A. GALL.

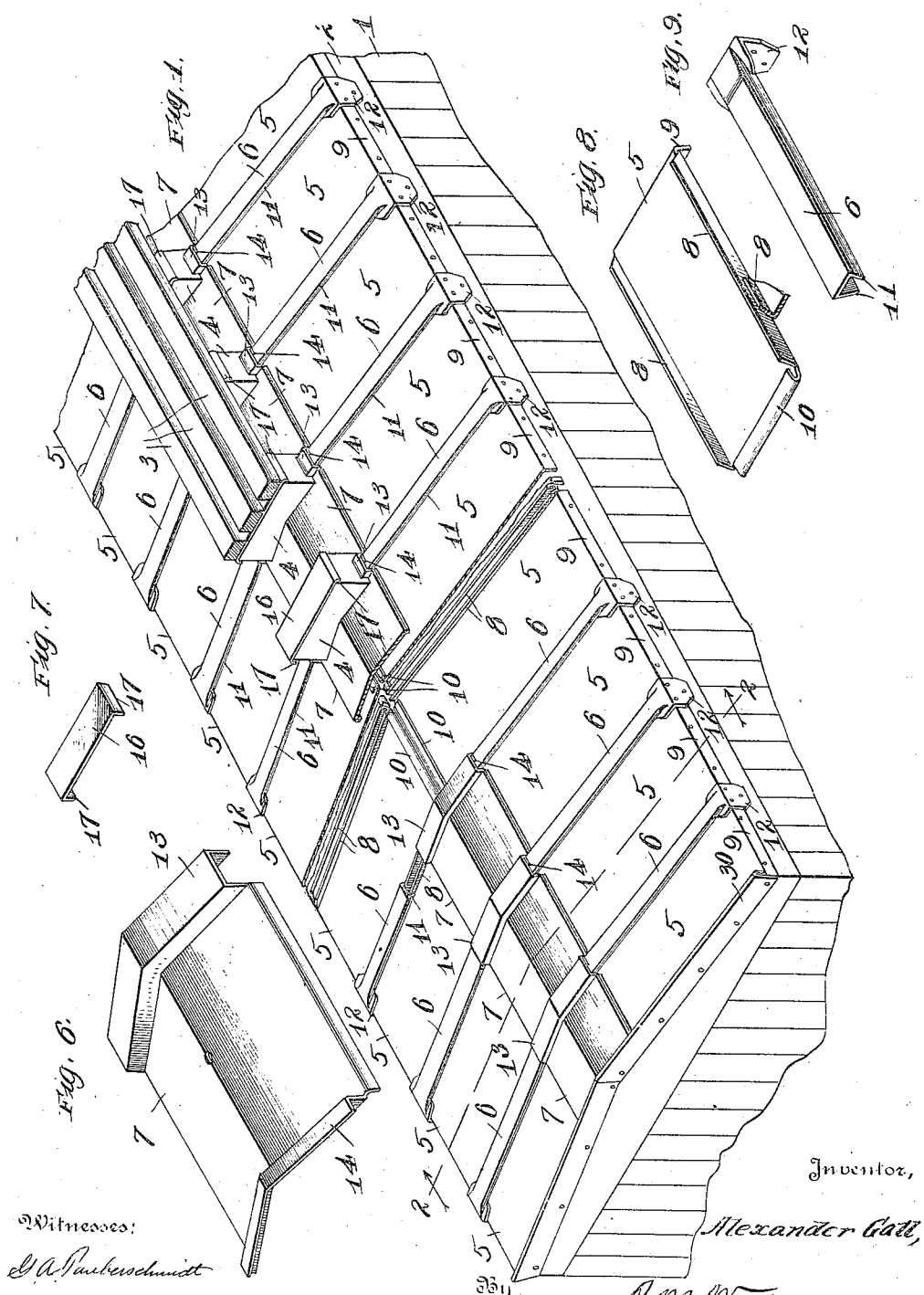
CAR ROOF.

APPLICATION FILED OCT. 25, 1913.

1,149,572.

Patented Aug. 10, 1915.

2 SHEETS—SHEET 1.



Witnesses:

