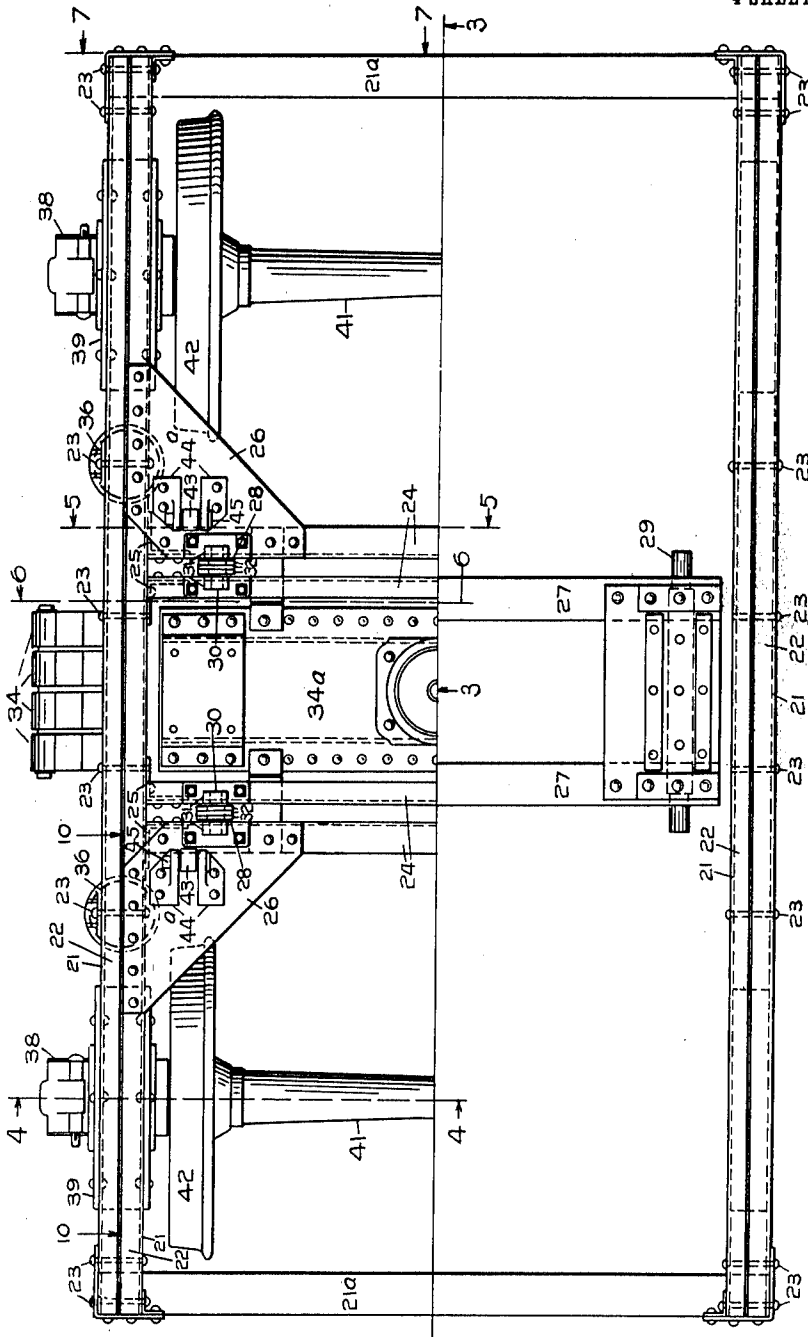


1,061,263.

Patented May 13, 1913.

