

No. 639,647.

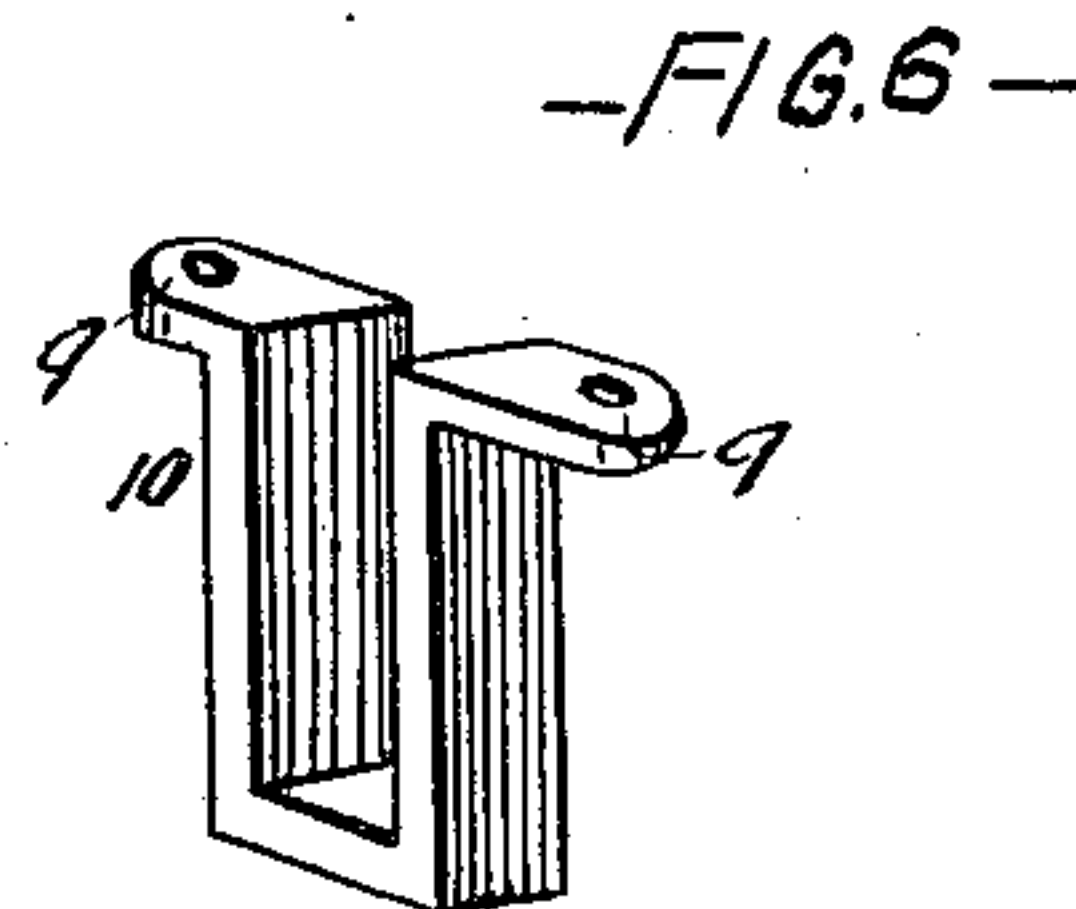
