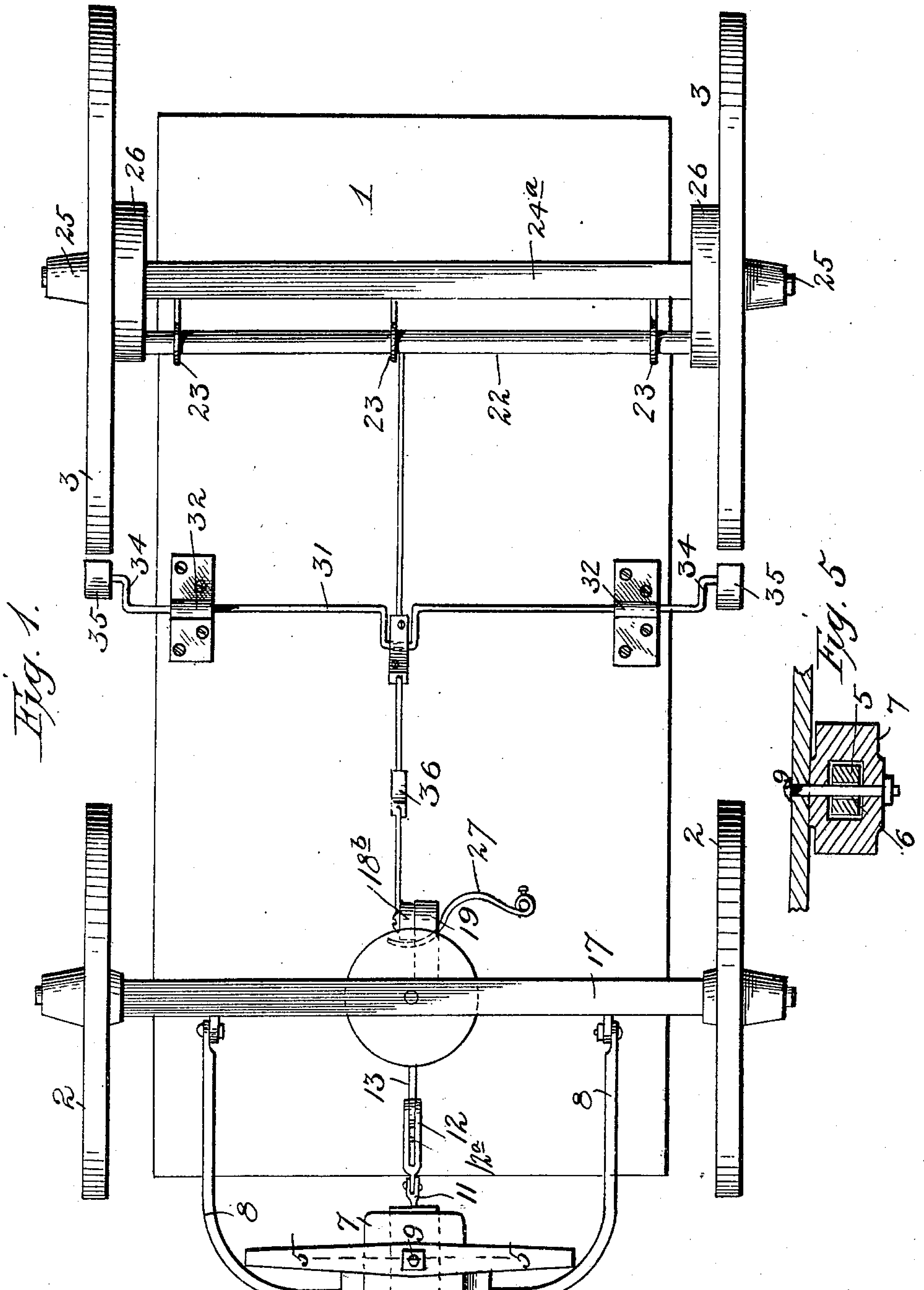
No. 684,809. Patented Oct. 22, 1901.

J. H. GARRETT.

VEHICLE BRAKE.

(Application filed Feb. 28, 1901.)

(No Model.) 2 Sheets—Sheet 1.



