

(No Model.)

F. CRAWFORD.
METALLIC SHINGLE.

No. 553,514.

Patented Jan. 28, 1896.

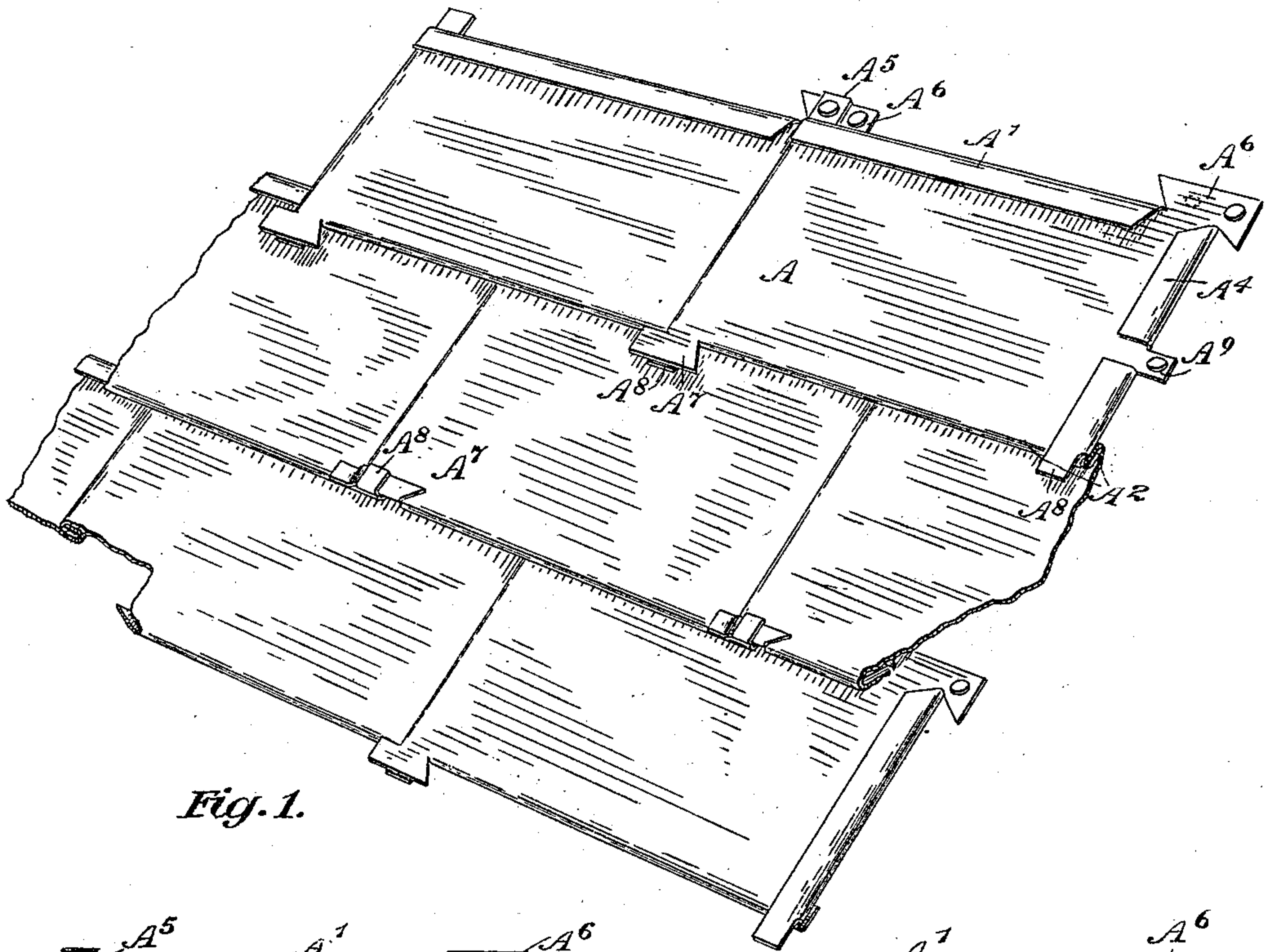


Fig. 1.

