

H. FELT.
WAGON-BRAKE.

No. 178,424.

Patented June 6, 1876.

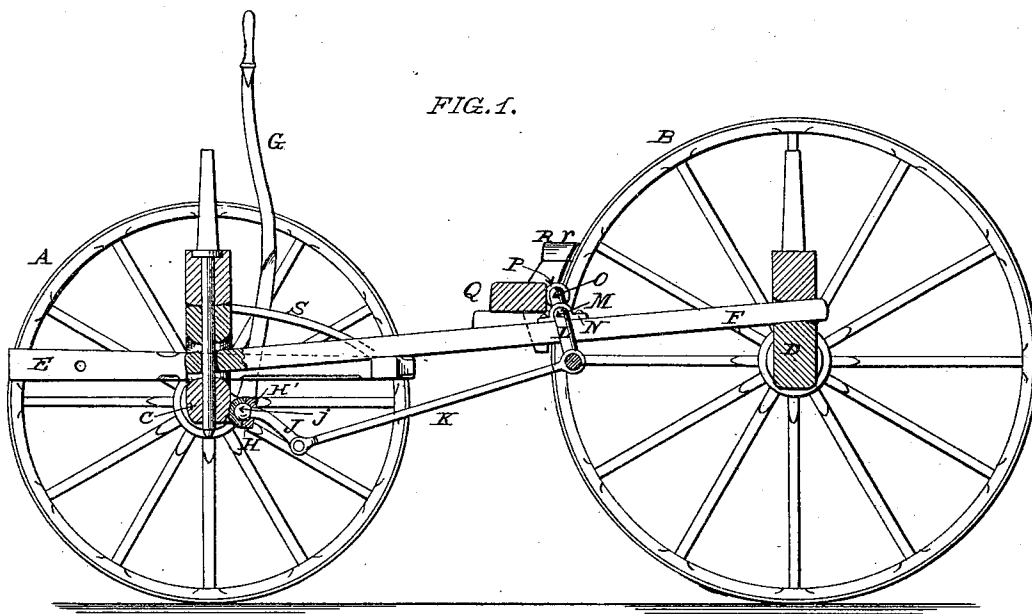
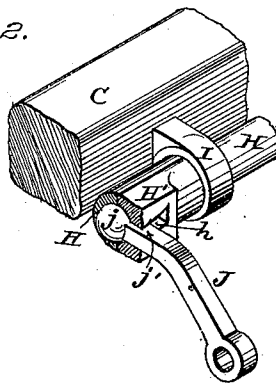


FIG. 2.



ATTEST:

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Hannibal Felt
per. Bright Bro.
Atty.

UNITED STATES PATENT OFFICE.

HANNIBAL FELT, OF SANDOVAL, ASSIGNOR OF ONE-HALF HIS RIGHT TO
GEORGE BRISCOE, OF ODIN, ILLINOIS.

IMPROVEMENT IN WAGON-BRAKES.

Specification forming part of Letters Patent No. 178,424, dated June 6, 1876; application filed
February 19, 1876.

To all whom it may concern:

Be it known that I, HANNIBAL FELT, of Sandoval, Marion county, State of Illinois, have invented a new and useful Improvement in Wagon-Brakes, which improvement is fully set forth in the following specification, reference being had to the accompanying drawings.

My invention relates to a hand-brake whose whole connection is to the "running-gears" of the wagon, so that it is equally usable with or without any box or rack, the lever being at the fore end, so as to be convenient for use by a person driving the horses, whether riding or walking.

My improvement consists in the combination of the fore axle with rock-shaft, secured thereto, and having a pivoted arm connected to a crank-arm on a rock-shaft, having bearing on the rear hounds, and with crank-arms, to which the brake-bar is secured.

Figure 1 is a longitudinal section. Fig. 2 is an enlarged detail section, showing the hinged arm of the hand-lever shaft.

A and B are, respectively, the fore and hind wheels, and C and D the fore and hind axles. The fore hounds are shown at E, and the hind hounds at F. No novelty is claimed in any of the above parts.

G is a hand-lever, standing at the inside of the fore wheels A. The lower end of this lever is attached to the end of the rock-shaft H, turning-in bearing-brackets I at the rear side of the fore axle. J is an arm extending from this shaft, connected to the shaft by a joint, which allows it to turn from side to side as the fore wheels are turned, in guiding the wagon. The end of the arm J is connected, by a rod, K, to a crank, L, on the shaft M, rocking in bearings N on the hind hounds F. At the end of the shaft M are crank-arms O, connected by eye-brackets P to the brake-bar Q. At the ends of the bar Q are the brake-

shoes R, whose tops *r* are made with an outward inclination, so as to shed outward the mud deposited upon the shoe-top by the wheel, and thus prevent the accumulation of mud upon the shoe and the brake-bar.

The arm J may be pivoted or hinged to the shaft H in a variety of ways which will allow it the described oscillatory movement.

My preferred manner of construction is shown plainly in Fig. 2, where *j* is a ball, forming the inner end of the arm, and fitting in a socket formed one half in the bar H and the other half in the slotted plate H', which is screwed fast to the side of bar H. The plate H has a longitudinal slot, *h*, through which passes the flattened shank *j* of the arm J. This slot is made sufficiently long to allow the arm to swing sidewise as the fore axle is turned upon the king-bolt, so that little strain shall be brought upon the brake mechanism by said turning of the fore axle. To avoid all strain from this cause, the ends of the slot may be curved somewhat upward, as shown, so that, as the arm moves toward an end of the slot, it may be allowed to turn back slightly upon the rock-shaft H, so as to somewhat ease the tension on the brake, which the turning of the axle would tend to increase, owing to the position of the king-bolt being before the pivot point of the arm J, (said pivot-point being carried farther from the hind axle by the turning of the fore axle.)

S is an ordinary ratchet-bar, to engage and hold lever G when the brake is set.

I claim—

The combination of brake-bar Q, crank-shaft M, rod K, pivoted arm J, rock-shaft H, and lever G, and fore axle C, substantially as set forth.

HANNIBAL FELT.

Witnesses:

SAML. KNIGHT,
HAROLD HUTCHINS.