W. H. JOHNSON.

Automatic Wagon-Brake.

No. 227,014. Patented April 27, 1880.

FIG. 1.

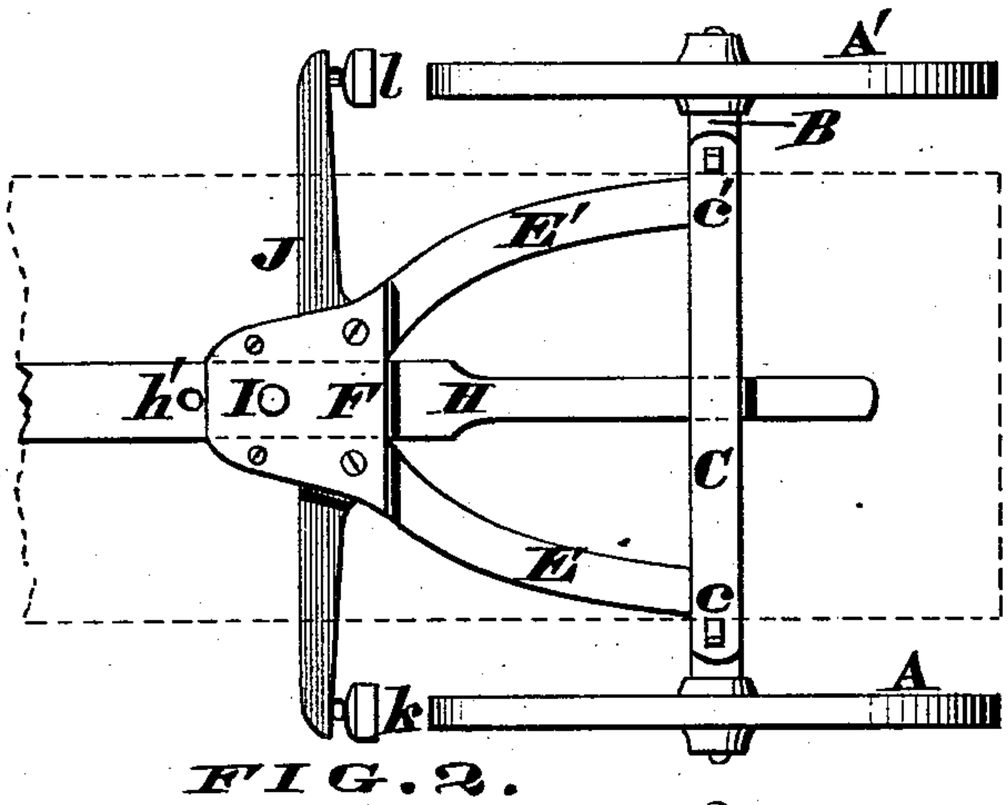


FIG. 2.

