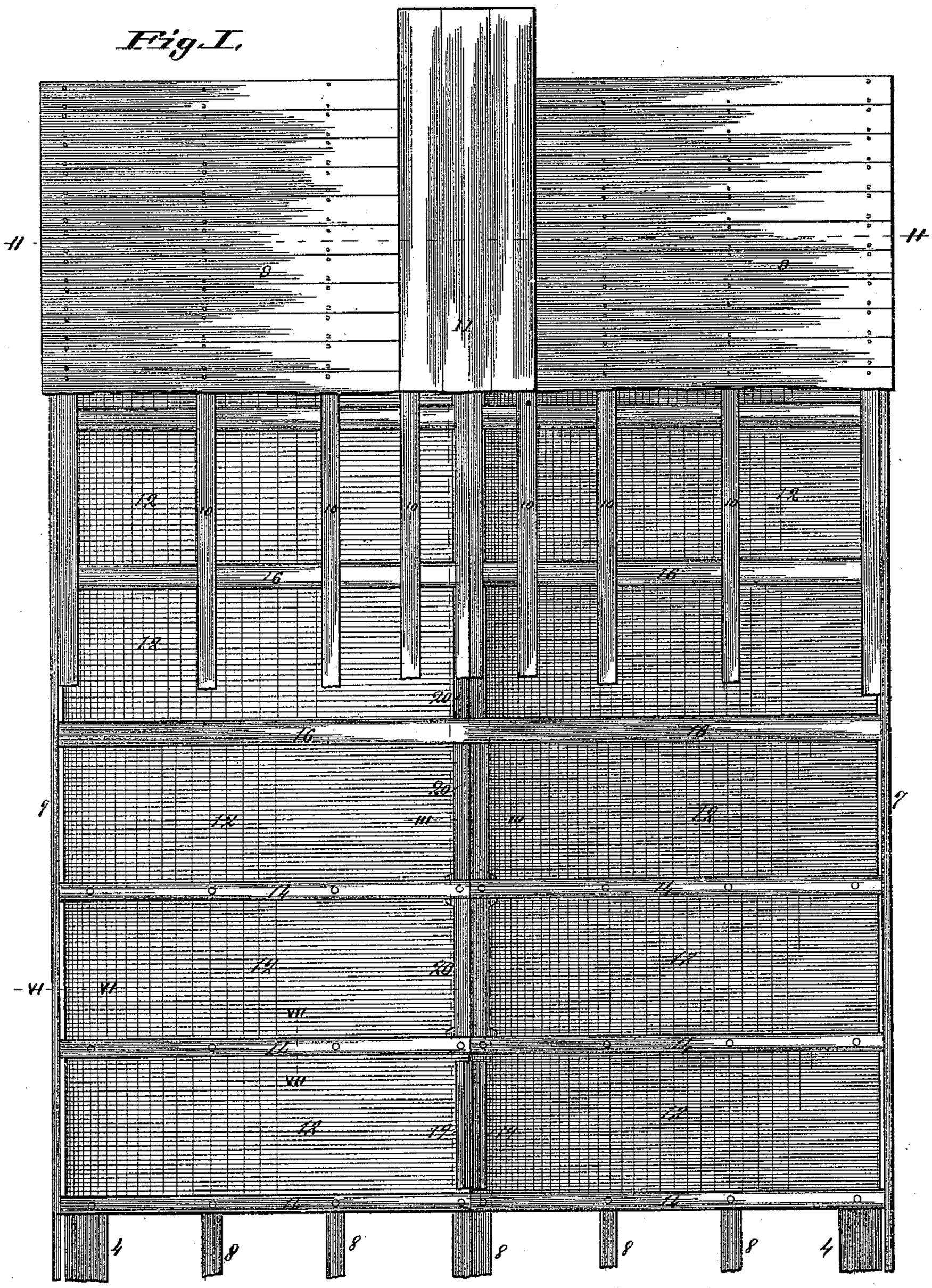
(No Model.) 2 Sheets—Sheet 1.

J. C. WANDS.

CAR ROOF.

No. 496,332. Patented Apr. 25, 1893.

Fig. I.



Attest;
Charles Pickles.
Geo. E. Cruse.

Inventor:
John C. Wands
By Wright Bro
attys

(No Model.) 2 Sheets—Sheet 2.

