(No Model.) 3 Sheets—Sheet 1.

D. L. BARNES.

RAILWAY PASSENGER CAR TRUCK.

No. 431,543. Patented July 8, 1890.

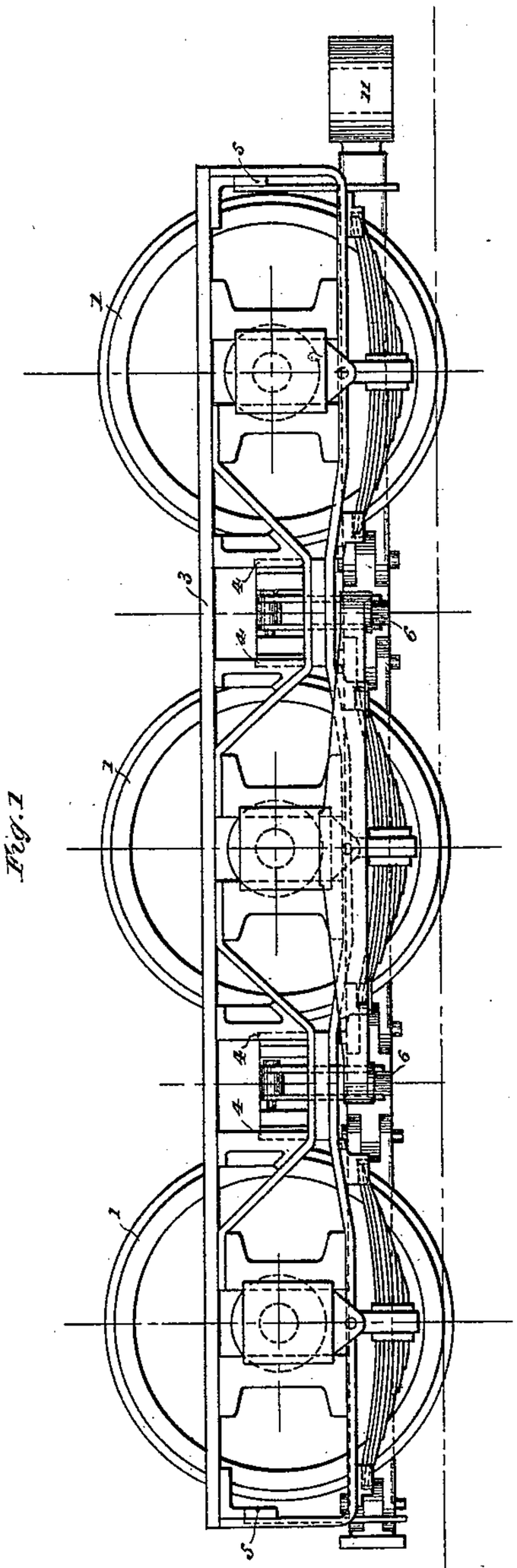

Fig. 1.

