G. A. Reynolds,

Metallic Roofing.

NO. 107,290. Patented Sept. 13. 1870.

Fig. 1.

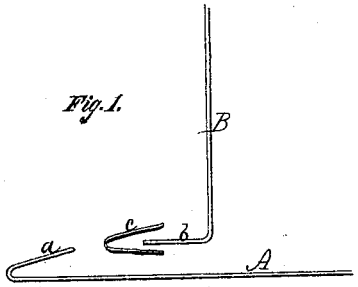


Fig. 2.

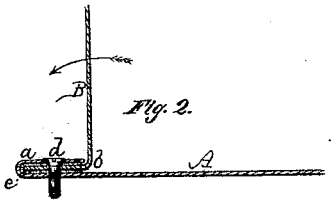
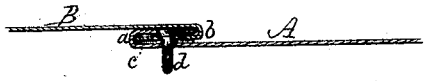


Fig. 3.



Witnesses.

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UNITED STATES PATENT OFFICE.

GEORGE A. REYNOLDS, OF ROCHESTER, NEW YORK.

IMPROVEMENT IN SEAMING THE ENDS OF METALLIC ROOFING-PLATES.

Specification forming part of Letters Patent No. **107,290**, dated September 13, 1870.

To all whom it may concern:

Be it known that I, GEORGE A. REYNOLDS, of the city of Rochester, in the county of Monroe and State of New York, have invented a certain new and useful Improvement in Seaming the Ends of Metallic Roofing-Plates, of which the following is a specification:

Nature of the Invention.

This invention consists in seaming the ends of metallic roofing-plates in the manner hereinafter described, whereby the heads of the screws which secure them to the roof are covered and insulated from water.

General Description.

In the drawing, Figure 1 shows two plates with the parts composing the seam separated; Fig. 2, a view of the same closed, but the upper plate not turned down to complete the seam; Fig. 3, a view of the same with the seam complete.

This roofing is composed of the ordinary sheet-iron or tin plates A B, which are seamed together both at the sides and ends to make them water-proof. The seams at the sides, or crosswise of the roof, are formed by bending up the edges to produce vertical standing flanges, such as are described in my patent dated June 21, 1870. The seams at the ends, or longitudinally of the roof, which are the subject of my present invention, are produced as follows: One sheet (the first put down) is formed at the upper end with a reverse bend, *a*, which stands upward from the surface. The lower end of the next sheet is provided with a bend, *b*, which may stand at any desired angle with the sheet. A piece of listing, or equivalent material, *c*, is then dipped or covered with paint or any suitable cement, and placed, with a double fold, over the bend *b*, which is then inserted in the angle of the bend *a*. The screws or nails *d d* are then applied to hold the plating to the roof, as shown at Fig. 2. When this is done, the upper plate is folded over or bent down and hammered in place, covering the screws and forming the complete seam, as shown in Fig. 3.

The novelty in this invention consists, first, in the reverse turn of the plate, whereby the screw-heads are covered and insulated from water; and, second, in combining therewith the cemented cloth or equivalent packing of the joint, which makes the whole water-tight.

Heretofore, the seam has been formed by the lapping of the edges and the insertion of the screws directly through from the outside, the heads in that case being exposed and covered only by paint, which is liable to become broken by the heat and the warping of the iron, or worn by the attrition, thus opening a passage for water.

The covering of the screw-heads by my plan obviates all difficulty of this kind. The screws applied through the edges of both plates also hold the parts firmly together against any expansion that may occur, which is essential to retain the plating in place and protect the joint.

The cement packing perfectly seals the joint, and makes a water-proof barrier from the front edge of the seam backward.

Whatever additional expense is incurred in extra labor is more than counterbalanced by the economy in the use of screws, a less number being used than in the ordinary roofing, which requires them to be placed close together to prevent the warping and starting up of the edge of the overlapping plates.

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

1. The seam for the ends of metallic roofing-plates herein described, consisting of the reverse bends *a b*, interlocked, and having the screws inserted therethrough, and having the upper plate then folded back over the screw-heads to insulate or cover the same, the whole operating in the manner and for the purpose specified.

2. In combination with the above, the cement packing *c*, applied in the manner and for the purpose specified.

In witness whereof I have hereunto signed my name in the presence of two subscribing witnesses.

GEORGE A. REYNOLDS.

Witnesses:

R. F. OSGOOD,

G. WILLM. MIATT.