4 SHEETS—SHEET 1.

FIG-1



WITNESSES

Calvin B. Patch  
Esther Abrams

INVENTOR

Richard W. Burnett

By, Munday, Evans, Atwood & Clark

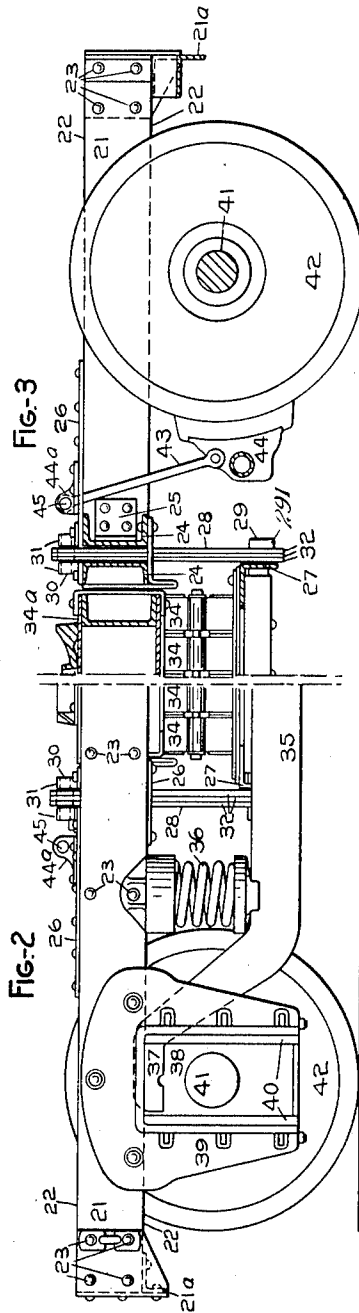
HIS ATTORNEYS

R. W. BURNETT.  
PASSENGER CAR TRUCK.  
APPLICATION FILED APR. 12, 1911.

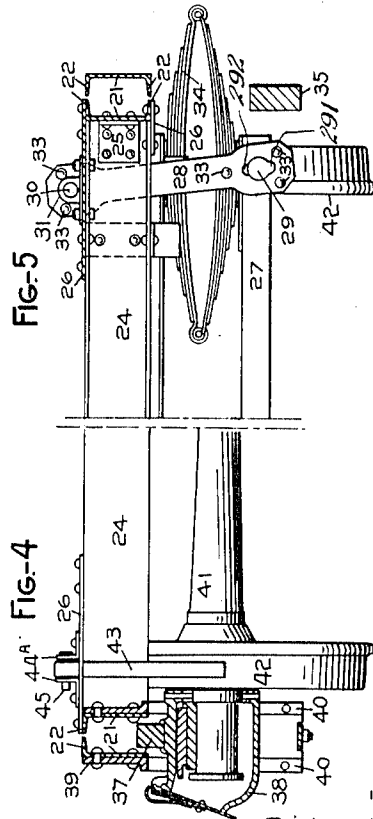
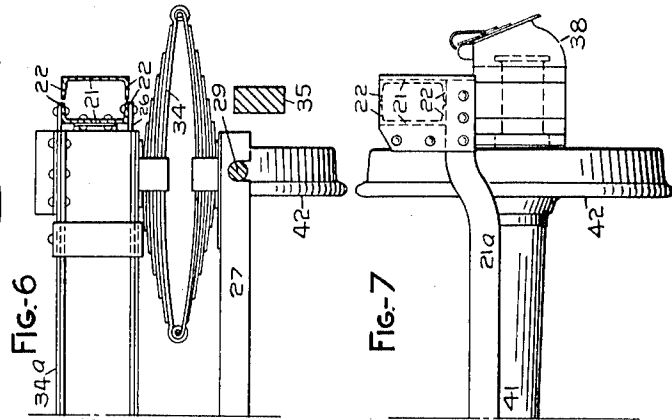
1,061,263.

Patented May 13, 1913.

4 SHEETS—SHEET 2.



WITNESSES  
Calvin B. Patch  
Esther Abrams.



