W. C. MANESS.

CAR ROOFING.

APPLICATION FILED JULY 14, 1914.

1,132,952. Patented Mar. 23, 1915.

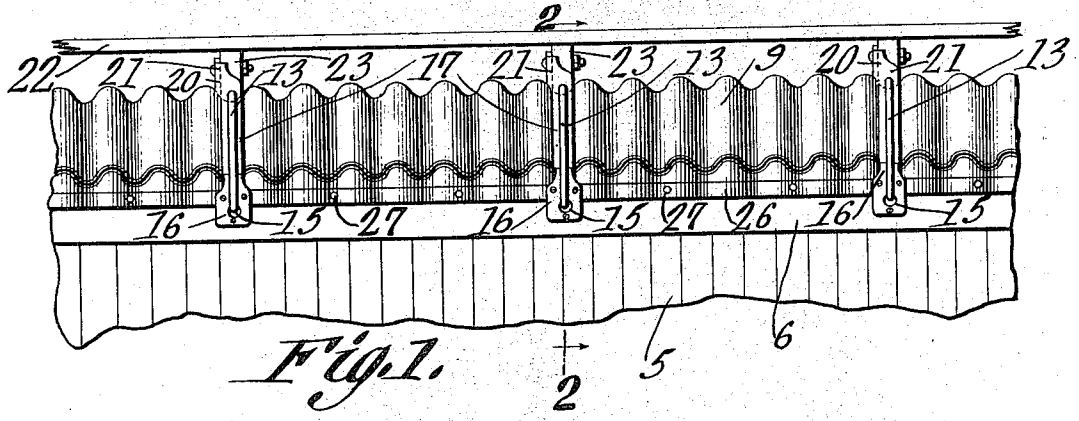


Fig. 1.

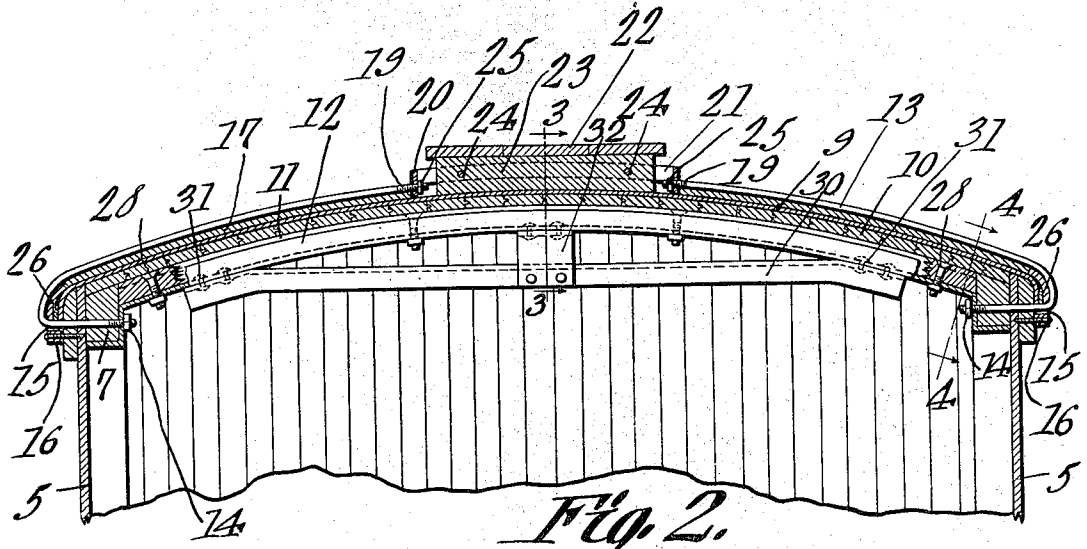


Fig. 2.

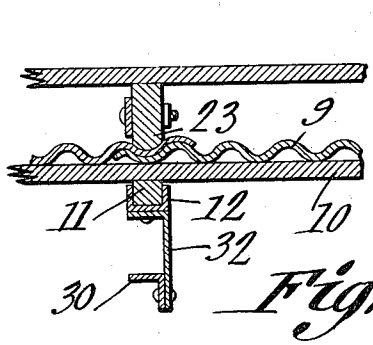


Fig. 3.

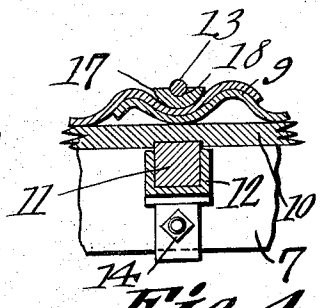


Fig. 4.

Witnesses

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UNITED STATES PATENT OFFICE.

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CAR-ROOFING.

1,132,952. Specification of Letters Patent. Patented Mar. 23, 1915.

Application filed July 14, 1914. Serial No. 850,984.

To all whom it may concern:

Be it known that I, WILLIAM C. MANESS, a citizen of the United States, residing at Laredo, in the county of Webb and State of Texas, have invented a new and useful Car-Roofing, of which the following is a specification.

The present invention appertains to car roofing, and aims to provide a novel and improved device for fastening corrugated sheet metal roofing, and the running board supports or blocks upon the car.

