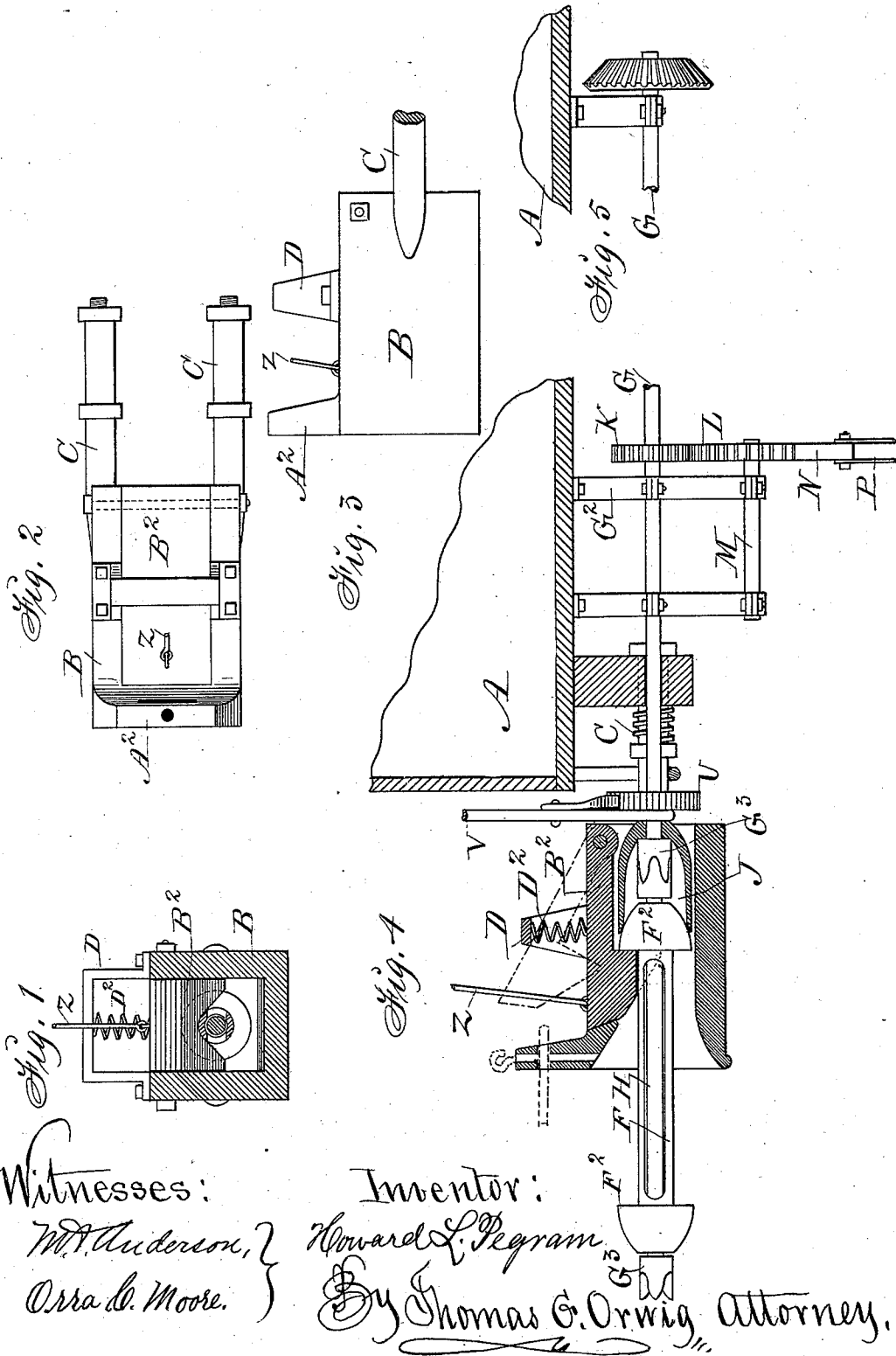


H. L. PEGRAM.

CAR BRAKE AND COUPLING.

No. 308,695.

Patented Dec. 2, 1884.



