(No Model.)

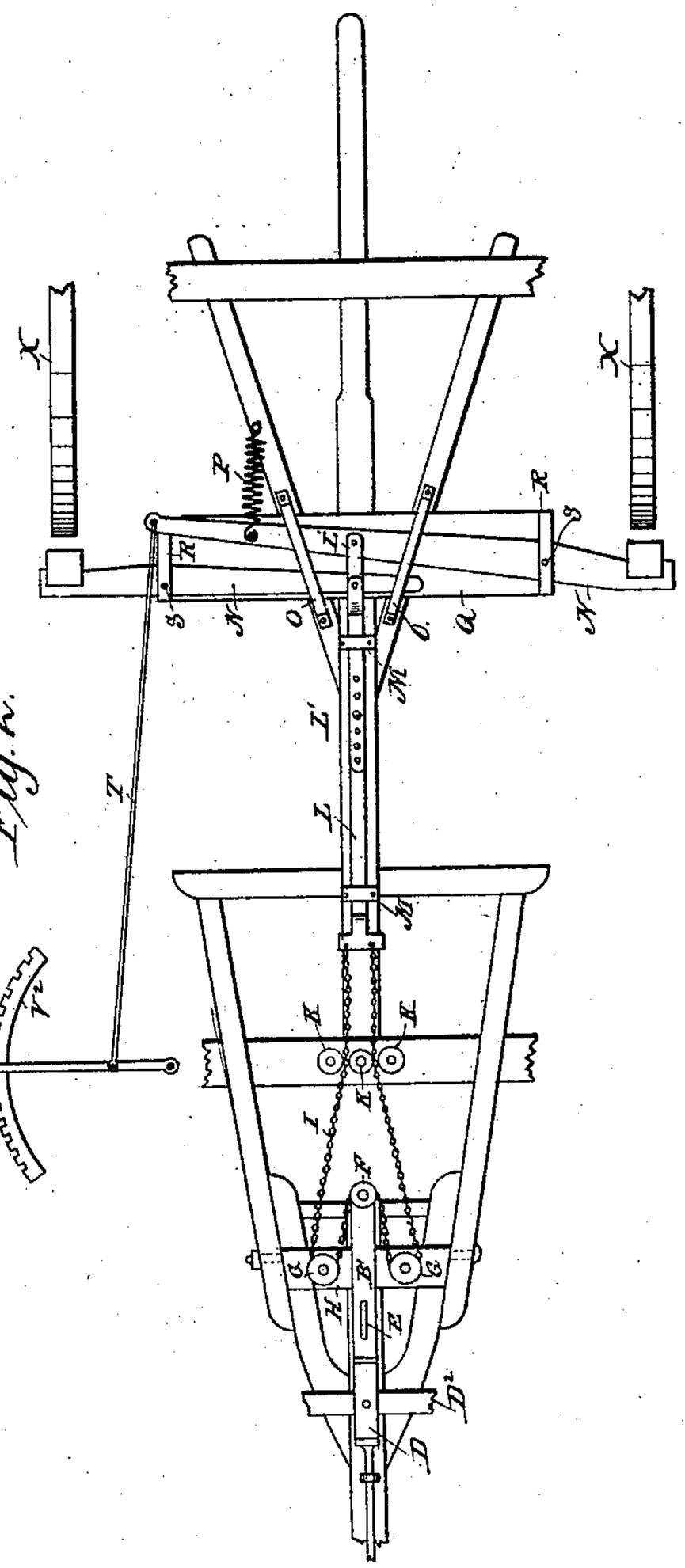
J. HOCKING.

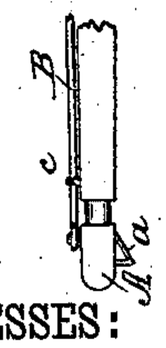
WAGON BRAKE.

No. 295,008. Patented Mar. 11, 1884.

Fig. 1.

Fig. 2.





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JAMES HOCKING, OF DENTON, NEBRASKA.

WAGON-BRAKE.

SPECIFICATION forming part of Letters Patent No. 295,008, dated March 11, 1884.

Application filed December 15, 1883. (No model.)

To all whom it may concern:

Be it known that I, JAMES HOCKING, a citizen of the United States, residing at Denton, in the county of Lancaster and State of Nebraska, have invented certain new and useful Improvements in Wagon-Brakes, of which the following is a description.

