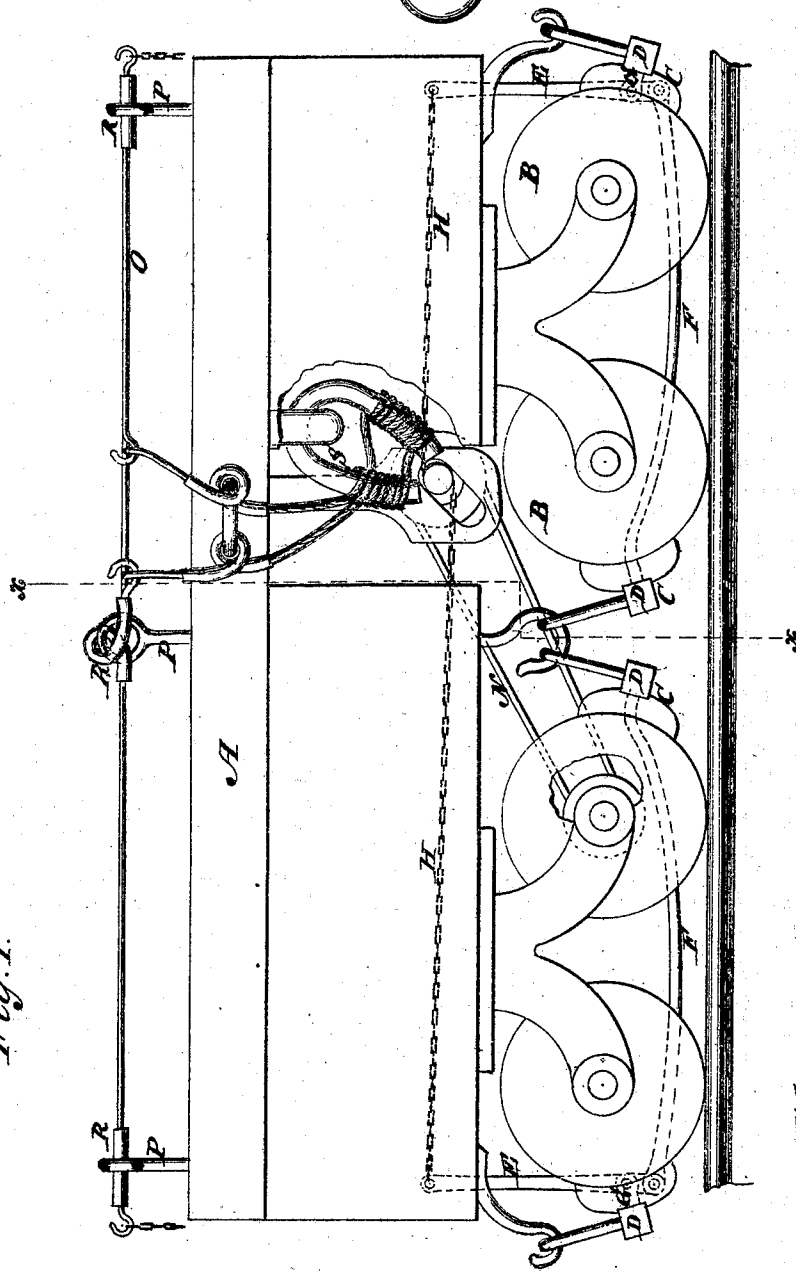


116818 H.S. Daggett. Electric Car Brake.

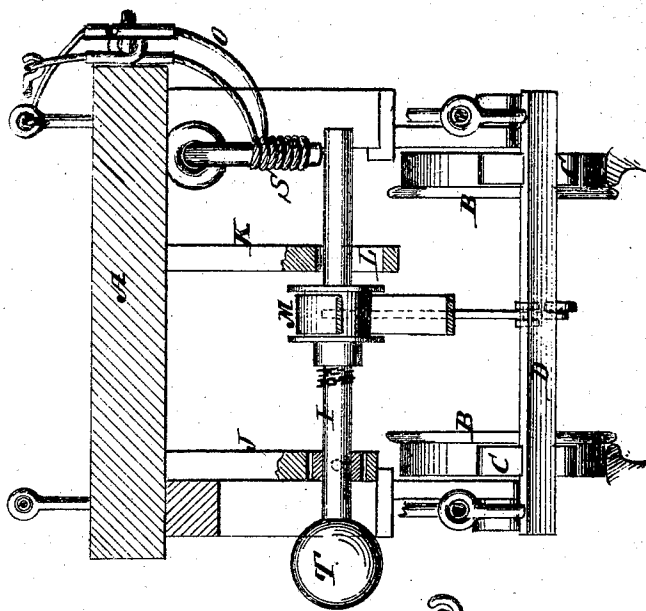
PATENTED JUL 11 1871

Fig. 1.



