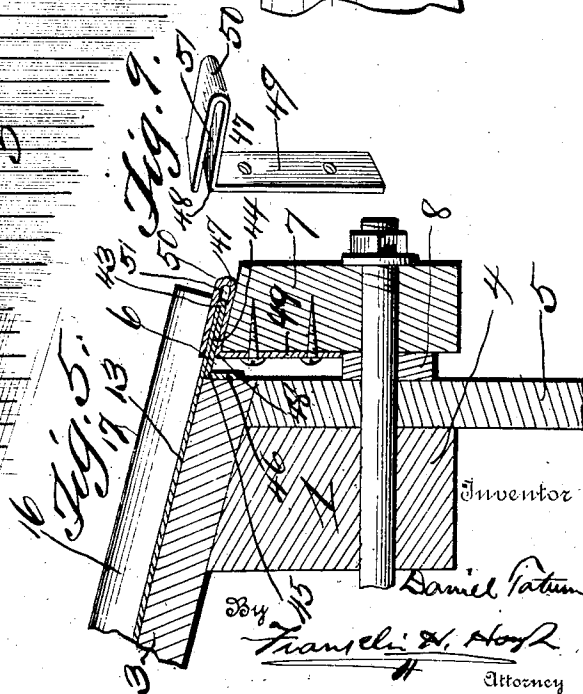
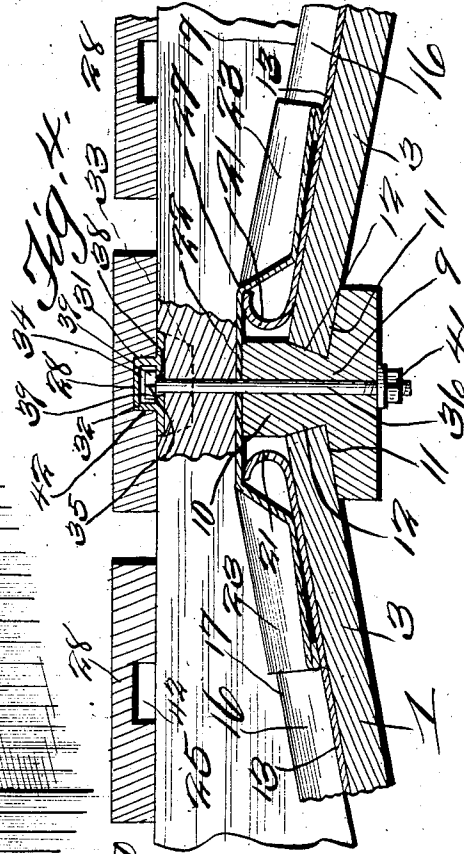
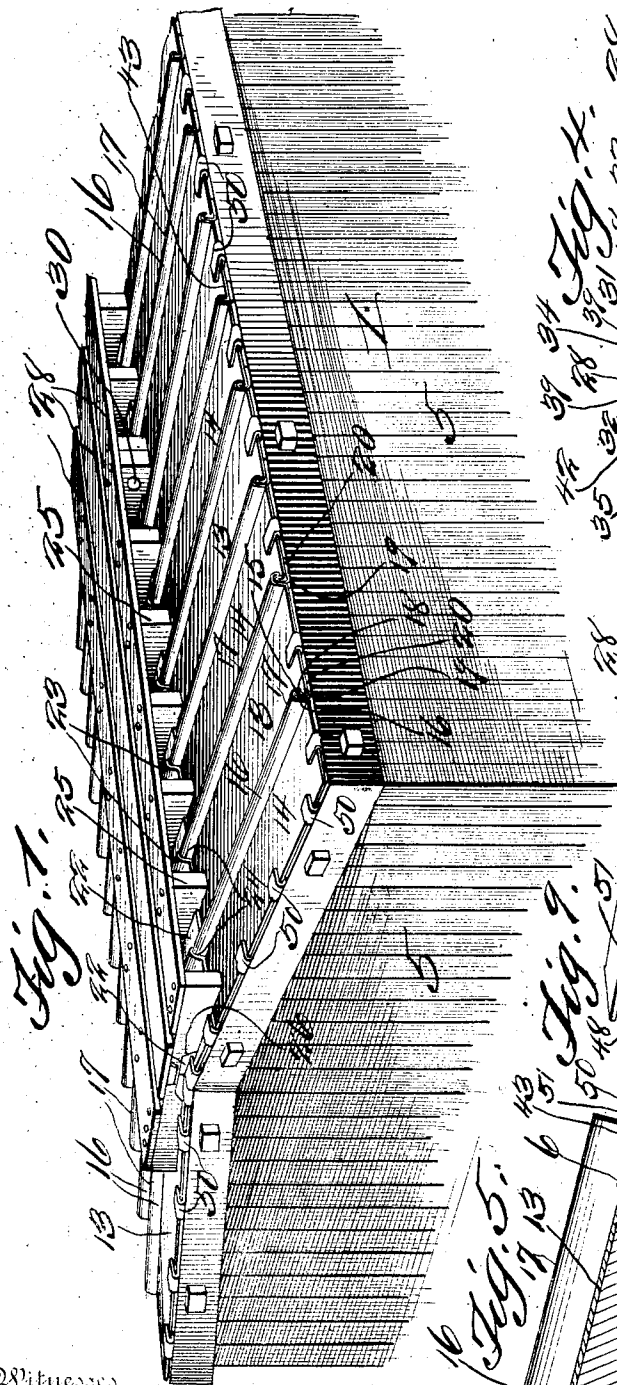


