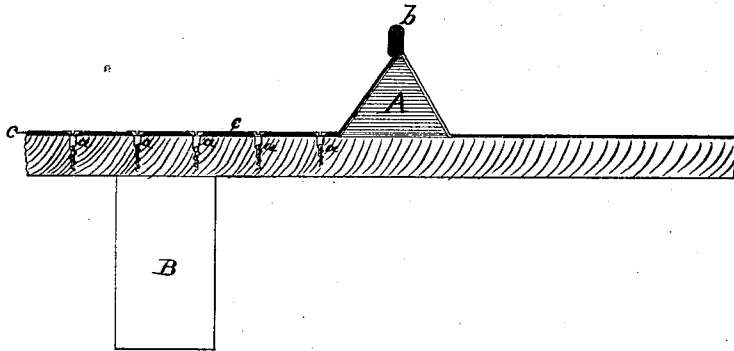


*J. Siddons,*  
*Metallic Roofing.*

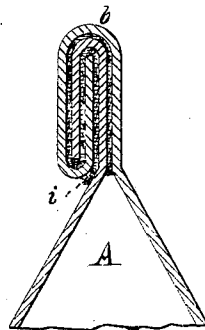
*No. 102441.*

*Patented Apr. 26. 1870.*

*Fig. 1.*



*Fig. 2.*



Witnesses:

*H. H. Clement*  
*Wm. S. Loughborough*

Inventor:

*J. Siddons.*

# United States Patent Office.

JOHN SIDDON, OF ROCHESTER, NEW YORK.

Letters Patent No. 102,441, dated April 26 1870.

## IMPROVEMENT IN METALLIC ROOFING.

The Schedule referred to in these Letters Patent and making part of the same.

To all whom it may concern:

Be it known that I, JOHN SIDDON, of Rochester, in the county of Monroe and State of New York, have invented certain new and useful Improvements in Metallic Roofing; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawing making part of this specification, in which—

Figure 1 is a sectional view of my invention.

Figure 2 is an enlarged sectional view of the double lock-seam and cement.

The object and nature of my invention will be understood by reference to the specification and drawing, and

To enable others to make and use the same, I will describe its construction.

I construct my improved roof of iron, zinc, or other suitable sheet metal.

The longitudinal joints of the sheets are made upon the triangular ribs *A*, by giving both sheets a double fold, *b*, as shown in the drawing, and fully described in my patent of September 28th, 1869.

Instead, however, of applying a fibrous packing between the sheets at the joint, I use any suitable oily cement or putty, *i*, which is applied either to the sheets near the edges before they are turned over, or upon the first turn of the seam before it is finally folded down.

The cement *i* hardens within the fold on exposure, and forms an impervious joint. This is a much cheaper plan than using a fibrous packing, since the material is less expensive, and less labor is involved in applying it.

The transverse joint, shown in section in the drawing, is made tight by a strip of packing, *c*, dipped in oil or paint, and interposed between the sheets at the lap.

By my former plan of fastening the sheets with clinched nails, it was necessary that an assistant be stationed under the roof to clinch them.

Moreover, where a rafter, *B*, crossed the seam, the

nails could not be clinched, and the sheet, raising by expansion, would draw them out, and also by frost in-winter.

To overcome these difficulties I use wood-screws *a* to secure the sheets to the roof-boards, as shown.

After the sheets are laid, the holes are punched and countersunk at one operation by a suitable tool, and the screws started by a blow from a hammer. A coat of red lead, or other paint, is now applied to the outside sheet along the seam, enveloping the screws and filling the countersinks. The screws are finally driven down with a screw-driver, and the paint flows over the heads, making, when dry, a perfectly tight joint.

By means of the screws the fibrous packing *c* is tightly pinched, insuring an impervious seam. It is plain that any sheet upon the roof can be readily removed for repairs, without injury either to the metal or the roof-board, and the screws cannot be drawn out by the expansion of the sheets.

I am also able to apply it cheaper than by the old plan, since I dispense with the services of an assistant under the roof.

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

1. The employment, in connection with the double-locked seam *b*, of a suitable water-proof cement, *i*, substantially as and for the purposes set forth.

2. The herein-described method of securing the lapped end of the sheets of metal roofing, that is to say, by forming countersinks or recesses in the sheets, then inserting the screws part of their length, then applying a coating of paint or cement, and screwing in the screw, so that a portion of the paint shall be under the head, and a portion shall also flow over the head in the recess, as set forth.

JNO. SIDDON.

Witnesses:

F. H. CLEMENT,

WM. S. LONGBOROUGH.