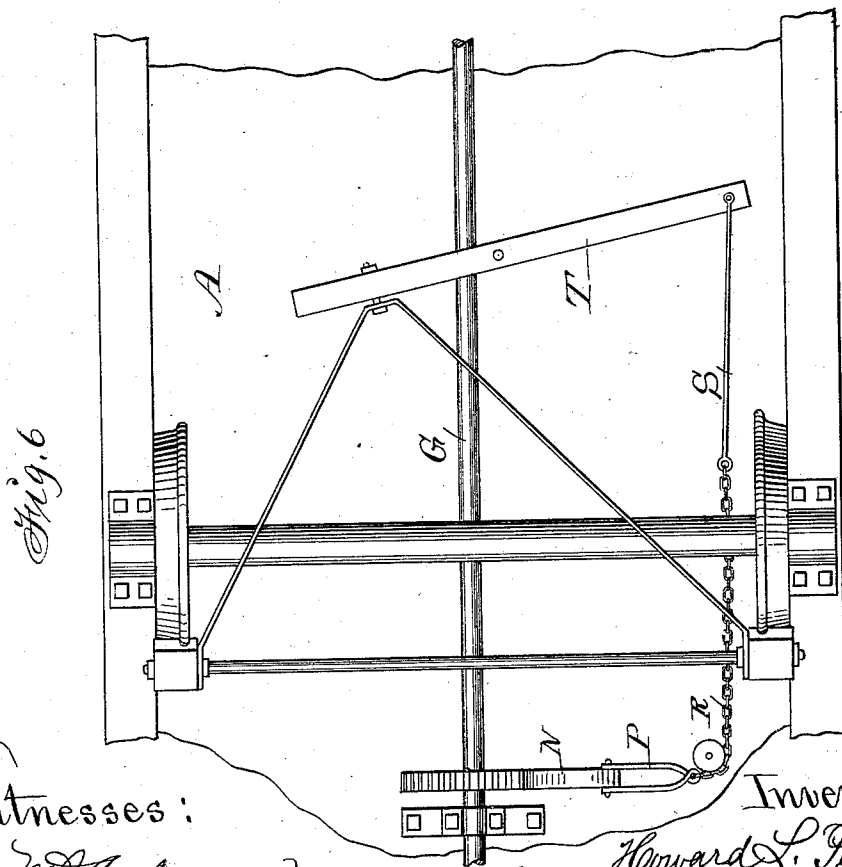
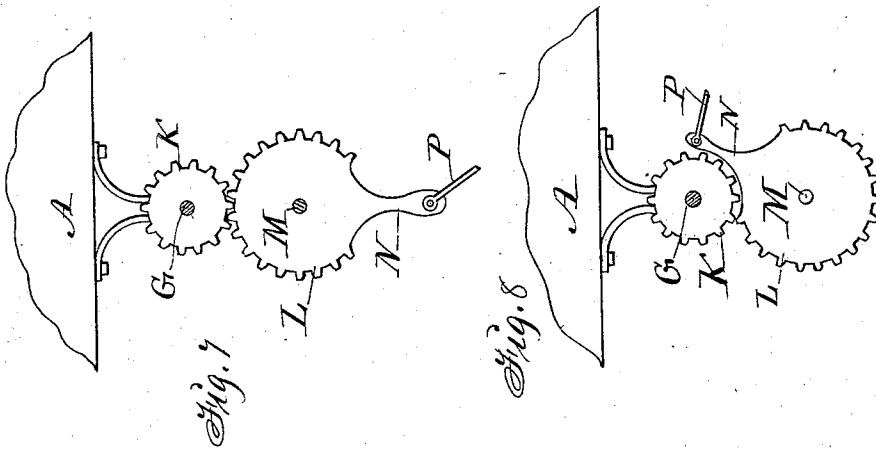
Witnesses:
 W. A. Anderson, }
 Orra W. Moore. }

Inventor:
 Howard L. Pegram.
 By Thomas G. Orwig, Attorney.

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UNITED STATES PATENT OFFICE.

HOWARD L. PEGRAM, OF SUMMERSET, IOWA.

CAR BRAKE AND COUPLING.

SPECIFICATION forming part of Letters Patent No. 308,695, dated December 2, 1884.

Application filed May 5, 1884. (No model.)

To all whom it may concern:

Be it known that I, HOWARD L. PEGRAM, of Summerset, in the county of Warren and State of Iowa, have invented a Car-Coupling and Railway-Brake, of which the following is a specification.

My invention consists in the construction and combination of a draw-head, a tubular coupling-link, shaft-sections having clutches on their ends, a clutch-guide, and brake-operating mechanism, as hereinafter fully set forth, in such a manner that the coupling of cars and coupling of a shaft for operating the brakes will be automatically accomplished at the same instant, so that all the brakes on all the cars in a train can be simultaneously operated by means of power applied from the engine or by a person on the engine, and also independently operated upon any car when detached from the train.

