

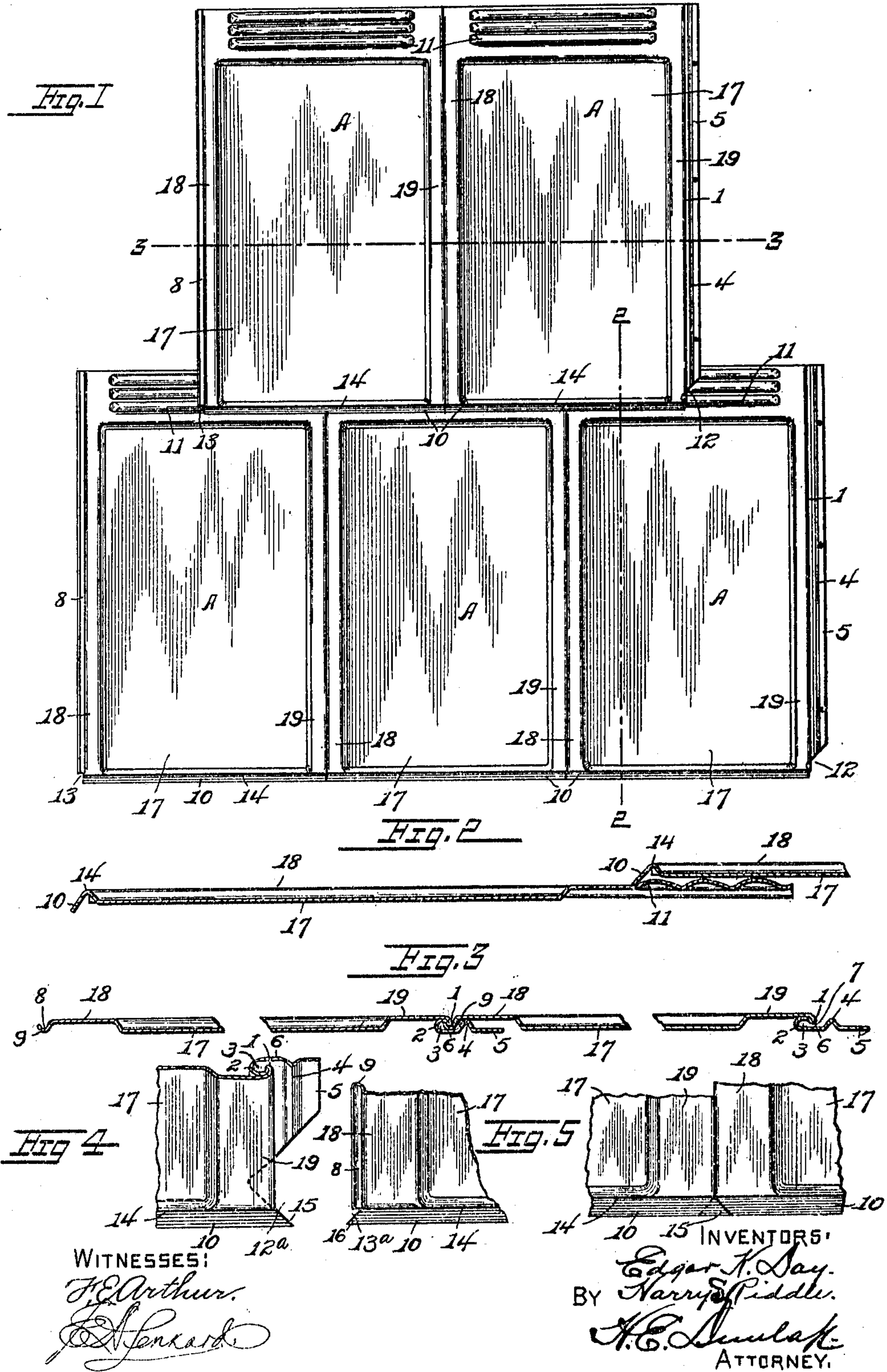
E. K. DAY & H. S. RIDDLE.

ROOFING PLATE.

APPLICATION FILED OCT. 28, 1908.

955,855.

Patented Apr. 26, 1910.





# UNITED STATES PATENT OFFICE.

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## ROOFING-PLATE.

955,855.

Specification of Letters Patent.

Patented Apr. 26, 1910.

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*To all whom it may concern:*

Be it known that we, EDGAR KINSEY DAY and HARRY SWYRES RIDDLE, citizens of the United States of America, and residents of Wheeling, county of Ohio, and State of West Virginia, have invented certain new and useful Improvements in Roofing-Plates, of which the following is a specification.

This invention relates to improvements in sheet-metal roofing-plates, and it has for its primary object to provide a simple, inexpensive and durable metallic roofing-plate wherein provision is made for firmly interlocking adjacent plates therewith and having means whereby, when associated with similar plates, tight and practically water-proof joints are formed.

