

(No Model.)

2 Sheets—Sheet 1.

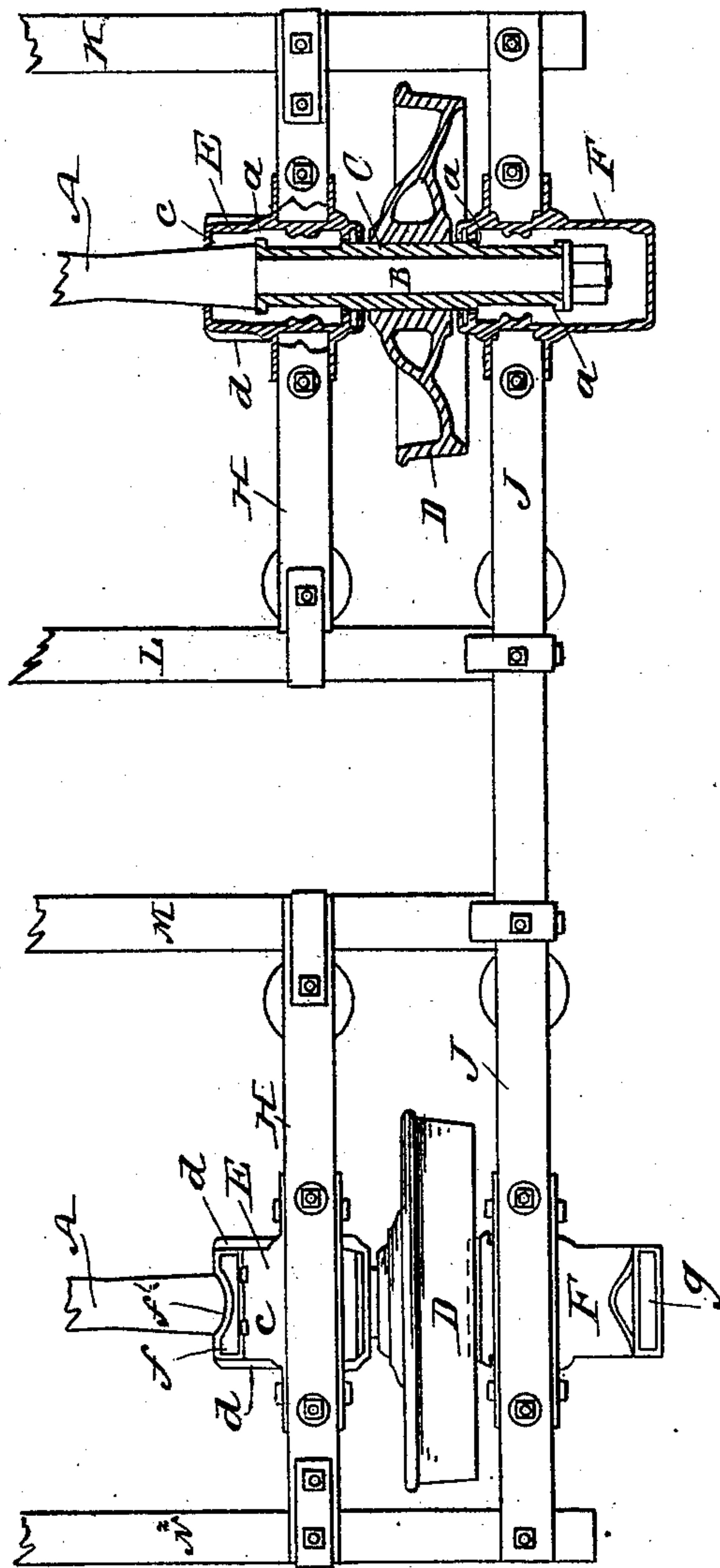
F. E. PETTENGILL & T. F. CHAPPELL.

CAR TRUCK.

No. 393,921.

Patented Dec. 4, 1888.

Fig. 1.



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2 Sheets—Sheet 2.

CAR TRUCK.

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Fig. 2.

