

S. K. COHEN.
ROOFING TILE.

No. 522,879.

Patented July 10, 1894.

Fig. 1.

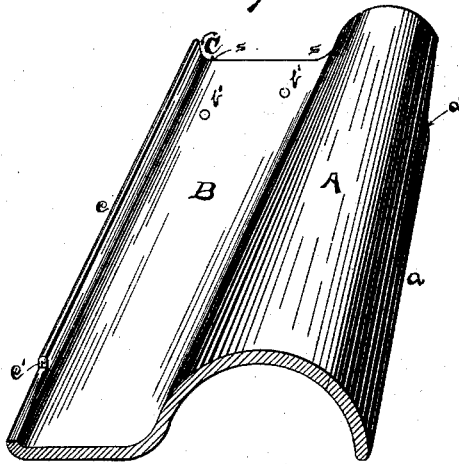
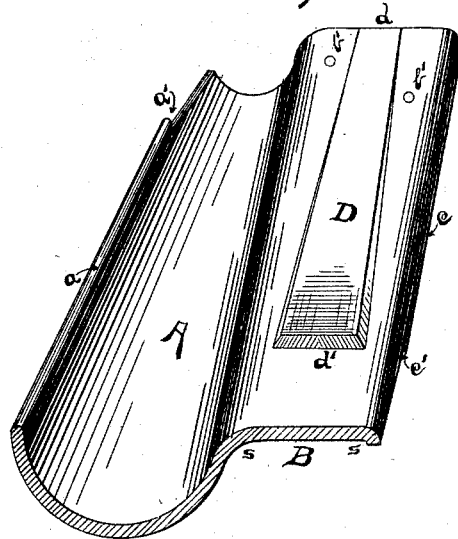


Fig. 2.



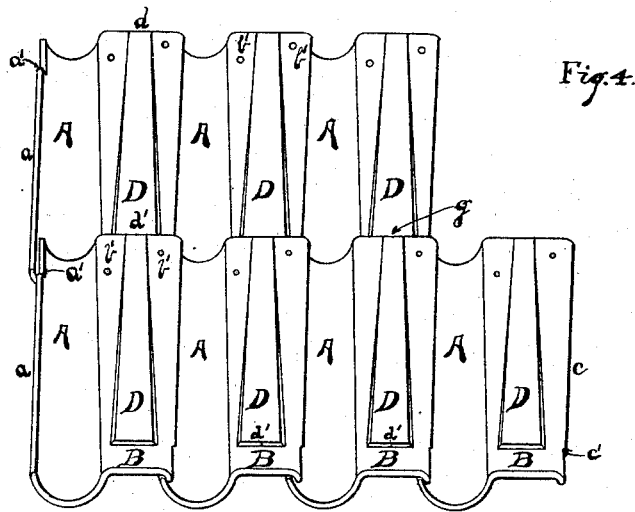
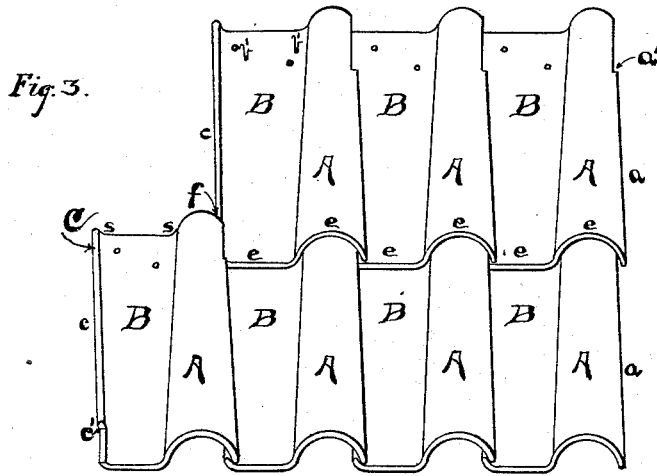
Witnesses:
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Jas H Blackwood

Samuel K Cohen Inventor
 By his Attorneys *Wm A Doolittle*

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Witnesses:
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UNITED STATES PATENT OFFICE.

SAMUEL K. COHEN, OF CHICAGO, ILLINOIS.

ROOFING-TILE.

SPECIFICATION forming part of Letters Patent No. 522,879, dated July 10, 1894.

Application filed January 22, 1894. Serial No. 497,628. (No model.)

To all whom it may concern:

Be it known that I, SAMUEL K. COHEN, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented a certain new, useful, and valuable Improvement in Roofing-Tiles, of which the following is a full, clear and exact description.

