L. L. SAGENDORPH.

Metallic Roofing.

No. 222,842. Patented Dec. 23, 1879.

Fig. 1.

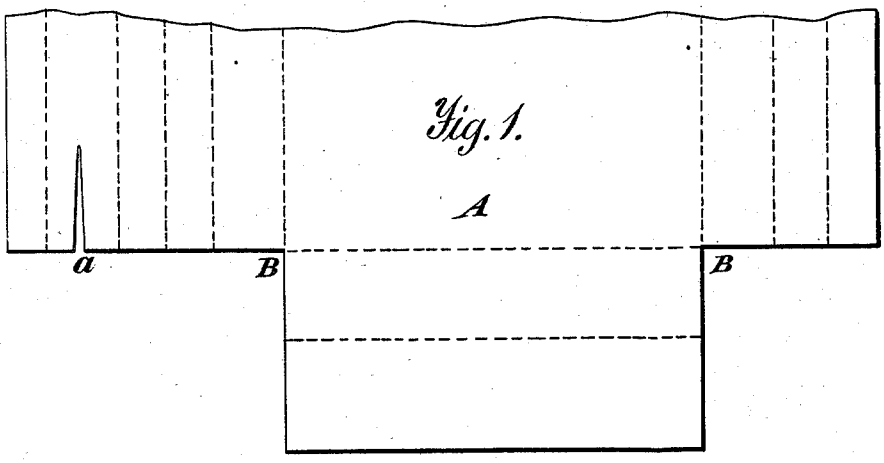


Fig. 2.

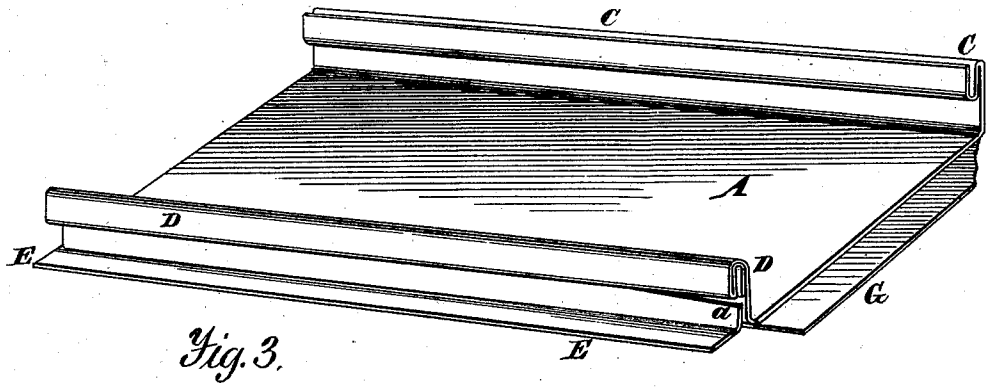


Fig. 3.

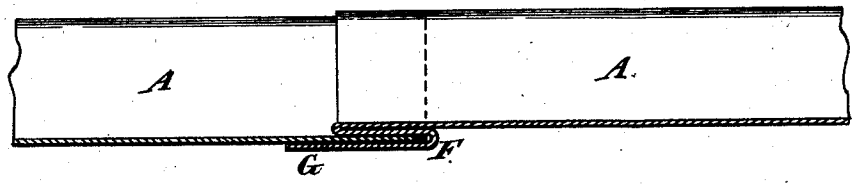
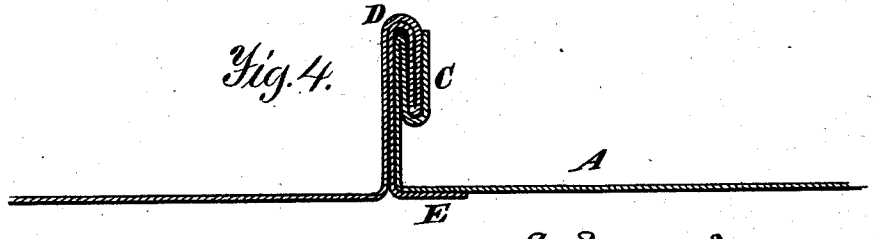


Fig. 4.



Witnesses.

A. Ruppert

A. Wingate

L. Lewis Sagendorph

Inventor.

By Theo. Mumgen & Co.

