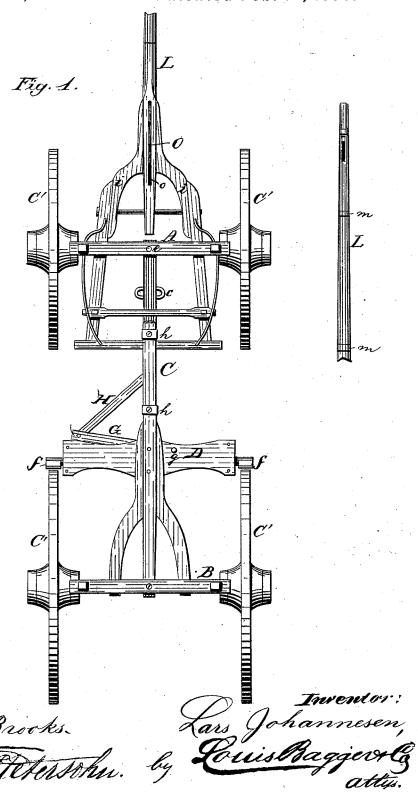
#### L. JOHANNESEN. Automatic Wagon-Brake.

No. 200,308.

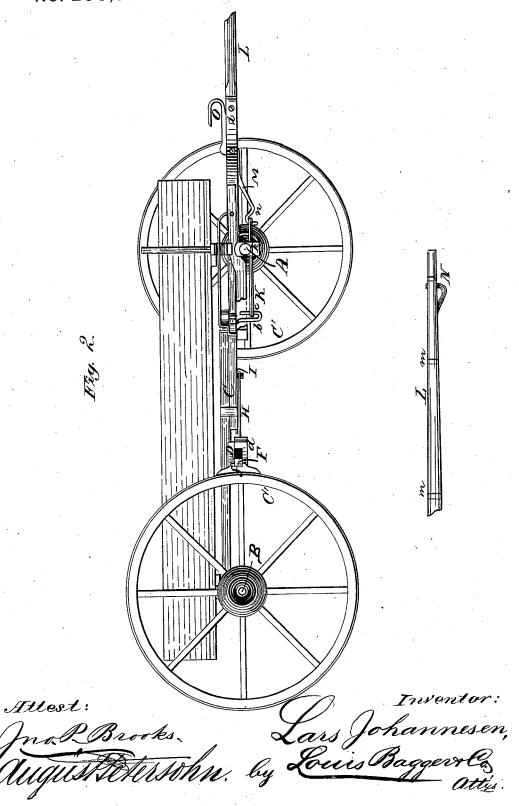
Patented Feb. 12, 1878.



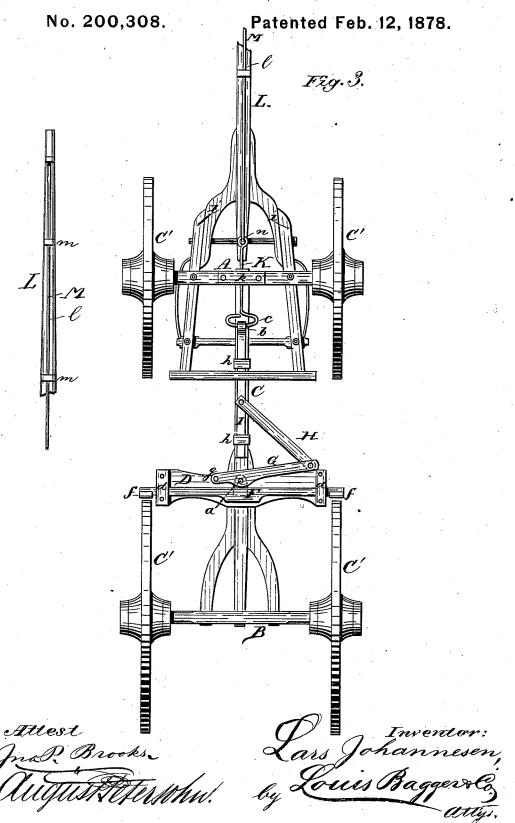
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## L. JOHANNESEN. Automatic Wagon-Brake.



# UNITED STATES PATENT OFFICE.

LARS JOHANNESEN, OF BLAIR, WISCONSIN.

#### IMPROVEMENT IN AUTOMATIC WAGON-BRAKES.

Specification forming part of Letters Patent No. 200,308, dated February 12, 1878; application filed August 13, 1877.

To all whom it may concern:

Be it known that I, LARS JOHANNESEN, of Blair, in the county of Trempealeau and State of Wisconsin, have invented certain new and useful Improvements in Automatic Wagon-Brakes; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, which form a part of this specification, and in which—

Figure 1 is a top plan. Fig. 2 is a side elevation, and Fig. 3 is a bottom plan, of a wagon fitted with my improved self-acting wagon-brake.

Similar letters of reference indicate corre-

sponding parts in all the figures.

This invention relates to that class of wagonbrakes which are operated automatically when the horses are reined up, or when, in going down hill, the wagon pushes upon the horses; and it consists in the construction and arrangement of parts hereinafter more fully shown and described.

In the drawings, A B are the front and rear axles, having the wheels C', and united by the reach C, which may, if desirable, be adjustable as to length. To the reach C, in front of the hind wheels, is secured across-bar or bracket, D, having downward-projecting bails or ears, dd, one at each end, in which slides the brake-bar F, having shoes ff. To the under side of cross-bar D, in front of the brake-bar, is pivoted a lever, G, having its fulcrum at g. The brake-bar is pivoted to this lever, as shown at a.

To the end of lever G is pivoted a connectingrod, H, the other end of which is pivoted to a bar, I, which slides in suitable bails or brackets h h underneath the reach. This latter may be recessed to accommodate it.

K is another bar or rod, which slides in a box, k, under the front axle A. The bars IK have at the ends hooks or eyes b c, by which they are coupled or connected together tightly and securely, yet in such a manner that the front part of the wagon may turn freely upon its pivot or king-bolt e.

The tongue L, which is pivoted between the hounds i in the usual manner, has on its under side a longitudinal recess, l, in which slides a metal rod, M, held in place by bands m of strap-iron or similar material encircling the tongue. The front end of the rod M is curved so as to form the holdback N, and at its rear end it has a hook, n, by which it is coupled to a similar hook in rod K. The rod M has, near its rear end, a projection extending upward through a slot, o, in the tongue, and forming a hook, O, to which the double-tree is attached.

From the foregoing description, and by reference to the drawings hereto annexed, the operation of my invention and its advantages

will be readily understood.

When the horses hold back, either by being reined up or when the wagon is going down hill, the rod M slides back by the force or impetus of the wagon as it progresses. The rod K and sliding bar I are thus also forced back, the latter operating, through connecting-rod H, the lever G, which again operates the brake-bar F, which is pivoted to it.

When the horses are started, or when the pull is up hill or upon level ground, the pull upon hook O or rod M instantly releases the brake, thus allowing the wagon to proceed

without impediment.

Having thus described my invention, I claim and desire to secure by Letters Patent

of the United States—

The tongue L, having sliding rod M, sliding bars K I, connecting-rod H, lever G, and brake-bar F pivoted to the latter, all combined, arranged, and operating substantially in the manner and for the purpose herein shown and specified.

In testimony that I claim the foregoing as my own I have hereto affixed my signature

in presence of two witnesses.

LARS JOHANNESEN.

Witnesses:

ANDREW D. DAVIDSON, G. H. MORSE,