

S. R. BOLTON.

Improvement in Wagon-Brakes.

No. 114,100.

Patented April 25, 1871.

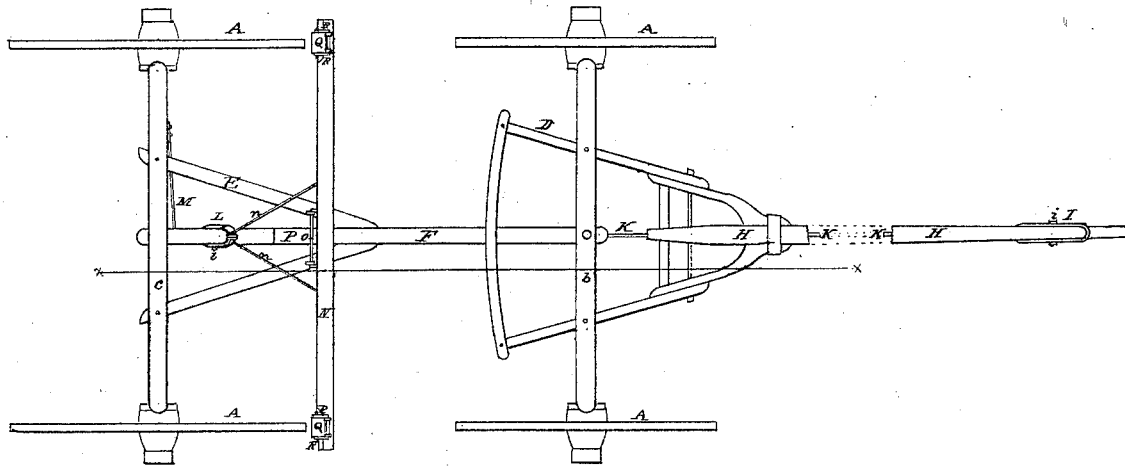


Fig. 1.

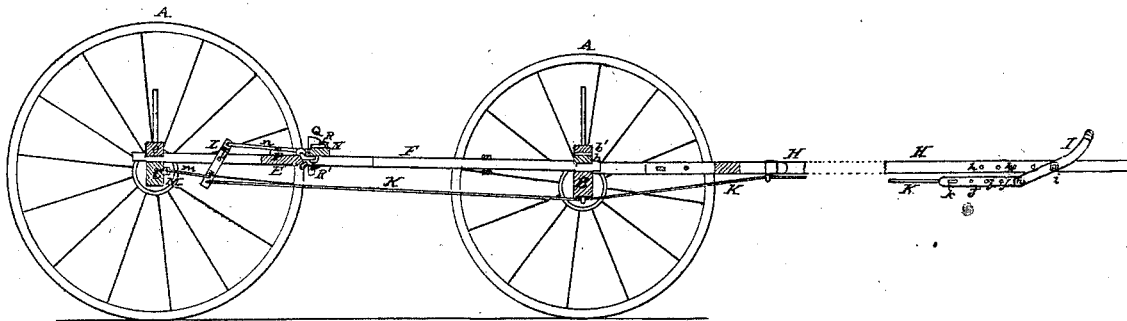


Fig. 2.

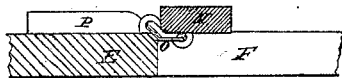


Fig. 3.

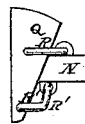


Fig. 4.

Attest:

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By Wm. H. B. B. B. his Atty.

United States Patent Office.

SIMEON R. BOLTON, OF PRESCOTT, ASSIGNOR TO HIMSELF, HANNIBAL FELT,
OF SAID PRESCOTT, AND PASCAL P. CHILD, OF ST. LOUIS, MISSOURI.

Letters Patent No. 114,100, dated April 25, 1871.

IMPROVEMENT IN WAGON-BRAKES.

The Schedule referred to in these Letters Patent and making part of the same.

I, SIMEON R. BOLTON, of Prescott, in the county of Pierce and State of Missouri, have invented a certain improved Automatic Wagon-Brake, of which the following is a specification.

