

No. 757,083.

PATENTED APR. 12, 1904.

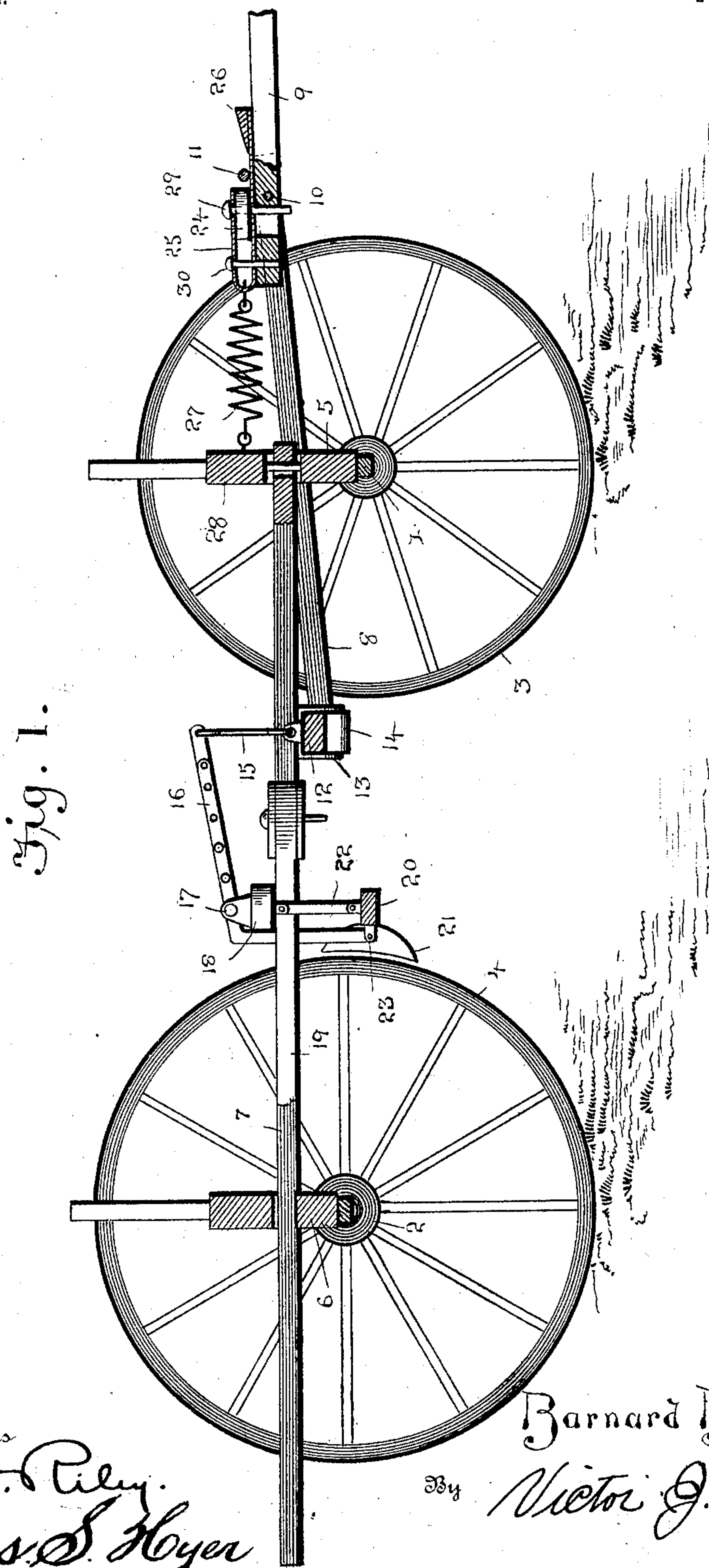
B. B. BARNETT.

WAGON BRAKE.

APPLICATION FILED APR. 11, 1903. RENEWED FEB. 17, 1904.

NO MODEL.

2 SHEETS—SHEET 1.



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2 SHEETS—SHEET 2.

Fig. 2.

