

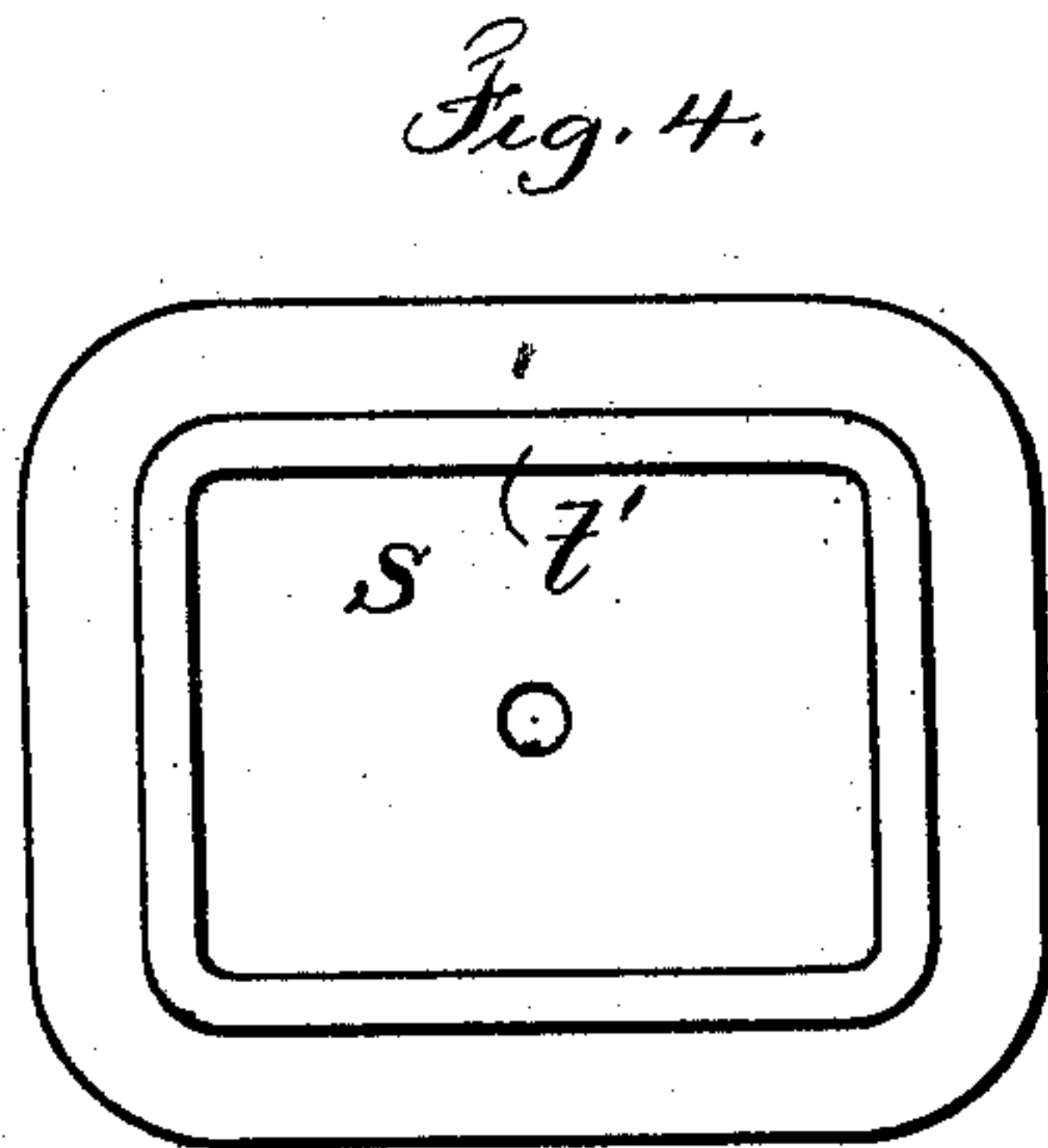
