

J. J. HOFFMAN.
 OUTSIDE METAL CAR ROOF.
 APPLICATION FILED MAY 2, 1912.

1,039,400.

Patented Sept. 24, 1912.

Fig. 1.

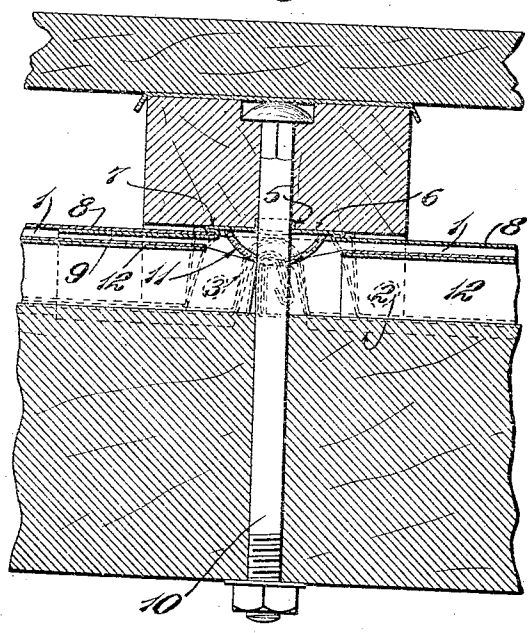


Fig. 2.

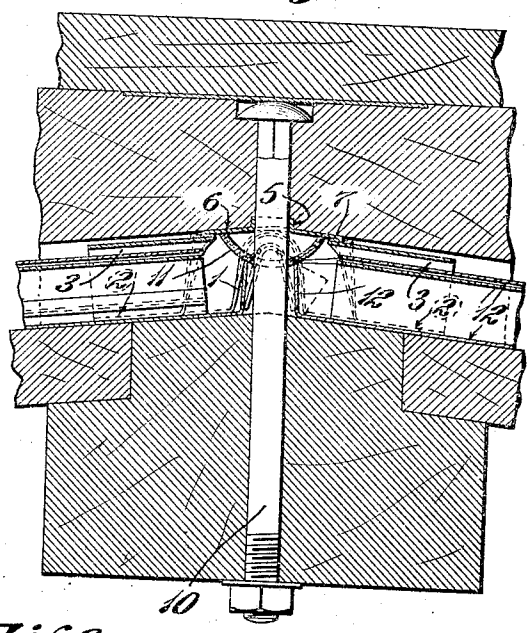


Fig. 3.

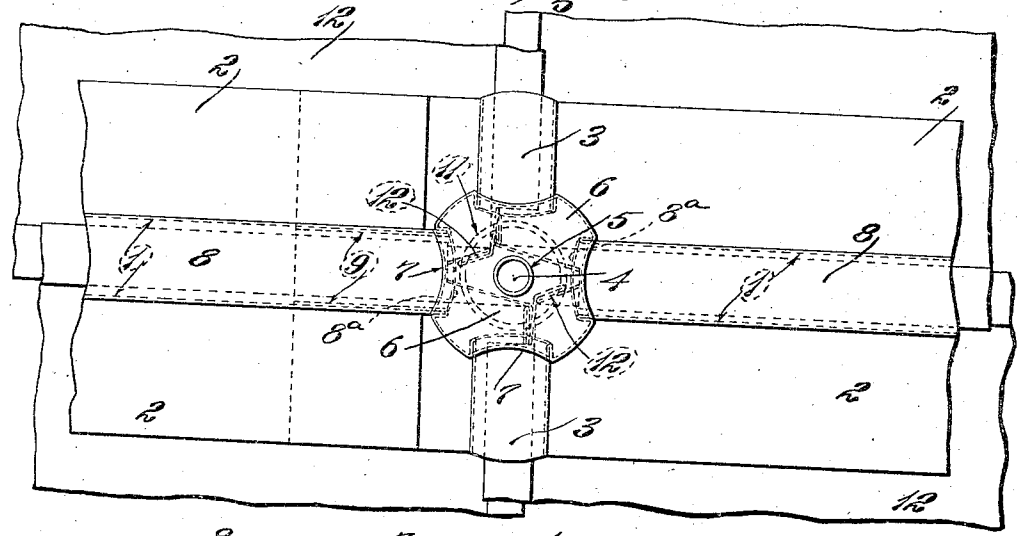
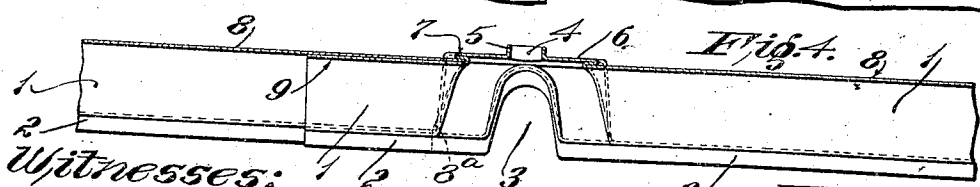
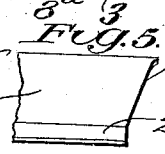


Fig. 4.



Witnesses:
 Edgar S. Farmer.
 Ambrose.



Inventor:
 John J. Hoffman,
 By Christensen
 his Atty's.

UNITED STATES PATENT OFFICE.

JOHN J. HOFFMAN, OF NEW KENSINGTON, PENNSYLVANIA, ASSIGNOR TO PETER H. MURPHY, OF PITTSBURGH, PENNSYLVANIA.

OUTSIDE METAL CAR-ROOF.