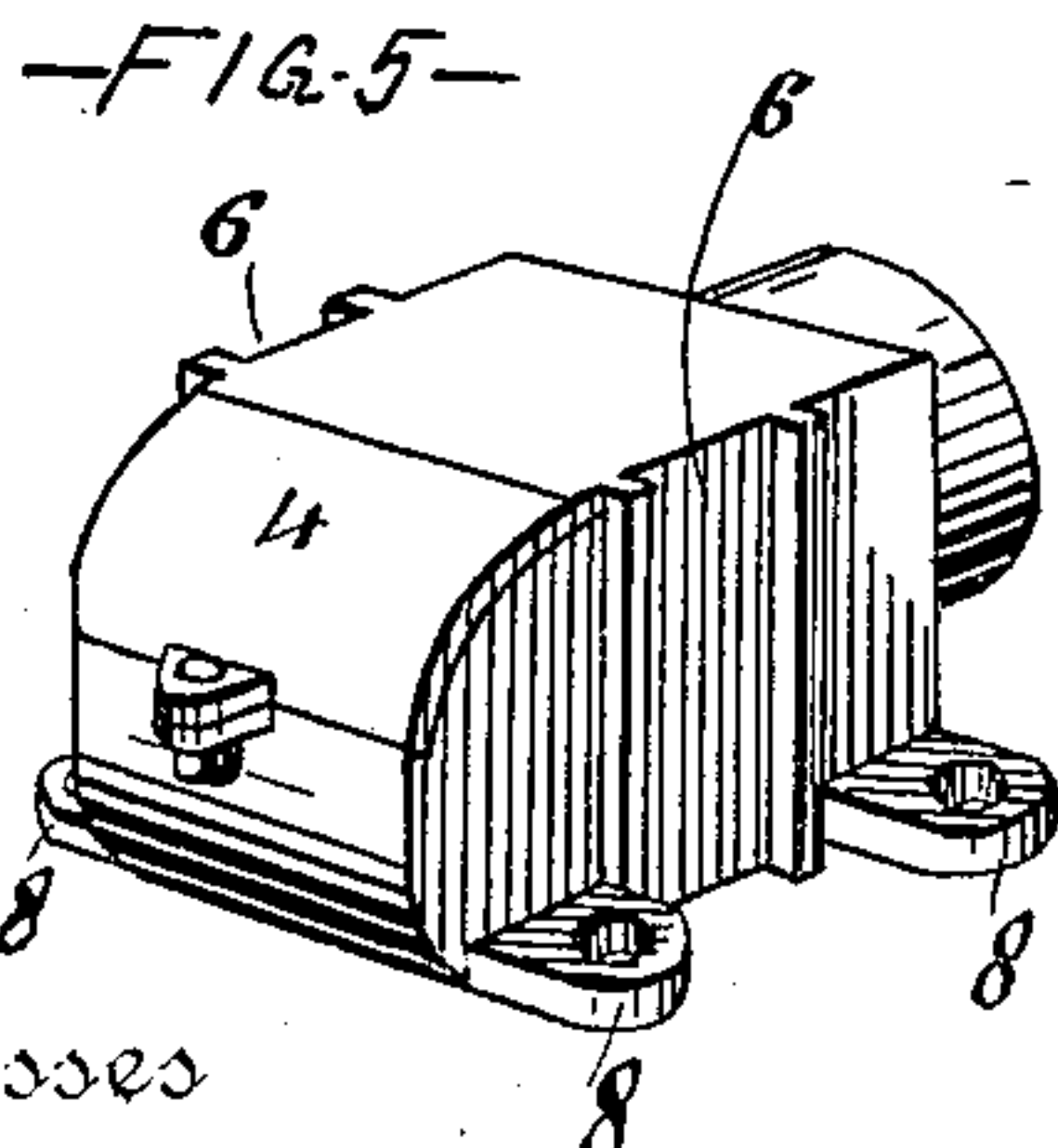
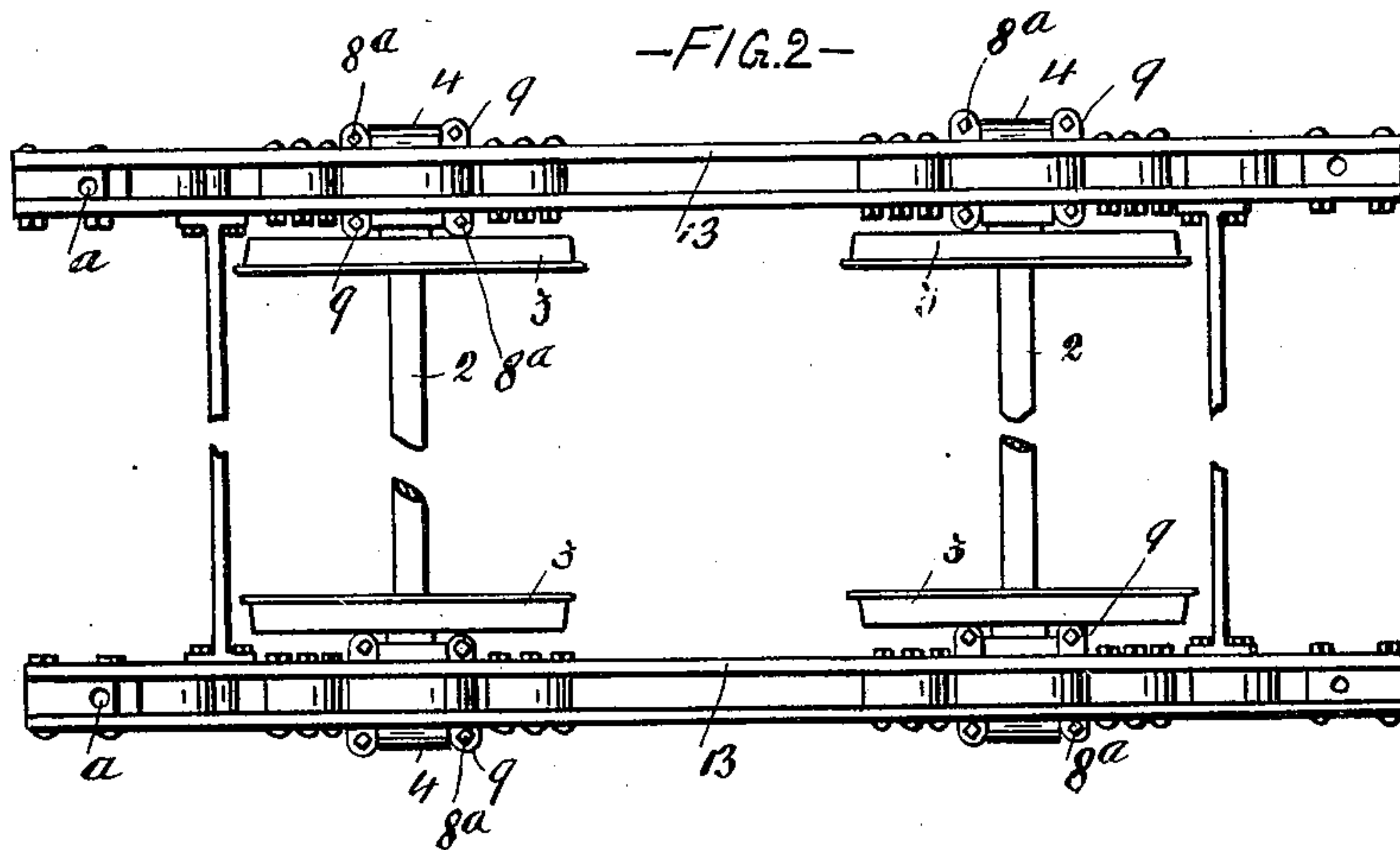
