

(No Model.)

C. J. VAN DEPOELE.
DYNAMO ELECTRIC RAILWAY BRAKE.

No. 347,904.

Patented Aug. 24, 1886.

Fig. 1.

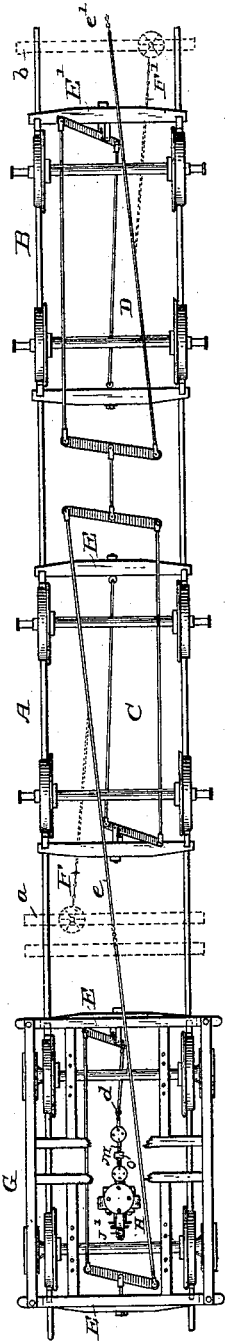
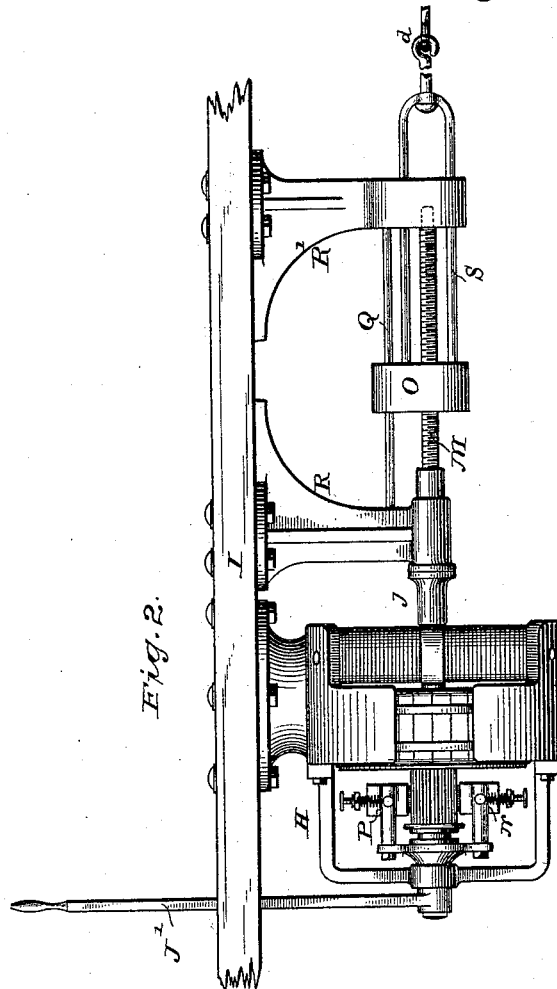


Fig. 2.



Witnesses

Geo W. Young.

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UNITED STATES PATENT OFFICE.

CHARLES J. VAN DEPOELE, OF CHICAGO, ILLINOIS.

DYNAMO-ELECTRIC RAILWAY-BRAKE.

SPECIFICATION forming part of Letters Patent No. 347,904, dated August 24, 1886.

Application filed April 23, 1886. Serial No. 200,469. (No model.)

To all whom it may concern:

Be it known that I, CHARLES J. VAN DEPOELE, a citizen of the United States, residing at Chicago, in the county of Cook, State of Illinois, have invented certain new and useful Improvements in Dynamo-Electric Railway-Brakes, of which the following is a description.

The present invention relates to improvements in railway-brakes of the class that are actuated and controlled by electrically-driven apparatus; and it consists in an improved system of connecting and operating the brake mechanism, whereby all the brakes on a train can be operated from one point, the details of the construction, arrangement, and operation whereof will be more fully hereinafter set forth.

In the accompanying drawings, which form part of this application, Figure 1 is a general plan view showing the running-gear of a car and a motor-car connected thereto, the two cars together illustrating the continuity of the brake mechanism. Fig. 2 is an elevation of an electric motor arranged to operate the system of brakes.

Similar letters denote like parts throughout.

A and B represent the trucks at opposite ends of an ordinary railway car or coach, and *a* and *b*, in dotted lines, the end platforms thereof, which are, as shown, provided with hand brake-operating devices, as usual.

C and D are the systems of rods and levers by which the brake-beams E E' are controlled and the brake-shoes applied to the wheels.

The brake mechanism on the trucks A and B is connected in the usual and well-known manner; but instead of the main rods *e e'* being connected directly to the hand mechanism, they are connected to each other throughout the train, additional rods and chains, F F', being connected thereto at any suitable point, and, diverging therefrom, are secured to the hand brake-operating mechanism, so that the last car in the train may have a fixed point against which the force applying the brake can be exerted, and also that the cars may be handled in the usual manner when detached.

G is a second car, which, for convenience, I have called the "motor-car," and may be placed at either end of the train, as found most desirable. As shown, it comprises only one set of wheels, but may, of course, be similar in

construction to the rest of the train, and it is provided with brake-beams E and a set of brake-rods and connections, C, the latter of which is connected by its inner rod or member, *d*, directly to mechanism acted upon by the motor H, carried upon said car, from which it will be understood that when the motor is rotated in one direction all the brakes on the entire train will be set thereby, each system pulling upon the next, and so on throughout.

In Fig. 2, I represents the floor or platform upon the car G, below which the motor H is mounted. The motor itself may be of any well-known construction, being preferably similar to the one shown and described in application for Letters Patent filed by me March 15, 1886, Serial No. 195,212. A suitable handle, J', is provided at the forward end of the motor, whereby the commutator-brushes P and N can be moved as desired, and the direction of rotation and rotation thereof can be controlled thereby. The rear end of the armature-shaft *j* is connected directly to a screw-shaft, M, which works into a threaded head-block, O, which is supported upon a guide, Q, fixed between depending arms or braces R R', secured below the platform I. A link, S, passes through or around the support R' and is securely fixed or connected at its outer end to the block O, which travels horizontally upon the screw-shaft and its support, and at the other end to the terminal *d* of the brake mechanism. It will be apparent that rotation of the armature of the motor will cause the block O to move horizontally along the guide Q and to act upon the brake-connection *d*, setting or releasing the system of brakes, as may be desired.

The electric connections by which the motor is operated may be of any desired character including any independent source of supply that may be carried by the train for other purposes.

I do not desire to limit myself to the exact details of construction and arrangement herein shown and described, as the apparatus may be modified in many ways without departing from the spirit of the invention.

Having described my invention, what I claim, and desire to secure by Letters Patent, is—

In a system of dynamo-electric railway-

brakes, the combination, with two or more cars, brake-rods extending from each car and mechanically connected throughout the train, a screw-shaft to which the terminal of the system of connected brakes is secured, a motor at
5 one end of the train, and connections between the armature of the motor and the screw-shaft, whereby the same can be rotated in either di-

rection, and thereby set or release the brakes, as desired, as set forth.

In testimony whereof I hereto affix my signature in presence of two witnesses.

CHARLES J. VAN DEPOELE.

Witnesses:

FRANK J. O'DWYER,
WALTER N. SHEAFF.