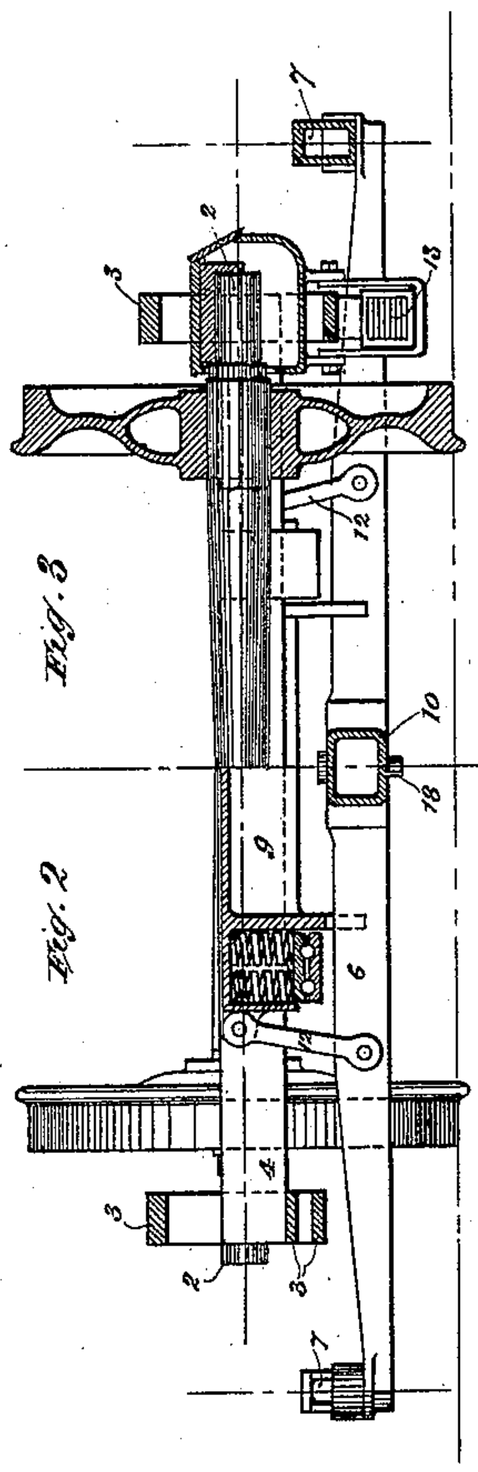

Fig. 2.

Fig. 3.

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Douglas Alexander Jr.

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RAILWAY PASSENGER CAR TRUCK.

No. 431,543. Patented July 8, 1890.