1,039,400.

Specification of Letters Patent.

Patented Sept. 24, 1912.

Application filed May 2, 1912. Serial No. 694,679.

To all whom it may concern:

Be it known that I, JOHN J. HOFFMAN, a citizen of the United States, and a resident of the city of New Kensington, in the county of Westmoreland and State of Pennsylvania, have invented a certain new and useful Improvement in Outside Metal Car-Roofs, of which the following is a specification.

My invention relates to outside metal car roofs of the type wherein the several roof sheets extend from eaves to ridge and are connected at their sides by interlocking flanges in such a way as to permit said sheets to be movable relative to each other and to the substructure.

It is the object of the present invention to guard against leakage along the ridge line; and the invention consists in the ridge cap hereinafter described and in the arrangements and combinations of parts hereinafter described.

In the accompanying drawing which forms part of this specification and wherein like symbols refer to like parts wherever they occur, Figure 1 is a vertical section lengthwise of the car showing my invention applied thereto; Fig. 2 is a vertical section crosswise of the car showing my invention applied thereto; Fig. 3 is a plan view showing my invention applied to the roof sheets; and Fig. 4 is a longitudinal view showing the engagement of one seam cap with another. Fig. 5 is a side elevation of the end portion of the long arm of a seam cap.

My present ridge cap is preferably made of a strip of sheet metal formed into shape by means of suitable dies. The middle portion of the strip, for the full length thereof, is formed into an upwardly extending groove or channel 1, and the longitudinal marginal portions 2 of this strip are inclined downwardly at an angle substantially equal to or greater than the pitch of the roof. This longitudinal groove or channel is intended to accommodate the ridge seams or upturned ends of the roof sheets. A similar groove or channel 3 is designed to accommodate the side seams formed crosswise of the strip, without, however, affecting the slope or inclination of the longitudinal margins of the strip. At the point of intersection of the longitudinal groove and the transverse groove, a hole 4 is punched and the margins 5 of the hole are projected upwardly to form an annular boss. The region 6 surrounding

this bolt hole is approximately flat for an area greater than the width of the grooves or channels, and there is an excess of metal at the margins of this flat portion which excess is doubled back over the ends of the normal portions of the grooves or channels.

The transverse groove is formed near one end of the strip; and the disposition of the surplus metal of the nearest margin of the flat area is such that its overhanging portion 7 is slightly spaced above the top of the longitudinal groove. The space thus provided between the top of the groove and the shoulder overhanging it is designed to receive the end of the long arm 8 of a second seam cap, the side margins of said end being beveled to insure proper matching—that is, the corners of the long arm are trimmed off as shown at 8^a so that the long arm will have its greatest extension at its top and thereby enable such top portion to extend into engagement with said companion seam cap. Thus the several seam caps may be used interchangeably. For this purpose, the length of the long arm of the seam cap is such that when the end of said long arm is positioned under the overhanging shoulder 7 provided therefor toward the short arm 9 of the first laid seam cap, the transverse seam of said cap will come over the next succeeding transverse roof seam. By this arrangement, the long arm of each succeeding seam cap overlies the short arm of the next preceding seam cap but with the end of the long arm under the overhanging shoulder provided therefor. Each seam cap is thus held directly by its own bolt 10 and indirectly by the bolts of the seam caps in engagement with its opposite ends. Mounted on the ridge bolt is a washer 11 of leather or other suitable material of sufficient width to overlap the corners of the four roof sheets 12 underneath the seam cap. This washer has a tendency to prevent leakage of water over the corners of the sheets.

While I prefer to make my seam cap of sheet metal formed into shape, it may obviously be made of other materials.

What I claim as my invention and desire to secure by Letters Patent is:

1. A ridge seam cap for car roofs having intersecting longitudinal and transverse grooves and a shoulder overhanging the top of the longitudinal groove substantially as described.

2. A ridge seam cap for car roofs comprising an elongated strip of sheet metal having intersecting longitudinal and transverse grooves one arm of said cap having its ends 5 beveled and a shoulder overhanging the longitudinal groove, substantially as described.
3. A ridge seam cap for car roofs having a groove extending transversely thereof near 10 one end and a longitudinally extending groove and a flattened area at the intersection of said grooves, said flattened area having a shoulder overhanging the longitudinal groove in the direction of the near end of 15 the seam cap, substantially as described.
4. In a car roof, the combination of roof sheets extending from eaves to ridge and movably mounted relative to each other, of seam caps at the ridge, each of said seam 20 caps having a longitudinal groove adapted to receive the upturned ridge ends of the sheets and a transverse groove adapted to receive the side seams and a bolt hole at the point of intersection of said grooves, the 25 portion of the seam cap adjacent to said bolt hole being flattened and provided with a shoulder overhanging the longitudinal groove, one of the seam caps having its end engaged below the shoulder of the next adjacent cap. 30
5. In a car roof, the combination of roof sheets extending from eaves to ridge and movably interlocked with each other, of seam caps at the ridge, each of said seam caps having a longitudinal groove adapted 35 to receive the upturned ridge ends of the sheets and a transverse groove adapted to receive the side seams and a bolt hole at the point of intersection of said grooves, a bolt extending through said bolt hole, and a 40 flexible washer mounted on said bolt underneath the seam cap and overlapping the adjacent corners of the roof sheets.

Signed at New Kensington, Pennsylvania,
this 26th day of April, 1912.

JOHN J. HOFFMAN.

Witnesses:

HARRY C. WALLEY,
A. A. POTTS.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."