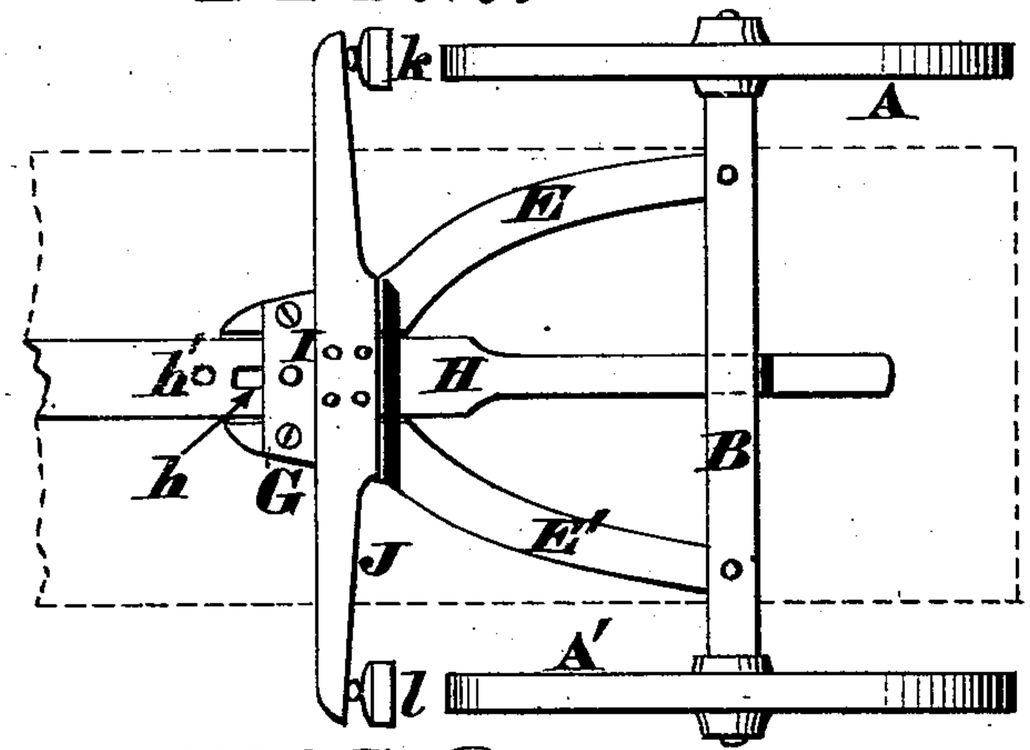


FIG. 3.

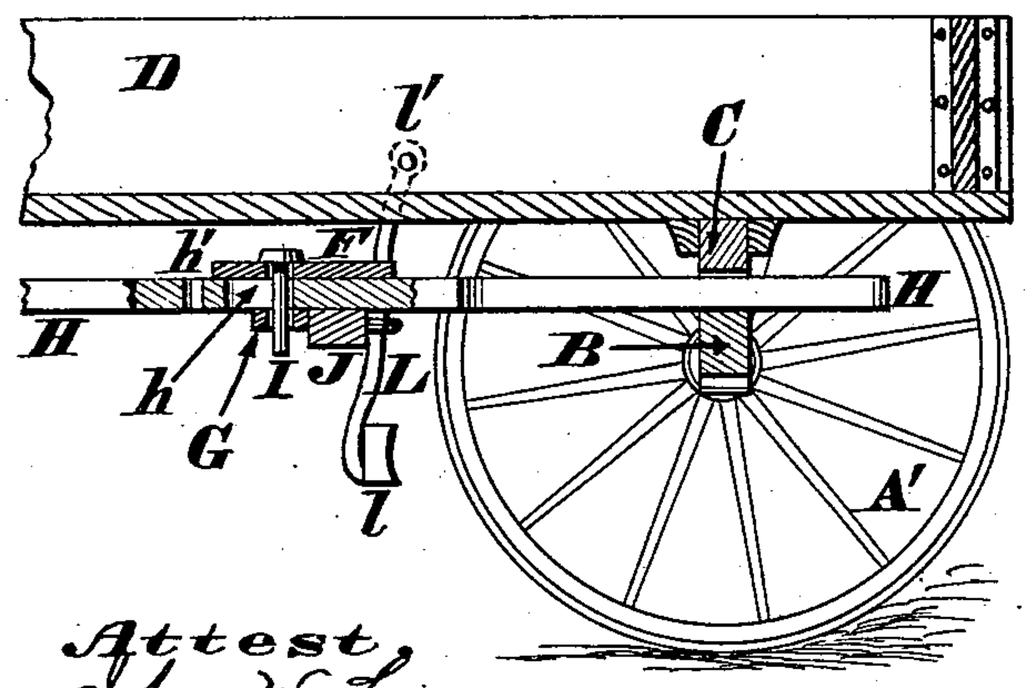


FIG. 4.