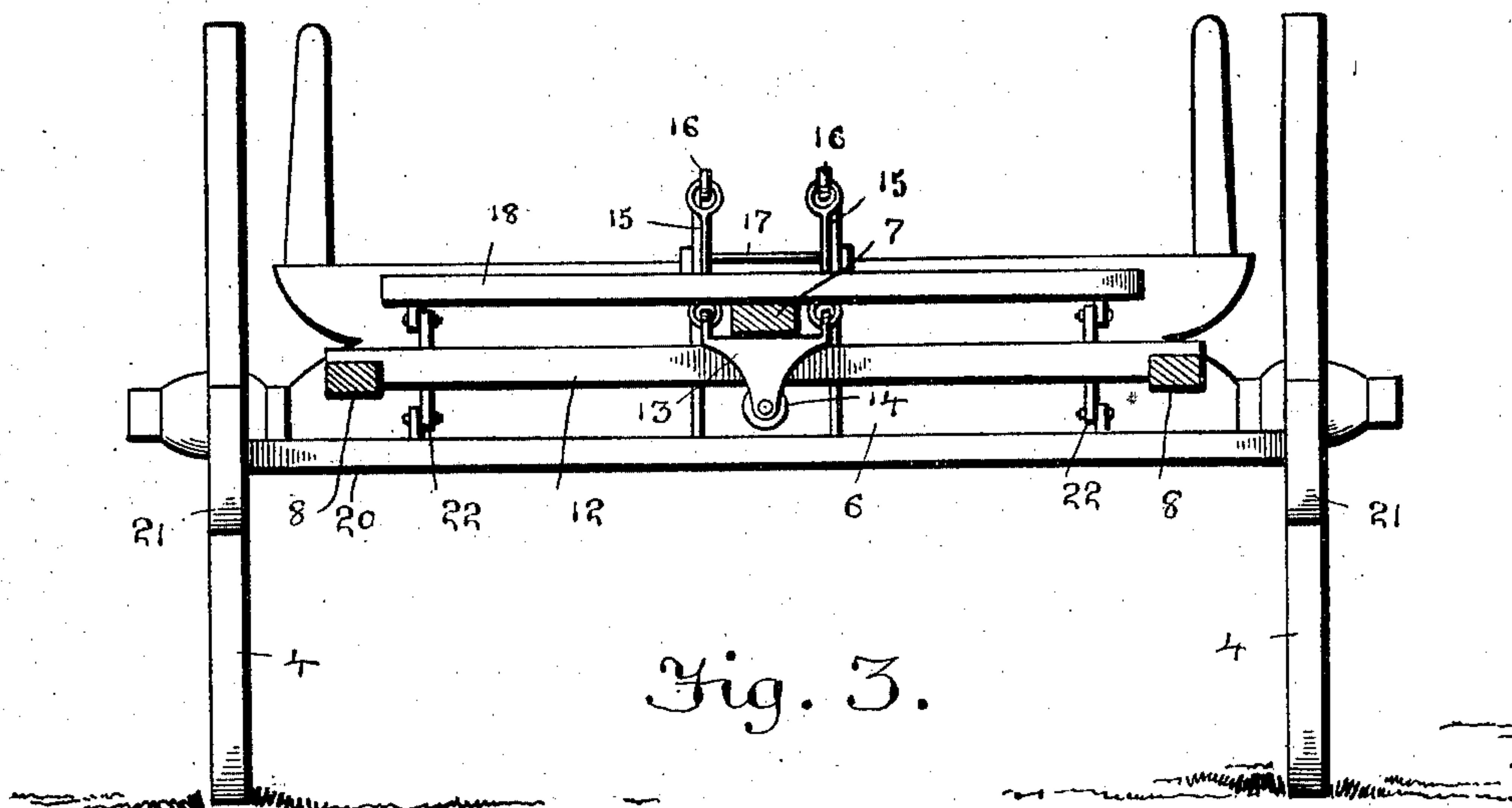
