(126.)

Case B.

JOHN SIDDONS.

Improvement in Metallic Roofing.

No. 122,671. Patented Jan. 9, 1872.

Fig 1

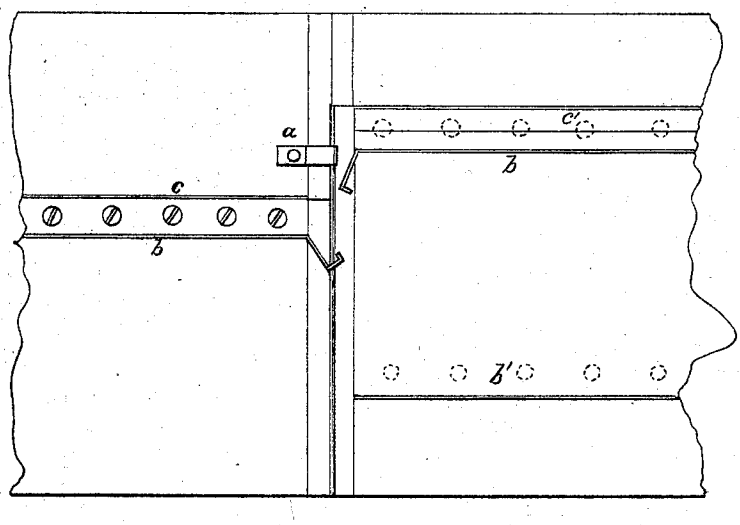


Fig 2

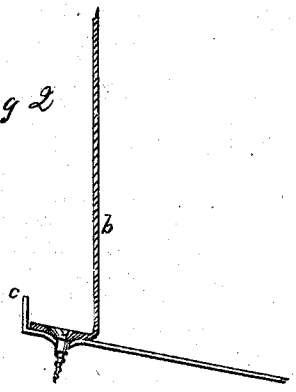


Fig 3

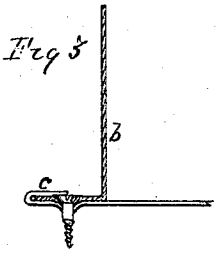
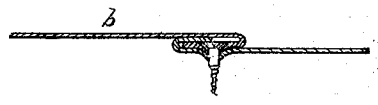


Fig 4.



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Atty

AM. PHOTO-LITHOGRAPHIC CO. N.Y. (OSBORNE'S PROCESS.)

UNITED STATES PATENT OFFICE.

JOHN SIDDONS, OF ROCHESTER, NEW YORK.

IMPROVEMENT IN METALLIC ROOFING.

Specification forming part of Letters Patent No. 122,671, 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 roofing composed of galvanized or zinced iron or other metal which is capable of being soldered; and it consists in a peculiar method of forming and attaching the cross or transverse seams of such roofing to the roof-boards on inclined roofs.

In the drawing, Figure 1 is a plan view of a small section of my improved roofing, showing the position of the sheets during the process of attachment. Figs. 2, 3, and 4 are vertical sections, showing the folds of the plates at the different periods of the process of attachment.

In attaching the plates or sheets of tin roofing I am aware it is common to nail them, sometimes by driving the nails through one end or corner of small pieces of tin. After the nail is driven through the roofing the other end of the tin is bent down over the nail head and the whole covered with solder. This is done when ordinary iron nails are used. Sometimes clips, similar to that shown at *a*, Fig. 1, are used on the cross-seams, in which case both nail and clip are covered by the next succeeding sheet. Nails have also been used through the edges of the two sheets, and the upper sheet folded down over the heads. Sheet-iron roofing has also been attached by applying a strip of packing between the sheets as they were being nailed; but I find that nails are seriously objectionable as a means of securing any kind of metal roofing to the roof-boards. This is especially so as regards heavy sheet-iron and galvanized iron roofing, because of the greater changes due to expansion and contraction; and the plan set forth in my patent of November, 1871, for securing common sheet-iron roofing by means of screws and packing is not entirely satisfactory when applied to the attachment of galvanized or zinced iron; because, while, in the former case, any slight defect in the seam will be remedied by the paint, the latter will not withstand the action of frost and ice when applied to the zinced roofing; consequently the cross-seams of this latter roofing must be soldered. This I accomplish on inclined roofs in the following manner: The sheets being folded at the shop, as shown in Fig. 2, are placed upon and secured to the roof-boards by the screws *s*, which are set part way in and the bodies and heads smeared with soldering acid. They are then screwed clear in, bringing the sheets together snugly, after which they are given a partial turn back, and the solder applied in the trough formed by the fold *c* and sheet *b*, Figs. 1 and 2, which thoroughly unites the body and head of the screws to the two sheets and the latter to each other. The fold *c* is next turned down as shown in Fig. 3 and at *c'*, Fig. 1. Sheet *b* is then turned down over the solder and screw-heads, as shown in Fig. 4, and at *b'*, Fig. 1, when the seam is complete.

This method of attaching this class of roofing is more especially applicable to inclined roofs on account of the solder flowing off from the seams, as heretofore formed, before it sets. This waste is prevented by the fold or lips *b* and *c*.

The cross-seams of flat roofs may be treated in the same manner if desired.

Zinced nails may be substituted for the screws, but I prefer the latter.

The other seams may be formed as provided in my patent of November, 1871, above mentioned.

What I claim as my invention is—

As an improvement in zinced or galvanized iron roofing, the method herein described of forming the transverse seams thereof by means of the folds *b* and *c* and screws *s* or their equivalents, all applied and secured to each other and to the roof, substantially in the manner and for the purposes set forth.

JNO. SIDDONS.

Witnesses:

OTIS COLE,

F. H. CLEMENT.

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