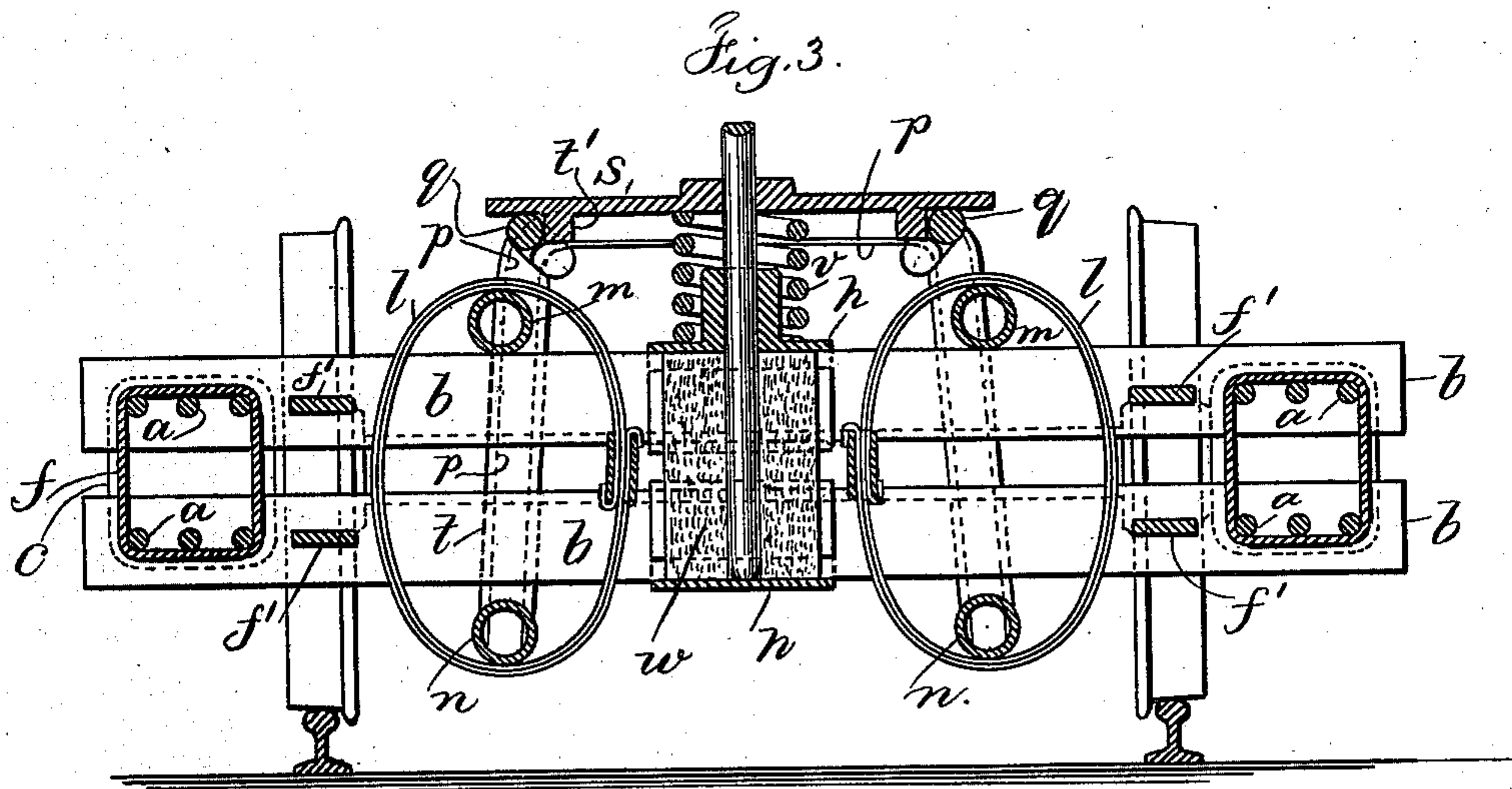
(No Model.)