In the drawings accompanying this specification and forming a part thereof, the preferred embodiment of the invention is illustrated, in which:—

Figure 1 is a fragmental side elevation of a portion of a car equipped with the improved roofing. Fig. 2 is a cross sectional view taken on the line 2—2 of Fig. 1. Fig. 3 is an enlarged sectional detail taken on the line 3—3 of Fig. 2. Fig. 4 is a sectional detail taken on the line 4—4 of Fig. 2.

Referring to the drawings in which similar reference numerals designate corresponding parts throughout the several views, the numerals 5 designate the car side walls, 6 the side fascia, and 7 the longitudinal beams.

The metallic roofing 9 is corrugated and overlaps the entire width of the car, and extends the side fascia by referring to Fig. 2. The roof is made up of a series of lapping roof sections or blanks which have their corrugations extending transversely. The metallic roofing 9 rests upon the tongue and groove boards 10 which in turn are supported by the wooden nailing strips 11 housed within metallic channels 12.

In order to rigidly secure the metallic roofing to the car and without necessitating that the said roofing be punctured, such as is necessary when bolts pass therethrough, pairs of tie rods 13 are provided, which rods have their lower or remote ends engaged through the longitudinal beams 7, the side fascia 6, the ends of the corrugated sheets, reinforcing strips 26, and apertures 15 in clamping plates 16. The clamping plates 16 are rigidly secured to the side fascia and prevent the wearing of the roofing at the point where the rods pass through the side fascia. Each pair of rods 13 is disposed above one of the grooves of the corrugations and the rods are prevented from contacting with the metallic roofing by the wooden spacer strips 17 seated in the respective grooves of the corrugations and which are provided with the grooves 18 therein receiving the rods 13. Nuts 14 are threaded upon the lower ends of the rods to anchor them to the sides of the car. The rods terminate short of the center of the roofing and are threaded, as at 19, and the adjacent ends are engaged to a yoke 21.

Disposed between the adjacent ends of each pair of tie rods 13, is an elongated supporting block 23 for the running board 22, and the corresponding yoke 21 is secured by means of bolts or other securing means 24, to one side of the block 23. The yoke 21, which is in the form of a strip, has its ends extending angularly beyond the ends of the block 23 and projecting downwardly and seated in the groove over which the tie rods 13 are disposed, the block 23 also being seated within the said groove at the central portion thereof. The adjacent or inner ends of the rods 13 are engaged through the angular ends of the yoke or strip 21, and bear nuts 25 seated outwardly against the ends of the yoke or strip.

In order to strengthen the metallic roofing, the sinuous reinforcing strips 26 are riveted, as at 27, to the ends of the roofing sheets.

The channel beam 12 supports the nailing strip 11 therein and the said parts are secured together by bolts 28, thus preventing the rising of the nailing strip 11 above the bottom of the channel. The tongue and groove boards 10 are nailed to the nailing strip and the metallic bottom of the channel presents a surface which deflects and clenches the nails against the bottom of the nailing strip to prevent the boards from loosening. The ends of the channel are bent downwardly and outwardly, and are rigidly secured to the longitudinal beams 7, thus forming a rigid structure. In order to brace the arcuate channels 12, angle iron braces 30 are riveted to the channel, as at 31, at their extremities and plates 32 are secured to the braces and channels, whereby the entire structure will be extremely rigid and capable of withstanding considerable weight.

The section in Fig. 2 does not disclose two overlapping portions of the metallic roofing as the same would tend to confuse the figure but this feature has been illustrated in Figs. 3 and 4, and it is to be noted that at each overlapping joint of the metallic roof sections, the tie rods 13 are provided, thus se-

curely locking the two sections together and providing a water-proof juncture therebetween and preventing the rubbing of one section upon the other. The nuts 25 may be tightened so as to produce the required tension upon the rods 13 and which insures that the required pressure exerted in a downward direction upon the metallic roofing against the tongue and groove boards 10 will be had. The strong and rigid manner in which the channels, beams and braces are secured together and to the side walls of the car renders it unnecessary to provide any ridge pole and purlins as is the ordinary practice.

Particular attention is directed to the fact that the blocks 23 and yokes 21 are each seated in the respective grooves of the corrugations of the roofing, whereby the blocks 23 will effectively support the running board 22 secured thereon, without transmitting the strains to any appreciable extent to the yokes 21. Thus, the blocks 23 will serve as a cushion engaging the roofing for preventing the weight of the person standing or walking upon the running board, from injuring the roofing. Furthermore, the ends of the yokes 21 being seated within the grooves, will enable the blocks 23 to be loosened or removed without affecting the utility of the tie rods 13.

Having thus fully described my invention, what I claim is:—

A car roofing embodying a corrugated sheet metal blank having its corrugations extending transversely, an elongated running board supporting block seated in the central portion of one groove of the corrugations, a strip secured to one side of the said block and having its ends extending angularly beyond the ends of the block and projecting downwardly and seated within the said groove, and tie rods disposed above the said groove and having their adjacent ends engaged through the said ends of the strip.

In testimony that I claim the foregoing as my own, I have hereto affixed my signature in the presence of two witnesses.

WILLIAM CURTAIN MANESS.

Witnesses:
A. W. BLANK,
F. W. MCFARLAND.