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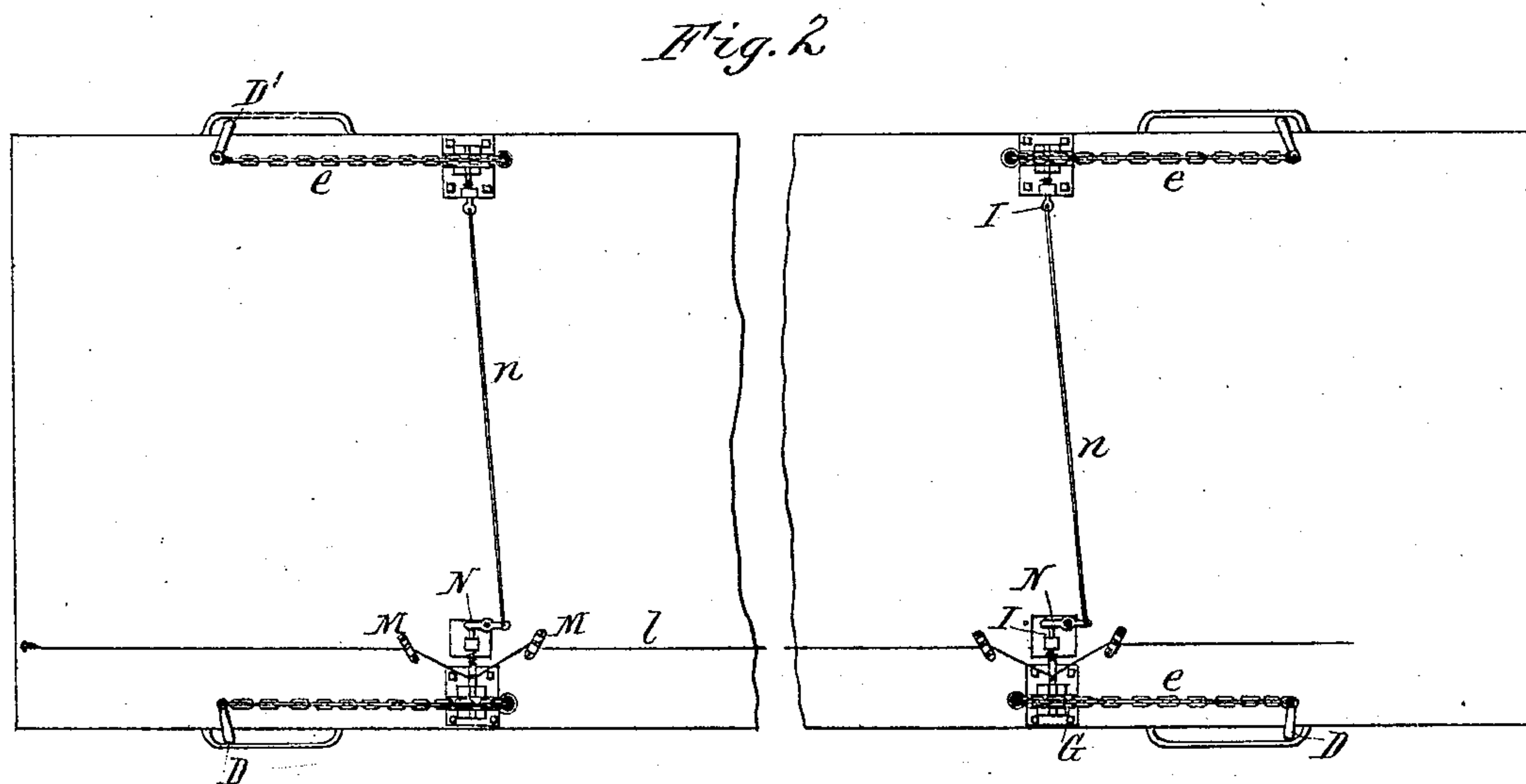
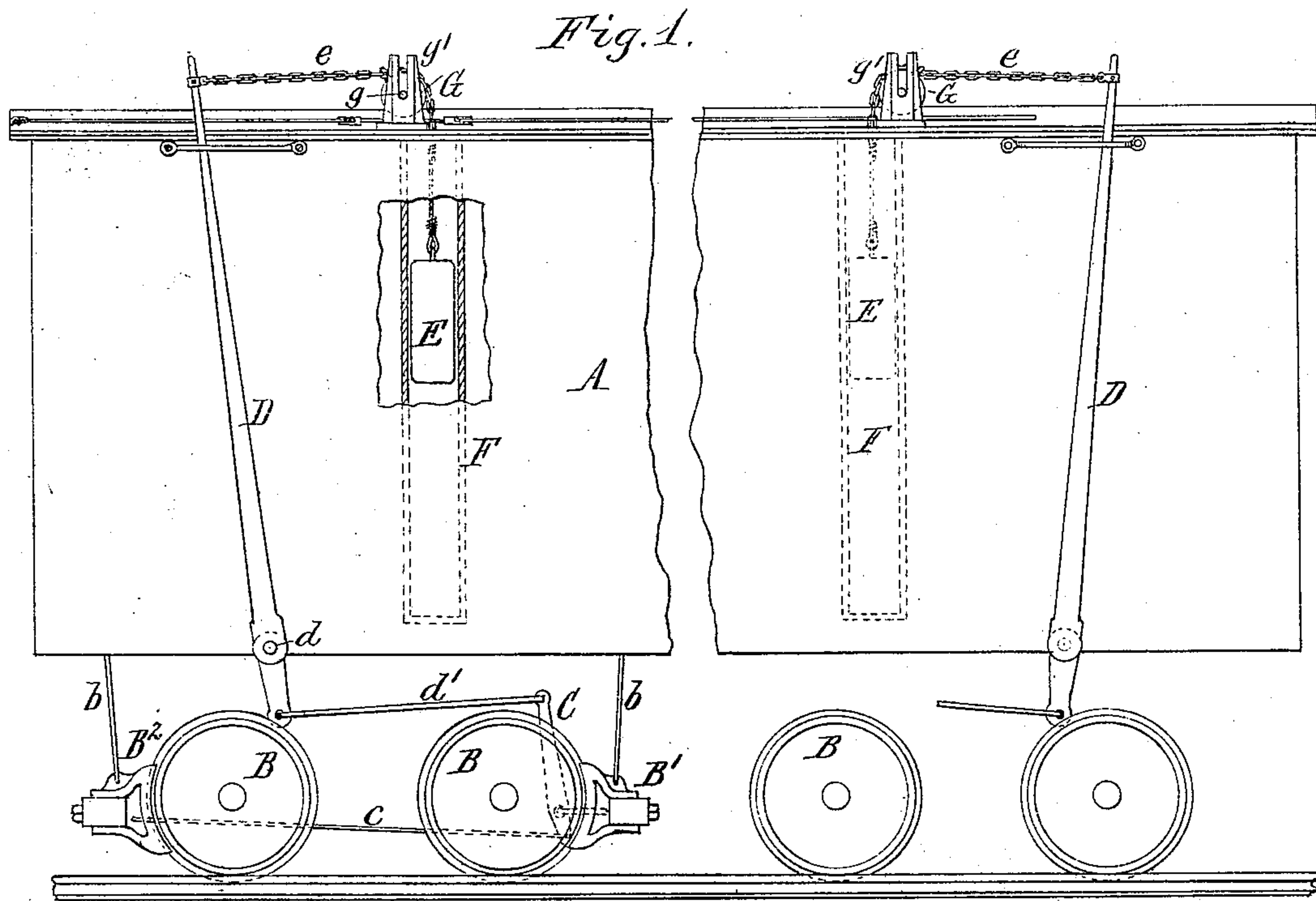
3 Sheets—Sheet 1.