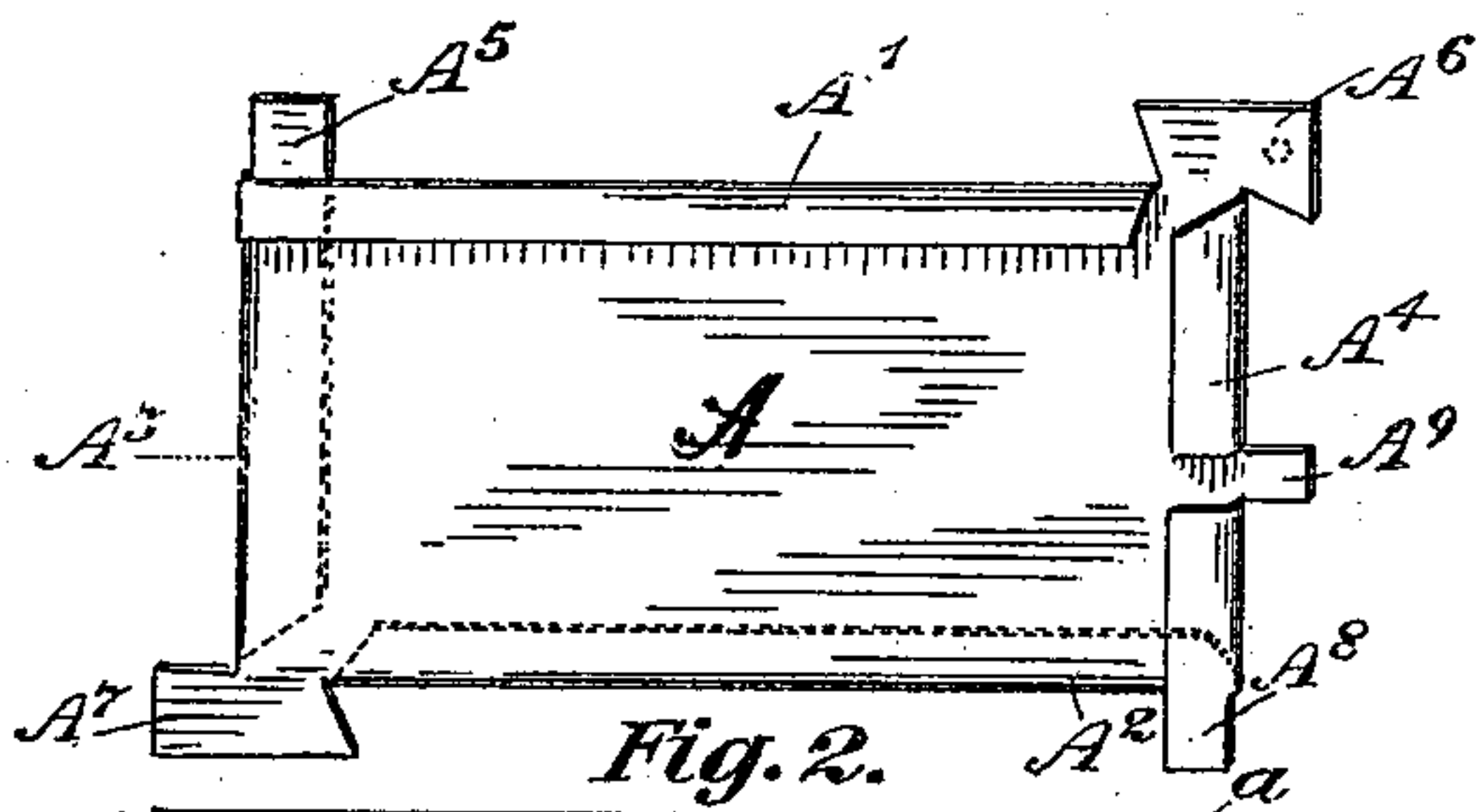


Fig. 2.

