

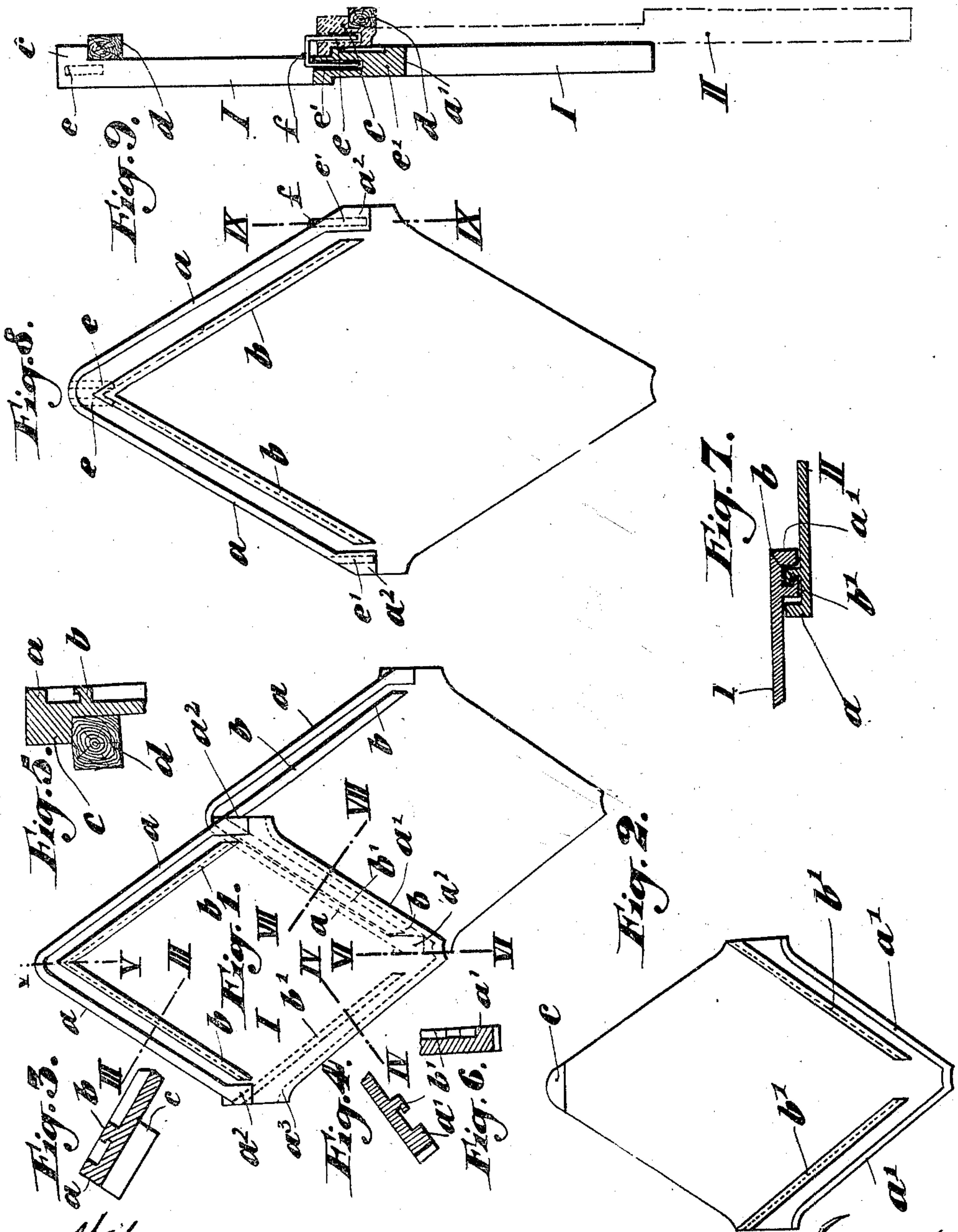
No. 628,737

Patented July 11, 1899.

E. AHRENS.
TILE.

Application filed Jan. 3, 1899.)

No Model.



Witnesses:
H. R. Bomer
C. L. Thompson

Inventor:
Emil Ahrens,
By Wm E. Boulter, attorney

UNITED STATES PATENT OFFICE.

EMIL AHRENS, OF HALLE-ON-THE-SAALE, GERMANY.

TILE.

SPECIFICATION forming part of Letters Patent No. 628,737, dated July 11, 1899.

Application filed January 3, 1899. Serial No. 700,984. (No model.)

To all whom it may concern:

Be it known that I, EMIL AHRENS, a citizen of the Empire of Germany, residing at Halle-on-the-Saale, Germany, have invented certain new and useful Improvements in Tiles; of which the following is a specification.

