No. 735,253 PATENTED AUG. 4, 1903.

M. F. & H. C. HARTMAN.

VEHICLE BRAKE.

APPLICATION FILED JUNE 7, 1902.

NO MODEL. 2 SHEETS—SHEET 1.

Fig. 1

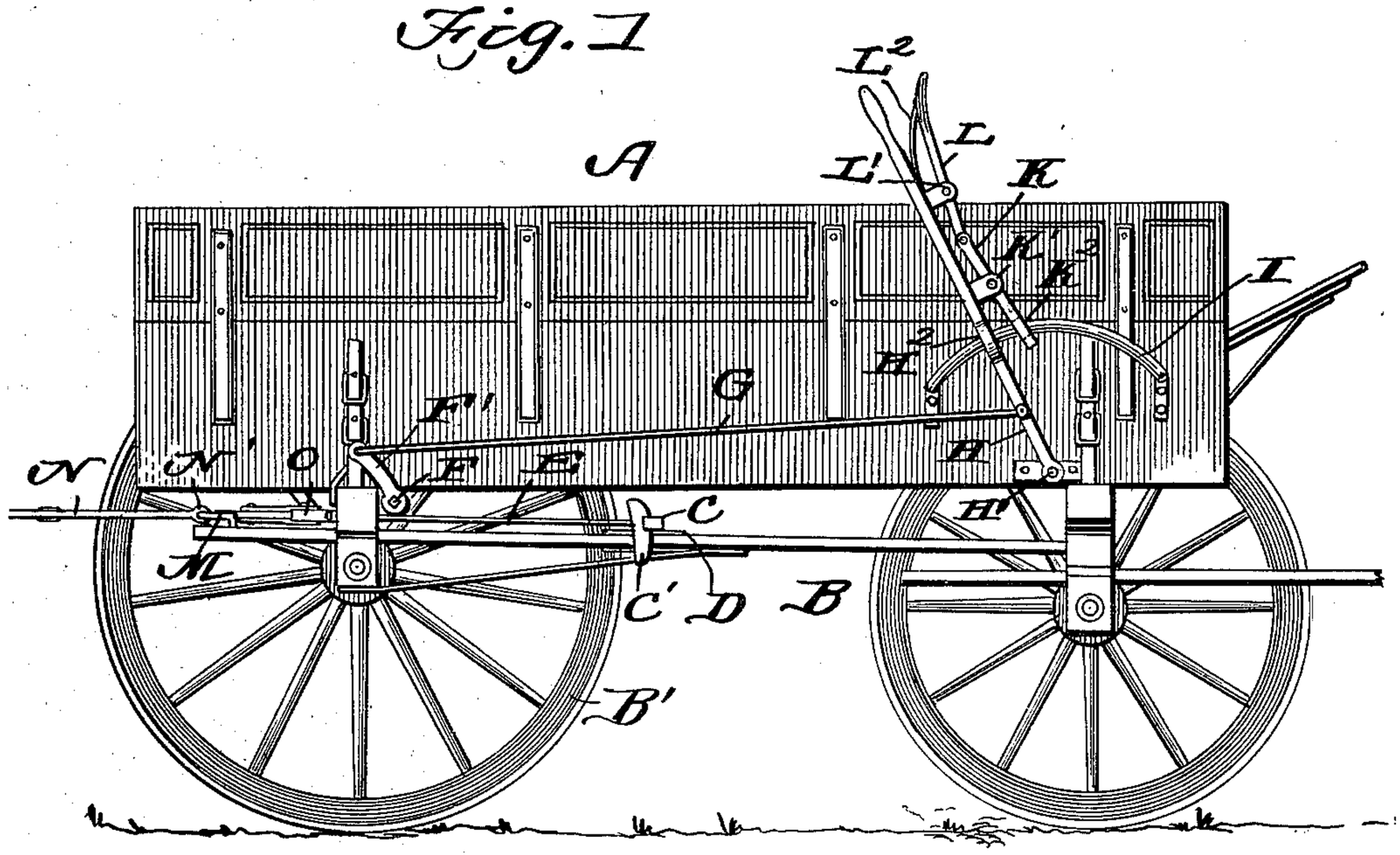


Fig. 2.