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THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

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Fig. 3.

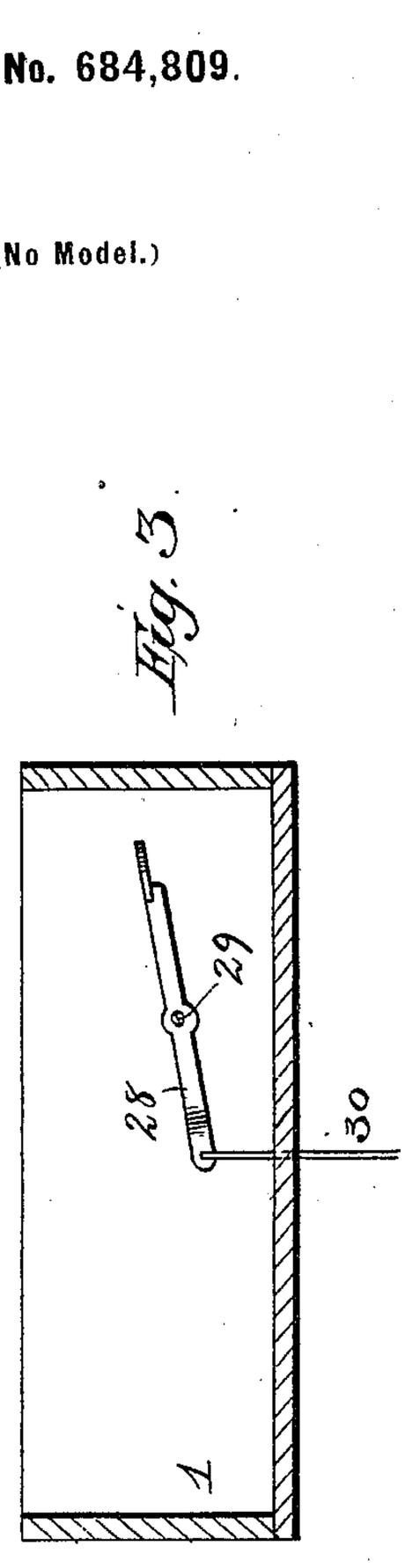


Fig. 2.