My invention relates to improvements in roofing tiles, and has for its object to provide a roofing tile which can be manufactured at a low cost; can be laid on the roof at a comparatively small expense; and when in use is both practical and ornamental.

In the accompanying drawings,—Figure 1 is a plan view of my improved roofing tile. Fig. 2 is a plan of the under side of same. Fig. 3 is a plan view showing the manner of laying or arranging the tiles on the roof. Fig. 4 is a plan view showing the position of the tiles on their under side when laid on the roof.

As shown by Fig. 1, my tile is a combination of an obverse ridge or semi-cone, but not carried out to an apex; in other words, a semi-conical section A; a trapezoid or flat section B, having holes in it, as at b' ; and a flange C, running obliquely from the upper end to the lower end of the tile at an angle to the plane of the flat section B, the three sections being united by small curved portions as at s . The rounded edge a of the semi-conical part A is broken by a notch or shoulder as at a' ; and so also is the edge c of the flange C as at c' ; and from each of these points, namely, a' and c' , a sloping line continues to the ends of the tile respectively forming an obtuse angle in each case with the straight line of the notch or shoulder. The shoulders are equi-distant from the ends respectively.

D is a protruding portion or rib, at the center of the under side of the flat portion B, and as shown, may be made in the form of a tapering trapezoid, with its inner end, d' , at a distance from the end of the tile, on a line with the shoulder c' , at that end made about the same thickness of the tile, and then gradually tapering toward the opposite end, where at d , it merges into the body of the tile.

The upper end of the semi-conical section of the tile is naturally smaller than the lower, and the upper end of the flat section of the

tile is larger than the lower, but notwithstanding, when laying the tiles on the roof, the upper end of one line of tiles will telescope easily and snugly under the lower ends of the tiles laid above them, as shown in Fig. 3 at e . Stated otherwise: Tiles are commonly laid in lateral tiers on the roof, one tier overlapping the other. The great difficulty heretofore experienced with many forms of tiles has been to get a satisfactory lap, and it could not be done without the use of considerable quantities of cement, which was also required to make a mechanical fit in other respects.

In using my improved tile, the use of cement is practically obviated, thus accomplishing a great saving for the consumer, and this in itself furnishes another advantage, that it is more quickly and more easily laid on the roof; a saving also in the cost of laying being thereby gained.

The shoulder a' locks or engages with the lower end of the tile below it, and the shoulder c' engages with the shoulder a' of the tile in the series next below it. Simultaneously, the inner end or shoulder d' of the rib D engages with the upper end of the tile below it as shown in Fig. 4 at g , thus forming with both the end and side over-laps, a complete lock of the tiles.

The rib D has another and important function. It makes and preserves a perfect alignment up the roof, which cannot be had without it. It also strengthens the tile. Without this part of the tile, known as the "pan" or "gutter," shown in Fig. 1, as B, is weak and vulnerable, because, excepting at both ends only, it is unsupported by anything beneath it, and hence, can stand no strain, being therefore easily broken. By the use of the rib D, this is counteracted.

Having thus described my invention, what I claim is—

1. A roofing tile consisting of a semi-conical section, a flat section in the form of a trapezoid, and a rounded flange running obliquely from the upper end to the lower end of the tile at an angle to such flat section, said parts constituting the integral parts of the tile and united one to the other in the order mentioned by small curved portions, the said flat section having on its underside a protruding portion, the outside line of the

semi-conical section broken by a notch or shoulder, and from said shoulder the outside line of the semi-conical section continuing to the upper end of the tile, said last line forming an obtuse angle with the line of said shoulder; the said small rounded flange at the lower end of the tile also broken by a notch or shoulder, a line of the tile continuing from said shoulder to the lower end of the tile, and forming an obtuse angle with the line of said shoulder; both of said notches being equi-distant from the ends respectively, substantially as shown and described.

2. A locking tile consisting of the semi-conical section A, the trapezoid section B, the small rounded flange C and rounded portions and the shoulders, a' , c' , on said portions, substantially as and for the purpose described.

3. A roofing tile provided on one side with a semi-conical section, and at the opposite side with a rounded flange, said semi-conical

section provided with a sloping shoulder, a' , and the said rounded flange provided with a sloping shoulder, c' , at the end of the tile opposite to that having the shoulder, a' , substantially as described.

4. A roofing tile consisting of a semi-conical section, a flat trapezoidal section, a rounded flange running obliquely from the upper end to the lower end of the tile at an angle to the plane of the said flat section, and a protrusion at the center of the under surface of said flat section, said protrusions when arranged in series constituting an alignment up the roof, substantially as described.

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

SAMUEL K. COHEN.

Witnesses:

B. H. LEVETT,

WM. G. WEBSTER.