J. GREENAWALT.

ROOFING TILE.

No. 181,670. Patented Aug. 29, 1876.

Fig. 1

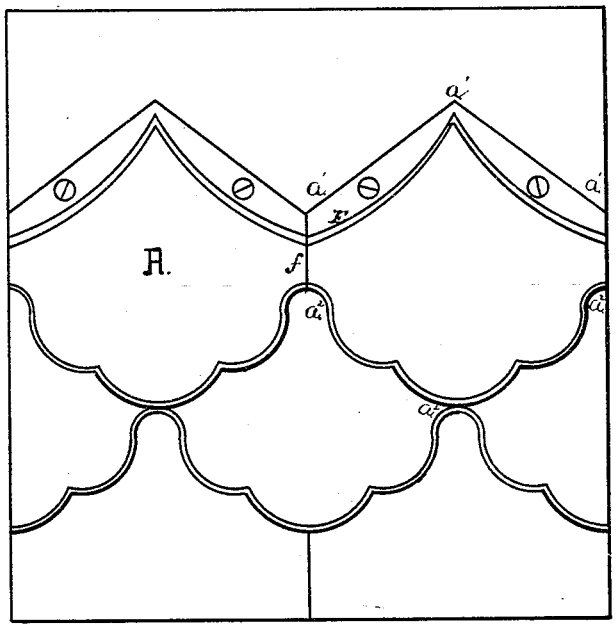
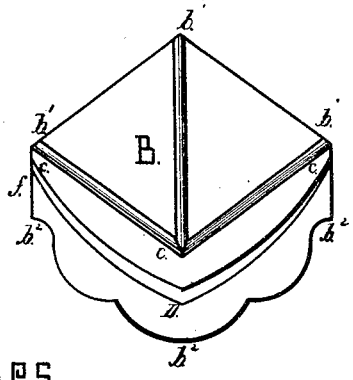


Fig. 2



Witnesses

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JACOB GREENAWALT, OF PITTSBURG, PENNSYLVANIA.

IMPROVEMENT IN ROOFING-TILES.

Specification forming part of Letters Patent No. **181,670**, dated August 29, 1876; application filed July 28, 1876.

To all whom it may concern:

Be it known that I, JACOB GREENAWALT, of Pittsburg, Pennsylvania, have invented a new and useful Improvement in Roofing-Tile, which improvement is fully set forth in the following specification, reference being had to the accompanying drawing.

Similar letters of reference indicate corresponding parts.

The object of my invention is to effect a more perfect water-shed in roofing-tile of houses and other buildings; and consists, mainly, in a system of overlapping joints formed by the peculiar construction and shape of the tile, by which means all the heading-joints are protected and covered, and at the same time the overlapping at the water-shed is effected, and all the advantages of such water-shed maintained; that also, when laid upon the roof, a beauty of appearance is given, and a protection against breakage afforded by the laying up solid of the tile against the sheathing of the roof.

In the accompanying drawing, Figure 1 shows a number of my tile as laid upon the roof. Fig. 2 shows the under surface of one of my tile detached from the roof.

A represents the top surface of the tile, and B the under surface. I will now proceed to describe the same.

The upper edge of the tile, by the configuration $a^1\ a^1\ a^1$, as shown in Fig. 1, is in the form of an obtuse angle, and in the direction of the comb of the roof, while the lower edge of the same presents substantially the same angle, $a^2\ a^2\ a^2$, although for the purpose of ornamentation the tile is scalloped or made to present any figure desired.

The heading-joints *f* are formed for joining to and membering with the contiguous tiles in the same longitudinal row by cutting off transversely that portion of the points of the tiles to which the lap formed by the rabbet from *c* to b^2 extends.

The top surface of my tile is made plain, excepting the ridge E, the uses of which will be more fully hereinafter explained.

That part of the under side of the tile, as shown in Fig. 2, that rests upon the sheathing of the roof is made lozenge or diamond shaped, with the obtuse part of the angle in the direction of the comb and eaves of the roof, and the acute part of the angle in a longitudinal direction, as shown at $b^1\ b^1\ b^1$ and *c c c*.

That part of the tile from the line *c c c* to $b^2\ b^2\ b^2$ is rabbeted on the under side of the same about one-half the thickness of the tile which forms the overlapping part. The upper edge of the tile being made one-half the thickness of the lower edge, the shoulder *c c c* will fit up snugly to the top $a^1\ a^1\ a^1$ of the tiles immediately below, and by means of the increased thickness of the lower end of the tile and the rabbet from *c* to b^2 the tile are made to lie up solid to the sheathing of the roof, at the same time to overlap each other for shedding the water. By the shape of the tile the heading-joints are also covered.

In the under side of the overlapping part of the tile is a rounded groove, D, which is made to fit over the ridge E upon the top of the overlapping tile below it. The uses of the groove D and ridge E are to protect more fully the water-shed in a dashing rain upon the roof, or from wind driving the water over the top $a^1\ a^1\ a^1$ of the tile, and also as a protection against melting snow and ice, and from absorption from the under or dry side of the tile.

For the purpose of a more complete water-shed, I make my tile diamond or lozenge shaped, with the long points or acute angles thereof joining the contiguous tiles longitudinally upon the roof. By elongating the tiles in this direction the angle at the water-shed is made obtuse, thereby raising the top of the tile nearer a level with the roof.

It will be seen that the nearer the water-shed of the tile approaches a straight line longitudinally across the roof the greater the protection afforded in shedding the water; and in order to maintain the scale shape of the tile and effect a covering and protection of the heading-joints, (which is done at the risk of the water-shed at the lower or overlapping part,) I make the angle in the direction of the width of the roof as obtuse as possible, and at the same time maintain the features as above stated.

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

A lozenge or diamond shaped roofing-tile, elongated longitudinally across the roof, increasing in thickness from the upper to the lower edge, and having the rabbet from *c* to b^2, ridge E, and groove D, substantially as and for the purpose described, as a new article of manufacture.

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Witnesses:

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