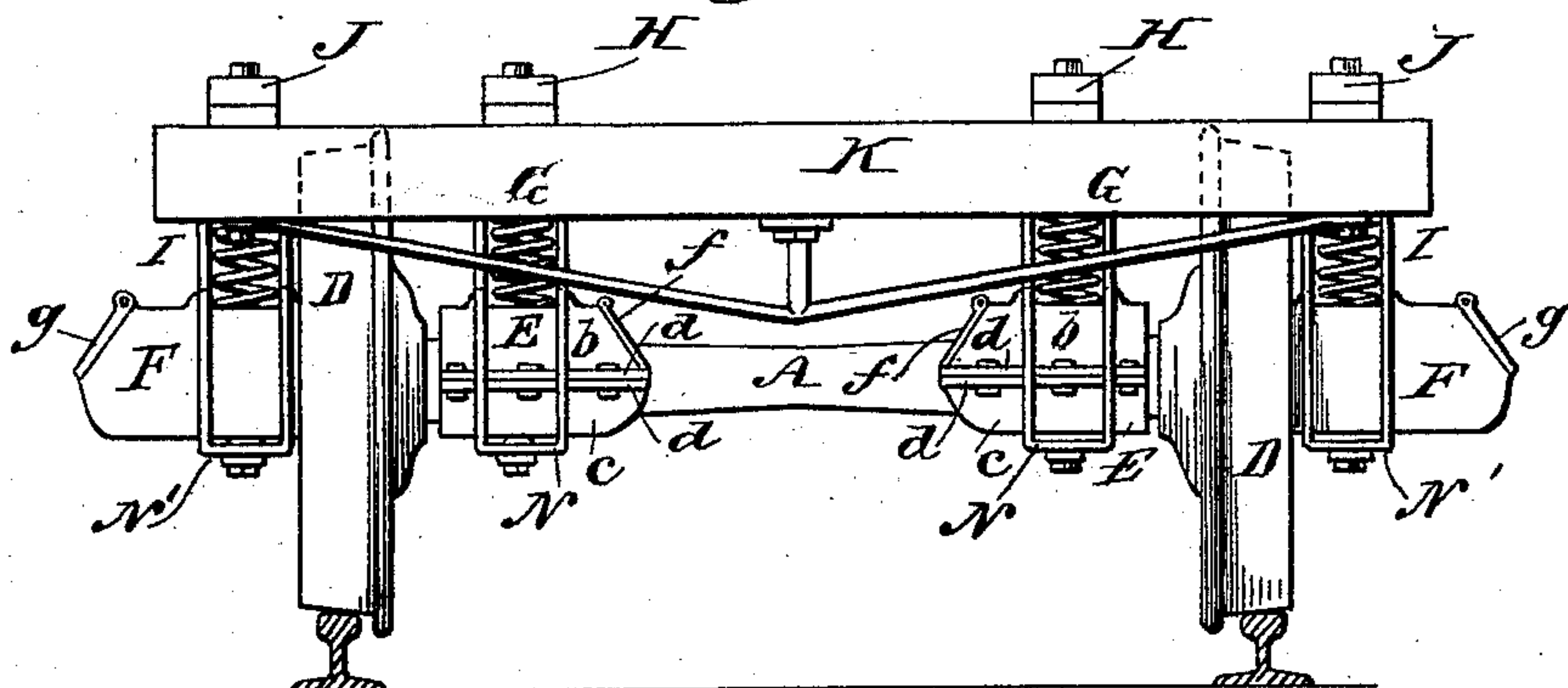


Fig. 3.