G. A. Rauberschmidt

R. M. Elliott

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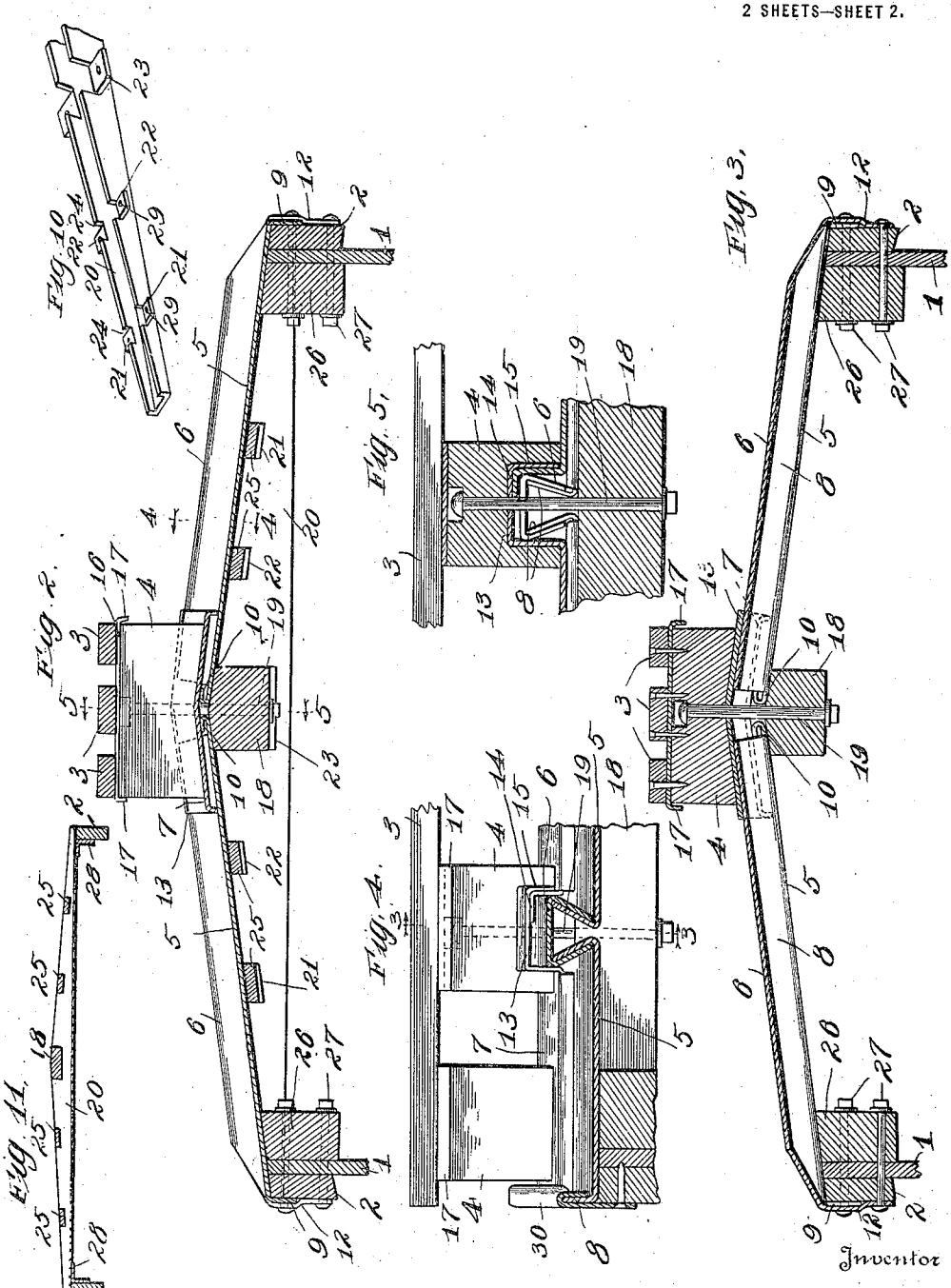
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ALEXANDER GALL, OF BAYONNE, NEW JERSEY.

CAR-ROOF.

1,149,572. Specification of Letters Patent. Patented Aug. 10, 1915.

Application filed October 25, 1913. Serial No. 797,223.

To all whom it may concern:

Be it known that I, ALEXANDER GALL, a subject of the King of Hungary, residing at Bayonne, in the county of Hudson and State of New Jersey, have invented certain new and useful Improvements in Car-Roofs, of which the following is a specification.

This invention relates to car roofs.

The object of the invention is in a ready, feasible and novel manner, practically to dispense with the employment of wood in the construction of car roofs, more particularly those of freight cars, and to employ in lieu thereof sheet metal, the parts of which are so constructed and assembled as to permit the various units to have a slight yielding action relative to each other, thus to distribute the jars and torsional strains incident to the passage of a car over the tracks, and thereby eliminate a factor that is most detrimental to the ordinary wooden, or part-metal and part-wooden roof, namely, loosening of the component elements of the roof; and furthermore, so to install the various parts composing the roof as to permit of ready repairs when such are necessary.

With the above and other objects in view, as will appear as the nature of the invention is better understood, the same consists in the novel construction and arrangement of parts of a metallic car roof as will be hereinafter fully described and claimed.

