

No. 768,392.

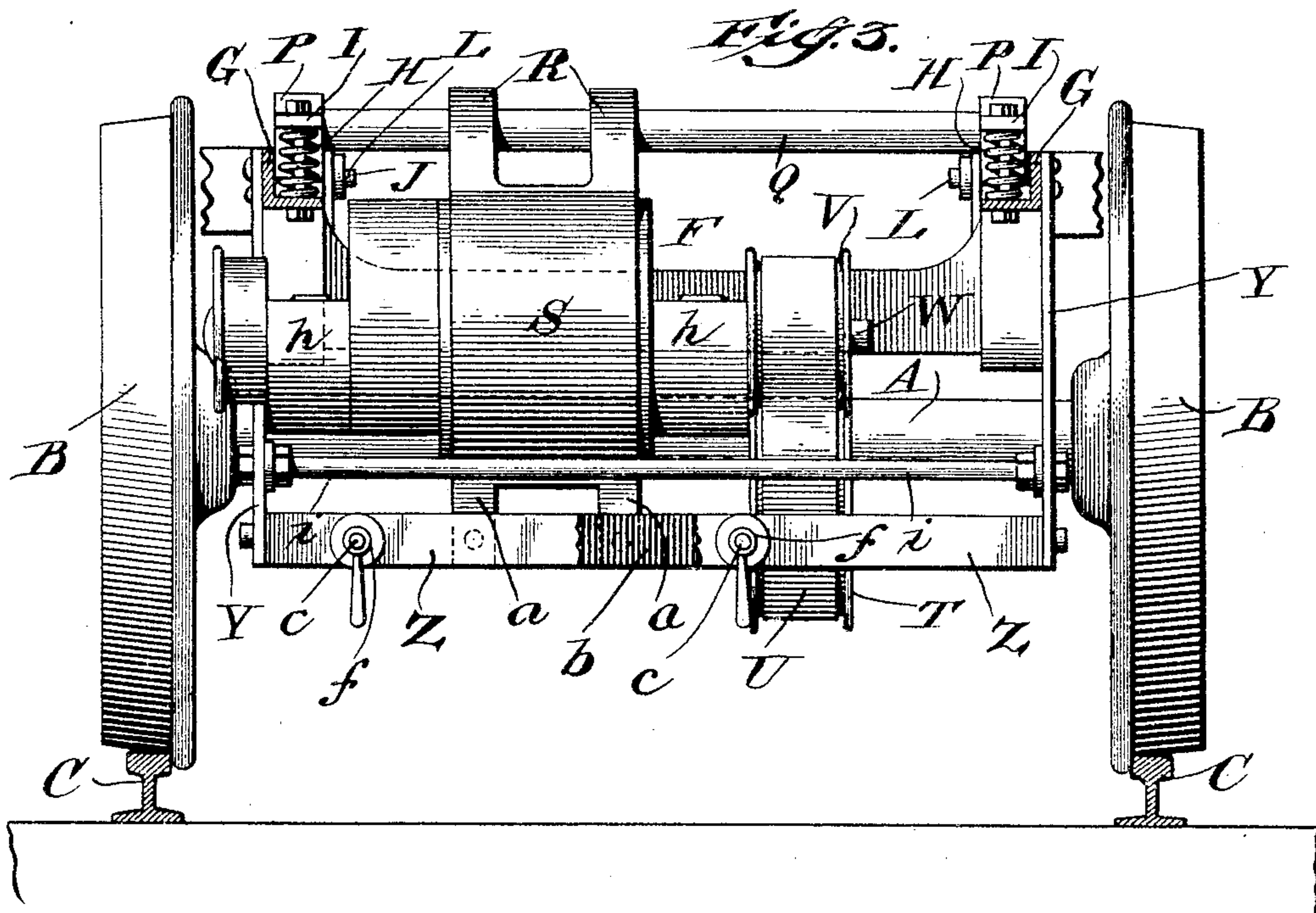
