R. F. SLAUGHTER.

Sheet-Metal Roofing.

No. 220,181. Patented Sept. 30, 1879.

Fig. 1

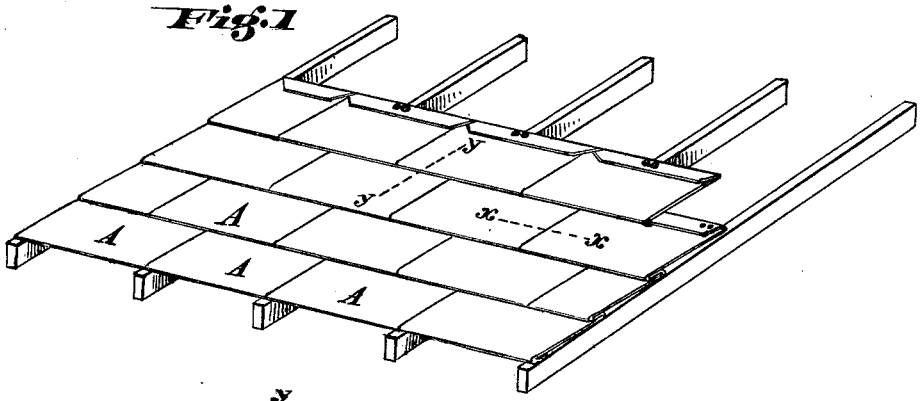

Fig. 2

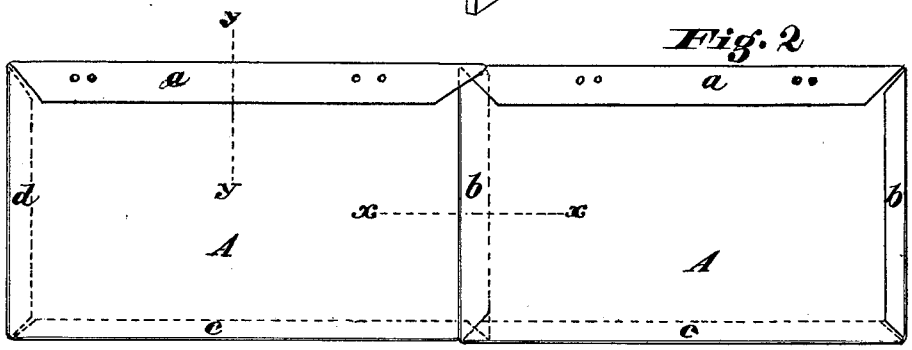

Fig. 3

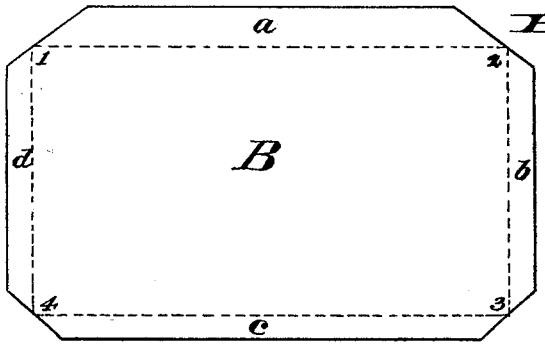

Fig. 4

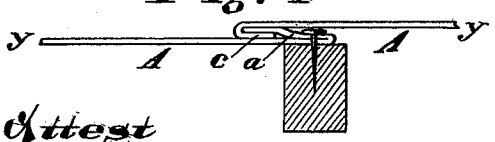

Fig. 5

Attest

Edgar Hoover

E. S. Bonnet

Inventor

Robert F. Slaughter,

by L. M. Hoover,

Attorney.

UNITED STATES PATENT OFFICE.

ROBERT F. SLAUGHTER, OF POPLAR GROVE, KENTUCKY.

IMPROVEMENT IN SHEET-METAL ROOFING.

Specification forming part of Letters Patent No. **220,181**, dated September 30, 1879; application filed July 10, 1879.

