(No Model.)

A. W. MILLER.

WAGON BRAKE.

No. 457,001. Patented Aug. 4, 1891.

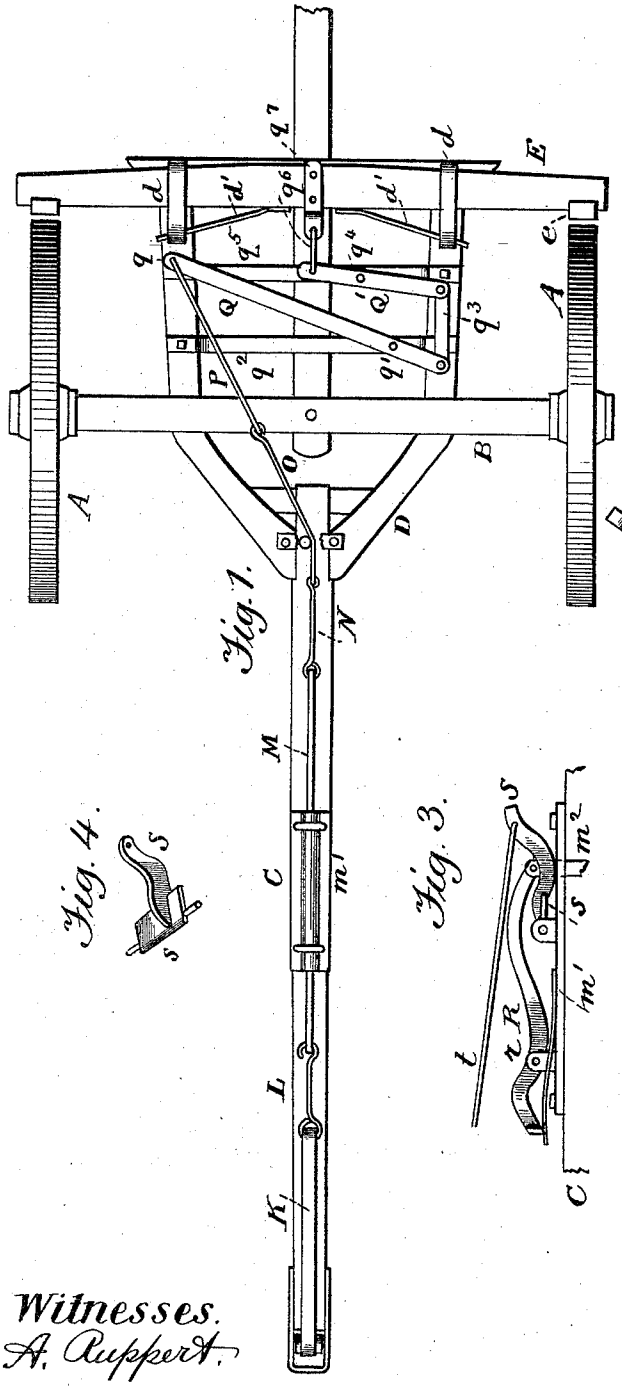


Fig. 1.

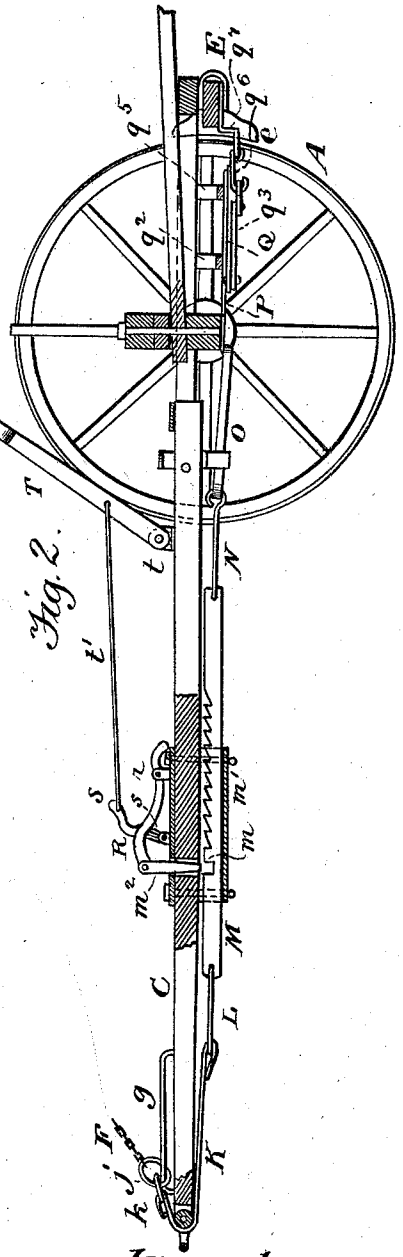


Fig. 2.

