T. C. LAWRENCE.

WAGON-BRAKES.

No. 193,878. Patented Aug. 7, 1877.

Fig 1.

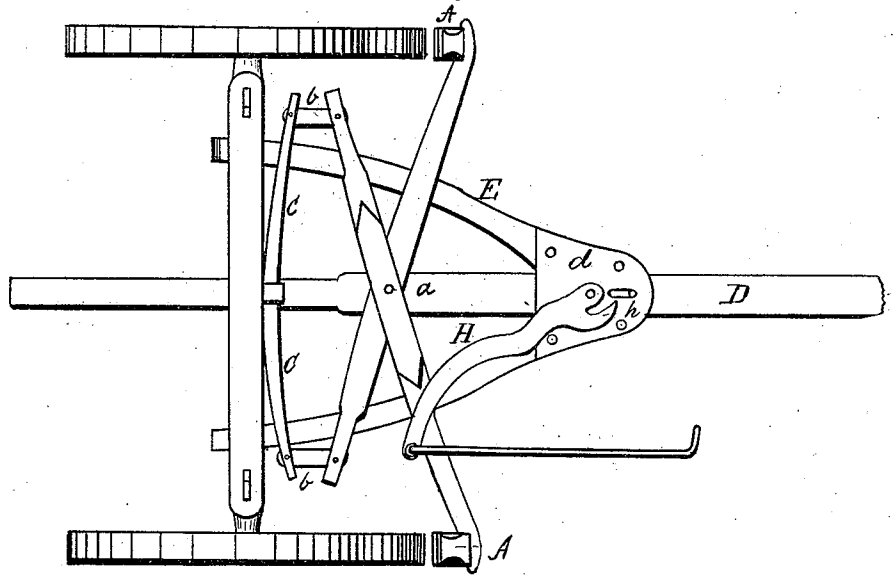
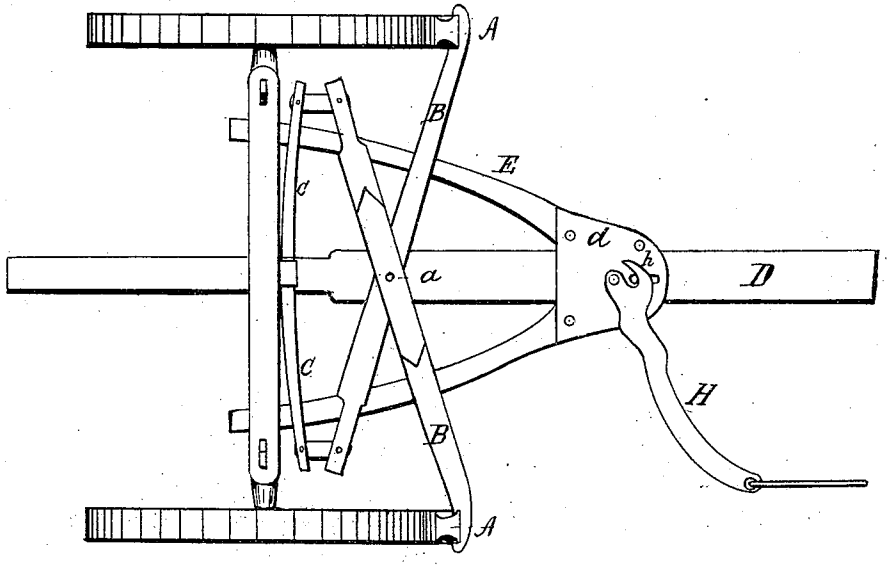


Fig 2.



Witnesses:
B C. Pole
D. P. Lowe

Inventor:
Theodore C. Lawrence
by his Attorney
C. S. Whitman.

N. PETERS, PHOTO-LITHOGRAPHER, WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

THEODORE C. LAWRENCE, OF LADOGA, INDIANA.

IMPROVEMENT IN WAGON-BRAKES.

Specification forming part of Letters Patent No. **193,878**, dated August 7, 1877; application filed March 31, 1877.

To all whom it may concern:

Be it known that I, THEODORE C. LAWRENCE, of Ladoga, county of Montgomery and State of Indiana, have invented an Improved Automatic Lock or Brake; and the following description, taken in connection with the accompanying plate of drawings, hereinafter referred to, forms a full and exact specification, wherein are set forth the nature and principles of the invention, by which the same may be distinguished from others of a similar class, together with such parts thereof as are claimed as new, and are desired to be secured by Letters Patent of the United States.

My invention relates to that class of frictional devices applied to the wheels of a vehicle in order to retard its motion when descending a hill, commonly known as wagon-brakes or wagon-locks; and the nature thereof consists in certain improvements in the construction of the same, and novel combinations of parts, hereinafter shown and described.

In the accompanying plate of drawings, in which corresponding parts are designated by the same letters, Figures 1 and 2 are plan views of the back part of a wagon having my improvements applied thereto, representing the brakes held respectively in a locked and unlocked position by means of the locking-lever.

The brake-blocks A A are attached to the extremities of brake-rods B B, which are pivoted together by a bolt, *a*, and connected to the extremities of the equalizing-rod C by the connecting-bars *b*, which are alike pivoted to the said brake-rods and equalizing-rod.

The bolt by which the brake-bars are pivoted together passes through and is secured to the reciprocating bar D, which slides in an opening formed by connecting the ends of the brace-rods E by metal plates *d*. One of the said metal plates is arranged above and the other below the said reciprocating bar, and they are provided with elongated apertures for the reception of pins attached to the said reciprocating bar, which prevent it from being forced too far backward or forward.

The said reciprocating bar may be secured in position by means of the lever H, pivoted to the metal plate *d*, and having a curvilinear arm, *h*, which may be moved by the handle of the lever in front of or behind the pin upon the said reciprocating bar.

The operation of the mechanism is simple. When the vehicle passes down an inclined plane the reciprocating bar forces the brake-bars backward, and the pressure of the brake-blocks is equalized by the equalizing-rod pivoted to the bolster. When in this position the mechanism may be secured in place by pushing forward the lever H, which causes the curvilinear arm *h* to pass in front of the pin upon the reciprocating bar.

Having thus described my invention, I claim, and desire to secure by Letters Patent of the United States—

1. The lever H, having an arm, *h*, and pivoted to the metal plate *d*, in combination with the reciprocating bar.

2. The combination of the lever H, the metal plates *d*, the reciprocating bar, the brake-bars, and the equalizing-bar, as and for the purposes described.

In testimony that I claim the foregoing I have hereunto set my hand this 12th day of March, 1877.

THEODORE C. LAWRENCE.

Witnesses:
E. W. LINN,
J. W. ANDERSON.