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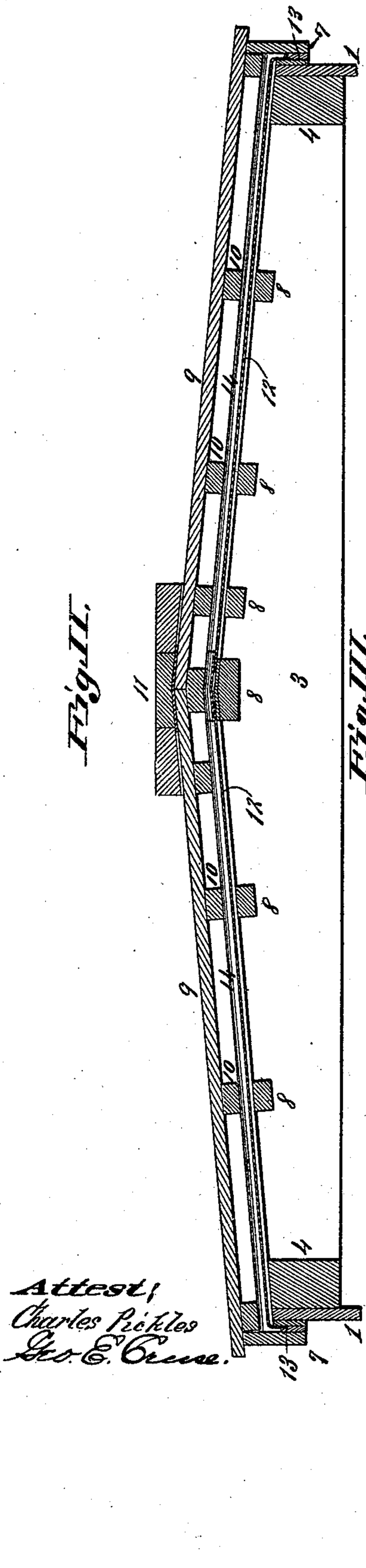

Fig. II.

Fig. III.

Fig. IV.

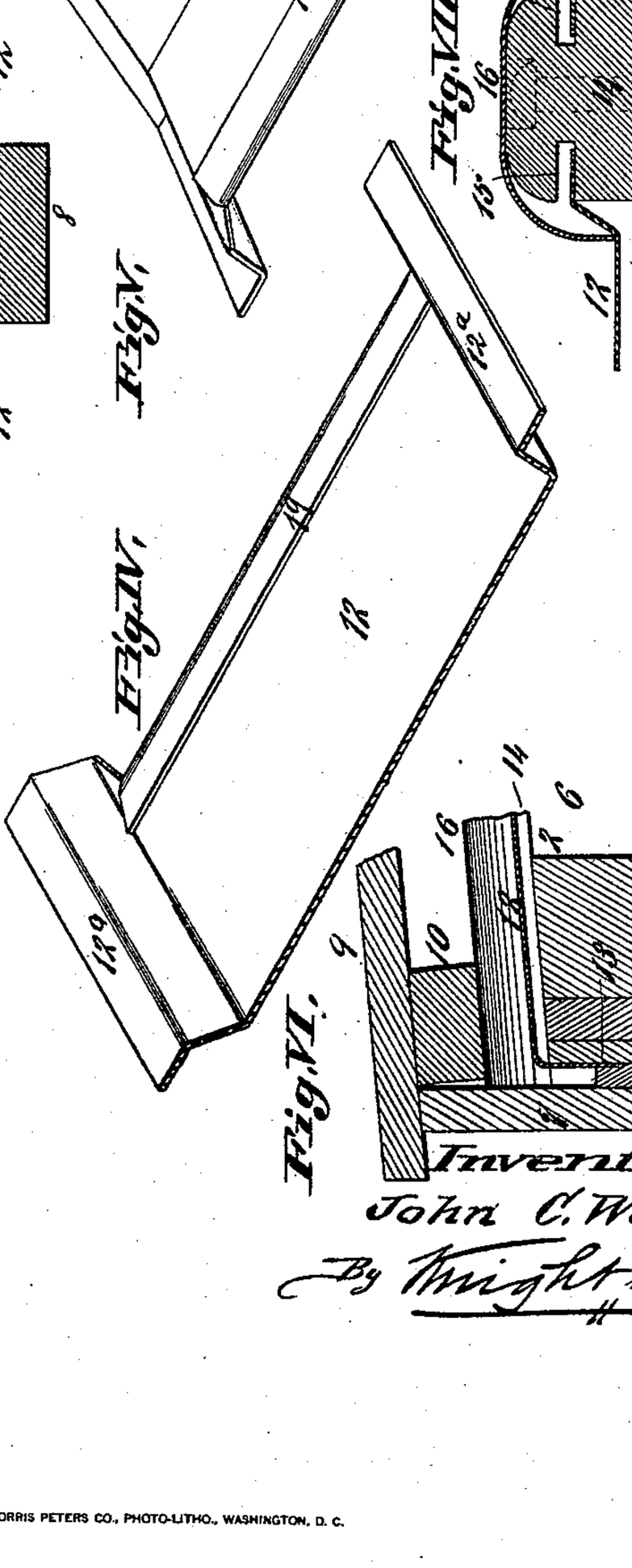

Fig. V.