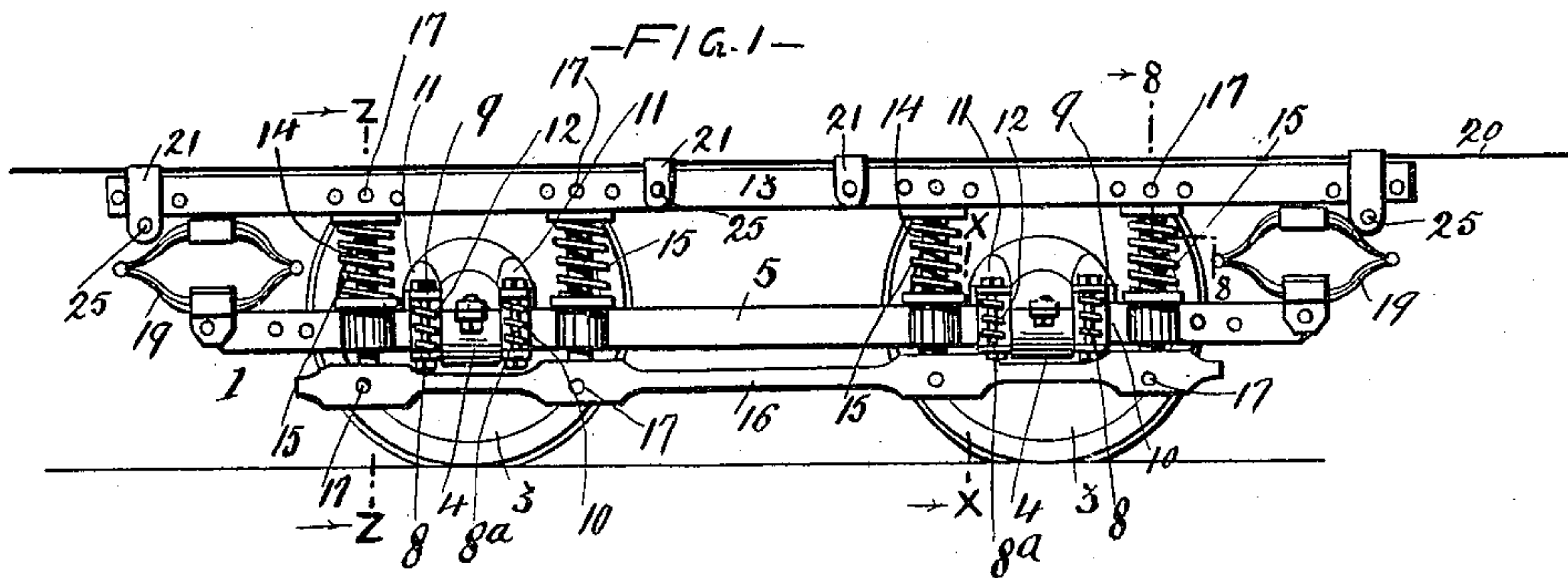
Patented Dec. 19, 1899.