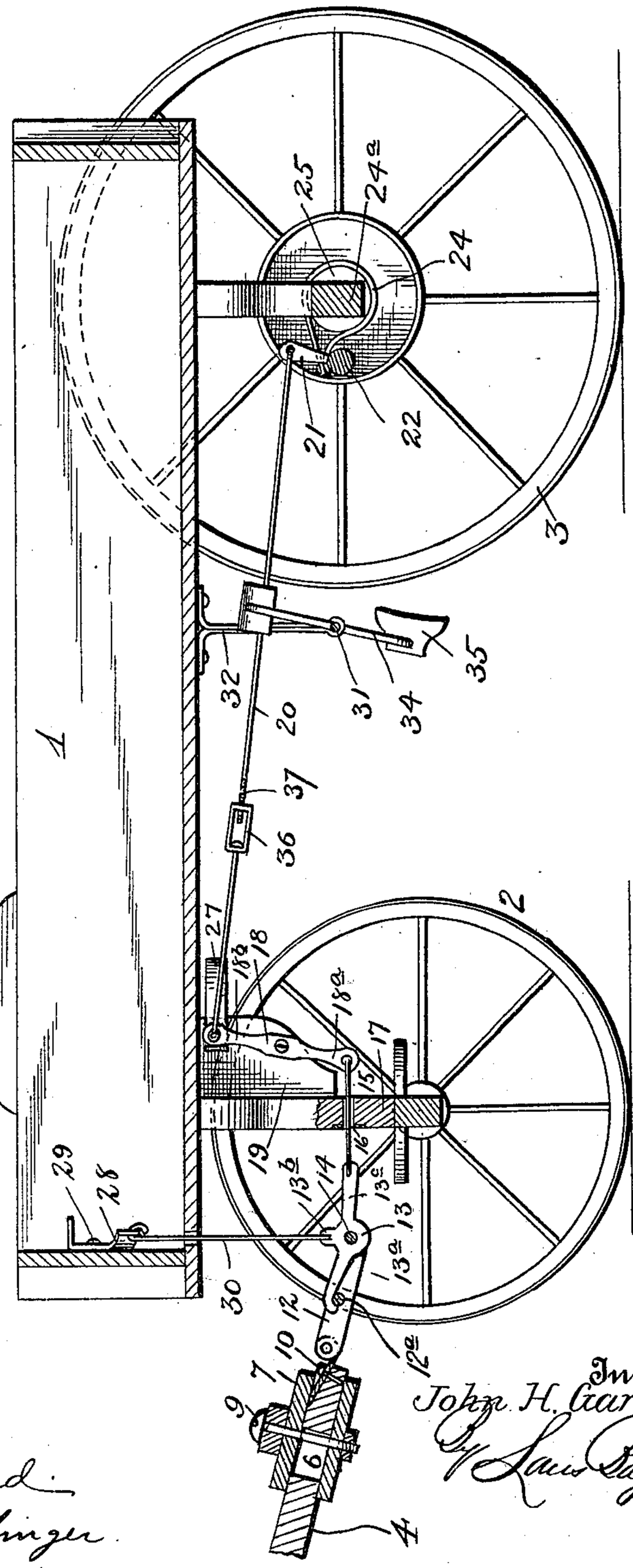
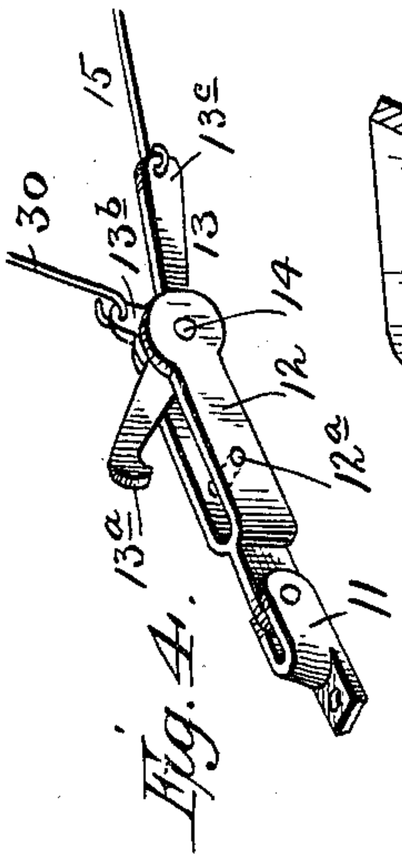


Fig. 4.



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UNITED STATES PATENT OFFICE.

JOHN H. GARRETT, OF STEUBENVILLE, OHIO.

VEHICLE-BRAKE.

SPECIFICATION forming part of Letters Patent No. 684,809, dated October 22, 1901.

Application filed February 28, 1901. Serial No. 49,341. (No model.)

To all whom it may concern:

Be it known that I, JOHN H. GARRETT, a citizen of the United States, residing at Steubenville, in the county of Jefferson and State of Ohio, have invented new and useful Improvements in Vehicle-Brakes, of which the following is a specification.

My invention relates to brakes for vehicles; and the object of the same is to provide a device of this character which will be automatic in operation and of simple and efficient construction.

My improved brake is so arranged and connected to the tongue of the wagon as to be set by the backward pull of the horses thereon and to be disengaged when the pull ceases. Means are also provided by which the brake may also be thrown out of action by hand when it is desired to back the wagon.

The novel construction devised by me in carrying out my invention is fully described in this specification and claimed and illustrated in the accompanying drawings, forming a part thereof, in which—

Figure 1 is a plan view of a wagon equipped with my improved brake. Fig. 2 is a vertical longitudinal section of the same with parts broken away. Fig. 3 is a transverse vertical section through the wagon-box. Fig. 4 is a detail perspective of the three-armed lever and link. Fig. 5 is a section of the guide taken on the line 5 5, Fig. 1.

Like numerals of reference denote like parts in the different views of the drawings.

