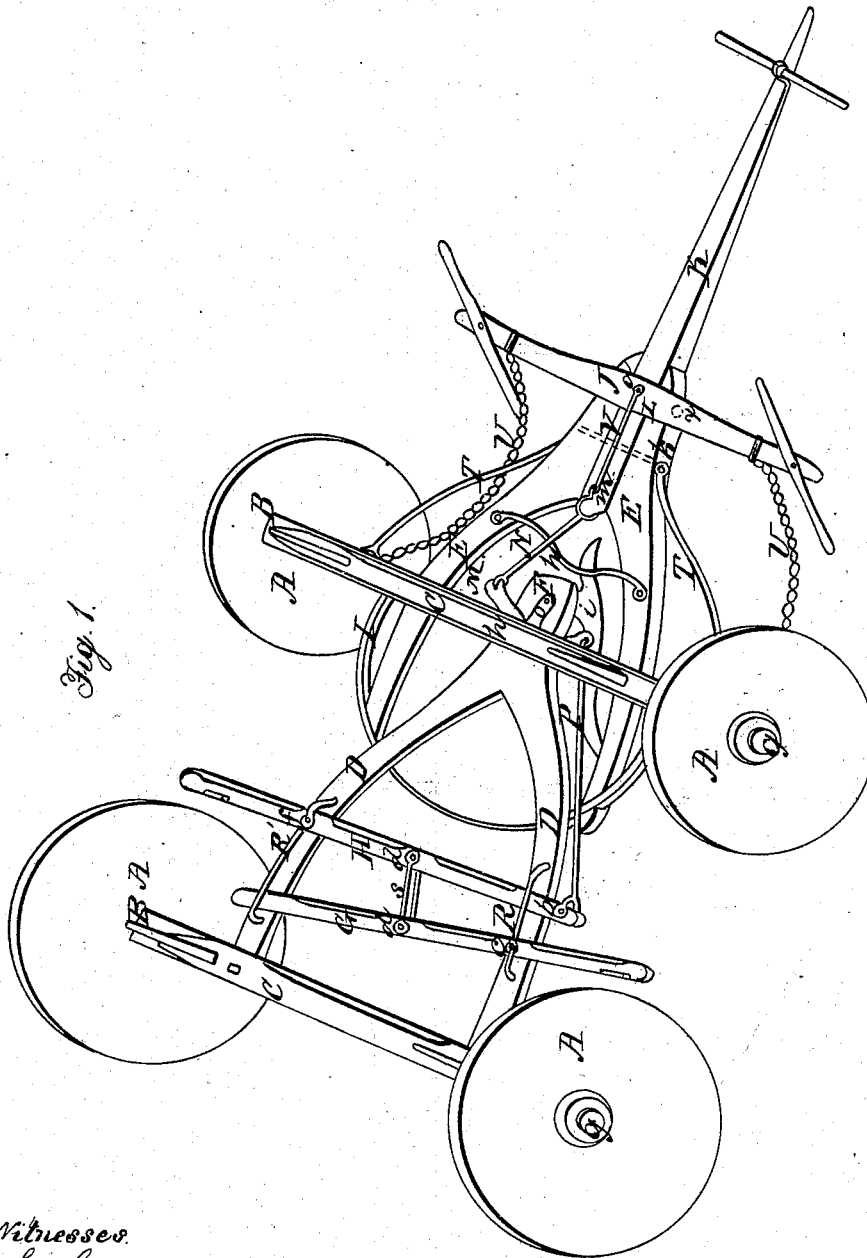


J. F. YATES.

Wagon-Brake.

No 48,228.

Patented June 13, 1865.



