

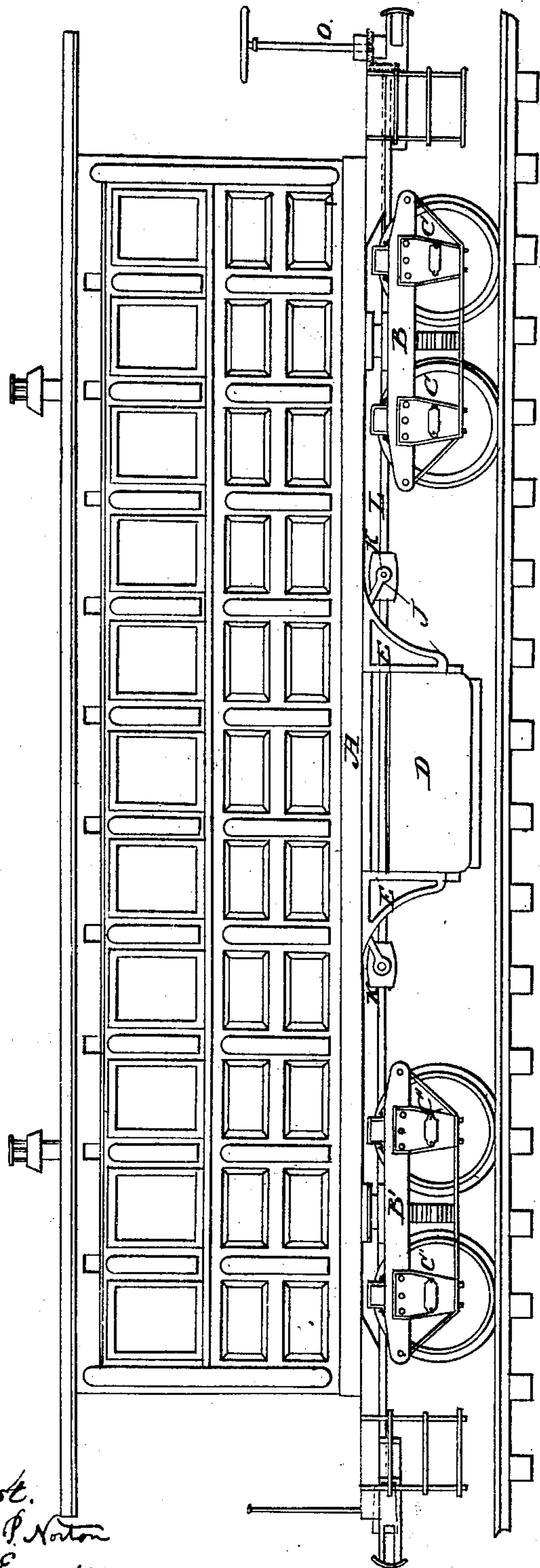
H. E. CHAPMAN.

Car Brake.

No. 22,229.

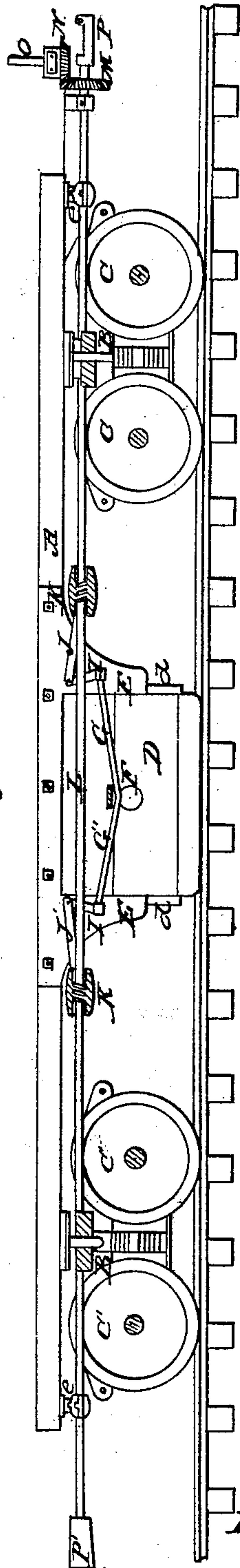
Patented Dec. 7, 1858.

*Fig. 1.*



*Attest.*  
*Merrill P. Norton*  
*7.7. Everett*

*Fig. 2.*



*Inventor.*  
*Henry D. Chapman*

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Fig. 3.

