(No Model.)

L. K. JEWETT.

CAR TRUCK.

No. 383,180. Patented May 22, 1888.

Fig: 1.

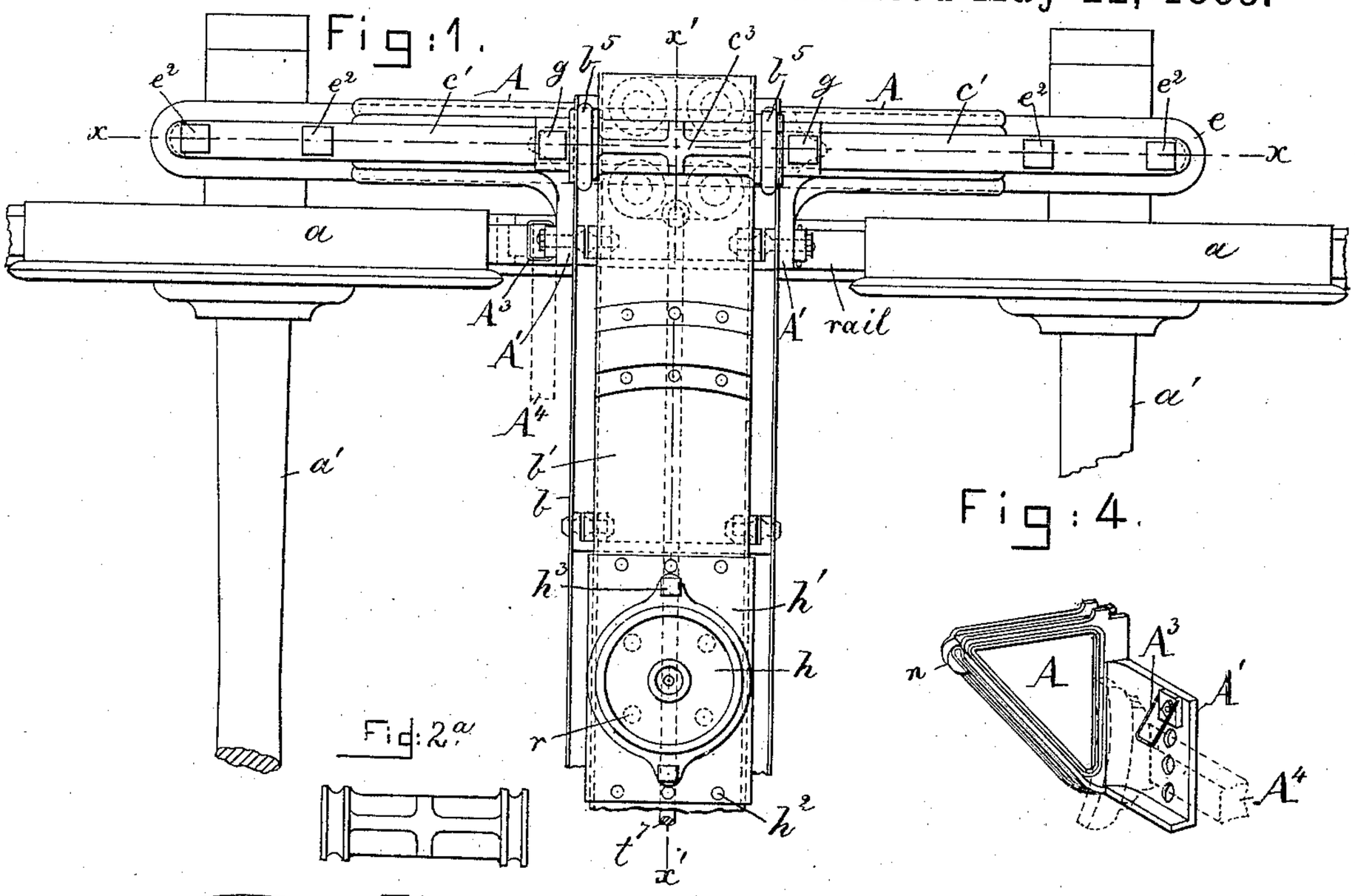


Fig: 4.

Fig: 2ª.

Fig: 2.

