

No. 656,900.

Patented Aug. 28, 1900.

J. L. LEVY.
CAR TRUCK.

(Application filed Sept. 14, 1897.)

(No Model.)

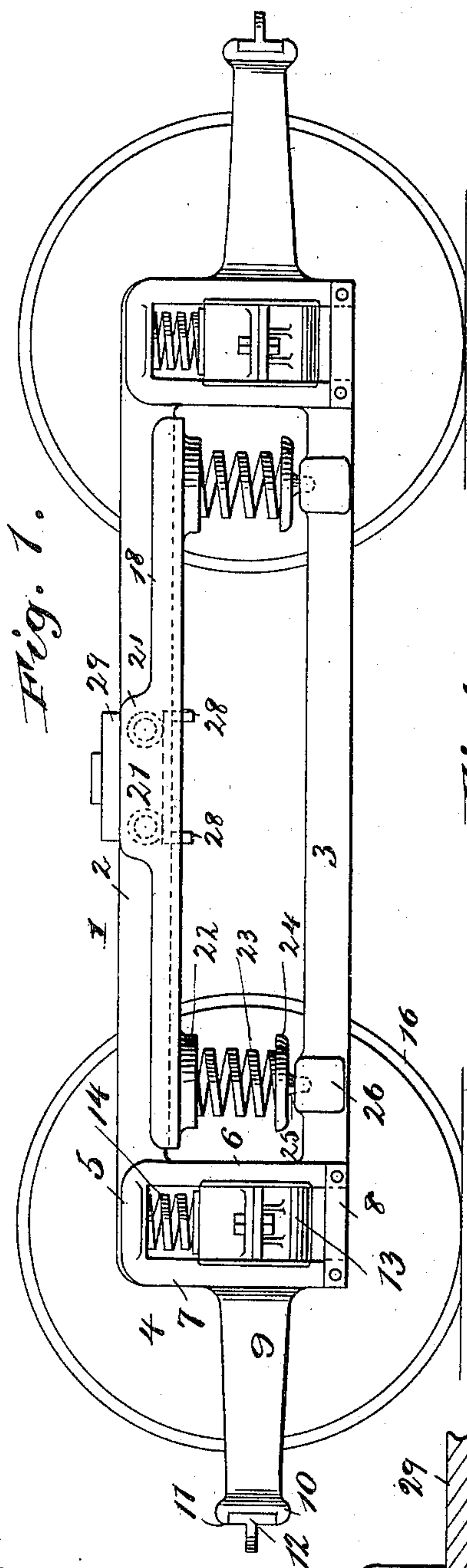


Fig. 1.

Fig. 4.