A. AMIOTTE.  
RAILWAY CAR.

(Application filed Sept. 30, 1898.)

(No Model.)

3 Sheets—Sheet 1.



Witnesses

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Inventor

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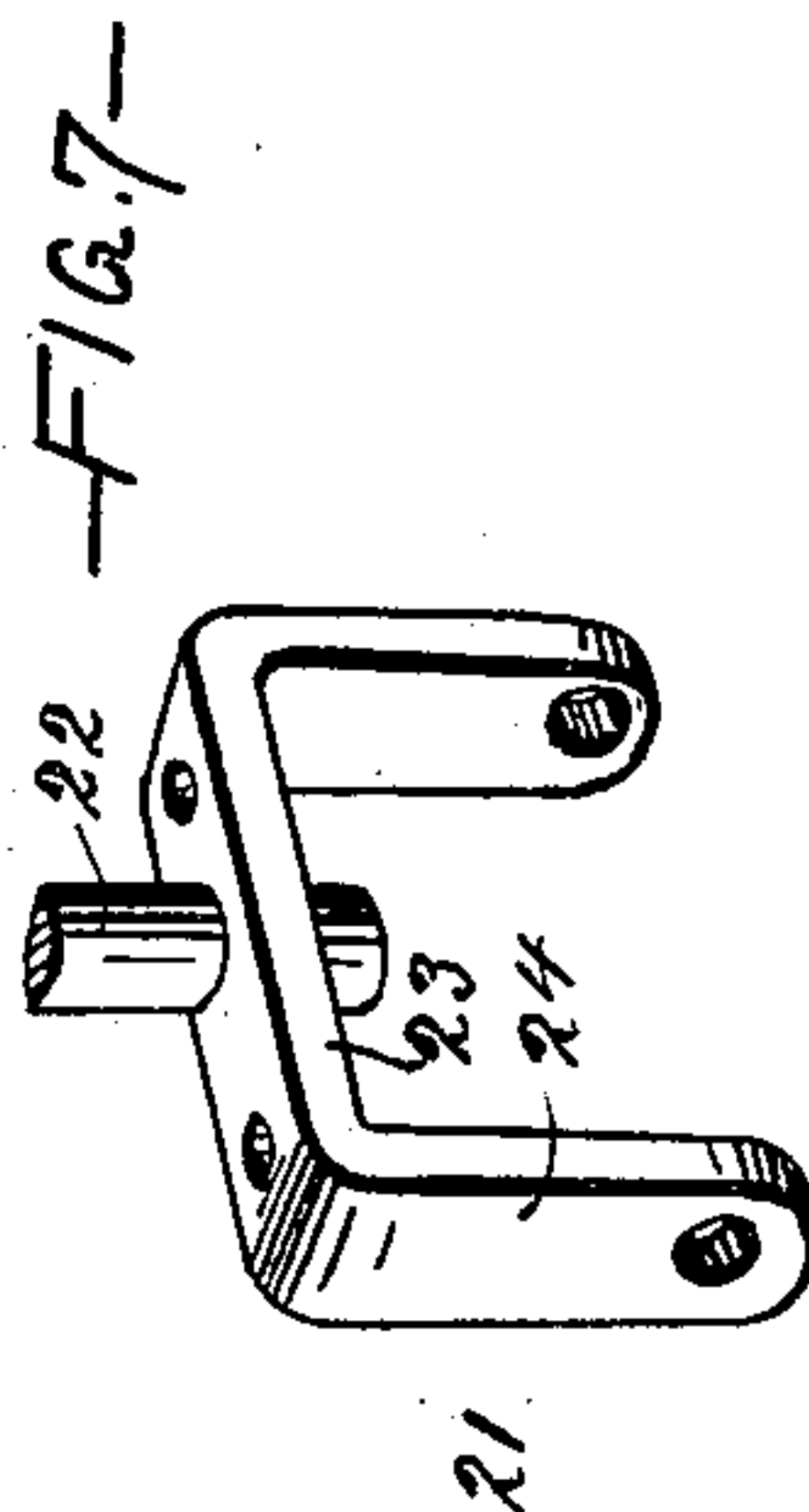
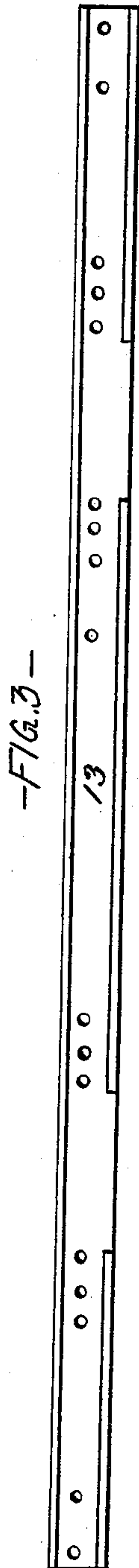
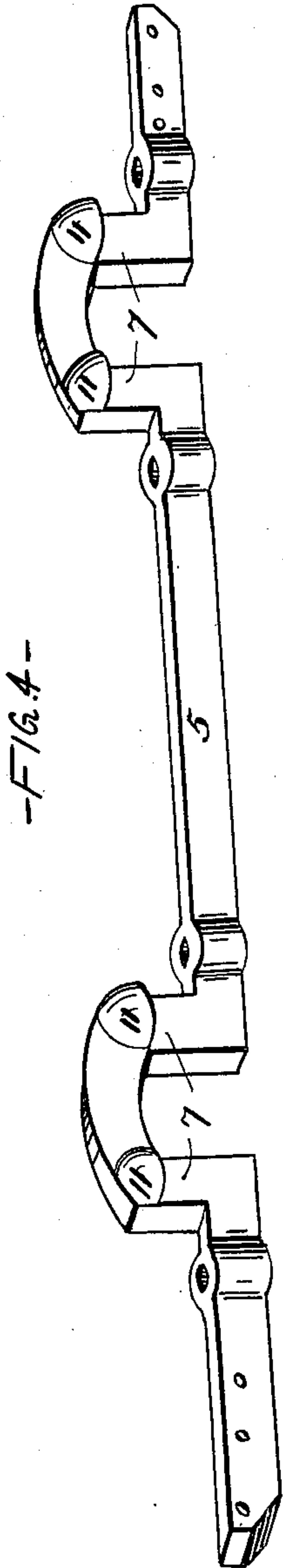
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(No Model.)

