dries. The central portion of the tile can with this

construction be left empty, forming an air-space. The tile is thus secured with much less cement than is ordinarily used, and the weight of the wall is much less than that of
5 walls where the tile-cavities are entirely filled with cement. It is obvious that by this arrangement the tilings are held in place by the joint action of the nails and courses of cement, plaster-of-paris, or mortar, while the horizontal
10 flanges of the tiles perform the twofold function of strengthening and retaining flanges, and the walls thus formed resemble in appearance those formed of ordinary stone or earthen tiling, while owing to the fact that
15 they are made of sheet metal they are much lighter and are adapted to be used in many places where the ordinary tiling could not be used.

It will be understood that when the staples
20 I are employed for securing the tiles to the wall it is necessary to attach the tiles to the wall as the wall is being built. For example, when the wall has been built to the height of the first course of tiles the staple I is inserted
25 as shown in Fig. 3, when the wall is built to the height of the upper edge of the next succeeding course another staple I is inserted, and thus in like manner one course after another is attached until the wall is completed.

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

The combination with a supporting-wall, of a plurality of tiles formed of enameled sheet

metal arranged in courses one above another; 35 the sides of the respective tiles being provided with retaining-flanges formed at right angles to their faces, and provided with a plurality of apertures arranged to register with similar apertures in the adjacent tile-flanges; and 40 means for securing said tiles to the vertical faces of the wall, comprising a plurality of metallic retaining devices respectively inserted through the apertures, with their outer ends engaging the flanges of two consecutive 45 series of tiles, and their inner ends affixed to the supporting-wall against which the tile is secured; a plurality of horizontally-arranged ribs of adhesive cement located at the junction of the respective series of tiles, said cement being formed around the horizontal contiguous flanges of the tiles of the respective series and extending through the opposing apertures in said flanges, said apertures being 55 much larger than the metallic devices inserted through them, whereby the cement, when hardened, forms a connecting-link through said apertures by which the contiguous tiles of the respective series are secured together and to the supporting-wall independently of 60 the metallic devices.

In testimony whereof I affix my signature in the presence of two witnesses.

NICOLAUS MONSHAUSEN.

Witnesses:

JAS. B. ERWIN,
N. Z. TAUGHER.