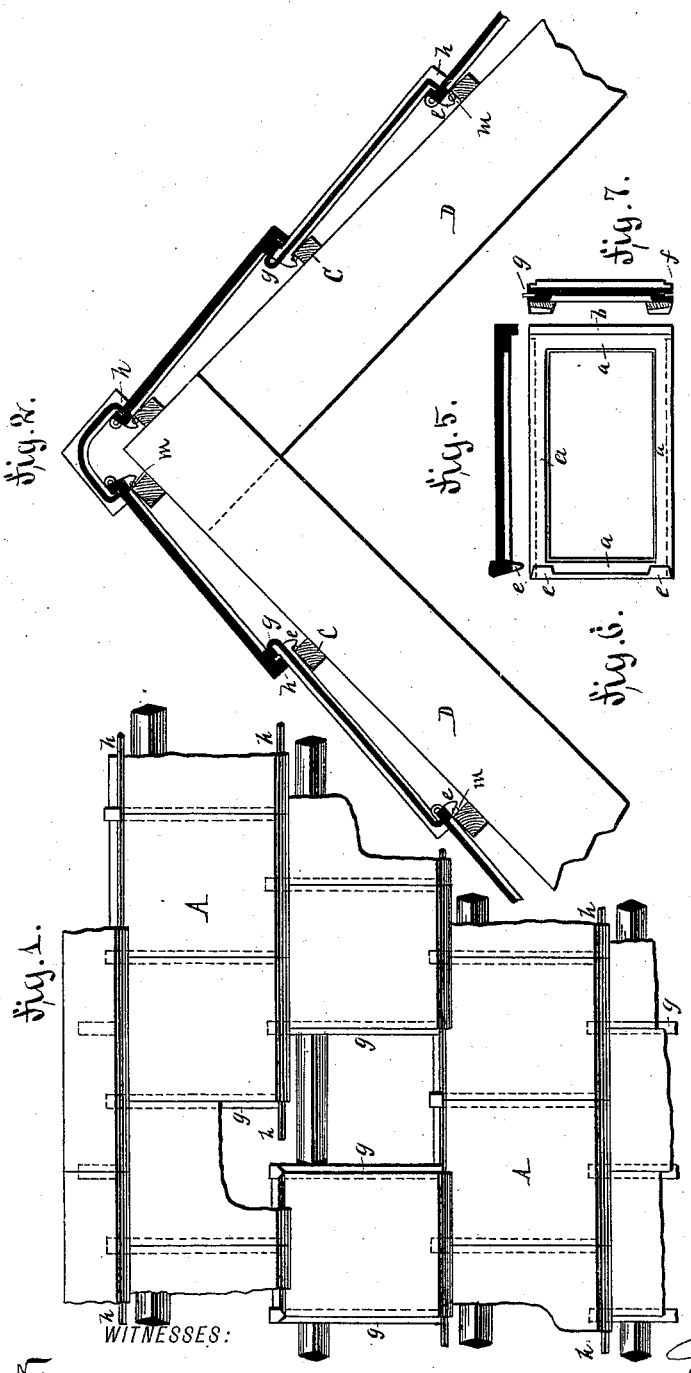
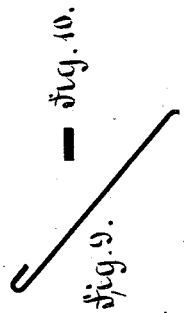
(No Model.)

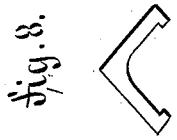
C. WEISE.

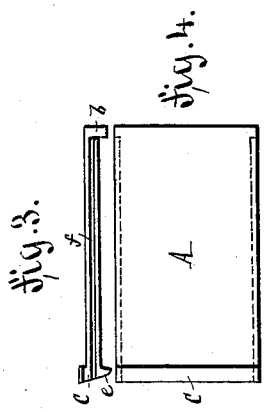
ROOFING TILE.

No. 345,400. Patented July 13, 1886.









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ROOFING-TILE.

SPECIFICATION forming part of Letters Patent No. 345,400, dated July 13, 1886.

Application filed January 30, 1886. Serial No. 190,327. (No model.)

To all whom it may concern:

Be it known that I, CARL WEISE, of Dermbach, in the Grand Duchy of Saxe-Weimar, and Empire of Germany, have invented certain new and useful Improvements in Roofing-Tiles, of which the following is a specification.

The object of my invention is to provide a new and improved roofing-tile which is simple in construction, strong, light, and durable, and forms very close joints.

The invention consists in a roofing-tile which will be fully described hereinafter, and pointed out in the claims.

In the accompanying drawings, Figure 1 is an elevation of a part of a roof covered with my improved tiles, parts being broken out. Fig. 2 is a cross-sectional view of the same on line *a b*, Fig. 1. Fig. 3 is a side edge view of one of my improved tiles. Fig. 4 is a plan view of the upper side of one of the tiles. Fig. 5 is a longitudinal section of the same. Fig. 6 is a plan view of the under side of the tile. Fig. 7 is a cross-sectional view of the under side of a tile. Fig. 8 is a cross-sectional view of one of the ridge-tiles. Fig. 9 is a longitudinal section of one of the packing-strips. Fig. 10 is a cross-sectional view of the same.