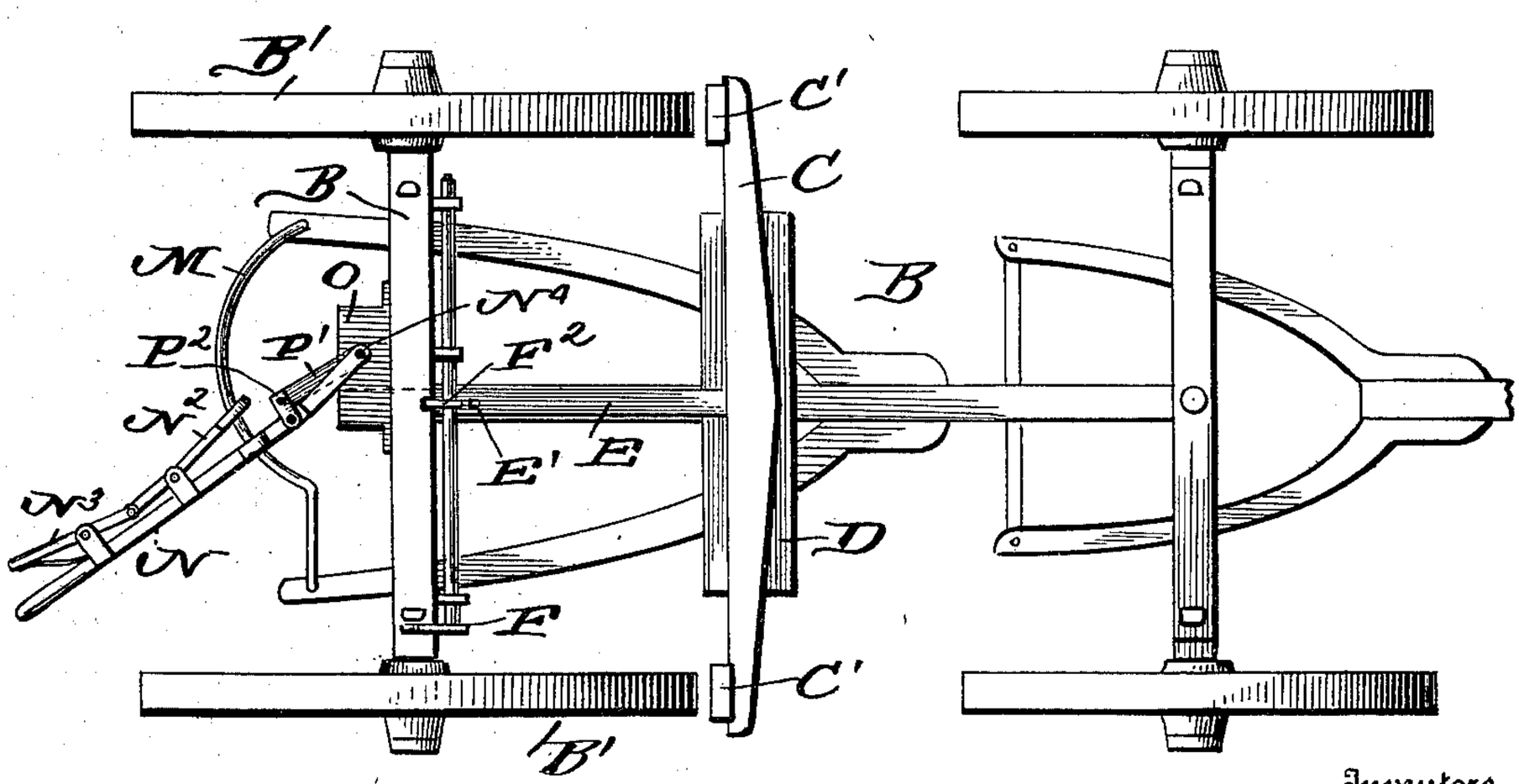
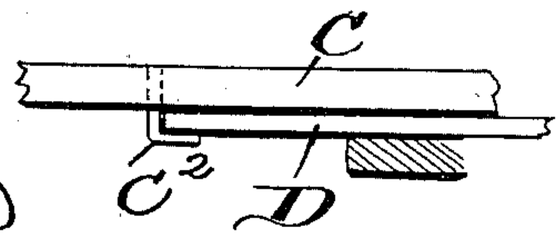


Fig. 7.



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NO MODEL. 2 SHEETS—SHEET 2.

Fig. 3.

