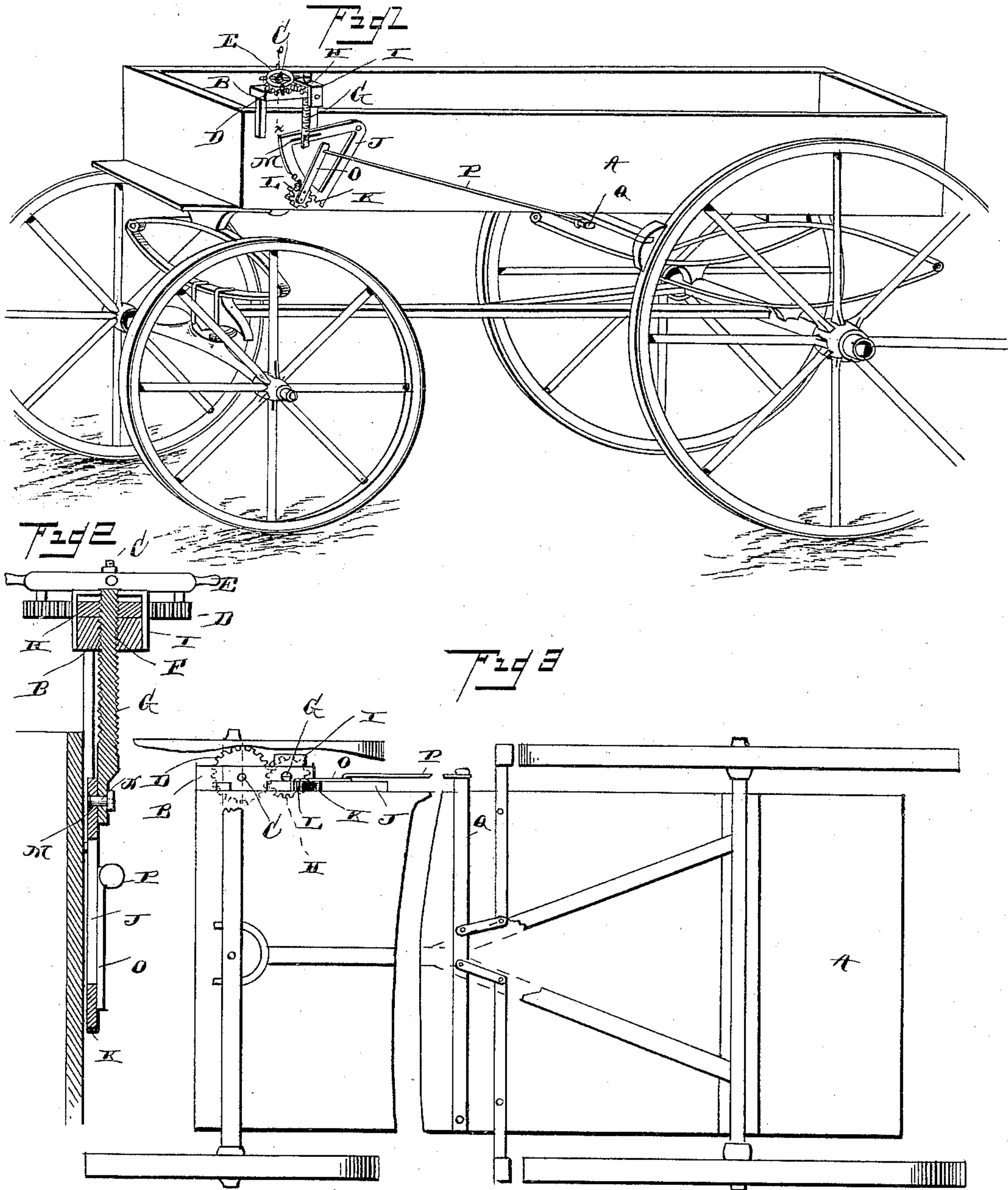


(No Model.)

W. M. MASON.
WAGON BRAKE.

No. 409,692.

Patented Aug. 27, 1889.



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Witnesses
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UNITED STATES PATENT OFFICE.

WASHINGTON M. MASON, OF WARWICK CROSS ROADS, TENNESSEE.

WAGON-BRAKE.

SPECIFICATION forming part of Letters Patent No. 409,692, dated August 27, 1889.

Application filed May 25, 1889. Serial No. 312,171. (No model.)

To all whom it may concern:

Be it known that I, WASHINGTON M. MASON, a citizen of the United States, residing at Warwick Cross Roads, in the county of Union and State of Tennessee, have invented a new and useful Wagon-Brake, of which the following is a specification.

This invention relates to a wagon-brake; and it has for its object to provide a brake which shall be simple in construction, durable, and easily operated, and by means of which great force may be applied to the brake-levers, so as to render the application of said levers, or of the shoes at the ends thereof, to the wheels of the vehicle more effective than when applied by means of brake-levers of the ordinary construction.

With these ends in view the invention consists in the improved construction, arrangement, and combination of parts, which will be hereinafter fully described, and particularly pointed out in the claims.