A further object is to provide roofing-plates which are adapted for interlocking so closely that a coat of paint applied thereto after such interlocking will practically seal the joints or seams, rendering such joints or seams water-proof.

With these and other objects in view, all of which will be made apparent, the invention finally consists in the particular construction which will hereinafter be fully described, reference being had to the accompanying drawing, forming a part of this specification, in which—

Figure 1 is a view illustrating a number of roofing-plates assembled, as upon a roof, showing the application of the invention; Fig. 2 is an enlarged section on the line 2—2, Fig. 1; Fig. 3 is an enlarged section on the line 3—3, Fig. 1; Fig. 4 is an enlarged view, showing in front elevation separated fragmentary portions of the opposite lower corners of two adjacent plates; and—Fig. 5 is a similar view showing said fragmentary portions interlocked.

In said drawing, like reference-characters designate like parts throughout the several views.

The letter A indicates the roofing-plates, which are substantially rectangular in form. One of the lateral edges of each plate (the right hand edge in the illustrations) is doubled or folded under, forming a longitudinal lip 1, and is then curved around at 2, forming a longitudinal channel or pocket 3, after which it is bent to form a longitudinal rib 4 at a point directly in front of the lip 1, and is then extended or directed laterally to form a nailing-flange 5 which occupies the

same level or plane as that of the portion 6 between the rib 4 and the curve 2. The lip 1 is curved downward, as shown, so as to leave an entrance 7 to the pocket 3 which is restricted to a width but little in excess of the thickness of the plate. The opposite edge of the plate has provided therein a narrow groove 8 which renders said edge substantially hook-shaped in cross section, as shown at 9. The hook 9 of one plate is adapted to enter the pocket 3 of an adjacent plate through the entrance 7 and to interlock with the lip 1. As shown in the drawing, the extreme edge of the plate, or the tip of the hook, is on a level twice the thickness of the plate below the plane of the plate, thus allowing the interlocked plates to lie in the same plane.

The construction just described provides for close interfitting of the plates and for the formation of a close shallow groove or seam between the plates which will readily be filled and rendered water-tight by the application of a coat of paint.

The entire lower edge of the plate is bent or turned down, forming a flange 10 which is adapted, when the plates are mounted in overlapping relation, breaking joints, to engage the lowermost rib 11 of each of two overlapped plates in the next tier therebelow for preventing water and snow from being blown up under the end of the plate. To allow of the formation of the flange 10 along the entire lower edge, or, in other words, to allow of the entire lower edge being thus bent or turned down, the lower corners of the plates are notched, as shown at 12 and 13 in Fig. 1, or as shown at 12<sup>a</sup> and 13<sup>a</sup> in Fig. 4; this notching having for its object or purpose to remove so much of the lateral edges of the plate as would be liable to buckle and, consequently, to interfere with the formation of a regular flange.

The notch 12 is formed by cutting a small rectangular piece from the lower corner of the lateral edge which bears the groove 8, the lines of such cutting being along or adjacent to the inner edge of said groove 8, and across said groove at or adjacent to the line of the bend 14 formed in making the flange. The notch 13 is formed by cutting into the blank of which the plate is formed along the intended line of the lip 1 to the intended line of the bend 14, thence cutting outward in a diagonal direction,



thus removing a substantially triangular piece from the corner of the blank.

As shown in Fig. 1, the ends of the flanges 10 of adjacent plates fit close together when the plates are interlocked, forming a practically water-tight joint at this point. For further guarding against the entrance of water at the lower end of the joint, the lower corners of the plate may be cut to form lateral dove-tail or V-shaped wings 15 and 16 at the ends of the flange 10 adapted for lying in overlapping relation, as is clearly shown in Figs. 4 and 5.

The body of the plate is preferably depressed to form a rectangular panel 17, the level or plane of which is the same as that of the portion 6 and of the nailing-flange 5. Ledges 18 and 19 of narrow width are thus formed from which water readily drains to the panel 17. Owing to the limited surface or area of these ledges, and also owing to the fact that much of the water falling thereon will drain to the panels, it will be seen that but little water will be permitted to drain into the joint or seam formed between interlocked plates.

Having thus described our invention, what

we claim as new, and desire to secure by Letters Patent, is—

1. A roofing-plate having locking portions formed by bending the lateral edges thereof, said plate having a piece cut from each of its lower corners, and a downturned flange extending along the entire lower end of the plate, said flange having V-shaped wings at each end thereof.

2. A metallic roofing plate having locking portions formed by bending the lateral edges thereof, said plate having a rectangular piece cut from one of its lower corners and a substantially triangular piece cut from its opposite lower corner, and a downturned flange extending along the entire lower end of the plate, and V-shaped wings at the opposite ends of said flange, the wings of adjacent plates being adapted for lying in overlapping relation.

In testimony whereof we affix our signatures in presence of two witnesses.

EDGAR KINSEY DAY.

HARRY SWYRES RIDDLE.

Witnesses:

H. E. DUNLAP,

E. A. LENKARD.