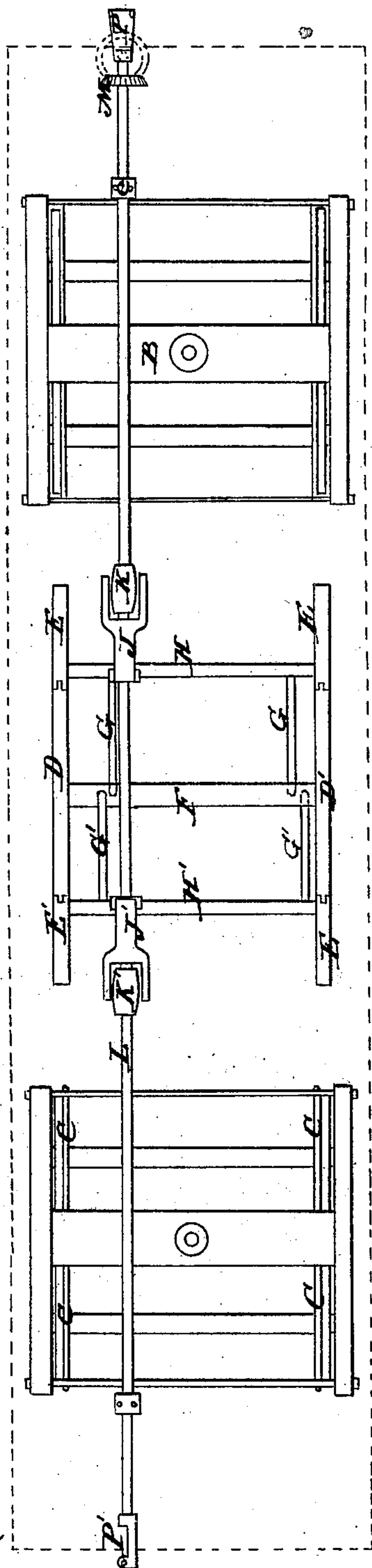
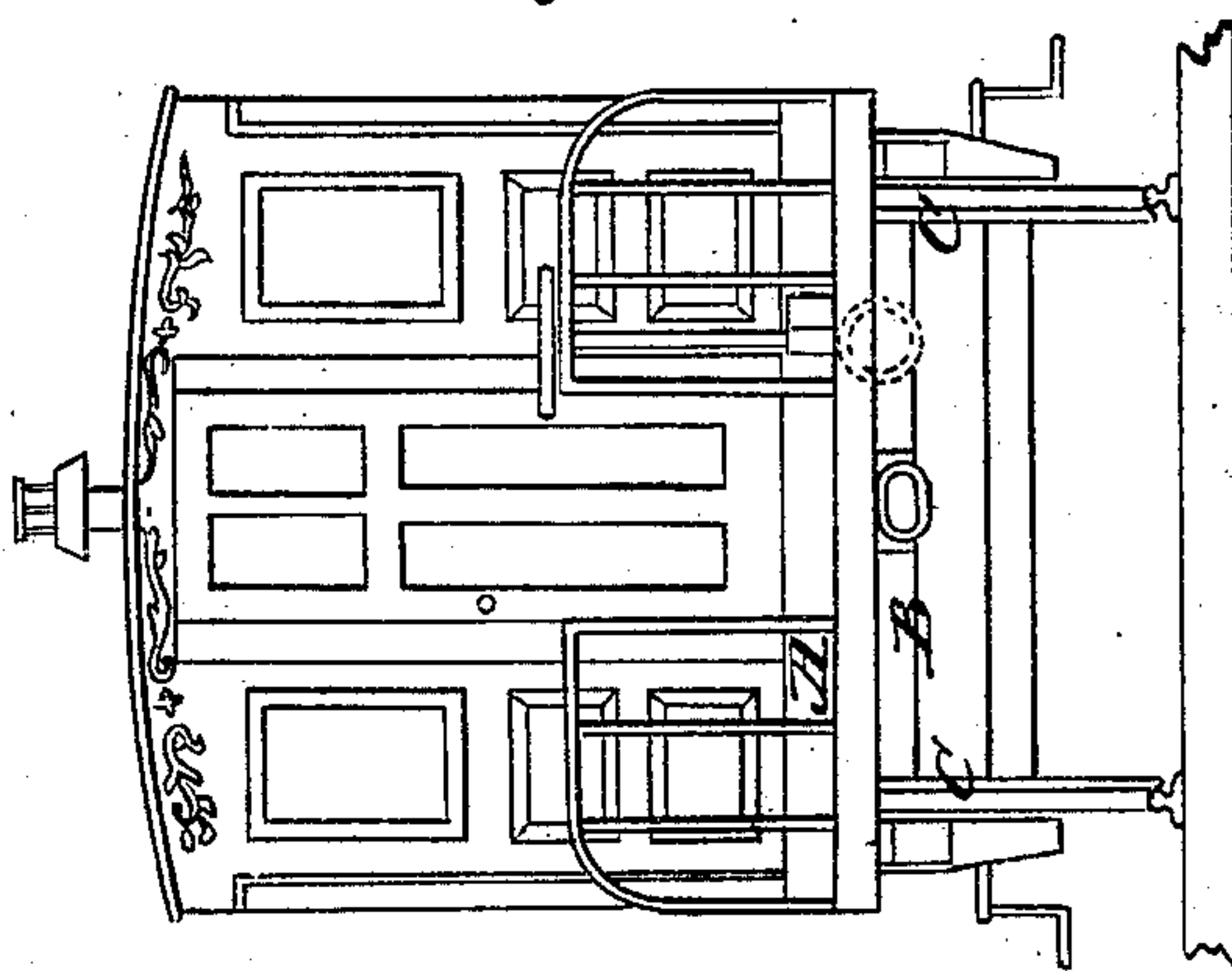