Nature and Object of the Invention.

My invention relates to a brake that is operated by the backward pressure of the neck-yoke against a lever pivoted to the fore end of the tongue, and to whose lower end is attached a wire running beneath the tongue and fore axle and reach, and operating the brake; and

My invention consists mainly in the construction and arrangement of the levers, the making of the front lever longitudinally adjustable on the tongue and wire or rod, the manner of connecting the brake-bar to the rear hounds, and the manner of connecting the friction-shoes to the brake-bar.

Description of the Drawing.

Figure 1 is a plan of the "running-gear" of a wagon to which my brake is applied.

Figure 2 is a longitudinal section of the same at the line *x x*, fig. 1.

Figure 3 is an enlarged view, showing the connection of the brake-bar to the hounds.

Figure 4 is an enlarged view of the connection of the friction-shoes to the brake-bar.

General Description.

a are the wheels;
B and *C*, the fore and rear axle; and
b b', the bolsters.
D and *E* are the fore and rear hounds.
F is the reach or coupling-pole.
G are the cross-bars connecting the rear ends of the fore hounds.

H is the tongue.

I is a lever in form of a flattened ring or link, whose sides are fulcrumed to the fore end of the tongue by a removable bolt, *i*, which passes through one of a series of transverse holes, *h*, in the tongue.

J is a flat bar of metal hinged to the lower end of the lever *I*, and having a series of holes or eyes, *j*, to receive the hook *k* of the wire or rod *K* extending beneath the tongue and fore axle to the lower end of the lever *L*, whose sides pass down each side of the reach and are pivoted thereto by a bolt, *l*, passing through the said sides and the reach.

M is a spring attached to the rear axle, and whose end is connected by a rod, *m*, to the lower end of the lever *L*.

The upper end of the lever *L* is connected by rods *n* to the brake-bar *N*, which latter is connected to the hounds *D* by a link frame, *O*, so arranged that as the

brake-bar is drawn backward it will be raised and carried up on top of the block *P*, on which the bar rests when the brake is in action.

The brake-blocks or friction-shoes *Q* are connected to the bar by links *R R'*, a side view of which is seen in fig. 4, so that they may be raised upward and thrown over from the wheel when the latter is turned in a retrograde direction.

The object of this arrangement is to allow of the wagon being backed at any time by the pressure of the neck-yoke against the lever *L*.

The lever *I* is made longitudinally adjustable upon the tongue and rod *K*, so as to suit large or small horses or mules by altering the distance from the double-tree.

The brake-bar *N* may be hung beneath the reach *F*. The operation of the brake is as follows:

When the wagon is running down hill the upper end of the lever *I* is pressed against the neck-yoke and driven backward, which draws the lower end forward and with it the rod *K*; this draws the lower end of the lever *L* forward, and its upper end with the brake-bar is drawn backward, and the latter is thrown up onto the block *P*, and the friction-shoes *Q* are brought in contact with the rear wheels. When the wagon reaches the bottom of the hill the pressure of the neck-yoke is removed from the lever *I* and the spring *M* draws back the rod *K*, and the lower ends of the levers *L* and *I* and the friction-shoes are removed from contact with the wheels.

In backing the wagon the shoes are first brought in contact with the wheels as in braking; but as soon as the wheels commence to turn backward the shoes are thrown upward and away from the wheels, so as to be no impediment to the backing of the wagon.

Claims.

I claim as my invention—

1. The combination of the brake-bar *N*, link or links *O*, and rest-block *P*, substantially as and for the purposes set forth.
2. The combination and arrangement of the shoes *Q*, connecting-links *R R'*, and bar *N*, constructed and adapted to operate as herein specified.
3. The lever *I*, in combination with the plurality of perforations *h h* in the tongue, and with the connecting-plate *J* provided with a plurality of perforations, *j j*, substantially as and for the purposes set forth.

In testimony of which invention I have hereunto set my hand.

SIMEON R. BOLTON.

Witnesses:

SAML. KNIGHT,
H. FELT.