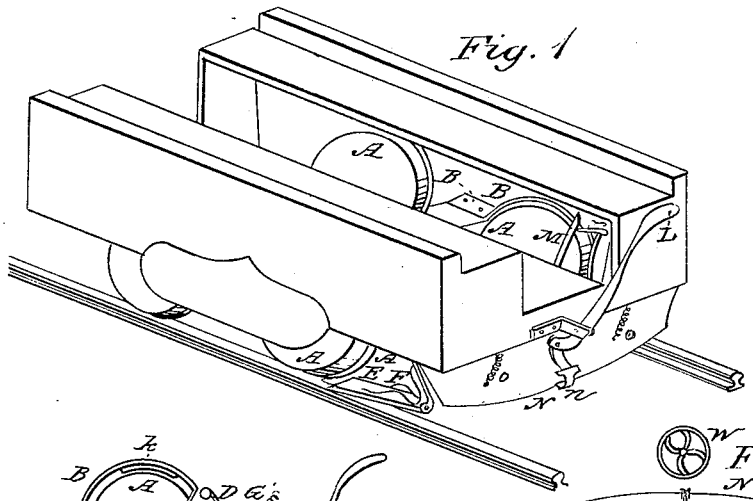
J. E. WEAVER.

Car Brake.

No. 111,591. Patented Feb. 7, 1871.

Fig. 1



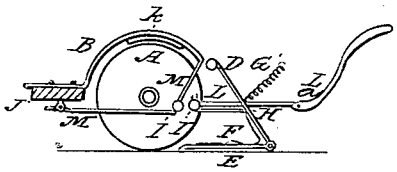


Fig. 3

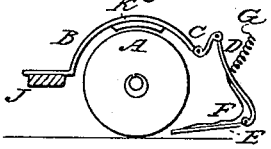
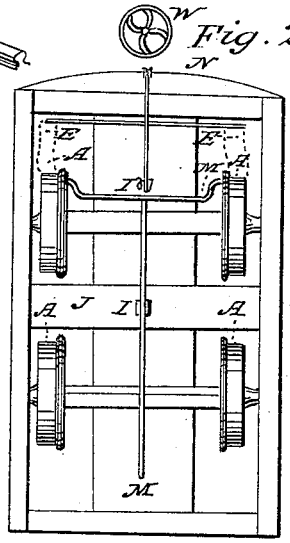


Fig. 2



Witnesses:

W. B. Wiley

Jacob Stauffer

Inventor:

John E. Weaver

UNITED STATES PATENT OFFICE.

JOHN E. WEAVER, OF LANCASTER, PENNSYLVANIA.

IMPROVEMENT IN RAILWAY-CAR BRAKES.

Specification forming part of Letters Patent No. **111,591**, dated February 7, 1871; antedated February 4, 1871.

I, JOHN E. WEAVER, of the city of Lancaster, in the State of Pennsylvania, have invented certain Improvements on Street or other Railroad-Cars, of which the following is a specification:

The nature of my invention, or its object, is to provide additional safeguards to city or street railroad-cars, and prevent children or adults from getting under the wheels or being run over, by means of a combined shield and sliding and hinged check-piece before each of the front wheels.

The accompanying drawing illustrates the construction and arrangement of the same.

Figure 1 is a partial view of a car with my device attached, showing the front and one side; Fig. 2, the under side of a car. Fig. 3 shows two views of the brake and check, in connection with one of the front wheels.

The cross-timber J, between the wheels on the bottom of the car, or any other suitable base for attaching the foot of a plate, B, so as to cover the tread of the wheel A, with or without its brake-block K, over the top of the wheel, but not in contact with it, unless when desired to break or stop the action of the wheel. This plate B is hinged directly to the plate D, or has an intermediate plate, C, hinged thereto, when the upper brake, K, is to be put on, together with a rod, M, carried downward, and connected under the car from one brake to the other. This rod M has a cord or chain attached, which is passed over pulleys, and actuated at any desired point by means of a lever or windlass, its action being independent from that of the sliding check E, which latter is nearly in a horizontal position, and brought as near to the surface of the track as practicable. This horizontal sliding check E is also hinged to the lower end of the plate D, all of nearly uniform width. The plate D has a spiral spring, G, to support it and yield to the action of the same. There is also a spring, F, to support the sliding check-plate E and allow its action. A stout rod, H, connects the plates D together. To the center of the rod H a cord or chain is attached, and carried around a pulley or pulleys to a lever, L, or its equivalent, for the purpose of drawing the rod under, so as to slide the check-plates E on each side of the car under the wheels A and arrest their motion, as they necessarily would have to slide (if they moved at all) on the sliding check-plate thrust under them.

N shows a self-adjusting shield, sliding in slots, and supported by springs, O, in front of the wheels, coming close to the upper surface of the rails, but so as to slide over stones or the rise between the rails by yielding to an upward pressure.

I do not confine myself to any special arrangement of the levers, pulleys, cords, or chains, as differently-constructed cars may require a different arrangement.

What I deem to be novel are the hinged plates B, D, and E, with their spring-supports F and G, applied substantially in the manner specified and shown, for the purpose of bringing a broad check-plate directly under the front wheels, and thereby prevent anything from getting under the wheels, as it is believed these broad plates would tend to throw a living object outward from the track, the shield-plate in front being simply an additional safeguard to prevent the possibility of getting under the cars between the rails.

The upper brake, K, and piece or plate C are to constitute the same, also as an additional brake, in connection with the hinged plate B, D, and E, operated independently or in unison with the sliding check-plate E.

I am not aware that such a combination of hinged plates has ever been used.

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

The arrangement and combination of the plates B, D, and E, hinged to each other, (with or without the additional hinged plate C and rubber K,) together with their sustaining-springs G and F, when applied and operated substantially in the manner and for the purpose specified.

JOHN E. WEAVER.

Witnesses:

WM. B. WILEY,

JACOB STAUFFER.