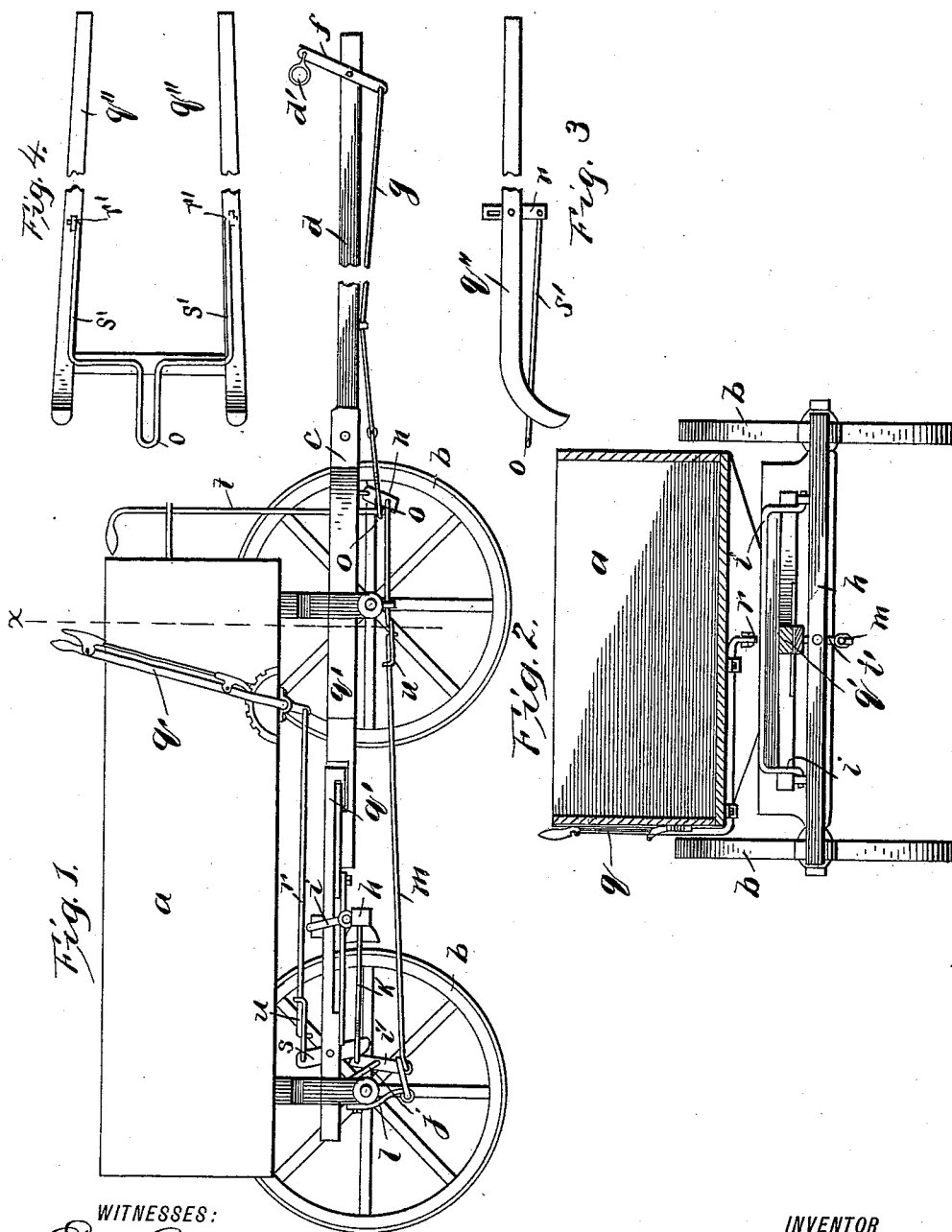


(No Model.)

B. F. FLESHMAN.
WAGON BRAKE.

No. 484,001.

Patented Oct. 11, 1892.



WITNESSES:

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WAGON-BRAKE.

SPECIFICATION forming part of Letters Patent No. 484,001, dated October 11, 1892.

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To all whom it may concern:

Be it known that I, BENJAMIN F. FLESHMAN, of Alvon, in the county of Greenbrier and State of West Virginia, have invented certain new and useful Improvements in Brakes; and I do hereby declare that the following is a full, clear, and exact description of the invention, 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, and to the letters of reference marked thereon, which form part of this specification.

This invention relates to certain improvements in vehicle-brakes.

The object of the invention is to provide an improved automatic brake for wagons or other vehicles so constructed and arranged that the brake can be operated by hand or by horses when going downhill or pulling back.

A further object of the invention is to provide certain improvements in details of construction and arrangements of parts, whereby a greatly-improved and simple and efficient brake is provided.

Referring to the accompanying drawings, Figure 1 is a side elevation of the wagon with my invention applied thereto, parts being broken away. Fig. 2 is a cross-sectional view taken on the line *x x*, Fig. 1. Fig. 3 is an edge view of the shafts of a single-horse vehicle having my invention applied thereto. Fig. 4 is a plan view of the construction of Fig. 3.

