(No Model.)

L. L. SAGENDORPH.

METALLIC ROOFING.

No. 355,889. Patented Jan. 11, 1887.

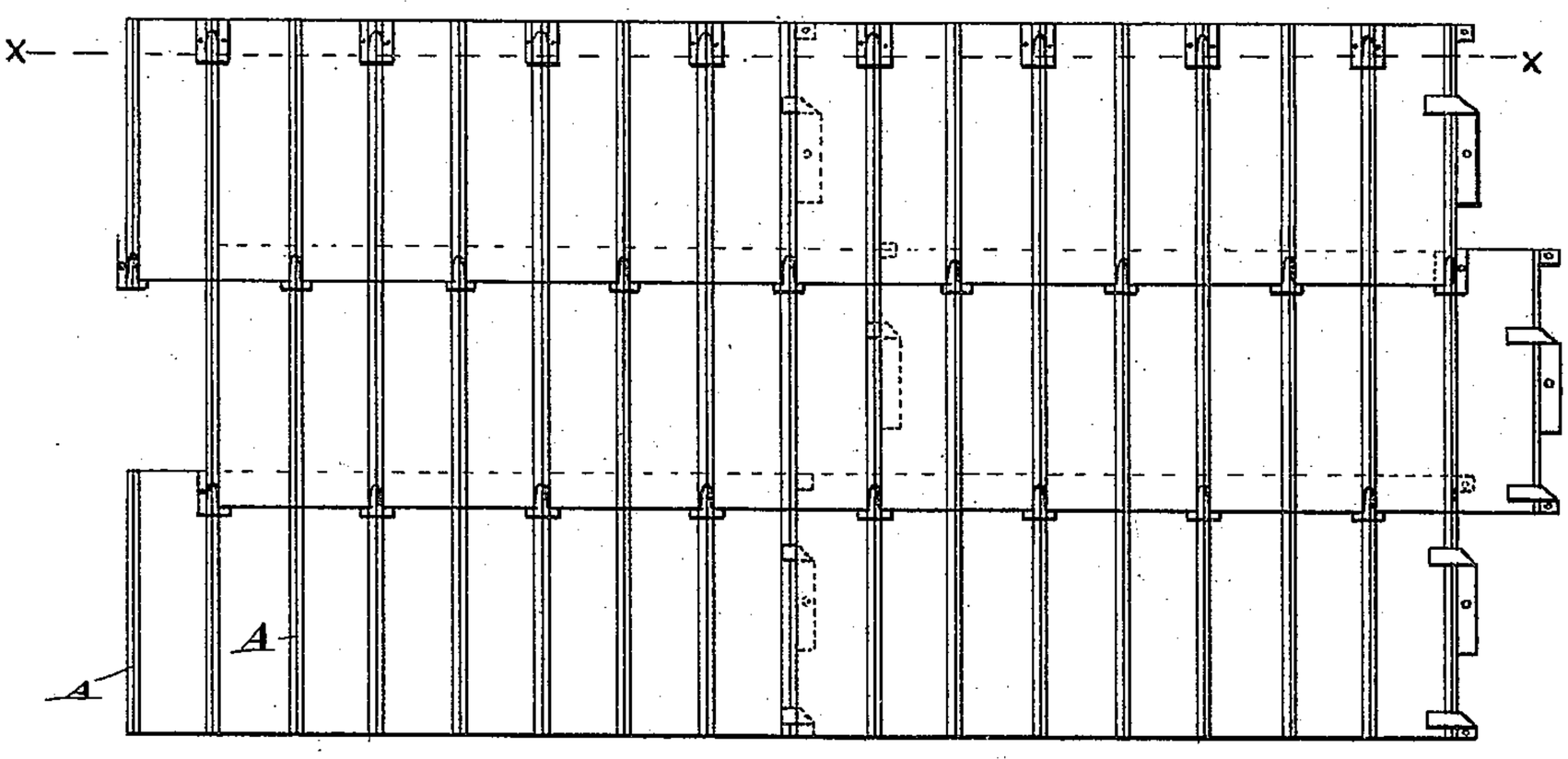


Fig. 1.