2 Sheets—Sheet 1.

B. J. LA MOTHE.
RAILWAY CAR TRUCK.

No. 402,168.

Patented Apr. 30, 1889.



Witnesses.

Chas. N. Smith
J. Staib

Inventor

Bernard J. La Mothe
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att.

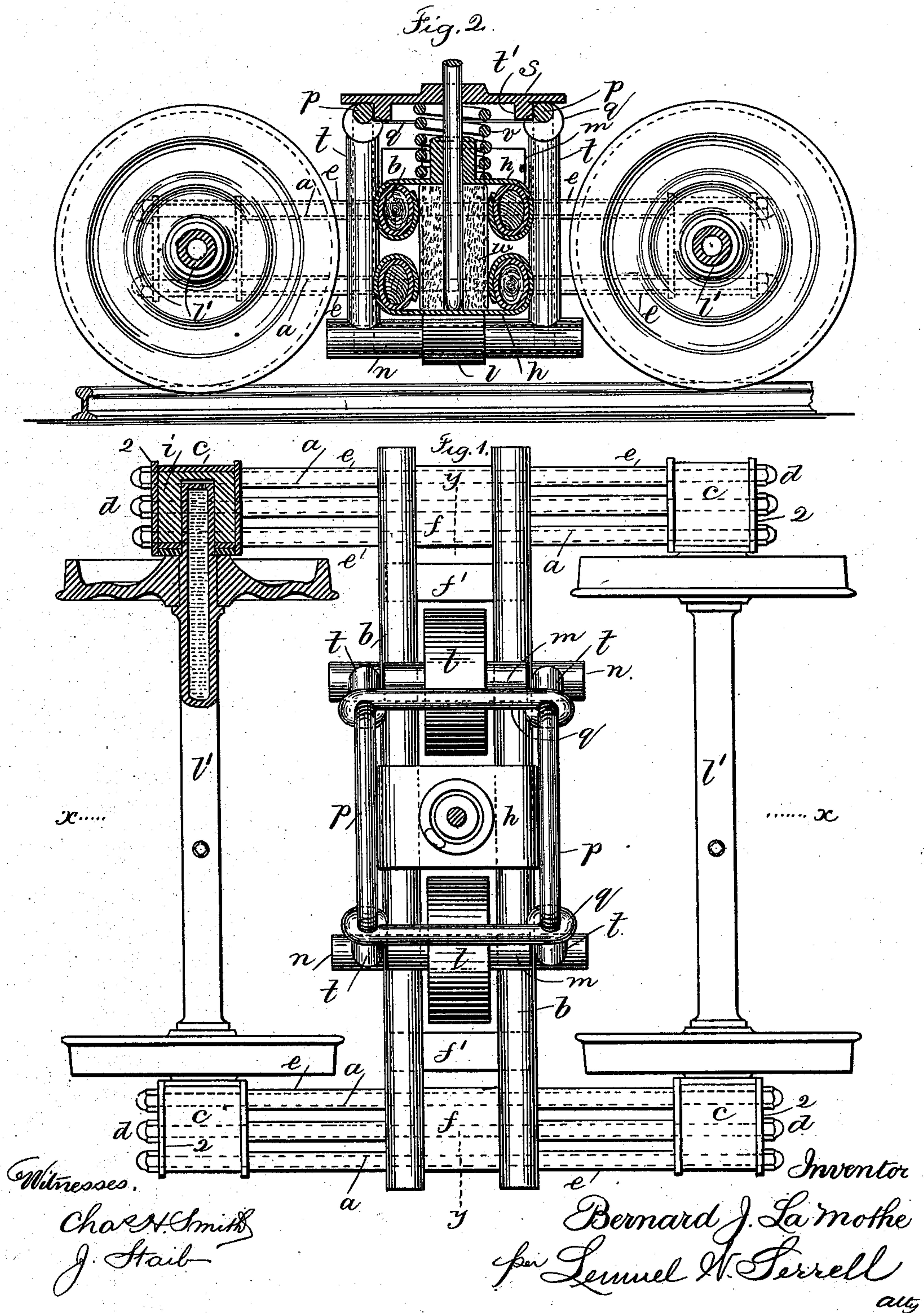
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No. 402,168.

Patented Apr. 30, 1889.



UNITED STATES PATENT OFFICE.

BERNARD J. LA MOTHE, OF NEW YORK, N. Y., ASSIGNOR TO THE UNITED STATES ROLLING STOCK COMPANY, OF SAME PLACE.

RAILWAY-CAR TRUCK.

SPECIFICATION forming part of Letters Patent No. 402,168, dated April 30, 1889.

Application filed August 30, 1888. Serial No. 284,193. (No model.)

To all whom it may concern:

Be it known that I, BERNARD J. LA MOTHE, of the city and State of New York, have invented an Improvement in Trucks for Railroad-Cars, of which the following is a specification.

In my present invention I make the truck-frame of metal rods and tubes. The side or longitudinal frames are composed of two ranges of rods, and the transom is made of tubes. The rods of the side frames pass transversely through said transom-tubes and support them, and said rods at their outer ends pass through the journal-boxes for the car-axles. The journal-boxes and the transom-tubes are kept in their places on the rods of the side frame by means of metal tubes and bands around said rods after nuts at the ends of the rods have been screwed to place. This construction, as more fully detailed hereinafter, produces a very strong frame. It has but few parts, it can be quickly put together, and it is not liable to derangement. I also provide for mounting the spring and supporting the center plate of the truck, as hereinafter set forth.

In the drawings, Figure 1 is a plan of my improved truck with the center plate removed, and with one of the journal-boxes, a car-wheel, and part of the axle in section. Fig. 2 is a longitudinal section, and Fig. 3 a transverse section, of the truck at the lines xx and yy , respectively, of Fig. 1; and Fig. 4 is an inverted plan of the center plate of the truck.

The side or longitudinal frames of the truck are each composed of the metal rods aa , preferably round rods of steel. There are two ranges of these rods aa to each side frame, and one range is above the journals of the car-axles and the other range is below said journals, and the number of rods in each range will vary according to the size of the rods employed. I have shown three rods in each range.