3 Sheets—Sheet 2.



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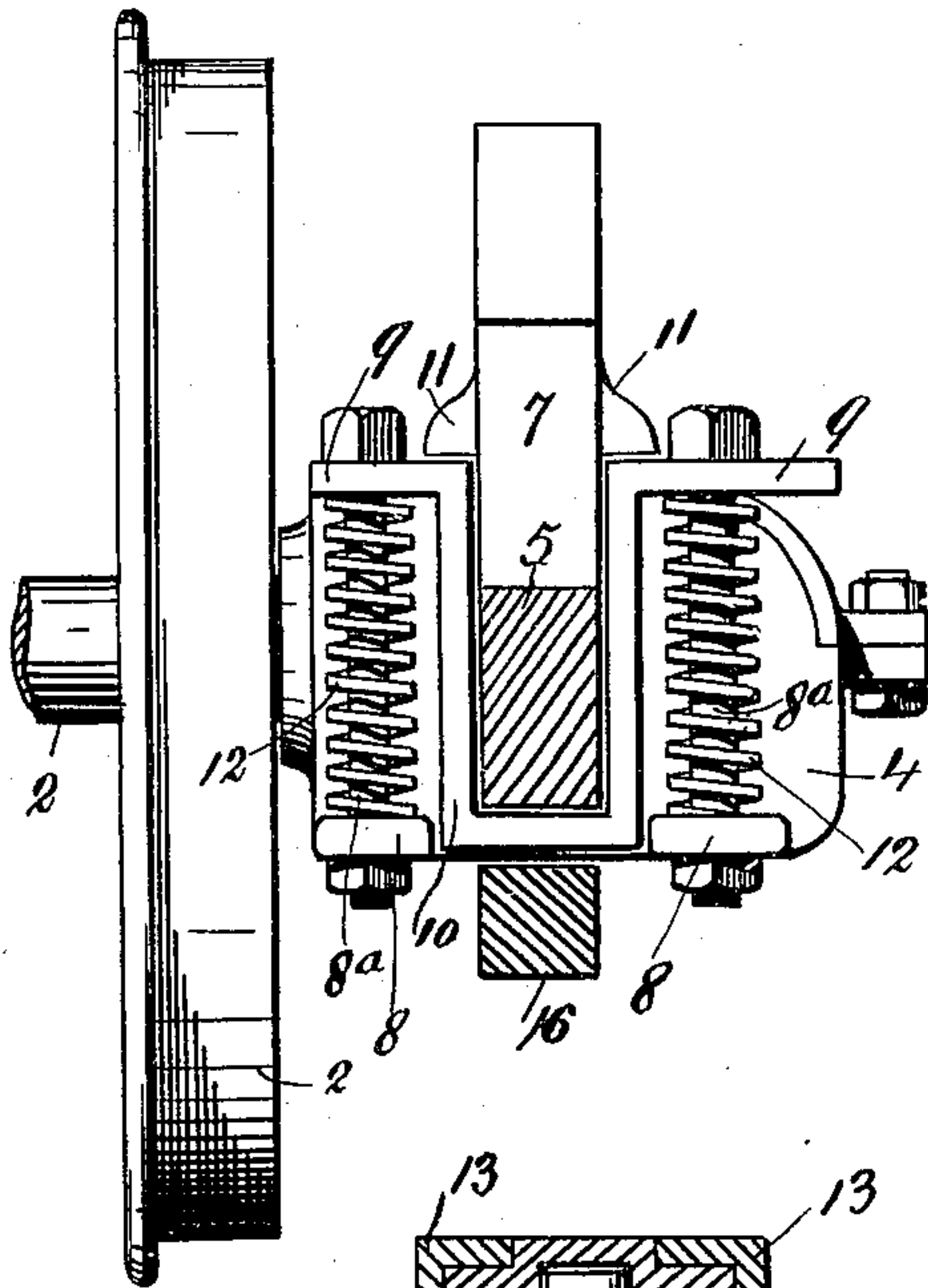