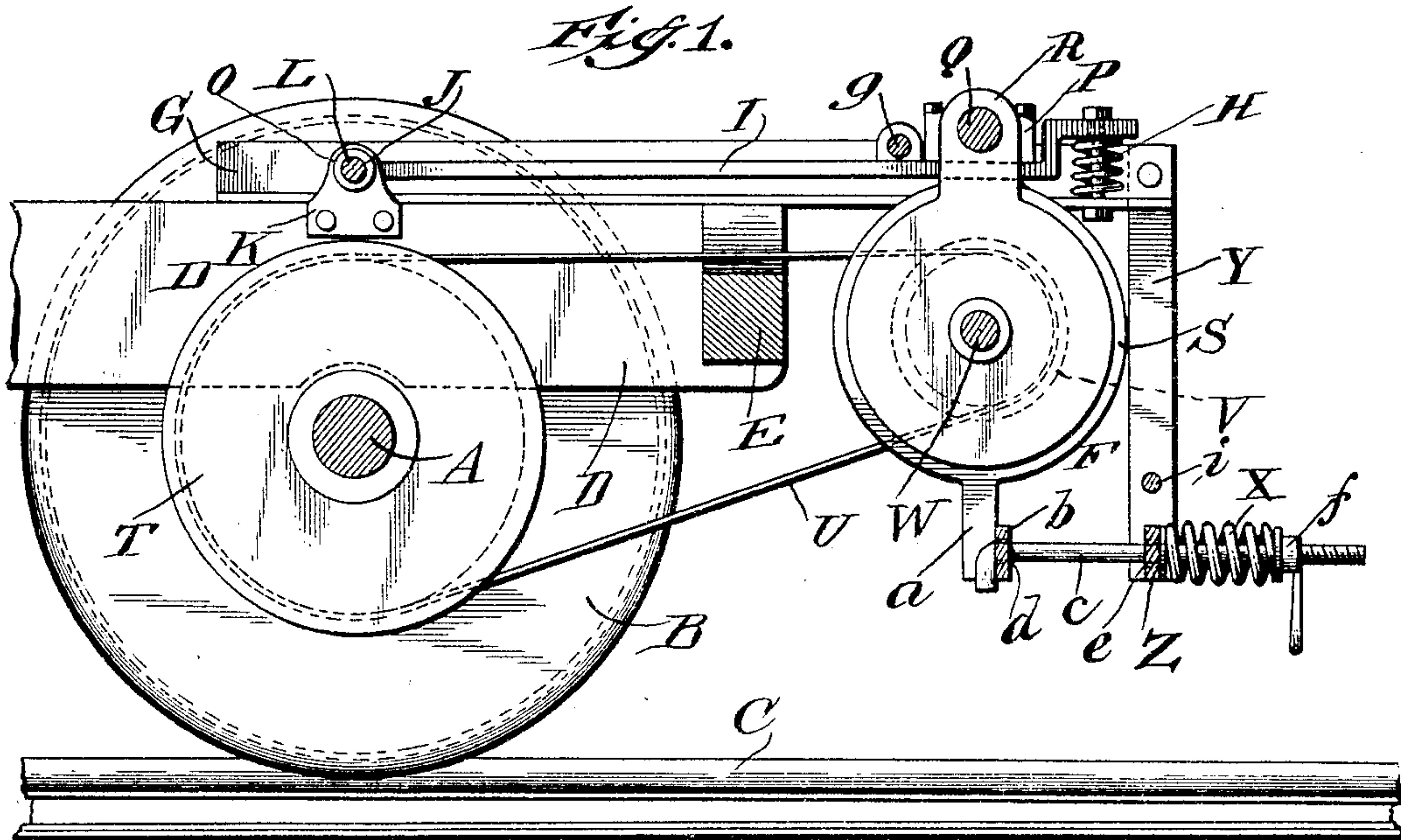
PATENTED AUG. 23, 1904.