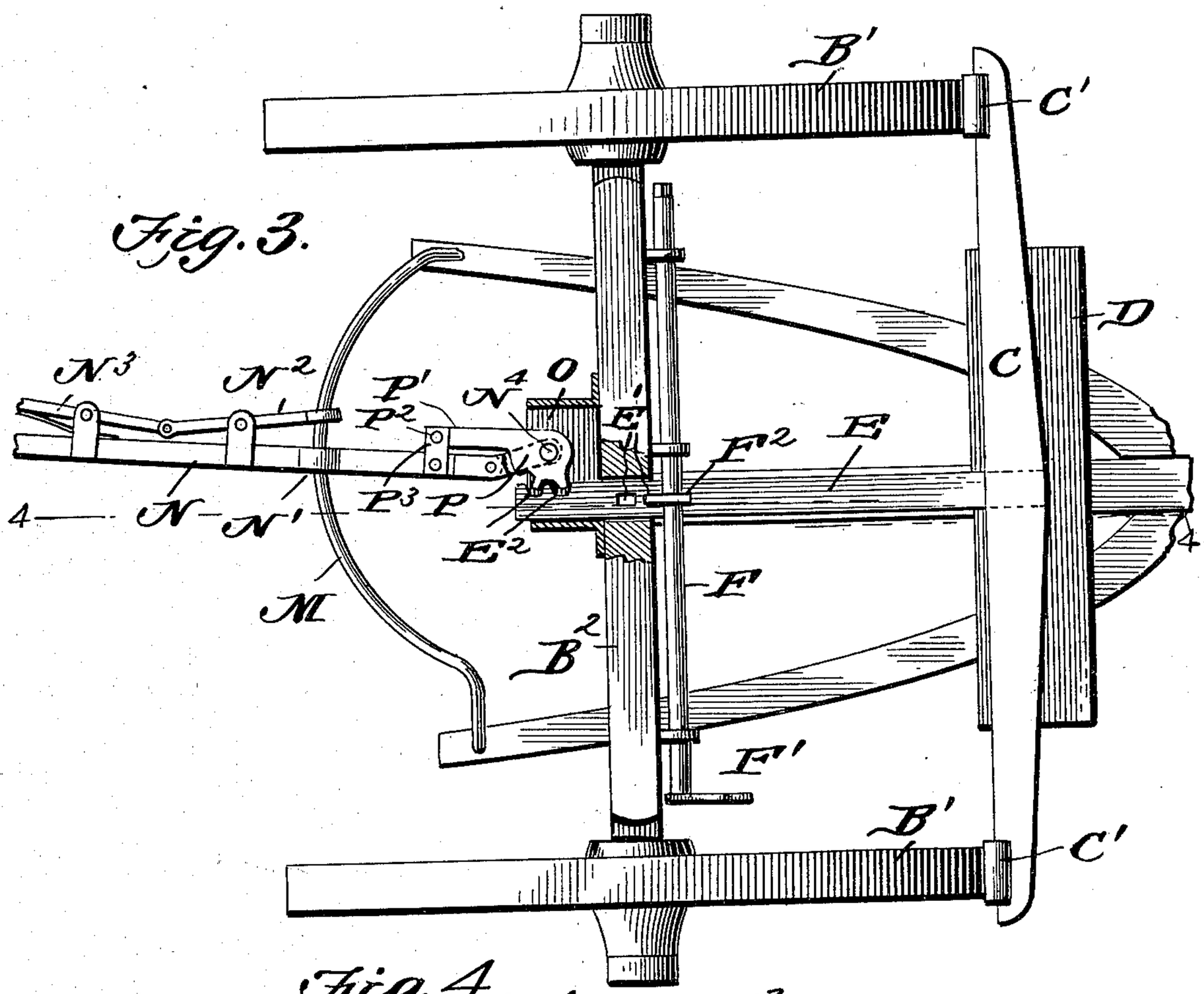


Fig. 4.

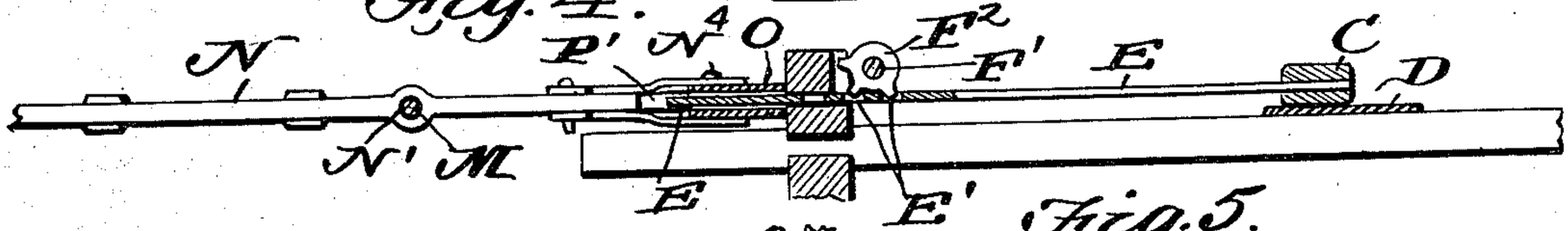


Fig. 5.