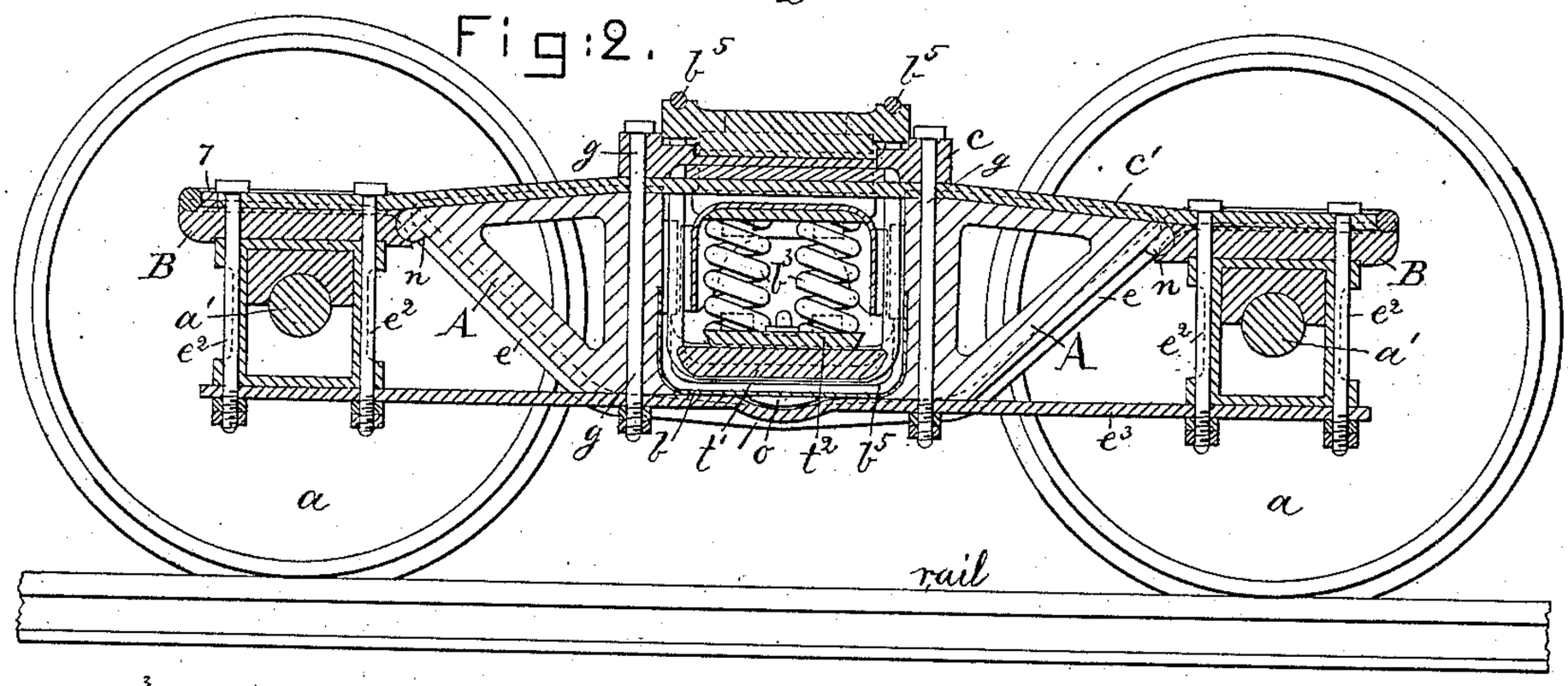


Fig: 3.

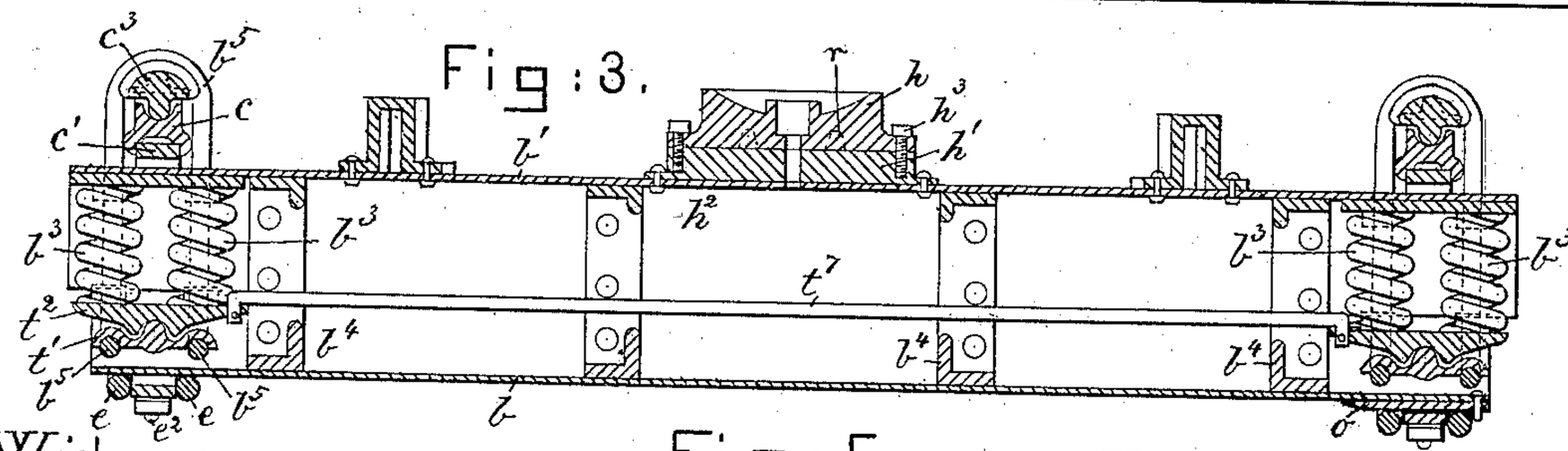
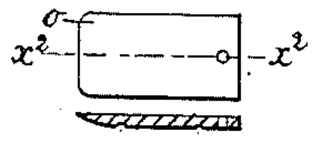


