

No. 768,036.

PATENTED AUG. 23, 1904.

I. DEUTSCH.
POWER TRANSMITTING DEVICE.

APPLICATION FILED OCT. 21, 1903.

NO MODEL.

2 SHEETS—SHEET 1.

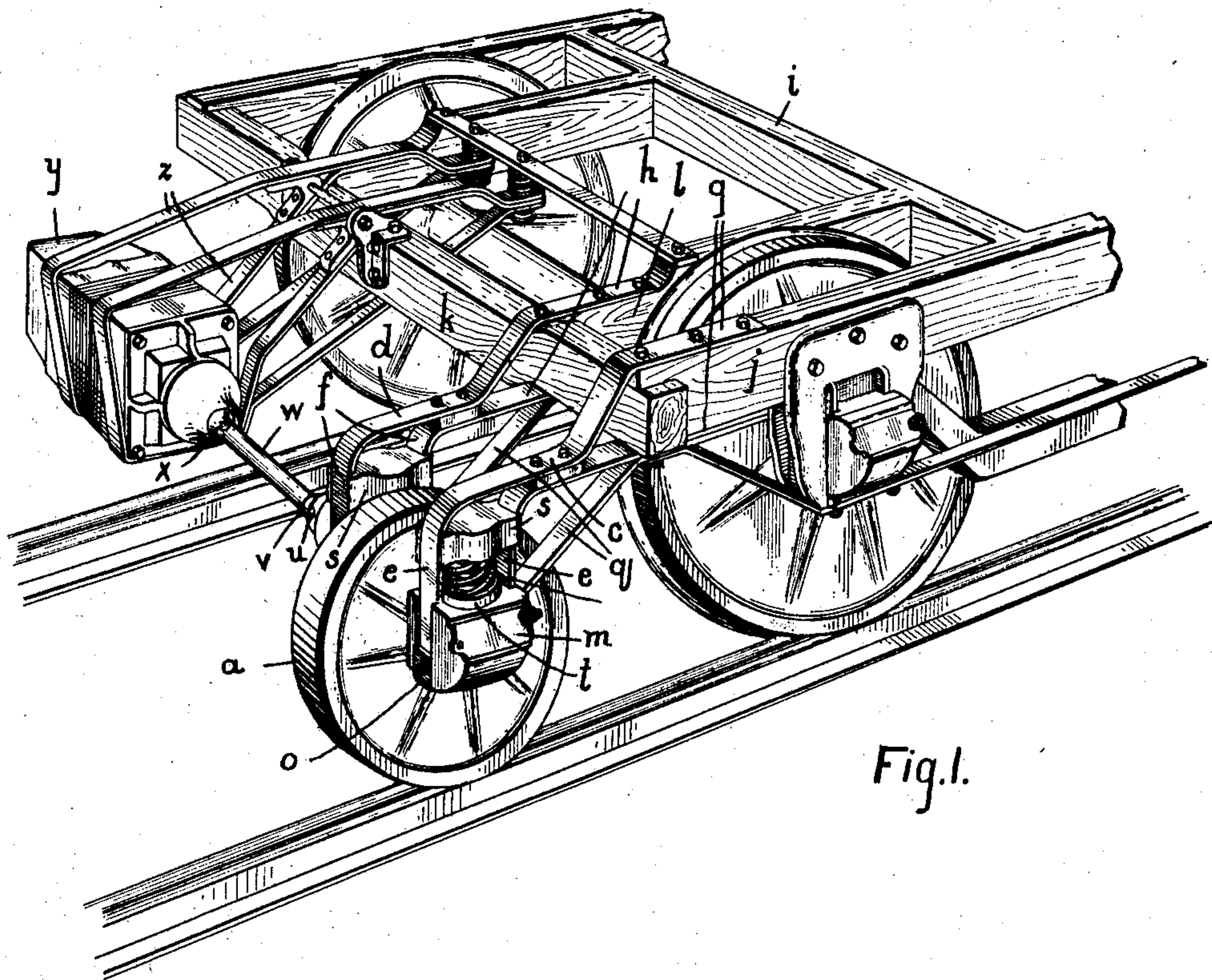


Fig. 1.