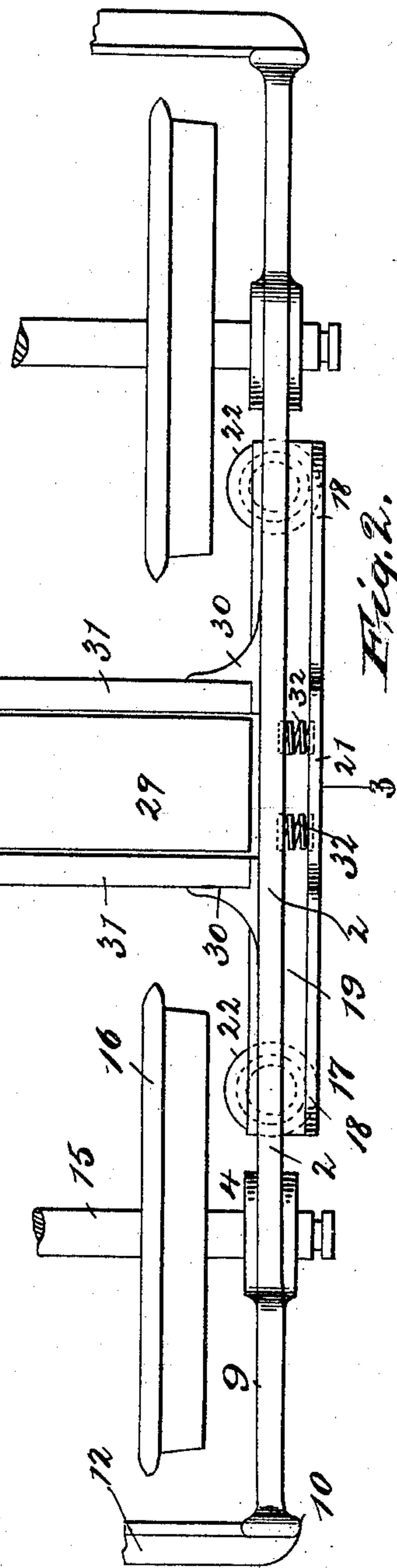
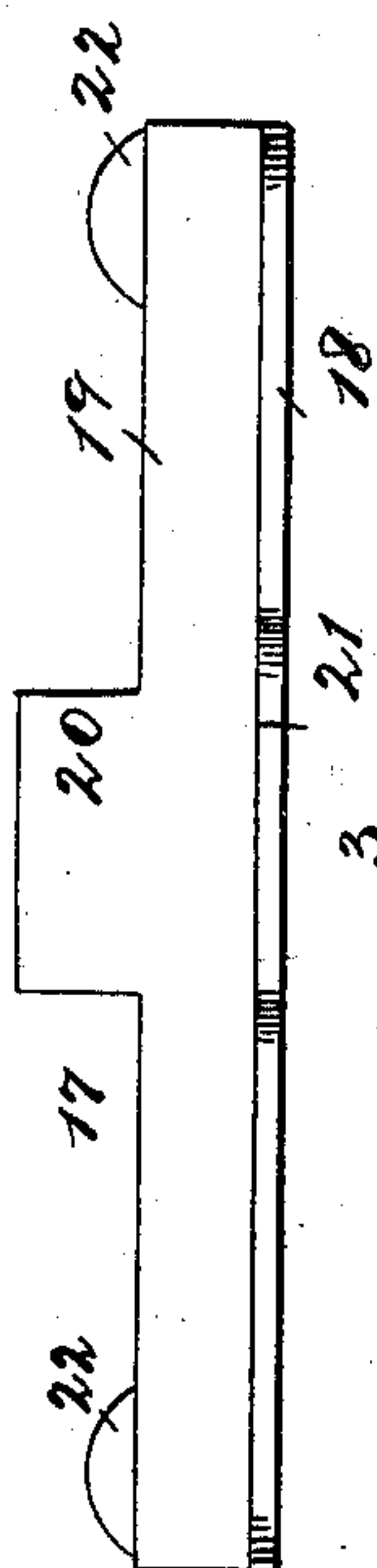
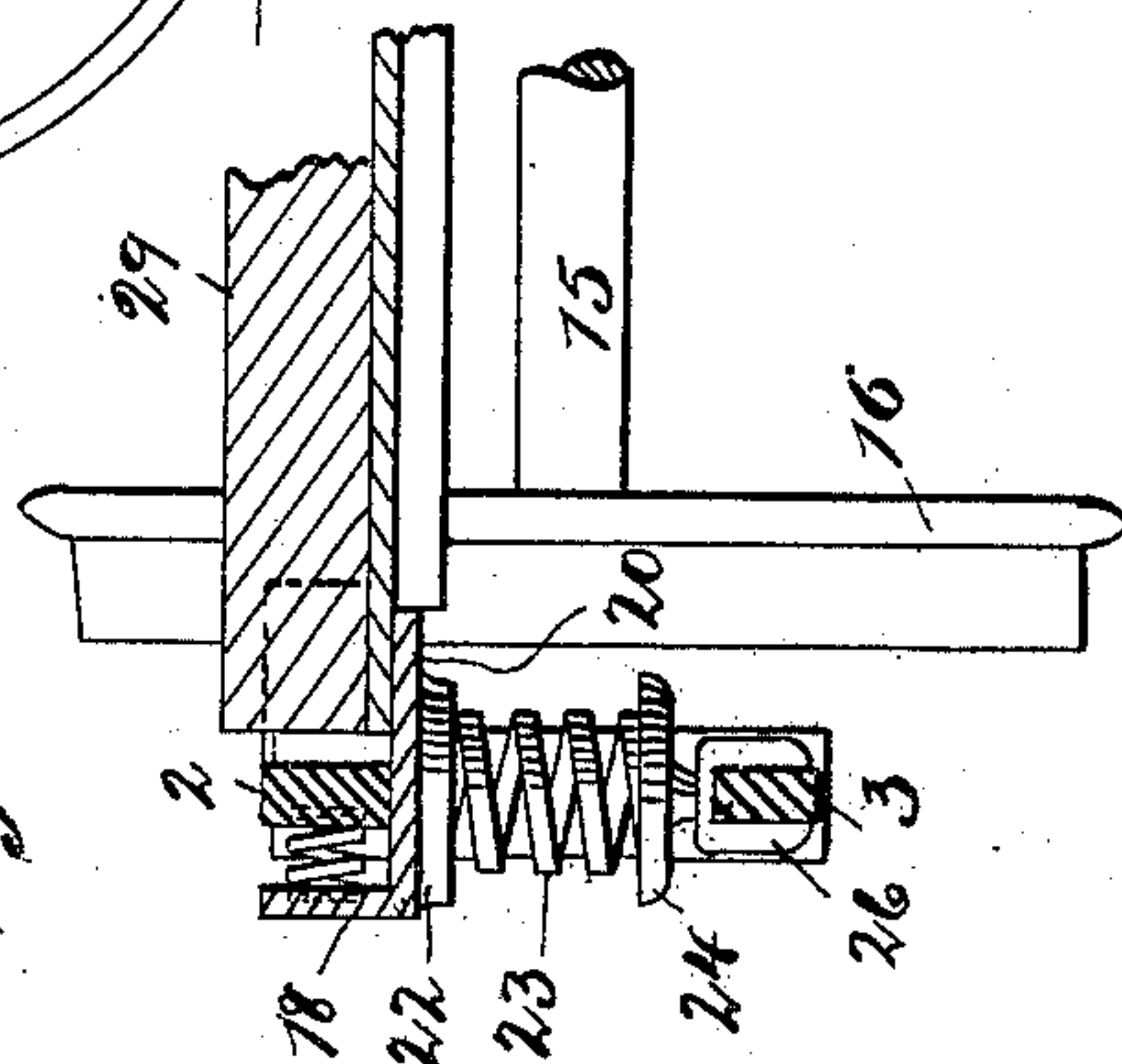


