S. DOUBLEDAY.

Car-Brakes.

No. 166,351. Patented Aug. 3, 1875.

Fig. 1.

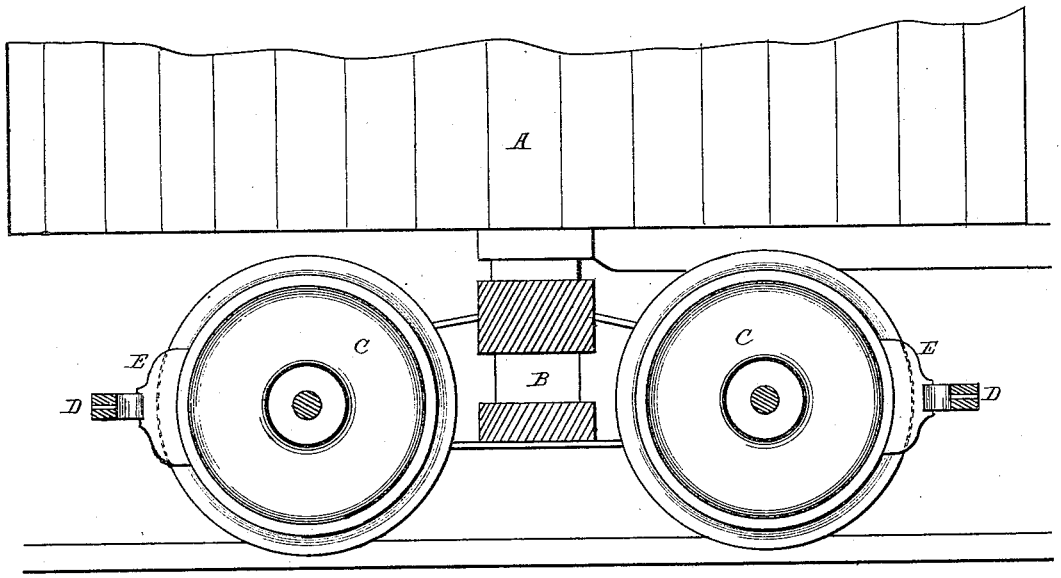


Fig. 2.

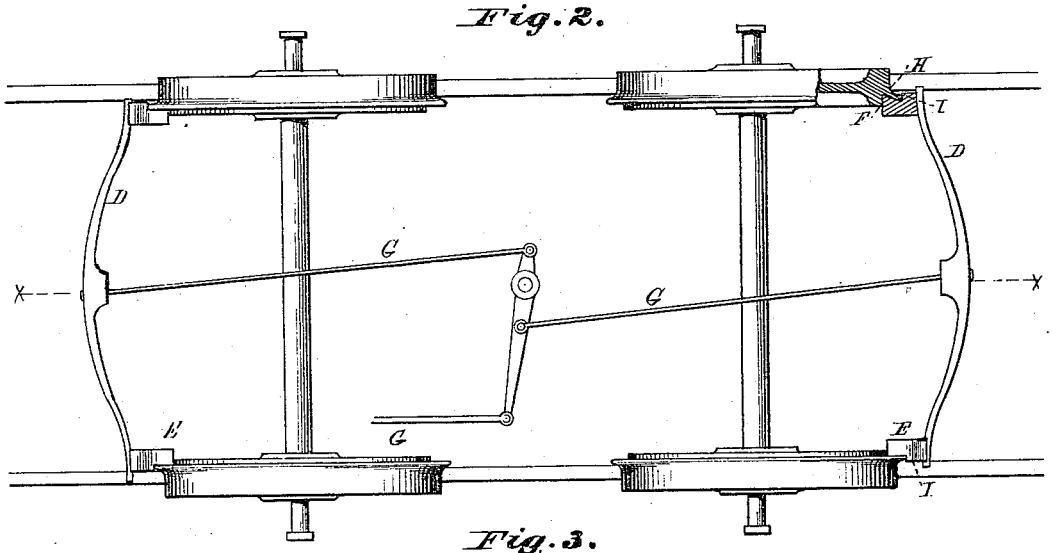
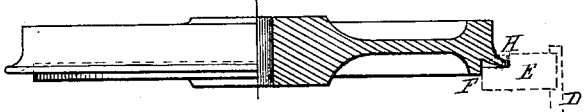


Fig. 3.



Attest:
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UNITED STATES PATENT OFFICE.

SAMUEL DOUBLEDAY, OF BALTIMORE, MARYLAND.

IMPROVEMENT IN CAR-BRAKES.

Specification forming part of Letters Patent No. **166,351**, dated August 3, 1875; application filed May 15, 1875.

To all whom it may concern:

Be it known that I, SAMUEL DOUBLEDAY, of Baltimore, in the county of Baltimore and State of Maryland, have invented certain new and useful Improvements in Car-Brakes, of which the following is a specification:

The object of this invention is to provide a simple and effective brake for railway-cars, the shoe of which is made to bear against the flange or inner face of the wheel instead of upon the tread of the same, as is ordinarily the case, with a downward or downward and outward pressure, for the purpose of preventing the wearing action of the brake-shoe upon the tread of the wheel, which is greater than the wear caused in traveling over the rails, and rapidly destroys the wheels.

My invention consists in a novel construction and combination of parts, to be fully hereinafter described and specifically pointed out in the claim, whereby wear of the periphery or tread of the wheel by the action of the brake-shoes is avoided, while ample provision is made for applying the brake-shoes.

In the drawings, Figure 1 represents an elevation of the lower portion of a car, showing my improved brake attached. Fig. 2 represents a view of the car-wheels, looking down upon the same, and Fig. 3 represents a detached view of a car-wheel and a modification of my improved brake.

The letter A represents the body of the car, and B the car-truck, and C C represent the wheels attached thereto, as usual. D represents a bow-spring of elastic metal or other material, to the ends of which are attached the brake-shoes E E. Said spring is secured to the car-trucks between the wheels in any convenient manner, in such position that the brake-shoes will bear upon the flanges of said wheels or upon the flange and inner face of the wheel or upon the shoulder F, formed thereon for the purpose. The brake-rod G or chain is secured to the spring at its center in such manner that the spring may be drawn toward the wheels, pressing the shoes downward and outward upon the wheel when the brakes are applied. The elasticity of the spring releases the brakes, when the pressure upon the same is released. The brake-shoes E E are formed with a shoulder, I, on the outside, which sets upon the periphery of the wheel-flange and bears against the same when the brakes are applied, the portion below said shoulder setting in and bearing against the surface of a groove, H, cut in the inner face of the wheel and upon a shoulder formed thereby, thus bearing against the wheel with a downward and outward pressure. In the modification shown in Figure 3 the shoe is formed so as to bear against the flange and shoulder with a downward pressure simply.

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

The spring-bow D, having attached at each of its ends a brake-shoe, provided with a shoulder, I, in combination with a mechanism connected with said spring-bow for operating the same, the whole being constructed to operate in connection with car-wheels having grooves cut in their inner face, substantially as shown and described.

In testimony that I claim the foregoing I have hereunto set my hand.

SAML. DOUBLEDAY.

Witnesses:

JAMES L. NORRIS,

JOS. L. COOMBS.