Attys

N. PETERS, PHOTO-LITHOGRAPHER, WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

L. LEWIS SAGENDORPH, OF STAUNTON, VIRGINIA, ASSIGNOR TO D. F. CLEMMER AND GEO. W. MAY, ONE-THIRD TO EACH.

IMPROVEMENT IN METALLIC ROOFING.

Specification forming part of Letters Patent No. **222,842**, dated December 23, 1879; application filed October 6, 1879.

To all whom it may concern:

Be it known that I, L. L. SAGENDORPH, of Staunton, in the county of Augusta and State of Virginia, have invented certain new and useful Improvements in Metallic Roofing; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to letters of reference marked thereon, which form a part of this specification, and in which—

Figure 1 is a sectional plan view of the sheet before it is bent. Fig. 2 is a perspective view of the same after being bent. Fig. 3 is a longitudinal sectional view of two sheets united at their ends; and Fig. 4 is a sectional view of two sheets united at their sides or at the standing seam.

This invention has relation to metallic roofing; and it consists in the improvement in the construction of the same, hereinafter fully described, and particularly pointed out in the claims.

In carrying out my invention I employ sheet metal—sheets of sheet-iron, copper, or the like—and from a blank having a parallelogram cut from its lower left-hand corner, for convenience, (the lower right-hand corner answering the same purpose,) and slitted, as shown at *a*. I bend the anchor, cap, and securing or connecting flanges both at the sides and the lower end of each sheet, as will hereinafter more fully appear.

Referring to the drawings, A represents the blank cut away at B and slitted at *a*. The dotted lines designate the places at which the blank is bent or folded to form the flanges, caps, and anchors. At the right-hand side a vertical flange, C, is formed, and with it a U-shaped fold, to give it additional strength. At the left-hand side the metal is folded upon itself, so as to leave a double standing seam, D, and a flange, E, by which to secure that side of the sheet to the sheathing. The standing seam D is again folded, as shown, to form the cap, which is received by the U-shaped fold formed on the vertical flange C.

On the lower edge of the blank is formed a U-shaped fold, F, the under side of which extends beyond the ends of the vertical flanges and seams C and D to form a flange, G. The flanges E and G are to be nailed to the sheathing.

The sheets are all made alike, and to unite them it is only necessary to slide the U-shaped flange beneath the cap, and nail the flange E to the sheathing, and to slide the upper end of a sheet into the U-shaped fold at the lower end of the sheet, the exposed projection G having first been nailed. The seams are then tightened by hammering with wooden mallets to close the folds of the same, no rivets or eyes being used.

The slit *a* in the lower end of the standing seam permits the upper end of the standing seam in the next lower sheet to enter it to complete the lateral seam at the lower edge of the sheet, and by this construction great waste of metal is saved.

By this construction a cheap, durable, and safe roof is produced. It can be more readily put together than the ordinary roof. One side and the lower end of each sheet are nailed to the sheathing, and there is therefore less danger from wind-storms.

It will, of course, be understood that the flanges E and G of one sheet should be nailed to the sheathing before a second sheet is slipped into the cap in the standing seam, or the upper end of a sheet slipped into the U-shaped fold in the lower edge. The standing seam thus formed, and the connection of the upper end of one sheet by the U-shaped fold in the lower end of another, provide for the necessary contraction and expansion incident to metal roofs.

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

1. In a sheet for metallic roofing, the flange C formed thereon, and provided with an outwardly-extending U-shaped fold, adapted to receive the downwardly-folded edge of the adjacent sheet, as and for the purposes specified.

2. In a sheet for metallic roofing, the standing seam D and flange C, formed by first bending the metal upon itself, and again bending to form the cap, as shown, said seam be-

ing slitted at *a*, substantially as and for the purposes set forth.

3. A sheet for metallic roofing provided with the U-shaped fold, and the flange G at its lower edge, substantially as and for the purposes set forth.

4. A sheet for metallic roofing having the flange C, with U-shaped fold near its edge, the standing seam D slitted at *a*, and the U-shaped fold and flange G at its lower edge, as set forth.

In testimony that I claim the foregoing I have hereunto set my hand this 2d day of October, 1879.

L. LEWIS SAGENDORPH.

Witnesses:
THEO. MUNGEN,
WILLIAM F. HOLTON.