M. MOSKOWITZ.
DYNAMO OR MOTOR SUSPENSION.

APPLICATION FILED MAY 23, 1904.

NO MODEL.

2 SHEETS—SHEET 1.



Witnesses
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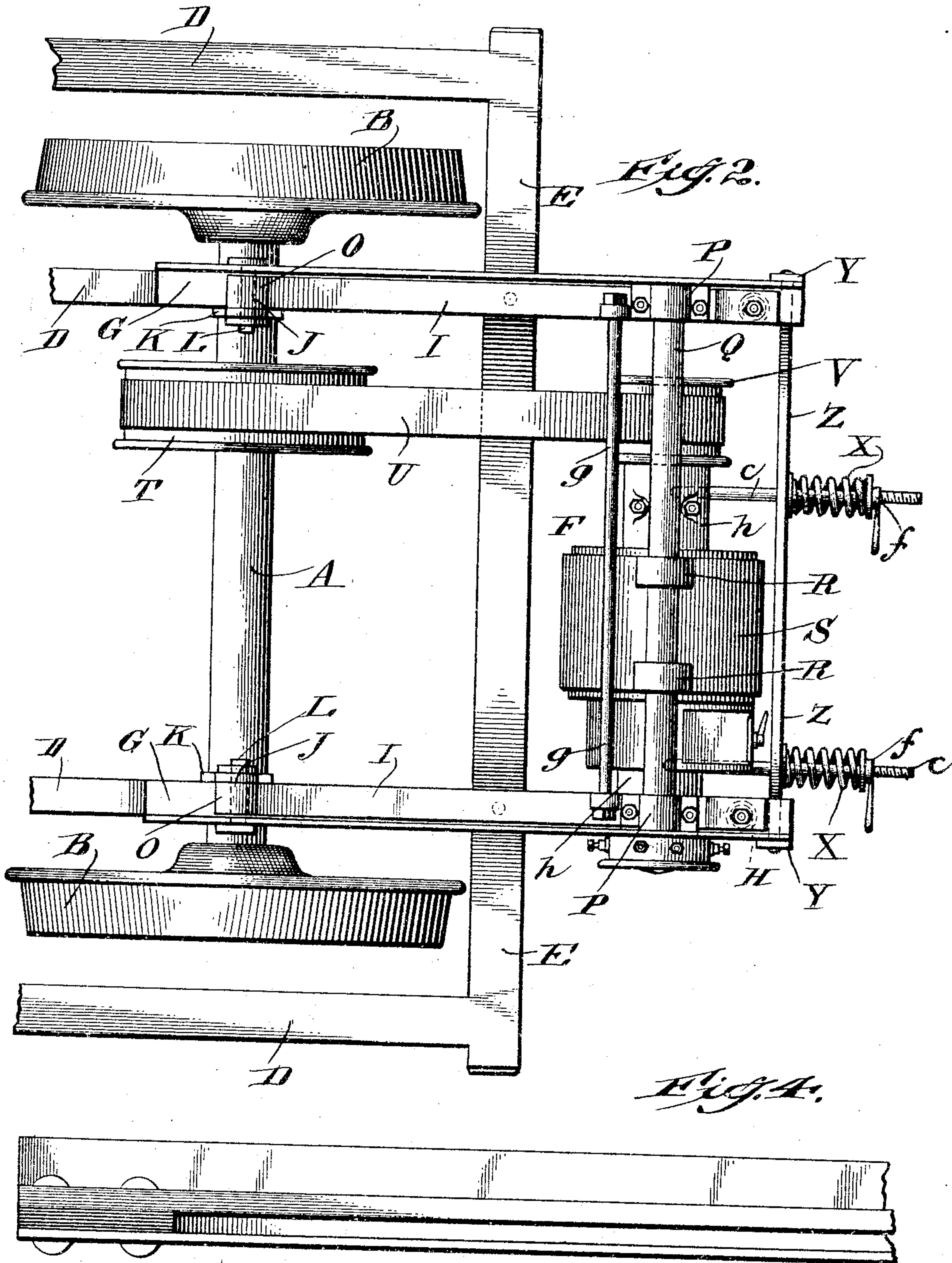
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UNITED STATES PATENT OFFICE.

