

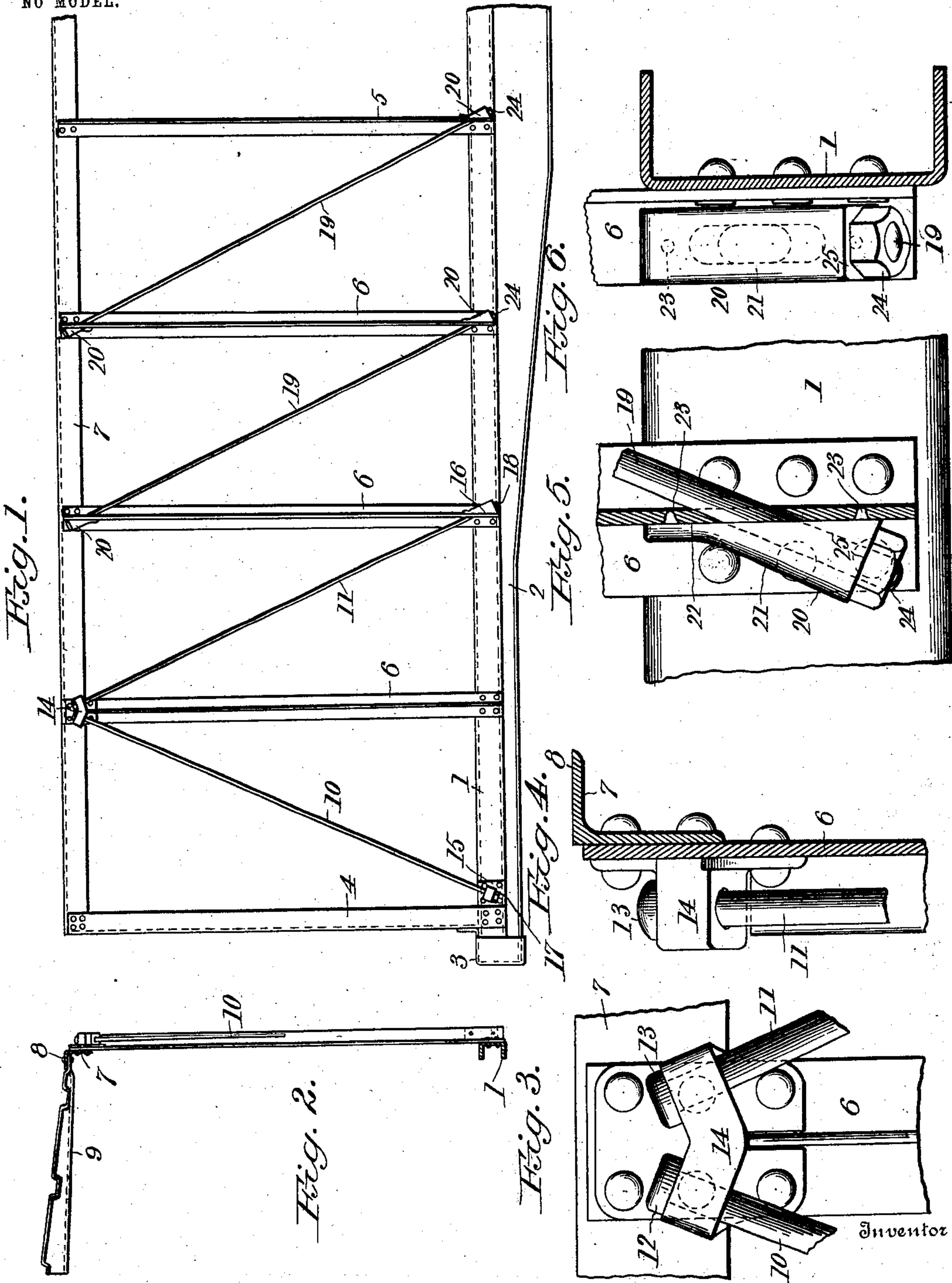
No. 751,436.

PATENTED FEB. 2, 1904.

A. STUCKI.
STOCK CAR.

APPLICATION FILED OCT. 24, 1902.

NO MODEL.



Witnesses

C. H. Walker.
Attorney.

Arnold Stucki.
by Wm. F. Finschel
Attorney

UNITED STATES PATENT OFFICE.

ARNOLD STUCKI, OF ALLEGHENY, PENNSYLVANIA, ASSIGNOR TO
PRESSED STEEL CAR COMPANY, OF PITTSBURG, PENNSYLVANIA,
A CORPORATION OF NEW JERSEY.

STOCK-CAR.