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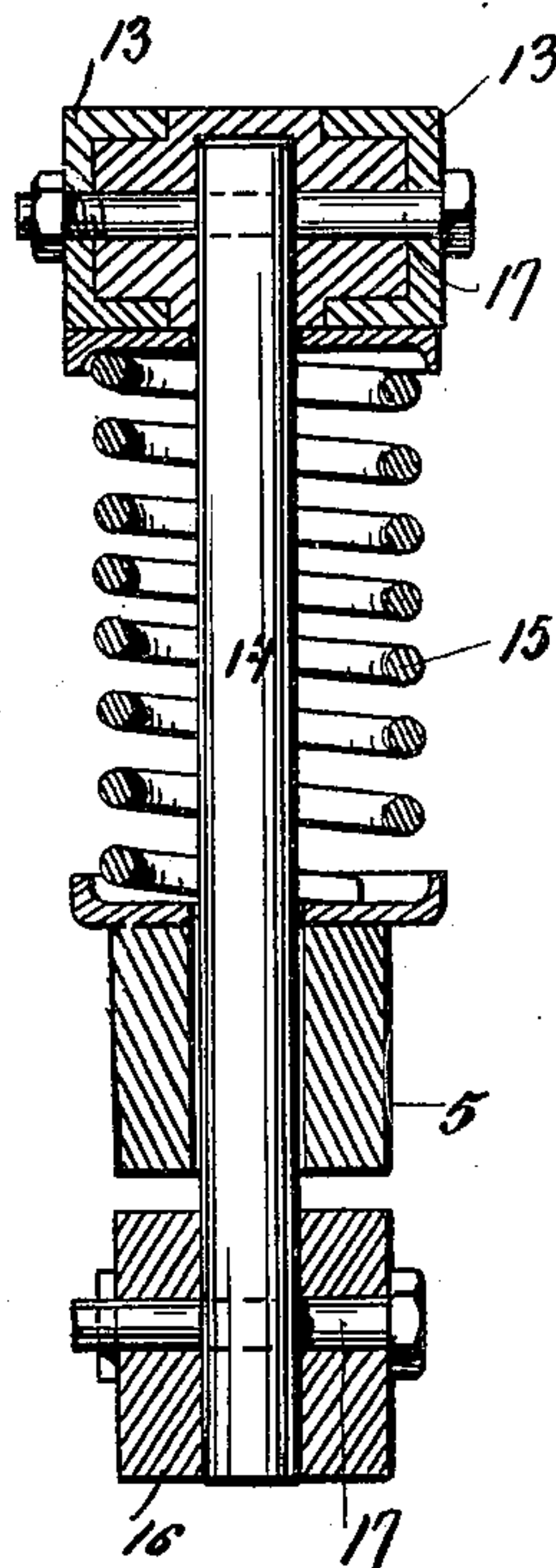
(No Model.)

