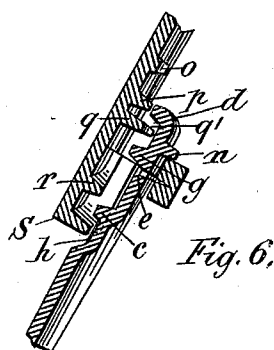
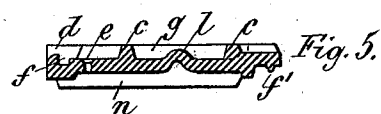
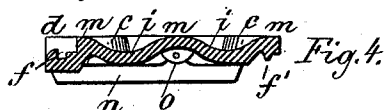
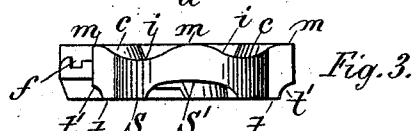
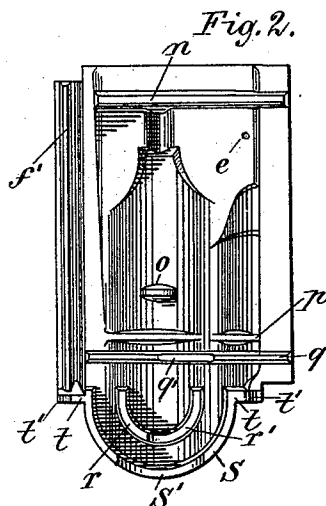
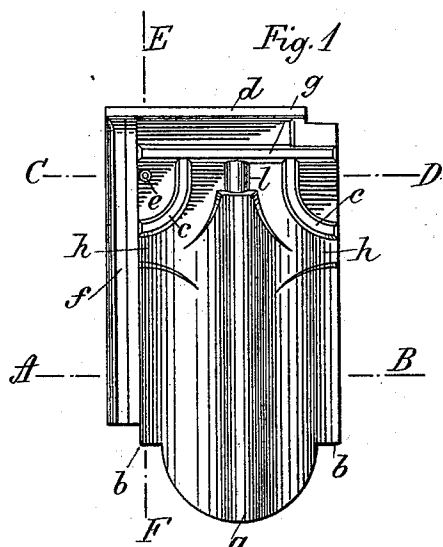


(No Model.)

W. LUDOWICI.
SCALE TILE FOR ROOFS.

No. 513,430.

Patented Jan. 23, 1894.



Witnesses

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UNITED STATES PATENT OFFICE.

WILHELM LUDOWICI, OF TOCKGRIM, GERMANY.

SCALE-TILE FOR ROOFS.

SPECIFICATION forming part of Letters Patent No. 513,430, dated January 23, 1894.

Application filed November 21, 1892. Serial No. 452,743. (No model.)

To all whom it may concern:

Be it known that I, WILHELM LUDOWICI, a subject of the King of Bavaria, German Empire, and a resident of the city of Tockgrim, in the German Empire, have invented certain new and useful Improvements in Scale-Tiles for Roofs; and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to a scale shaped roofing tile which is more especially intended to be used for the roofs of churches, government edifices and villa residences.

The object of the invention is to provide the tiles with a more extended or overcatching closure and to obtain on the same a covered part quite protected from rain water, which may be furnished with a nail hole in order that in the case of steep roofs the tiles can be securely fixed in position. This object is attained by means of the tile shown in the accompanying drawings in which—

Figure 1 is a top view of the tile; Fig. 2 a bottom view; Fig. 3 a front edge view; Fig. 4 a section through line A—B of Fig. 1; Fig. 5 a section through line C—D of Fig. 1, and Fig. 6 a section through line E—F of Fig. 1 of the lower and upper portions respectively of two tiles in position.

The surface of the tile is wavy.

i i are two channels between the three higher parts *m, m, m*.

a is a semi-circular head part with two shoulders *b, b*; *g* is the first closing ridge from which there are two sickle shaped ridges *c, c*, branching off, and further three recesses *h, h, h*, said ridges in conjunction with second or end ridge *d*, forming the closing parts of the upper side of the tile. The particular arrangement of the ridges *g, c, c* permits the provision of a nail hole *e* quite protected from water. This is very important for the safe

hold of the tiles on steep roofs in case the binding log *o* is not accessible. On the down side of the tile the closing part consists of four ridges, as the semicircular end ridge *S* with extensions *t, t*, and recesses *S' t', t'*. The second semi-circular ridge *r* with step *r'*; the third straight ridge *g* with cut *g'* and the fourth straight ridge *p*. The position of the lower and upper parts respectively of two tiles on the roof is seen in Fig. 6. The tiles are laid on the roof in such a way that the middle line of the upper tile going through *a* and parallel with line E F Fig. 1, in the prolongation of the joint of the two tiles below, the upper tile covering half of each tile underneath. The recesses *S', t', t'* of the upper tile correspond with recesses *h, h*, ridge *l*, of the two tiles below when closely joined together and covered by recess *S'*. At the same time the circular ridge *r r'* will tightly fit round the ridges *c, c, g* between the ridges *g* and *d*, and the straight edge *p* will end exactly behind *d*. The ridge *n* in Fig. 6 will serve for hanging the tile on the laths of the roof.

f in Fig. 1 is a channel and *f'* Fig. 2 a ridge by which the tiles are joined together at the sides.

What I claim as my invention, and desire to secure by Letters Patent, is—

In a roofing tile with a wavy surface *m, i, m, i, m*, the recesses *h h*, the ridge *l* with two sickle shaped branches *c, c* and the ridge *d* on the upper side of the tile, and the corresponding round ridges *S* and *r* in combination with the two straight ridges *g* and *p* on the under side of the tile, for the purpose specified substantially as described and shown.

In testimony whereof I sign this specification in the presence of two subscribing witnesses.

WILHELM LUDOWICI.

Witnesses:

OTTO SCHMELTZER,
JOS. GÖTZENBERGER.