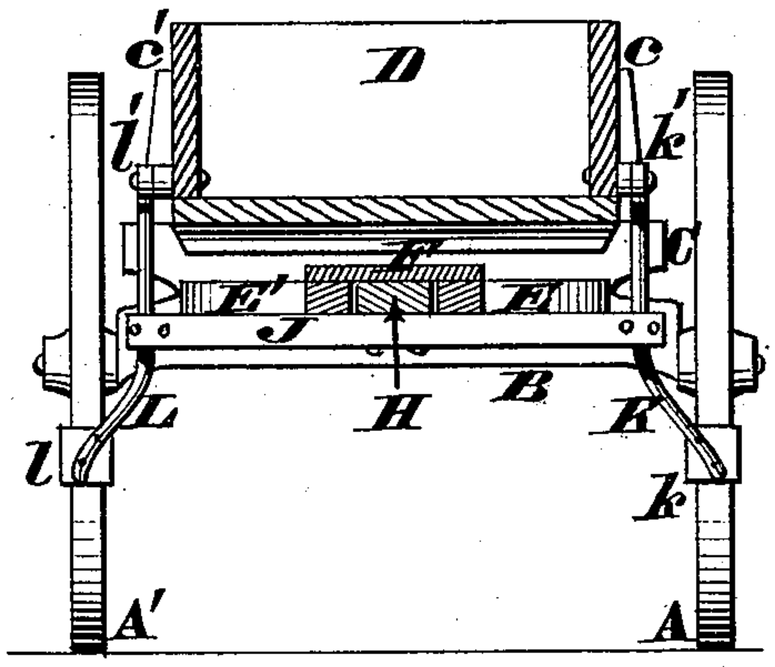


FIG. 5.

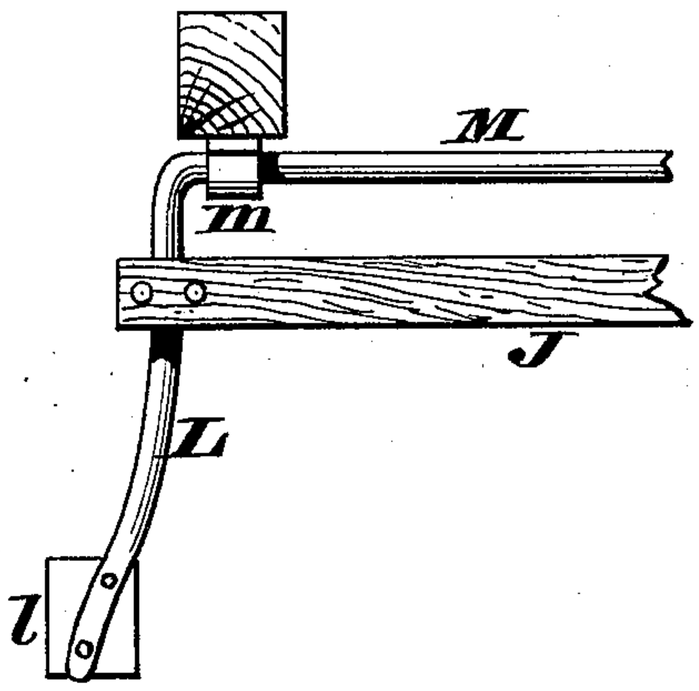
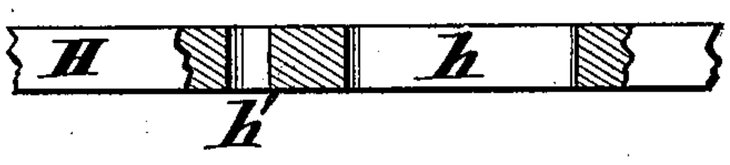


FIG. 6.



Attest,
John W. Laymaw.
James Powell.

Inventor.
William H. Johnson
by James K. Laymaw
his Attorney.

UNITED STATES PATENT OFFICE.

WILLIAM H. JOHNSON, OF GALVESTON, INDIANA.

AUTOMATIC WAGON-BRAKE.

SPECIFICATION forming part of Letters Patent No. 227,014, dated April 27, 1880.

Application filed February 16, 1880.