To all whom it may concern:

Be it known that I, ROBERT F. SLAUGHTER, of Poplar Grove, Owen county, Kentucky, have invented a new and useful Improvement in Sheet-Metal Roofing, of which the following is a specification.

The object of my invention is to improve the construction of sheet-metal roofing, and the mode of attaching the same to a building, whereby the plates composing the roof are more easily, quickly, and economically secured in position, and more firmly and durably held, while at the same time the joints and fastenings are perfectly protected, and whereby, also, the cost of manufacture and of applying the plates to a roof are materially reduced—skilled labor not being required in either case.

My invention consists in forming sheet-metal roofing-plates each with flaps folded back upon opposite sides of itself, at opposite edges, one of said flaps exceeding the other in width, so that when in laying a roof the narrow flap of one plate is engaged or hooked into the wide flap of a previously-laid plate, the free edge of said narrow flap does not extend to the folds of the wide one, and therefore the edge of a plate having a wide flap may be secured to the rafters by nails passing through but two thicknesses of metal, said nails not interfering with the proper engagement of the two plates.

It will be readily appreciated that the nails are thus enabled to take better hold and more firmly secure the plates than they would were they required to pass through both flaps, and the roof is much more cheaply constructed than it would be were special ears or projections necessary for the nails.

In the drawings herewith illustrating my invention, Figure 1 represents a portion of a roof to which my invention is applied. Fig. 2 represents two adjacent sheets in position. Fig. 3 represents a blank from which my improved roofing-plate is made. Figs. 4 and 5 are sectional views taken on the lines *y y* and *x x*, respectively, of Fig. 1.

A represents the plate when complete and ready to be attached to the roof, and B the blank from which it is formed.

In forming the plates no special size of blanks is required; but it is necessary that the plates should be of uniform size for each roof.

In forming the plates it is only necessary to take a rectangular sheet of metal—tin or galvanized iron being generally used for the purpose—and cut the corners so as to form the blank shown in Fig. 3. The edges of the blank are then bent over at the dotted lines shown. Thus the edge or flap *a* is bent at the dotted line 1 2 toward the observer over upon the body of the sheet, the flap *b* in the same direction and manner at the line 2 3, and the flaps *c* and *d* in same manner, but in opposite direction, at the lines 3 4, 4 1.

The flap *a*, it will be observed, is wider than its opposite, *c*. The reason will be apparent in consideration of Figs. 2 and 4.

The fastening-nails are driven through the flap thus formed in order to secure the plates more firmly to the roof-timbers, and it is necessary to have sufficient depth to the flap to accommodate this use and allow the flap *c* of the superimposed plate to hook under and have a sufficient bearing beyond the fastening-nails.

The manner of joining the plates together on the pitch-line *y y* of the roof is shown in Fig. 4.

It will be seen that the flap *a* forms the anchor by which the lower end of the superimposed plate is held, and that when suitably disposed the joint is not affected by the contraction or expansion of the plates under ordinary changes of temperature, while the fastening-nail is fully protected by the body of the superimposed sheet.

The joint on the horizontal line is shown at *x x*, Fig. 5, and the adjustment together of the adjacent plates by means of their hooks *d b* will be readily comprehended.

In laying the roof, the operator begins with the left-hand lower corner and fastens the lower course of plates, to which the remaining courses are successively added.

Having described my invention, I claim and desire to secure by Letters Patent—

1. The sheet-metal roofing-plates having flaps folded in opposite directions at opposite sides, one of said flaps exceeding the other in width, and adapted to engage with a narrower

flap and permit the passage of fastening-nails clear of the edge of said narrower flap, substantially as described.

2. The combination and arrangement of a series of sheet-metal roofing-plates, A, each having flaps *a* and *c* folded upon opposite sides of itself, the flaps *a* exceeding in width the flaps *c* and engaging therewith, whereby the fastening-nails are required to pass through but two thicknesses of metal, substantially as described.

In testimony whereof I have hereunto set my hand this 2d day of July, 1879.

R. F. SLAUGHTER.

Witnesses:
L. M. HOSEA,
C. F. HESSEL.