

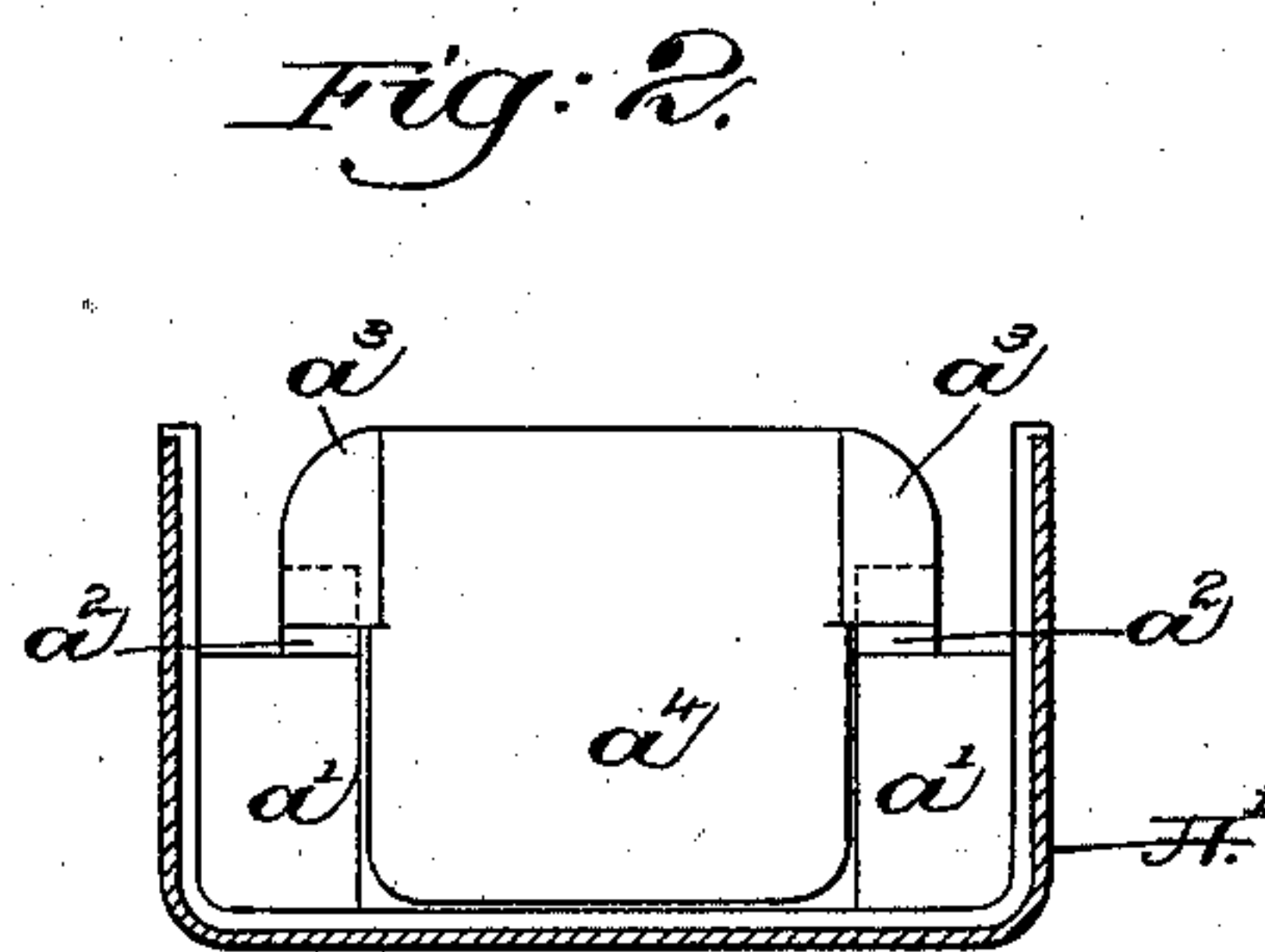
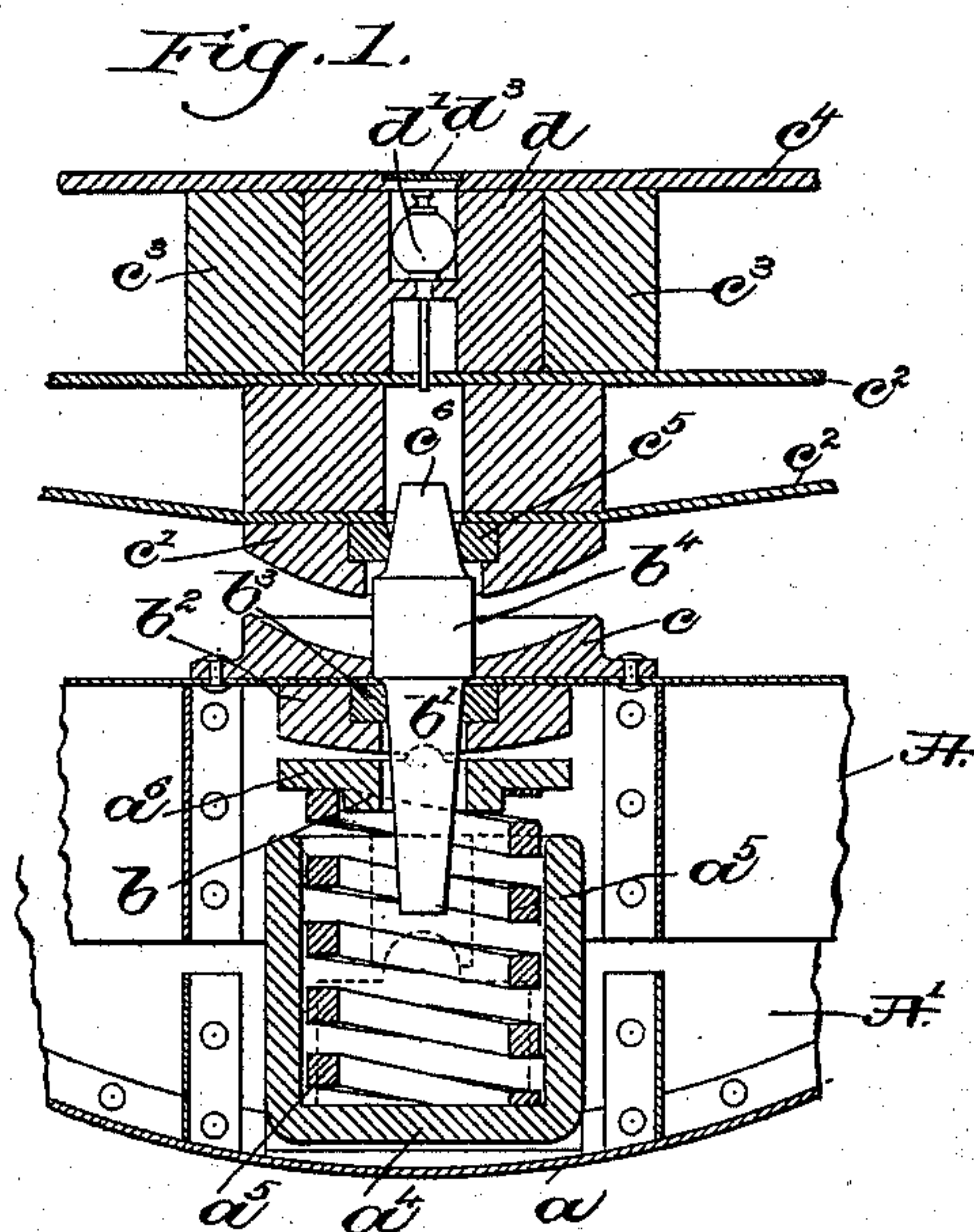
(No Model.)

