

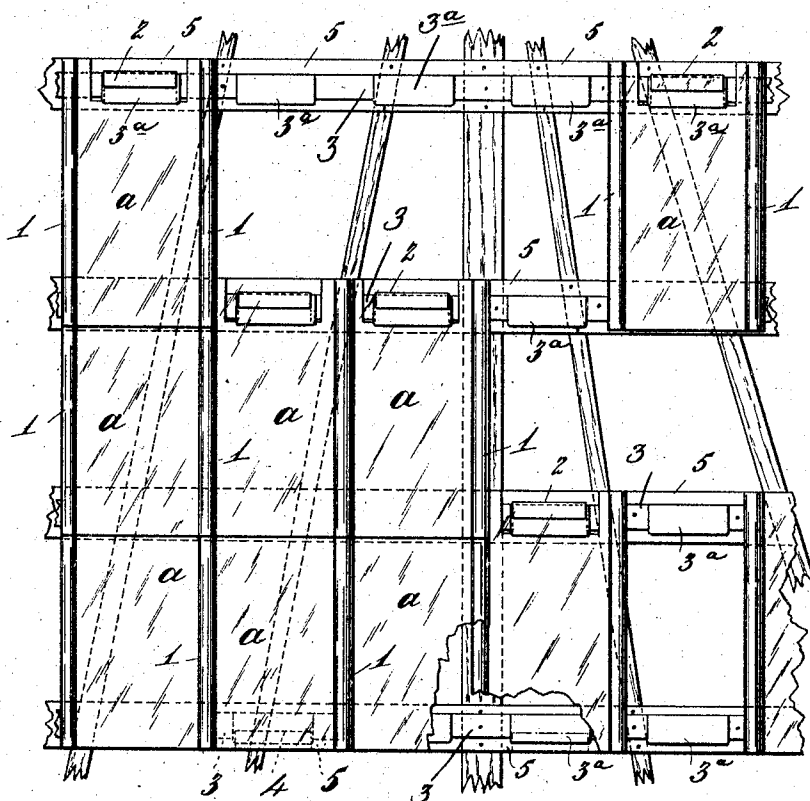
No. 780,946.

PATENTED JAN. 24, 1905.

H. C. FERRON.
METALLIC ROOFING PLATE, &c.
APPLICATION FILED APR. 22, 1904.

2 SHEETS—SHEET 1.

Fig. 1.



Witnesses

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Inventor

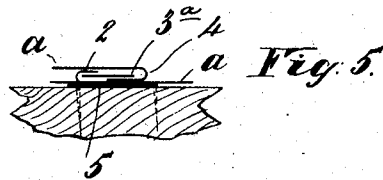
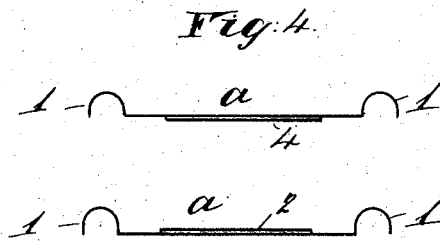
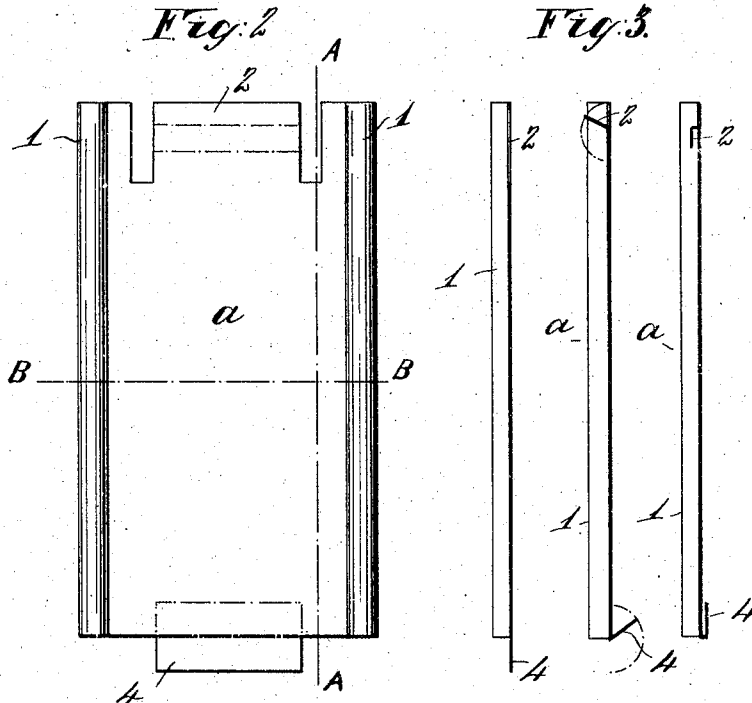
Heinrich C. Ferron
By James L. Norris
Att'y

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2 SHEETS—SHEET 2.



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UNITED STATES PATENT OFFICE.

HEINRICH CHRISTIAN FERRON, OF AMSTERDAM, NETHERLANDS.

METALLIC ROOFING-PLATE, &c.

SPECIFICATION forming part of Letters Patent No. 780,946, dated January 24, 1905.

Application filed April 22, 1904. Serial No. 204,431.