D. TATUM.
CONSTRUCTION OF CAR ROOFS.
APPLICATION FILED OCT. 28, 1909.

950,356.

Patented Feb. 22, 1910.

3 SHEETS—SHEET 1.



Witnesses

R. A. Caswell,
M. M. Miller.

Inventor

Daniel Tatum

By

Franklin H. Hays

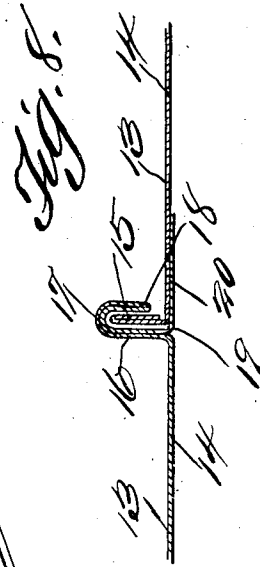
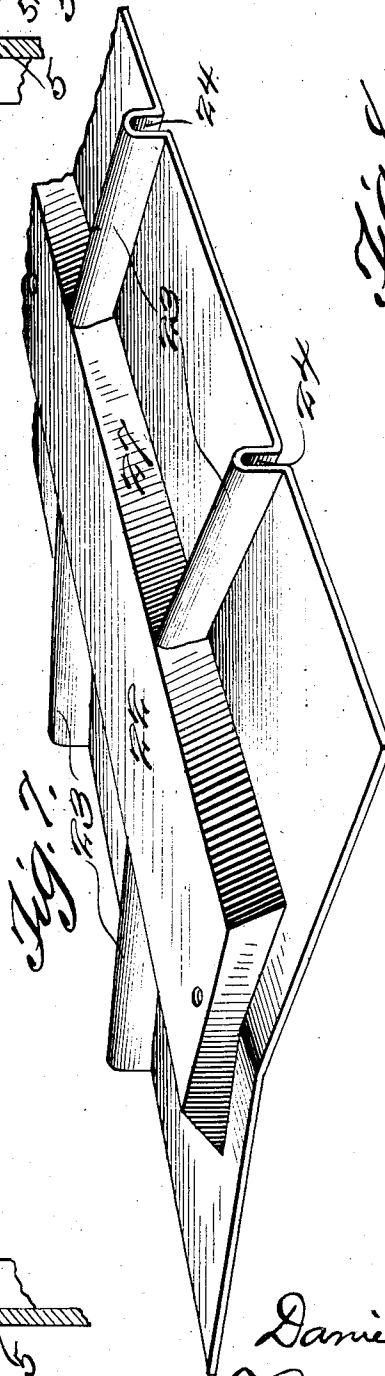
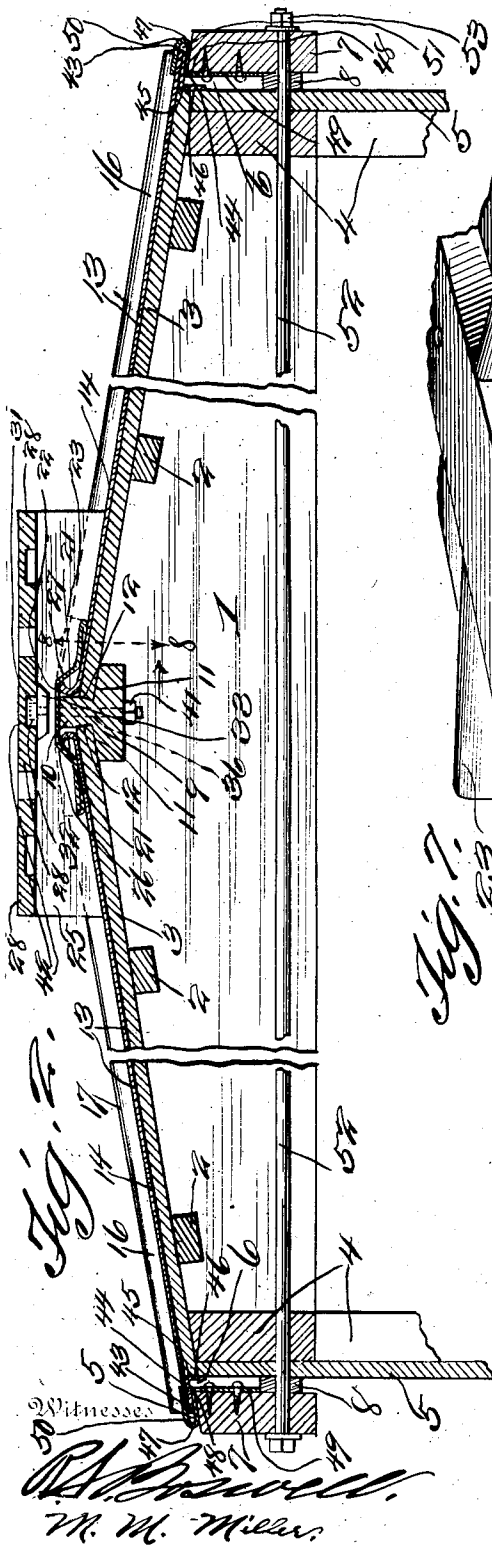
Attorney

D. TATUM.
CONSTRUCTION OF CAR ROOFS.
APPLICATION FILED OCT. 28, 1909.

950,356.

Patented Feb. 22, 1910.