T. HERSEE.

CAR BRAKE.

No. 270,798.

Patented Jan. 16, 1883.



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3 Sheets—Sheet 2.

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Fig. 3.

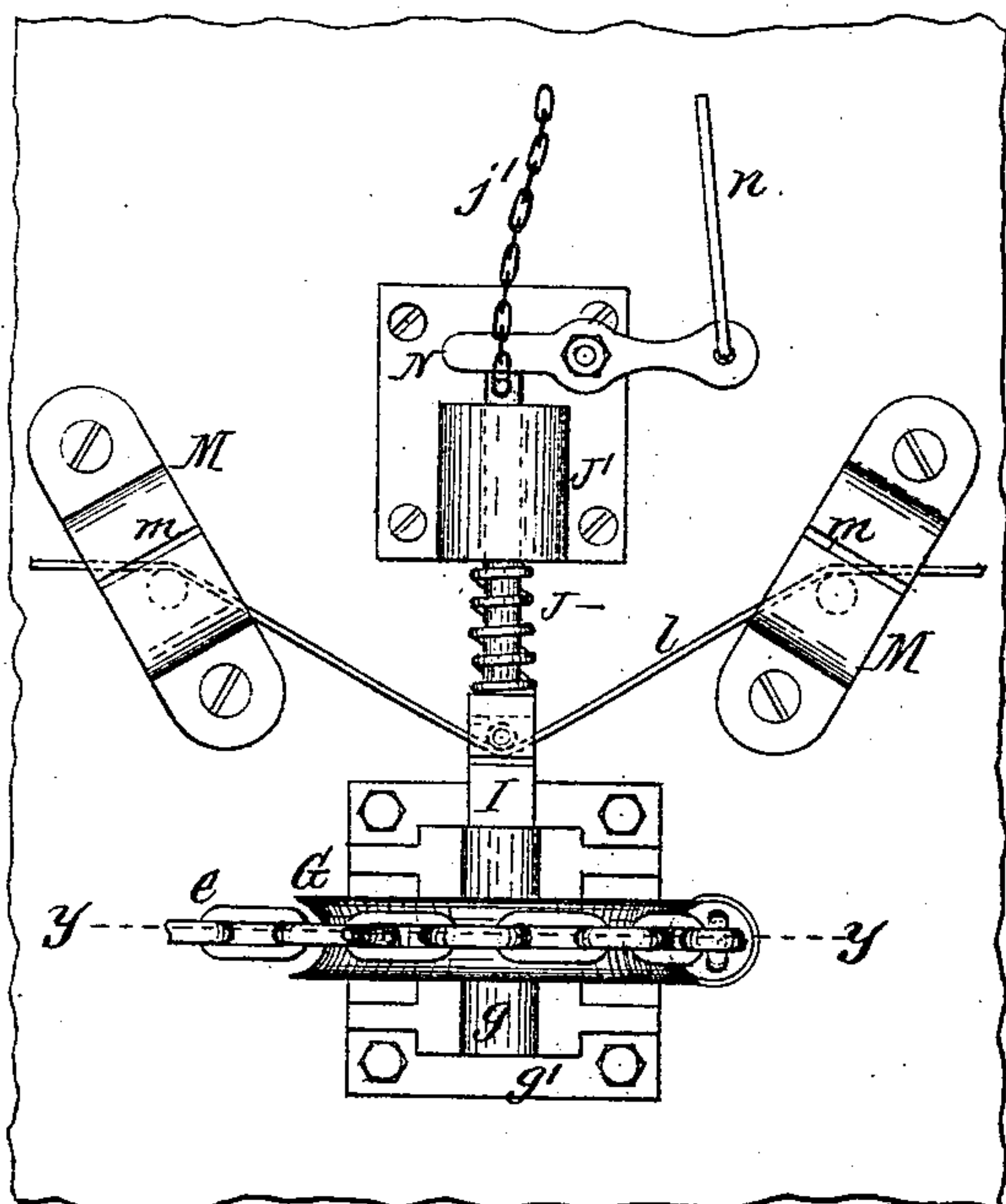


Fig. 4.

