J. MEISSNER.
Car-Brake.

No. 214,418. Patented April 15, 1879.

Fig: 1.

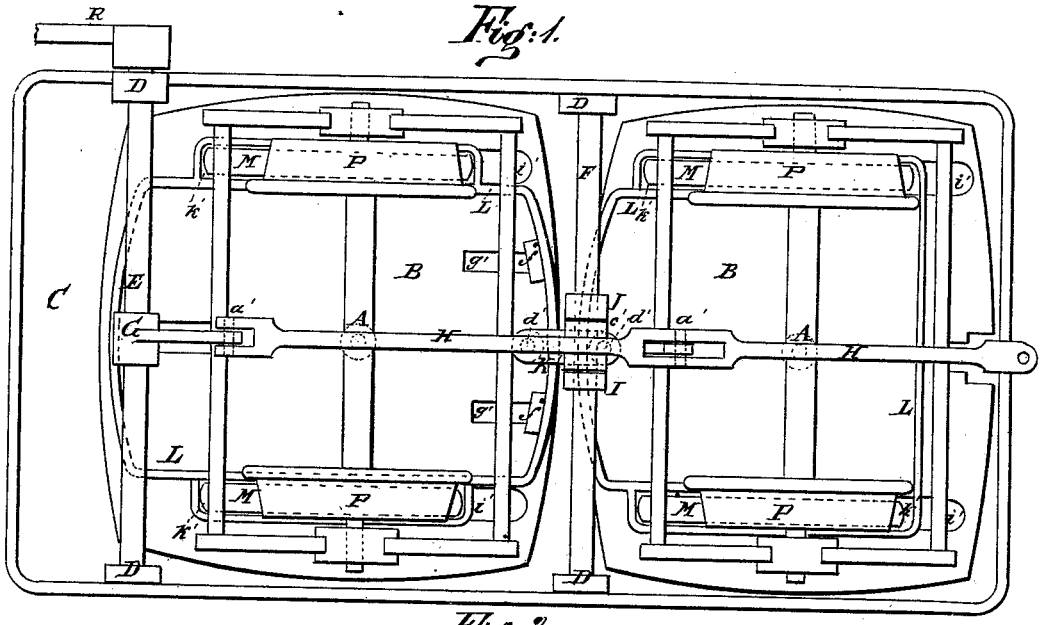
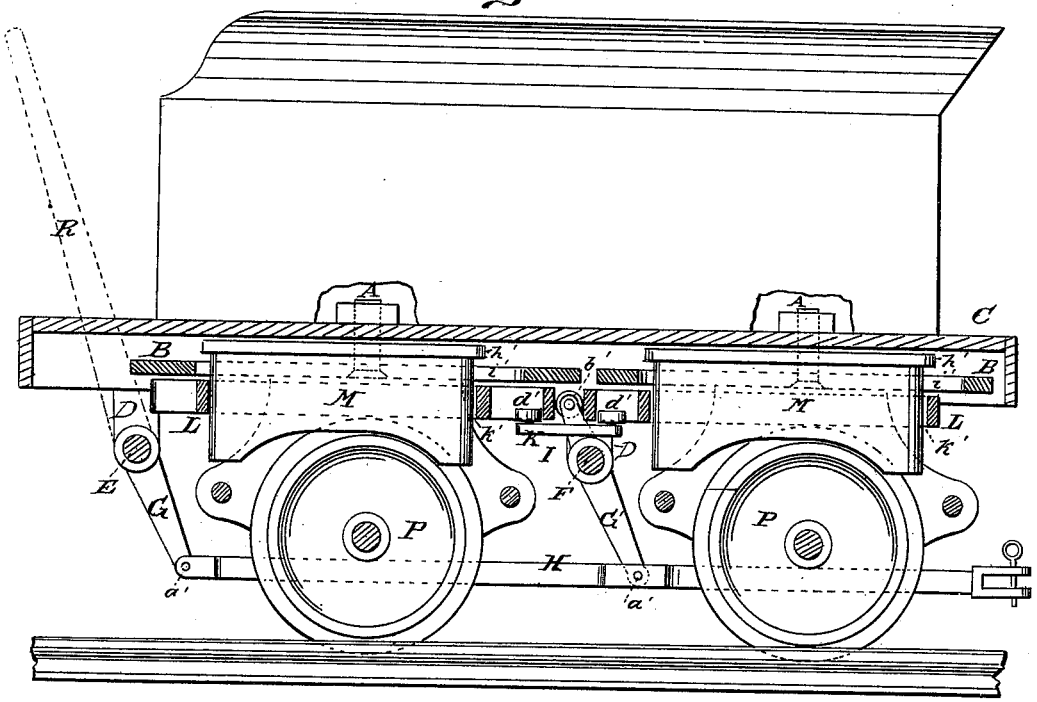


Fig: 2.