3 SHEETS—SHEET 2.



Inventor
Daniel Tatum

By Franklin D. Hoyt

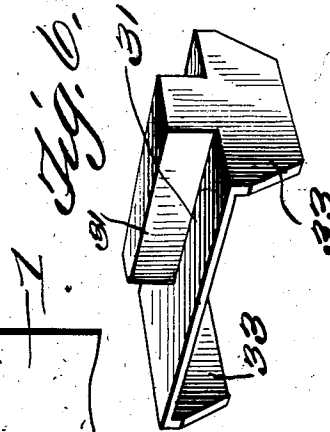
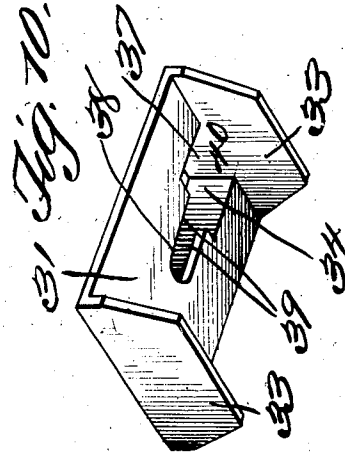
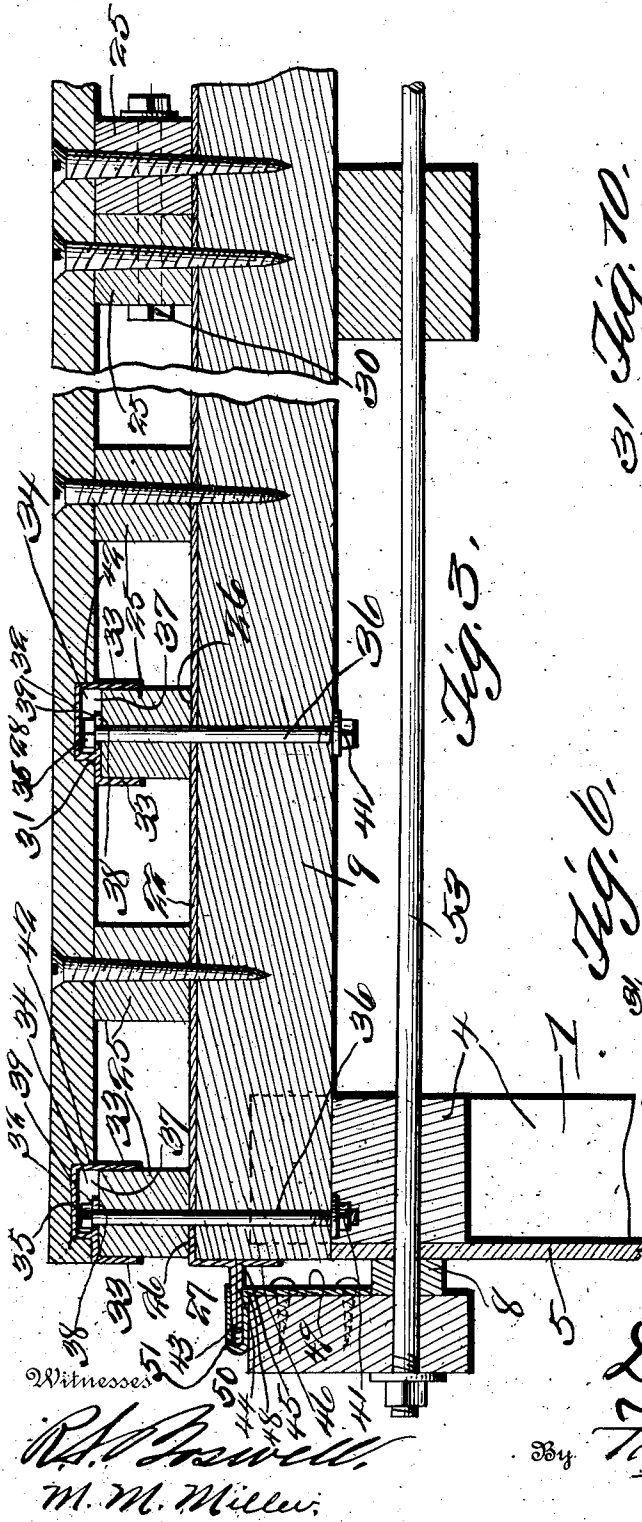
Attorney

D. TATUM.
CONSTRUCTION OF CAR ROOFS.
APPLICATION FILED OCT. 28, 1909.

950,356.

Patented Feb. 22, 1910.

3 SHEETS—SHEET 3.



Inventor
Daniel Tatum,
Franklin D. Stoy,
Attorney

UNITED STATES PATENT OFFICE.

DANIEL TATUM, OF BALTIMORE, MARYLAND.

CONSTRUCTION OF CAR-ROOFS.

950,356.

Specification of Letters Patent. Patented Feb. 22, 1910.

Application filed October 28, 1909. Serial No. 525,109.

To all whom it may concern:

Be it known that I, DANIEL TATUM, a citizen of the United States, residing at Baltimore, in the State of Maryland, have invented certain new and useful Improvements in Construction of Car-Roofs; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the figures of reference marked thereon, which form a part of this specification.

The invention about to be set forth and claimed belongs to the art of car construction, and it particularly pertains to a new and novel structure of a car roof, which is designed mainly for use upon freight cars and the like.

The essential object of the invention is the provision of a roof construction for freight cars, provided with means to allow the various parts forming the structure of the roof to have considerable play, for instance, when the car is subjected to considerable hard usage.