Figure 1 of my accompanying drawings is a transverse section, Fig. 2 a top view, and Fig. 3 a side view, of my draw-head. Fig. 4 is a longitudinal vertical section of my draw-head, coupling-link, shaft and clutch, clutch-guiding device, and brake-operating mechanism combined with a section of a car. Fig. 5 represents the end of the continuous shaft for operating the brakes on a train of cars. Fig. 6 is a section of an inverted car, showing the brake-shaft combined with the brake-lever. Fig. 7 shows the position of the gearing when the brake force is relaxed. Fig. 8 shows the position of the same gearing when the brake force is applied.

Jointly considered, these figures clearly illustrate the construction, application, and operation of my complete invention.

A represents a car.

B is my draw-head. It has a flaring mouth, and a large cavity that is open at the top and extends to the rear end.

C C are draw-bars formed on or fixed to the opposite sides and rear end of the head. They are attached to the car in a common way, and have collars and springs applied in the manner car-buffers are usually formed.

A² is an upward extension on the front end of the draw-head adapted to receive a common link and pin, as indicated by dotted lines in Fig. 4.

B² is a hook hinged in the rear end of the

cavity of the draw-head, and extends forward to the extension A².

D is a frame fixed on top of the draw-head in such a manner that the hook B² can move vertically within the frame.

D' is a spring fixed to the frame in such a manner that it will, in its normal condition, press the hook down into the cavity.

F is a tubular coupling-link that has conical heads F², adapted to enter the mouth of the draw-head to engage and lift the hook B², which hook will descend and engage the head, as clearly shown in Fig. 4, and as required to couple two cars together.

G is a shaft suspended under each car by means of hangers or shaft-bearers G², that are fixed to the bottom of the car by means of screw-bolts, or in any suitable way.

G³ represents a clutch device on the end of the shaft.

H is a shaft-section that extends through the tubular link F, and that has counterpart clutch devices to engage the clutches G³ on the ends of shafts G.

J is a cup-shaped clutch-guide, fixed to the end of the shaft G, to inclose the clutch G³ in such a manner that when the head F² of the coupling-link enters the draw-head it will also enter the open end of the guide J, to be thereby brought into a concentric position with the shaft G as required to guide the clutch on the end of the shaft-section H into contact with the clutch G³ on the end of the shaft G, thereby produce a continuous rotating shaft under two or more cars that may be coupled together by means of my invention.

K is a gear-wheel fixed to the shaft G.

L is a toothed sector fixed to a shaft, M, that has its bearings in the hangers G². This sector engages the wheel K, and has an arm, N, extending downward, as shown in Fig. 7.

P is a clevis pivoted to the end of the arm N.

R is a chain fixed to the end of the clevis to extend over a directing-pulley to be connected with the end of a rod, S, that is attached to the long arm of a brake-lever, T, as clearly shown in Fig. 6. When the shaft G is rotated to the right or left, the gear-wheel K will actuate the sector L and its arm N as required to transmit power to the brake-lever T through the chain R and rod S.

Power may be applied from the engine by

means of gearing connected with a wheel on the end of the continuous shaft G in such a manner that all the brakes in a train of cars will be operated simultaneously.

5 U represents a ratchet-wheel, and V a brake-lever fixed to the shaft G in such a manner that the shaft G can be thereby rotated to apply the brakes by a person on the platform of a car or at the end of the car by simply
10 pulling the lever to rotate the ratchet-wheel by means of a pawl in a common way.

Z represents a rod connected with the coupling-hook B² in such a manner that a person on the car can readily uncouple by simply
15 applying a lifting force to the rod.

I claim as my invention—

1. The draw-head B, having an opening extending through and a gravitating hook, B², pivoted in the opening, the draw-bars C C, a
20 rotating rod, G, having a clutch device on its end, a tubular coupling-link, F F², and a shaft-section, H, arranged and combined to operate in the manner set forth, for the purposes specified.

2. The guide J, in combination with the shaft 25 G, having a clutch device, G³, for the purposes specified.

3. The shaft G, having a fixed gear-wheel, K, the sector L, having an arm, N, the clevis P, and a chain, in combination with a brake- 30 lever on a car or truck, to operate in the manner set forth, for the purposes specified.

4. A car-coupling and car-brake combined, consisting of a draw-head having a gravitating hook, a tubular coupling-link having tapering heads, a rotating shaft having clutch 35 devices on its ends, a shaft-section having clutch devices on its ends extended through the tubular coupling-link, a gear-wheel fixed to the shaft, a sector having an arm flexibly 40 connected with a brake-lever, substantially as described, to operate in the manner set forth.

HOWARD L. PEGRAM.

Witnesses:

J. T. MEEK,
Z. I. BROWN.