(No Model.)

W. PENDLEY.

AUTOMATIC BRAKE.

No. 573,791. Patented Dec. 22, 1896.

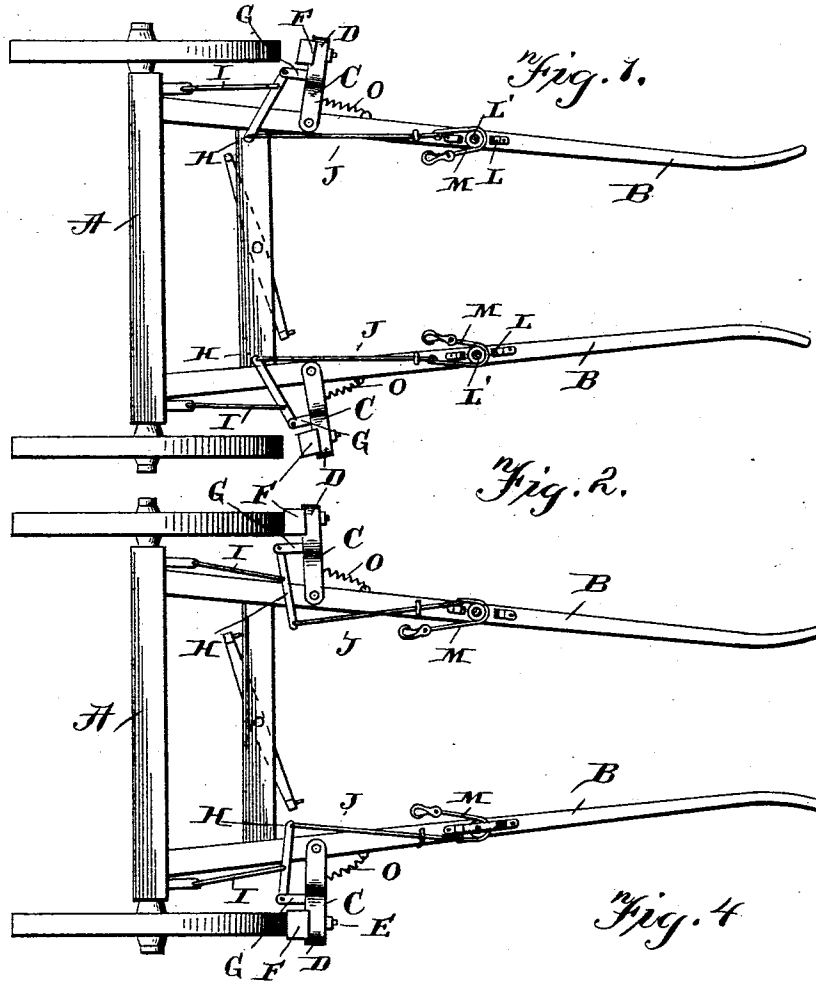


Fig. 1.

Fig. 2.

Fig. 4

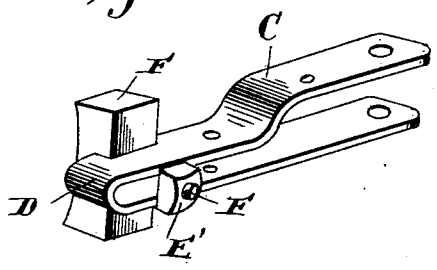
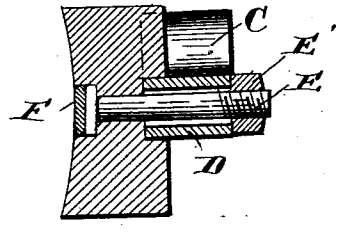


Fig. 3.



Witnesses
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UNITED STATES PATENT OFFICE.

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AUTOMATIC BRAKE.

SPECIFICATION forming part of Letters Patent No. 573,791, dated December 22, 1896.