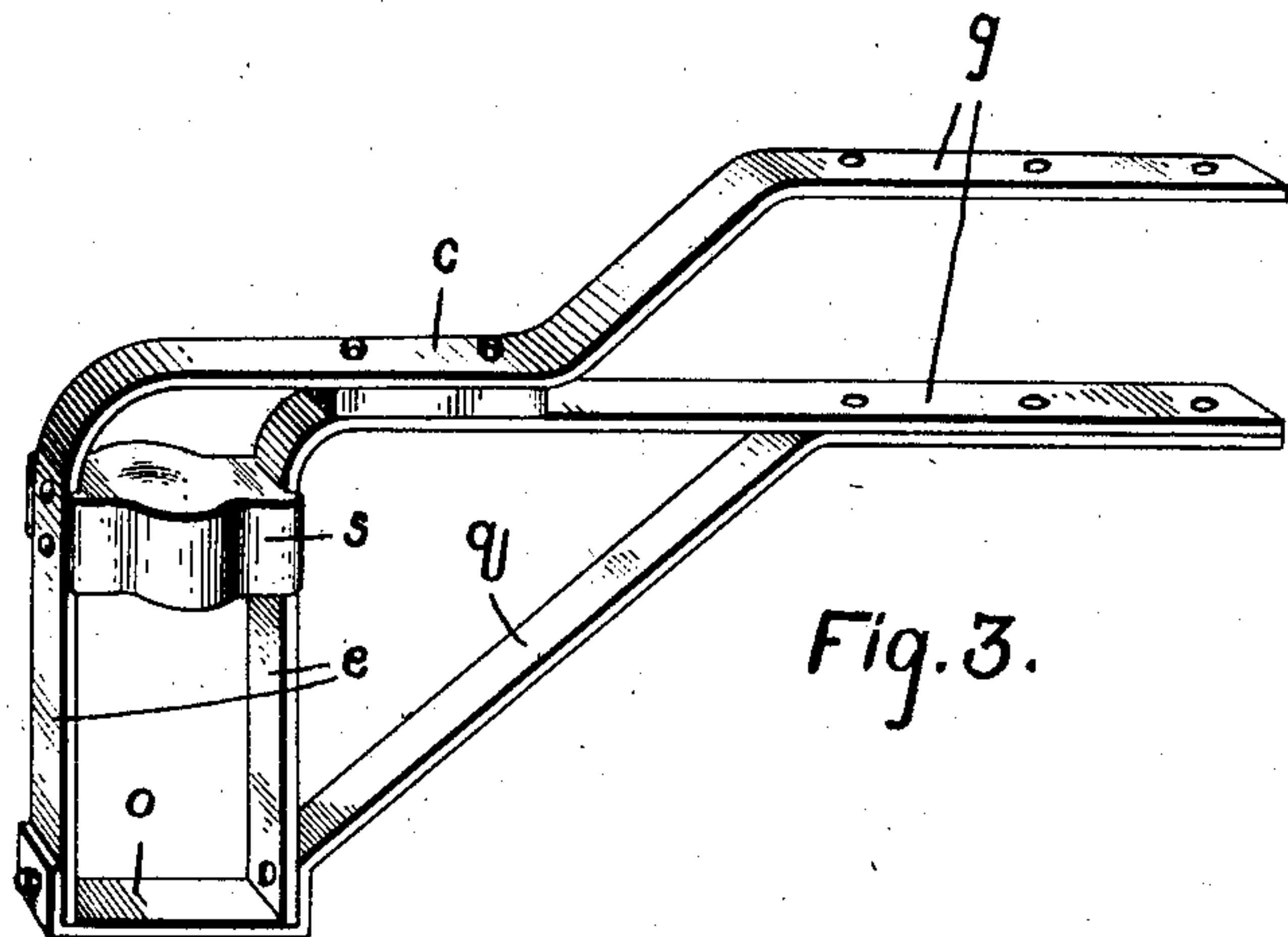


Fig. 3.

Witnesses.

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2 SHEETS—SHEET 2.