Another object of the invention is to provide novel means for supporting the running boards (which are usually carried upon the top or roof of the car) and to provide means for securing the running boards' saddles properly in place.

A further object of the invention resides in the provision of a cap, cover or closure to be arranged above the ridge-pole and to extend laterally of the said pole, in order to cover part of the metal roofing of the car.

A further object of the invention is the provision of means for securing the metal roofing to the sidings and the facias.

In this specification and the drawings accompanying the same, a certain structure of device is adhered to, but the invention is not to be restricted to this particular structure. The device, in its actual reduction to practice, may require certain changes and variations; the right thereto belongs to the applicant, provided such changes and variations are comprehended by the appended claims.

The invention consists of various other objects and combinations of parts which

will be hereinafter more clearly set forth and pointed out in the appended claims. 55

In the drawings:—Figure 1 is a perspective view of the upper portion of a freight car, clearly illustrating the outside appearance of the car. Fig. 2 is a cross sectional view through the car, showing the under structure of the roofing and the dispositions of the various parts, for instance, the ridge-pole, the facias and the sidings. Fig. 3 is a longitudinal sectional view through the top or upper portion of the freight car, showing one or more of the running boards' saddles, and the means for securing the running boards and the saddles in position. Fig. 4 is an enlarged detail sectional view through the ridge-pole and a portion of the roofing, in order to illustrate the detailed structure of that portion of the car. Fig. 5 is an enlarged detail sectional view through a portion of the side of the car, so as to illustrate upon an enlarged scale the siding and the facia, showing the manner of connecting the roofing thereto. Fig. 6 is an enlarged detail perspective view of a holding member (which may be in the form of a casting) for cooperating between the saddles and the running boards, in order to prevent displacement of the boards. Fig. 7 is a perspective view of the cap plate, cover or closure for the ridge-pole. Fig. 8 is a detail cross-sectional view upon line 8—8 of Fig. 2, in order to disclose the comparatively loose connection between the sections of the metal roofing, and showing the manner in which a portion of the cap plate or cover engages this loose connection. Fig. 9 is a detail perspective view of one of the clips and a portion of the outer edges of the metal roofing, in order to disclose how the clips readily engage to hold the metal roofing in place. Fig. 10 is an under face view of one of the holding members. 85 90 95

In regard to the drawings; 1 denotes the upper portion of a freight car, which consists of a rectangular frame comprising the transverse and longitudinal beams or rafters 2 (upon which the wood tongue-and-grooved roofing 3 is supported) and the vertical and transverse beams 4 of the sides of the car, to which the tongue-and-grooved sidings 5 are secured. 100 105

Adjacent the upper longitudinal corners

6 of the car, fascia strips 7 are secured, between which and the sidings a plurality of blocks 8 are disposed, in order to provide a space between the facias and the sidings so as to allow the water to readily flow down the faces of the sidings, thereby preventing the adjacent faces of the upper portions of the sidings and the facias from rotting.

9 represents the ridge-pole or central beam or rafter of the roof of the car. This ridge-pole or rafter is provided with a longitudinal raised portion 10 and two longitudinal angular cutaway portions 11. The opposite faces of the longitudinal raised portion, adjacent to the point where the raised portion merges into the base of the ridge-pole, are slightly beveled, as shown at 12, against which the adjacent edges of the wood tongue-and-grooved roofing contact (which edges of the wood tongue-and-grooved roofing are received within the angular cutaway portions 11).

13 designates the metal roofing which comprises a plurality of metal sections 14. Each section is provided with an upturned flange 15, of double thickness, upon one side, while the other side is also provided with an upturned flange 16 of double thickness, but which is curved upon itself, as shown at 17, in order to form a downwardly extending flange 18, between which and the flange 16 the flange 15 is loosely arranged, in order to allow the various metal sections to have a slight play, in case the structure of the car is slightly distorted, which may be due to unavoidable accidents. One of the thicknesses forming the flange 16 is bent at right angles, as at 19, in order to form the flange 20, which is disposed beneath a portion of the adjacent section of the metal roofing, as shown clearly in Fig. 8 of the drawings.

