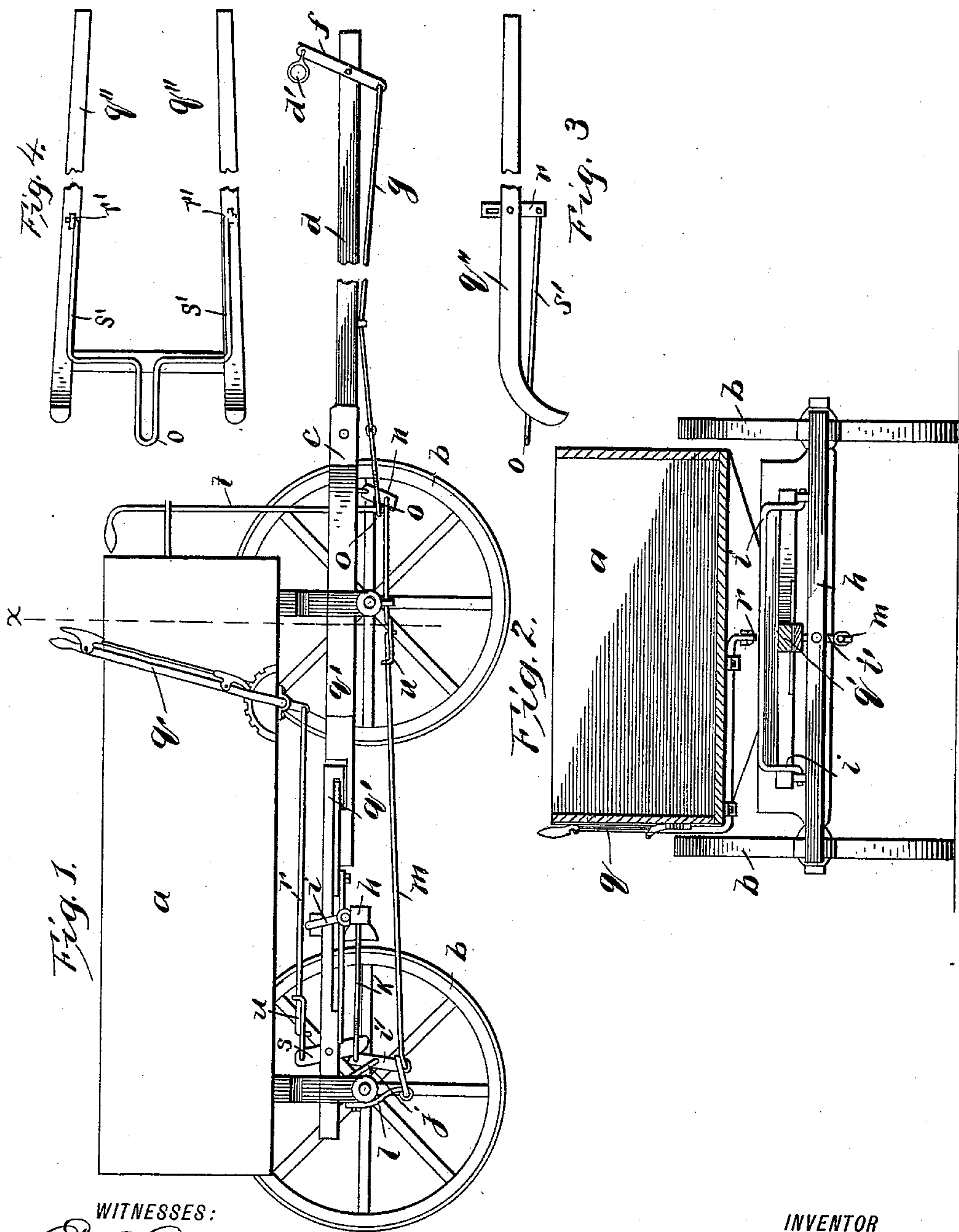


(No Model.)

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.

Application filed January 4, 1892. Serial No. 416,980. (No model.)

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,
 5 preferably by extending into a loop or open-
 ing in the bar or connection *k*. The connect-
 ing-rods can be provided with suitable means
u, as shown, for adjusting their length or tak-
 ing 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
 15 vehicle provided with shafts. Upright levers
r' are mounted between their ends on oppo-
 site 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
 20 ends of the levers are loosely secured to con-
 nections *s'*, extending rearwardly through
 suitable guides to the loop *o*, extending loosely
 around lever *n*, as before described. The brak-
 ing mechanism is the same in construction as
 25 before described. Of course when the draft-
 animal holds back, the levers *r' r'* will be
 rocked, so that their lower ends, attached to
 connections *s'*, will be drawn forward, there-
 by operating lever *n* to apply the brakes, as
 30 before described.

It is evident that various changes and modi-
 fications might be resorted to in the form,
 constructions, and arrangements of the parts
 described without departing from the spirit
 35 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 Let-
 ters Patent of the United States, is—

40 1. The brake comprising the lever ful-
 crumed 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 45
 to the brake-beam, an intermediate lever ful-
 crumed at its upper end and having its lower
 end connected to said brake-lever and said
 neck-yoke lever, one of said connections hav-
 ing a loop loosely embracing said intermediate 50
 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 55
 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 60
 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 65
 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-an-
 imal holds back, the braking mechanism, con- 70
 nections from said lever or levers to the brak-
 ing 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 con- 75
 structed to throw said lever or levers out of
 operative connection with the braking mech-
 anism, in the manner and for the purpose set
 forth.

In testimony that I claim the foregoing as 80
 my own I affix my signature in presence of
 two witnesses.

BENJAMIN F. FLESHMAN.

Witnesses:

LEWIS A. FISHER,
 M. A. WAGGONER.