Fig: 5.



Witnesses.

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UNITED STATES PATENT OFFICE.

LUTHER K. JEWETT, OF BOSTON, MASSACHUSETTS.

CAR-TRUCK.

SPECIFICATION forming part of Letters Patent No. 383,180, dated May 22, 1888.

Application filed October 7, 1886. Renewed June 28, 1887. Serial No. 242,742. (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 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 has for its object to improve the class of car-trucks shown and described in United States Patent No. 361,845, granted to F. G. Susemihl and myself April 26, 1887.

In this present invention the arch-bar-sustaining blocks are provided with projections to co-operate with seats on supports shown as clips, whereby increased rigidity is obtained. I have so constructed the rocker and saddle that I may readily use either a rigid or swinging bolster. I have also provided the bolster with a center plate composed of a top and base, the top being readily detachable in order to enable the application to the base of a top of suitable shape to correspond with the particular rocker used on the car-body to be applied to the truck. I have also provided means whereby slack in the trusses may be taken up, the said means being a wedge adapted to be driven into the space between the said trusses and the under side of the transom.

The particular features in which my invention consists will be hereinafter more fully described and designated in the claims at the end of the said description.

Figure 1 in plan view represents about one-half of a truck embodying my invention; Fig. 2, a section of Fig. 1 in the dotted line $x\,x$. Fig. 2^a shows in plan view one of my improved rockers detached. Fig. 3 is a longitudinal section taken through the transom and bolster and attached parts in the line x', Fig. 1. Fig. 4 is a detail of one of the arch-bar-sustaining blocks, the said figure showing in dotted lines part of a brake-shoe and brake-beam and the link or loop to support it; and Fig. 5 is a top view of the wedge for taking up slack in the trusses, the section being in the line x^2. Both sides of the car-truck being alike, I have considered it unnecessary to show more than one end.

The wheels a, axles a', boxes or housings to support the truck-frame upon journals of the axles, the wheel-straps e^3, the metal transom b, the smaller metallic bolster, b', fitted within it, the angle-irons b^4 to strengthen and keep in shape both the bolster and transom, the links b^5, the springs b^3, the spring-seat t^2, and the supporting-bars t' on which the spring-seats rest and rock or move, and the rod t^3, connecting the spring-seats at opposite sides of the truck, arch-bars c', and the trusses e are all as in the Patent No. 361,846, granted April 26, 1887, to F. G. Susemihl and myself, and to which reference may be had, like letters designating like parts, except that the ends of the arch-bars are extended to meet the inner ends of the loop shaped truss.

The arch-bar-sustaining block A, instead of being simply triangular blocks, as in the said application, are herein shown provided with projections, as n, (see Figs. 2 and 4,) which present circular faces. These projections enter circular seats or notches at the inner ends of supports, herein shown as clips B, which, as herein shown, are located above the housings and are notched at their under sides to embrace the housings of usual construction, the said projections and housings being fitted together. The trusses e, made of loop form and supported at their ends above the clips, and extended down below the transom, also serve to support the arch-bar-sustaining block, as in the said patent.

The arch-bars c' are shown as extended from the bolster in each direction to nearly the ends of the clips B, as shown at the right in Figs. 1 and 2, and receive against their ends the looped end of the truss; or, if desired, the ends of the arch-bar may meet the upright projection 7 of the said clip, as at the left of Fig. 2, the truss-loop engaging the clip outside the said projection.

In both instances the arch-bar will be fitted into a groove at the upper side of the arch-bar-sustaining blocks A, the said grooves being shown clearly in Fig. 4, and the arch-bars, clips, housings, and wheel-straps will be firmly bolted together by suitable bolts, as e^2, also common to the said patent.