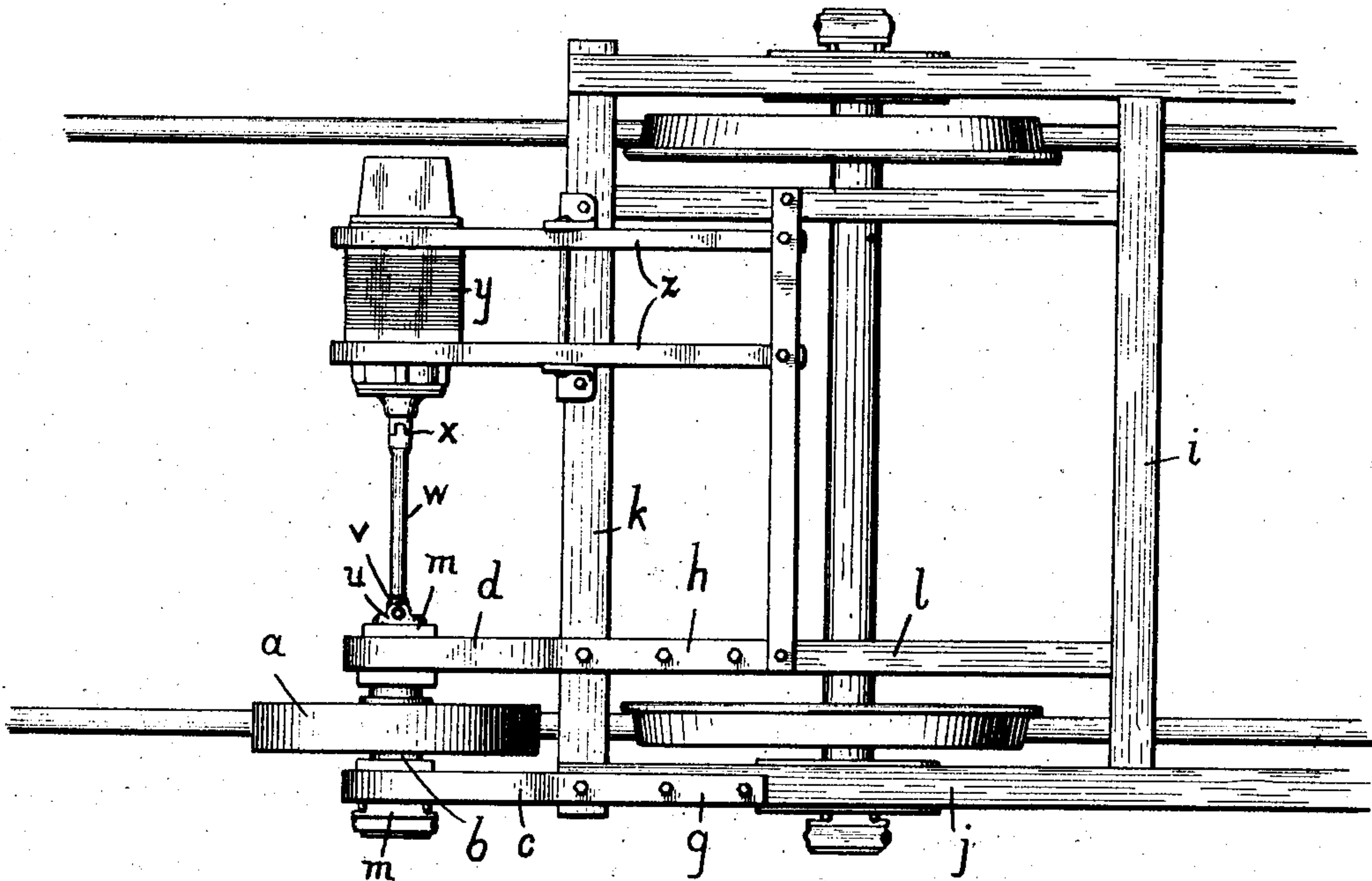


Fig. 2.