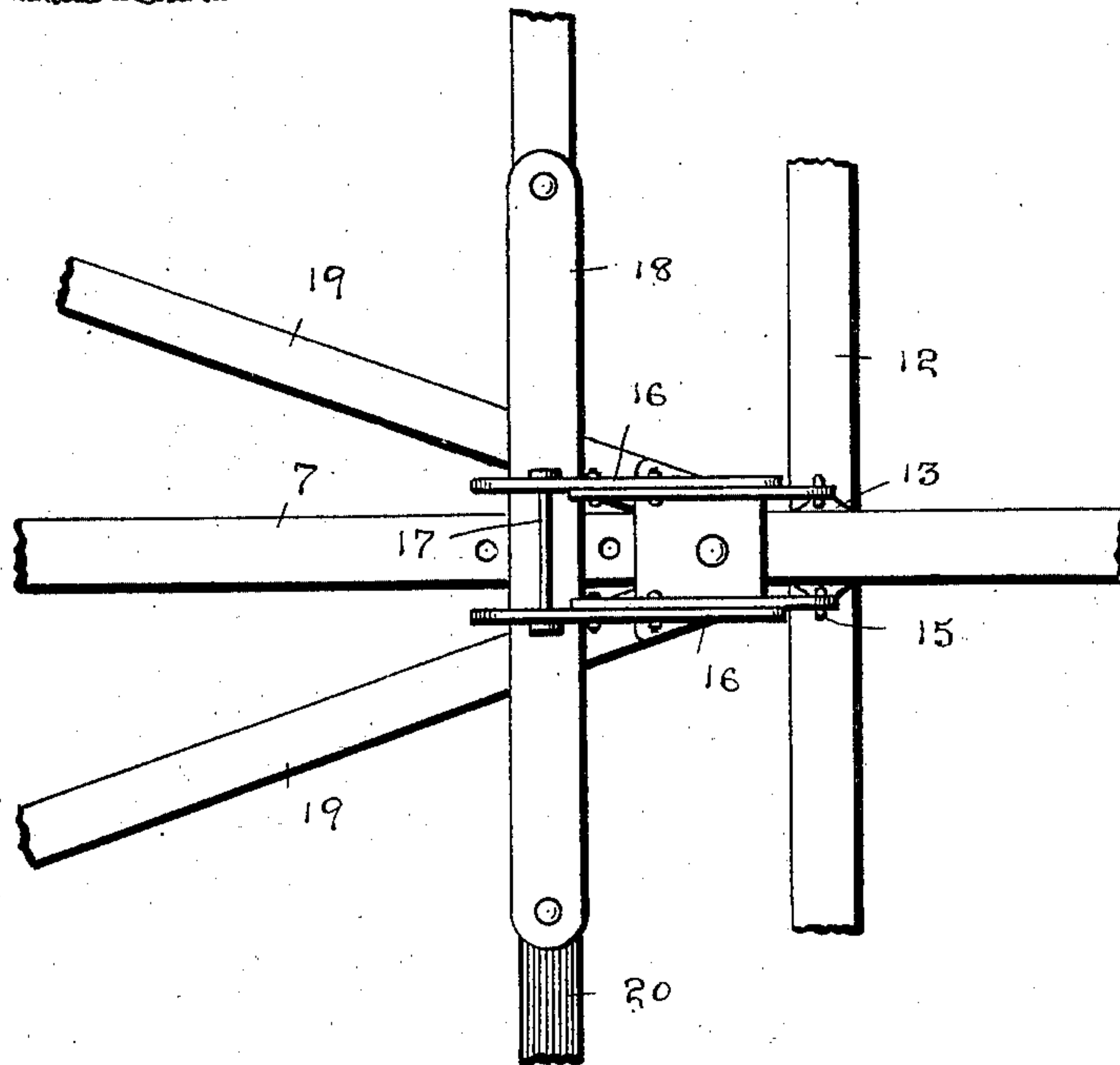