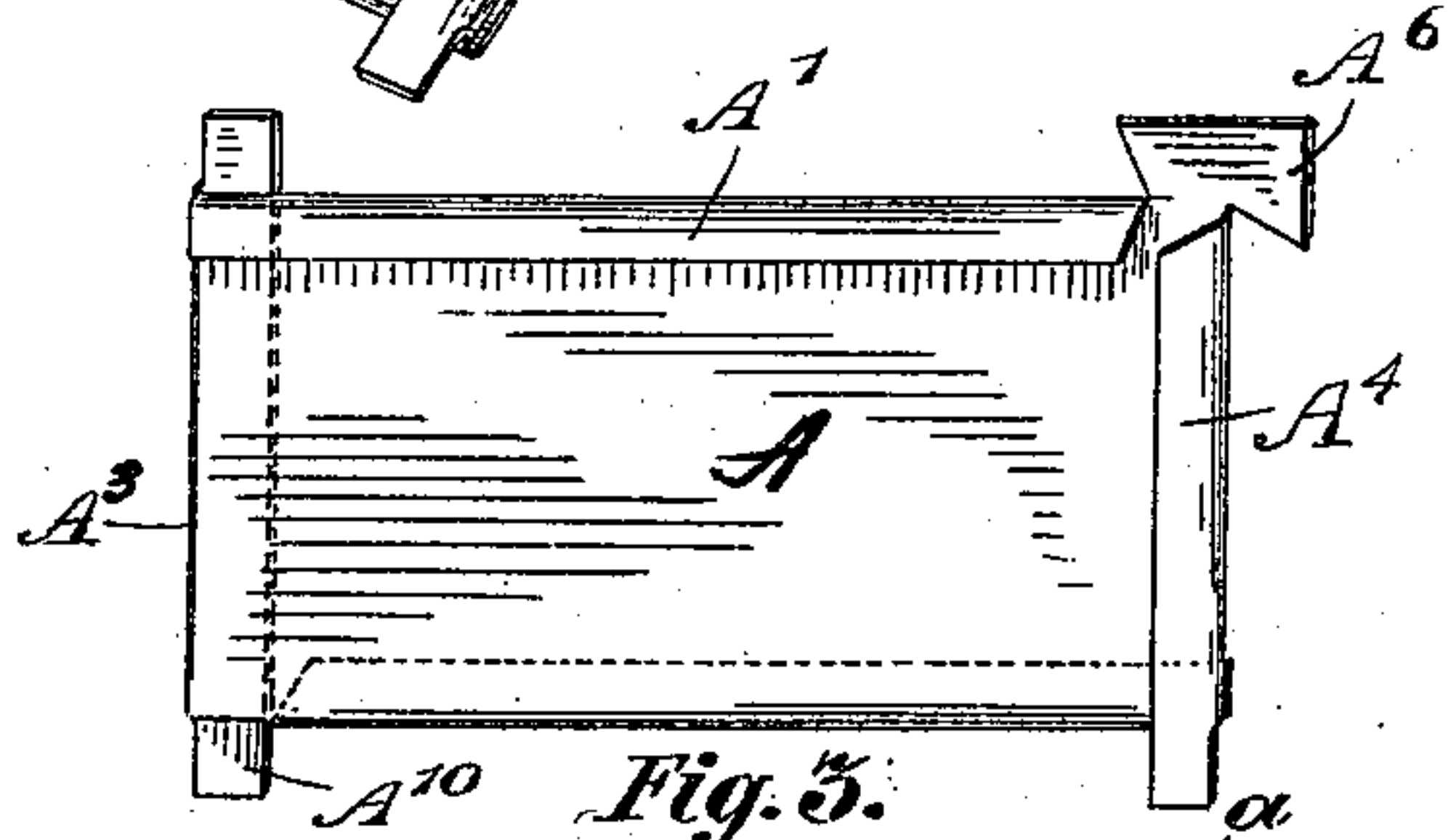


Fig. 3.