Fig. VII.

Fig. VI.

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UNITED STATES PATENT OFFICE.

JOHN C. WANDS, OF ST. LOUIS, MISSOURI.

CAR-ROOF.

SPECIFICATION forming part of Letters Patent No. 496,332, dated April 25, 1893.

Application filed August 27, 1892. Serial No. 444,294. (No model.)

To all whom it may concern:

Be it known that I, JOHN C. WANDS, of the city of St. Louis, in the State of Missouri, have invented a certain new and useful Improvement in Car-Roofs, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming part of this specification.

My invention relates to a certain improvement in that class of car roofs, wherein sheets of metal, extending from one side of the roof to the other, have been employed; and my invention consists in features of novelty hereinafter fully described and pointed out in the claims.

Figure I is a top or plan view, illustrative of my invention. Fig. II is a transverse section, taken on line II—II, Fig. I. Fig. III is an enlarged, detail, vertical section, taken on line III—III, Fig. I. Fig. IV is a perspective view of the inner end of one of the loose sheets. Fig. V is a perspective view of one of the caps or joints. Fig. VI is an enlarged, vertical section, taken on line VI—VI, Fig. I; and Fig. VII is a similar view, taken on line VII—VII, Fig. I.

Referring to the drawings, 1 represents the body of the car, 3 the carlings, 4 the longitudinal plates placed at the upper corners of the car-body; 7 the frieze-board, 8 the longitudinal strips or purlins, which support the sheets of metal; 9 the outer covering of the roof, supported on longitudinal strips or purlins 10; 11 the running-board; 12 metal sheets covering the purlins 8, and which are fastened or secured to the body of the car at their outer ends, as shown at 13, Figs. II and VI. It takes a number of the sheets 12 to cover the roof, and they are joined at their edges by moldings or ribs 14, (see Figs. I and VII,) which are grooved at 15 to receive the edges of the sheets, as shown clearly in Fig. VII; the moldings or ribs may be covered by a metal cap 16. The moldings are bolted to the purlins 8, as shown in Fig. VII.

Heretofore it has been customary to make the sheets 12 extend from side to side of the roof. This practice has been found objectionable, as it affords no opportunity for the working of the roof, in the movement of a heavily loaded car over rough tracks, and my invention is intended to overcome this objection by providing for a movement of the sheets and avoiding their buckling or tearing. I accomplish this by extending each sheet 12 from the outer edge of the roof up nearly to the ridge of the roof, where each sheet is provided with a short return bend 19, (see Figs. III and IV.) The adjacent edges of two sheets are then joined by a connecting cap or member 20, (see Figs. III and V,) which is provided with return bends 21, which lock and fit into the bends 19 of the sheets 12. It will thus be seen that the sheets on opposite sides of the roof are connected together in such a manner that they can move freely.

The connecting caps or members 20 have end flanges 22, corresponding to the flanges 12^a on the sheets 12, which fit in the grooves 15 of the ribs 14.

I claim as my invention—

1. In combination with a car roof, the transverse sheets fixed to the edges of the car roof, having their edges transversely of the car connected by a suitable molding as shown, extending up to near the ridge of the roof with unobstructed space between them, whereby the sheets may move transversely of the car and compensate for twisting of the same, and the cap-plate formed substantially as described with the transverse flanges conforming to the joints of the sheets running transversely of the car, for the purpose set forth.

2. In combination with a car roof, the transverse sheets fixed to the edges of the car roof, having their edges transversely of the car connected by a suitable molding as shown, extending up to near the ridge of the roof, and formed with return bends which run longitudinally of the car with unobstructed space between them, whereby the sheets may move transversely of the car and compensate for twisting of the same, and the cap-plate formed substantially as described with the longitudinal bends engaging the return bends of the transverse sheets, and also with the transverse flanges conforming to the joints of the sheets running transversely of the car, for the purpose set forth.

3. In combination with a car roof, the trans-

verse sheets fixed at their outer ends to the edges of said roof extending up to the ridge and formed with return bends running longitudinally of the car with unobstructed space between opposite sheets, the transverse molding strips having grooves in which the edges of the sheets fit, and the cap-plate having bends engaging the return bends but not opposing the movement of the sheets, and having flanges conforming to and entering the grooves in the molding strips, all substantially as set forth.

JOHN C. WANDS.

In presence of—
ALBERT M. EBERSOLE,
ED. S. KNIGHT.