L. K. JEWETT.

CAR TRUCK.

No. 384,982.

Patented June 26, 1888.



Witnesses.

Fred. S. Greenbaf  
Fred L. Emery-

*Fraverdor.*

Father K. Jewett,  
by Crosby & Gregory, attys.



# UNITED STATES PATENT OFFICE.

LUTHER K. JEWETT, OF BOSTON, MASSACHUSETTS.

## CAR-TRUCK.

SPECIFICATION forming part of Letters Patent No. 384,982, dated June 26, 1888.

Application filed October 7, 1887. Serial No. 251,706. (No model.)

*To all whom it may concern:*

Be it known that I, LUTHER K. JEWETT, of Boston, county of Suffolk, and State of Massachusetts, have invented an Improvement in Swing-Motion Center-Bearing Car-Trucks, of which the following description, in connection with the accompanying drawings, is a specification, like letters on the drawings representing like parts.

This invention relates to car-trucks of that class known as "swing-motion" car-trucks, and is an improvement upon the swing-motion car-truck shown and described in United States Patent No. 361,846, dated April 26, 1887.

In the swing-motion car-truck shown in the patent referred to the load of the car-body and its contents is supported by the springs at the sides of the car-truck that is at the ends of the bolster.

It is the object of this invention to construct a swing-motion truck such as shown in the patent referred to, so that part of the load will be supported at the center of the said truck, substantially as in my United States Patent No. 324,383, dated August 18, 1885.

My improved form of car-truck will be hereinafter designated by me as a "swing-motion center-bearing truck."

In the center-bearing truck shown in the Patent No. 324,383 the center and end springs are rigidly supported.

To provide a swing-motion truck with a center bearing it is necessary to provide the center spring with a swinging or rocking support; otherwise if the said center spring was rigidly supported while the end springs had a swing motion, the said center spring would be subjected to a very considerable strain.

My invention therefore consists, essentially, in the combination, with a metallic transom, of a center-bearing support and journal or pivotal bearings therefor and upon which the said center-bearing support is adapted to be rocked or swung, substantially as will be hereinafter specified.

