J. M. HANSEN.

METAL CAR ROOFING.

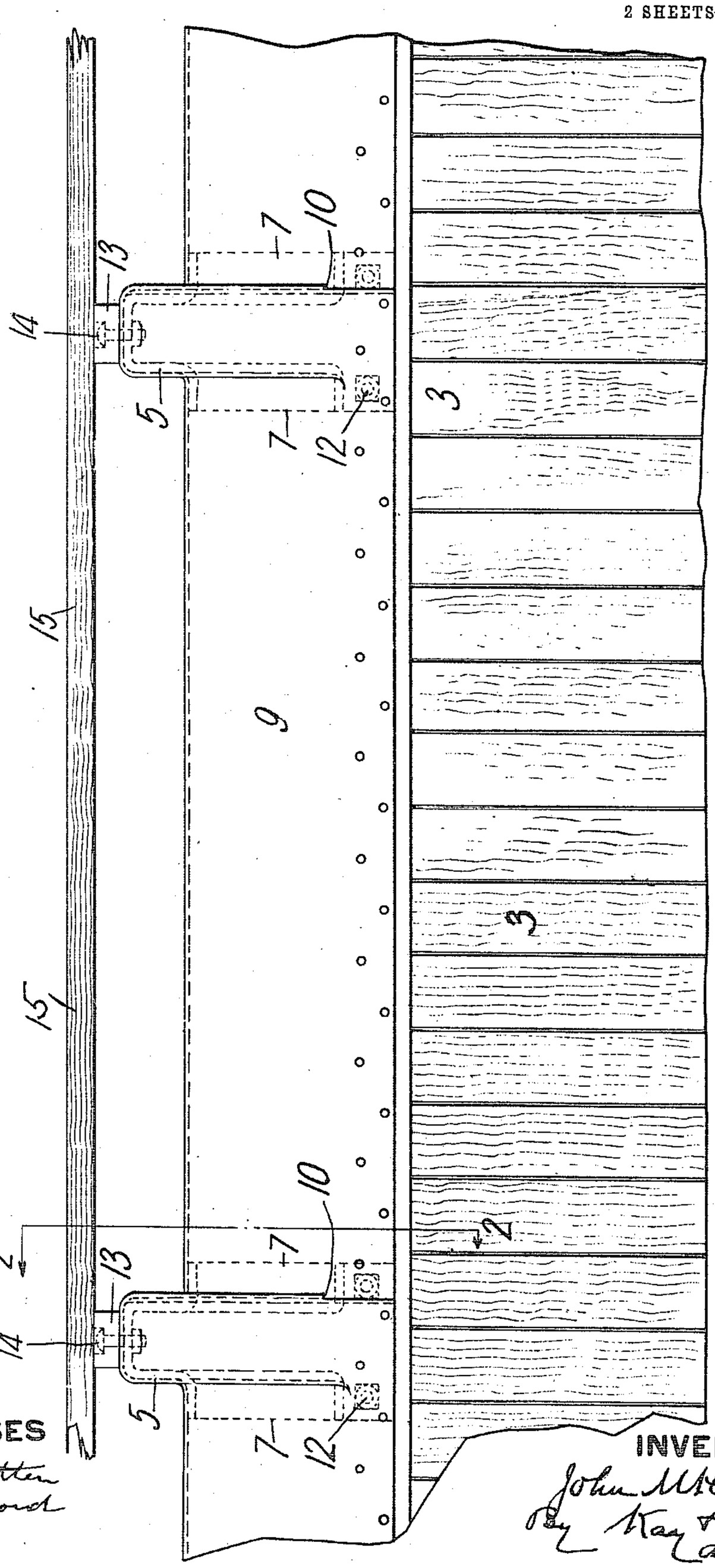
APPLICATION FILED AUG. 3, 1910.

985,341.

Patented Feb. 28, 1911.