Fig. 3.



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UNITED STATES PATENT OFFICE.

BARNARD B. BARNETT, OF SPARTANBURG, SOUTH CAROLINA.

WAGON-BRAKE.

SPECIFICATION forming part of Letters Patent No. 757,083, dated April 12, 1904.

Application filed April 11, 1903. Renewed February 17, 1904. Serial No. 194,080. (No model.)

To all whom it may concern:

Be it known that I, BARNARD BEE BARNETT, a citizen of the United States, residing at Spartanburg, in the county of Spartanburg and State of South Carolina, have invented new and useful Improvements in Wagon-Brakes, of which the following is a specification.

This invention relates to wagon-brakes, the object in view being to provide, in connection with the running-gear of a wagon or similar vehicle, a brake which operates automatically and is thrown into action by the backing of the team.

A further object of the invention is to so construct and arrange the operative parts of the device that they may be locked or rendered inoperative, so that a team may back the wagon without applying the brakes.

A further object of the invention is to so connect the tongue with the forward hounds and combine therewith a sliding wedge that the tongue may be left loose or made rigid with respect to the hounds, thus insuring the operation of the brake or allowing the wagon to be backed without throwing the brake mechanism into operation.

With the above and other objects in view the invention consists in the novel construction, combination, and arrangement of parts, as hereinafter fully described, illustrated, and claimed.

In the accompanying drawings, Figure 1 is a vertical longitudinal section through the running-gear of a wagon, showing the improved brake mechanism applied thereto and constructed in accordance with the present invention. Fig. 2 is a vertical cross-section through the same, taken just in the rear of the front wheels and axle; and Fig. 3 is a plan view showing the means for supporting the brake adjacent to the connection between the rear hounds or braces and the coupling-tongue or reach.

Like reference-numerals designate corresponding parts in all figures of the drawings.

Referring to the drawings, 1 and 2 designate the front and rear axles, respectively, and 3 and 4 the front and rear wheels. Located above the axles are the front and rear bolsters 5 and 6, the same being connected by the usual coupling-tongue or reach-bar 7.

The front hounds 8 are connected with the bolster of the front axle in the usual manner, converging toward their front ends, where they are pivotally connected to draft-tongue 9 by means of a bolt or pulley 10, the hounds being further connected by means of a strap 11, which passes over the draft-tongue 9. The rear ends of the hounds 8 are connected by a cross-bar 12, which lies beneath and is adapted to slide under the reach-bar 7.

The cross-bar 12 is supported by means of a U-shaped hanger 13, adapted to move up and down beneath the reach-bar 7 and provided with a roller 14, which is journaled in the lower portion of the hanger and bears against the lower face of the cross-bar 12 and serves as a support for said cross-bar. The hanger 13 is in turn supported by a double link 15, which straddles the reach-bar 7 and pivotally connects at its upper end with the longer arm of an elbow-lever 16, the latter being fulcrumed at 17 on a brake-beam-supporting bar 18, which extends across and is secured to the rear hounds or braces 19.

Arranged close to the rear wheels and in front of the same is a brake-beam 20, provided with brake-shoes 21, adapted to be moved into contact with the wheels 4. The brake-beam 20 is supported by means of hanger-links 22, which are pivotally connected at their upper ends to the supporting cross-bar 18. The elbow-lever 16 is pivotally connected at 23 to the brake-beam 20 and operates to move said beam and the shoes carried thereby toward and away from the wheels 4, the lever 16 being itself vibrated by the up and down movement of the cross-bar 12 at the rear end of the forward hounds 8.

The whiffletree 24 is adapted to slide a short distance back and forth on the draft-tongue 9 and has connected therewith a yoke 25 in the form of a metal strap, one end of which is secured to the top of the whiffletree and extends backward therefrom, where it is recurved and extends forward along the upper side of the tongue and beneath the cross-strap 11. The forward end of the yoke is provided with a wedge 26, fixed thereon and adapted to move therewith. The yoke 25, together with the wedge 26, is normally urged rearwardly by means of a contractile spring 27,

one end of which is connected to the yoke and the other end to the sand-bolster 28 or other convenient point on the running-gear.

29 represents the pin which connects the whiffletree to the tongue, said pin passing through an opening in the whiffletree, while the lower end of the pin works through a longitudinal slot in the draft-tongue 9, thus permitting the whiffletree to have a backward and forward movement relative to the tongue.