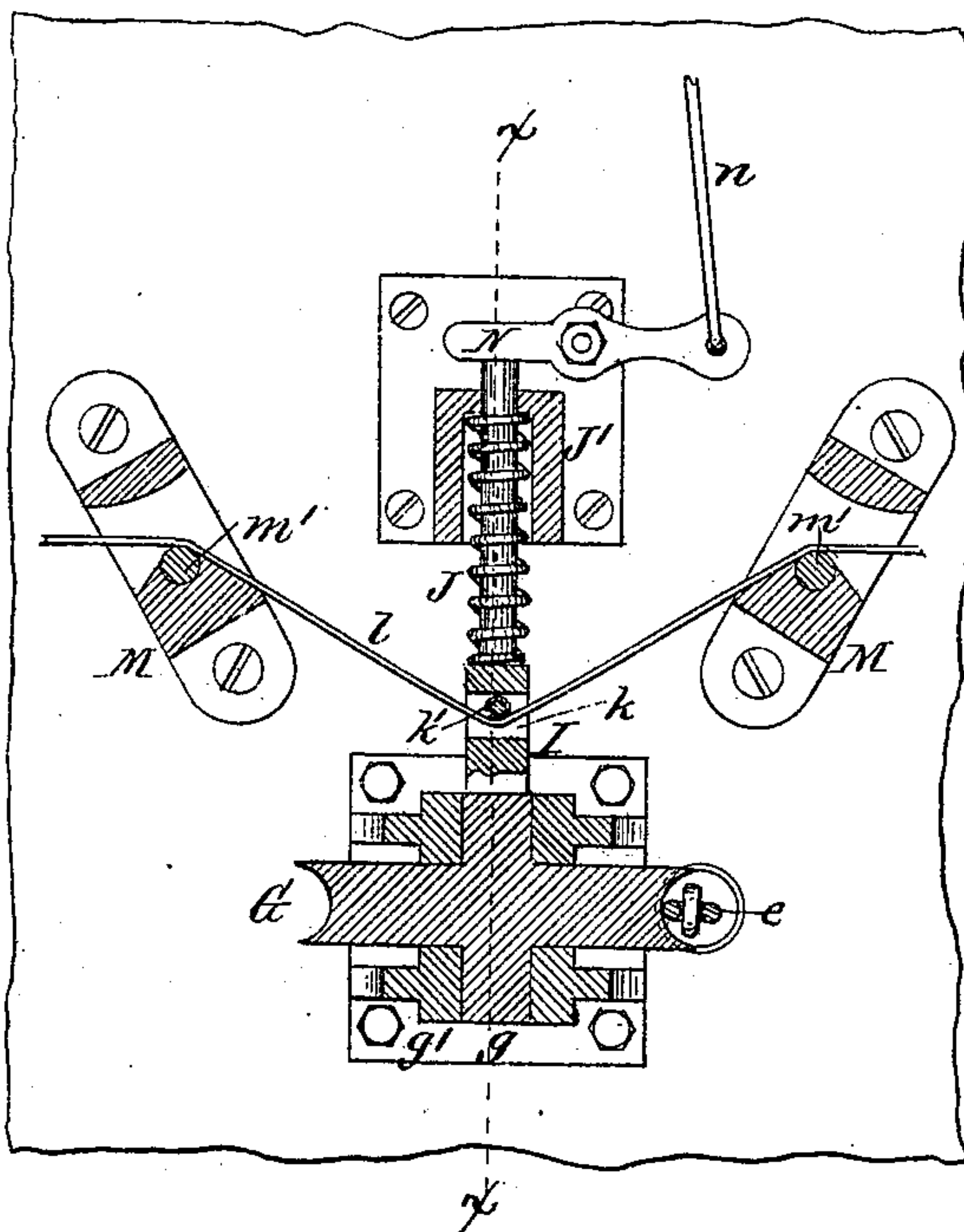


Fig. 5.