Witnesses:
Wm. B. L. Smith.
Alex. F. Roberts

Fig. 2.



Inventor:
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per J. Munnell &
Attorneys.

UNITED STATES PATENT OFFICE.

HENRY S. DAGGETT, OF LA FAYETTE, INDIANA.

IMPROVEMENT IN ELECTRO-MAGNETIC CAR-BRAKES.

Specification forming part of Letters Patent No. 116,818, dated July 11, 1871.

To all whom it may concern:

Be it known that I, HENRY S. DAGGETT, of La Fayette, in the county of Tippecanoe and State of Indiana, have invented a new and useful Improvement in Electric Car-Brake; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to make and use the same, reference being had to the accompanying drawing forming part of this specification.

My invention consists in improving car-brakes, as hereinafter fully described and subsequently pointed out in the claim.

In the accompanying drawing, Figure 1 represents a sectional side view of a railroad car, showing the mode of applying the brakes. Fig. 2 is a vertical cross-section of Fig. 1 taken on the line *x x*.

Similar letters of reference indicate corresponding parts.

A represents the car; B, the wheels; C, the brakes. D are the brake-bars, which extend transversely across and under the car, each with a brake or "shoe" on each end. These bars are suspended by means of hooks from the bottom or lower portion of the car. The shoes are drawn in contact with the wheels, so as to produce the necessary friction for "braking up" the train by the levers E, which are connected with the central brake-bars by the rods F F, and with the bars at the ends of the car by short screw-eyes G. The levers E are connected by chains H H to the transverse shaft I. (See Fig. 2.) This shaft is supported by the hangers J and K. It passes through a box in J, which box is hung on pivots which allow the shaft to vibrate. In the hanger K the shaft is confined in a slot, L, and the vibration allows this portion of the shaft to move from the bottom to the top of the slot. M is a pulley on this shaft, and N is a belt which passes from the pulley N to a pulley on one of the car-axes, as seen in Fig. 1. When this belt is drawn tightly the shaft I is revolved. The chains H H are so connected with the shaft that when it revolves they are both wound around it, and the two levers E are drawn to-

gether, which applies the brake. It will thus be seen that to apply the brake the belt must be tightened so as to revolve the shaft I. This I do by means of electricity supplied from a battery on the baggage-car or tender, or in any convenient position on the train, so that the fireman or engineer can apply the brakes throughout the whole train by simply pulling a cord or wire so as to connect the conducting-wires with the poles of the battery. O represents the conducting-wire, which is supported by stands P where it is insulated by the non-conductors R. S is the magnet connected with the conducting-wire O, as seen in Fig. 1. The magnet is supported from the bottom of the car over the end of the shaft I, and so as to attract and raise that shaft from the bottom to the top of the slot L. This action of the magnet tightens the belt which revolves the shaft and applies the brake. T is a weight on the outer end of the shaft I for balancing the shaft or supporting a portion of its weight. The brake is disengaged by breaking the connection with the battery.

It is not deemed necessary to show a battery or mode of making or breaking the connection with it.

The system of brakes here shown may be extended throughout the entire train. The conducting-wires may be so connected from one car to another that they will pull apart when the cars are separated.

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

1. The magnet S, combined with a brake-shaft, I, working in the slotted bearing K L, to raise or allow the shaft to fall, as and for the purpose specified.

2. A fast pulley, M, on the rotary brake-operating shaft I, combined with a fast pulley on one of the car-axes, and a belt, N, upon and between them, tightened to enable the car-axle to apply power to the brake mechanism, and loosened when it is not so.

Witnesses:

MARK JONES,
S. T. STALLARD.

H. S. DAGGETT.