

(126.)

Case A.
JOHN SIDDONS.

Improvement in Metallic Roofing.

No. 122,670.

Patented Jan. 9, 1872.

Fig 1.

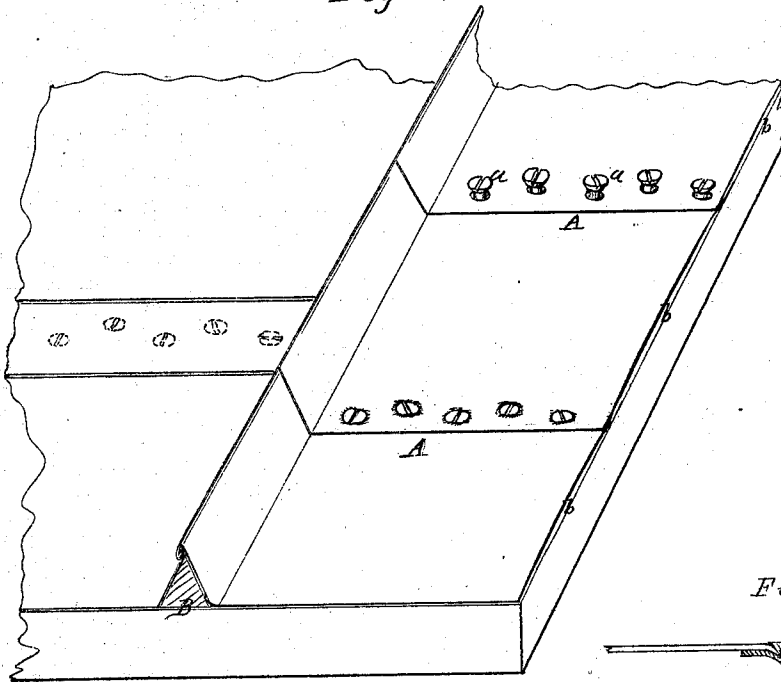
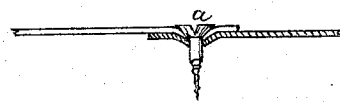


Fig 2.



Witnesses:
A. H. Sargent
J. H. Clement

Inventor:
John Siddons
By *W. S. Loughborough*
Atty

UNITED STATES PATENT OFFICE.

JOHN SIDDONS, OF ROCHESTER, NEW YORK.

IMPROVEMENT IN METALLIC ROOFING.

Specification forming part of Letters Patent No. 122,670, dated January 9, 1872.

SPECIFICATION.

Be it known that I, JOHN SIDDONS, of Rochester, in the county of Monroe and State of New York, have invented certain Improvements in "Metallic Roofing," of which the following is a specification:

My invention relates to that class of roofs composed of galvanized or zincd iron, or other metal which is capable of being soldered; and it consists in a peculiar method of forming the cross or transverse seams and connecting them to the roof-boards.

In the drawing, Figure 1 is a perspective view of a section of roof, and illustrates my improved method of forming the seams. Fig. 2 shows the depressions of the plates caused by the countersinks for the screw-heads.

It has heretofore been customary to make the transverse seams A of this class of roofs by locking or lapping the sheets with a strip of packing between, or by locking them and securing the whole to the roof-boards by nails or screws, the parts being thoroughly smeared with paint or oil. I find, however, by experiment and experience that paint peels very easily from zincd or galvanized iron roofing, especially by the action of frost or ice, leaving the screw-heads exposed and admitting water through the seams, and around the body of the screws through the plates. To avoid this difficulty and form a perfectly secure joint I make a soldered seam (using screws or nails to fasten the sheets down) in the following manner: The screws *a* are started part way into the roof-boards at the proper position in the lap, and their projecting portions, including the head, smeared with soldering acid. They are then

sunk into place, forcing the laps together and drawing the seam down to the roof-board. I next start back the screws a trifle—say half a turn or more—and apply melted solder, which flows into the countersinks around the screw-heads and between the laps, uniting the latter and perfectly closing the seam and hermetically sealing the screws into the perforations. Enough solder is usually applied to cover the screw-heads and flow over the joint so as to afford no entrance or lodging place for water.

It will be observed that it is by the application of the acid to the body and head of the screws after they are started back, and to the surface of the countersinks and the lap of the plates, over which latter the acid runs from the screw-holes, that the solder readily flows between and unites such surfaces.

The longitudinal seams are formed in the usual manner, either with or without the triangular ribs B, and the sheets are laid crowning between the points of attachment to the roof, as indicated at *b* in Fig. 1, to admit of contraction and expansion by changes of temperature without starting the joints.

What I claim is—

The method of forming the transverse joints on galvanized iron or zincd roofing by means of the screws *a* or their equivalent, prepared and applied substantially as described, which are afterward closely united to the sheets and the sheets to each other by soldering, substantially as and for the purposes set forth.

JNO. SIDDONS.

Witnesses:

OTIS COLE,
F. H. CLEMENT.

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