

J. DU ROTH.  
TRUCK.  
APPLICATION FILED JUNE 3, 1911.

1,015,152.

Patented Jan. 16, 1912.

2 SHEETS-SHEET 1.

Fig. 1.

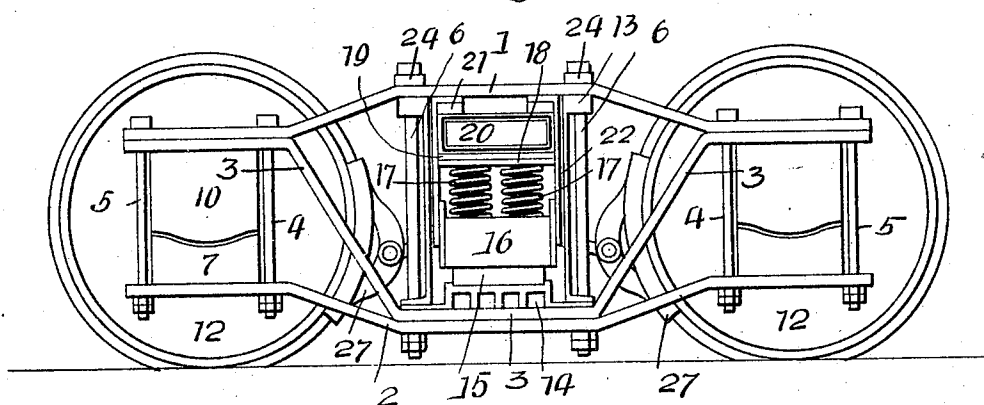
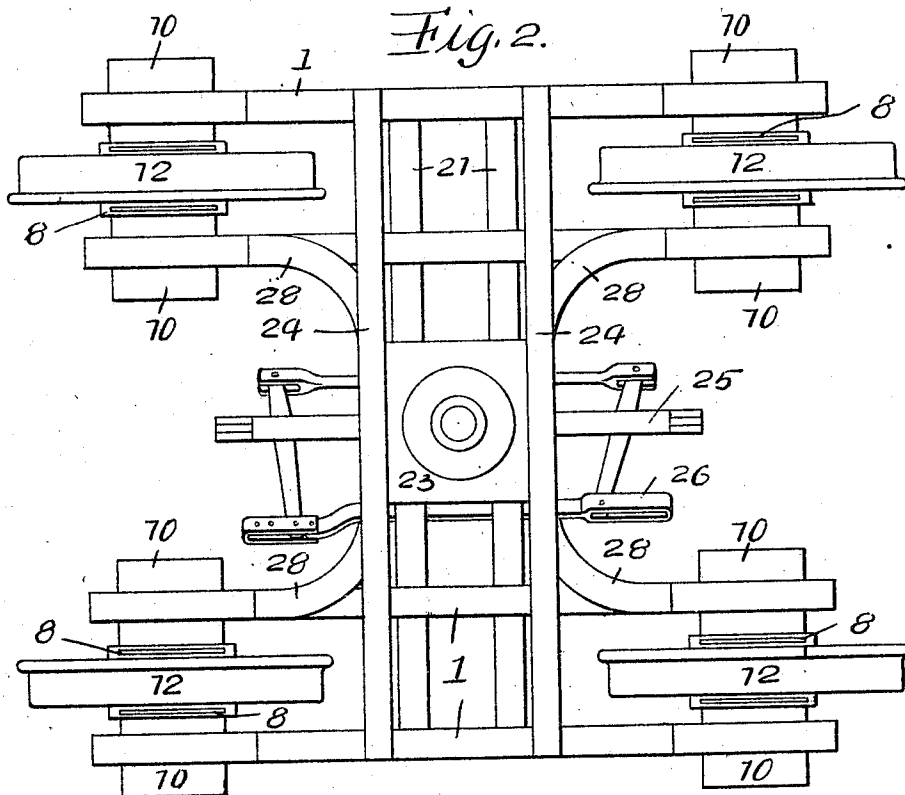


Fig. 2.