Figure 1 is a vertical longitudinal section through the brake mechanism, and Fig. 2 is a plan view of the same.

My invention relates to that form of wagon-brake in which the brake-shoes are automatically applied to the wheels by the back thrust of the team. The object of my invention is to provide a light and strong construction of gearing for this purpose, which is easily applied, which permits the wagon to be lengthened or shortened, and which can be applied either automatically or by hand, and which will also operate when the wagon is in the act of turning, as well as when it is straight; and to these ends it consists in a peculiar construction and arrangement of parts, which I will now proceed to describe.

In the drawings, A is a sliding cuff or sleeve, which is arranged loosely upon the reduced end of the tongue, and is adapted to slide rectilinearly thereon. This cuff has a projecting staple or shoulder, *a*, on its under side, against which bears the usual connection of the neck-yoke.

B is a rod connected to this cuff, and running along the top of the tongue, and kept in position thereon by staples *c c*.

D is a box-frame, which forms a part of rod B, and through which box-frame the double-tree D^2 runs. From the box-frame D the rod B is extended backward as a flat bar, B′, which at its rear end carries a horizontal grooved wheel, F. G G are two other grooved wheels, arranged one upon each side of the wheel F, and mounted upon plate H just above the horizontal pivot of the tongue.

H is an iron plate running between the hounds, to hold the wheels G.

I is an iron chain running around wheels F G G and between wheels K K K, and attached to the head-piece of extension-rod L. The grooved wheels K are set in the bolster, and the king-bolt passes through the middle one.

L L′ is the extension-rod, made in two pieces, with perforated ends, connected by bolts, so as to be lengthened or shortened as the reach is lengthened or shortened. This extension-bar is jointed to the brake-bars N N. The rod L is guided in its longitudinal movement by straps M. The brake-bars are jointed at S on bolts, which are carried on the ends of wooden table Q, straps or keepers R being used to hold the bolts S steady.

P is a spiral spring which connects one of the brake-cars to the wagon-frame, and serves to remove the brakes from the wheel after they have been applied. O O are two iron straps to prevent levers N N from rising when the brakes are put on.

In the operation of the brake as thus described, when the team is stopped, the pull of the neck-yoke on cuff A drives it back with rod B B′ and forces pulley F to the rear. This draws the chain I and pulls the extension-bar L L′ forward, and by deflecting levers N applies the brakes. Then, when the strain of the neck-yoke is no longer on the cuff, spring P pulls the levers or brake-bars N away from the wheels X, draws back the chain I and extension-bar L L′, and pushes the rod B and cuff A forward again. To keep from applying the brakes in backing, the section B′ of the bar has a slot in it, and to said bar is attached a dog, E, that may be forced by the foot of the driver down to engage with ratchet-teeth *d* in the bar below. To apply or remove the brakes at will, also, I make one of the brake-bars N longer than the other, and attach to it a pull-rod, T, which connects with a hand-lever, V, having a locking-bar, V′, that engages with a notched curved bar, V^2. This device permits the brakes to be applied by hand, and also may be used in the place of the dog E to lock the brakes so that they cannot be applied. W is a link on top of lever V, to hold the locking-bar V′ up when the automatic brake is in use.

With respect to the merits of my invention, I would state that the chain I and wheels K F G cause the strain transmitted to the brake-bars to be a pulling strain, which permits the parts to be made much lighter than if said strain were a pushing strain, and the flexibility

of the chain and the location of the wheels G permit the brakes to be applied when the front wheels are standing at an angle or the wagon is going around a curve, and permit the tongue also to be raised or lowered without friction or strain. The extension-rod L L′ also permits the wagon-reach to be lengthened for hauling hay or lumber.

Having thus described my invention, what I claim as new is—

1. The combination, with the brake-levers, of a pull-rod, L, the chain I, wheels K K K, wheels G G, and the backlash-rod B B′, carrying wheel F, adapted to bear against the chain, as and for the purpose described.

2. The combination of the sliding cuff A, rod B B′, bearing wheel F, the wheels G G, chain I, wheels K K K, extension-rod L L′, brake-levers N N, and spring P, substantially as and for the purpose described.

JAMES HOCKING.

Witnesses:
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