

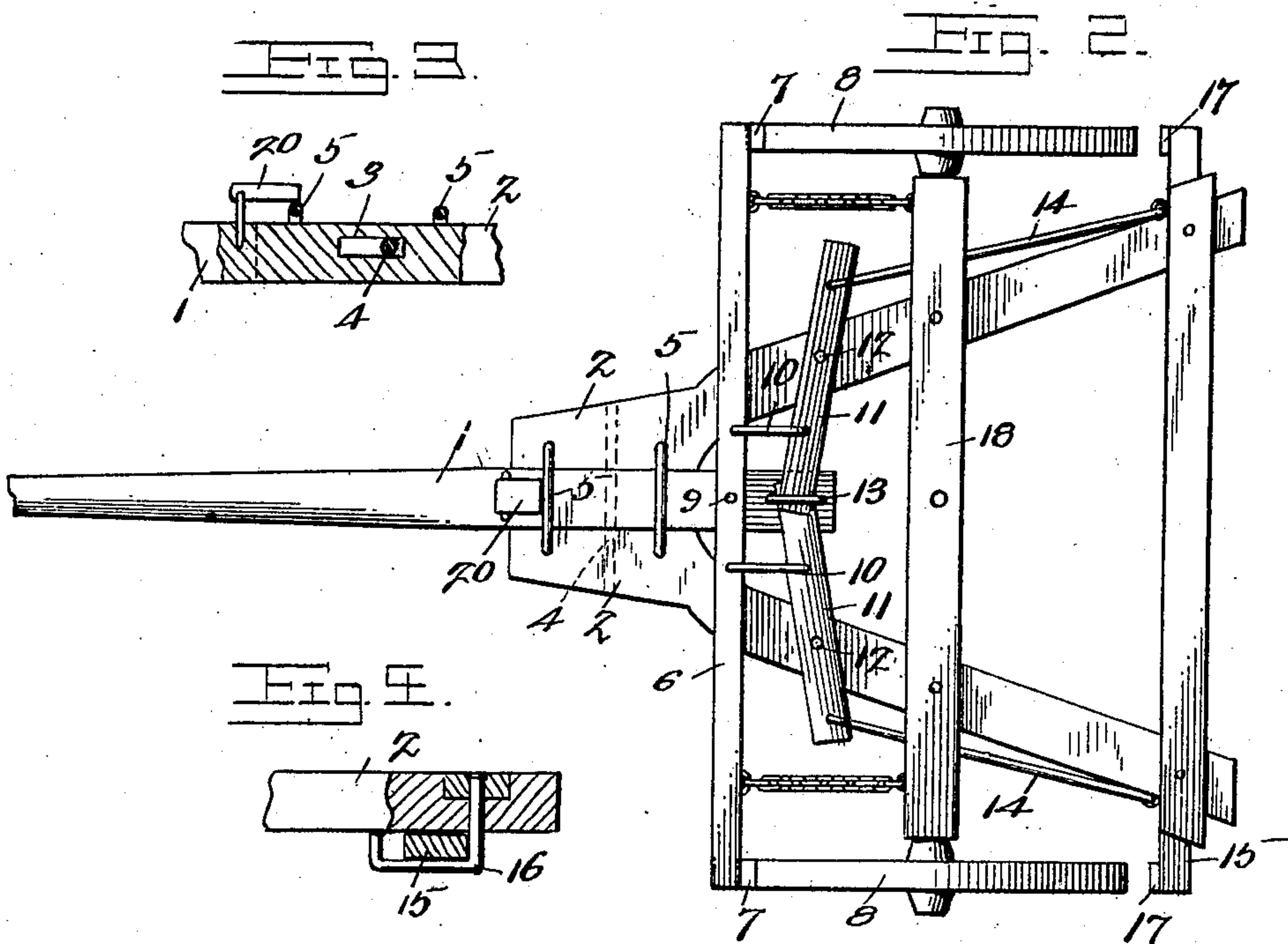