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2 SHEETS—SHEET 2.

Fig. 3.

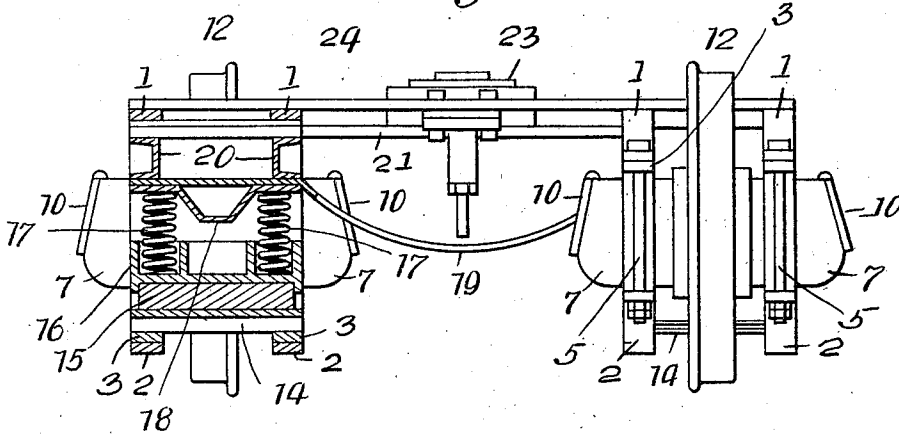


Fig. 4.

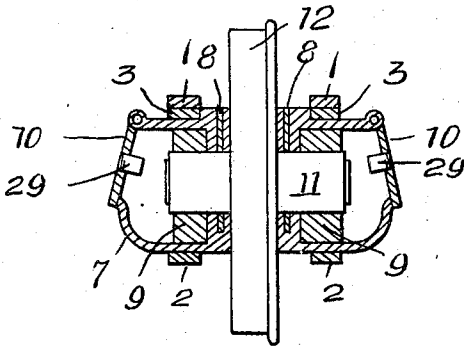
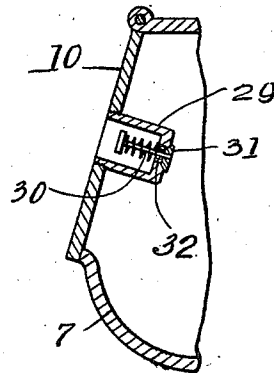


Fig. 5.



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# UNITED STATES PATENT OFFICE.

JOHN DU ROTH, OF JOHNSTOWN, PENNSYLVANIA.

## TRUCK.

1,015,152.

Specification of Letters Patent.

Patented Jan. 16, 1912.

Application filed June 3, 1911. Serial No. 630,972.

*To all whom it may concern:*

Be it known that I, JOHN DU ROTH, a citizen of the United States of America, residing at Johnstown, in the county of Cambria and State of Pennsylvania, have invented certain new and useful Improvements in Trucks, of which the following is a specification, reference being had therein to the accompanying drawing.

10 This invention relates to trucks, and the object of my invention is to provide a novel four-wheel truck of a simple and durable design having independent wheel axles, to permit of an independent movement of each  
15 wheel of the truck, thereby preventing the grinding of wheels and rails when the truck passes around a curve.

My invention comprehends a truck-frame constructed of structural steel to provide a rigid and equally balanced frame. This  
20 frame is adapted to support journal boxes for the stub axles of independent wheels and in connection with the frame I use a brake-rigging of a conventional form.

25 The detail construction entering into my invention will be presently described and then specifically claimed.

Referring to the drawings:—Figure 1 is a side elevation of a truck constructed in accordance with my invention, Fig. 2 is a plan  
30 of the same, Fig. 3 is an end view of the truck partly broken away and partly in section, Fig. 4 is a cross sectional view taken on the line  $x-x$  of Fig. 2, and Fig. 5 is a  
35 sectional view with a portion of one of the journal boxes illustrating a valve in connection with the same.