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-FIG. 8-



-FIG. 9-



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# UNITED STATES PATENT OFFICE.

ADELARD AMIOTTE, OF MONTREAL, CANADA, ASSIGNOR, BY DIRECT AND MESNE ASSIGNMENTS, OF SEVEN-EIGHTHS TO CHARLES W. ROSS AND PETER MCKENZIE, OF SAME PLACE.

## RAILWAY-CAR.

SPECIFICATION forming part of Letters Patent No. 639,647, dated December 19, 1899.

Application filed September 30, 1898. Serial No. 692,295. (No model.)

*To all whom it may concern:*

Be it known that I, ADELARD AMIOTTE, of the city of Montreal, Province of Quebec, Canada, have invented certain new and useful Improvements in Railway-Cars; and I do hereby declare that the following is a full, clear, and exact description of the same.

The invention relates more particularly to street-car trucks and the method of securing the body of the car thereto, and has for its object to facilitate the interchanging of different car-bodies upon the same truck and the more effective securing of such bodies in place, also to facilitate the repairing of any breakage of parts of the truck without of necessity removing the body of the car, and to generally improve the construction of the truck.

To these ends the invention consists in the several features of construction and combination of parts hereinafter fully described, and pointed out in the claims.

For full comprehension, however, of the invention reference must be had to the annexed drawings, forming a part of this specification, in which like symbols indicate corresponding parts, and wherein—

Figure 1 is a side elevation of a street-car truck, showing lower part of the car-body attached thereto. Fig. 2 is a plan view of the car-truck. Fig. 3 is an inside face view of one of the upper longitudinal bars of the truck to which the car-body is secured. Fig. 4 is a detail perspective view of one of the truck longitudinal or beams which hold the axles in place and support the upper parts of the truck. Fig. 5 is a detail view of one of the journal-boxes. Fig. 6 is a detail view of my improved detachable seat arranged intermediate of the truck-beam and the journal-boxes. Fig. 7 is a detail view of my improved device for securing the car-body to the truck. Fig. 8 is a transverse section on line 8 8, Fig. 1, showing my improved method of securing the ends of the vertical connecting-bolts of the truck to the upper longitudinal bars of the truck; Fig. 9, an enlarged transverse vertical section on line  $x x$ , Fig. 1, of the truck-beam and one of its seats. Fig. 10 is an enlarged

transverse vertical section on line  $z z$ , Fig. 1, showing vertical connecting-bolt and methods of connecting same to the upper longitudinal and the lower truss or boot bar of the truck.

1 designates a car-truck constructed generally the same as usual, but containing my improvements, 2 being the axles, 3 the wheels, and 4 the journal-boxes.

