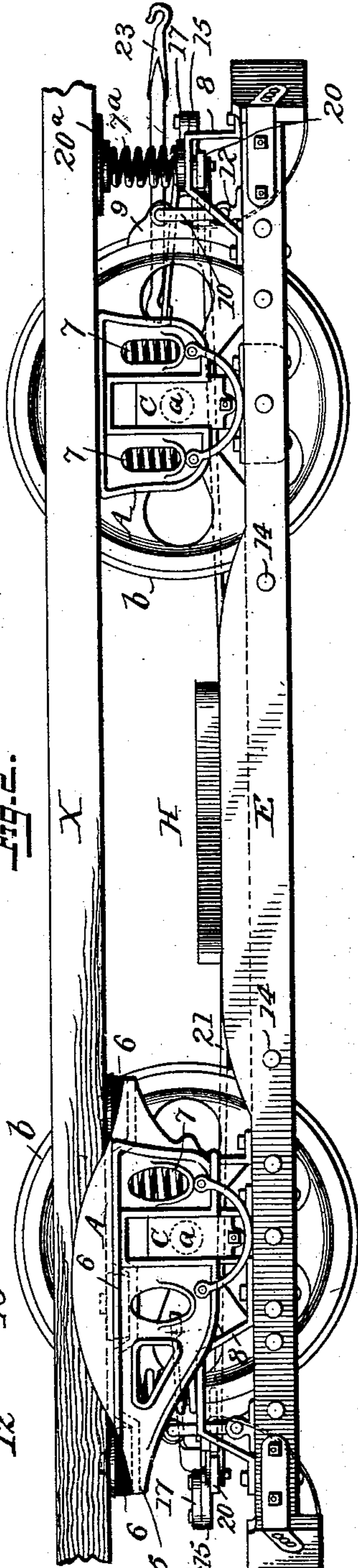
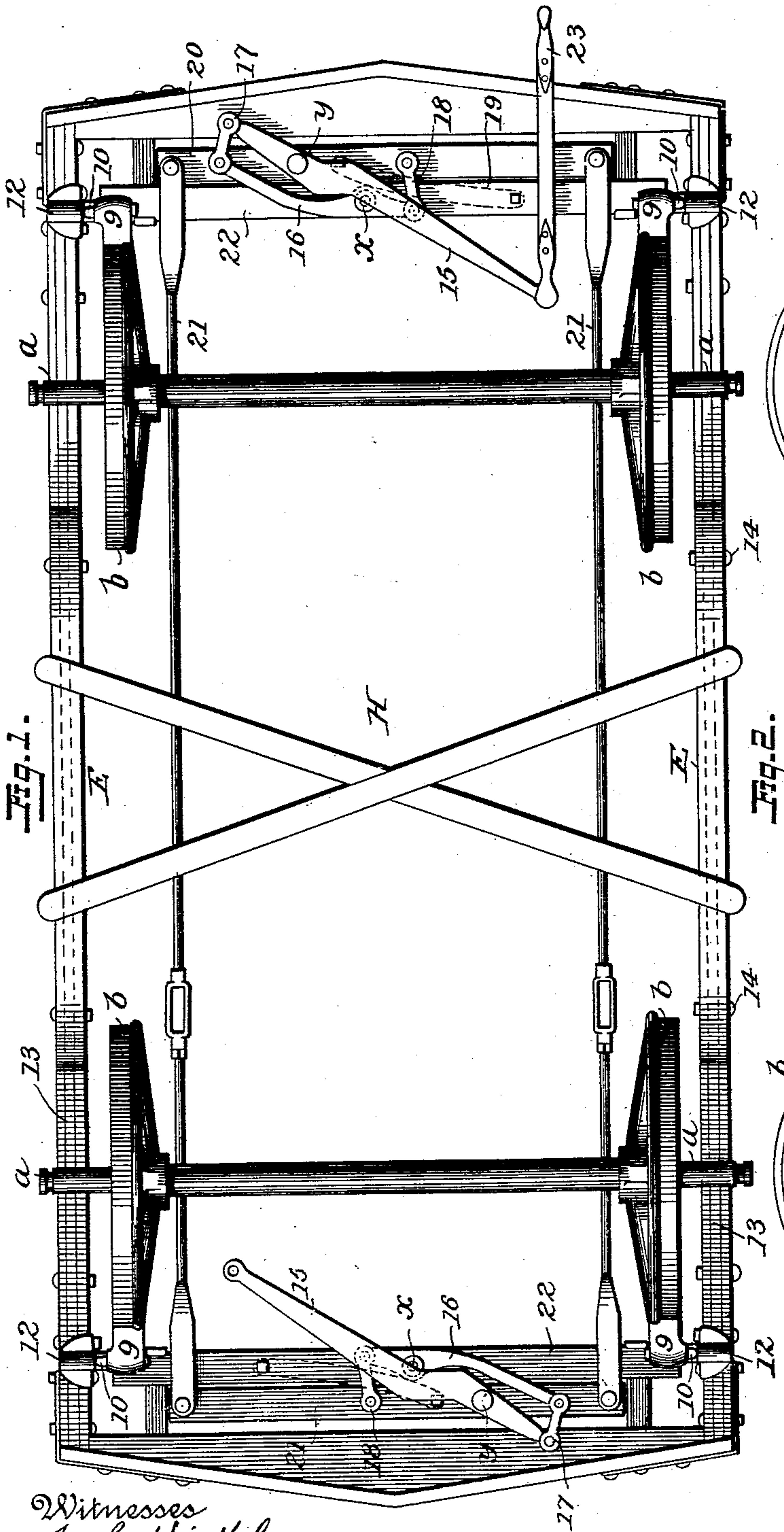