Application filed March 3, 1896. Serial No. 581,665. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM PENDLEY, of Hinton, in the county of Pickens and State of Georgia, have invented certain new and useful Improvements in Automatic Brakes; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it pertains to make and use it, reference being had to the accompanying drawings, which form part of this specification.

This invention pertains to automatic brakes; and its object is to provide a mechanism of improved form for automatically applying the brake by the backward movement of the horse in the shafts.

The invention consists in the novel features of construction hereinafter fully described and claimed, and illustrated by the accompanying drawings, in which—

Figure 1 is an inverted plan view of the forward portion of the vehicle, showing my improved brake mechanism in position. Fig. 2 is a similar view showing the brake applied. Fig. 3 is a detail view of one of the brake-levers. Fig. 4 is a cross-sectional view of the same, taken through the brake-block.

A designates the vehicle-axle, and B the shafts. Projecting outward from the shaft and in front of the wheels are the brake-levers C. Each lever is formed of a single piece of strap metal doubled upon itself or looped, as shown, with the extremities thereof respectively extended over the upper and under surfaces of the shafts and through which the fulcrum-bolt is extended. The outer portion of each lever is contracted, as indicated at D, and extended through this contracted portion is bolt E of the block F, and nut E′, being run up upon the bolt, serves to clamp the block in the desired position with relation to the wheel and affords lateral adjustment for the block, so that all portions thereof may be worn evenly.

It will be observed that the brake-block is formed with a slight transverse depression, into which the inner edge of the lever fits, whereby the block is held from turning.

For operating the brake-levers I provide each with a backwardly-extending arm G, and to the rear end of each arm is pivotally secured an inwardly-extending lever H. The links I, connected at their rear ends to the axle, are connected at their forward ends to the levers, and thus constitute the fulcrums for the latter. The inner extremities of the levers are connected to the rear ends of the forwardly-extending rods J, which are projected along the under surfaces of the shafts, and to which they are held by guiding-staples, as shown. Each shaft is provided with a guideway L and roller L′, and extending around these rollers are the short straps M, which at their rear ends are connected to the forward extremities of rods J. The other extremities of the short straps are provided with snap-hooks, whereby they may be instantly connected to the breeching-rings of the harness, and thus the holdback connection is made complete.

The operation of the brake will be clearly understood. When the horse is moving forward, the brakes are held from engagement with the wheels by the small springs O, arranged between the shafts and the brake-levers, while when an incline in the road is reached the horse in holding back against the breeching will draw forward rods J, with the effect that the brake-blocks will be drawn backward against the wheel and the vehicle effectually held from rapid forward movement.

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

1. The combination of the brake-levers fulcrumed to and projecting outward from the shafts in front of the vehicle-wheels, the brake-blocks carried thereby, levers H arranged at the rear of the brake-levers and connected thereto, rods J extended forward from the inner ends of said levers H, and a holdback mechanism adapted to draw said rods forward for applying the brakes, substantially as shown and described.

2. A pull-back brake for vehicles comprising a brake-lever having its inner end pivotally connected directly to the shaft and carrying at its outer end a brake-block, an intermediately-pivoted lever having one end con-

nected to the brake-lever intermediate its ends, a guide upon the shaft at a point in front of the brake-lever, a connection having one end connected to the opposite end of the intermediately-pivoted lever and its outer end made flexible and passing around the said guide and carrying an attachment to connect with the holdback of the harness, substantially as described.

3. An improved brake-lever formed of a single piece of strap metal doubled upon itself or looped, the extremities of said looped portion being contracted, the brake-block, the bolt therefor extended through the contracted portion, and the nut for the bolt adapted to clamp the block to the contracted portion, substantially as shown and described.

4. An improved brake-lever formed of a single piece of metal doubled upon itself in U form, a brake-block and a block-securing device adapted to extend between the parts of the lever and secured thereto on the side opposite the shoe, substantially as shown and described.

In testimony whereof I affix my signature in presence of two witnesses.

WILLIAM PENDLEY.

Witnesses:
L. W. THOMPSON,
W. T. PHARR.