J. B. CLARK.

SHEET-METAL ROOFS.

No. 195,482. Patented Sept. 25, 1877.

Fig. 1.

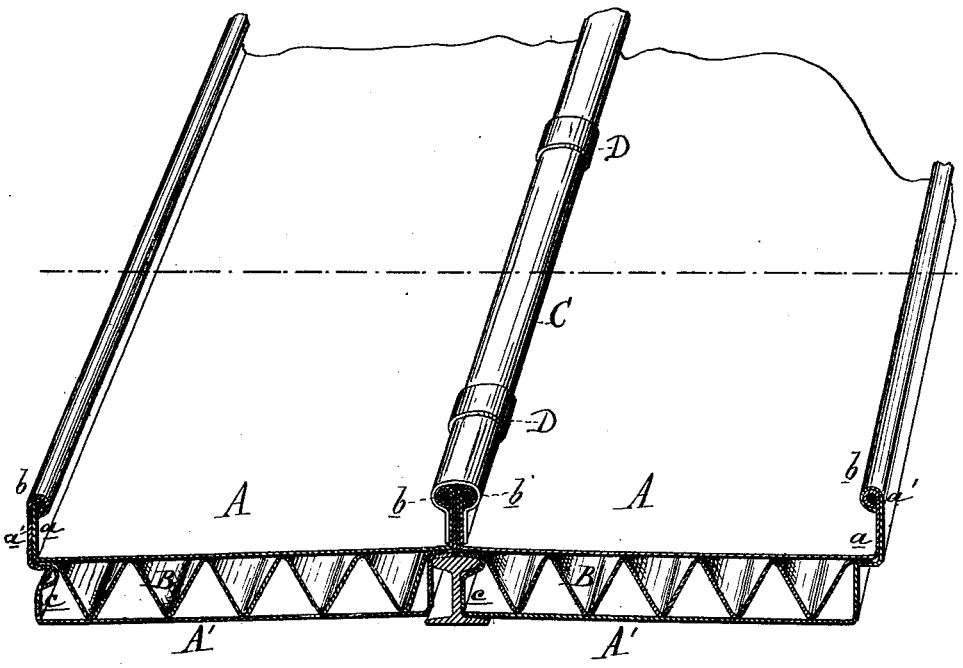
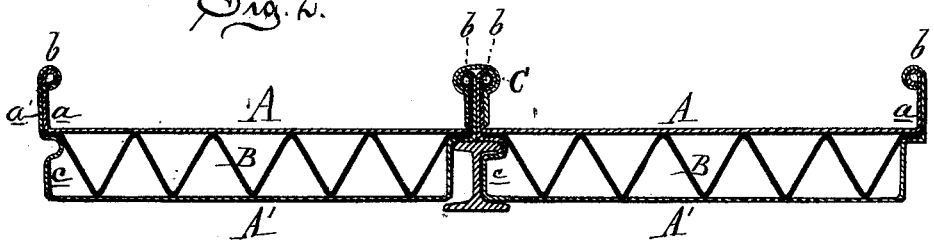


Fig. 2.



Witnesses:
Edward Barthel
Theo. L. Day

Inventor:
J. B. Clark
By Atty
Thos. S. Sprague

UNITED STATES PATENT OFFICE.

JAMES B. CLARK, OF YPSILANTI, MICHIGAN, ASSIGNOR OF ONE-THIRD HIS RIGHT TO EDMUND HENDRICKS, OF SAME PLACE.

IMPROVEMENT IN SHEET-METAL ROOFS.

Specification forming part of Letters Patent No. **195,482**, dated September 25, 1877; application filed March 15, 1877.

To all whom it may concern:

Be it known that I, JAMES B. CLARK, of Ypsilanti, in the county of Washtenaw and State of Michigan, have invented an Improvement in Sheet-Metal Roofs, of which the following is a specification:

The object of my invention is to construct a sheet-metal roof in sections, without solder or rivets, ready to go onto the purlins, from which it cannot be torn off by the force of the wind, and to stiffen it so that it will bear the weight of snow lying on it, or of persons walking upon it, without sagging or bending.

The invention consists in making the sections of two sheets joined together in a peculiar manner, and the interposition of a stiffening web of sheet metal, as more fully hereinafter set forth.

Figure 1 is an end perspective view of two sections joined at the sides and resting upon an iron rafter. Fig. 2 is a cross-section of the same.

In the drawing, A represents the upper, and A′ the lower, sheet of each section, the latter being the wider one of the two, with a flange, *a′*, at each edge turned vertically upward. The width from flange to flange is equal to the distance from center to center of the purlins or rafters.

A flange, *a*, is turned up at each side of the upper sheet, which is then laid onto the lower one, and the edges of both sheets rolled over inwardly, as at *b*, to lock them together.

The lower sheet is pitted or depressed so as to sit between the sides of a pair of rafters, one edge of the pit forming a half dovetail, *c*, which is laid in place before the straight side is lowered onto the rafter.

A corrugated sheet, B, is interposed between the upper and lower sheets, which so stiffens the section as to enable it to sustain a heavy weight or pressure.

The sections longitudinally overlap each other when laid on the roof, and the pits of the lower sheets may be longitudinally slotted near the ends to receive a pin to secure them to the purlins, if desired, although it is not necessary when the locks of the adjacent sections are secured together by the folded rib C, which is laid over them, and then secured by malleable-iron clamps D, whose ends have a permanent inward set given them by a pair of tongs.

The ends of the sections at the eaves may be closed in, or a screen fitted to them will ventilate the space between the sheets, if desired.

The width of and space between the purlins being given, the roof-sections may be made in the manufactory, and then sent to and placed on the structure.

What I claim as my invention is—

1. A sheet-metal roof-section composed of the sheets A A′, secured together by the flanges *a a′* and roll *b* and corrugated sheet B, all constructed and arranged substantially as described and shown.

2. The combination, with a sheet-metal roof constructed in sections, each section having a vertical flange and roll, *b*, of the folded rib C, substantially as described and shown.

JAMES B. CLARK.

Witnesses:
H. S. SPRAGUE,
JOHN EBERT.