By, *Munday, Evans, Hildreth & Clarke*

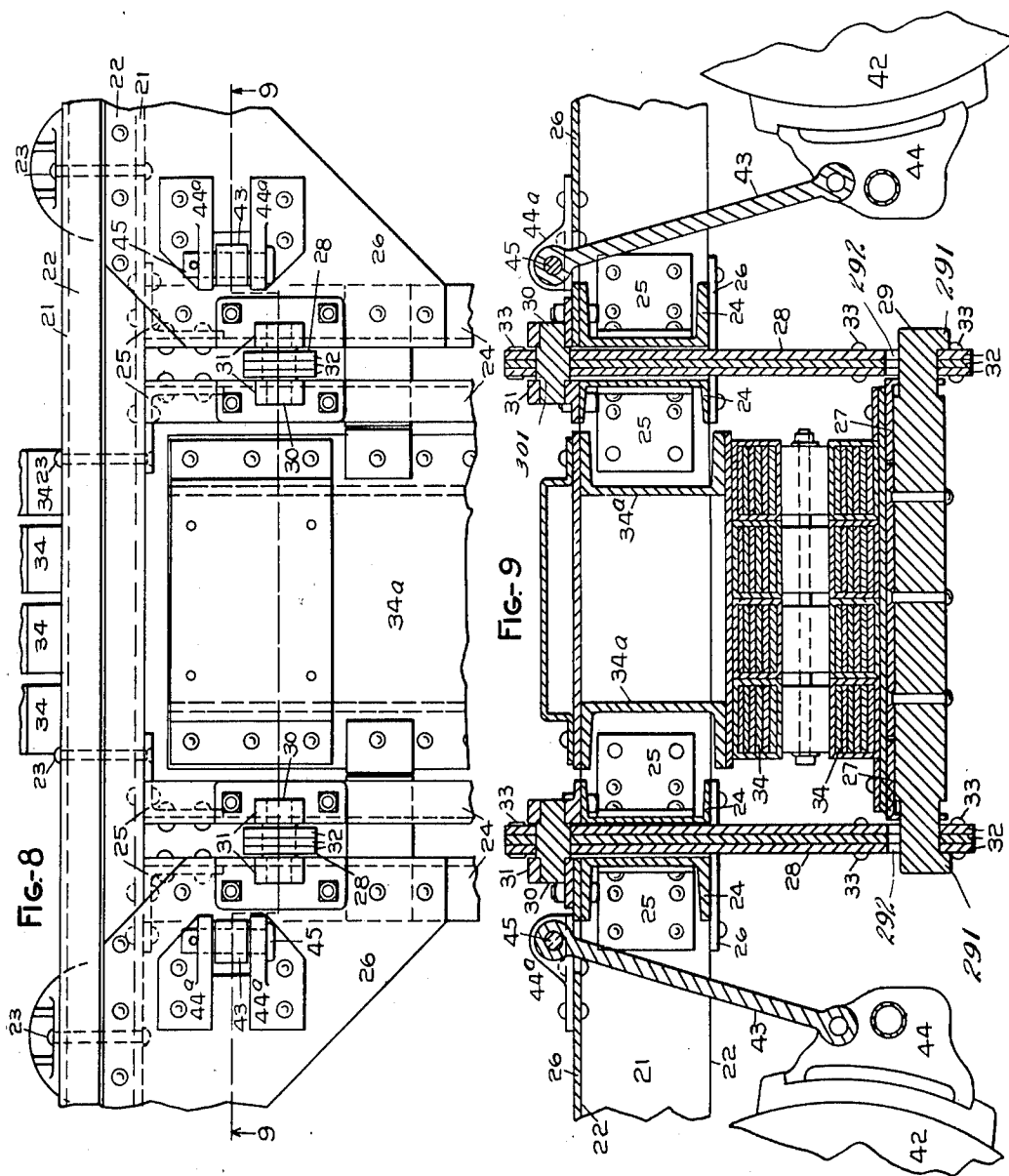
HIS ATTORNEYS

R. W. BURNETT.  
PASSENGER CAR TRUCK.  
APPLICATION FILED APR. 12, 1911.

1,061,263.

Patented May 13, 1913.

4 SHEETS-SHEET 3.



WITNESSES

Calvin B. Patch  
Esther Abrams.

