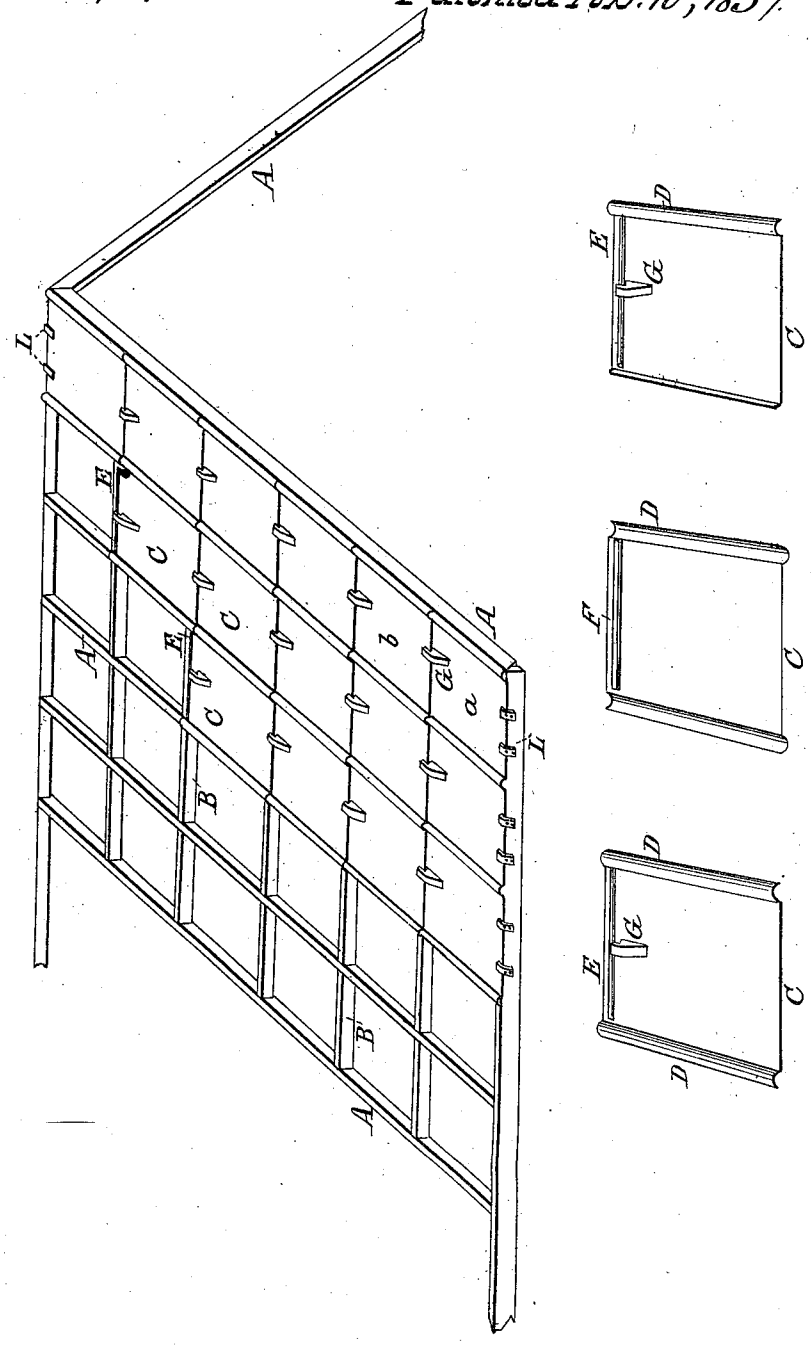
Ross & Campbell.

Metallic Roofing.

No. 16,614. Patented Feb. 10, 1857.



UNITED STATES PATENT OFFICE.

BENJAMIN ROSS AND JNO. C. CAMPBELL, OF SYRACUSE, NEW YORK.

METALLIC ROOFING.

Specification of Letters Patent No. 16,614, dated February 10, 1857.

To all whom it may concern:

Be it known that we, BENJAMIN Ross and JOHN C. CAMPBELL, of the city of Syracuse, in the county of Onondaga and State of New York, have invented a new and useful Improvement in Metallic Roofings; and we do hereby declare the following to be a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawings, making part of this specification.

The nature of our invention consists in a method of connecting together metallic plates or shingles used in covering roofs.

To make and use our invention construct the frame work of the roof in the usual manner consisting of rafters (A) and cross bars (B), the spaces between the rafters and bars being of the same dimensions as each of the metallic plates (C). Make the plates of cast iron by having a mold or pattern of the required form, or they can be made of wrought metal and formed into shape by means of dies and press. On each side of the plates make a circular flange or lap (D). Near the upper edges of each plate make a depression (E) extending across from the circular flange on one side to the same on the other. On the under surface of each plate, and near the lower edge make a projection (F) extending across the plate, and corresponding to the depression (E) on the upper surface. Near the upper edge, and on the upper surface attach a lug (G) having a lip projecting upward.

In placing the plates upon the roof commence at the lower edge and on one or other side. Attach the plate (*a*) at its lower edge to the frame by clasps (L) or by any convenient method,—then place the lower edge of the second plate (*b*) under the lip of the projection (G) by elevating the upper end of the second (*b*) and then by laying it down upon the rafters the projection (F) falls into the depression (E) and the two plates are firmly locked together. Continue to lay the plates in this manner until the first tier extends to the ridge, when the upper end may be connected to the frame as at the lower by clasps (L). Another tier can then be laid in the same manner at the side of the first, and the flanges of the second overlapping the first, and so on until the whole roof is covered. When necessary cement can be placed in the joints where the plates are locked together to prevent the passage of water. In this manner of locking the shingles together it is obvious they can be laid with rapidity inasmuch as no other fastening to the roof is required than at the eves and ridge, the weight of each plate serving to keep them locked together and in their place upon the roof. By this method the tightness of the roof is not effected by the expansion and contraction of the metal, and the roof may be removed without injury.

What we claim as of our own invention and desire to secure by Letters Patent is,

The method described of connecting together metallic plates or shingles for roofing by their own weight when the series of plates so connected are fastened only at the upper and lower edge of the roof.

BENJAMIN ROSS.
JOHN C. CAMPBELL.

Witnesses:
R. F. STEVENS,
J. HUNT.