D. E. SHRAUGER.

SHEET METAL BOARD ROOF BATTEN.

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1,204,200.

Patented Nov. 7, 1916.

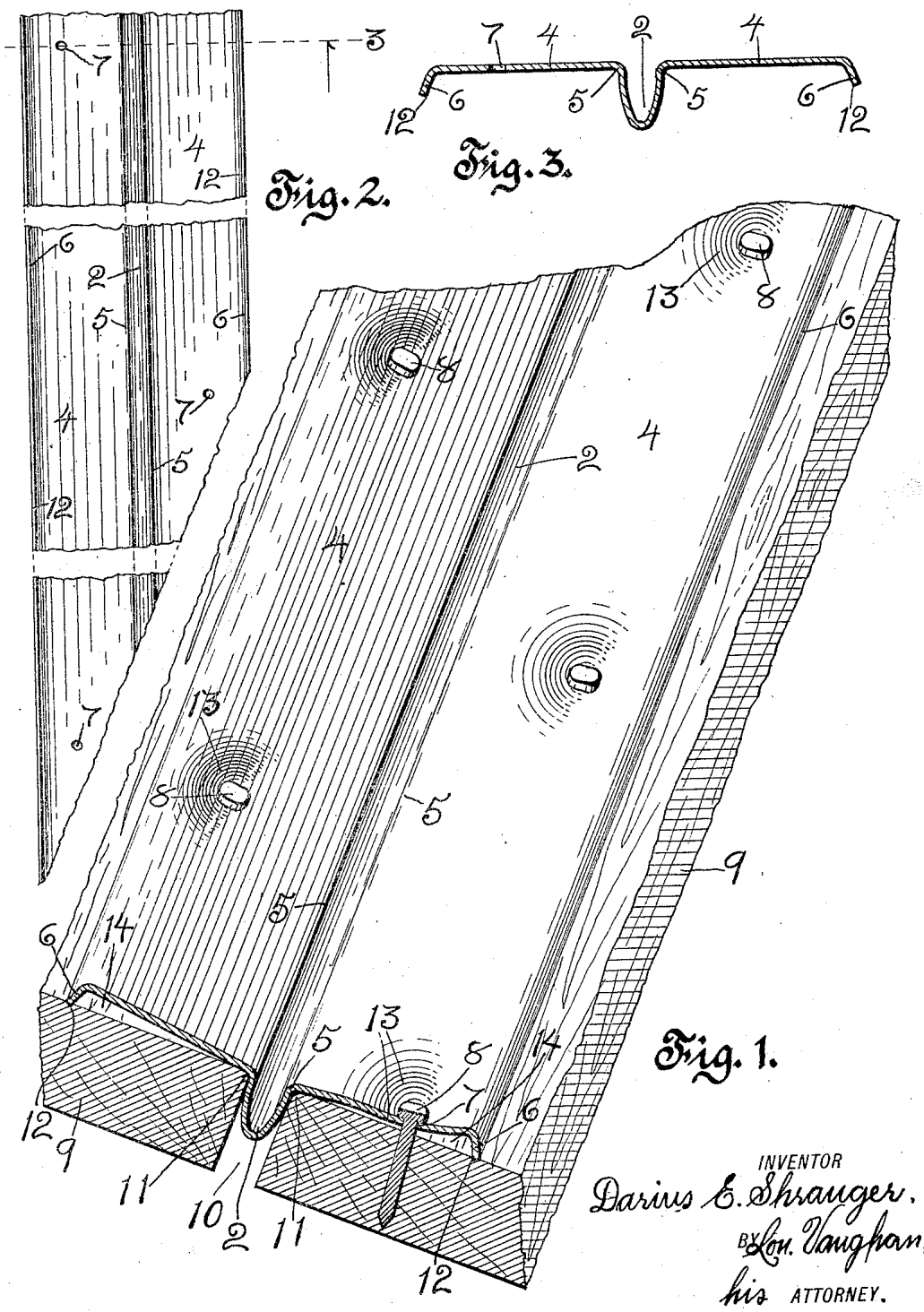

Fig. 2.

Fig. 3.

Fig. 1.

INVENTOR

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SHEET-METAL BOARD-ROOF BATTEN.

1,204,200. Specification of Letters Patent. Patented Nov. 7, 1916.

Application filed July 3, 1916. Serial No. 107,307.

To all whom it may concern:

Be it known that I, DARIUS E. SHRAUGER, a citizen of the United States of America, residing at Atlantic, in the county of Cass and State of Iowa, have invented certain new and useful Improvements in Sheet-Metal Board-Roof Battens, of which the following is a specification.

My invention relates to improvements in sheet-metal battens for closing the narrow spaces between the adjacent edges of roof-boards disposed lengthwise up and down the roof slope; and the objects of my improvement are, first, to provide double crush sealing-joints for each side half of the batten, tightly joining it with the board on that side; second, to facilitate the permanence of an efficient attachment, preventing rattle and leakage; and, third, to conserve the joints by an effective drainage. All of which objects, with others hereinafter particularly, disclosed, I attain by the construction illustrated in the accompanying drawing, in which—

Figure 1 is a sectional and top perspective view of a fragment of roof covering, showing the batten applied; Fig. 2, an underside fragmental view, drawn at smaller scale; and Fig. 3, a cross-section, on the broken line 3 of Fig. 2, showing the normal shape of the batten before it is nailed onto the roof.

