(No Model.)

C. W. SCHOU.

TILED ROOF.

No. 605,750. Patented June 14, 1898.

Fig. 1.

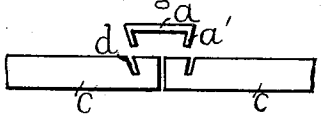


Fig. 2.

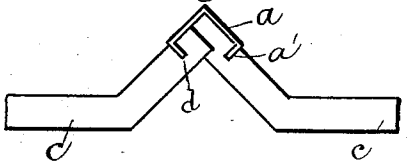


Fig. 3.

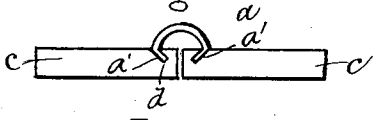


Fig. 4.

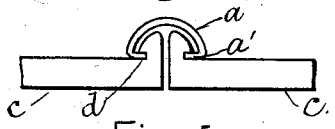


Fig. 5.

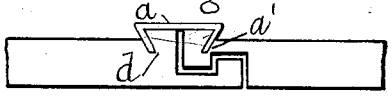
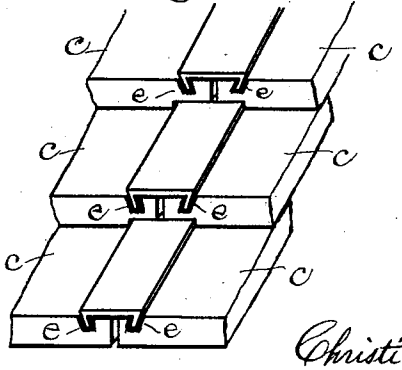


Fig. 6.



Witnesses.
C. P. Hollingsworth
A. T. Hood.

Christian Wilhelm Schou
Inventor.
By John J. Halstead & Son
his Attorneys.

THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

CHRISTIAN WILHELM SCHOU, OF ANTVORSKOV, DENMARK.

TILED ROOF.

SPECIFICATION forming part of Letters Patent No. 605,750, dated June 14, 1898.

Application filed December 19, 1896. Serial No. 616,329. (No model.) Patented in Germany April 25, 1895, No. 90,730.

To all whom it may concern:

Be it known that I, CHRISTIAN WILHELM SCHOU, a subject of the King of Denmark, residing at Antvorskov, Slagelse, Denmark, have invented new and useful Improvements in Tiled Roofs, (patented in Germany April 25, 1895, No. 90,730,) of which the following is a specification.

For the manufacture of weatherproof roofs it is necessary to cement in the joints between the tiles and so to connect the tiles with one another that they lie rigid. When employing flat or plain roofing-tiles, several layers of tiles are used, so that the tiles are retained in position by their own weight and the under tiles close the joints of the upper tiles. No demonstration is necessary to prove that such a roof is very heavy. On this account ridge-tiles were used, the complicated shape of which, however, gave rise to the disadvantage that the tiles were easily spoiled and bent. For this reason the ridge-tiles were also usually plastered, and they were even arranged with cement joints. Mortar is, as experience has shown, never weatherproof on roofs and always breaks away. A durable connection of the tiles with one another is therefore not possible.

The present invention provides a perfectly impervious roof which is at the same time very light. To this end the tiles are connected together by thin metal strips. The advantage of employing metal strips is that they can be given any shape and that they grip the tiles along the length of their joints, so that they both cover the said joints and connect the tiles together, whereby the said tiles are secured together, because the roof forms a whole the joints of which are completely covered. Should it be necessary, when imperfect or badly-made tiles are employed, to point the joints, the mortar is covered by metal strips and is not exposed to deterioration from the action of the weather. The mortar therefore does not fall away and is not rendered pervious. The employment of such metal strips consequently offers considerable advantages; but it is impossible to use them with ordinary roof-tiles, because such tiles are not shaped for this purpose.

Now it is the object of the present invention to make such roof-tiles by giving them such a form that suitable metal strips can grip or engage with them in the above-described manner.

In the accompanying drawings, Figure 1 illustrates baked earthen or clay tiles, each having an inclined groove therein to receive the edges of a metal strip to cover the joint and clamp the tiles together. Fig. 2 shows the grooves in upturned ends of the tiles. Fig. 3 shows the grooves convergent, as in Fig. 1; but the metal connecting-strip is curved at its top portion. Fig. 4 has vertical projections on the tiles and rounded at the tops, and the grooves are made in such projections. Fig. 5 has vertical projections on the tiles, made each with an acute angle, as shown; and Fig. 6 illustrates, in perspective, a view of a portion of a roof formed of tiles connected together. This figure also serves to show the cement, when the same is used.

The roof-tiles *c c* can be quite as simple in shape as flat or plain tiles; but they are provided with recesses or grooves *d d* for the reception of the edges *a'* of the metal strips *a a*, as shown in the drawings. The metal strips *a a*, which are bent to an angle, as shown, are pushed and inserted into these recesses or grooves. The strips *a a* when pushed in clamp the tiles *c c* rigidly, whereby the said tiles are drawn toward one another and any mortar in the joint is compressed. With this arrangement advantage can be taken of the property of cement of adhering as well to iron as to burnt clay, so that it can be used in the place of the mortar and for rendering the joints tight. The metal strips *a a* are dipped into this cement *e* and then adhere rigidly to the tiles *c c*. The form of the tiles insures that the metal strips cannot be lifted up and the metal strips insure that the tiles cannot be torn loose, and both together insure that the metal tiles and mortar form a solid mass.

Having now particularly described and as-

certained the nature of my said invention and in what manner the same is to be performed, I declare that what I claim is—

Tiles for roofing, made of baked and hardened plastic material and with recesses inclined downward toward their sides and adapted to receive tightly the bent-over flanges of metal strips, combined with metal strips whose bent edges or flanges are secured in such slits, and which strips tend to draw the tiles together, and also cover the joints.

CHRISTIAN WILHELM SCHOU.

Witnesses:
OSCAR MADJUS,
JULES BLOM.