(No Model.)

J. A. TACKABERRY.
TRUCK.

No. 569,072.

Patented Oct. 6, 1896.



Witnesses
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UNITED STATES PATENT OFFICE.

JOHN A. TACKABERRY, OF NEW YORK, N. Y.

TRUCK.

SPECIFICATION forming part of Letters Patent No. 569,072, dated October 6, 1896.

Application filed September 5, 1893. Serial No. 484,864. (No model.)

To all whom it may concern:

Be it known that I, JOHN A. TACKABERRY, a citizen of the United States, residing in the city, county, and State of New York, have invented certain new and useful Improvements in Trucks, of which the following is a specification.

My invention relates to the trucks of tram-cars, and more especially to that class of trucks which are used in connection with motor and cable cars; and my invention consists in constructing the truck-frame, spring-supports, and braking appliances as fully set forth hereinafter, and as illustrated in the accompanying drawings, in which—

Figure 1 is a plan view of sufficient of a truck-frame to illustrate my invention. Fig. 2 is a side elevation illustrating different forms of pedestals at the opposite end.

The frame H of the truck is supported by the boxes C, which receive the journals of the axles *a*, having the wheels *b*, the frame being suspended from the boxes, as shown.

The side pieces E E of the frame instead of being made as heavy as usually required when such side pieces are of wood are made lighter, but are reinforced by a straight-sitting plate 13, which is of the width or vertical height of the narrower portions of the side pieces and extend through slots in the wider portions, as illustrated in the drawings. As shown, the said plate occupies the position about midway between the two faces of the side pieces and is secured in place by transverse bolts 14; but the said plate may be placed upon the outside or the inside of the side piece, if desired. By this means with the use of wooden side pieces of comparatively little thickness I am enabled to secure the requisite support for the heavy motors and other appliances now used upon some classes of cars.