The numeral 1 designates the bed of the wagon, to which my brake is attached. This bed is mounted on front wheels 2 and rear wheels 3. A pole or tongue 4 is fitted to the wagon, said pole being slotted at 6 and mounted to slide in a guide 7, mounted centrally of the hounds 8. A pin 9 extends through the guide 7 and serves to limit the movement of the pole and prevent its withdrawal. Seated in the rear of the pole 5 is a bolt 10, to which is attached a link 11. This link is oppositely secured to a link 12, which connects in turn with a lever 13. The lever 13 is three-armed, having arms 13^a 13^b 13^c, and is fulcrumed on the pintle 14, which connects it with the link 12. The rear arm 13^c of the lever 13 is connected to one end of a rod 15, which extends through guides located in an aperture 16 in a bolster 17 on the wagon. The rod 15 extends backward and is pivotally joined to the lower arm 18^a of a lever 18, which is fulcrumed on a bracket 19, secured to the wagon-box 1. The other hub 18^b of the lever 18 is connected to a connecting-rod 20, which is reversely connected to an arm 21, mounted on a roller 22. This roller is supported and mounted to revolve in eyes 23, seated in the axle 24^a of the rear wheels 3. Secured to the ends of the roller 22 are spring-bands 24, which surround the hubs 25 of the wheels 3. The ends of the spring 24 are attached to the roller, and by virtue of this combination the springs 24 are tightened by rotating the roller 22 in one direction and loosened by a rotation in the other. Guards or sand-bands 26 are provided, which serve to protect the bands 24 from the dirt. I may use a spring 27 to assist in throwing off the brakes, and said spring may be secured to the bottom of the box 1 to bear against the upper arm 18^b of the lever 18.

To enable my brake to be operated by hand to release it when backing, I provide a lever 28, which is secured to the end of the wagon-bed 1 at 29. Connected to this lever is a rod 30, which extends down through the wagon-bed and is oppositely pivoted to the arm 13^b of the lever 13. The arm 13^a of the lever 13, in combination with a cross-pin 12^a, prevents the links from doubling up, which action would prevent the operation of the brake.

I have illustrated a second form of brake, of ordinary or common construction, secured to the connecting-rod 20. This brake comprises a shaft 31, journaled in bracket-arms 32 and arms 34, on which are mounted brake-blocks 35. Means for adjusting the length of the connecting-rod 20 is also provided in the shape of a threaded swiveled head 36 and a threaded shank 37.

The operation of my device can now be given. When the wagon is standing and there is no pull on the pole, the brake will stand a slight distance away from the wheels; but when the vehicle is backed up the brakes are applied as follows: The tongue 4 will slide backward, which motion will be communicated to the link 12, lever 13, and rod 15, and thence to the brakes through the medium of the lever 18 and connecting-rod 32. The link

12 and the lever 13 will not fold up or "jack-knife," since the arm 13^c is inclined slightly upward, and the hooked end of the arm 13^a will engage the cross-pin 12^a. When it is desired to back the wagon, the lever 28 is employed and the lever 13 thrown far enough to permit the link 12 and lever 13 to double up. This action will prevent the setting of the brakes by the rearward movement of the tongue 4. The spring 27 will assist in throwing off the brakes; but in case this is omitted the centrifugal force of the wheels will be found to be sufficient to accomplish the same purpose.

I do not wish to be limited as to details of construction, as these may be changed in many particulars without departing from the spirit of my invention.

Having thus fully described my invention, what I claim is—

1. In a brake for wagons, the combination, substantially as described, with a pole mounted to slide in a guide, means for limiting the movement of said pole, a roller mounted to be revolved and bearing an arm, means for connecting said arm and said pole, and brakes constructed to be operated by said roller.

2. In a brake for wagons, the combination, substantially as described of a pole mounted to slide in a guide, means for limiting the movement of said pole, a braking mechanism and means for connecting said braking mechanism and said pole so that the brake is operated thereby.

3. In a brake for wagons, the combination, substantially as described of a pole mounted to slide in a guide, means for limiting the movement of said pole, a lever fulcrumed in a rigid support, means for connecting the lower arm of said lever to said pole, a roller bearing an arm, means for connecting said arm to the upper arm of said lever, and brake-bands mounted on said roller.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

JOHN H. GARRETT.

Witnesses:
W. C. TAYLOR,
HENRY C. FACH.