MORRIS MOSKOWITZ, OF NEW YORK, N. Y., ASSIGNOR TO UNITED STATES LIGHT & HEATING COMPANY, OF NEW YORK, N. Y., A CORPORATION OF NEW JERSEY.

DYNAMO OR MOTOR SUSPENSION.

SPECIFICATION forming part of Letters Patent No. 768,392, dated August 23, 1904.

Application filed May 23, 1904. Serial No. 209,276. (No model.)

To all whom it may concern:

Be it known that I, MORRIS MOSKOWITZ, a citizen of the United States, and a resident of the borough of Brooklyn, county of Kings, city and State of New York, have invented certain new and useful Improvements in Dynamo or Motor Suspension, of which the following is a specification accompanied by drawings.

This invention relates to an improved means for suspending a dynamo or motor from a truck; and the objects of the invention are to suspend the machine from a truck in such manner that it may be readily reached for adjustment and repairs without the necessity of sending a workman inside of the truck.

Another object of the invention is to cushion the motor or dynamo in a vertical direction while said dynamo-motor is suspended beyond the end sill of the car.

Dynamos and motors suspended in accordance with this invention are particularly adapted to be driven from a car-axle, as by means of a belt, and provision is afforded for maintaining said belt tight. The dynamo-machine suspended beyond the end sill of the car and cushioned in a vertical direction affords an efficient construction for supplying power for heat and light on a railway-car, and the whole arrangement is simple and not liable to get out of order.

Further objects of the invention will hereinafter appear; and to these ends the invention consists of a dynamo or motor suspending means for carrying out the above objects embodying the features of construction, combinations of elements, and arrangement of parts, having the general mode of operation substantially as hereinafter fully described and claimed in this specification and shown in the accompanying drawings, in which—

Figure 1 is a side elevation, partly in section, of the end of the truck for a railway-car provided with a dynamo-electric machine, in this instance a dynamo suspended in accordance with this invention. Fig. 2 is a plan view of Fig. 1. Fig. 3 is an end view of Fig. 1. Fig. 4 is a detail view of a modification.

Referring to the drawings, A represents the

car-axle; B, the wheels running on the rails C. D represents the wheel-guards, and E is the end sill. These parts of the car may be constructed in the usual manner.

The dynamo-electric machine, in this instance a dynamo F, as shown, is suspended outside of the end sill of the truck, so that the machine is in convenient position for inspection and adjustment. In order to suspend the dynamo F, as shown, beams G, in this instance shown in the form of angle-irons, are secured to the wheel-guards D in such manner that the ends of the beams project beyond the end sills E. These angle-irons G form the main supports for the dynamo F, which is cushioned thereon in a vertical direction by suitable cushioning-springs H, shown in this instance in the form of spiral springs, although any other suitable construction of springs may be provided.

In accordance with this invention pivot-bars I are provided, pivoted at J to the angle-beams G, while the other ends of said beams bear upon the cushioning-springs H. The inner ends of the pivot-bars I may be pivoted to the angle-beams G in any suitable manner, in this instance a bearing K being secured to the wheel-guard D, while a pivot-pin L passes through the upright flange of the angle-beam G and through said bearing K. The eye or enlarged portion O of the bar I is pivoted upon the pin L. Suitable bearings P are provided upon the pivot-bars I for the shaft Q, upon which the dynamo F is pivoted. The shaft Q, as shown, extends transversely of the truck and passes through the ears R on the field S of the dynamo F. The weight of the dynamo F is therefore transmitted through the shaft Q to the pivot-bars I and from thence through the cushioning-springs H to the angle-beams G. The arrangement of pivot-bars I and cushioning-springs H affords provision for vertical cushioning of the dynamo, which is very important in dynamo suspension of this kind, in which the dynamo is driven from the car-axle.