2 SHEETS—SHEET 1.

FIG. 1




WITNESSES

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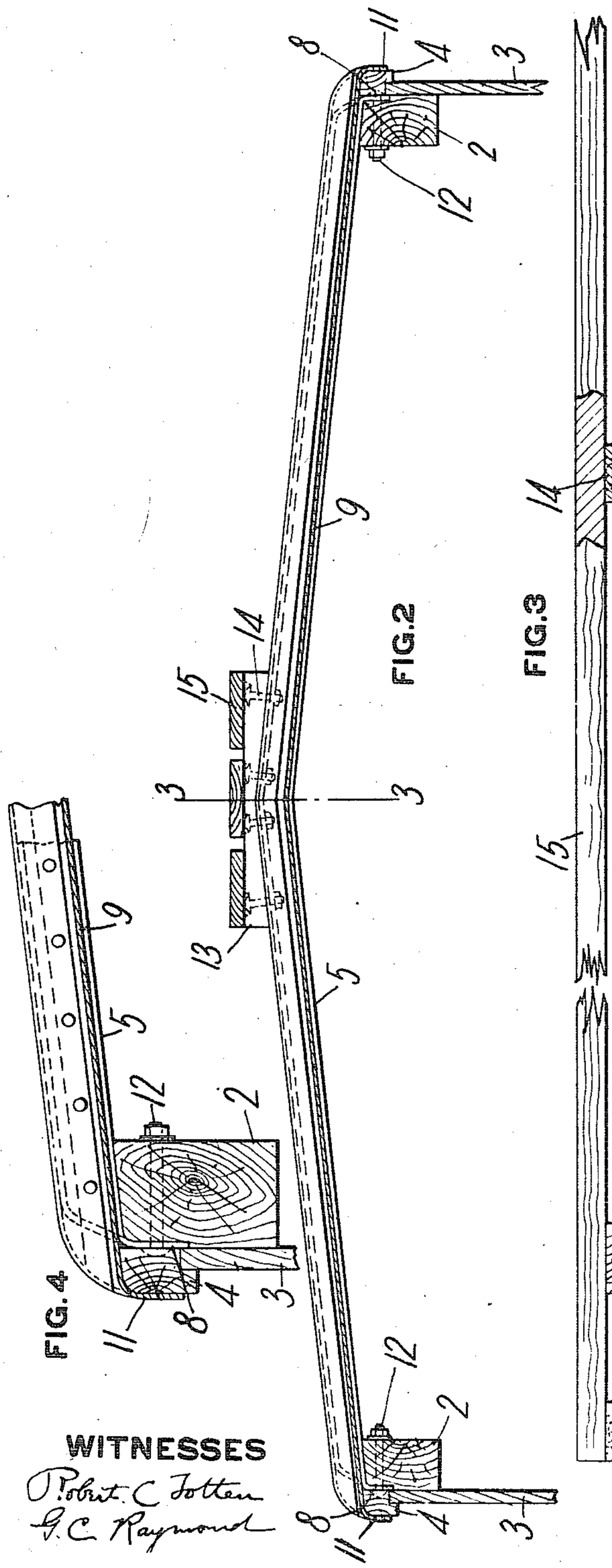