WITNESSES:

Chas. Nichols
C. Sedgwick

INVENTOR:

J. Meissner
BY Munn & Co
ATTORNEYS.

UNITED STATES PATENT OFFICE.

JOHN MEISSNER, OF NEW YORK, N. Y., ASSIGNOR TO HIMSELF AND HENRY FLEISHMAN, OF SAME PLACE.

IMPROVEMENT IN CAR-BRAKES.

Specification forming part of Letters Patent No. **214,418**, dated April 15, 1879; application filed March 5, 1879.

To all whom it may concern:

Be it known that I, JOHN MEISSNER, of the city, county, and State of New York, have invented a new and Improved Car-Brake, of which the following is a specification.

Figure 1 is a plan of the under side of a car with brake attached. Fig. 2 is a sectional side elevation of the same.

Similar letters of reference indicate corresponding parts.

The object of this invention is to provide a simple and effective brake for attachment to railroad-cars that will apply as well to the wheels when running on curves as when running on a straight line, and whose efficiency will increase with the increasing weight of the car and its load.

The bolts A A, passing through the centers of the top plates, B B, of the truck-frames, pivot them to the bottom of the car C. Bolted also to the bottom of the car are the hangers D D, that afford bearings to the two oscillating bars E and F. To the middle part of these bars are secured the rocking levers G G′, that project downward and have their lower ends pivoted at *a′ a′* in slots in the brake-rod H. The oscillating bar F passes through the sockets of the two arms I I, that are keyed on the said bar, and that carry pivoted on their free ends, that project upward into the space between the top plates, the two small rollers *b′ b′*. These arms I I are set on the bar F, one on each side of rocking lever G′. Between the upper ends of these arms is the loose plate K, on the upper surface of which and near each end the rollers *d′ d′* are secured by and revolve on pins, thus making the plate essentially a clamp with revolving ears or lugs. This plate rests upon, and the rollers embrace between them, the contiguous curved ends of the rims or collars L L, that carry in their side sockets the brake-shoes M M.

The lugs *f′ f′* from the collars engage in the slots *g′ g′* of the top plates, and assist in holding them up, and in communicating the motion of the collars to the truck-frames, and they further serve to restrict the movements of the truck-frames on their pivot-bolts A A.

The wooden brake-shoes, which are cut out on their lower edges to correspond, or nearly so, with the curve of the periphery of the car-wheels P P, are provided with flat metallic caps *h′ h′*, to strengthen and make them more durable, and are inserted into long slots *i′ i′* in the top plates, down through the side sockets *k′ k′* of the raised collars L L, so as nearly to come in contact with the rims of the wheels.

When the brakes are "off" the rocking levers G and G′ are perpendicular to the bottom of the car, and a perpendicular line may also be drawn through the axes of the wheels and the highest points of the curves in the lower edges or faces of the brake-shoes.

To set the brakes power is applied to the lever R, which is secured to the oscillating bar E to move it either forward or back, and this motion and force are transmitted through rocking bar G, brake-rod H, and rocking bar G′ to the oscillating bar F, and thence to the arms I I, so that the rollers *b′ b′* shall press against the outside of one of the rims or collars L L, and force both of them, by reason of the clamp K, to move in unison in the desired direction. This movement of the collars gives a corresponding horizontal movement to the brake-shoes, and force them in contact with the rims of the car-wheels, wedging them at the same time between the rims of the wheels and the bottom of the car. In this position they brake the wheels effectually, in which matter the force applied to the lever R is supplemented by the weight of the car upon the upper surfaces of the brake-shoes. Consequently it will be obvious that the greater the weight of the car and its load the greater will be the influence they exert in braking the wheels. Because of the connections made between the top plates B B and the rims L L, by means of the shoe-brakes and the lugs *f f* and slots *g′ g′*, they must move together as the top plates turn on the bolts A A, thus preserving the same relative position. Hence when the cars are running on curves the wheels can be braked as readily as when running on a straight line.

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

1. The car-brake herein described, consisting of hangers D D, oscillating bars E and F, rock-

ing levers G and G′, brake-rod H, arms I I, provided with rollers b' b', plate K, with rollers d' d', collars or rims L L, brake-shoes M M, and lever R, constructed and arranged substantially as herein shown and described.

2. In combination with the car-brake herein described, the truck-frame plates with slots g' g' and i' i', substantially as and for the purpose described.

3. In combination with the truck-frame plates B B, that have slots g' g' and i' i', the rims or collars L L, that are provided with lugs f' f' and side sockets k' k', substantially as herein shown and described.

4. In combination with the truck-frame plates and the rims or collars herein described, the plate K, provided with rollers d' d', substantially as herein shown and described.

JOHN MEISSNER.

Witnesses:
C. SEDGWICK,
J. J. STOVER.