The axle A is provided with a suitable driving-pulley T, connected by a belt U with the pulley V on the shaft W of the dynamo. In

order to maintain the belt taut, suitable belt-tightening springs X are provided. In order to afford a framework for these springs, downwardly-depending rods Y are secured to the outer ends of the angle-beams G, the lower ends of these rods being connected by a cross-rod Z. The field of the dynamo is provided with downwardly-depending lugs or ears *a*, to which is secured a cross-rod *b*, provided with apertures at its ends for the hooked rods *c*. These hooked rods *c* are provided with screw-threads. The rods *c* are thrust through the apertures *d* in the rods or bars *b* and also through the apertures *e* in the cross rods or bars Z. The springs X, in this instance shown as coiled springs, are passed over the ends of the rods *c* and compressed between the cross-rod Z and the gravity-nuts *f*. The tendency of the springs X is therefore to pull the lower portion of the dynamo F away from the car-axle A, and thereby maintain the belt U taut.

Preferably a cross-rod *g* is provided, connecting two pivot-bars I together. Suitable bearings *h* are provided on the field of the dynamo for the shaft W of the dynamo. A cross binding-rod *i* is preferably provided, connecting the two downwardly-depending bars Y.

In Fig. 4 a modification of the arrangement of the pivot-bar is shown. In this instance the pivot-bars instead of being pivoted to the angle-beams are suitably riveted thereto with the interposition of a distance piece or block. According to this construction, additional spring action of the bar is obtained.

Obviously some features of this invention may be used without others, and the invention may be embodied in widely-varying forms.

Therefore, without limiting the invention to the construction shown and described nor enumerating equivalents, I claim, and desire to secure by Letters Patent, the following:

1. The combination with a car-truck, of a dynamo supported outside of the end sill of the truck and cushioned in a vertical direction, and operative connections for driving the dynamo from the axle.

2. The combination with a car-truck, of beams extending outwardly beyond the end sill, a dynamo supported from said beams

outside of the end sill, means for cushioning said dynamo in a vertical direction, and operative connections for driving the dynamo from the car-axle.

3. The combination with a car-truck, of beams extending outwardly beyond the end sill, pivot-bars pivoted at one end and cushioned in a vertical direction at the other end, a dynamo hung from said pivot-bars outside of the end sill, and operative connections for driving the dynamo from the car-axle.

4. The combination with a car-truck, of beams extending outwardly beyond the end sill, pivot-bars extending adjacent the said beams, pivoted at one end and supported on springs at the other, said springs being carried by the outer ends of the beams, a shaft supported in bearings on said pivot-bars, a dynamo hung from said shaft outside of the end sill of the truck, and operative connections for driving the dynamo from a car-axle.

5. The combination with a car-truck, of beams extending outwardly beyond the end sill, a transverse shaft supported from said beams and cushioned in a vertical direction, a dynamo hung from said transverse shaft and thereby supported beneath the said beams and outside of the end sill of the truck, and operative connections for driving the dynamo from the car-axle.

6. The combination with a car-truck, of beams extending outwardly beyond the end sill, downwardly-depending arms secured to the outer ends of said beams, a transverse shaft supported from said beams and cushioned in a vertical direction, a dynamo pivoted to said transverse shaft and supported between the end sill and said downwardly-depending arms, belt-tightening springs supported from the lower ends of said downwardly-depending arms, a belt for driving the dynamo from the car-axle, and operative means in connection with said belt-springs for maintaining the belt taut.

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

MORRIS MOSKOWITZ.

Witnesses:

A. L. O'BRIEN,
OLIN A. FOSTER.