W. H. SLATTEN.

CAR ROOF.

APPLICATION FILED NOV. 22, 1917. RENEWED AUG. 13, 1919.

1,332,638. Patented Mar. 2, 1920.

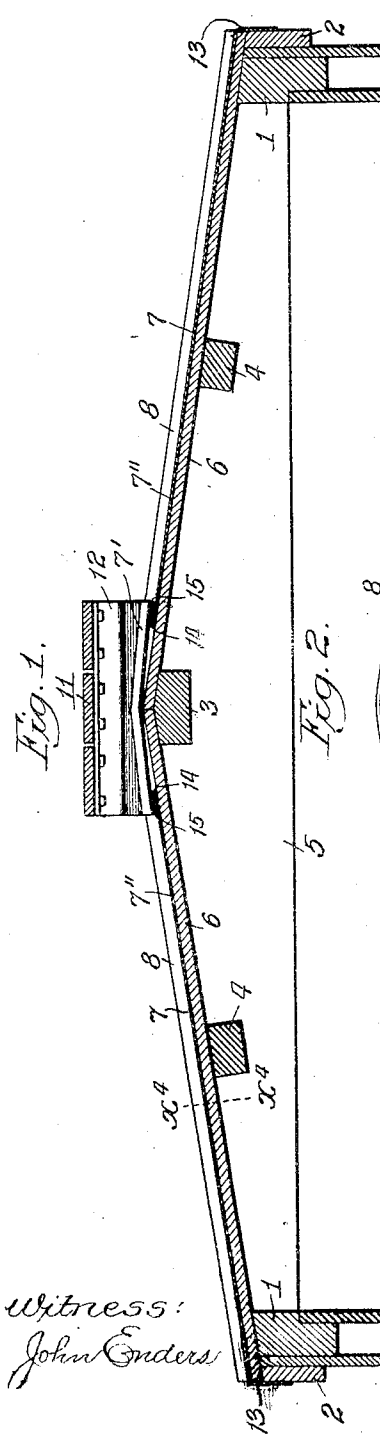


Fig. 1.

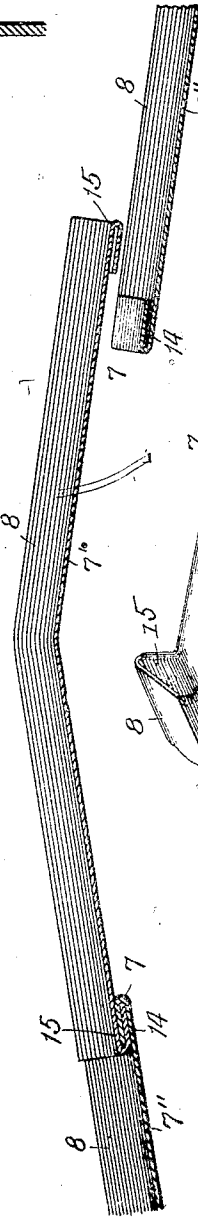


Fig. 2.

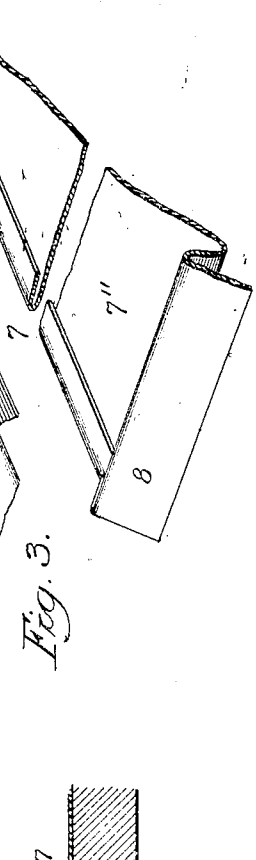


Fig. 3.

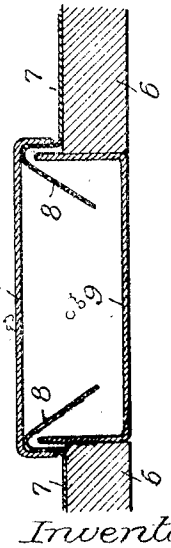


Fig. 4.

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UNITED STATES PATENT OFFICE.

WILLIAM H. SLATTEN, OF CHICAGO, ILLINOIS.

CAR-ROOF.

1,332,638. Specification of Letters Patent. Patented Mar. 2, 1920.

Application filed November 22, 1917, Serial No. 203,313. Renewed August 13, 1919. Serial No. 317,380.

To all whom it may concern:

Be it known that I, WILLIAM H. SLATTEN, a citizen of the United States of America, and a resident of Chicago, in the county of Cook, State of Illinois, have invented certain new and useful Improvements in Car-Roofs, of which the following is a specification.