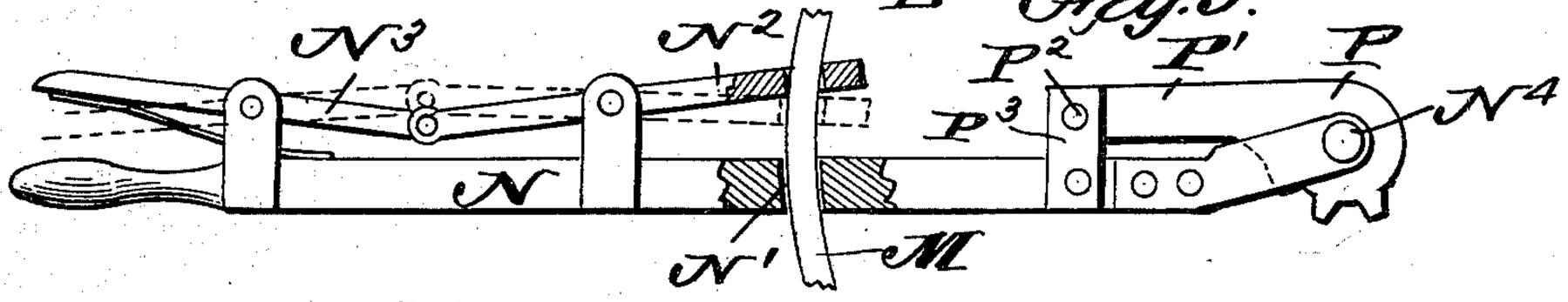
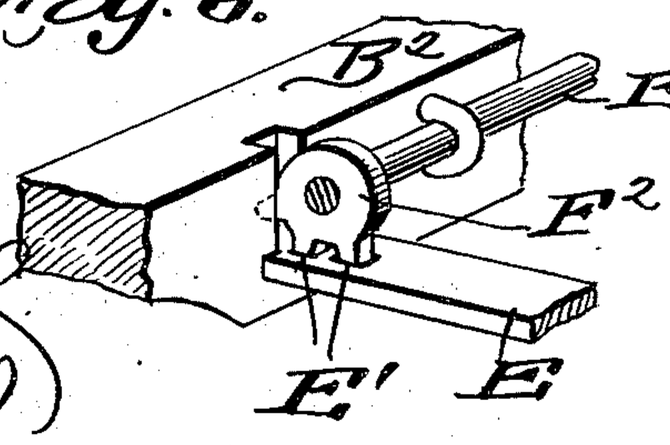


Fig. 6.



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No. 735,253. Patented August 4, 1903.

UNITED STATES PATENT OFFICE.

MICHAEL FIERSTINE HARTMAN AND HOMER CLOID HARTMAN, OF HENRIETTA, PENNSYLVANIA.

VEHICLE-BRAKE.

SPECIFICATION forming part of Letters Patent No. 735,253, dated August 4, 1903.

Application filed June 7, 1902. Serial No. 110,685. (No model.)

To all whom it may concern:

Be it known that we, MICHAEL FIERSTINE HARTMAN and HOMER CLOID HARTMAN, citizens of the United States, residing at Henrietta, in the county of Blair and State of Pennsylvania, have invented a new and useful Vehicle-Brake, of which the following is a specification.

This invention relates generally to wagon-brakes, and more particularly to a brake mechanism capable of operation either from the driver's seat or from a lever at the rear end of the wagon-body.

Certain other objects and advantages will appear in connection with the description of the brake mechanism; and the invention consists in the novel features of construction, combination, and arrangement, all of which will be fully described hereinafter and pointed out in the claims.