Similar letters of reference indicate corresponding parts.

The tile is provided on its under side along its edges with raised portions *a*, so that when the tile is placed upon one of the strips C, secured on the rafters D, only the raised portions *a* of the tile will rest on the strip C, thus permitting the circulation of air between the under side of the tile and the strip C and preventing the rotting of said strips.

The tile is provided on its under side at the lower end with a ledge, *b*, extending the entire width of the tile—that is, from one edge to the other.

The tile is also provided on its under side at the upper end with two lugs, *e*, which project from the raised parts *a*, and are at or adjacent to the side edges of the tile.

When the tiles rest on the strips C, the lugs *e* rest on the upper edges of the strips C and prevent the tile from sliding down. The lugs *e* are provided in the sides that are to face the upper edges of the strips C with recesses for receiving small cylindrical or like packing or cushion-pieces *m*, made of cork or any other packing material.

Each tile is provided on its upper surface and at the upper end with an upwardly-projecting transverse ledge, *c*.

Each tile is provided in each side edge with a longitudinal groove, *f*, extending from the inner edge of the bottom lugs, *b*, to the upper end of the tile, which grooves *f* serve to receive packing-strips *g* of tarred felt. In place of the tarred felt, strips of cork saturated with calcium chloride or water-glass, or any other suitable packing material, may be used. Packing strips *h* are also introduced between the upper edges of the lower ledge, *b*, of each tile and the lower edge of the top ledge, *c*, of the next tile below, and so on, as shown in Fig. 1.

The roof is covered by means of my improved tiles in the manner shown. The lower end of each tile rests on the upper end of the next lower tile, the ledges *b* and *c* at the upper and lower ends of the tiles being in contact. The packing-strips *g* in the side grooves, *f*, form close and absolutely-tight joints, and as the packing-strips are flexible they keep the joint tight, even if the tile be shifted slightly, as by wind or settling of the roof. The upper ends of the packing-strips *g* are bent up and inserted between the top edges of the upper ledges, *c*, and the under sides of the next higher tiles above said ledges.

The ridge-tiles N are shown in Figs. 2 and 8, and are provided at their bottom edges with the interior flanges, *n*, which rest against the bottom edges of the upper ledges, *c*, of the tiles A at the ridge.

No nails or mortar are required with my improved tile.

The upper surfaces of the tiles are entirely flat, with the exception of the ledges *c*.

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

1. A roofing-tile provided on its upper surface with an end ledge at the upper end, a slightly-raised part along the edges of the tile on the under side, a transverse ledge at the lower end of the tile on the under side, and a lug at each upper corner of the tile on the under side, substantially as shown and described.

2. A roofing-tile provided with a transverse

ledge on its upper surface at the upper end, a transverse ledge on its under surface at the lower end, a lug on its under surface at each upper corner, and with a longitudinal groove in each side edge, substantially as shown and described.

3. The combination, with rafter-strips for supporting the tiles, of tiles resting on said strips, and provided at their upper ends with holding-lugs on the under side, packing-strips placed under said lugs and resting on the upper sides of said strips, each tile having a transverse ledge on the upper surface at the upper end, and a transverse ledge on the under side at the lower end, substantially as shown and described.

4. The combination of rafter-strips, tiles provided with lugs for engaging said strips, with longitudinal grooves in their side edges, and with ledges on their upper sides at their upper ends, and packing-strips passed into the grooves of two adjacent tiles, the upper ends of said strips being bent up over said ledges, substantially as described.

5. The combination of rafter-strips, tiles provided with lugs for engaging said strips, with longitudinal grooves in their side edges, and with ledges on their upper sides at their upper ends, and with ledges on their under sides at their lower ends, and packing-strips passed into the grooves of two adjacent tiles, the upper ends of said strips being bent up over said ledges, substantially as described.

6. The combination, with rafter-strips for supporting the tiles, of tiles resting on said strips and provided at their upper ends with holding-lugs on the under side, each tile having a transverse ledge on the upper surface at the upper end, and a transverse ledge on the under side at the lower end, and packing-strips interposed between the contiguous faces of said ledges, substantially as described.

7. The combination, with rafter-strips for supporting the tiles, of tiles resting on said strips and provided at their upper ends with holding-lugs on the under side, packing-strips placed under said lugs and resting on the upper sides of said strips, each tile having a transverse ledge on the upper surface at the upper end, and a transverse ledge on the under side at the lower end, and packing-strips interposed between the contiguous faces of said ledges, substantially as described.

8. The combination, with rafter-strips for supporting the tiles, of tiles resting on said strips and provided at their upper ends with holding-lugs on the under side, packing-strips placed under said lugs and resting on the upper sides of said strips, each tile having a transverse ledge on the under side at the lower end, and packing-strips interposed between the contiguous faces of said ledges, each tile being provided with longitudinal grooves in its side edges, and packing in said grooves between the adjacent tiles, substantially as described.

In testimony that I claim the foregoing as my invention I have signed my name in presence of two subscribing witnesses.

CARL WEISE.

Witnesses:
ALWIN FLORSCHÜTE,
CARL GLASER.