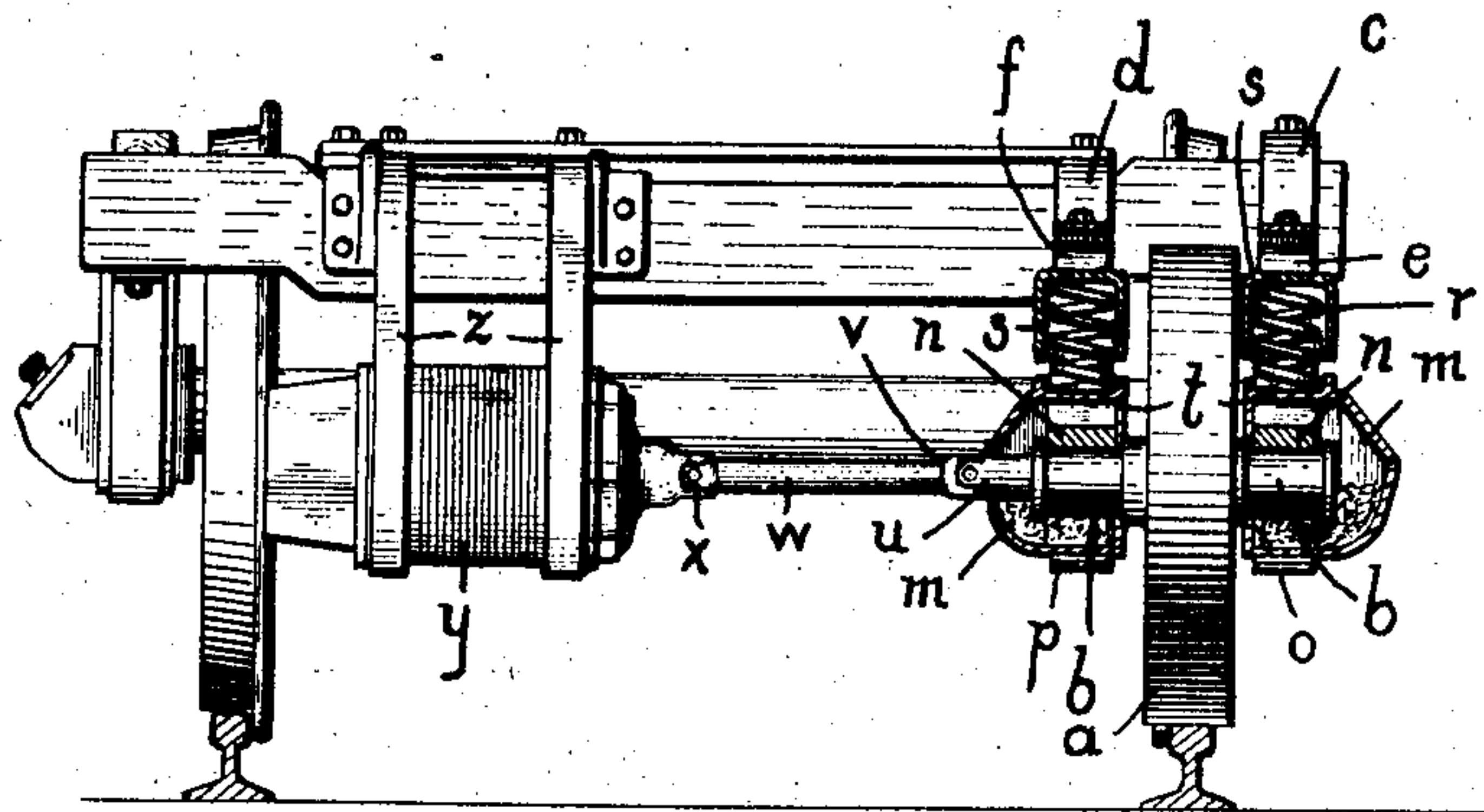


Fig. 4.

Witnesses.

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UNITED STATES PATENT OFFICE.

ISIDOR DEUTSCH, OF MONTREAL, CANADA, ASSIGNOR TO ELECTRIC AND TRAIN LIGHTING SYNDICATE, LIMITED, OF MONTREAL, CANADA, A CORPORATION OF CANADA.

POWER-TRANSMITTING DEVICE.

SPECIFICATION forming part of Letters Patent No. 768,036, dated August 23, 1904.

Application filed October 21, 1903. Serial No. 177,987. (No model.)

To all whom it may concern:

Be it known that I, ISIDOR DEUTSCH, a citizen of the United States of America, residing at Montreal, in the district of Montreal, in the Province of Quebec, Canada, have invented certain new and useful Improvements in Power-Transmitting Devices, of which the following is a specification.

My invention relates to improvements in power-transmitting devices; and the object of the invention is to devise an arrangement which shall utilize the motion of a driven vehicle to provide a positive power for a machine stationary on said vehicle and at a minimum cost to the original power used and whereby the effect of dust and grit in transmission mechanism will be avoided and interference with the ordinary running-gear entirely eliminated; and it consists, essentially, of an additional wheel on the vehicle traveling on the same bed or way as the ordinary wheels, a bracket in which the said additional wheel is journaled, preferably projecting from the vehicle-support, and a shaft of a flexible nature rotated by and extending from the said wheel into the stationary machine to be operated, the various parts being constructed in detail as hereinafter more particularly described.

Figure 1 is a perspective view of my device as applied to the truck of a railway-carriage. Fig. 2 is a plan view of my device as shown in Fig. 1. Fig. 3 is a perspective detail of a bearing-bracket. Fig. 4 is an elevation from the end, partly in section.