To secure a cushioned connection between the journal-boxes and the truck-beam 5, seats or supports 10, having ears 9, are yieldingly connected with the journal-boxes through bolts 8<sup>a</sup>, which pass vertically through ears 8 on the journal-box and the ears 9 of the seats 10 and are encircled by coiled expansile springs 12 between such ears. The vertical portions 7 of the beams 5 slide in ways 6 on either side of the journal-box, and near the top of such vertical portions projections 11 extend out from the front face of the beam, so as to bear upon the upper ends of the seats 10, and thus secure a bearing of the beam at two points upon the seat and a yielding connection with the journal-boxes.

The upper longitudinal bars 13 of the truck are connected to the truck-beams 5 and the lower truss or foot bars 16 by means of vertical connecting bolts or pins 14, passing completely and freely through vertical eyes in the beams 5 and a sufficient distance within the bars 13 and 16 to be fastened thereto by means of pins 17, passing horizontally and transversely through the bars 13 and 16 and the ends of the vertical bolts 14 therein, the ends of which are flush with the upper and lower surfaces, respectively, of said bars 13 and 16. The pins 17 are headed at one end and after being inserted may be secured in place by cotters or nuts, as shown. Spiral springs 15 encircle the vertical bolts 14 between the beams 5 and the upper bars 13, as usual, and the customary elliptical spring-buffers 19 are also provided between the beams and upper bars. By this form of vertical connection should the truss-bar or one of the bolts 14 break it would only be necessary to withdraw the cotters to knock out the horizontal pins 17 and remove the bar or



broken bolt without of necessity removing the body of the car, as when the end of a bolt projects above the upper bar of the truck.

In order to provide for the ready removal  
5 of the car-body 20 from the truck when desired, I secure to the body a series of connecting devices 21, which are permanently carried by the car-body and adapted to fit over or clip the upper truck-bar 13 and be  
10 connected therewith by a simple bolt and cotter-pin arrangement. These connecting devices are each in the form of a saddle 23 24, as shown in Fig. 7, secured to the car-body by a bolt 22, the head of which in some cases  
15 projects below the inside surface of the horizontal part 23 of the saddle and fits into a recess *a* in a blocked portion of the bar 13 for greater security of connection, and the vertical side portions 24 of the saddles, which,  
20 as shown in Fig. 1, in some cases are short and others long, straddle the bar 13 and are connected thereto by horizontal pins 25, which in the case of the short saddles pass through the bar and in the case of the longer saddles  
25 pass beneath the bar, the pins being retained by suitable cotters. It will be at once apparent that to remove the car-body it is only necessary to release and withdraw the pins 25.

What I claim is as follows:

30 1. In a street-car truck the combination with the upper longitudinal bars, the intermediate longitudinal beam and the lower longitudinal truss or foot bar, of vertical connecting-bolts extending from the upper bars  
35 to the lower and passing completely through the intermediate beam and into but not beyond the upper and lower bars, with pins passing horizontally and transversely through such upper and lower bars and the ends of

the vertical bolts and retaining devices for 40 such pins, substantially as described.

2. In a street-car truck, the combination with the intermediate longitudinal beam having lateral projections 11, and the journal-boxes having the ears 8, of seats 10 having 45 ears 9, bolts 8<sup>a</sup> and springs 12 encircling such bolts between the said ears, substantially as described.

3. In a street-car, the combination with the base-frame of the car-body and the upper longitudinal bars of the car-truck, of connecting devices in the form of saddles projecting from the under side of the body-frame and presenting vertical side portions adapted to straddle the upper bars of the truck, with 55 pins or bolts extending horizontally and transversely through said vertical portions of the saddles and through said upper bars, and split pins for retaining such bolts, substantially as described. 60

4. The combination with the base-frame of the car-body and the upper longitudinal bars of the truck having blocked portions 13 containing recesses *a*, of saddles 23 24; bolts 22 passing through the saddles and base-frame 65 and having their heads entering the recesses *a*, pins or bolts 25 passing through the saddles and the said upper bars, and split pins for retaining such bolts 25 substantially as described. 70

In testimony whereof I have signed, in the presence of two witnesses, at the city of Montreal, Canada, this 20th day of July, 1899.

ADELARD AMIOTTE.

Witnesses:

FRED. J. SEARS,  
ARTHUR T. BAKER.