The transom of the truck is composed of the metal tubes bb , preferably of elliptical form, and there are two ranges of these tubes, with two tubes in each range. There are holes in the sides of said tubes near their outer ends, and through these holes pass the rods aa , the rods of the upper range of each side frame

passing through the upper range of tubes b , and the rods of the lower range passing through the lower range of tubes b . The tubes b may each be filled with wood or other suitable material to stiffen and strengthen said tubes. The respective ends of said rods aa also pass through the journal-boxes cc of the car-axles, and the ends of each rod a are screw-threaded for the nuts dd .

I provide a metal tube, e , around each rod a between the tubes b and the journal-boxes c , and also a metal band, f , that passes around the entire group of rods a of each side frame, and these tubes e and bands f prevent the tubes b and journal-boxes c moving upon the rods a after the nuts d have been screwed to place upon said rods a .

In order to prevent the tubes bb spreading between the side frames, I provide the bands h , each of which bands passes partially around one tube and over to and partially around the other tube of the same range of tubes b , and stays may be provided, as at f' , to prevent the tubes b of one range being forced toward each other.

The bearings ii within the journal-boxes c are each made as a block fitting the interior of the journal-box, and the rods aa pass through said block. Each block has a hole for the journal of the car-axle l' , and I have shown said axle as made hollow for the reception of oil, which oil passes out through a very small opening at the ends of the axle and into the bearings i to lubricate the journals of the axle. The plate 2 of each journal-box is made removable to allow for the insertion or removal of the bearings i .

The circular or elliptical springs ll are the same as shown in Letters Patent granted to me June 26, 1888; but I provide special means for mounting these springs to adapt them to the present truck.

The springs ll are supported by the bearers mm , which rest upon the upper range of tubes bb , as shown in Figs. 1 and 3. The lower bearers, nn , are tubular, and each bearer nn rests within the lowest part of the spring, and said bearers are below the lower range of tubes bb .

pp are U-shaped frames made of metal rods, the ends of which pass through holes in

the tubular bearers *n n*, so that the ends of said rods *p p* bear against the lowest portion of the interior of said bearers.

The transom-tubes *b* are between the U-frames, and said tubes prevent the bearers *n n* and frames *p p* moving longitudinally of the truck. The frames *p p* are connected by tie-rods *q q*, which tie-rods have eyes surrounding the rods of said frames *p*, and said eyes rest upon the upper portions of tubes *t*, that are upon the vertical portions of the frames *p p*. The tie-rods *q q* and horizontal portions of the frames *p p* form a seat for the center plate, *s*, which plate has a downwardly-projecting flange, *t'*, that passes within the tie-rods and horizontal portions of the frames *p* and prevents said plate shifting upon its seat.

The center plate, *s*, frames *p p*, and bearers *n n* move as one piece under the action of the weight of the car, and the springs *l l* are elongated by the weight brought upon them, as set forth in aforesaid patent, and there may be a supplemental spring, *v*, between the upper plate, *h*, and the center plate, *s*, if desired. If this spring *v* is used, there should be a block of rubber, *w*, between the plates *h* to prevent said plates being forced toward each other by the weight upon the spring *v*.

A truck-frame constructed as before described has but very few parts. It can be put together quickly, is very strong, and in case of injury to any of its parts the injured part can be speedily removed and a new part replaced.

I claim as my invention—

1. The combination, with the side frames, each composed of the two ranges of rods, of the transom composed of two ranges of tubes, the rods of the side frames passing transversely through the tubes of the transom and supporting them, substantially as specified.

2. The combination, with the side frames, each composed of two ranges of rods, and the journal-boxes at the ends of each frame and through which journal-boxes said rods pass, of the transom composed of two ranges of tubes through which pass transversely the rods of the side frames, substantially as specified.

3. The combination, with the side frames, each composed of two ranges of rods, the journal-boxes at the ends of the side frames, and the transom composed of two ranges of tubes through which pass transversely the rods of the side frames, of the tubes and bands around said rods, and nuts upon the ends of said rods for keeping the journal-boxes and transom-tubes in position upon said rods, substantially as specified.

4. The combination, with the truck-frame composed of the side frames and transom, consisting of rods and tubes, respectively, of the bearers *m m*, supported by the transom, the springs *l l*, bearers *n n*, frames *p p*, rods *q q*, and center plate, *s*, substantially as and for the purposes specified.

5. The combination, with the side frames composed of metal rods and the transom composed of tubes supported by the rods of the side frames passing transversely through said tubes, of the plates *h* at the center of the transom and the stays *f'* between said plates and the side frames, substantially as and for the purposes specified.

Signed by me this 20th day of August, 1888.

B. J. LA MOTHE.

Witnesses:

WILLIAM G. MOTT,
CHAS. H. SMITH.