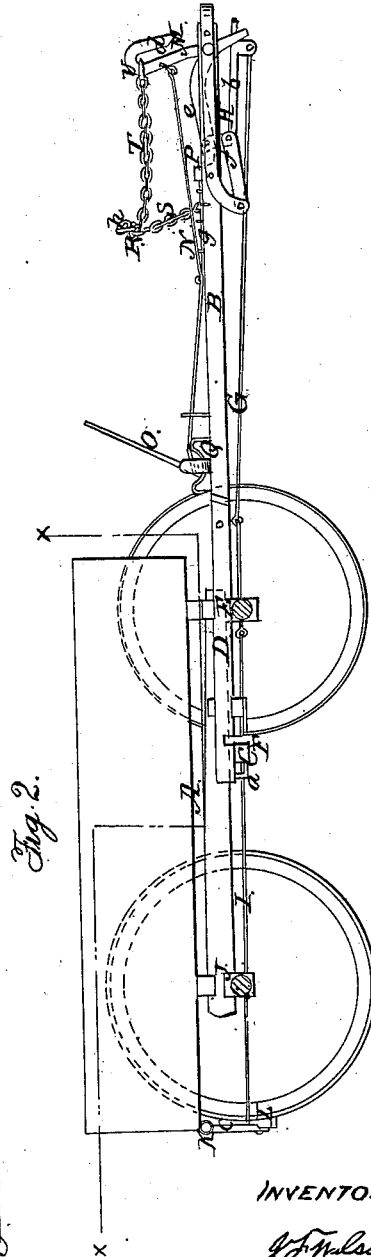
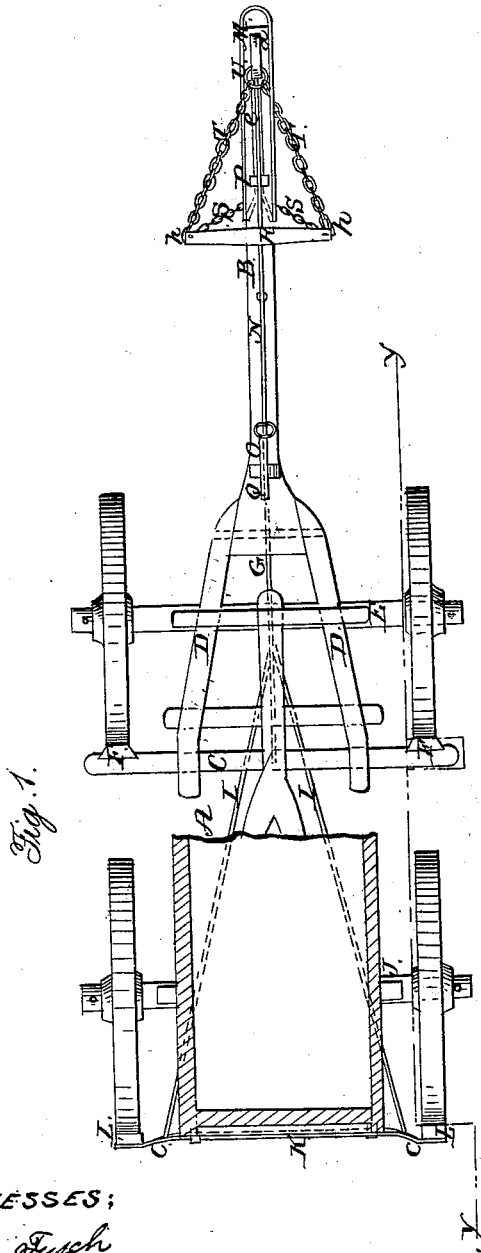


J. F. WILSON.

Wagon-Brake.

No. 50,762.

Patented Oct. 31, 1865



WITNESSES;

Thos. Fusch
Wm. Thewin

INVENTOR;

J. F. Wilson
*By *Blum**
attys

UNITED STATES PATENT OFFICE.

JESSE F. WILSON, OF LEWISVILLE, INDIANA.

IMPROVEMENT IN WAGON-BRAKES.

Specification forming part of Letters Patent No. 50,762, dated October 31, 1865.