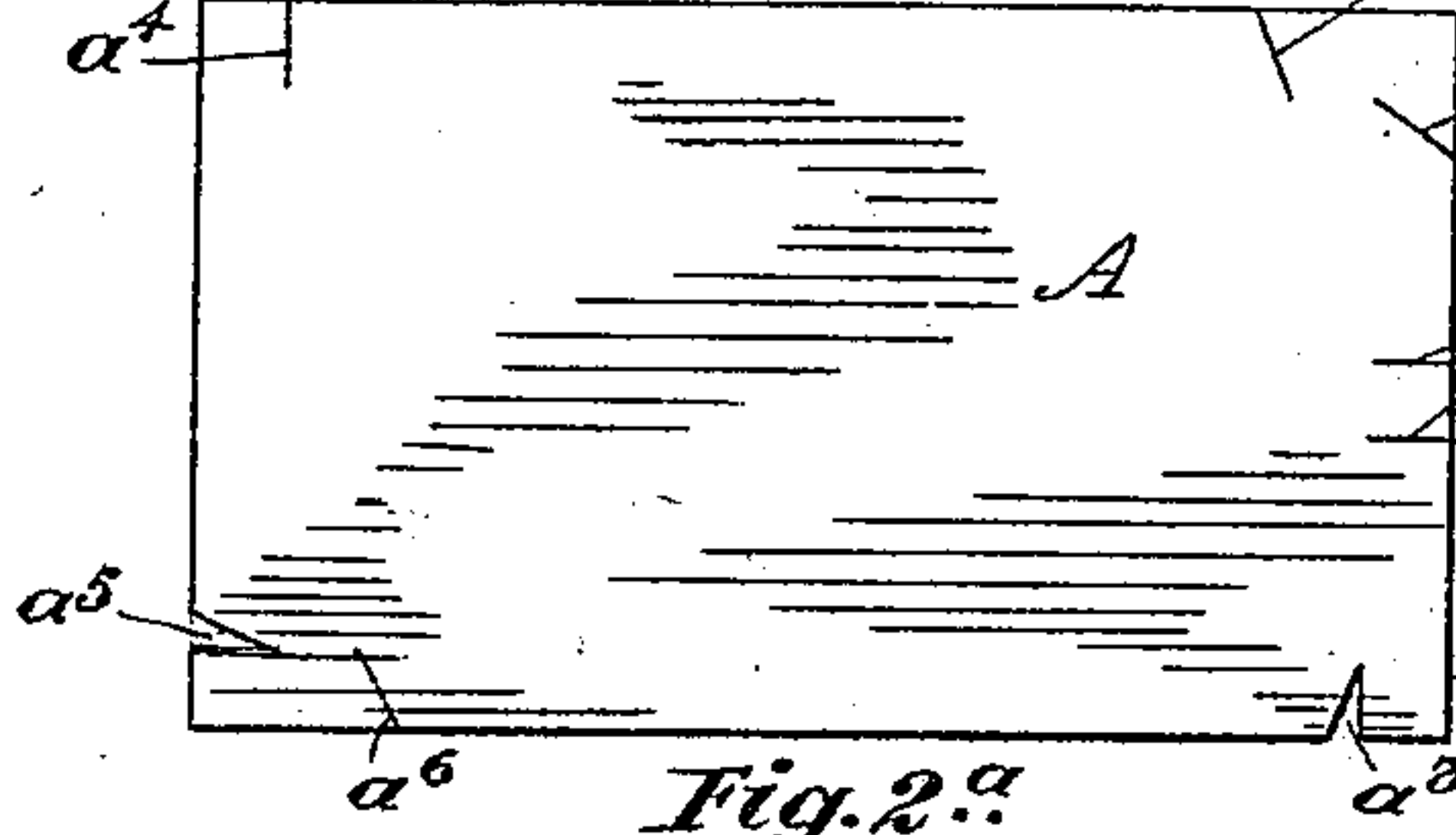


Fig. 2^a.

