T. M. LOSIE.

Metallic Roof.

No. 161,420. Patented March 30, 1875.

Fig 1

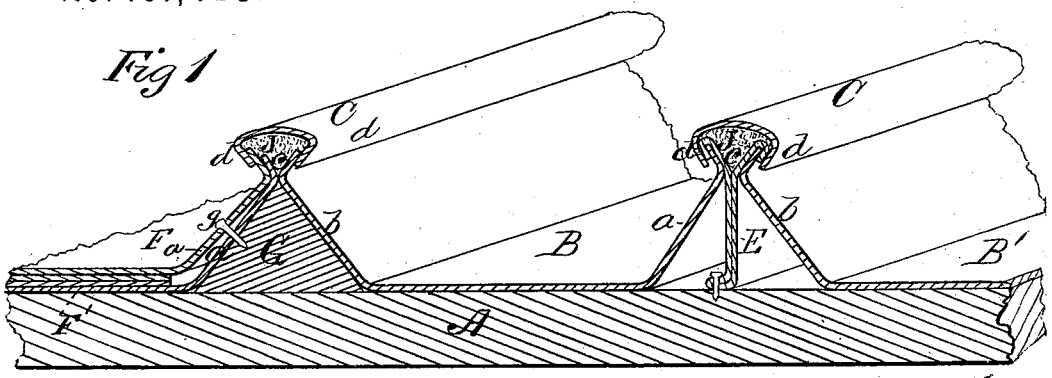


Fig 2

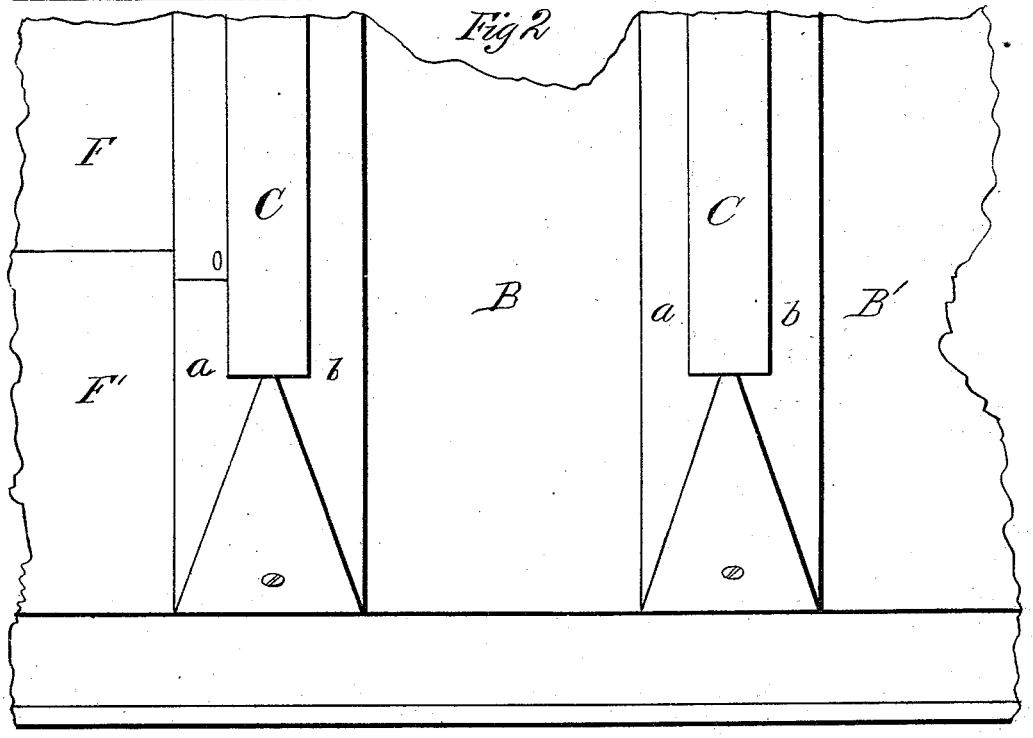
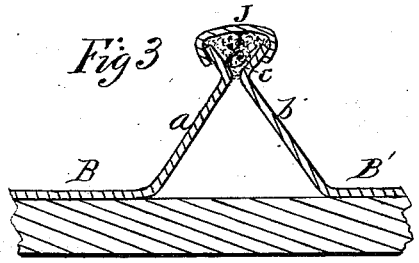


Fig 3



WITNESSES

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UNITED STATES PATENT OFFICE.