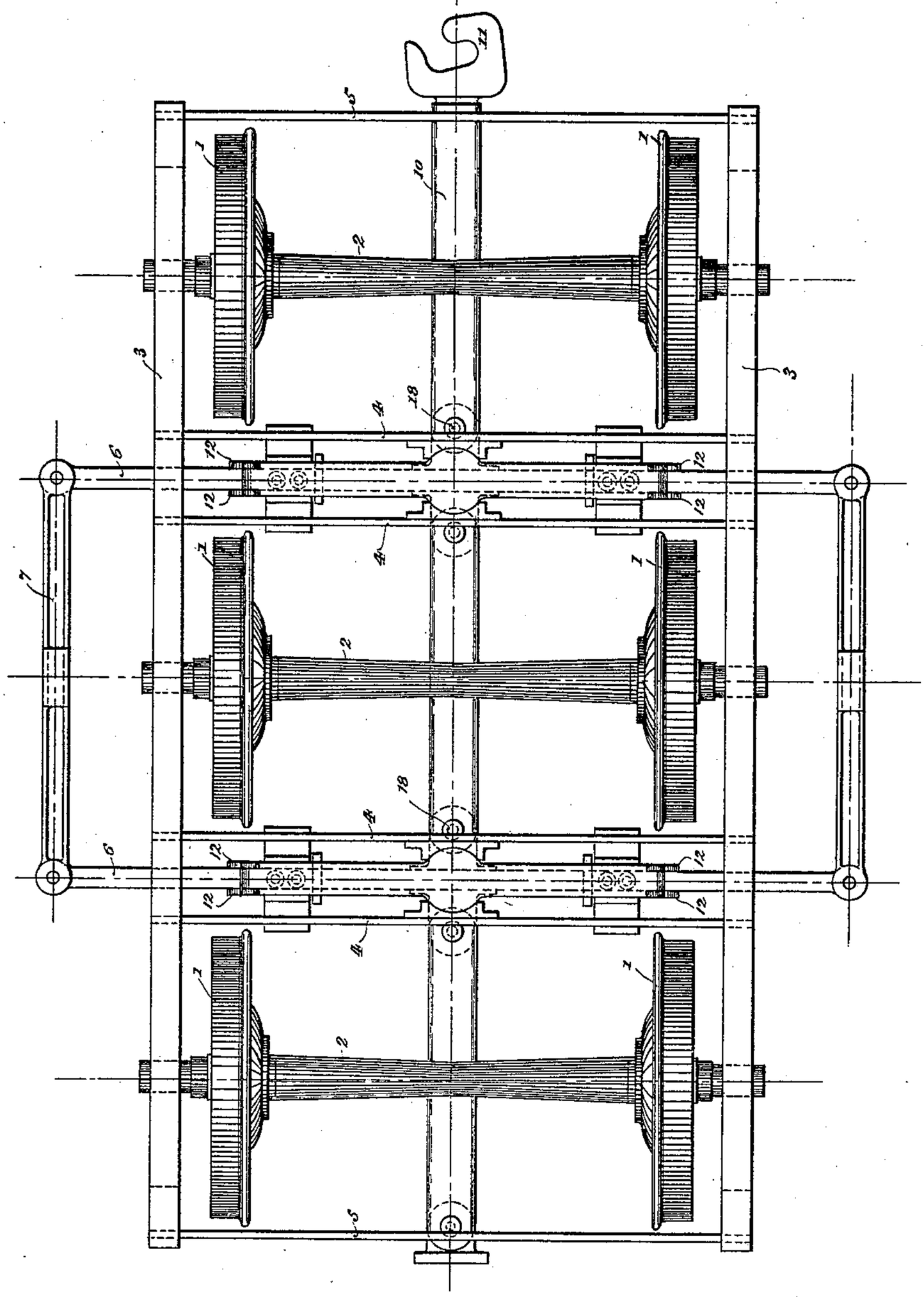

Fig. 1.

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RAILWAY PASSENGER CAR TRUCK.