30 designates a yoke-pin which passes through corresponding openings in the yoke 25 and the rear end of the draft-tongue 9 for the purpose of preventing movement of the yoke, so that the wagon may be backed without throwing the brake into operation.

From the foregoing description it will be seen that when the horses pull back on the tongue the forward hounds are rocked so as to depress the cross-bar 12 at the rear end thereof. This, through the medium of the connecting-link 15, rocks the elbow-lever 16 and throws the brake-shoes against the rear wheels, thus setting the brakes. A forward pull on the tongue releases the brakes by moving the parts referred to in the opposite direction. It will also be seen that as the horses start to back the whiffletree 24 is drawn rearward by the spring 27, thus forcing the wedge 26 under the cross-strap 11. On the other hand, when the horses give a forward pull the tension of the spring 27 is overcome and the yoke 25 moved forward, thus forcing the wedge 26 out from under the strap 11 and releasing the tongue 9, so that it is left free for movement independently of the hounds, which relieves the animals from the vibrations of the wagon in passing over bad roads.

I do not desire to be limited to the details of construction hereinabove set forth, but reserve the right to make such changes in the form, proportion, and minor details of construction as properly fall within the scope of the appended claims.

Having thus described the invention, what is claimed as new is—

1. The combination with the running-gear of a wagon, of brake mechanism operatively connected therewith and actuated by the forward hounds, a draft-tongue pivotally connected with the forward ends of said hounds, a strap connected with said hounds and extending across the tongue, and a wedge connected with and operated by the whiffletree and adapted to be forced between the tongue and said strap, substantially as and for the purpose described.

2. The combination with the running-gear of a wagon and a brake connected therewith and also operatively connected with the forward hounds and adapted to be operated by the rocking movement of said hounds, a draft-tongue having a pivotal connection with the forward ends of said hounds, a strap connect-

ed with the front ends of the hounds and passing across the tongue, a whiffletree having a forward and backward movement on the tongue, a sliding wedge movable lengthwise of the tongue and adapted to engage said strap, and a yoke connecting the whiffletree and wedge, substantially as and for the purpose described.

3. The combination with the running-gear of a wagon and a brake mounted thereon and operatively connected with and actuated by the rocking movement of the forward hounds, a draft-tongue having a pivotal connection with said hounds, a strap connected with said hounds and extending across the tongue, a whiffletree having a movement lengthwise of the tongue, a sliding wedge adapted to be moved under said strap, a yoke connecting the whiffletree and wedge, and a spring for forcing the yoke and whiffletree rearward and carrying the wedge under the strap, substantially as described.

4. The combination with the running-gear of a wagon and a brake mounted thereon and operatively connected with and actuated by the rocking movement of the forward hounds, of a draft-tongue having a pivotal connection with said hounds, a strap connected with said hounds and extending across the tongue, a whiffletree movable lengthwise of the tongue, a wedge adapted to be moved under the strap, a yoke connecting the whiffletree and wedge, a spring connected with the yoke for forcing the whiffletree and wedge rearward, and a detachable pin for locking the yoke against movement, substantially as described.

5. The combination with the running-gear of a wagon, of a brake-beam provided with brake-shoes, an elbow-lever for operating said beam, tilting-forward hounds connected at their rear ends by a cross-bar, a hanger embracing said cross-bar and having a linked connection with the elbow-lever and a sliding relation to said cross-bar, and a draft-tongue having a pivotal connection with the forward hounds, substantially as described.

6. The combination with the running-gear of a wagon, of a brake-beam provided with brake-shoes, an elbow-lever connected with said brake-beam and fulcrumed on the running-gear, rocking-forward hounds connected at their rear ends by a cross-bar extending beneath the reach, a hanger embracing said cross-bar and provided with a roller upon which said cross-bar rests and is adapted to slide, said hanger having a linked connection with the elbow-lever, and a draft-tongue having a pivotal connection with said forward hounds, substantially as described.

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

BARNARD B. BARNETT.

Witnesses:

R. E. FOSTER,
W. A. MILSTER.