Fig. 2.

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Fig. 3.



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UNITED STATES PATENT OFFICE.

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CAR-TRUCK.

SPECIFICATION forming part of Letters Patent No. 656,900, dated August 28, 1900.

Application filed September 14, 1897. Serial No. 651,697. (No model.)

To all whom it may concern:

Be it known that I, JOSEPH L. LEVY, a citizen of the United States, residing in the city, county, and State of New York, (whose post-office address is 206 Broadway, in said city,) have made certain new and useful Improvements in Car-Trucks, of which the following is a specification.

My invention has relation to car-trucks, and it has special reference to pivotal trucks employed in motor and cable propulsion.

The object of my invention is to extend the bolster suspension or spring-base of the same closely adjacent to the axle-box pedestals in order to give a greater spring-base for the support of the car-body on the truck, and, further, to simplify its construction in this regard.

My invention therefore resides in the construction and combination of parts hereinafter described, and further recited in the claims.

In the drawings forming part of this specification, Figure 1 is a side elevation of a car-truck embodying my improvements; Fig. 2, a plan view of one side thereof; Fig. 3, a sectional elevation of Fig. 2 on the line 3 3; Fig. 4, a plan view of the spreader.

Similar numerals of reference indicate corresponding parts throughout the several views.

The truck to which I have applied my improvements consist, substantially, in the side frames 1, composed of the top chord 2, lower chord 3, axle-box pedestals 4, formed by the extension 5 from the top chord, and inner and outer arms 6 7, open at the bottom and closed by a cross-bar 8, the frame extensions 9, united to the outer arms 7 of the pedestals and having enlargements 10, and a recess 11, in which is secured the T-iron cross-bar 12.

In the pedestals 4 are the axle-boxes 13, between the tops of which and the extensions 5 are springs 14, and at 15 16 are respectively the axles journaled in the axle-boxes 13 and the wheels thereon.

This form of truck offers many advantages over others; but I do not limit myself to the application of my specific improvements thereto.

Referring now to the drawings, I will describe my improvements.

At 17, Fig. 4, is what I term a "spreader," which is formed with an upright outside web 18 and a horizontal web 19, an inwardly-extending lug 20 from the horizontal web 19, and a lug 21, extending upwardly from the web 18. At the ends the horizontal web 19 is provided with downwardly-extending lugs 22, forming seats for the reception of spiral springs 23, which springs rest upon the cups 24, having depending bibs 25, seated in a saddle 26, straddling and secured to the lower chord 3, the bib forming with the saddle 26 a pin-pivot. Each side bar of the truck is provided with these parts, the spreader lying under the top chord 2, and a cross-bar 26, having a horizontal web 27 and depending strengthening-webs 28, is secured to the projection 20 of the spreader and rests upon the same, as shown in Fig. 3, the depending webs 28 being cut away at the ends of the bar to allow the web 27 to rest directly upon the projection, the ends of the web 28 abutting against the end of the projection 20. On the cross-bar 26 is secured the bolster 29, on which may be secured center and side bearings in the usual way.

It will be noticed that the springs 23 are located adjacent the axle-box pedestals and support the spreader and bolster, all of which can have a transverse movement in unison to accommodate the parts to the swing of the car when rounding a curve and the like, the weight of the car-body depressing the spreaders out of contact with the top chord and allowing of this transverse movement without friction between the horizontal web 19 of the spreader and the top chord, the pin-pivot allowing the springs 23 to bodily swing in unison with the movement of the bolster and spreaders. The cups 24 can be pivoted on the lower chord in any other desired manner.

