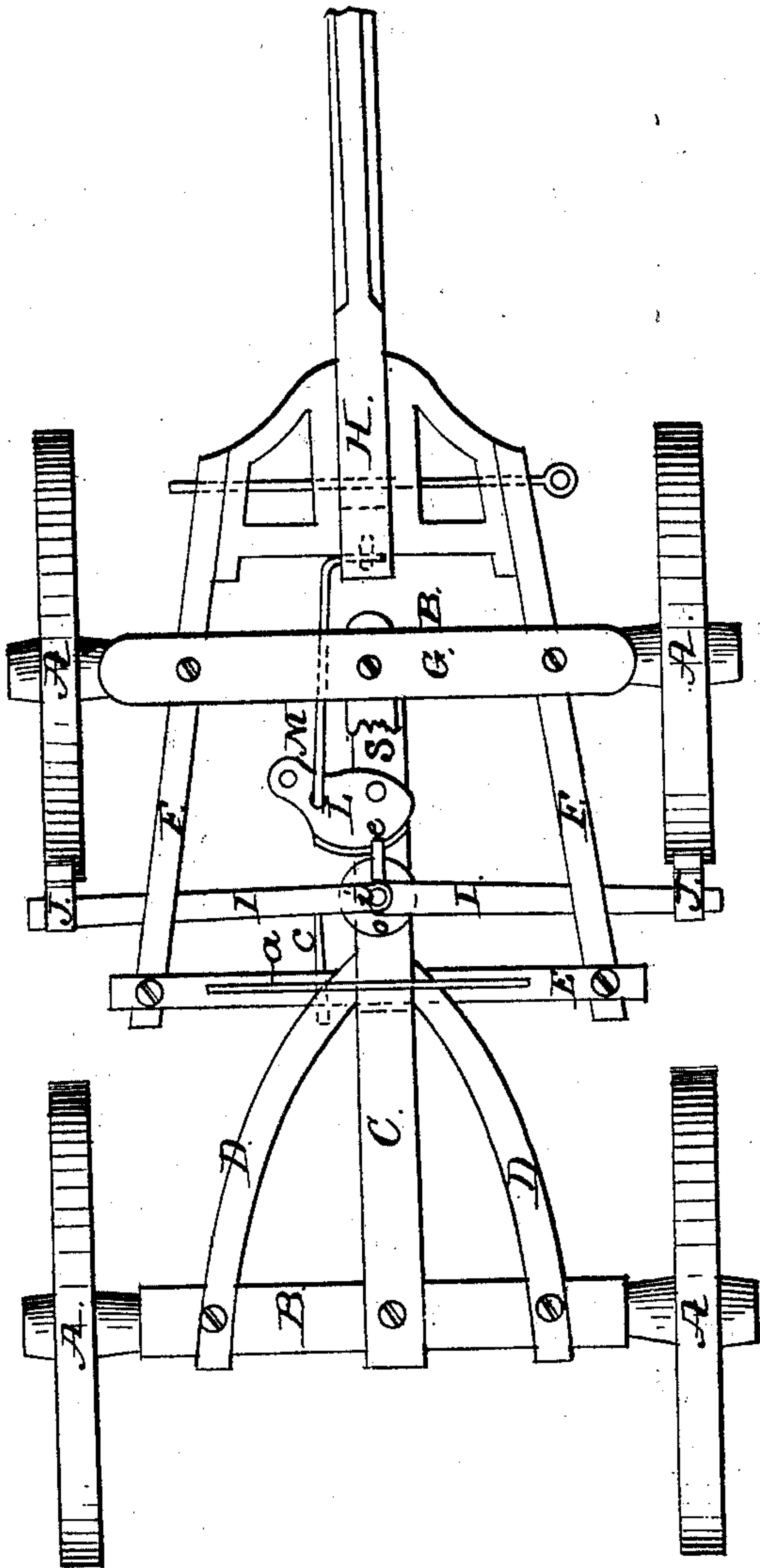


L. E. WOODARD.

Wagon-Brake.

No. 57,810.

Patented Sept. 4, 1866.



WITNESSES:

*F. A. Jackson*  
 *Jas. A. Service*

INVENTOR;

*L. E. Woodard*  
*Per Munn & Co.*  
*Attorney*

# UNITED STATES PATENT OFFICE.

L. E. WOODARD, OF COHOCTON, NEW YORK.

## IMPROVEMENT IN WAGON-BRAKES.

Specification forming part of Letters Patent No. 57,810, dated September 4, 1866.

*To all whom it may concern:*

Be it known that I, L. E. WOODARD, of Cohocton, in the county of Steuben and State of New York, have invented a new and Improved Wagon-Brake; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawing, forming part of this specification.

The nature of my invention relates to a wagon-brake, and is so constructed that in going down a hill, as the wagon crowds upon the team, the brake is applied to the wheels, and is so arranged that the team may be backed and the brakes remain stationary and not interfere at all with the wheels.

It more definitely consists in so arranging a cam or eccentric, in connection with levers or bars, with the pole that when the wagon descends and crowds upon the team, by the action of the pole, the brake-shoes are brought hard upon the periphery of the wheels, thus producing great friction upon the wheels, and by which the team is greatly relieved from the pressure of the wagon.

It is so constructed as to render it one of the most durable, simple, and effectual brakes now in use.

To enable others skilled in the art to make and use my invention, I will proceed to describe its construction and operation.

The figure is a top-plan view of my improved brake applied to a wagon.

A A A A represent the four wheels of a wagon of common construction, which run on the axles B B, one of which is covered by the sand-board G. D D are the hounds, which are secured to the rear axle and extend forward and are secured to the reach C.

F F are the forward hounds, to which the tongue is attached, and pass over the forward axle and extend to the rear, and connected together by the sway-bar E.

I I are pivoted brake-bars, working on the pivot-bolt *i*, which passes through the strap S, which is secured to the forward axle and extends back and is secured to the sway-bar E.

L is an eccentric, which is also attached to the strap S by a pivot-bolt, on which it works freely. This eccentric is provided with a flange, over which a hook, *e*, works. This flange moves the brush away from the wheel, and also forms a bearing in the friction-wheel O. At one end or side of the eccentric are holes provided for the purpose of receiving the bar or rod M, which connects with the rear end of the pole.

J J are shoes or crescents secured at the ends of the brake-bars I I, and have a bearing on the periphery of the wheel when in operation. The operation is automatic and efficient.

When descending with a load, as the wagon begins to press upon the team, the tongue slides back, which forces back the bar or rod M, which is connected to the eccentric, when, by its action upon the ends of the brake-bars, it brings the crescents hard upon the wheels, and their pressure upon the wheels corresponds with the pressure upon the pole or tongue.

When it is desired to back the wagon the motion of the wheels is reversed. This throws the friction-roller O over the eccentric, so that it has no action upon it—thus no action of the brakes upon the wheels.

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

The combination of the eccentric L, rod M, pole H, and friction-roller with the brake *e* and bars I I, when constructed for the purposes and substantially as herein described.

L. E. WOODARD.

Witnesses:

J. H. BUTLER,  
L. B. HEALY.