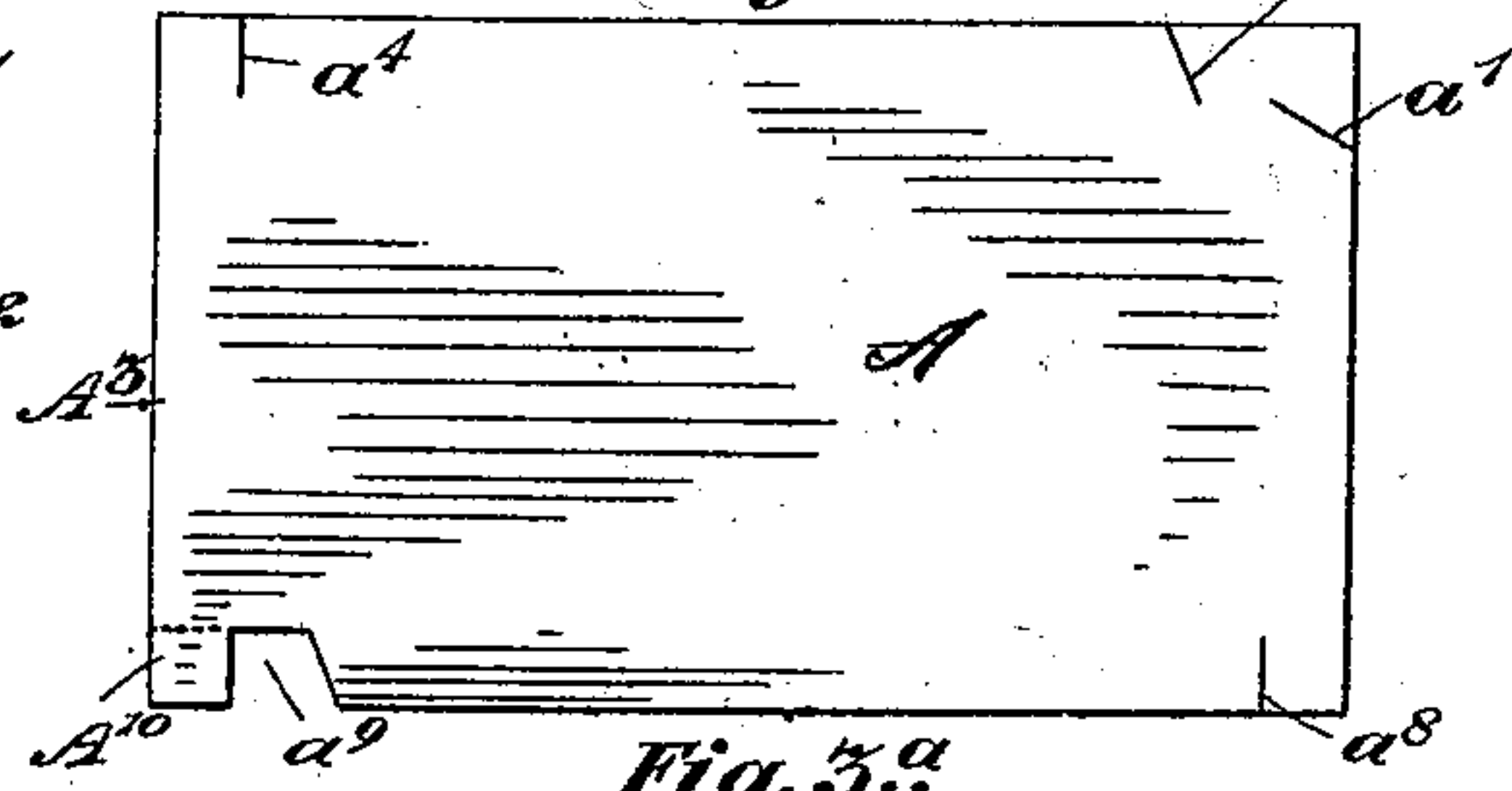


Fig. 3^a.

Witnesses.

W. N. Thow.
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UNITED STATES PATENT OFFICE.

FREDERICK CRAWFORD, OF TORONTO, CANADA.

METALLIC SHINGLE.

SPECIFICATION forming part of Letters Patent No. 553,514, dated January 28, 1896.

Application filed May 31, 1895. Serial No. 551,032. (No model.)

To all whom it may concern:

Be it known that I, FREDERICK CRAWFORD, machinist, of the city of Toronto, in the county of York, in the Province of Ontario, Canada, have invented certain new and useful Improvements in Metallic Shingles, of which the following is a specification.