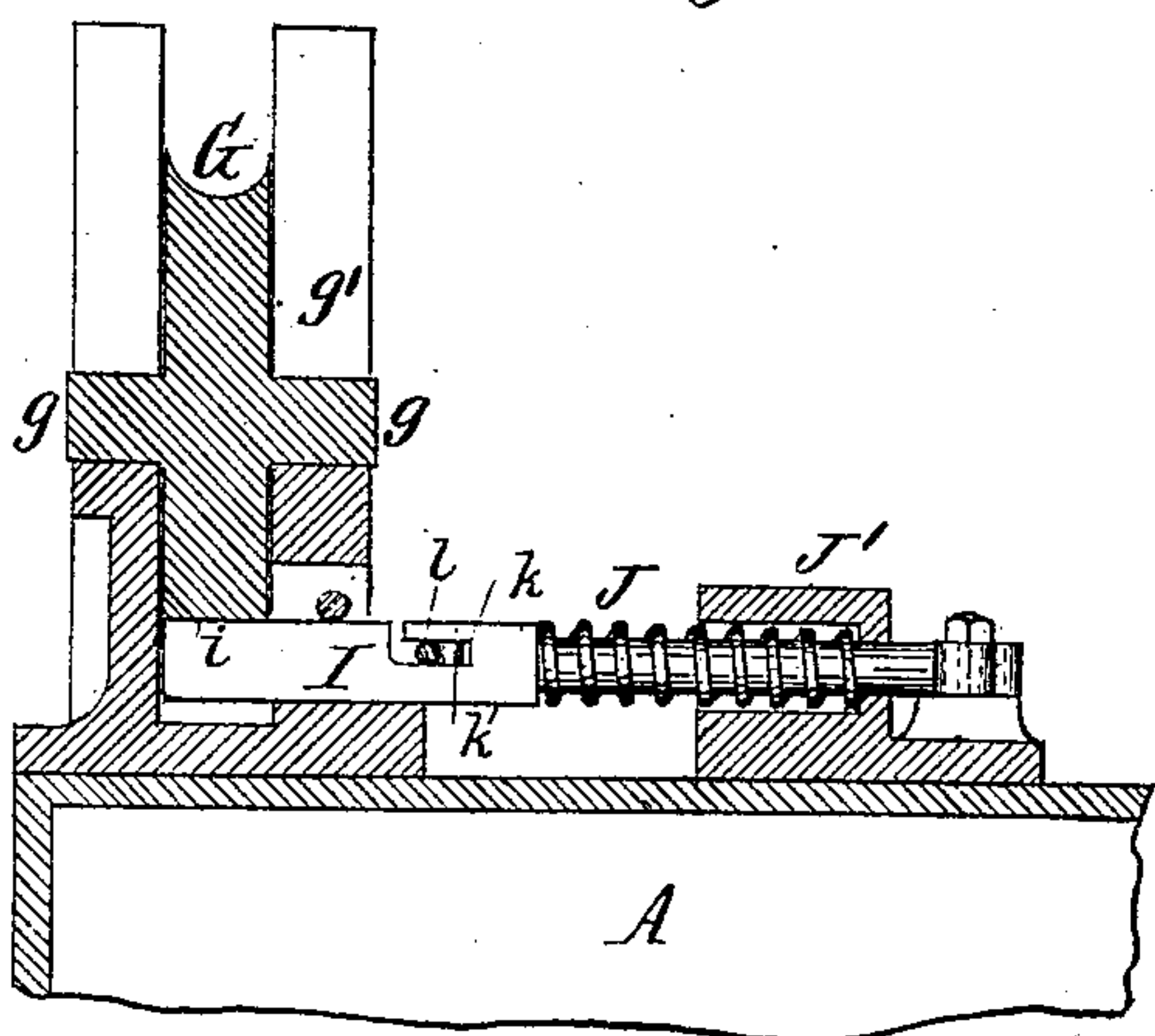
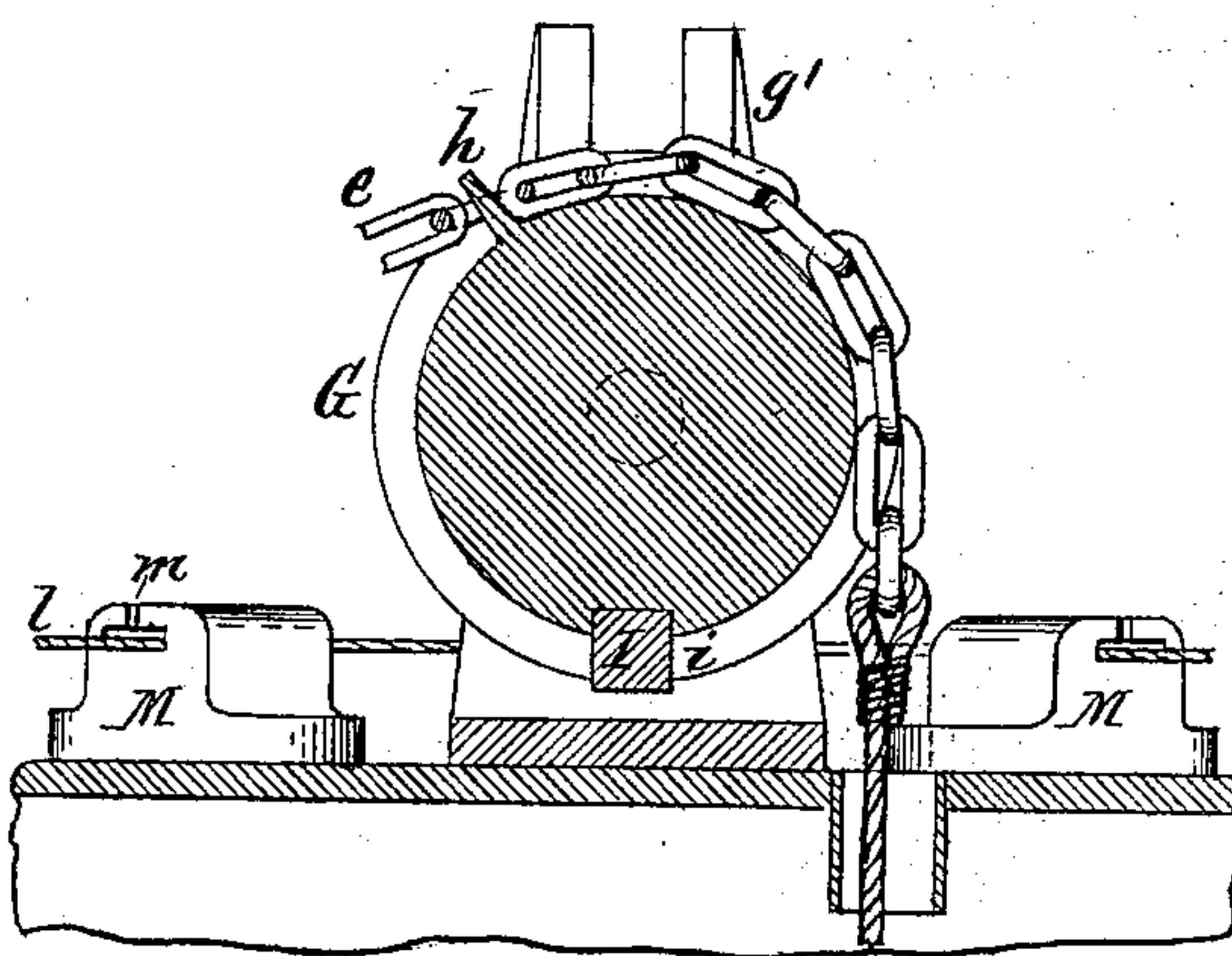


Fig. 6.



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Fig. 7.

