W. NELSON.

Car-Brakes.

No. 133,879. Patented Dec. 10, 1872.

Fig. 1.

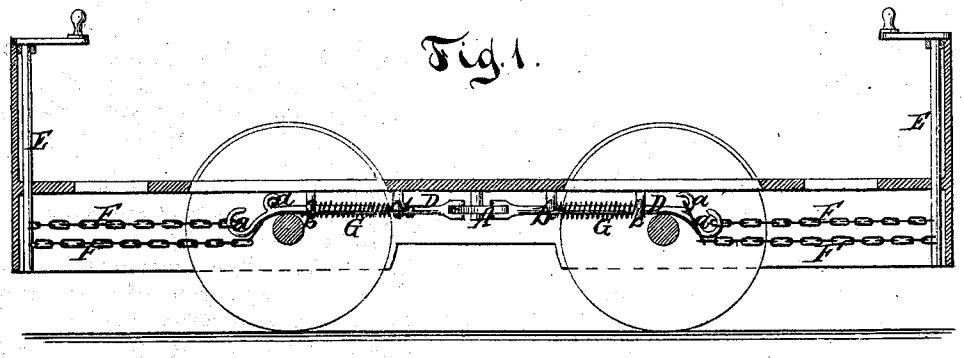
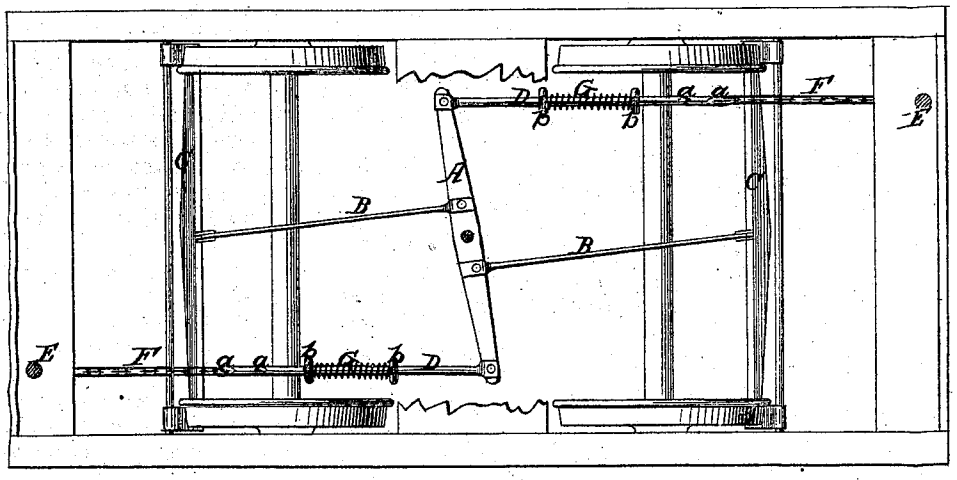


Fig. 2.



Witnesses.
C. Wahlers.
Ernst Bilhuber.

Inventor.
William Nelson
By VanSantvoord Mauff
his Attys

UNITED STATES PATENT OFFICE.

WILLIAM NELSON, OF FLATBUSH, NEW YORK.

IMPROVEMENT IN CAR-BRAKES.

Specification forming part of Letters Patent No. **133,879**, dated December 10, 1872.

To all whom it may concern:

Be it known that I, WILLIAM NELSON, of Flatbush, in the county of Kings and State of New York, have invented a new and useful Improvement in Car-Brakes; and I do hereby declare the following to be a full, clear, and exact description thereof, which will enable those skilled in the art to make and use the same, reference being had to the accompanying drawing forming part of this specification, in which drawing—

Figure 1 is a sectional side view of this invention, and Fig. 2 is a sectional plan or top view of the same.

Similar letters indicate corresponding parts.

This invention consists in the arrangement of a safety-chain in addition to the brake-chain of a car-brake, both of said chains being secured to one and the same windlass, and serving to connect the brake-rod with the said windlass, the chains being hung over hooks formed on the end of said connecting-rod in such a manner that the safety of the brake is thereby materially increased, as, if by any means the brake-chain should become broken, the brake will not be rendered entirely helpless as heretofore, when only one chain was used, as the safety or second chain will serve its purpose until the broken brake-chain can be replaced.

In the drawing, the letter A designates a lever, which is pivoted to the frame of the car, and which is connected, by means of rods B B, with the brake-levers C. On the end of the lever A are pivoted the connecting-rods D D, which extend from opposite sides of the same to the windlass E, which is made in the usual manner. On one end of the connecting or brake rods D are formed hooks *a a*, over which are hung chains F F—two or more—which wind upon the windlass when the brake is to be put on, in the manner of the common brake-chain.

When the crank of the windlass E is released, the brake will be brought back to its original position by means of a spring, G, wound around the connecting-rods D D, one end of the spring being secured to the same; and the spring is placed between two eye-bolts, *b b*, through which the connecting-rods are made to pass.

When only one brake-chain is used upon a car-brake, and the said chain becomes broken, it is obvious that the brake can then no longer be used until the chain is repaired or replaced, which, though it could be accomplished while the car is out on the road, would necessarily cause a long delay and inconvenience; whereas, by my invention the working of the brake is not impaired by such an accident; as, by the remaining safety or second chain, the brake can be worked until the car reaches its destination.

What I claim as new, and desire to secure by Letters Patent, is—

1. The arrangement of a safety-chain, in addition to the brake-chain of a car-brake, both these chains being connected to one and the same windlass, substantially as described.

2. The brake-rod D, provided with two hooks or links, in combination with two chains and a single windlass, substantially as described.

WILLIAM NELSON.

Witnesses:

W. HAUFF,

E. F. KASTENHUBER.