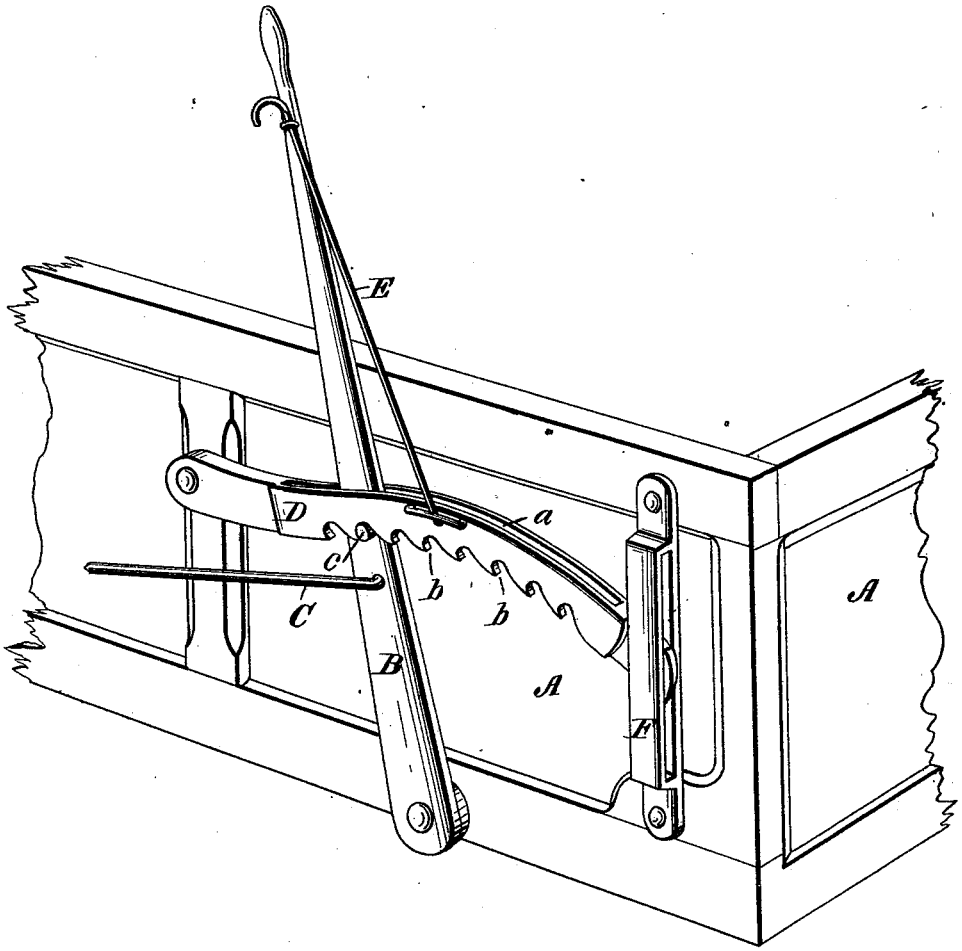
J. L. JOHNSTON.
Vehicle-Brake.

No. 214,920. Patented April 29, 1879.



Witnesses:
Will N. Dodge.
Donn D. Twitchell.

Inventor:
James L. Johnston
By his attys.
Dodger & Son.

UNITED STATES PATENT OFFICE.

JAMES L. JOHNSTON, OF CHICAGO, ILLINOIS, ASSIGNOR TO JAMES BUCHANAN, OF SAME PLACE.

IMPROVEMENT IN VEHICLE-BRAKES.

Specification forming part of Letters Patent No. **214,920**, dated April 29, 1879; application filed October 7, 1878.

To all whom it may concern:

Be it known that I, JAMES L. JOHNSTON, of Chicago, in the county of Cook and State of Illinois, have invented certain Improvements in Wagon-Brakes, of which the following is a specification.

The object of this invention is to simplify, cheapen, and improve the action of the hand-lever mechanism employed for operating wagon-brakes; and to this end it consists in substituting for the usual rack and pawl a pivoted bar notched on the under side and arranged to engage with the hand-lever, and in certain minor features.

The drawing represents a perspective view of my improved devices.

A represents the wagon box or body, and B the hand-lever, pivoted at its lower end to the body, and connected as usual to one end of the brake-operating rod C.

D represents an iron bar, pivoted at one end to the body, and provided with a longitudinal vertical slot, *a*, through which the hand-lever passes, and also provided, in its lower edge, with a series of ratchet-teeth, *b*, to engage with studs *c*, formed for the purpose on the lever, in order to lock the latter and hold the brake in action.

E represents a rod, having its lower end pivoted to the bar or latch D, and its upper end passed through an eye on the upper end of the lever, and bent into such shape that it may be readily raised by the operator with the same hand that grasps the lever.

F represents a vertically-slotted plate, attached to the side of the body, and serving as a guide for the end of the rack-bar.

Owing to the arrangement of the parts, it will be seen that as the hand-lever is moved forward to apply the brake the gravitating rack-bar will engage with the studs and lock the lever in place.

When the brake is to be released, the operator, grasping the lever with one hand, raises the rod, and thereby lifts and disengages the rack-bar, leaving the lever free to swing backward.

It will be noted that the bar notched on the under side takes the place of both the pawl and the rack-bar of the usual brakes, and that no springs or other delicate parts are required.

It is obvious that the guide at the front end of the bar may be omitted, and that instead of slotting the rack-bar to receive the hand-lever, the latter may be slotted and the rack passed through it.

It is to be noted that the construction and arrangement of my device are such that the lever is locked automatically as it is drawn backward, and that, owing to the connection of the disengaging-rod with the hand-lever, the brake may be operated and thrown on or off as required with one hand.

Having described my invention, what I claim is—

1. The combination of a brake-rod, C, an upright hand-lever, B, connected thereto, a gravitating toothed bar, D, mounted on a fixed pivot, and the rod E, extending from the bar to the handle.

2. In combination with the toothed gravitating bar D and hand-lever B, the rod extending from the lever to the middle of the bar, as shown, permitting the lever to swing both in front and rear of the rod, as shown.

3. The combination of a swinging lever, a gravitating toothed latch mounted on a fixed pivot, and a rod extending from the latch to the lever, as shown.

4. The combination of the upright lever and the horizontal gravitating catch, both pivoted to the wagon-body, with the brake-rod C and releasing-rod E, as shown.

JAMES L. JOHNSTON.

Witnesses:

JAMES BUCHANAN,

JOHN C. PALLEY.