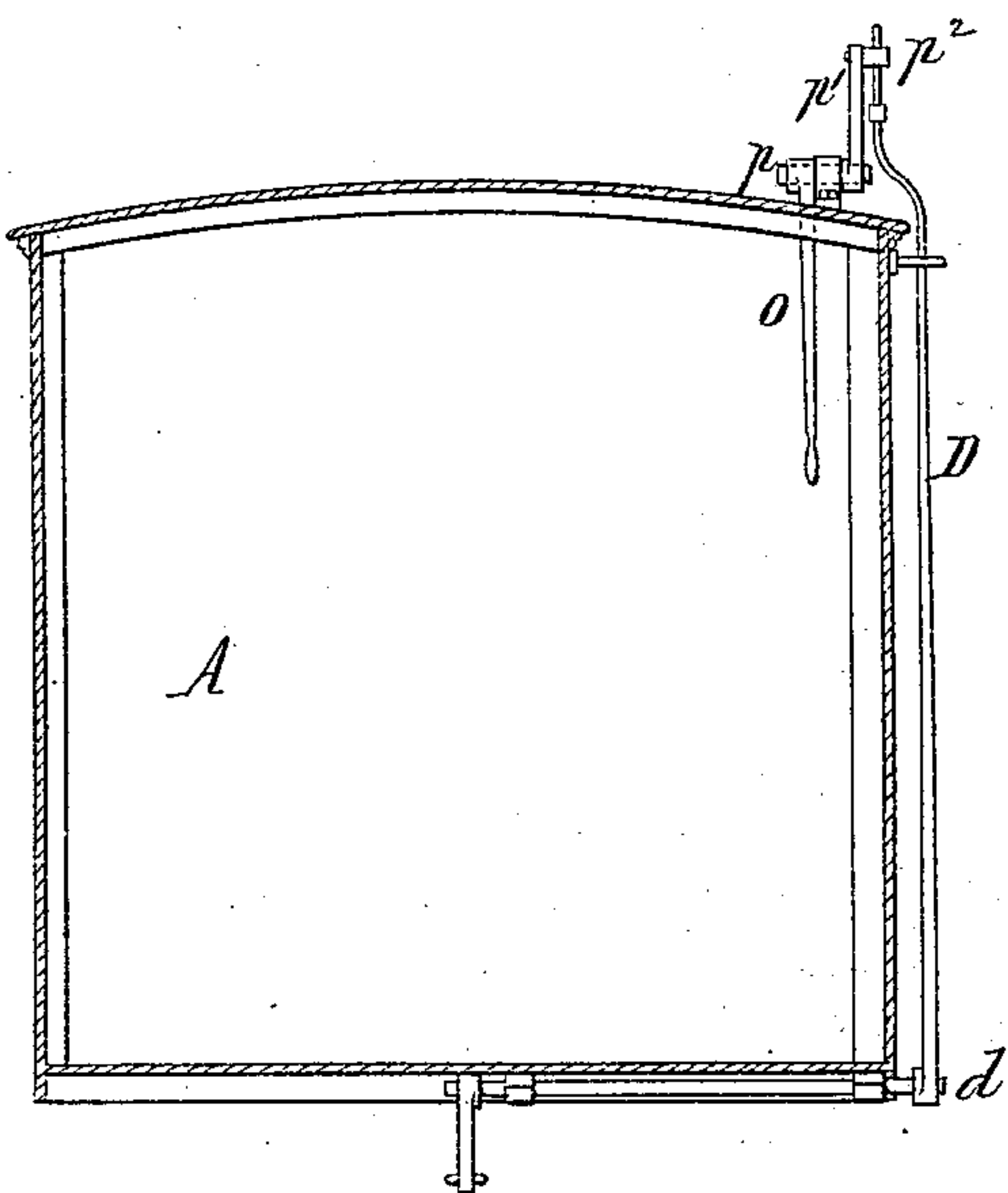
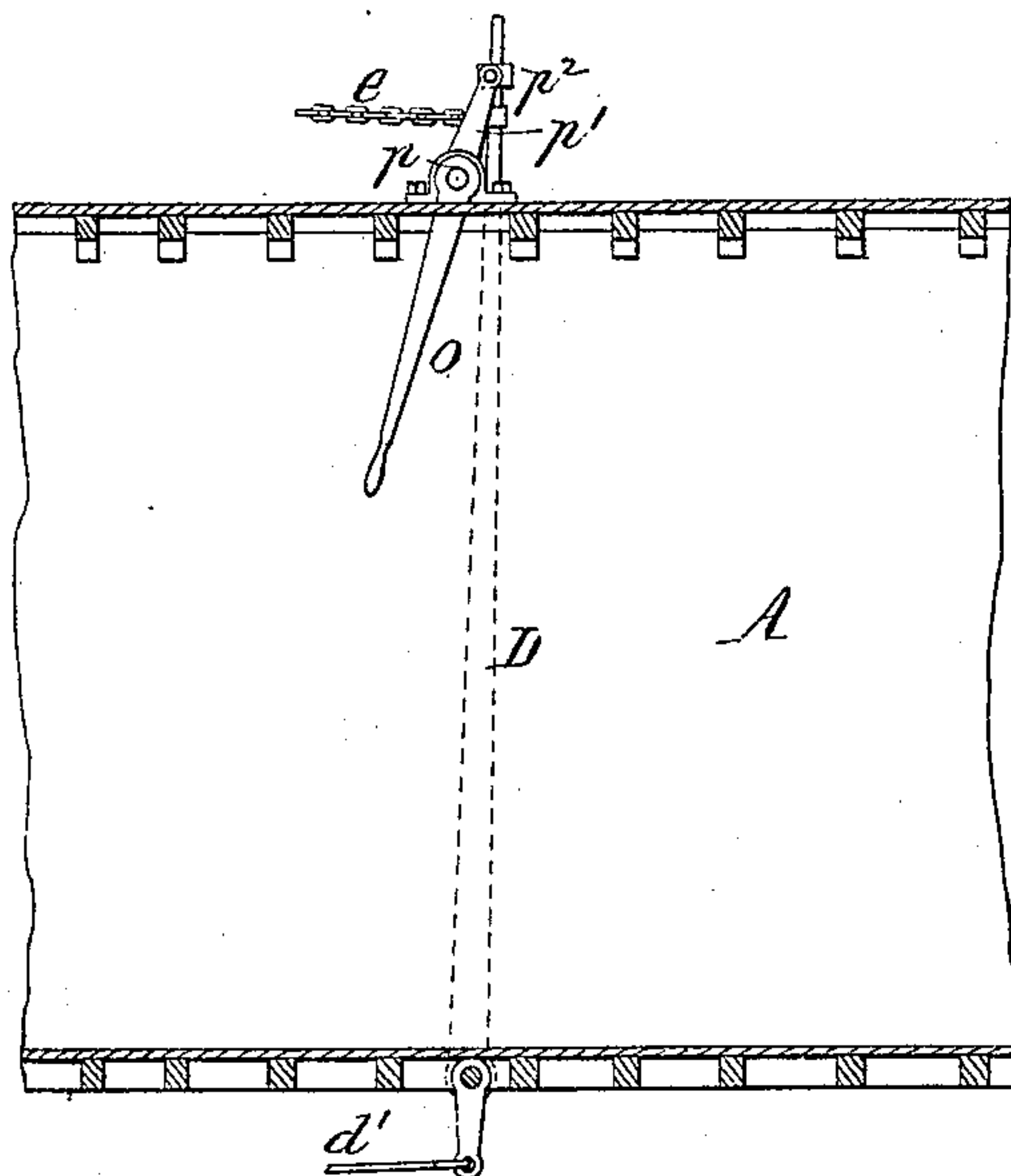