INVENTOR

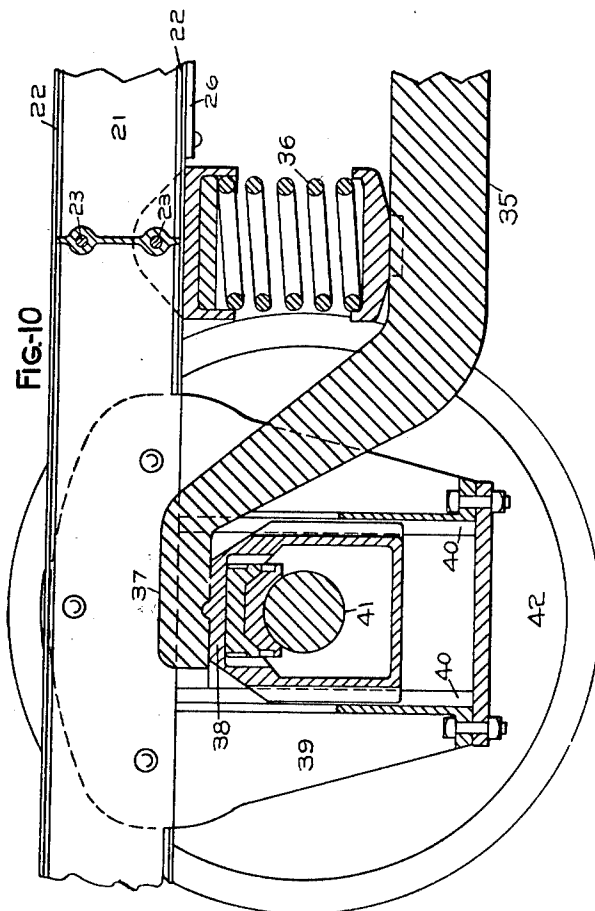
Richard W. Burnett

By: Munday, Evans, Adcock & Porter

HIS ATTORNEYS

**1,061,263.**

4 SHEETS--SHEET 4.



WITNESSES

Calvin B. Patch  
Esther Abrams.

INVENTOR

Richard N. Burnett

By, Munday, Evans, Atcock & Clarke

HIS ATTORNEYS.

# UNITED STATES PATENT OFFICE.

RICHARD WEBB BURNETT, OF MONTREAL, QUEBEC, CANADA.

## PASSENGER-CAR TRUCK.

1,061,263.

Specification of Letters Patent.

Patented May 13, 1913.

Application filed April 12, 1911. Serial No. 620,713.

*To all whom it may concern:*

Be it known that I, RICHARD W. BURNETT, a citizen of the United States, residing in Montreal, in the Province of Quebec, Dominion of Canada, have invented a new and useful Improvement in Passenger-Car Trucks, of which the following is a specification.

This invention relates to improvements in railroad passenger car trucks.

The objects sought are to improve the riding quality, to increase the strength and durability, and to diminish the weight and cost; and the invention consists in the novel parts and devices and combinations thereof herein set forth and claimed.

In the accompanying drawings which form a part of this specification Figure 1 is a divided plan view showing in one half the improved truck completely and in the other half the frame and spring-plank only; Fig. 2 a side elevation of one half of the truck; Fig. 3 a vertical section of half of the truck taken on the line 3, 3, of Fig. 1; Fig. 4 a half vertical section at the wheel bearing taken on line 4, 4, of Fig. 1; Fig. 5 a vertical section taken through the side frame on the line 5, 5, of Fig. 1; Fig. 6 a similar section on the line 6, 6, of Fig. 1; Fig. 7 a half end view on the line 7, 7, of Fig. 1; Fig. 8 a partial plan view similar to Fig. 1, but upon a somewhat larger scale and showing the swing hangers and brake hangers; Fig. 9 a vertical section on the line 9, 9, of Fig. 8; Fig. 10 a vertical partial section taken through the longitudinal center of the equalizing bar on the line 10, 10, of Fig. 1.

Like characters of reference indicate like parts wherever used in the several figures.