To put my invention into practice, I provide four frames for supporting four revolvable wheels, said frames being connected by transverse beams supporting the bearing with a king bolt to the car adapted to be supported by the truck. Each frame comprises an upper strap 1, a lower strap 2 and  
45 an intermediate strap 3, said intermediate strap having the ends thereof located at the ends of the upper strap 1 and the central portion of said intermediate strap at the central portion of the lower strap 2. This  
50 intermediate strap 3 serves to brace the upper and lower straps 2 and all of said straps are connected by end bolts 4 and 5 and central bolts 6.

Between the ends of the lower straps 2 and the intermediate straps 3, and between  
55 the end bolts 4 and 5 are arranged alining

journal boxes 7 having dust-guards 8, brasses 9 and lids 10. Journalled in said boxes are oppositely disposed stub axles 11 of a flanged wheel 12, this wheel constituting one of the four wheels of the truck. 60

Upon the central bolts 6 of each set of frames are arranged transverse spacers 13, and each set of frames between said spacer supports, is provided with cushioning devices. Each cushioning device comprises a bearing 14, a wooden block 15, a spring-housing 16 for sets of springs 17, and a cap 18. The cushioning device upon one  
65 side of the truck is connected to the cushioning device upon the other side by a yoke 19 and arranged upon the ends of said yoke are channel-beams 20 supporting transverse beams 21 and depending side plates 22, said side plates telescoping the sides of the spring-housing 16. The transverse  
70 beams 21 support a bearing 23 for the king bolt and bearing (not shown) of a car. 75

The two sets of side frames are rightly connected together by transverse beams 24  
30 mounted upon the upper ends of the central bolts 6, these beams supporting suitable brackets 25 for the brake-rigging 26 of a truck, the relative position of the brake-shoes 27 of said rigging being shown in  
35 Fig. 1 of the drawings. To stiffen the inner side-frames with relation to the transverse beams 24, corner straps 28 are used, these straps being connected to the end bolts 4 and the central portions of the transverse  
40 beams 24. 90

In Fig. 5 of the drawings, I have illustrated a modification of my invention wherein the lids 10 of the journal boxes are provided with lubricating valves, each valve  
95 comprising a cup 29 mounted in the lid 10. In the cup 29 is located a spring-held plunger 30 having a valve 31 normally closing the opening 32 in the cup 29. By placing the spout of an oil can in the cup and pressing  
100 inwardly upon the plunger 30, oil can be admitted to the journal box 7 without opening the lid 10.

It is apparent from the foregoing description that I have devised a rigid truck  
105 having wheels adapted to independently operate, thereby relieving the stresses and strain upon a truck as is experienced with the present type of truck having two axles.

While in the drawings forming a part of  
110 this application there are illustrated the preferred embodiments of my invention it is

obvious that the same can be varied or changed as to shape, proportion and manner of assemblage without departing from the spirit of the invention.

5 Having now described my invention what I claim as new, is:—

1. A car truck embodying two sets of side frames, journal boxes supported by the ends of said frames, wheels arranged between  
10 said journal boxes, oppositely disposed stub axles carried by said wheels and extending into said journal boxes, transverse beams connecting said side-frames, corner straps connecting the inner frames with said transverse beams, a cushioning device carried by  
15 each set of frames, transverse beams connecting said devices, a car bearing supported centrally of said transverse beams, each cushioning device comprising a bearing,  
20 a wooden block, a spring-housing, springs in said housing, a cap, a yoke connecting the cap of one device with the cap

of the other device, and channel-beams supported by the ends of said yoke for supporting the last mentioned transverse beams. 25

2. A car truck embodying two sets of side frames, journal boxes supported by the ends of said frames, wheels arranged between said journal boxes, oppositely disposed stub axles carried by said wheels and extending  
30 into said journal boxes, transverse beams connecting said side frames, corner straps connecting the inner frames with said transverse beams, a cushioning device carried by each set of frames, transverse beams connecting said device, a car bearing supported  
35 centrally of said transverse beams, and a yoke connecting said cushioning devices.

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

JOHN DU ROTH.

Witnesses:

MAX H. SROLOVITZ,  
CHRISTINA T. HOOD.