My invention relates to improvements in metallic shingles; and the object of my invention is to design an extremely simple and cheaply-constructed shingle which may be readily secured to the roof, and which, when the shingles are fastened together, will be perfectly waterproof; and it consists essentially of forming the shingle out of a single piece of sheet metal cut out and formed up so that the opposite sides are reversely folded one above and the other beneath the body of the shingle, two corner portions diagonally opposite each other being peculiarly cut and arranged when forming the shingle to lie flat with the body, the other two diagonally-arranged corner portions being arranged to extend out as part of the fold, the shingles being put together as hereinafter more particularly explained.

Figure 1 is a perspective view of portion of square of shingling for a roof constructed and fastened together in accordance with my invention. Fig. 2 is a detail of one form of shingle when folded up ready for use. Fig. 2^a is a plan of the blank, showing the cuts made in the shingle and by dotted lines the folds. Fig. 3 is an alternative form. Fig. 3^a is a detail of the blank for this form.

In the drawings like letters of reference indicate corresponding parts in each figure.

A is the blank from which the shingle is cut.

a is an oblique cut made into the shingle from the top edge and at the upper right-hand corner.

a' is an oblique cut made into the shingle at the side edge and at the same corner.

a² are two cuts made in the same side centrally.

a³ is a cut or notch formed in the shingle at the lower right-hand corner and from the bottom edge. One side of the notch is preferably beveled.

a⁴ is a cut made to extend inwardly at right

angles to the top edge and near the upper left-hand corner.

a⁵ is a cut or notch made at the lower left-hand corner in the side edge, the upper side being preferably beveled.

a⁶ is an oblique cut made from the lower edge near the lower left-hand corner.

A' is the top fold, which is made to fold above, and A² is the bottom fold, which is made to fold below, the body A. A³ is the left fold, which is made to fold beneath the body A, and A⁴ is the right fold, which is made to fold above the body A. These folds leave at the corners the top nailing ends A⁵ A⁶ and the folding ends A⁷ and A⁸, also a nailing side lip A⁹.

In Figs. 3 and 3^a I exhibit the alternative form of the shingle, which is comprised substantially of the differences only at one of the folding corners, which is the lower left-hand corner. In this case a notch a⁹ is made from the edge, and the folding edge A⁸ is continued downwardly, so as to form a folding-corner end A¹⁰. It will be seen, however, that all these attaching and folding corners are substantially the same, although slightly different in form.

The shingles are put together as follows: Starting at the lower left-hand corner on the side of the roof the lower row of shingles may be put on, hooking the left fold, A³, of one shingle into the right fold of the adjacent shingle. Before this is done, however, the nails are driven into the nailing corners A⁵ and A⁶ and nailing-lip A⁹. The next row of shingles above is put on the same way; but the lower folds, A², are hooked into the upper folds, A', and folds A³ and A⁴ of the shingle, which are hooked together, are arranged to lie intermediate of the length of the shingle below. The nailing corners A⁵ and A⁶ and lips A⁹ are then secured to the roof, and the folding corners A⁷ are turned up, and the adjacent folding corner A⁸ underneath is turned up, as shown in Fig. 1, in this way firmly securing the shingles together at these corners. All the folded edges fastened together are hammered down, so as to be substantially flat and perfectly waterproof.

What I claim as my invention is—

1. A metallic shingle comprising the plate

having its opposite edges folded in opposite directions, nailing projections projecting from the two upper corners and locking projections on the lower corners arranged to align with
5 the corresponding projections on the adjacent shingles and be folded over therewith to lock the shingles securely together, substantially as described.

10 2. A metallic shingle comprising an upper fold extending the major portion of the length of the shingle and folded above the body, A, a lower fold extending the major portion of the length of the shingle from the opposite

end and folded beneath the body, A, a side fold extending the length of the folded shingle 15 and turned underneath and an opposite side fold extending the width of the folded shingle and turned above and the upper nailing corner ends and an intermediate lip formed out of the side fold turned above the body as 20 and for the purpose specified.

FREDERICK CRAWFORD.

Witnesses:

B. BOYD,
E. R. CASE.