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Fig. 5

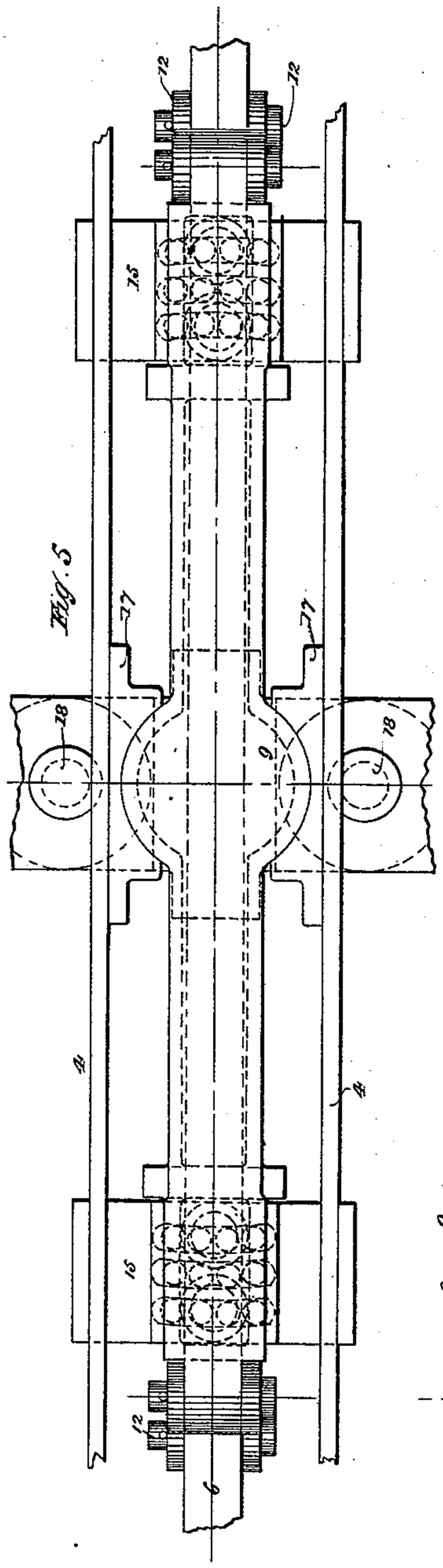


Fig. 6

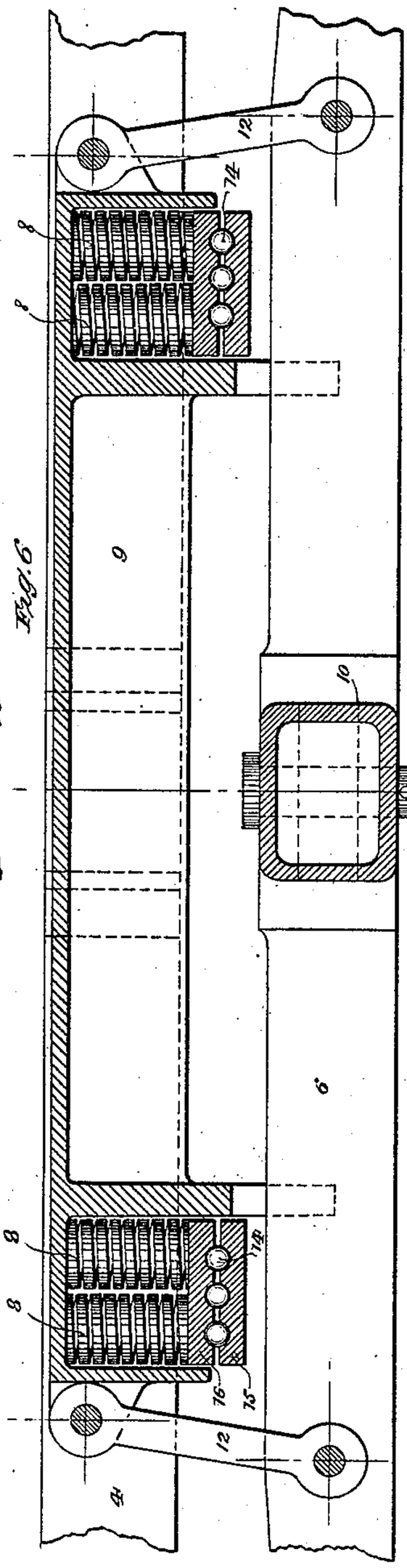
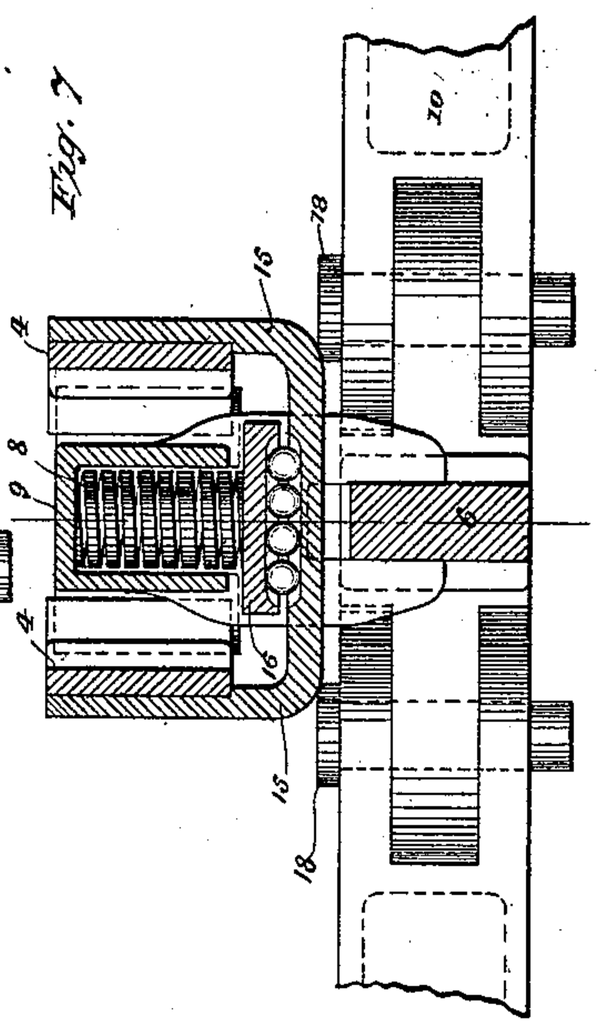


Fig. 7



WITNESSES:

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UNITED STATES PATENT OFFICE.

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RAILWAY PASSENGER-CAR TRUCK.

SPECIFICATION forming part of Letters Patent No. 431,543, dated July 8, 1890.

Application filed May 16, 1889. Serial No. 311,047. (No model.)

