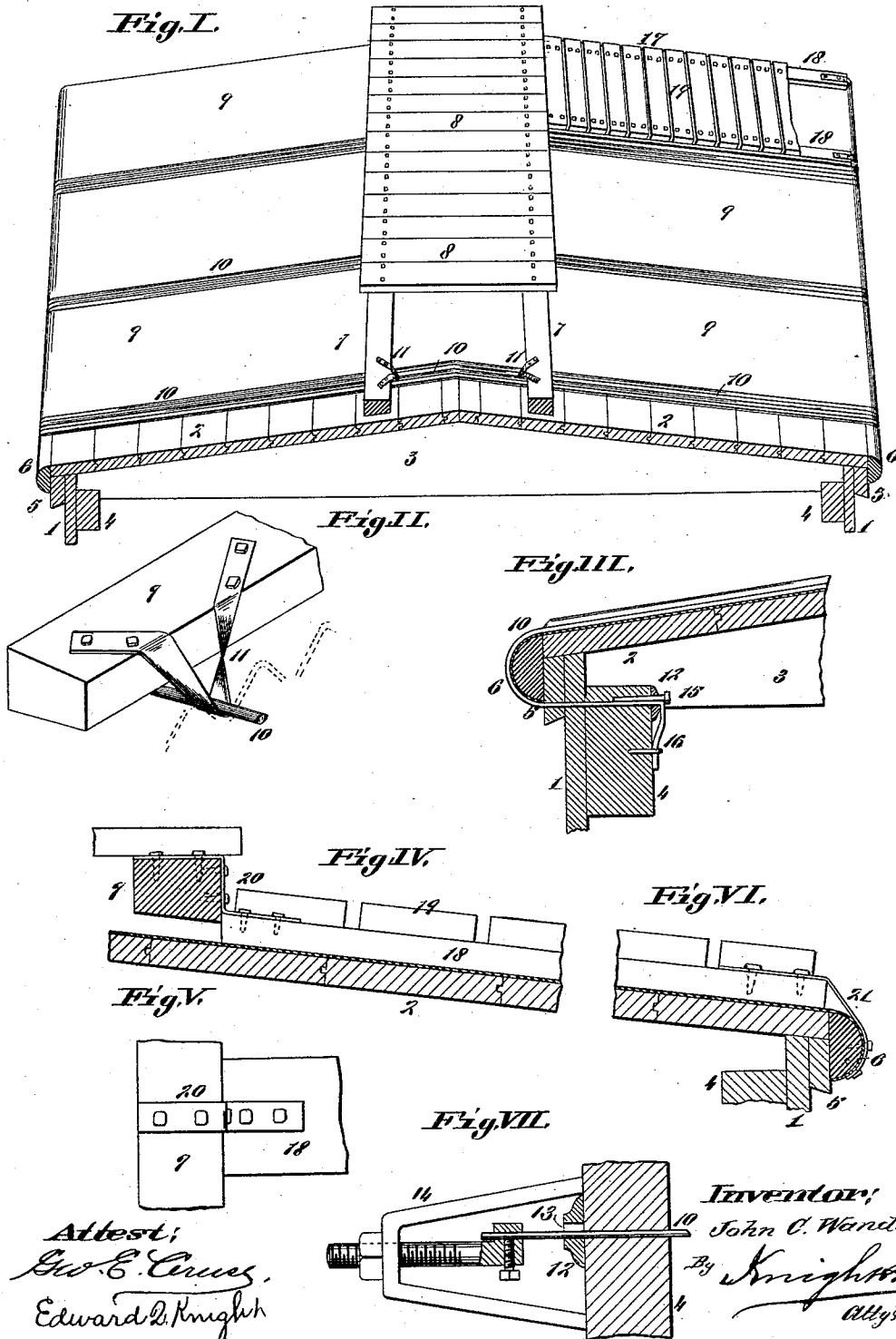


(No Model.)