Fig. 8.



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UNITED STATES PATENT OFFICE.

THOMPSON HERSEE, OF BUFFALO, NEW YORK.

CAR-BRAKE.

SPECIFICATION forming part of Letters Patent No. 270,798, dated January 16, 1883.

Application filed October 21, 1882. (No model.)

To all whom it may concern:

Be it known that I, THOMPSON HERSEE, of the city of Buffalo, in the county of Erie and State of New York, have invented a new and useful Improvement in Brakes for Railway-Cars, of which the following is a specification.

This invention relates more particularly to improvements in brakes for freight-cars, and has for its object to construct the brake in such manner that the brake-blocks can be quickly applied to the wheels on one or more cars, as may be desired.

The invention consists of the particular improvements in the construction of the brake mechanism which will be hereinafter fully described, and pointed out in the claims.

In the accompanying drawings, consisting of three sheets, Figure 1 represents a fragmentary elevation of a railway-car provided with my improved brake. Fig. 2 is a top plan view thereof. Fig. 3 is a top plan view of the mechanism whereby the brakes are applied. Fig. 4 is a horizontal section of said mechanism. Fig. 5 is a vertical section in line *x x*, Fig. 4. Fig. 6 is a vertical section in line *y y*, Fig. 3. Fig. 7 is a cross-section, and Fig. 8 is a longitudinal section, of a car, showing mechanism whereby the brake can be applied from the interior of the car.

Like letters of reference refer to like parts in the several figures.

A represents the body or box of the freight-car, and B the wheels thereof; B' B², the brake-blocks, and *b* the rods by which they are suspended from the car-body.

C represents the lever, which is pivoted to the bar of the brake-blocks B', and *c* is the rod which connects the lower end of the lever C with the bar of the brake-blocks B².

D represents the lever by which the brake is actuated, and which is arranged in an upright position on the side of the car-body, to which it is pivoted at *d*.

d' is a rod by which the short arm of the lever D is connected with the long arm of the lever C.