FIG. 2

FIG. 4

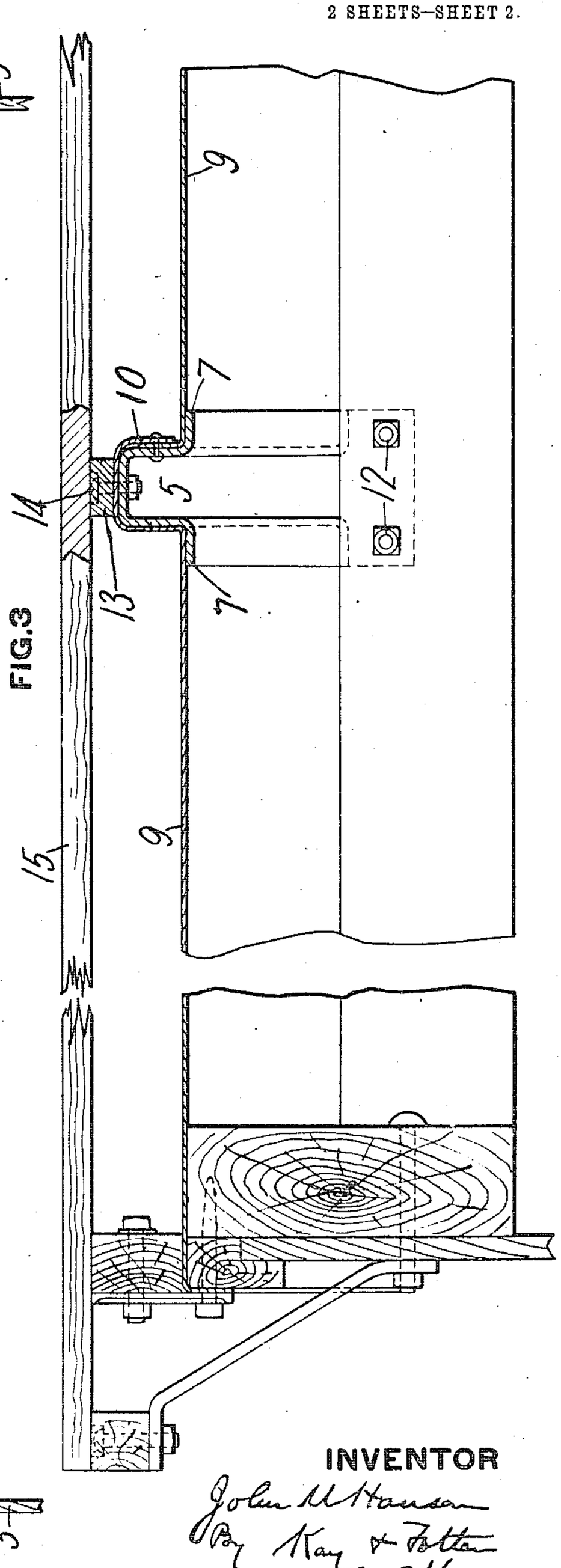


FIG. 3

WITNESSES

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# UNITED STATES PATENT OFFICE.

JOHN M. HANSEN, OF PITTSBURG, PENNSYLVANIA.

## METAL CAR-ROOFING.

985,341. Specification of Letters Patent. Patented Feb. 28, 1911.

Application filed August 3, 1910. Serial No. 575,228.

*To all whom it may concern:*

Be it known that I, JOHN M. HANSEN, a resident of Pittsburg, in the county of Allegheny and State of Pennsylvania, have invented a new and useful Improvement in Metal Car-Roofing; and I do hereby declare the following to be a full, clear, and exact description thereof.

My invention relates to car-roofs, and more especially to a metallic roof, its object being to provide a roof in which the parts composing the same are united before the roof is applied to the car-frame and then securely attached to said frame.

My invention comprises the novel features hereinafter set forth and claimed.

In the accompanying drawings Figure 1 is a side elevation of the upper portion of a car showing my improved roof applied thereto; Fig. 2 is a cross section on the line 2—2 Fig. 1; Fig. 3 is a longitudinal section on the line 3—3 Fig. 2; Fig. 4 is an enlarged detail.

The wooden frame-work of the car is composed of the side-plates 2, the sheathing 3 and the fascia 4. The roof is composed of the carlines 5 which comprise the channel members with the flanges 7, said channels sloping from the median line of the roof to the eaves and provided at their ends with the downwardly extending flanges 8. The carline is arranged in inverted form, and the roof-plates 9 are bent along their lateral edges to engage the carline, said roof-plates overlapping as at 10. In this manner the roof-plates completely envelop the carline and extend beyond the same at their outer ends where they are finally bent down as at 11 to be secured to the fascias 4 by means of nails or other fastening devices. The bolts 12 pass through the flanges 8 at the ends of the carline and through the side-plates 2 to secure the roof to the said side-plates. Saddles 13 are secured to the carlines by bolts 14 passing through said saddles and through the roof-plates and web of the carlines. The running boards 15 are secured to the saddles 13.

What I claim is:

A car-roof, the combination with the side plates, of an inverted channel carline supported on said side-plates, downwardly extending flanges at the ends of said carlines engaging with the outer faces of said plates and secured thereto, roof-plates bent to engage said carline and overlapping each other, fascias, and the ends of said roof-plates bent to engage said fascias.

In testimony whereof, I the said JOHN M. HANSEN have hereunto set my hand.

JOHN M. HANSEN.

Witnesses:
ROBERT C. TOTTEN
JOHN F. WILL.