SPECIFICATION forming part of Letters Patent No. 751,436, dated February 2, 1904.

Application filed October 24, 1902. Serial No. 128,642. (No model.)

To all whom it may concern:

Be it known that I, ARNOLD STUCKI, a citizen of the United States, residing at Allegheny, in the county of Allegheny and State of Pennsylvania, have invented a certain new and useful Improvement in Stock-Cars, (Case B,) of which the following is a full, clear, and exact description.

The object of this invention is to provide diagonal tension members for the sides of the bodies of stock, box, and other cars, whereby the use of rivets and the consequent weakening of the parts by punching them for the passage of the rivets are avoided.

The invention is especially designed for use in those cars in which a metallic underframe is employed, such as that shown in my concurrent case, the side sills of which form the lower chords of a truss, the upper chords of which are metallic side plates.

In carrying out the invention I use an underframe having such side sills and side plates and also side posts and apply to them castings in which are received the ends of rods which constitute the diagonals or tension members.

In the accompanying drawings, illustrating my invention, in the several figures of which like parts are similarly designated, Figure 1 is a side elevation of sufficient of a stock-car to show the improvement in position. Fig. 2 is a cross-section of one side of the car. Fig. 3 is a front elevation of the upper casting and the upper ends of the diagonals. Fig. 4 is a side elevation and partial section of the parts shown in Fig. 3. Fig. 5 is a front elevation and partial section of the lower casting with one of the diagonals in position. Fig. 6 is a side elevation and partial section of the parts shown in Fig. 5.

In the preferred construction the side sills 1 are of uniform cross-section, while the center sills 2 are bellied, and these sills are connected at intervals by transverse diaphragms riveted to them, as in a case of mine of even date herewith. The end sills 3 are of metal and of usual construction. The corner-posts 4 are angles, as are also the door-posts 5, while the intermediate posts 6 on the sides and at

the ends are T's, and all these parts may be of pressed steel or structural shapes, with an outwardly-projecting leg or web. The side plates 7 are angles rolled or pressed, and, as shown more particularly in Fig. 2, their flanges 8 are turned inwardly and riveted to the ends of the carlines 9, and these flanges and carlines serve to support the purlins. (Not shown.)

The ends of the sides of the car are provided with diverging diagonals 10 and 11 in the form of rods, having one end headed, as shown at 12 and 13, and these headed ends are received in holes in double brackets 14, riveted to the side plates or to the upper ends of the posts 6, or both. These brackets will be constructed to conform substantially to the contour or profile of the posts. The lower end of the diagonal 10 is received in a bracket 15, riveted to the side sill, and the lower end of diagonal 11 is received in a bracket 16, applied to one of the posts, either by rivets or otherwise, and in order to apply the proper tension to these diagonals their lower ends may be supplied with nuts 17 and 18. Both ends of the diagonals may be screw-threaded to receive nuts, if desired. The intermediate diagonals 19 have their upper ends applied to single brackets 20, which may be counterparts of the bracket 16 and of the brackets shown in Figs. 5 and 6 for receiving the lower ends of said diagonals, and since the brackets for the upper and lower ends of these diagonals 19 are alike a description of one will suffice for all. These brackets 20 include a tubular portion 21, having a flattened base 22, which is adapted to be abutted against the webs of the posts and is provided with teats 23 to enter holes or depressions in the web to hold the brackets in position; but these teats may be replaced or reinforced by rivets appropriately applied to the brackets and posts. The diagonals are passed through the tubular portions of the brackets and engaged therewith by means of heads and nuts on opposite ends, as shown at 24, which are turned up against the shoulders 25 of the ends of the tubular portions.

It will be observed that the side sills and the side plates, together with the diagonals and posts, constitute trusses, and thus the sides of the car are made very stiff, the diagonals being tension members.

By the construction herein described the use of rivets in securing the diagonals in position is avoided and a very simple and efficient means is provided for applying the diagonals to the sides.

What I claim is—

1. A car, having a side sill and a side plate forming respectively the lower chord and upper chord of a truss, vertical connecting-posts secured to the said sill and plate, and provided with outwardly-projecting leg members, tu-

bular brackets secured in position upon the legs of the posts and next the side sill and side plate, and diagonal tension-rods anchored in said brackets.

2. In a car, having truss-like sides, including side posts each provided with an outwardly-projecting leg or web member, tubular brackets applied to the leg or web members of said posts, and diagonal tension-rods fixed in said tubular brackets.

In testimony whereof I have hereunto set my hand this 20th day of August, A. D. 1902.

ARNOLD STUCKI.

Witnesses:

A. F. SMELTZER,
J. C. LANGFITT.