At 30 are brackets extending outwardly from the inner side of the top chords 2, to which brackets are secured the angle-iron transoms 31, between which lies the bolster 29, and should there be any lost motion between the bolster and the transoms the pin-pivot or cradle-support of the springs 26 would allow of the spreaders and springs moving in unison therewith. The lugs 22 and spring-cup 24 may be connected by a spring post or lugs in order to hold the springs in

the usual manner for the purpose of steadying the parts, if desired.

By reference to Fig. 2 it will be noticed that the vertical web 18 of the spreader is situated away from and outside of the sides of the top chord, so as to allow of ample transverse play of the spreaders and bolster without the parts coming in contact and to take up shock and the like, and to ease the transverse swing of the parts I have employed springs 32, which extend between recesses formed in the outer faces of the top chords 2 and inner faces of the lugs 21 on the upright webs 18 of the spreaders 17.

When the car is superposed on the truck, the springs 23 are compressed and the weight of the car is taken through the springs 23 to the lower chord of the side frames and thence to the springs 14 of the axle-boxes. The location of the springs closely adjacent the axle-boxes extends the spring-base or spring-support of the bolster, increasing the leverage of the springs and causing the car to be supported more firmly on the truck and less liable to be influenced by inequalities of the road-bed and the like. The reverse action or reverse compression of the springs 23 being had either through the direct lifting of the end of the side frames or the lifting of the wheels, either or both of which movements resulting in a compression of the springs 14 and a further compression of the springs 23 against the weight of the car-body, thus resiliently checking either or both of these movements, the horizontal web 29 of the spreader then bearing against the lower edge of the top chord 2 and acting as a stop.

Having described my invention, I claim—

1. The combination in a car-truck, of the truck-frame, springs pivotally supported at their lower terminals on the truck-frame, spreaders resting on said springs and adapted to swing independently of the truck-frame, and a bolster resting on said spreaders, substantially as described.

2. The combination in a car-truck, of the truck-frame, springs pivotally supported on the truck-frame, longitudinally-disposed spreaders supported on the springs and adapted to swing independently of the truck-frame, a bolster resting on said spreaders and tying them together transversely, and thrust-springs interposed between the spreaders and truck-frame, substantially as described.

3. The combination in a car-truck, of the truck-frame having upper and lower chords, springs pivotally supported on the lower chord, longitudinally-disposed spreaders resting on said springs below said chord and movably engaging the upper chord, and a transverse bolster tying the spreaders together, substantially as described.

4. The combination in a car-truck, of the truck-frame having parallel upper and lower

chords, springs supported on the lower chords, spreaders supported on the springs and movably engaging the upper chords, and a bolster secured to said spreaders, substantially as described.

5. The combination in a car-truck, of the truck-frame having upper and lower chords, springs supported on the lower chords, the longitudinally-disposed spreaders supported on the springs, projections from the spreaders extending inwardly below the top chords, and a bolster secured on said projections and tying the spreaders transversely, substantially as described.

6. The combination with the car-truck, having upper and lower chords, springs supported on the lower chords, longitudinally-disposed spreaders supported on said lower chords below the upper chords, and a bolster secured to said spreaders and tying the same transversely, substantially as described.

7. In a car-truck, the combination with the springs supported on the truck-frame, of the longitudinally-disposed spreaders supported by said springs, a bolster transversely tying the spreaders together, and means interposed in the support of said spreaders on the truck-frame allowing of a transverse swinging movement of the bolster and spreaders in unison, substantially as described.

8. The combination with the truck-frame having upper and lower chords, the springs 23 pivotally supported on the lower chords, the spreaders 17 having an upright flange 18 located outside of the top chord, and a horizontal flange 19 extending under the top chord, and the bolster transversely tying the spreaders together, substantially as described.

9. In a car-truck, the combination with the truck-frame, the horizontally-disposed spreaders, a bolster tying the spreaders together, springs for supporting the spreaders, means for pivotally supporting the spreaders on the truck-frame, and thrust-springs interposed between the spreaders and the truck-frame, substantially as described.

10. The combination, in a truck-frame having upper and lower chords, the springs 23 pivotally supported on the lower chords, the horizontally-disposed spreaders supported on said springs and having the upright webs 18, said webs being located outside of the upper chord, a lug 21 extending upwardly above said webs, a bolster secured to and tying said spreaders transversely, and springs 32 interposed between said lugs 21 and the top chords, substantially as described.

Signed in the city, county, and State of New York this 10th day of September, 1897.

JOSEPH L. LEVY.

Witnesses:

WILLIAM JACOBSON,
P. BEATRICE KUHN.