In the drawings, forming part of this specification, Figure 1 is a side elevation of a wagon provided with our improved construction of brake. Fig. 2 is a top plan view of the running-gear, showing the brake mechanism applied thereto, the operating rod and lever connected to the wagon-body being omitted. Fig. 3 is an enlarged top plan view, partly in section, illustrating the manner of operating the brake from the rear end of the running-gear. Fig. 4 is a section on the line 4 4 of Fig. 3. Fig. 5 is an enlarged view of the operating-lever, certain parts being shown in section. Fig. 6 is a detail perspective view showing the means for operating the brake from the wagon-body. Fig. 7 is a detail sectional view showing the depending guides of the brake-beam.

In carrying out our invention we employ a wagon-body A, which is mounted upon the running-gear B, both the wagon and gear being of any suitable or preferred construction. A brake-beam C is provided with brake-shoes C′, adapted to engage the rear wheels B′. The brake-beam C rests upon the cross-piece D, connected to the rear hounds of the running-gear, and, if desired, the beam may be provided with depending guides C^2, which engage the ends of the said strip D and serve to guide the brake-beam in its movements. The brake-beam C has a rearwardly-extending bar E connected thereto, said bar extending through an opening produced in the rear bolster, and a short distance in advance of the said bolster the bar E is provided with a series of perforations E′, and upon the rear side of the said bolster the bar has a series of rack-teeth E^2, produced in one edge. A rock-shaft F is mounted upon the forward side of the rear bolster B^2, said rock-shaft having a crank-arm F′ at one end, and intermediate its ends is provided with toothed segment F^2, adapted to engage the perforations E′, produced in the bar E. The crank-arm F′ has a rod G connected thereto, said rod being pivotally connected at its forward end to the hand-lever H, pivoted at H′ to the side of the wagon-body.

When the hand-lever is turned forwardly, the crank-arm F′ is drawn forwardly through the medium of the rod G, and the rock-shaft F is turned a sufficient distance to cause the engagement of the toothed segment F^2 with the perforated portion of the bar E connected to the brake-beam C, and this action brings the brake-shoes into contact with the rear wheels. When the hand-lever is thrown rearwardly, the reverse operations take place and the brake is released. In order to provide for braking the vehicle free from the wagon-body or at the rear end thereof, we also provide a curved bar M, which is connected therein to the extended ends of the rear hounds, or it may be connected to the rear axle of the vehicle. Working upon the bar M is a hand-lever N, apertured at N′ and carrying a gripping-catch N^2, which is operated by means of a spring-actuated lever N^3 in substantially the manner heretofore described. The lever N is pivoted at N^4 in a bracket O, which is attached to the rear bolster of the running-gear, and pivoted also in the same bracket is a toothed segment P, having an extension P′, which is connected at P^2 to a lateral extension P^3, rigidly connected to the lever N. The bracket O also serves as a guide for the rearwardly-projecting end of the brake-bar E.

The operation of the device just described is obvious, it being understood that when the lever is thrown to one side the toothed segment is rotated upon its pivot and, engaging the rack-teeth E^2, causes the bar E to move

rearwardly or forwardly, thereby applying or releasing the brakes, and the operation of the gripping-catch N^2 is identical with the operation of the gripping-catch K. When it is desired to employ the hand-lever at the side of the vehicle, the pin P^2, connecting the extension P′ and the lever N, is removed, thus permitting the toothed segment to operate without moving the said lever. When it is desired to employ the hand-lever M at the rear of the running-gear, the pivotal connection between the rod G and crank-arm F′ is removed and the pin P^2 inserted, and the hand-lever can then be operated for the purpose of applying the brakes.

It will thus be seen that we provide a simple and efficient mechanism for applying the brakes either from the side of the vehicle or at the rear end thereof, and it will also be noted that we provide the improved means for locking the operating-lever at any desired adjustment, thereby permitting the brakes to be properly applied as the circumstances of the case may require.

Having thus fully described our invention, what we claim as new, and desire to secure by Letters Patent, is—

1. In a brake of the kind described, the combination with the running-gear of a wagon, of a brake-beam, a notched bar extending rearwardly therefrom, a segment adapted to engage said bar, a curved bar to the rear of the segment, a lever pivoted adjacent the segment and adapted to work on said curved bar, said lever having a lateral extension, and a removable pin adapted to connect the extension to the segment, substantially as described.

2. A brake mechanism comprising a movable segment having a rearwardly-extending arm, a brake-beam, a toothed bar connected to the brake-beam and adapted to be engaged by the segment, a lever pivoted beneath the segment, and a link pivoted to the lever and detachably pivoted to the arm.

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