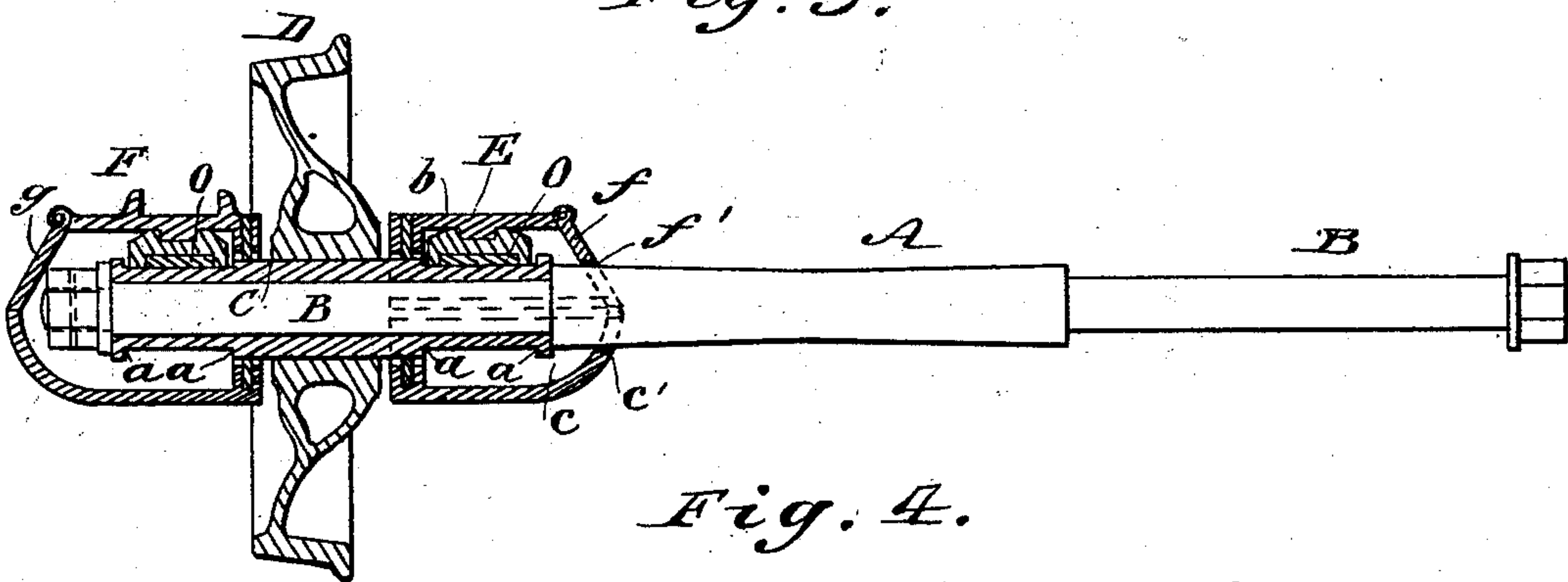
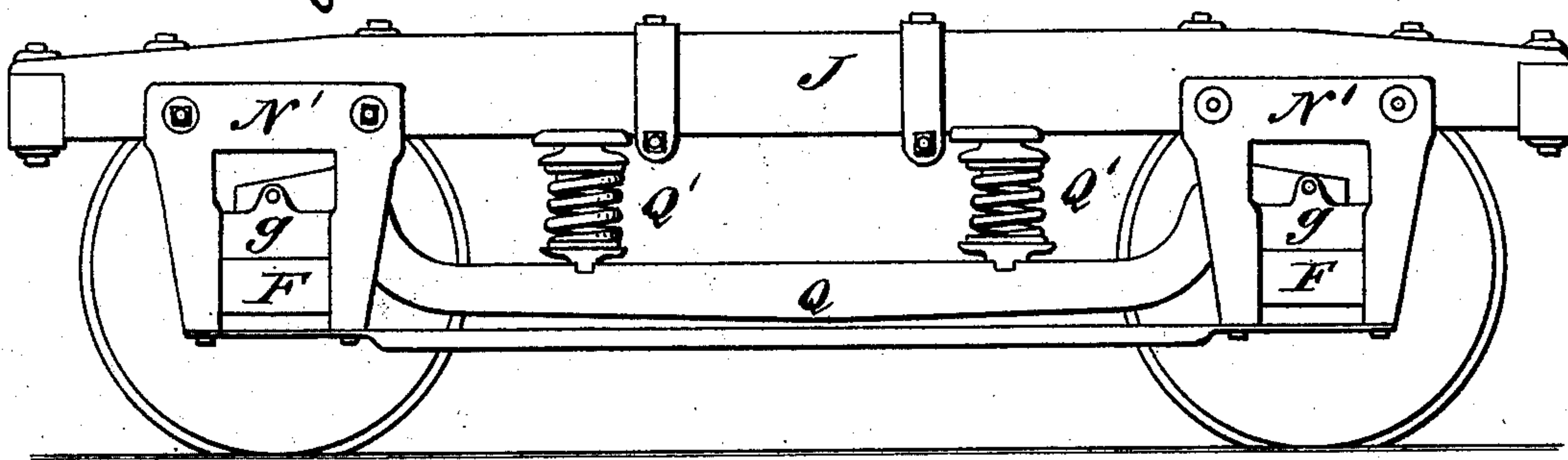


Fig. 4.