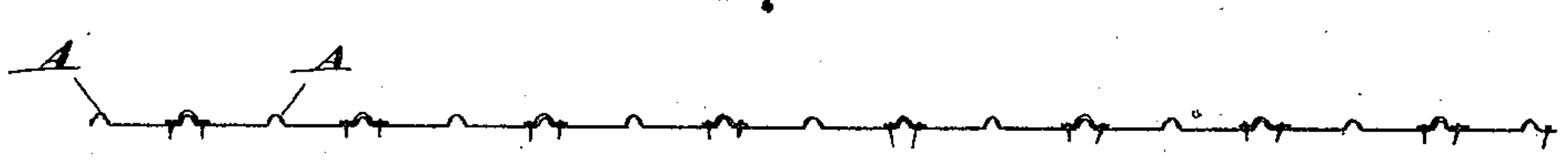


Fig. 2.

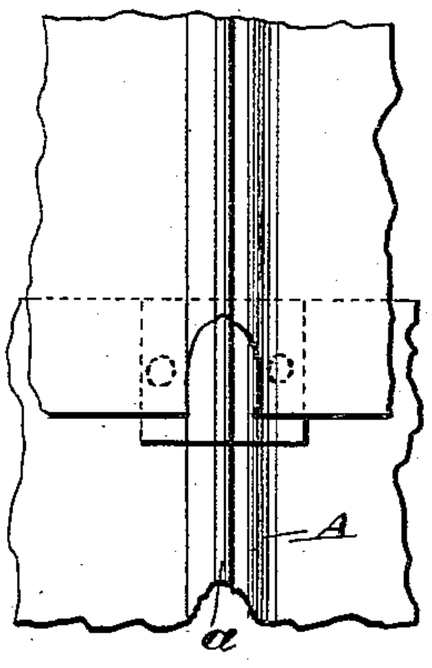


Fig. 4.

Fig. 5.

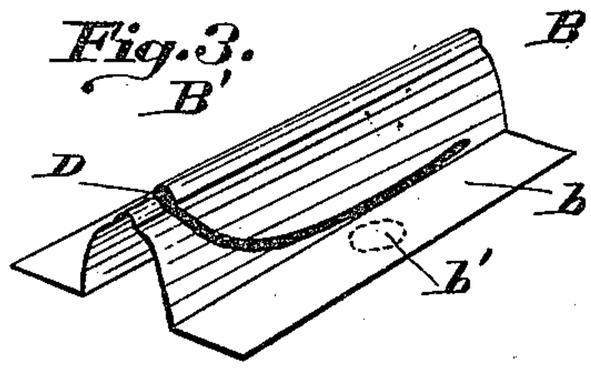
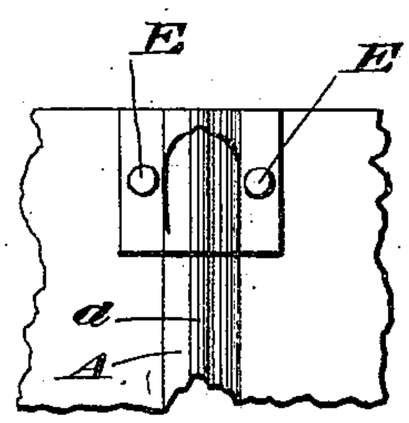


Fig. 3.



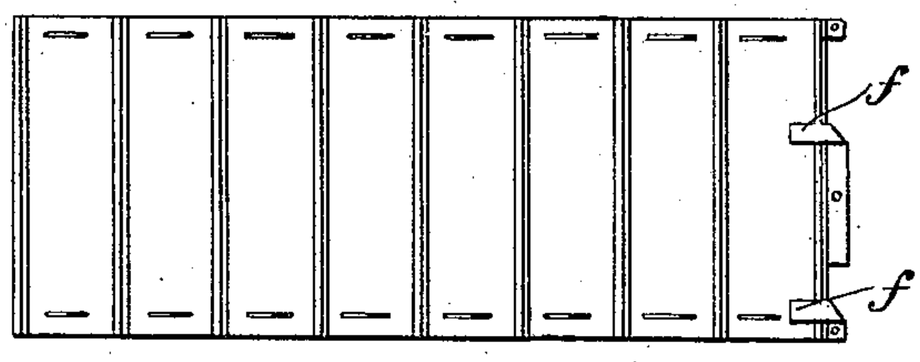


Fig. 6.