Fig. 4.



Witnesses.

Marcus P. Norton  
T. T. Everett

Inventor.

Henry E. Chapman



# UNITED STATES PATENT OFFICE.

HENRY E. CHAPMAN, OF ALBANY, NEW YORK.

## RAILROAD-CAR BRAKE.

Specification of Letters Patent No. 22,229, dated December 7, 1858.

*To all whom it may concern:*

Be it known that I, HENRY E. CHAPMAN, of the city and county of Albany and State of New York, have invented certain new and useful Improvements in Railroad-Car Brakes; and I do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawings and to the letters of reference marked thereon.

Of the drawings Figure 1 represents a side elevation of a passenger car with the brakes not touching the rail; Fig. 2, a longitudinal section of the car with the brakes upon the rail; Fig. 3, a plan of the brakes, trucks, etc., the platform being removed; and Fig. 4 an end view of the car upon the track.

In these figures like letters and marks indicate like parts.

My invention has reference to applying the brakes directly to the rail instead of to the wheels or between the periphery or tread of the wheel and the rail.

The platform of the car is designated in the several figures of the drawings by the letter (A), the trucks on which it rests by (B), the wheels by (C, C'), and the brakes by (D, D'). The brakes are represented as being within guides (E, E') the feathers or edges of the brakes (*d, d*) fitting into grooves in the guides (E). (F) marks a cross-bar or stay connecting the brakes, (G, G') levers extending from underneath the cross-bar to shafts (H, H') to which the levers are attached, the shafts (H, H') having vibratory motion, they being supported by the guides (E, E'). From the shafts (H, H') other levers (I, I') extend to rods (J, J') connecting levers (I, I') with and to nuts (K, K') upon the longitudinal shaft (L) extending the entire length of the car. Levers (G, G') and (I, I') are rigidly at-

tached to the shafts (H, H'). The nuts (K, K') have screw threads cut upon their interior surfaces, the male part of the threads being upon the shaft (L); and, as is shown by Fig. 2 of the drawings, one of the screw threads is right and the other left handed. The longitudinal shaft (L) can be freely revolved in the journals (*e, e*), and it is by beveled wheel (M) geared to the pinion (N) at the lower end of the capstan post (*o*), of which (P) is the hand wheel. The longitudinal shaft (L) by couplings (P, P') is connected to other like shafts. It will readily be perceived that by rotating the shaft or post (*o*) in one direction the means here named are so operated as to raise the brakes from the rail, and that by moving it in the opposite direction the means are so operated as to press the brakes upon the rail.

Instead of the hand-wheel or windlass or capstan being used to put in motion the means for actuating the brakes, power derived from the engine may be substituted, as may also any mechanical or other agents.

Having thus fully set out the character and described the construction and operation of my invention, what I claim as new and desire to secure by Letters Patent is,

The arrangement of the shaft (L) having upon it the right and left hand screw threads, the right and left hand nuts (K, K'), the rods (J, J') the levers (I, I') the shafts (H, H') the levers (G, G') and the cross-bar (F) in their relation to each other and to the brake as and for the purposes herein set forth.

This specification signed this 23d day of October 1858.

HENRY E. CHAPMAN.

Witnesses:

MARCUS P. NORTON,  
T. T. EVERETT.