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UNITED STATES PATENT OFFICE.

FRANK E. PETTENGILL, OF WEBSTER, MASSACHUSETTS, AND THOMAS F. CHAPPELL, OF PAWTUCKET, RHODE ISLAND.

CAR-TRUCK.

SPECIFICATION forming part of Letters Patent No. 393,921, dated December 4, 1888.

Application filed April 5, 1888. Serial No. 269,690. (No model.)

To all whom it may concern:

Be it known that we, FRANK E. PETTENGILL, of Webster, in the county of Worcester and State of Massachusetts, and THOMAS F. CHAPPELL, of Pawtucket, in the county of Providence and State of Rhode Island, have invented a new and Improved Loose-Wheeled Car-Truck, of which the following is a full, clear, and exact description.

The object of our invention is to provide a practical loose-wheeled car-truck; and the invention consists, principally, of a sleeve to which the wheel is secured and which turns upon the ends of the axle and runs in a box at each end.

The invention also consists in the construction, arrangement, and combination of parts, all as hereinafter described and claimed.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar letters of reference indicate corresponding parts in all the views.

Figure 1 is a broken plan view of one side of a car truck, frame, and wheels constructed in accordance with our invention. Fig. 2 is an end view of the truck. Fig. 3 shows the axle with a set of boxes, and one wheel with sleeve applied thereto shown in sectional elevation; and Fig. 4 is a side elevation of a car-truck having our invention applied thereto.

The axles A are formed with reduced ends B B to receive the sleeves C, to or near the centers of which are secured the wheels D.

E and F are boxes, one upon the inside and one upon the outside of each wheel. Upon each inside box is placed a spring, G, held in the inner jaw, N, and which supports the inner bars, H, of the frame of the truck, and upon each outer box is placed a spring, I, held in outer jaws, N', and which supports the outer main side bars, J, to which latter are secured the cross-bars K, L, M, and N² of the truck-frame, so that the frame has four bearings upon each axle. In Fig. 4 we use equalizing-bars Q on both inside and outside boxes, on which the springs Q' rest beneath the side bars, J and H, in the usual manner. We do not confine ourselves to any special arrangement of springs.

Each sleeve C is reduced in diameter at each end to form shoulders a a to confine the brasses or journal-blocks O, fitted in each box

E F, as shown clearly in Fig. 3. The inner boxes, E, are each made of two sections, b c, formed with corresponding lugs, d d, through which bolts pass to unite the sections upon the axle. The lower sections, c, are recessed, as at c', to fit around the axle, and the upper sections are provided with a lid, f, for oiling, and these lids are recessed at f' to fit over and around the axle, as shown clearly in Fig. 3. The outer boxes, F, are each provided with a lid, g, for oiling. In thus constructing the truck the sleeve will be of as great strength, if not greater, than the present standard-journal, and even if it should break it is re-enforced by the axle which passes through it, and upon which there is no load whatever, only in case of a break in the sleeve on which are the bearings.

It should be clearly understood that the axle proper, A, is lying loose in the sleeves, and may or may not turn with the revolution of the wheels. It remains there as a safeguard, also to maintain the correct gage, supporting the frame upon four boxes on each axle. The danger of the car dropping down in case the axle breaks is obviated, and by using the sleeves C loose upon the axle the wheels at each end have independent movement, which is of great advantage in rounding curves.

Having thus described our invention, we claim as new and desire to secure by Letters Patent—

The railway-truck herein shown and described, consisting of the side bars, J, provided with outer journal-boxes, end bars, K N², intermediate cross-bars, L M, and cross-bars H H, each provided with a journal-box, in combination with the axles A, having reduced ends B, and the sleeves C, and wheels D, secured to said sleeves, the ends of said sleeves running in journal-boxes at each side of the wheels, substantially as described.

FRANK E. PETTENGILL.

THOS. F. CHAPPELL.

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