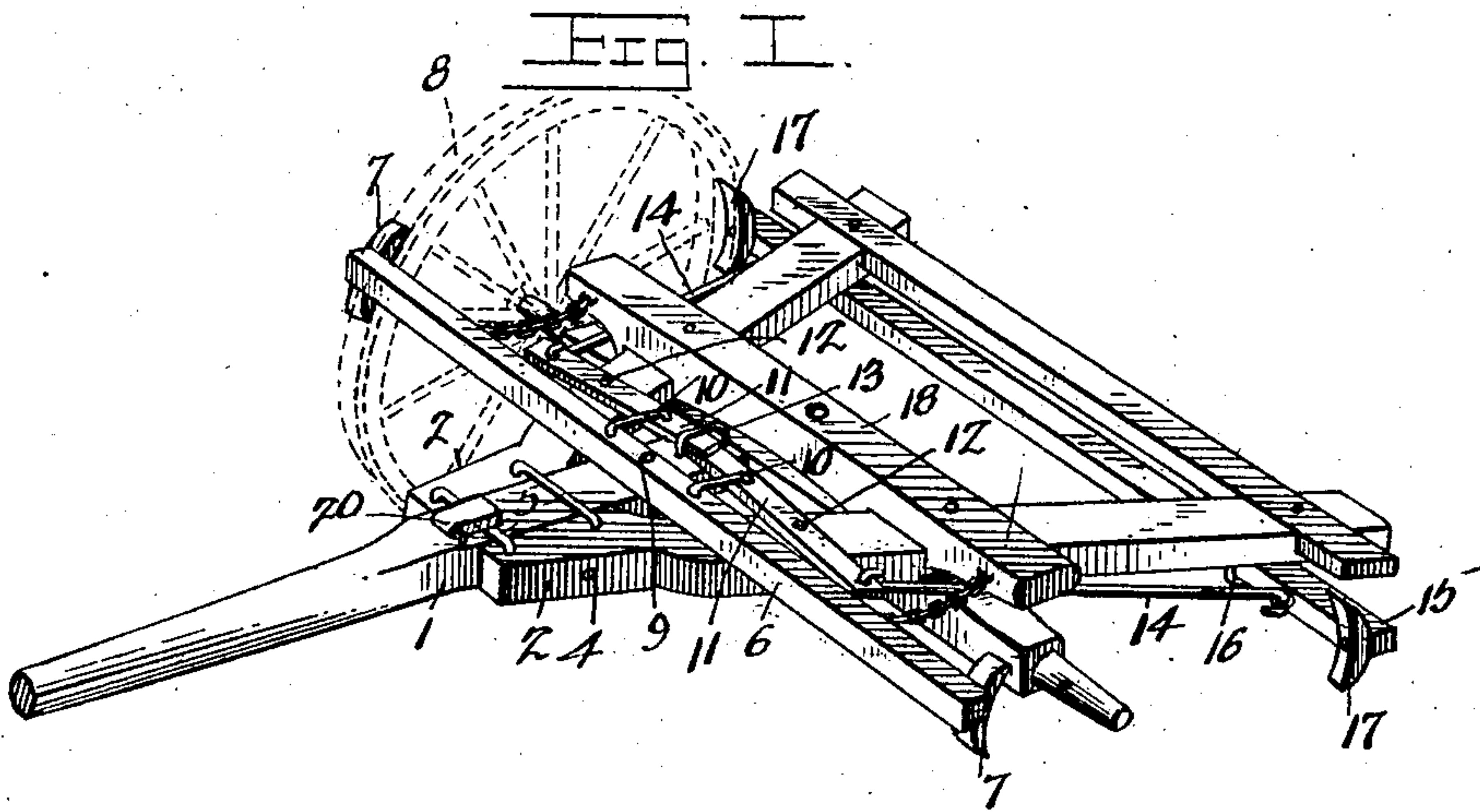
No. 683,145.