In the drawings, Figure 1 is a perspective view showing my improved brake applied to a wagon of ordinary construction. Fig. 2 is a vertical sectional view taken on the line xx of Fig. 1. Fig. 3 is a bottom plan.

The same letters refer to the same parts in all the figures.

A designates the wagon bed or body, which is provided at its upper edge near its front end with a laterally-extending bracket B, one end of which is provided with an upwardly-extending spindle C, upon which is journaled a spur-wheel D, to the upper side of which is bolted or otherwise secured a hand-wheel E, by means of which it may be conveniently manipulated.

The bracket B is provided with a vertical perforation F, through which extends a vertically-movable screw-threaded rod G, upon the upper end of which is adjusted a pinion H, having a central screw-threaded perforation, by means of which it is fitted upon the said rod. The pinion H meshes with the spur-wheel D, and it will be observed that by operating the latter the pinion H will be rotated, so as to raise or lower the screw-threaded rod G, working therein, according to the direction in which it is rotated.

Secured to the bracket B is a guard-plate I,

which extends over the pinion H and over a part of the rim of the spur-wheel D, and the function of which is mainly to retain the said pinion in its proper position during operation.

J designates a sector-shaped plate or disk, which is secured pivotally to the side of the wagon-bed, and the peripheral rim of which is provided with teeth K, meshing with a pinion L, which is likewise journaled upon a suitable spindle extending from the side of the wagon-bed. The sector-shaped plate J is provided with a radial slot M near its upper edge, in which works a roller or guide pin N, suitably journaled or otherwise attached to the lower end of the vertically-movable screw-threaded rod G, by means of which the said sector-shaped plate may thus be operated.

Suitably secured to the outer face of the pinion L is an arm or lever O, which is connected by means of a rod P with the outer end of the brake-operating lever Q, which may be connected in any suitable manner with the levers carrying the brake-shoes. The latter are to be of any suitable well-known construction, which is not claimed in connection with the present invention.

From the foregoing description, taken in connection with the drawings hereto annexed, the operation and advantages of my invention will be readily understood. It will be seen that by operating the spur-wheel D the pinion H will be revolved upon the screw-threaded rod G, which will thus be raised or lowered, thereby imparting movement in the desired direction to the sector-shaped plate J, according to whether the brake is to be set or released. By the described arrangement of the screw-threaded vertically-sliding rod a very considerable power may thus be exercised upon the brake-levers, and the latter may be set with a degree of rigidity which it is not possible to obtain by the employment of hand-levers of the usual construction. It will also be seen that the degree of tension with which the brakes are set will be very nicely regulated.

The construction of the device is simple, and it may be easily and effectively operated.

Having thus described my invention, I claim—

1. In a wagon-brake, the combination of a

sector-shaped plate mounted pivotally upon the side of the wagon-brake and having a radial slot, a vertically-moving screw-threaded rod having a pin or roller working in the said slot, mechanism connecting the said sector-shaped plate with the brake-levers, a pinion having a central screw-threaded perforation, whereby it is mounted upon the vertically-sliding screw-threaded rod, and mechanism for operating the said pinion, substantially as and for the purpose set forth.

2. In a wagon-brake, the combination of the sector-shaped plate mounted pivotally upon the side of the wagon-bed and having a radial slot, a vertically-sliding screw-threaded rod having at its lower end a pin or roller working in the said slot, a bracket extending laterally from the wagon-bed and having a vertical opening to admit of the passage of the said screw-threaded rod, and provided with an upwardly-extending guard, a pinion having a central screw-threaded perforation, whereby it is mounted upon the vertically-sliding screw-threaded rod between the bracket and the guard, and a spur-wheel mounted pivotally upon the said bracket, provided with a hand-wheel by means of which it may be manipulated and meshing with the said pinion, substantially as and for the purpose herein set forth.

3. In a wagon-brake, the combination of the sector-shaped plate mounted pivotally upon the side of the wagon-brake and having a

toothed periphery and a radial slot, a vertically-sliding screw-threaded rod provided at its lower end with a pin or roller working in the said slot and having at its upper end a pinion resting upon a bracket, through which the said vertically-sliding screw-threaded rod extends, a guard arranged upon the said bracket above said pinion, a pinion journaled to the side of the wagon-bed and meshing with the toothed sector-shaped plate, and having an arm or lever secured to its outer face, and a rod connecting said arm with the brake-levers, substantially in the manner and for the purpose herein shown and specified.

4. In a wagon-brake, the combination of the sector-shaped toothed plate mounted pivotally upon the side of the wagon-body, the vertically-sliding screw-threaded rod connected with and operating the said sector-plate, and a pinion mounted pivotally upon the side of the wagon-bed, meshing with the said sector-plate, and having an arm or lever connected by means of a suitable rod with the brake-operating levers, substantially as and for the purpose shown and specified.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in presence of two witnesses.

W. M. MASON.

Witnesses:

J. L. ACUFF,
I. B. MASON.