Extending longitudinally and parallel with the arch-bars above the bolster is a saddle, c, grooved centrally, as at c^2, (see Fig. 3,) for the reception of a projection at the lower side of

a rocker, c^3, the said rocker, as herein shown, being grooved at its upper side near its end to receive the links b^5, which sustain the supporting-bars t'. These rockers so far described are common to the said patent, with the exception that the projection at the under side of the rocker is shortened, to thus leave a space, c^4, in the saddle between the groove portion c^2 and the holes c^5, which receive the bolts g, that unite the saddle, arch-bar, and arch-bar-sustaining blocks together firmly. The space c^4 so left (see Fig. 2^a) is grooved transversely for the reception of the links b^5. These grooves are provided in order that one may be readily changed from a swing-truck to a truck in which the bolster does not move transversely of the truck, or does not swing. To effect this change in truck it is necessary to remove the rocker c^3 and the links b^5 and substitute for the links b^5 another set of links which shall be shorter, the shorter links resting in the grooves of the saddle, and also the supporting-bars t' will be done away with and the spring-seat will be permitted to rest directly upon the links.

A very considerable difficulty is experienced whenever the car-body made by one railroad company has to be transferred to another truck made by another company, this difficulty being experienced chiefly because of the lack of center plates. To enable any car-body to be readily applied to any suitable truck, I have devised a center piece, which is composed of two parts, viz., a top part, h, and a base, h'. The base h' is firmly riveted or bolted, as at h^2, to the top of the bolster, and the top of the center plate is attached by suitable bolts or screws, as h^3, (see Fig. 1,) to the base.

To enable a car-body of one make to be applied to a truck of another make, it is only necessary to attach and remove the top h from the base h', applying instead of the said top a top of the proper shape to fit the rocker, such change being readily effected, whereas if the entire center plate, base, and all had to be detached from the bolster very great inconvenience would be caused and much time would be lost. The curve-plates are also made in two pieces, 40 41, (see Fig. 3,) bolted together and secured to the bolster, the part 40 being changed when the top h of the center-piece is changed. The base h' is flanged to embrace the bolster and is in itself in practice quite a heavy casting, whereas the top is comparatively light. The arch-bar-sustaining block has a laterally-extended wing, A'—substantially such a wing as shown in connection with said patent—but herein I have attached to the said wing a loop or link, A^3, which in practice forms a swinging connection to support an under-side brake-beam, A^4, (shown in Fig. 4,) it being provided with usual brake-shoes at its ends, one only being shown in Fig. 4.

The trusses e practically sustain the entire weight of the car body and truck, and, being made of rods welded into loop form, the trusses sometimes give and become elongated or stretched.

To avoid any accidents owing to slack in the trusses, I have provided a wedge-plate, o, which may be driven into a space below the transom and between it and the truss, the said wedge taking up and holding all the slack and keeping the parts firmly together.

The base h' of the center plate is shown as provided with a series of lugs or projections, r, that enter recesses at the under side of the top plate, h, the said lugs being shown by dotted lines.

I claim—

1. In a car truck, the arch bar, truss, wheel-strap, and clips B, provided with seats, combined with arch-bar-sustaining blocks A, provided with projections, the said sustaining-blocks being placed between the arch-bar and truss and with its projections in the seats of the clips, whereby increased rigidity is obtained, substantially as described.

2. In a car-truck, the arch-bar, truss, wheel-strap, and arch-bar sustaining blocks, and saddle provided with a recess and with grooves, combined with a rocker having a projection to enter the recess of the saddle, links b^5, and spring-seats and spring, and bolster and transom, the grooves in the saddle being adapted to receive the links b^5 whenever it is desired to change the truck from a swinging truck to a so-called "rigid truck," substantially as described.

3. In a car-truck, the bolster, combined with a center-plate composed of a base, h', and a top portion, h, the base being secured to the bolster, the top being adjustably connected with the base, as and for the purpose described.

4. In a car-truck, the arch-bar, truss, wheel-strap and bolster, and transom, combined with means, substantially as described, to take up the slack in the truss, as and for the purpose set forth.

5. In a car-truck, the arch-bar-sustaining block A, having a laterally-extended wing, A', combined with a loop or connection, A^3, to support a brake-beam, substantially as described.

6. In a car-truck, an arch-bar, and an arch-bar-sustaining block provided with a projection, combined with a support having a seat for the projection on the arch-bar-sustaining block, substantially as described.

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

LUTHER K. JEWETT.

Witnesses:

G. W. GREGORY,

F. CUTTER.