To all whom it may concern:

Be it known that I, JESSE F. WILSON, of Lewisville, in the county of Henry and State of Indiana, have invented a new and Improved Wagon-Brake; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable those skilled in the art to make and use the same, reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1 is a plan or top view of a wagon, partly in section, as indicated by the line *xx*, Fig. 2, and having my invention applied to it; Fig. 2, a side sectional view of the same, taken in the line *yy*, Fig. 1.

Similar letters of reference indicate corresponding parts.

The invention relates to a new and improved wagon-brake of that class which are commonly termed "self-acting;" and it consists in a novel arrangement of parts, whereby the brake is made to apply itself when the wagon is descending an eminence, and at the same time rendered inoperative when the team is backed, so as not to interfere with the backing of the wagon and still be capable of being applied by hand at any time when the wagon is on a level.

A represents a wagon, which may be constructed in the usual or in any proper manner, and provided with a draft-pole, B, arranged and applied in the usual way.

C represents a bar, which is fitted in guides *a* at the under side of the hounds D D, which are attached to the front axle, E, said bar C having a transverse position relatively with the hounds and allowed a certain degree of play or movement in the guides. This bar C has a shoe, F, attached to each end of it, and it is connected by a rod, G, to the outer end of one of the arms *b* of a toggle, H, at the under side of the front part of the draft-pole B. This rod G has also connected to its rear end two oblique rods, *i i*, which pass loosely through the back axle, J, and are connected to cranks *c c* on a shaft, K, to which cranks shoes L are secured. These shoes L, when the brake is applied, bear against the back wheels at their rear sides, while the shoes F of the bar C bear against the rear of the front wheels.

The arm *b* of the toggle H, to which the rod G is attached, passes through the lower end of a bar, M, which is pivoted in the draft-pole; and the upper end of this bar is curved or bent in the form of a hook, *d*, as shown in Fig. 2, and the bar M has an arm, *e*, extending from its rear side above the draft-pole, said arm being connected by a link, *f*, with the joint of the toggle H.

The bar M, above the draft-pole B, is connected by a rod, N, with a lever, O, at the rear part of the draft-pole, and to said rod N there is attached a short rod, *g*, having a cross-head, P, at its outer end, said rod *g* working in a guide on the upper surface of the draft-pole.

On the draft-pole B, at its rear end, there is attached a notched bar, Q, for the purpose of securing the lever O in different positions within the scope of its movement.

The operation is as follows: The breast or holdback straps are attached to the bar M above the draft-pole, and when the wagon is descending an eminence the tendency of the wagon to move forward, which is due to its gravity, will cause the upper part of bar M to be forced backward, and the arm *e* of M, in connection with the lower end of M, will force down the joint of the toggle H and draw the rod G forward, and the bar C will also be drawn forward, and its shoes F applied to the front wheels of the wagon, while the rods I I at the same time act upon the cranks *c c* and press the shoes L against the back wheels. Thus it will be seen that the brake, when the wagon is descending an eminence, is rendered self-acting. At any time when it is desired to apply the brakes when the wagon is passing over a level surface it is done by the driver throwing forward the lever O, and when at any time it is necessary to back the wagon it may be done without having the brake applied by drawing back the lever O, so that the cross-head P of the rod *g* will pass under the arm *e* of the bar M. This prevents the bar M from moving under the backward pull of the breast-straps.

In stiff-tongue wagons, or those not having flexible joints, the breast-yoke is omitted, and a bar, R, connected by chains S S to the draft-pole. This bar R has chains T T attached to

its ends, the outer ends of said chains being connected to a ring, U, which is fitted on the hook of bar M, and the breast-straps are attached to rings *h* at the ends of bar R.

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

1. The toggle H, connected with the rod G at the under side of the draft-pole, and which rod is attached to the shoe-bar C and cranks *c* of the shaft K, in combination with the bar M, pivoted in the draft-pole and connected with the toggle, and all arranged to operate in

the manner substantially as and for the purpose set forth.

2. The lever O, connected by a rod, N, with the bar M, in combination with the toggle H, as and for the purpose specified.

3. The cross-head P, connected with the rod N, in combination with the arm *e* of the bar M and toggle H, substantially as and for the purpose set forth.

Witnesses: JESSE F. WILSON.

BENJ. S. PARKER,
LOT B. LEONARD.