(No Model.)

W. MOORE.

LOCK FOR WAGON BRAKES.

No. 342,121. Patented May 18, 1886.

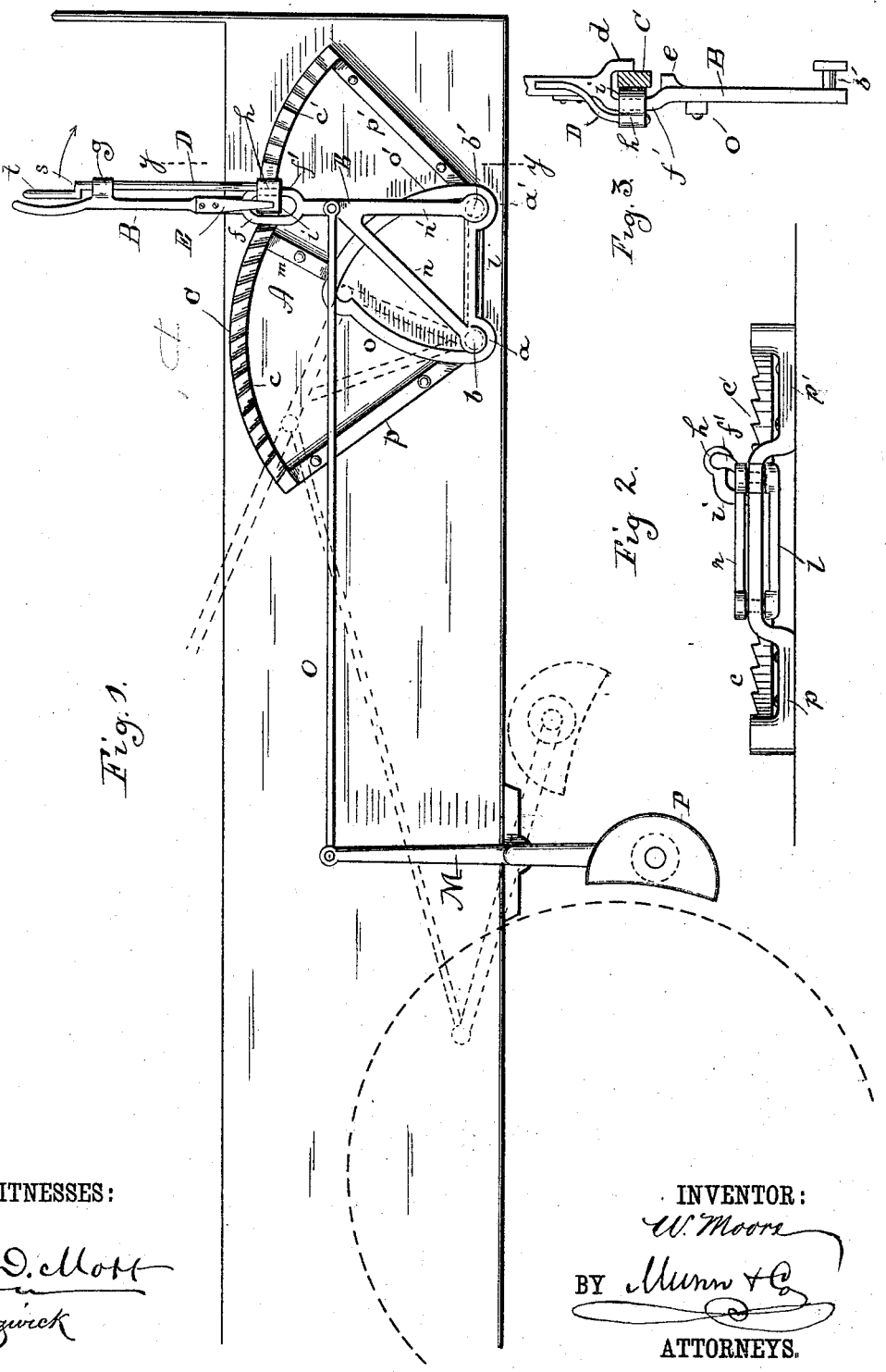

Fig. 1.

Fig. 2.

Fig. 3.

WITNESSES:

O. D. Mott

C. Sedgwick

INVENTOR:

W. Moore

BY Munn & Co.

ATTORNEYS.

UNITED STATES PATENT OFFICE.

WILLIAM MOORE, OF MOONEY, INDIANA.

LOCK FOR WAGON-BRAKES.

SPECIFICATION forming part of Letters Patent No. 342,121, dated May 18, 1886.

Application filed April 3, 1886. Serial No. 197,616. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM MOORE, of Mooney, in the county of Jackson and State of Indiana, have invented a new and Improved Lock for Wagon-Brakes, of which the following is a full, clear, and exact description.

My invention relates to the construction of an improved form of brake-operating mechanism adapted for connection to the brake-lever and arranged to be secured to the outer side of the wagon-body, the object of the invention being to increase the throw of the brake-shoe from the wheel, thus moving the shoe to a position where it will not be liable to collect mud.