J. C. WANDS.
CAR ROOF.

No. 483,032.

Patented Sept. 20, 1892.



UNITED STATES PATENT OFFICE.

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

CAR-ROOF.

SPECIFICATION forming part of Letters Patent No. 483,032, dated September 20, 1892.

Application filed March 29, 1892. Serial No. 426,924. (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 certain improvements in car-roofs, and relates more particularly to the manner of forming, constructing, and holding the running-board and the brakeman's ladder without mutilating or injuring the roof.

Figure I is a detail perspective view illustrative of my invention. Fig. II is an enlarged detail perspective view illustrating the manner of holding the running-board sills to the roof. Fig. III is an enlarged detail vertical section showing the manner of securing the ends of the tie-wires which hold the metal sheets of the roof in place. Figs. IV and VI are similar views illustrating the manner of holding the brakeman's ladder in place. Fig. V is a detail top view of same. Fig. VII is a detail view showing the manner of tightening the tie-wires.

Referring to the drawings, 1 represents part of the siding of a car-body; 2, the sheathing of the roof; 3, the carlings; 4, the longitudinal plates placed at the upper corners of the car-body; 5, the frieze-boards; 6, the molding; 7, the ridge-poles or sills; 8, the running-boards; 9, the metal sheets covering the sheathing, and 10 the tie-wires for holding the metal sheets in place, the sheets having joints to receive the tie-wires, as in my patent, No. 459,664, issued September 15, 1891.

In my present invention I have two ridge-poles or sills 7, one located on each side of the apex of the roof, as shown in Fig. I, and the two being connected by the boards 8. These ridge-poles are held in place by means of straps 11, through which the tie-wires 10 pass, as shown in Figs. I and II, this being an inexpensive method of holding the ridge-poles, as well as securely fastening them in place without the use of nails or screws or other fastenings which would puncture or perforate the metal sheets. By using two ridge-poles, located as I have shown them, the "bridge-pieces 10" of my patent referred to are dispensed with and the running-boards are

brought close down to the roof of the car and can be made of suitable length, so as to form a good wide running surface, and the manner of securing the ridge-poles in place also affords the possibility of a continuous tie-wire the ends of which are fastened to the body of the car, as shown in Fig. III. To provide a simple and effective method of fastening the ends of the tie-wires, I employ metal washers 12, (see Figs. III and VII,) having enlarged holes 13, through which the wires pass. 14 is a stretching device by which the wires are pulled tightly in place, after which a nail or wedge 15 is driven into the opening of the washer, as shown in Fig. III, thus holding the wire while the stretching device 14 is removed and until the end of the wire can be bent down and secured by a suitable staple 16, as shown in Fig. III.

17 represents the brakeman's ladder, composed of longitudinal strips 18 and cross-strips 19. The strips 18 are fastened at their upper ends to one of the ridge-pieces 7, as shown in Figs. IV and V, by means of straps 20, and the lower ends of the strips are fastened to the molding 6 by means of straps 21. The ladder is thus held to the car-roof without the use of nails or screws or other fasteners which perforate the car-roof.

I claim as my invention—

1. In a car-roof, the combination of the tie-wires, the double ridge-pole, straps secured to the ridge-pole and through which the tie-wires pass, and running-boards secured to the ridge-poles, substantially as and for the purpose set forth.

2. In a car-roof, the combination of two ridge-poles extending longitudinally of the car-body, one on each side of the apex of the roof and suitably held thereto, and transverse running-boards secured to the ridge-poles, substantially as and for the purpose set forth.

3. In a car-roof, the combination of the metal sheets, tie-wires for holding the sheets in place, washers having enlarged openings through which the ends of the tie-wires pass, and wedges for holding the wires in the washers, substantially as and for the purpose set forth.

JNO. C. WANDS.

In presence of—

ED. S. KNIGHT,
A. M. EBERSOLE.