To all whom it may concern:

Be it known that I, WILLIAM H. JOHNSON, of Galveston, Cass county, Indiana, have invented a new and useful Improvement in Automatic Wagon-Brakes, of which the following is a specification.

This invention relates to those brakes that are automatically brought to bear against the rear wheels of a vehicle as soon as the latter begins to descend a grade; and my improvement is confined to a peculiar combination of devices whereby a slight forward movement of the bed or body is caused to impart any desired stroke to the brake-arms and their attached shoes, the details of this combination being hereinafter fully described, and pointed out in the claim.

In the accompanying drawings, Figure 1 is a plan showing the upper part of the rear running-gear of a wagon provided with my improved automatic brake. Fig. 2 is a plan of the under side of the same. Fig. 3 is a vertical longitudinal section through the wagon. Fig. 4 is a transverse section taken in the plane of the brake-bar. Fig. 5 represents a modification of my invention; and Fig. 6 is an enlarged vertical section of the slotted perch or coupling-pole.

A A′ represent the rear wheels, B the axle, C the bolster, and *c c′* the standards, of a wagon, whose bed or body D may be united to the front running-gear in any approved manner.

Attached to said axle B are the customary hounds E E′, whose front ends are united at top by a plate, F, and at bottom by a transverse bar, G, between which members E E′ F G the perch or coupling-pole H has a slight longitudinal play. This pole is slotted at *h* to receive a bolt or pin, I, that passes through suitable apertures in plate F and bar G, as seen in Fig. 3. Furthermore, this pole has a hole, *h′*, to receive said pin when the wagon is to be backed.

Rigidly attached to the under side of coupling H is the brake-bar J, to whose extremities are connected the brake-arms K L, shod respectively with shoes *k l*, the upper ends of these arms being preferably pivoted at *k′ l′* to the body D, as seen in Fig. 4.

When the team is pulling in the usual manner coupling H is drawn forward as far as slot *h* will permit, thereby throwing the entire draft on pin I, plate F, and bar G, and through these members to the rear axle, which condition prevails as long as the strain is maintained on said coupling; but the moment a descending grade is reached and the horses are checked up the coupling H retracts as far as slot *h* will allow, which act immediately brings the shoes *k l* in contact with wheels A A′, and thus automatically brakes the wagon, said shoes being again thrown out of contact with the wheels as soon as the team starts.

To render the brakes inoperative preparatory to backing the wagon, pin I is disengaged from its usual bearings and then inserted in the hole *h′* of pole H.

From the above description it is evident a very slight forward movement of the bed D may be made to impart a very considerable stroke to the shoes *k l*, in order that the latter may bear upon any desired portion of the peripheries of the wheels A A′, no matter what may be the diameter of said wheels.

In Fig. 5 the brake-bar J is shown in such an elevated position as to insure considerable play or stroke of the shoes *k l*; but by simply lowering this bar the stroke of said shoes will be reduced accordingly. In this illustration the arm L, instead of being pivoted to the wagon-bed, is shown as forming part of a rock-shaft, M, journaled to the sills of the vehicle at *m*, the other end of said shaft having, of course, another arm that corresponds to the one K.

I am aware that automatic wagon-brakes are shown and described in a number of patents, and therefore my claim is not designed to be construed broadly, but is expressly limited to the herein-described combination of slotted pole, brake-bar, pivoted brake, arms and shoes, when all of said members are arranged so that a slight forward movement of the bed or body of the vehicle will impart the desired stroke of said shoes.

I claim as my invention—

In combination with the rear running-gear

of a wagon, the slotted shiftable coupling-pole H *h*, pin I, brake-bar J, pivoted arms K *k'* L *l'*, and shoes *k l*, said brake-bar J being attached rigidly to the pole, and operating the arms K L wholly independent of the front running-gear, as herein described, and for the purpose set forth.

In testimony of which invention I hereunto set my hand.

WILLIAM H. JOHNSON.

Witnesses:
JAMES RUSS,
WILLIAM DAVIS.