A further object of the invention is to increase the effect of the power applied to the lever as the brake-shoe is thrown against the wheel; and these objects I accomplish by means of a lever mounted on a rack and arranged so as to have two fulcrums that are at unequal distances from the point of connection of the connecting-rod leading to the brake-lever, said double-fulcrumed lever carrying a spring-pressed pawl of novel construction that engages with a double curved rack, the axes of the two curves being at the two fulcrums of the lever.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar letters of reference indicate corresponding parts in all the figures.

Figure 1 is a side view of a wagon-body representing my improved brake-lock as in position for use, the position of the hind wheel of the wagon being indicated by dotted lines. Fig. 2 is an inverted plan view of the same, and Fig. 3 is a sectional elevation taken on line *y y* of Fig. 1.

In constructing such an apparatus as is illustrated in the drawings above referred to, I provide a frame, A, that is formed or provided with two sockets, *a a'*, and in these sockets I arrange or mount the pins *b b'* of a double-armed lever, B, each pin resting within its socket when the lever is in about a vertical position, as shown in Fig. 1. Above the sockets I arrange a double-curved rack, C, formed in two sections, *c c'*, the axis of the section *c* corresponding with the axis of the pin *b* when such pin is seated within its socket *a*, while the axis of the section *c'* corresponds with the axis of the pin *b'* when such pin is seated within its socket *a'*.

As seen best in Fig. 3, the rack C stands out some distance from the side of the wagon-body, and the lever B is guided by means of a clamp, *d*, that projects from the lever down behind the rack, the lever being also provided with a lug, *e*, which prevents it from lifting, said lug being arranged to ride beneath the rack.

Just in front of the rack C the single arm of the lever B is divided into two arms, *f f'*, that are again united above the rack to form a single arm. The arm *f'* extends somewhat outward beyond the general face-line of the lever, and near the handle or upper end of the lever there is a bracket, *g*, in which there is mounted a rod, D, the lower end of which carries a sleeve, *h*, that engages with the arm *f'* of the lever B, a pawl, *i*, being carried by the lower end of the rod D, which enters the space between the arms *f f'*, and is pressed against the teeth of the rack C by a spring, E, the upper end of which is rigidly secured to the lever B. Upon the upper end of the bar D there is a crank-arm, *s*, having a handle, *t*, arranged so that when the handle *t* is brought toward the handle of the lever the pawl *i* will be thrown out of engagement with the rack C.

The lower ends of the two arms *n n'* of the lever B extend somewhat beyond the pivot-pins *b b'*, and the inner ends of these pivot-pins are connected by a strap or rod, *l*, which also extends beyond the pivot-points, and as the lever is rocked upon either one of its fulcrums the portions projecting beyond the pivot that is disconnected or moved from its fulcrum will ride upon either side of the guiding-strips *o o'*, of which the strip *o* is concentric to the axis of the pivot *b'*, while the strip *o'* is concentric to the axis of the pivot *b*, the upper ends of the two strips *o o'* being united and the strips being braced by a cross-bar, *m*, arranged as best shown in Fig. 1. The outer ends of the rack C are held by braces *p' p*, which also serve as supports for the lower ends of the strips *o o'*; and it will be understood that although all of the stationary parts described could be made in separate pieces and united, they could also be made in a single casting, which latter mode I greatly prefer.

The lever B is connected to the upper end

of the brake-lever M by means of a connecting-rod, O, the said brake-lever being mounted in the usual position in front of the hind wheel of the wagon and carrying a brake-shoe, P. Now, in ordinary weather the lever B would be moved to about the position shown in Fig. 1; but if the roads were muddy the lever would be moved to the position shown in dotted lines in Fig. 1, thus throwing the brake-shoe to a position at quite a distance from the periphery of the wheel.

When it is desired to apply the brakes, the lever B is forced forward in the direction of the arrow shown in connection therewith, and as the connecting-rod approaches the fulcrum of the lever as said lever is being so moved forward, it will be readily understood that the effect of the power increases as the brake shoe approaches the wheel, and it will also be understood that as the lever B is being thrown from a vertical position to the position shown in dotted lines in Fig. 1, as the arm *n* is longer than the arm *n'*, the brake-shoe P will move more rapidly after the lever becomes fulcrumed at *a*.

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

1. In a brake-locking mechanism, the combination, with a lever formed with two arms, upon both of which it may be fulcrumed, of a spring-pressed pawl carried by a rod that is mounted on the lever, substantially as described.

2. In a brake-locking mechanism, the combination, with a lever, B, formed with arms *n n'* and pivot-pins *b b'*, of a frame having sockets *a a'* and a double-curved rack, C, substantially as described.

3. In a brake-locking mechanism, the combination, with a lever, B, formed with arms *n n'* and pivot-pins *b b'*, of a frame having sockets *a a'*, a double-curved rack, C, a rod, D, carried by the lever and provided with a pawl, *i*, a spring, E, a connecting-rod, O, and a brake-lever carrying a brake-shoe, substantially as described.

WILLIAM MOORE.

Witnesses:
ANDREW DODDS,
H. A. CUMMINGS.