D. C. MONTGOMERY.

WAGON-BRAKE.

No. 187,404. Patented Feb. 13, 1877.

Fig: 1.

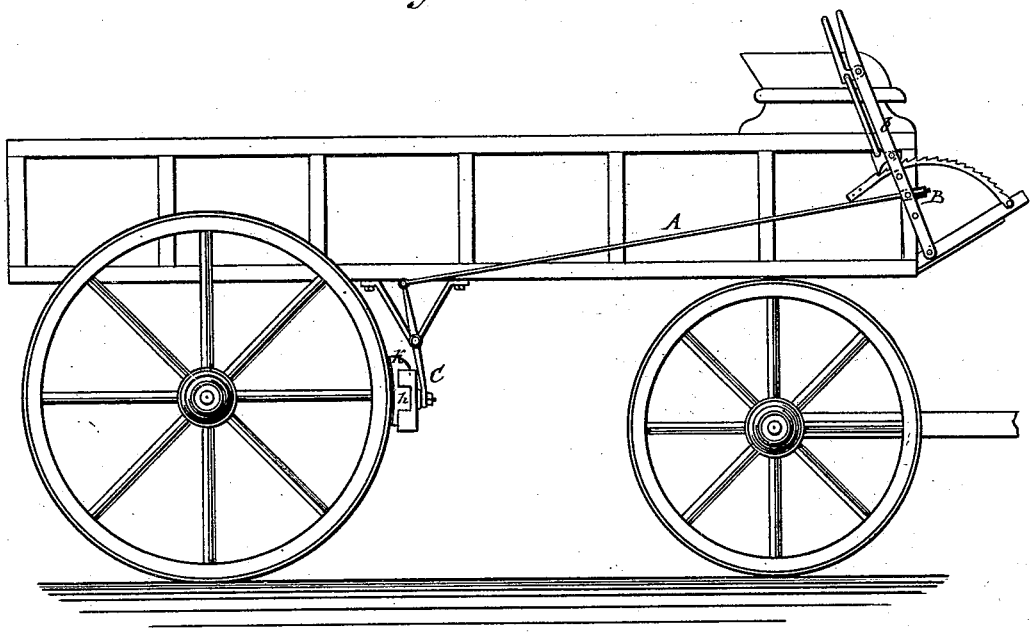


Fig: 2.

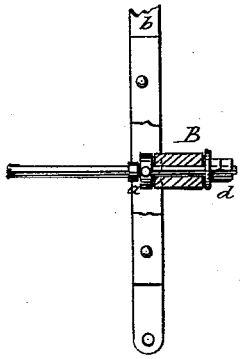


Fig: 3.

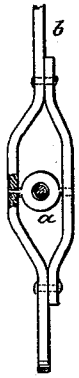


Fig: 4.

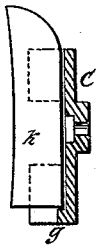


Fig: 5.

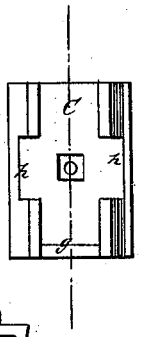
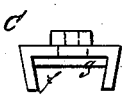


Fig: 6.



Witnesses:

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M. Lovell

Inventor:

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per Munn & Co.

Attys.

UNITED STATES PATENT OFFICE.

DAVID C. MONTGOMERY, OF ST. JOSEPH, MISSOURI, ASSIGNOR OF ONE-HALF HIS RIGHT TO ZACHARIAH MONTGOMERY, OF SAME PLACE.

IMPROVEMENT IN WAGON-BRAKES.

Specification forming part of Letters Patent No. **187,404**, dated February 13, 1877; application filed January 3, 1877.

To all whom it may concern:

Be it known that I, DAVID C. MONTGOMERY, of St. Joseph, in the county of Buchanan and State of Missouri, have invented a new and Improved Wagon-Brake; and that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon, making part of this specification.

This invention is in the nature of an improvement in wagon-brakes; and the invention consists in a wagon-brake constructed with a brake-rod passing through a swiveled guide-plate secured to the brake-lever, and provided with a rubber spring at one end, through which the brake-rod passes, and to which it is secured by a nut; the brake-rod and spring being combined with a shoe or block-holder, which will retain the brake-block in position without the aid of screws or bolts, and admit of removing the block with facility.

In the accompanying sheet of drawings, Figure 1 is a side view of my improved brake and shoe applied to a wagon. Fig. 2 is a detailed side view, showing swiveled guide-plate in vertical lever, and rubber spring attached to end of brake-rod; Fig. 3, a detailed edge view of vertical lever, showing swiveled guide-plate. Fig. 4 is a longitudinal section of my improved shoe, with brake-block therein; Fig. 5, a front view of shoe, and Fig. 6 a plan or top view of same.

Similar letters of reference indicate like parts in the several figures.

A represents a brake-rod of any suitable size, and secured to any suitable operating-lever, with ratchet and pawl, or other device for operating the brake. This rod passes through a swiveled guide-plate, *a*, affixed to the vertical arm or lever *b* of the brake, and the end of the brake-rod projects beyond this lever, and onto this projecting end is fitted a cylindrical rubber spring, B. This spring may be fitted in any desirable way, but preferably between the swiveled guide-plate *a* and a nut and washer, *d*, fitted at the end of the rod.

The block C is constructed of cast metal or otherwise, and it is formed with a dovetail opening, *f*, in the direction of its length, and with a stop, *g*, at or near its lower end, and with openings *h* at its sides. Fitted into this block is a brake-shoe, *k*. This block is secured to the transverse lever beneath the wagon-body, as in ordinary brakes, or in any other desirable way.

My improved brake being constructed as above, it is operated as an ordinary brake. The purpose of the rubber spring B is to prevent the too sudden braking up of the wheel, acting as a cushion to some extent, and restoring the brake to its normal position when the operating-lever is released. The action of the spring is smooth and uniform, and when the brake is applied there is an entire absence of sudden jerks, and the braking is effected with less force, and will check the wagon and hold the wheel from turning too rapidly, with less strain to the brake, or liability of derangement than brakes of the ordinary construction. This is due to the entire uniform elasticity of the spring. And another advantage coming from the use of my spring is, that its cost is very slight, it will not rust or break, and can be removed and replaced without trouble.

The swiveled guide-plate *a*, by turning on trunnions, enables it to present the guide-hole through it fairly to the brake-rod, and offers no resistance to the free action of the rod.

The block C of the brake readily permits a wooden brake-shoe, *k*, to be inserted within it. This brake-shoe should be formed with beveled sides, to conform to the dovetail opening *f* in the block, so that when fitted it cannot be accidentally displaced, the end of the shoe resting upon the stop *g* within the block preventing it from falling out. The shoe is, in this way, kept in position without the aid of bolts or screws. When it is desired to remove the shoe and replace it with a new one, it may be done by driving the shoe upward out of the block, or it may be pried out by inserting a lever or other instrument through the openings *h* in the sides of the block.

Having thus described my invention, what

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

A wagon-brake constructed with a rubber spring secured to one end of the brake-rod by nuts and washers, the rod passing through a swiveled guide plate, and in combination with a block constructed with a dovetail opening, stop, and side openings, substantially in the manner and for the purpose described.

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Witnesses:

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