Like letters of reference indicate corresponding parts in each figure.

a is a wheel, preferably without a flange and having the axle *b* extending therethrough and fixedly secured thereto.

c and *d* are brackets having the downwardly-extending arms *e* and *f*, respectively, on their outer ends and the arms *g* and *h* on their inner ends rigidly attached to the vehicle-support or truck-frame *i* above and below the side sill *j* and the end sill *k* and safety-beam *l* and end sill *k*, respectively parallel one to the other, the outer arms of said

brackets reaching down on each side of the wheel *a*.

m represents journal-boxes in which the axle *b* is journaled on each side of the wheel *a*, the said journal-boxes having the usual brasses *n*. The journal-boxes *m* need not be described at length herein, as they are of known construction and are preferably of the type used in ordinary railway work. The said journal-boxes *m* slide upwardly and downwardly in the arms *e* and the arms *f* in a similar manner to that in which the ordinary journal-boxes in railway construction slide in the pedestals.

o and *p* are removable straps around the ends of the arms *e* and the arms *f*, respectively, and are designed to hold the journal-boxes *m* therein and to stay the arms.

q represents struts from the lower inner arm of the brackets to the outer arm and act as a brace to the latter.

r represents coil-springs set in suitable cups *s* and *t* between the arms *e* and the arms *f* and are designed to exert pressure on the top of the journal-boxes *m* from thereabove.

u is one member of a universal joint fixedly secured or forming part of the inner end of the axle *b* and projecting beyond the inner bearing for the wheel *a*. *v* is the corresponding member of the same joint and forms part of or is securely attached to the shaft *w*.

x is a universal joint in the shaft *w* intermediate of the distance between the aforesaid universal joint and the machine *y* to be operated.

The shaft *w* enters the machine *y*, which is supported from the vehicle-support by suitable bands or cradle *z*. The cradle *z* will not be described at length herein, as its construction is not essential to the mechanism herein described except in so far as the position of the machine is concerned, though it must be understood that the machine may be placed in a different manner—that is, it may be suspended from the body of the vehicle.

The transmission as above described in detail is more particularly applicable to train-

lighting by electricity, and the wheel *a*, as shown, turns with the other wheels by contact with the track. This causes the shaft *w* to revolve, which operates the dynamo-armature to generate electricity for the purpose aforesaid.

It is of course probable that this device may be used to operate stationary machines on moving vehicles for other uses; but in my drawings I have shown it particularly as operating a dynamo.

What I claim as my invention is—

1. In a device of the class described, the combination with a stationary machine on a part of a moving vehicle having a rotatable shaft extending therethrough, of a wheel flexibly connected to said shaft and journaled in rigid supports from a part of said vehicle and traveling on the track, as and for the purpose specified.

2. In a device of the class described, the combination with a stationary machine on a part of a moving vehicle having a rotatable shaft extending therethrough, of a wheel having a fixedly-secured axle extending therethrough suitably connected to the aforesaid shaft, brackets parallelly arranged and rigidly secured beneath the said vehicle, and bearings for the said wheel in said brackets, as and for the purpose specified.

3. In a power-transmitting device in a moving vehicle, an additional wheel journaled in a bearing suitably supported from a part of said moving vehicle and traveling on the track thereof, and directly operating a dynamo, as and for the purpose specified.

4. In a device of the class described, in combination, a moving vehicle traveling on a railway, an additional wheel turning on said railway, bearings therefor having a limited move-

ment in rigid supports from a part of said vehicle, a machine to be operated carried by said vehicle, and a shaft flexibly connected to the axle of the additional wheel and extending into the said machine, as and for the purpose specified.

5. In a device of the class described, in combination, a moving vehicle traveling on a railway, an additional wheel turning on said railway and bearings attached to a part of said vehicle, an axle extending through said wheel and journaled in said bearings, and having at the inner end thereof one member of a universal joint, a machine to be operated carried by a part of said vehicle, and a shaft having a member corresponding to the aforesaid member of the universal joint, and a further universal joint intermediate of its length and extending into said machine, as and for the purpose specified.

6. In a device of the class described, in combination, a moving vehicle supported on suitable trucks and traveling on a railway, an additional wheel turning on said railway, an axle extending through said wheel, a pair of brackets rigidly attached and projecting from one of the car-trucks, bearings adjustably arranged in said brackets and for said wheel, a machine to be operated carried by said truck, and a shaft flexibly connected to the axle of the additional wheel and extending into the said machine, as and for the purpose specified.

Signed at Montreal, in the district of Montreal, in the Province of Quebec, Canada, this 10th day of October, 1903.

ISIDOR DEUTSCH.

Witnesses:

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R. T. TROTTER.