This invention relates to the type of metal clad car roofs described in detail in prior patents to Slatten and Nolan, No. 1,149,093, of August 3, 1915, and to William H. Slatten, No. 1,203,148, of October 31, 1916, and has for its object:—

To provide a simple and substantial sectional formation and association of subparts of the sheet metal sections comprising the outer roof covering of a car roof structure, and in which the component parts of each roofing sheet are connected together in a secure manner, which allows for limited independent movement between the parts and which at the same time prevents any leakage of rain or the like into the interior of the car at the point of juncture of the parts, all as will hereinafter more fully appear.

In the accompanying drawings:—

Figure 1, is a transverse section of a car roof illustrating the general arrangement and association of the present construction with the other parts of a car roof.

Fig. 2, is an enlarged detail transverse section of an individual roofing sheet formed in accordance with the present invention.

Fig. 3, is a detail perspective view illustrating in a detached condition, the adjacent ends of sub-sections of the roofing sheet.

Fig. 4, is a detail section of the car roof line x^4, x^4, Fig. 1,

Like reference numerals indicate like parts in the several views.

Referring to the drawing, 1 designates the usual side rails or plates, 2 the fascia boards, 3 the ridge pole or piece, 4 the purlins, 5 the carlines, and 6 the wood sheeting or sub-roof of the conventional construction and arrangement.

In the structure shown, the roof covering comprises a plurality of sheet metal portions 7 disposed transversely of the sub-roof of the car, and a plurality of intermediate similarly disposed channel plates 9, the upturned side webs or flange of which are overlapped by the side flanges 8 of said sheet metal portions, to constitute the usual standing seams of the roof structure.

10 designates a cap piece seated upon each standing seam above described to cover and protect the same.

11 designates the running board, supported centrally above the roof by the usual saddle blocks 12.

The construction so far described is the same as that shown in the aforesaid prior patents, and in a combination with a substantially like structure, the present invention involves a sectional formation and detail construction of the aforesaid roofing sheets 7 as follows:—

7′ designates the narrow central or ridge sub-section of a roofing portion 7 of the present improvement, formed to slope in opposite directions and having a transverse width approximating the width of the running board 11 aforesaid, under which the said sub-section 7′ is located centrally of the car roof, so as to be covered and protected by said running board.

7″ designate counterpart side sub-sections of a roofing sheet 7, formed at their outer ends with flashing flanges or lips 13 for attachment to the fascia boards 2 and adjacent side portions of the car roof frame.

14 designates an upstanding open fold or flange of the flat return bend type, formed at the inner end of each side sub-section 7″ and extending longitudinally of the roof structure. Said fold or flange 14 is formed as a continuation of the inner vertical webs of the marginal re-bent flanges 8 of an individual sub-section 7″ above described, and is adapted in connection with the hereinafter described complementary open fold or flange of a central sub-section 7′ to prevent leakage of rain and the like to the sub-roof of the car, in a very effective manner.

15 designates the complementary open fold or flange above referred to, of the flat return bend type and extending longitudinally of the roof structure. Said fold or flange 15 is formed as a continuation of the inner vertical webs of the marginal re-bent flanges 8 of an individual central or ridge section 7′ above described, and is adapted for inter-engagement with the fold or flange 14 aforesaid, and as shown to the left in Fig. 2.

With the described construction and arrangement of parts, an effective and water tight connection is provided at the juncture

of the sub-sections, and in addition is adapted to permit limited independent movement of said parts in unison with the other car roof parts in the limited lateral flexure that takes place in a car in actual use.

The commercial merit of the present structure lies in the fact that said sub-sections are capable of being packed compactly for convenient transportation, etc., as distinguished from the much wire roofing sheets employed in the patented structures above referred to.

Having thus fully described my said invention, what I claim as new and desire to secure by Letters Patent, is:—

1. In a car roof, the combination of a plurality of transversely arranged channel members the flanges of which are upstanding, and a plurality of transversely arranged sheet metal sections having marginal flanges adapted to overlap the flanges of said channel members, each sheet metal section comprising a central and a pair of outer sub-sections connected together by inter-engaging return flanges, and a running board having a width greater than the central sub-sections and adapted to overlap the joints between said central and outer sub-sections, substantially as set forth.

2. In a car roof, the combination of a plurality of transversely arranged channel members the flanges of which are upstanding, and a plurality of transversely arranged sheet metal sections having marginal flanges adapted to overlap the flanges of said channel members, each sheet metal section comprising a central and a pair of outer sub-sections connected together by inter-engaging return flanges with the ends of each of said return flanges bent upwardly and connected to the marginal flanges of the sub-sections, and a running board having a width greater than the central sub-sections and adapted to overlap the joints between said central and outer sub-sections, substantially as set forth.

Signed at Chicago, Illinois, this 17th day of November 1917.

WILLIAM H. SLATTEN.