Generally the body of the car is supported by the spring interposed between the pedestal and bearings upon the boxes, and this demands that the entire support shall be concentrated within a comparatively-limited area adjacent to each box and does not with heavy cars secure the requisite stability. In order to overcome this defect, I interpose one or more of each set of springs adjacent to each box between the body of the car and the side

piece E. The springs may be arranged in different ways. Thus, as illustrated at the right in Fig. 2, the pedestal A is supported upon the usual springs 7 7, having their bearings at the sides of the box C, while supplemental springs 7^a rest upon the truck-frame, as, for instance, upon brackets 8. The sill X of the body bears upon the top of the pedestal and also upon a bearing-plate 20^a at the top of the springs 7^a. In the construction shown at the left in Fig. 2, which is the preferable construction, the pedestal A is provided with an arm or extension 5, which projects over the springs 7^a. In either case there is a much wider base or bearing for the spring-supports than is usually obtained, and there is an increased stability.

Where increased elasticity is desired, supplemental springs 6, preferably flat rubber springs, may be interposed between the top of the pedestal and the bottom of the sill of the body, as shown at the left in Fig. 2.

Each pair of brake-shoes 9 9 is secured at the end of a brake-beam 22, which instead of being suspended from the body of the car, as is common, is pivoted to links 10, each pivoted at the lower end to a bracket 12 upon the truck-frame, so that, as the said frame always occupies an invariable position as regards the wheels, there will be no movement of the brake-shoes except to and from the wheels, as permitted by the swinging of the links. The links 10, when the brakes bear against the wheels, are so pivoted as to bring them in vertical positions, whereby when the shoes are withdrawn from the wheels the tendency of the link is to fall outward with the brake-beam and maintain the shoes from contact with the edges of the wheels, so that they will not wear by such contact and so that there is no necessity of using springs to keep them normally out of contact with the said edges or rims.

In order to avoid the frequent adjustments that are ordinarily required where the brake-levers have comparatively little play, I make use of the construction best illustrated in Fig. 1, where there are two brake-levers 15 16, the former pivoted at *y* to a brake-bar 20, which is connected by links 21 21, having any usual or suitable means of longitudinal adjustment, to the bar 20 at the opposite end

of the truck. From one end of the lever 15 extends the reel-rod 23, which connects with the brake-chain, and the other end of the lever 15 is connected by a link 17 with the end of the lever 16, the latter being pivoted at X to the brake-beam 22, near the center thereof, and also being connected by a link 18 with the bar 20. A guide-link 19 is also pivoted to the brake-beam 22 and the bar 20, as shown.

When by winding up the chain a draft is exerted upon the reel-rod 23 and one end of the lever 15, the latter, swinging upon its fulcrum *y*, thrusts inward the lever 16 and carrying inward also the pivot X of the latter, so as to force inward the brake-beam 22 and bring the shoes against the wheels, while at the same time the lever 15 tends to swing upon the end connected with the link 17 as a pivot and to carry outward the fulcrum *y*, thereby drawing out the bar 20, together with the links 21, and pulling in the bar 20 at the opposite end of the truck, bringing it against the brake-beam 22 at such end and forcing the shoes against the rims of the wheels at that end.

When the long end of the lever 16 is thrust inward by the power applied to the link 17, the short end of said lever 16 is thrust outward with the link 18, which also tends to act upon the bar 20 and carry it outward. I have found that by the combination of levers shown and described it is possible to apply the brakes

with sufficient force and rapidity, and at the same time it is not necessary to have such nice adjustment as is ordinarily required.

I lay no claim herein to the brake devices shown and described, since they are to form the subject of a separate application which I intend to file.

Without limiting myself to the precise construction and arrangement of parts shown, I claim as my invention—

1. The combination in a car-truck, of a side piece E having its middle portion of greater vertical width than its end portions, said piece being vertically and uniformly grooved or recessed from end to end, a reinforcing-plate of a vertical width not exceeding that of the end portions fitted in said groove or recess, and suitable devices to secure the parts together, substantially as described.

2. The combination of the truck-frame suspended from the car-axles and provided with the brackets 8 at or near the ends, pedestals having each at one side an extension 5, and supporting-springs between said extensions and brackets, substantially as described.

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

JOHN A. TACKABERRY.

Witnesses:

WALLACE E. KNIPE,
A. Y. ERICSSON.