Similar numerals refer to similar parts throughout the several views.

The batten, made from a narrow strip of sheet-metal has a central longitudinal portion bent downwardly to form the open gutter 2, of shape approximating a wedge or half-elliptical form in cross-section. The gutter is flanked at each side by the longitudinal side portions or plain sides 4 and 4 integrally joined thereto by the short parallelly disposed bends 5 and 5. These opposite plain sides normally stand in the same plane, as shown in Fig. 2. Narrow outside edge portions of the plain sides are bent downwardly to form the cross-sectionally-inclined flanges 6 and 6; their thin edges preferably standing outwardly and downwardly as shown. Rows of punctures or perforations 7, 7, etc., to posit and receive the attaching nails 8, are disposed longitudinally of the planes and intermediately of the gutter, and flanges. Conducive to lateral elasticity of the batten, facilitating close fitting thereof on the face of the boards, the spaced nails in each row are disposed opposite to the spaces in the row of the opposite side.

In application, the roof-boards 9 are first laid, spaced and nailed to the roof frame. The wedge-shape of the back of the gutter facilitates its insertion into the space 10, to properly place the batten. Forcing the gutter clear down into the space finally brings the backs of the bends 5 and 5 or base of the rigid wedge-shaped rib 2 against the angles 11 and 11 of the roof-boards; these sharp angles are easily crushed down by the opposed wedging sides of the rib on the back, corresponding to the gutter, or the imposed bends and form a perfect water-tight joint. By driving the attaching nails well home, as shown in Fig. 1, the sharp inner angles 12 and 12 of the thin edges of the flanges 6, easily cut into the parallelly disposed grain of the top face of the boards and form another crushed-wood tight joint. The head of the driven nail draws and bends down a surrounding portion of the plain part, through which the nail is driven, and forms an elastic or spring connection 13 of the nail with the batten, hence, of the batten with the board. It is obvious, that this elastic connection retains the joints in continuous pressure, and avoids any loosening of the batten, should the nail be slightly started by frost or other expansion or contraction of the connected parts caused by changes of temperature or moisture. The batten, having the narrowest possible lines of contact with the boards renders these joints most effective for tightness. The opposite plain sides of the seated batten are inclined toward the central gutter, thus leading the water away from the outer joint and down the gutter. If perchance, a leak occurs, either through the outer joint or around a nail, it is carried down and out through the space 14, between the plain side of the imposed batten and the subjacent roof-board. The nails, being disposed remotely from the outer or weather edge of the batten, are nearly always seated in dry wood and not affected in their service by either moisture or frost. And the unbending angular connection of the thin edge of the flange with the roof-board facilitates the further permanent tightening of this joint by paint or any other roof dressing.

I claim:

1. In a roof construction, fixed roof

boards spaced apart, in combination with a sheet-metal batten having a portion bent downwardly to form a longitudinal central open gutter on its face and a corresponding rigid wedge-shaped rib on its back forced into the space between said boards to crush the adjacent angles thereof and form water-tight joints at each side of said rib, opposite plain longitudinal side portions of the batten inclined inwardly and downwardly to the intervening gutter and each having a longitudinal central row of perforations, flanges standing downwardly along the outer edges of the plain side portions to support their elevated outer edges and to form a narrow seat and crush joint at the outer edges of the batten on the face of said roof boards, and attaching nails driven through said perforations into said boards to spring the plain side portions flatwise to elastically retain the batten seated on said crush joints.

2. In a roof construction, fixedly attached roof boards spaced apart, in combination with a sheet-metal batten having a portion bent to form a central longitudinal open gutter on its face and a corresponding curved-sided wedge-shaped rigid rib on its back, said rib forced into the space between the fixed boards to crush the adjacent sharp angles thereof and form water-tight joints at both sides, plain side portions of the batten disposed at both sides of the gutter, and attaching nails driven through said side portions into the fixed boards.

3. A roof batten, comprising a sheet-metal strip having a portion bent to form a central longitudinal open gutter on its face and a corresponding rigid wedge-shaped rib on its back, said rib adapted to be forced into a space between two fixed roof boards to crush the adjacent sharp angles thereof and form water-tight joints, plain portions at each side inclined downwardly to the intervening gutter and having perforations centrally of their width, downwardly-bent flanges on the outer edges to support the elevated outer edges of the plain portions and the thin flange edges adapted to seat on the face of the roof boards to form crush water-tight joints thereon, the perforations of the inclined plain portions adapted to receive attaching nails driven through into the subjacent roof boards to spring said plain portions flatwise to elastically retain the batten seated against said crush joints.

4. A sheet-metal roof batten, comprising a single strip having a portion bent to form a curved open gutter along the longitudinal center of the face of the batten and to form a corresponding rigid wedge-shaped rib on the back of the batten adapted to be driven into a space between two roof boards to crush the inner upper angles thereof and form crush-joint seats on both boards, and plain longitudinal side portions at the sides of said gutter adapted to be nailed to the face of the subjacent boards.

5. A roofing batten, comprising a sheet-metal strip having a portion bent to form a longitudinal central open gutter in the face of the batten and a corresponding rigid rib of wedge-shaped cross-section with outward curves at the base of the wedge on the back of the batten adapted to be forced into the space between two roof boards to crush the adjacent sharp angles thereof and form water-tight joints with both boards.

In testimony whereof I have affixed my signature.

DARIUS E. SHRAUGER.