Fig. 4.

Fig. 3.

Witnesses.
A. Ruppert.
H. A. Daniels

Inventor.
Arthur W. Miller,
Per
Thomas P. Simpson,
atty.

THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

ARTHUR W. MILLER, OF CAPON ROAD DEPOT, VIRGINIA.

WAGON-BRAKE.

SPECIFICATION forming part of Letters Patent No. 457,001, dated August 4, 1891.

Application filed February 26, 1891. Serial No. 382,897. (No model.)

To all whom it may concern:

Be it known that I, ARTHUR W. MILLER, a citizen of the United States, residing at Capon Road Depot, in the county of Shenandoah and State of Virginia, have invented certain new and useful Improvements in Wagon-Brakes; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

The invention relates to automatic wagon-brakes where gravity puts on the brakes as the vehicle is going down a hill or incline.

The invention will first be described in connection with the drawings, and then pointed out in the claims.

Figure 1 of the drawings is a plan view; Fig. 2, a longitudinal vertical section; Fig. 3, a detail view of the detent mechanism, and Fig. 4 a detail view of the lifter of the detent-lever.

In the drawings, A A represent the wheels; B, the axle on which they turn; C, the wagon-tongue; D D, the hounds, and E the brake-bar with shoes *e e*. About these things there is nothing which is not fully known to the public.

F is the breast-chain connected by a ring *j* with the loop *g*, which is fast on the tongue. With this ring *j* I connect by another ring *k* the strap K, which, with the eyebolt L, rack-bar M, and eyebolt N, strap O, and eye-bolt P, forms a connection with the lever Q at the end *q*. This lever is fulcrumed at *q'* on a cross-bar q^2 and connects at its front end by a pivoted strap-bar q^3 with a lever Q', fulcrumed at q^4 on a cross-bar q^5. The front end of the lever Q' reaches to a point opposite to the middle of the brake-bar E, with which it connects by means of the link q^6 and metallic strap q^7.

On the bottom of the hounds D D are two keepers, in which the brake-bar slides and is supported. *d' d'* are right and left springs fastened at one end near the middle of the brake-bar and projecting with their free ends through the keepers *d*, so as to throw the brake-bar shoes *e e* back from the wheels. When the wagon is going downhill and the horses are holding back, the mechanism described overcomes the tension of the springs *d' d'* and causes the brake-shoes *e e* to press hard upon the wheels A A, the latter being thus made to slide instead of rotating.

In order to lock the brake mechanism, so that the brakes can only be put on at the will of the driver, the rack-bar M is made with a notch *m* in its upper side, the same being held in that position by the guide *m'*, which is bolted to the tongue C. In the notch drops a pin m^2 to lock the rack-bar, said pin being pivoted at the top to a lever R, fulcrumed at *r* in uprights on the tongue, so as to allow it to be lifted out by a lever S, trunnioned or pivoted in bearings on the tongue, this lever having a side plate or cam *s*, which raises the lever R, as shown in Fig. 2 of the drawings. The lifting-lever S is connected with a hand-lever T, fulcrumed at *t* on the pole near the front end of the wagon. This enables the driver of a one or two horse team to sit on the front of wagon and lock or unlock his brake mechanism; but where a three or four horse team is used and the driver sits on the near wheel-horse he will operate the lift-lever S with his foot, and the hand-lever *t* and rod *t'* are unnecessary.

Having thus described all that is necessary to understand my invention, what I claim as new, and desire to protect by Letters Patent, is—

1. In a wagon, the tongue C, having loop *g* and breast-chain F connected therewith by a ring *j*, the strap K, having ring *k*, the eyebolt L, bar M, eyebolt N, strap O, eyebolt P, levers Q Q', connected by link q^3, and the brake-bar E, attached to one end of lever Q', all combined and arranged as shown and described.

2. In a train of mechanism for operating a wagon brake-bar from the breast-chains, the bar M, having a notch *m* and held up to the vertically-apertured tongue by a guide *m'*, and the pivoted pin M^2, in combination with the lever R S, the latter having a cam or side plate *s* for raising the former, and the lever S, being connected with a hand-lever, as and for the purpose set forth.

In testimony whereof I affix my signature in presence of two witnesses.

ARTHUR W. MILLER.

Witnesses:

A. RUPPERT,

D. G. STUART.