THOMAS M. LOSIE, OF ELMIRA, NEW YORK.

IMPROVEMENT IN METALLIC ROOFS.

Specification forming part of Letters Patent No. **161,420**, dated March 30, 1875; application filed February 20, 1875.

To all whom it may concern:

Be it known that I, THOMAS M. LOSIE, of Elmira, in the county of Chemung and State of New York, have invented a new and valuable Improvement in Roofing; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawings making a part of this specification, and to the letters and figures of reference marked thereon.

Figure 1 of the drawing is a representation of a longitudinal vertical section of my roofing. Fig. 2 is a plan view of the same, and Fig. 3 is a sectional detail view.

This invention has relation to improvements in metallic roofing, whereof the contiguous edges are turned up and covered by a metallic cap.

The object of the invention is to so close this opening between the contiguous edges of the metallic plates as to render leakage impossible, and at the same time to give such rigidity to the ridge formed by turning up the said edges as to render its being crushed by a weight of snow very unlikely.

To this end the nature of the invention consists in combining, with a trough formed by turning the contiguous edges of the metallic plates upward and inward and then outward, and with a metallic capping adapted to be passed over the same, an oiled wick-packing arranged within the said trough, and adapted to be received between it and the capping, whereby an absolutely water-tight joint is formed.

In the annexed drawings, A designates the board sheathing of a roof laid, in the usual well-known manner, across the rafters, and B B′ designate contiguous sheets of metal plates arranged thereon. The edges *a b* of these plates are bent upward at an obtuse angle to the body of the same. They are then pressed inward until they come in contact with each other, when their extreme upper edges are bent outwardly, forming an angular trough, *c*. Within this trough a mesh or wick, J, of cotton or woolen packing, is arranged, over which is passed a metallic capping, C, the legs *d* of which accurately conform to the contour of the sides of the trough, either at the time of their application thereon or afterward, when they have been forced inward toward each other by any suitable means. Wick J is preferably oiled, with a view to adding to its durability and to prevent it from becoming water-soaked, in which case any excess of fluid would be discharged into the building. It may, however, be so tightly packed therein as to be impenetrable to water, in which case the wick will be oiled or not, as I may elect. Trough *c*, formed as described, is supported at intervals along its whole length by arms or hooks E rigidly secured in any suitable manner to boarding A, which hooks pass between the sides of the trough, and are engaged over the edges of the same. These hooks also prevent the ridge from lateral displacement.

In practice, where an upper sheet, F, overlaps a lower sheet, F′, an angular block, G, is placed under the ridge, as shown in Fig. 1, and a nail or screw, *g*, is forced through both plates. In this case, also, the overlapping plate conforms as to the bending of its edges to those of the lower sheet, and capping C embraces both edges, as shown at the left of Fig. 1. The lower edge of the upper plate is caused to form a water-tight joint with the upper edge of the lower plate by means of a hook on the one, formed by turning its edge under, which is engaged with a similar hook on the edge of the other, formed by bending the same upward and backward, the two hooks, when thus engaged, being simultaneously flattened down against the boarding.

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

In a metallic roof consisting of sectional plates, the wick or packing J, in combination with the capping C and trough *c*, formed substantially as specified.

In testimony that I claim the above I have hereunto subscribed my name in the presence of two witnesses.

THOMAS M. LOSIE.

Witnesses:

JAMES HARMON,

H. B. LOSK.