The various sections of the metal roofing are provided with upwardly curved or rolled portions 21, which are arranged adjacent the longitudinal raised portion of the ridge-pole, over which and the loose joints between the various sections, the cap plate, cover or closure 22 is positioned. This cap plate or cover is provided with laterally extending portions 23 forming recesses 24, which receive the loose joints between the various sections of the metal roofing.

25 represents the running boards' saddles which are provided with central recesses 26 to receive the longitudinal raised portion of the ridge-pole and the raised portions 27 (between the laterally extending portions 23) of the cap plate or cover. These saddles rest upon the metal roofing and are adapted to support the running boards 28. There are a plurality of saddles or supports shown, and at various locations, which are designated by the character 29. Two of the saddles are shown as being bolted together by means of suitable bolts and nuts 30.

31 designates holding members (which, as before stated, may be in the form of a metal casting) which are designated to straddle every other saddle, in the manner shown in the longitudinal sectional view (Fig. 3) and are provided with upwardly projecting portions 32 and flanges 33. These flanges engage opposite sides of the saddles. The upwardly projecting portions 32 are hollowed out, as shown at 34, from the under faces of the holding members, in order to receive the heads 35 of the bolts 36. The openings 37 of the hollowed out portions are provided with restricted portions 38, in which the shanks of the bolts are disposed, while the heads of the bolts engage shoulders 39, for instance, when the bolts are centrally disposed with regard to the holding members. The openings to the hollowed out portions of the holding members are also shaped, as at 40, in order to admit the heads of the bolts, when assembling the various parts. These bolts penetrate through every other saddle of the structure of the upper portion of the car, and the ridge-pole, and upon their lower extremities, nuts 41 are threaded, in order to secure the structure of the upper portion of the car and the saddles rigidly in place. The raised portions 32 of the holding members are received within recesses 42 of the central running board, but the side running boards are also provided with similar recesses, in order that the mechanic, when assembling the roof structure of the car, may not have to use a special board as the central running board.

The outer longitudinal edges of the various sections forming the metal roofing are bent upon themselves, as shown at 43, and the bent portion 44 thereof is bent at right angles, as shown at 45, in order to form the downwardly extending flanges 46, which are arranged between the sidings and the facias, and are especially disposed in contact with the sidings.

47 designates clips which consist of a single piece of metal bent at right angles, as shown at 48, and a portion extending at right angles to the vertical portion 49, is curved upon itself, as shown at 50, in order to form recesses 51 to receive the outer bent portions of the metal roofing. The ends of the metal roofing are secured to the end facias in a manner similar to that of the connection between the metal roofing and the side facias.

The two upper longitudinal beams (which are arranged in the upper corners of the structure of the car), the sidings and the side facias are penetrated by transversely arranged elongated rods or bolts 52 upon the threaded ends of which nuts 53 are secured, in order to hold the various parts of the structure in their proper positions.

From the foregoing, the essential features,

elements and the operation of the device, together with the simplicity thereof, will be clearly apparent.

Having thus fully described the invention, what is claimed as new and useful, is:—

1. A car structure comprising a framework having a centrally and longitudinally disposed ridge pole, metallic roofing plates having upset interlocking flanges, the upper ends of said plates being upwardly bent adjacent to the ridge pole upon either side thereof, a ridge plate resting upon said pole and having a chambered portion in which said upwardly curved ends of the plates are positioned and having portions bent upon themselves to form grooves which engage over said interlocking flanges, saddles resting upon said plates, boards supported by said saddles, and means for holding the parts together.

2. A car structure comprising a ridge pole having shoulders upon the opposite sides

thereof upon which the upper ends of the roof boards rest, a portion of said ridge pole extending above the roof boards, roof plates having upset interlocking flanges with their upper ends bent upwardly, a ridge plate resting upon the top of the ridge pole and chambered for the reception of the upwardly turned ends of said roof plates, said ridge plate having portions thereof bent to form grooves for the reception of said interlocking flanges, saddles resting upon said plates, a bolt passing through said saddles and ridge pole, means for holding said bolt in place, and running boards upon said saddles.

In testimony whereof I hereunto affix my signature in the presence of two witnesses.

DANIEL TATUM.

Witnesses:

ADA R. BOWLER.

FRANKLIN T. HOUGH.