Attest.
H. A. Christopher
W. P. Gulick

Inventor.
Longley Lewis Sagendorph

UNITED STATES PATENT OFFICE.

LONGLEY LEWIS SAGENDORPH, OF CINCINNATI, OHIO, ASSIGNOR OF ONE-HALF TO HARLAN P. LLOYD, OF SAME PLACE.

METALLIC ROOFING.

SPECIFICATION forming part of Letters Patent No. 355,889, dated January 11, 1887.

Application filed August 28, 1886. Serial No. 212,047. (No model.)

To all whom it may concern:

Be it known that I, LONGLEY LEWIS SAGENDORPH, a resident of Cincinnati, Hamilton county, Ohio, have invented certain new and useful Improvements in Metallic Roofing, of which the following is a specification.

The object of my invention is to unite a series of metallic shingles or roofing-plates into a single long sheet, and to provide means for uniting the edges of adjoining sheets, so as to make a water-tight joint.

In the accompanying sheet of drawings, forming part of this application, Figure 1 is a top view of parts of these sections of roofing, showing the relation of the different plates to each other. Fig. 2 is a section taken at the line *x x*, Fig. 1. Fig. 3 is a perspective view of my improved crown-tongue cleat. Fig. 4 is a top view of a joint between adjacent sheets, the position of the crown-tongue cleat being partly shown by dotted lines. Fig. 5 is a top view of part of a sheet provided with the crown-tongue cleat and ready to receive the adjacent sheet. Fig. 6 is a top view of a single sheet of the roofing illustrated in Fig. 1.

I have heretofore made metallic shingles with one panel, and having at one side a ridge having a teat-crown, and at the other side provided with lips *f*, for uniting the ends of the sheets, and which means for uniting the sheets is fully set forth in my application for Letters Patent, Serial No. 210,154, filed August 5, 1886. By having only one panel the number of shingles employed increased the number of joints on the roof and rendered it more liable to leak than if there were but a few joints. To avoid this, I make a series of shingles in a single sheet and put the uniting-cleats *f* at the end of the long sheet, which is shown in Fig. 6.

When the long sheets are employed, the fastenings at the ends are not alone sufficient to hold them in place, and to drive nails through the side edges would produce leaky joints in the roof. To avoid this latter difficulty, while at the same time securing the sheets to the roof along their edges, I provide the tongue-crown cleat shown in Fig. 3. This tongue-crown cleat C consists of a piece of metal curved to form the ridge B, from the edges of which the flanges *b* project outwardly. The curved slot D is cut in the ridge B, forming the lip B′. Each of the flanges *b* is provided with an opening or dent, *b′*, and located between the extremities of the slot D.

In applying the sheets to a roof the lowest line of sheets is shown first, their ends being united, as shown in Fig. 1. The tongue-crown cleats are now put over the upper end of alternate ridges A, as shown in the uppermost line of sheets in Fig. 1, and held to place by nails E, driven through the flanges *b* and the sheets themselves into the wooden sheathing below. The next line of shingle or roofing-plate is so laid that its ridges correspond in position with the ridges of the sheet already laid, and, as shown in Fig. 1, it is slipped over the ridges of this sheet; but under the lip B′ of each of the tongue-crown cleats, as shown in Fig. 4. In this position the nails holding the cleats in position are covered and the joints made are perfect.

My invention has several important advantages. In the first place the sheets are securely attached to the sheathing, both at their ends and at their sides; secondly, the nails by which the side attachments are made are neatly covered up; and, thirdly, the device practically admits of making several roofing-plates or shingles out of and in one piece of metal, thus avoiding joints, which are the weakest parts in all metal roofing. By this shape and mechanical device for fastening I can form four, eight, or ten shingles or roofing-plates out of and in one piece of metal, or form a series of roofing-plates or shingles in one piece of metal without cutting.

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

1. As a device for uniting adjacent sheets, the cleat B, having tongue B′, and provided with slot D and flanges *b*, substantially as set forth.

2. The combination of a sheet of metallic roofing having ridges A, cleats B, secured in place by nails E, and a second sheet of metallic roofing fitting in slot D and covering the nails E, as and for the purposes set forth.

LONGLEY LEWIS SAGENDORPH.

Attest:
W. P. GULICK,
O. M. HILL.