To all whom it may concern:

Be it known that I, DAVID L. BARNES, a citizen of the United States, and a resident of Chicago, Cook county, Illinois, have invented a new and useful Improvement in Railway Passenger-Car Trucks, (Case B,) of which the following is a specification.

My invention relates to railway passenger-car trucks; and it consists in the several combinations of parts hereinafter described and claimed.

In the accompanying drawings, forming part of this specification, Figure 1 is a side elevation of a car-truck embodying my invention. Fig. 2 is a cross-section of Fig. 1, taken at the swing-bolster of truck. Fig. 3 is a cross-section of the same figure, taken at the axle of truck. Fig. 4 represents a plan view of truck. Figs. 5, 6, and 7 represent details of construction.

Referring to the drawings, the numerals 1 and 2 represent, respectively, the wheels and axles of the truck. The journal-box springs 13, which bear on the side frames 3, are suspended by links from the journal-boxes, as shown in Figs. 1 and 3.

The numerals 4 and 5 represent, respectively, the transoms and end pieces of the truck. To each transom two side bearings 15 are secured, as shown in Figs. 5 and 7, said bearings being provided with bearing-balls 14, on which the spring-plates 16 rest. On these spring-plates the side bearing-springs 8 are placed, the same supporting the spring-beams 9. (See Fig. 6.) Said spring-beams are centrally guided by the center guide-plates 17, which latter serve only as guides, the weight being wholly supported by the side bearings.

The equalizers or swing-bolsters 6 are suspended by swing-links 12 from the spring-beams 9, and are connected at their outer ends by the side equalizers 7, on which the car-body directly rests. In passing curves the equalizer 6, links 12, beam 9, springs 8, and plate 16 all move about the center of guide-plates 17. The draw-bar 10, provided with coupling 11, is arranged in the same horizontal plane as the swing-bolsters 6, and is jointed to the latter by hinges 18, to allow free movement in passing curves. This construction of truck permits the use of passenger-cars in which the center of gravity is located as low as possible and in which the floor is just above the axles of the trucks, thus economizing vertical space, especially valuable in underground railway lines.

I lay no claim in this application to the specific construction of car-truck described and claimed in my application, Serial No. 311,048, filed May 16, 1889, (Case C,) nor to the matter described and claimed in my application, Serial No. 304,033, filed March 20, 1889.

Having thus described my invention, what I claim, and desire to secure by United States Letters Patent, is—

1. In a car-truck, the combination, with the truck-frame, of suspended swing-bolsters arranged to extend outside of truck-frame, and side equalizers connecting the same at their outer ends, the said equalizers arranged to directly support the car outside of truck-frame, substantially as described.

2. In a passenger-car truck, the combination, with the truck-frame, of swing-bolster, centrally-oscillating spring-beam, and links connecting the latter to swing-bolster, substantially as described.

3. In a passenger-car truck, the combination, with the truck-frame, of swing-bolster, spring-beam, side bearing-springs, side bearing-balls, and links connecting swing-bolster to spring-beam, substantially as described.

4. In a passenger-car truck, the combination, with the truck-frame, of a spring-beam centrally guided and supported only at its ends, substantially as described.

5. In a passenger-car truck, the combination, with the truck-frame, of a spring-beam centrally guided and supported only at its ends on springs and bearing-rolls, substantially as described.

6. In a passenger-car truck, the combination, with the truck-frame, of a swing-bolster, and a draw-bar connected to the same, substantially as described.

7. In a passenger-car truck, the combination, with the truck-frame, of a swing-bolster, and a draw-bar arranged in the same horizon-

tal plane as said swing-bolster and directly connected to the same, substantially as described.

8. In a passenger-car truck, the combination, with the truck-frame, of suspended swing-bolsters, side equalizers connecting the same, and a draw-bar jointed to the swing-bolsters, substantially as described.

In testimony that I claim the foregoing as my invention I have signed my name, in presence of two witnesses, this 14th day of May, 1889.

DAVID L. BARNES.

Witnesses:
B. B. ADAMS, Jr.,
J. P. DAVISON.