Witnesses:
E. L. Farmer
Jno. L. Smith

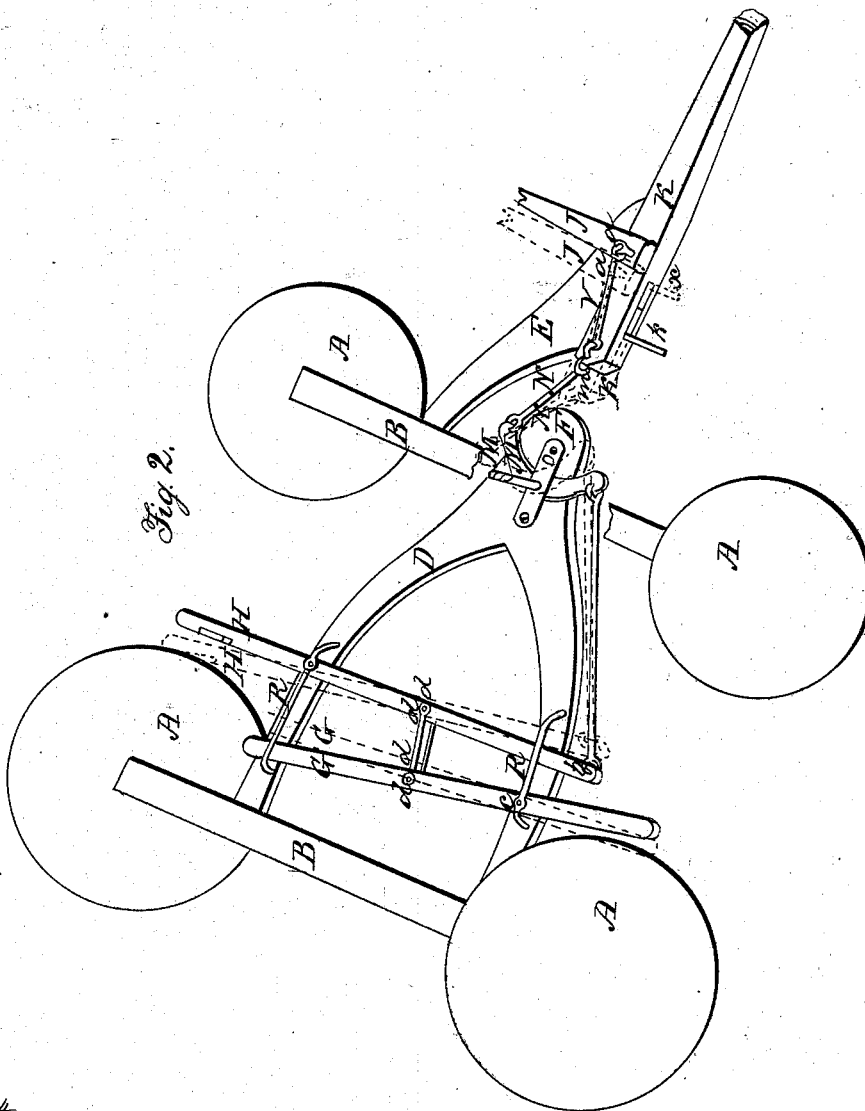
Inventor
John F. Yates

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Witnesses
C. L. Garner
Mrs. L. Smutinger

Inventor
John F. Yates

UNITED STATES PATENT OFFICE.

JOHN F. YATES, OF MOORESVILLE, INDIANA.

IMPROVEMENT IN WAGON-LOCKS.

Specification forming part of Letters Patent No. 48,228, dated June 13, 1865.

To all whom it may concern:

Be it known that I, JOHN F. YATES, of Mooresville, Morgan county, and State of Indiana, have invented a new and useful mode of locking wagons in going down a mountain, and of preventing wagons from running backward in going up the mountain when horses are stopped for rest; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawings, making part of this specification, of which—

Figure 1 represents a perspective view, and Fig. 2 a section. The red marks of Fig. 2 explain the operation.

To enable others skilled in the art and science to fully understand my invention, I shall proceed to describe it.

A A A are the wheels. B B are the axles. C C are the bolsters; D D, the hounds; F, the head of hounds; K, the tongue. J is the double-tree. G H are the rob-bars. I is the slider. U U are the stay-chains. T T are the braces. V is the hammer-strap, with the hammer *a* and staple *m*. N is the front rod. M is the lever. O is a brace for the lever. P is the rear rod, which is fastened on one end to the lever M, and on the other to the rob-bar H by *b*. R R' are the slides. R' has a bolt, *f*, passing through rob-bar H, and R has a bolt, *e*, passing through rob-bar G. S are the pulleys, with bolts *d d* running through rob-bars G and H. *h* is a snake-iron, and *i* is the drop-lock. *g g*, &c., are the hubs. *k* is the tongue-bolt, and *x* the stop-bolt. *h* is the king-bolt.

It will be seen that when the horses hitched to the wagon, in going down the mountain,

push the wagon-tongue K it slides back, and in so doing pushes the front rod, N, and with it the longer end of the lever M, pulling on the other end of this lever the rear rod, P, and with it the rob-bar H, unto the wheel A, as the red marks show on Fig. 2, at the same time pulling one of the rob-bars, G, toward the front wheels, and pushing the other end of the same bar against the other wheel, thereby locking both wheels most effectually. It will be seen that the friction of these rob-bars increases as the weight increases. When arrived at the foot of the mountain, the horses will gradually stop pushing and begin to pull. In so doing they pull the tongue out to its former place, and raise the lock. If the driver desires to back up, he puts the stop-bolt *x* into the tongue and front hounds, E E. By turning the horses a little one way or the other, in going up the mountain, the longer end of the drop-lock I will fall to the ground and brace the wagon, thereby preventing it from running down, and giving the horses a chance to rest.

What I claim as my invention, and desire to secure by Letters Patent of the United States, is—

The combination of the tongue K, the tongue-bolt *k*, the stop-bolt *x*, the front rod, N, the lever M, king-bolt *h*, brace O, rear rod, P, the rob-bars G and H, with their connecting-pulleys *a* and slides R R, the hounds D D, the drop-lock *i*, with the snake-iron *h*, all arranged and operating substantially as described, and for the purpose set forth.

JOHN F. YATES.

Witnesses:

C. L. GARNER,
JNO. L. SMITHMYER.