In the drawings, reference-letter *a* indicates the body of the wagon or vehicle provided with suitable running-gear and mounted on wheels *b*.

c indicates the hounds of the running-gear, and *d* the forwardly-extending draft or pole or tongue provided with neck-yoke *d'*. The neck-yoke is loosely mounted on the upper end of the vertical lever *f*, fulcrumed between its ends on the front end of the tongue or pole of the vehicle and extending below the same and connected by pivoted bars or connections *g*, extending along beneath the pole through suitable guiding loops or eyes with the brake-beam *h*, as hereinafter set forth. The brake-beam *h* is here shown acting on the rear wheels of the vehicle and supported from the running-gear by loose hanger *i*, so that the

beam swings toward and from the wheels. A vertical lever *i'* is fulcrumed between its ends by a suitable support *j* from the rear axle or running-gear and in rear of the brake-beam. The upper end of this lever is loosely connected by a rigid rod or other means *k* to the brake-beam, so that when said upper end of the lever is moved forwardly the brake-beam will be moved away from the wheels. A spring is provided to yieldingly hold the brake-beam in its normal position away from the wheels. This spring *l* can be connected in any suitable manner with the brake-beam, and is here shown as connected to the lower end of said brake-lever *i'* by means of a sliding loop, constantly tending to draw said lower end rearwardly. The lower end of this brake-lever *i'* has, also, a rod *m* attached to the lower end of the lever *n*, fulcrumed at its upper end to the under side of and depending from the front portion of the hounds at the rear end of the pole or tongue of the vehicle. The rear end of the connection *g*, from the lower end of the lever *f*, carrying the neck-yoke *d'*, is provided with horizontal loop *o*, loosely embracing said lever *n*, so that said loop can be raised and lowered on the lever. This loop is supported by the lower end of the vertical movable rod *t*, extending up at the front end of the vehicle and provided with a handle at its upper end, so that when it is desired to throw the brake off of the wheels or to prevent the neck-yoke acting on the brake said rod is raised, thereby raising said loop to the fulcrum of the lever *n* that it embraces, hence preventing the loop and its connections from swinging the lever *n*, as is evident. It is also evident that when the horses or other animals attached to the vehicle draw back the lever *f*, carrying the neck-yoke, will be rocked in a direction to operate said connections to apply the brakes to the wheels, provided the loop *o* and the bar *t* carrying it are down in their normal position. This brake is thus entirely automatic and very simple in construction, and is sure and reliable in action. Suitable loops or guides are provided for the connecting-rods to slide through. A hand-lever *q* is provided and is connected with the brake-beams, so that the brake can be applied by hand when desired. The lower end of this hand-lever is connected

by rod r with the upper end of the lever s , mounted in the running-gear and fulcrumed between its ends, and having its lower end connected with the brake-beam, as shown, preferably by extending into a loop or opening in the bar or connection k . The connecting-rods can be provided with suitable means u , as shown, for adjusting their length or taking up slack, &c.

10 q' indicates the reach of the vehicle, which is preferably formed in sections loosely joined together at their inner ends, as shown.

In Figs. 3 and 4 my invention, slightly modified, is shown adapted for a single loose vehicle provided with shafts. Upright levers r' are mounted between their ends on opposite sides of the shafts q'' , and the upper ends of these levers are formed to receive the front ends of the holdback-straps, while the lower ends of the levers are loosely secured to connections s' , extending rearwardly through suitable guides to the loop o , extending loosely around lever n , as before described. The braking mechanism is the same in construction as before described. Of course when the draft-animal holds back, the levers r' will be rocked, so that their lower ends, attached to connections s' , will be drawn forward, thereby operating lever n to apply the brakes, as before described.

It is evident that various changes and modifications might be resorted to in the form, constructions, and arrangements of the parts described without departing from the spirit and scope of my invention. Hence I do not wish to limit myself to the exact construction herein set forth; but

What I claim, and desire to secure by Letters Patent of the United States, is—

10 1. The brake comprising the lever fulcrumed between its ends to the front end of the draft tongue or pole, a neck-yoke carried by the upper end of said levers, a loosely-

mounted brake-lever, a brake-lever mounted in the running-gear with one end connected to the brake-beam, an intermediate lever fulcrumed at its upper end and having its lower end connected to said brake-lever and said neck-yoke lever, one of said connections having a loop loosely embracing said intermediate lever, and a rod for raising or lowering said loop, as and for the purposes set forth.

2. In a vehicle, the combination of the brake mechanism, the mechanism controlled by the backward pull of the draft animal or animals to apply the brake, connecting-rods from said mechanism to the operating means of the brake, a lever interposed in said connections, having one connection attached to its lower end and the other connection looped around said lever, and means to raise and lower said looped end to break operative connection with the braking end mechanism, substantially as described.

3. In a vehicle-brake, the combination of the draft shafts or tongue thereof, one or more levers pivoted thereto and having a portion of the harness secured thereto so that the lever or levers will be swung when the draft-animal holds back, the braking mechanism, connections from said lever or levers to the braking mechanism, and an intermediate device provided with hand operating means, such as a rod, and included in the said connections to the braking mechanism, arranged and constructed to throw said lever or levers out of operative connection with the braking mechanism, in the manner and for the purpose set forth.

In testimony that I claim the foregoing as my own I affix my signature in presence of two witnesses.

BENJAMIN F. FLESHMAN.

Witnesses:

LEWIS A. FISHER,
M. A. WAGGONER.