The sills of this improved truck are made of channel bars 21, 21, the flanges 22 of which are faced together. The two channel bars are secured to each other by rivets 23, forming a strong, and comparatively light, built up beam. End frames 21<sup>a</sup> of suitable construction unite the two sills, and transoms 24 secured to the sills by angles 25 and strengthened by gussets 26 together constitute a strong framework. Below the transoms is the spring plank, 27, swung by four spring hangers, 28, connected at their lower ends to the spring-hanger axles 29 and at their upper ends swung by pins 30 in bearings 31 on the upper surface of the gussets 26. It will be noted that the hangers are laminated in construction; that is to say, each is made of several pieces of metal 32,

32 secured together by rivets 33. This feature of construction increases the strength of the hanger and enables it to be made lighter. The leaf springs, 34, are supported on the spring plank and bear against the bolster 34<sup>a</sup>. The equalizing bars are shown at 35 and their equalizing springs at 36. The goose-necks, 37, of these equalizing bars rest on the boxes, 38, contained in the pedestals 39. The pedestals consisting of a front and a rear part, are riveted to the inner and outer channels of the sill,—see Fig. 4, and preferably should be made of cast steel and of the form indicated at Fig. 2. To prevent wear they are preferably provided with a cast iron lining 40.

41 are the axles and 42 the wheels of the truck.

The brake hangers are shown at 43, the brakes at 44. The brake hangers at their upper ends are swung from bearings 44<sup>a</sup> by pins 45.

Other things being equal, the ease with which a passenger car rides depends upon the amount of vertical play given to the bolster on the springs. Of course the amount of play possible is limited because the trucks are made of the same or approximately the same height in order that the cars may couple together. One determining factor of this amount of spring play is the amount of vertical movement possible for the goose-neck of the equalizing-bar in the pedestal. In the present improvement this amount may be materially increased,—because of the construction of the sills,—by cutting away the lower flanges 22 of the channel bars forming said sills for the width of the pedestal which permits the goose-neck, 37, of the equalizing-bar to rise into the space in the sill between said channel-bars. And since the cast steel pedestals are riveted to the sill at this place the weakening caused by this cutting away of the flanges is quite cured by the reinforcement due to the attachment of said pedestals, at this same place.

The hangers 28 as before mentioned are pivotally swung at their upper ends on pins, 30, and at their lower ends on the axles 29. Both these attachments are so made as to avoid the need for cotter pins, thus:—The pins 30 for the upper attachment are shouldered as at 30<sup>1</sup> at both sides, and this prevents their escape from the bearings 31, at least one of the bearings being put in place

and secured after the hanger is located; the axles, 29, for the lower attachment are made with a boss or lip 291, and the hole in the hanger to receive the axle with a slot, 292, so that the hanger, by turning, may be matched on and thereafter being turned back cannot come off. This is an important safety contrivance as cotters are quite liable to be lost off and accidents thus occasioned.

10 Attention is called to the manner in which the brakes are secured to the transom gusset-plate by being pivoted on the same above the plate so that said hangers are made long thus minimizing the tendency of the hangers to toggle or cramp, and moreover thus bringing the pivotal or attachment point in easy and full view to facilitate inspection.

The invention being described, claim is made as follows:—

20 1. A railway passenger car truck having side sills and provided with equalizing bars, each of said side sills being comprised of a pair of channel members having their

flanges faced toward each other and secured closely together at intervals throughout their length, pedestals secured to said sills, the lower flanges of the side sills being cut away at the portions above the pedestals whereby the goose-necks of the equalizing bars are adapted to move up and down between the channels above the pedestals and be guided by the vertical portions of said side sills. 25 30

2. A railway passenger car truck comprising a frame, a spring plank and spring hangers pivotally mounted; the hangers each being comprised of laminations and each provided with a shouldered pivot pin at one end. 35

3. The combination with the frame and spring plank of the laminated spring hangers, substantially as specified. 40

RICHARD WEBB BURNETT.

Witnesses:

M. Cox,  
J. LAVERTY.