In the accompanying drawings forming a part of this specification and in which like characters of reference indicate corresponding parts: Figure 1 is a perspective view of a portion of a car roof constructed in accordance with the present invention and partly in section. Fig. 2 is a transverse sectional view taken on the line 2—2 of Fig. 1. Fig. 3 is a transverse sectional view taken on the line 3—3 of Fig. 4. Fig. 4 is a longitudinal sectional view taken on the line 4—4 of Fig. 2. Fig. 5 is a longitudinal sectional view taken on the line 5—5, Fig. 2. Fig. 6 is a perspective detail view of one of the cap plates. Fig. 7 is a perspective detail view of a saddle plate. Fig. 8 is a perspective detail view of one of the roof plates. Fig. 9 is a perspective view of one of the cleats used in holding the adjacent edges of the roof plates assembled. Fig. 10 is a perspective detail view of a portion of one of the car lines used in supporting the roof, and Fig. 11 is a transverse sectional view through a slightly modified form of roof.

Referring to the drawings and to Fig. 1 thereof, 1 designates the side panels of the car, 2 the fascia board, 3 the running-board, and 4 the saddles supporting the running-board from the roof. Each of these parts with the exception of the saddle may be of the usual and preferred construction and therefore needs no further description.

The component parts of the roof consist of the roof plates 5, the cleats 6, and the cap plates 7; these units being counter-parts of each other and are constructed of sheet metal of any desired gage.

As clearly shown in Fig. 8, the roof plate is provided with two longitudinally-disposed up-standing flanges 8, which flare slightly inward toward each other, and two terminals or end flanges 9 and 10, the flange 9 being designed to fit against the fascia and be secured thereto in any suitable manner and the flange 10 to be re-bent in a direction opposite to the flange 9. The cleat is formed with inwardly inclined side flanges 11, and the terminal flattened downwardly extending flange 12 that is designed to be secured to the fascia and lie over the adjacent meeting edges of two roof plates. The cap plate 7 is a hipped structure and is provided at one end with a re-bent rectangular flange 13 and its other end with an up-standing right-angular flange 14.

As shown in Fig. 5, the saddle 4 is provided with a longitudinal channel 15 that is designed to receive the flange 13 of the cap plate which latter interlocks with the flange 14 of the adjacent cap plate and forms the lock shown in Fig. 4 that will serve effectively to hold transversely alined cleats in locked position under the saddle. Disposed upon the top of each of the saddles is a saddle plate 16 having down-turned flanges 17 that are designed to rest against the ends of a saddle. Upon these saddle plates are disposed the members of the running-board 3 which are secured to the saddle in the usual manner, while the saddle is securely clamped to the ridge pole 18 by a plurality of bolts 19, the heads of which are countersunk in the saddles, as clearly shown in Fig. 5.

One of the features of the invention resides in the novel form of carline employed

for supporting the roof, this, as shown in Figs. 2 and 10, being a channel-shaped metal structure of the appropriate design, and having on opposite sides thereof any desired number of alternate lugs 21, 22, and 23, the lugs 21 providing channels 24 in which are seated the purlins 25, while the channels formed by the lugs 23 are to receive the ridge pole 18, as clearly shown in Fig. 11.

As shown in Figs. 2 and 3, the ends of the carlines are secured to top plates 26 that are held clamped to the sides of the car by the bolts 27 that serve to hold the fascia boards in position. In some instances, and as shown in Fig. 11, the top plates 26 may be dispensed with and the terminals of the carlines be seated in recesses formed in the fascias and held combined therewith at both ends by angle irons 28.

As shown in Fig. 10, the lugs 21—23, are provided with orifices 29 and through these will be passed bolts to secure the purlins and carlines firmly together.

At the end roof plate of the car is provided a finishing cleat 30 as clearly shown in Fig. 1.

As stated, it is one of the objects of the invention to permit the various units of the roof to have slight play in order that the jars and vibrations and torsional strains to which the roof is subjected, will permit yielding of the parts thereof and thus prevent rapid deterioration. To effect this result, the union between the cleats will not be of strictly rigid character, the same being true of the connection between the saddles and cap plates.

A roof constructed as herein described will be extremely strong, be able to withstand long and continued use without deterioration, and may readily be repaired should necessity for the same arise.

What I claim as new is:—

In a roof of the kind described, a series of roof plates having interlocking engagement at their adjacent edges and ridge plates each comprising a body consisting of lateral portions angularly-disposed with reference to each other, downwardly turned flanges at the outer edges of said lateral portions adapted to rest on said roof plates between their lateral edges, upwardly turned flanges at the ends of each of said ridge plates to hold the side portions in their angular relation, an outwardly-turned flange extending from the upper edge of one of said upwardly turned flanges, an outwardly turned flange extending from the upper edge of the other upwardly turned flange and adapted to overlap the outwardly turned flange of an adjacent plate, and a downwardly-turned flange extending from and stiffening the outwardly turned flange last mentioned.

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

ALEXANDER GALL.

Witnesses:
MARTIN JORZAS,
MARTIN VENER.