Other features of my invention will be pointed out in the claims at the end of this specification.

Figure 1, in section, shows a sufficient portion of a car-body and a car-truck embodying my invention to enable it to be understood, the section being taken longitudinally through

the center of the bolster and transom, the center-bearing spring being shown uncompressed, that being the position occupied by it before the car-body is placed on the car-sills; and Fig. 2, a detail to be referred to.

The metallic bolster A is supported at its ends by springs sustained by links, (not shown,) substantially as in the Patent No. 361,846, it being vertically movable in the metallic transom A', downwardly curved at its central part, as at a, substantially as in the Patent No. 324,383.

The transom A', near its longitudinal center, has bolted or otherwise secured to its sides castings a', (see Fig. 2,) provided, as shown, with lugs a<sup>2</sup>, which form journal or pivotal bearings for arm a<sup>3</sup> of a center-bearing spring-support, a<sup>4</sup>, herein shown as cup-shaped, the said cup-shaped support being adapted to swing or rock on its bearings a<sup>2</sup>. The cup-shaped support a<sup>4</sup> receives within it and supports, as herein shown, a spiral spring, a<sup>5</sup>, extended above the top of the said support and sustaining the spring-cap a<sup>6</sup>. The spring-cap a<sup>6</sup> is provided, as shown, on its lower face with a flange, b, fitted into the spring a<sup>5</sup>, and on its upper face the said cap has a fin or rib, b', (see dotted lines, Fig. 1,) to enter a groove in the under face of a plate, b<sup>2</sup>, the under face of the said plate being curved, as shown in Fig. 1, to permit the spring-cap to rock.

The plate b<sup>2</sup>, as shown, is recessed on its upper face to receive a removable block or plate, b<sup>3</sup>, sustaining the king-bolt b<sup>4</sup>, having its lower end extended through openings in the plate b<sup>2</sup> and spring-cap b, the plate b<sup>2</sup> and other parts sustained by the spring a<sup>5</sup> being shown elevated or in the position occupied by them before the car-body is secured to the car-sills c<sup>3</sup>, it being understood that when the car is in use the parts c and c' will touch each other.

The bolster has secured to it one part, c, of the center plate, the other part, c', being secured to the rocker c<sup>2</sup>, secured to the car-sills c<sup>3</sup>, which support the car-body, only the floor c<sup>4</sup> of which is shown in Fig. 1. The upper part, c', of the center plate is shouldered, as shown, to receive and support a removable cap or block, c<sup>5</sup>, through which the upper end or head, c<sup>6</sup>, of the king-bolt is extended.

The rocker c<sup>2</sup> sustains, as herein shown, a support, d, for a lubricating-cup, d', of any or



dinary construction, the discharge or outlet of the said cup being substantially in line with the king-bolt  $b^4$ , by which the latter is maintained properly lubricated.

5 The oil-cup  $d'$  is located below the car floor  $c^4$ , and is reached through an opening therein normally closed by a cover,  $d^3$ .

It will be seen that when the car is going round a curve in the track the swing motion 10 imparted to the bolster at its ends, as in the Patent No. 361,846, will be communicated to the cup-shaped center-bearing support  $a^4$ , the said support swinging in unison with the ends of the truck, thereby obviating strain upon 15 the center-bearing spring.

When the car-truck travels round a curve, a considerable rubbing friction is occasioned between the king-bolt  $b^4$  and the caps  $b^3 c^5$ , thereby tending to wear away the said caps; 20 but these, being removable, are easily replaced; or they may be reversed, so that when one side is worn the said caps may be turned to present a new surface.

By means of the caps  $b^3 c^5$  wearing away of 25 the plate  $b^2$  and upper part,  $c'$ , of the center plate is obviated.

I have herein shown the center-bearing spring-support as cup-shaped, which is the form preferred by me with a spiral spring; 30 but I do not desire to limit myself to any particular form of support—as, for instance, it

might be trough shaped in case an elliptical spring was used as the center bearing.

I claim—

1. In a swing-motion truck, the combination, with a metallic transom, of a center-bearing support and journal or pivotal bearings therefor, upon which the said center-bearing support is adapted to be rocked or swung, substantially as and for the purpose 40 specified.

2. In a swing-motion truck, a center-bearing support,  $a$ , and a spring sustained thereby, combined with a rocking cap,  $a^6$ , and plate 45  $b^2$ , substantially as described.

3. In a car-truck, the combination, with the king-bolt, of a lubricating cup or receptacle therefor, and a support for said cup located below the car-floor and concealed from view, 50 substantially as described.

4. In a swing-motion car truck, the combination, with the king-bolt, of the removable bearing caps or blocks  $b^3 c^5$ , substantially as and for the purpose specified.

In testimony whereof I have signed my name 55 to this specification in the presence of two subscribing witnesses.

LUTHER K. JEWETT.

Witnesses:

JAS. H. CHURCHILL,  
B. DEWAR.