E represents a weight, which is connected with the upper or long arm of the lever D by means of a chain, *e*. The weight E is arranged in an upright box or tube, F, which is secured to the inner side of the side wall of the car-

body, and which permits sufficient vertical movement of the weight to tighten the brake-blocks against the wheels when the weight is released. The chain *e* runs over a wheel or pulley, G, which is provided with journals *g*, turning in bearings *g'*, secured to the roof of the car. The chain *e* is attached to the wheel G by one or more spurs, *h*, which project into or through the links of the chain; or the wheel G may be constructed like a sprocket-wheel, or in any other suitable manner, so that the chain and wheel are compelled to move simultaneously.

I represents a horizontal sliding bolt, which engages with its end in a notch or recess, *i*, formed in the wheel in such manner that the bolt arrests the movement of the wheel and locks the wheel against movement in either direction when the weight E has been raised. The bolt I is provided with a spiral or other suitable spring, J, which is seated in a socket, J', secured to the roof of the car, and tends to hold the bolt in engagement with the wheel. The end of the bolt I is provided with a chain, *j'*, or any other suitable handle or contrivance which can be conveniently seized, and by means of which the bolt can be withdrawn from the notch in the wheel.

k represents an undercut recess arranged in the upper side of the bolt I, and adapted to receive and hold a rope, *l*. The recess *k* is preferably provided with a roller, *k'*, against which the rope bears, and which reduces the friction between the parts.

M represents two blocks or dead-eyes, secured to the roof of the car on opposite sides of the bolt I, and provided with slots *m*, which permit of the introduction of the rope *l*, and with rollers *m'*, against which the rope bears. The bearing-points of the blocks M are so arranged with reference to the point at which the rope bears against the sliding bolt I that the bearing-point in the bolt lies at the apex of an angle formed by the rope, as clearly represented in Figs. 2, 3, and 4, so that upon straightening the rope the bolt I will be withdrawn from the notch in the wheel G.

If desired, two levers, D D', may be arranged opposite each other on both sides of the car, as represented in Fig. 2, and in this case the sliding bolts I on opposite sides of the car are

connected, so that both bolts are released simultaneously. As shown in the drawings, this connection is established by means of a pivoted lever, N, which bears with one arm against the rear end of one of the bolts I, and which has its other arm connected by a rod, n, to the opposite bolt, I, and whereby the movement of the first-mentioned bolt is caused to operate the other sliding bolt in the opposite direction.

The rope l runs over the roofs of the cars, and is securely fastened at one end, and terminates in convenient reach of the persons controlling the brakes, who are preferably stationed at the rear end of the train. By pulling on the rope l all the sliding bolts I are withdrawn from the wheel G simultaneously, thereby releasing said wheel and causing the weights E to descend, whereby all the brakes are set simultaneously.

If it is desired to set only the brakes on but a few or a single car, this is readily accomplished by releasing the sliding bolts I of the particular brake desired to be applied. In order to release the brakes, the levers D are swung on their pivots so as to raise the weights E until the sliding bolts engage in the notch of the wheel G, when the brakes are again ready for operation.

In order to enable the levers D to be operated from the interior of the car, a hand-lever, O, may be provided, which is pivoted to the car-roof at p and depends with its free end into the car, and which has its short arm p' connected by a sliding sleeve, p², or other suitable contrivance with the upper end of the lever D, as clearly shown in Figs. 7 and 8.

I claim as my invention—

1. The combination, with the brake mechanism, of the brake-lever D, arranged in an upright position, and connected at its lower end with the brake mechanism, a weight, E, attached to the upper end of said lever by means

of a chain or rope, e, and means, substantially as described, whereby the weight can be released and caused to operate said lever when the brakes are required to be applied.

2. The combination, with the brake-lever D, of the weight E, a chain or rope, e, connecting said weight with said lever, a pulley, G, moving in unison with said chain or rope, and a locking-bolt, I, engaging with said pulley and the weight in an elevated position, substantially as set forth.

3. The combination, with the brake-lever D, weight E, chain e, and pulley G, provided with the notch i, of the sliding bolt I, substantially as set forth.

4. The combination, with the brake-lever D, weight E, chain or rope e, pulley G, provided with the notch i, sliding bolt I, blocks M, arranged on opposite sides of the sliding bolt, and means whereby the rope is conducted to and from the sliding bolt in an angular direction, substantially as set forth.

5. The combination, with a brake-lever, D, weight E, chain or rope e, notched pulley G, and sliding bolt I, arranged on both sides of the car, of a pivoted lever, N, and connecting-rod n, whereby the sliding bolts on opposite sides of the car are actuated simultaneously, substantially as set forth.

6. The combination, with a brake-lever, D, and weight E, connected therewith, of the pivoted hand-lever O, depending into the car, and provided with an arm, p', attached to the brake-lever D, substantially as set forth.

7. The combination, with the brake-lever D, weight E, and chain or rope e, and notched pulley G, of the sliding bolts I, spring J, and socket J', substantially as set forth.

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