This invention relates to a novel construction in tiles, the object being to provide means whereby the tiles may be perfectly and readily assembled and prevented from being removed by the action of the wind and means for preventing the rain from passing through the roof, as might usually occur with ordinary tiles.

With this object in view my invention consists of a tile having a number of suitable grooves formed between downwardly and upwardly extending ribs, and the ribs and grooves of the tiles being adapted to engage each other when assembled, as more fully and clearly pointed out and claimed hereinafter.

In order that the invention may be the more readily understood and carried into practical effect, I have illustrated one embodiment of same in the accompanying explanatory drawings, in which—

Figure 1 shows two diamond tiles assembled together and constructed in accordance with my invention. Fig. 2 is a bottom plan view of the improved tile. Figs. 3, 4, 5, 6, and 7 are sections on lines III III, IV IV, V V, VI VI, and VII VII, respectively, of Fig. 1. Fig. 8 is an enlarged plan view of a detached tile to better illustrate the holes for receiving the fastening-cramps hereinafter referred to. Fig. 9 is a sectional view on line IX IX of Fig. 8.

In the drawings like letters refer to like parts throughout all the figures.

The new tile may be made of any material, form, and dimensions, but preferably it is of the usual diamond form, as shown in the drawings. Near the two upper edges and on the upperside of the tile I have provided an outer rib *a*, rectangular in cross-section, and an inner flanged rib *b* of a similar cross-section, (see Figs. 1, 3, and 5,) the horizontally-projecting flange of said rib *b* extending toward rib *a*. The lower edges of the tile are also provided on the under side thereof with an outer rib *a'*, rectangular in cross-section, and an inner flanged rib *b'* similar to *b*, (see

Figs. 1, 2, 3, 4, and 6,) the horizontally-projecting flange of said rib *b'* extending toward rib *a'*, Fig. 4. Said ribs *a b*, Fig. 1, and ribs *a' b'*, Figs. 1 and 2, run parallel with the corresponding edges of the tile, and the distance between ribs *a b* and *a' b'* is such that the corresponding ribs *b* and *b'* of two tiles might be hooked to each other without being hindered by the presence of ribs *a a'*, as clearly shown in Fig. 7.

The ribs *a'* on the under side of the tile run along the two lower edges of the tile, and are connected with each other, as shown in Fig. 2; but the ribs *b'* are formed so as to leave a free space between them, wherein the lug *a²* on the lower end of rib *a* is received, Fig. 1, and the ribs *a'* are turned outward at the upper ends thereof, so that there is a certain distance between groove formed by the ribs *a a'* of two adjacent tiles and the groove between the lugs of two adjacent tiles, whereby rain or snow pattered against the tile by the wind is efficiently prevented from passing through the joints.

As previously stated, my invention provides means for securing the various tiles of the roof to one another, which I preferably perform as follows: Near the intersecting point of ribs *a a* or *b b* I provide two longitudinally-extending holes *e e*, arranged side by side, and near the end of each rib *a* a similar hole *e'*. Now when the tiles are laid in place on the roof a suitable cramp *f* may be inserted, so as to engage a hole *e* and a hole *e'*, as shown in Figs. 8 and 9.

The tiles may be hooked on the lath *d* of the roofing by means of a suitable lug *c*, provided on the lower side of said tiles.

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

1. An improved tile having outer and inner ribs on its two sides, the inner ribs being flanged and said flanges projecting toward the outer ribs, whereby adjacent tiles may be readily hooked together, substantially as set forth.

2. An improved tile having outer and inner ribs on its two sides, the inner ribs being flanged and said flanges projecting toward the outer ribs, whereby adjacent tiles may be readily hooked together, and the inner ribs

on the under side of the tile leaving a free space between them, substantially as set forth and for the purpose specified.

3. An improved tile having outer and inner ribs on the upper and under side thereof, the inner ribs having flanges projecting toward said outer ribs, and the inner ribs on the under side of the tile leaving a free space between their ends and means for securing adjacent tiles to one another regardless of the interengagement of said ribs, substantially as set forth.

4. An improved tile having outer and in-

ner ribs on the upper and under side thereof the inner ribs having flanges projecting toward said outer ribs and the inner ribs on the under side of the tile leaving a free space between their ends and suitable longitudinally-extending holes provided on the upper end and the sides of the tile for receiving suitable cramps, engaging the holes of adjacent tiles, substantially as described and shown.

EMIL AHRENS.

Witnesses:

KIRKE LATHROP,
LEONORE RASCH.