To all whom it may concern:

Be it known that I, HEINRICH CHRISTIAN FERRON, merchant, a subject of the Queen of the Netherlands, residing at Prinsengracht 5 847, Amsterdam, in the Kingdom of the Netherlands, have invented certain new and useful Improvements in and Relating to Metallic Roofing-Plates and the Like, of which the following is a specification.

10 This invention relates to improvements in metallic roofing-plates and the method of their application and plates for the like use.

The metal tile or plate is constructed of thin sheet metal—such, for instance, as rolled steel, 15 brass, or other convenient metal or alloy—of any suitable shape and bent so as to form its own retaining means upon its supporting laths, bars, and rafters or ribs.

In the drawings, Figure 1 shows an upper 20 side view of a portion of a roof formed by metal plates and their fastenings attached to wooden supports according to this invention. Fig. 2 is a like view of one of the metal “tiles” or plates. Fig. 3 shows by three sections on 25 the line A A of Fig. 2 three stages in the bending operation of the tongues which tie down the tiles, (the thickness of metal being exaggerated for the sake of clearness in the drawings.) Fig. 4 shows by two sectional 30 views one of the metal plates, taken on the line B B and respectively looking toward opposite ends. Fig. 5 shows a sectional diagrammatic view showing relative disposition of the supporting-rail, the back band or strip 35 and nails connecting it thereto, the front band or strip riveted to the back strip, and the metal roofing-plates and their turned-in tongues.

A convenient and preferred form for the individual metal plates is shown by *a a*, adapted 40 for use on roofs especially. These oblong rectangular metal plates or tiles are bent at their longer edges into ridges 1, so that the main portions of the plates form flat gutters. When adjacent metal plates are laid in position 45 on their supporting strips, battens, or laths, which again rest on the rafters or ribs forming the roof-supports, the ridge of the one plate may rest on the ridge of the adjacent plate and so that they lap one under the 50 other to form a close joint.

The upper edge 2 of the metal plate *a* is made to underlie a metal strip 3 and then be bent back over it, and the next metal plate or tile above it has its bottom edge 4 similarly brought over and turned under the said strip 55 3, and so on until the whole covering of the roof is composed of the interlocking metallic plates *a*, secured to each other and to their supporting metal laths 3 by folding their edges, forming a seamless metallic roofing 60 covering devoid of nails or the like. The holding-down strips 3 are riveted at intervals to other supporting and stiffening strips 5, whereby the metal in strips 3 is enabled to be lightened in manufacture. Each metal strip 65 3 is formed at intervals with loops 3^a to receive securing means at the opposite extremities of each plate *a*, and the upper edges of the several plates are slotted longitudinally a sufficient distance to permit said ends of the 70 plates to extend beyond the loops 3^a and accommodate the overlap of the contiguous lower ends of adjacent plates and facilitate securing the said lower ends of the adjacent 75 plates to the loops. When the ends of the plates are overlapped, the longitudinal openings or slots at the upper ends of the several plates are covered, and by this construction a material convenience is present in assembling the several plates in connection with the metal 80 strips 3.

Instead of arranging the longitudinal rows of metal tiles up and down in alternately upper and lower series they may be arranged in up-and-down rows with the ridges of each 85 tile alternately under and over.

The metallic plates or tiles *a* may be applied to side walls or other like situations, and they may be coated or protected from atmospheric influences by any suitable appli- 90 cation—such as lead, zinc, tin, or gilding—or be painted or protected in any known or convenient manner either before fixture, as by tin or zinc dipping, or by after painting with preservative compositions, as may be 95 preferred.

The plane surface of the metal tile or plate may be ornamented in any desired manner, such as by embossing or stamping or rolling.

By these means I attain an economical, 100

strong, quickly-applied, simple, and efficient roofing material, securely locked both at top and bottom without the use of nails or pins in the plates.

- 5 The plates are capable of being made of great uniformity and thinness of material, with consequent lightness, not requiring the employment of skilled labor in its application.

10 Having now particularly described and ascertained the nature of my said invention and in what manner the same is to be performed, I declare that what I claim is—

1. The combination with a roof or covering, of a series of locking-strips secured thereto and
15 having loops at intervals, and metal plates or tiles having tongues at opposite extremities bent in reverse directions to engage the said loops, the tongues at one end of the plates or
20 the latter and defined by longitudinal slots, the openings formed by bending said tongues being closed by the contiguous ends of adjacent plates or tiles.

2. A roof or other covering, having a series
25 of metallic locking-strips secured thereto, and metal plates or tiles having tongues at oppo-

site extremities, the one tongue of each plate projecting beyond the end of the same and the tongue at the opposite end within the body of the plate, the tongues at the opposite ends
30 of the several plates being bent in opposite directions to engage the said strips.

3. A roof or other covering having a series of metallic locking-strips arranged thereon at intervals and provided with loops standing
35 outwardly therefrom, and a series of metallic plates or tiles having their edges bent to overlap, and tongues at the opposite ends, the one tongue at the end of each plate projecting be-
40 yond the latter and the opposite tongue being within the body of the plate and defined by longitudinal slots forming an opening when the latter tongue is bent, which is covered by an overlapping relation with respect to the
45 succeeding plate.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

HEINRICH CHRISTIAN FERRON.

Witnesses:

CORNELIS GERARD BABBER,
LAMBERTUS SCHONTEN.