Patented Sept. 24, 1901.

L. H. RICKLES.
AUTOMATIC VEHICLE BRAKE.

(Application filed Apr. 22, 1901.)

(No Model.)



Witnesses
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UNITED STATES PATENT OFFICE.

LOUIS H. RICKLES, OF BUFORD, ALABAMA.

AUTOMATIC VEHICLE-BRAKE.

SPECIFICATION forming part of Letters Patent No. 683,145, dated September 24, 1901.

Application filed April 22, 1901. Serial No. 56,949. (No model.)

To all whom it may concern:

Be it known that I, LOUIS H. RICKLES, a citizen of the United States, residing at Buford, in the county of Etowah and State of Alabama, have invented a new and useful Automatic Vehicle-Brake, of which the following is a specification.

The invention relates to improvements in automatic vehicle-brakes.

The object of the present invention is to improve the construction of automatic vehicle-brakes and to provide a simple, inexpensive, and efficient one designed to be mounted on the front portion of a running-gear and capable of clamping the front wheels in advance and in rear of the same and adapted to be readily locked out of operation to permit a vehicle to be backed.

The invention consists in the construction and novel combination and arrangement of parts hereinafter fully described, illustrated in the accompanying drawings, and pointed out in the claim hereto appended.

In the drawings, Figure 1 is a perspective view of a portion of a running-gear provided with an automatic vehicle-brake constructed in accordance with this invention. Fig. 2 is a plan view of the same. Fig. 3 is a detail sectional view illustrating the manner of mounting the tongue and showing the locking device for holding the brake out of operation. Fig. 4 is a detail sectional view illustrating the manner of mounting the rear brake-bar.

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

1 designates a tongue slidingly mounted between the front ends of front hounds 2 and provided with a horizontally-disposed longitudinal slot 3, receiving a transverse fastening device 4, which passes through the front hounds and the tongue, as clearly illustrated in dotted lines in Fig. 2 of the drawings. The tongue is also supported by transverse rods 5, located at the upper faces of the hounds in advance and in rear of the transverse fastening device 4 and extending across the space between the hounds and secured to the latter, preferably by having their terminals bent downward and embedded in the same. The ends of the rods may be threaded for the re-

ception of nuts or any other suitable means may be employed for securing them to the front hounds.

Secured to the rear end of the tongue is a transverse brake-bar 6, provided at its ends with suitable brake-shoes 7, arranged to engage the front wheels 8 in advance of the same and adapted to be carried into and out of such engagement by the longitudinal movement of the tongue between the front ends of the hounds. When the running-gear moves forward on the team by reason of the vehicle descending an incline, the front brake-bar will be carried rearward and its shoes 7 will engage the front wheels. As soon as the team exerts a forward pull on the pole or tongue the brake-shoes will be carried out of engagement with the front wheels. The front brake-bar 6 is secured to the tongue or pole by a central fastening device 9, and it is connected at opposite sides of the same by short links 10 with levers 11, fulcrumed between their ends on the front hounds by means of pivots 12. The inner ends of the levers 11 are loosely arranged within and are supported by a loop or keeper 13, arranged at the upper face of the tongue or pole, at the rear end thereof. The outer ends of the short levers 11 are connected by rods 14 with a rear brake-bar 15, located in rear of the front wheels and supported by suitable guides 16. The rear brake-bar is provided at its ends with suitable brake-shoes 17, and the guides 16, which depend from the rear portions of the front hounds, permit the necessary movement of the brake-bar. The rods 14, which are located at the sides of the front hounds, extend between the front axle and the bolster 18, and when the tongue or pole moves rearward to carry the brake-shoes 7 of the front brake-bar into engagement with the wheels the levers 11 will draw the rear brake-bar forward and carry the rear brake-shoes into engagement with the front wheels. By this construction the front wheels are firmly clamped between the front and rear brake-shoes and an effective brake is produced. The pivots 12 of the levers 11 may be dispensed with and the loop or keeper 13 may form means for engaging the inner ends of the levers 11. When the pivots 12 are removed, the central fastening device 9 of the

front brake-bar is detached, and the rearward movement of the tongue will carry the front brake-bar against the front wheels, which will stop the said brake-bar, while the continued rearward movement of the tongue or pole will carry the inner ends of the levers 11 rearward. The levers will then be fulcrumed at the rear ends of the short links and the outer ends of the levers 11 will be swung forward and will carry the rear brake-bar against the front wheels. The fastening devices 9 and 12, which preferably consist of bolts, are removable to permit the brake to operate in either way.

It will be seen that the brake is exceedingly simple and inexpensive in construction, that it may be readily applied to a vehicle, and that when the vehicle moves forward on the draft-animals in descending a grade the brake will be automatically applied and will check such forward movement. It will also be apparent that the brake is under the control of the draft-animals and may be instantly applied by backing them.

When it is desired to back the vehicle, the brake is locked out of operation by a pivoted block 20, hinged at its front end to the tongue or pole and adapted to engage the front transverse rod to prevent the tongue from moving backward between the front hounds. The

hinged block is arranged within easy reach and may be readily engaged with and disengaged from the front transverse rod.

What I claim is—

The combination of the front axle, the front hounds, the tongue having a limited movement between the front hounds and provided at its rear end with a loop, the front brake-bar provided with the removable fastening device 9 engaging the tongue, the rear brake-bar, the levers 11 having their inner ends loosely arranged in the loop of the tongue and provided between their ends with removable pivots engaging the front hounds and fulcruming the levers thereon, and the links 10 and 14 extending from the inner and outer arms of the levers and connecting the same with the front and rear brake-bars, the said fastening device 9 and pivots 12 being adapted to be removed to detach the front brake-bar from the tongue and the levers from the front hounds to change the fulcrum of the levers, substantially as described.

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

LOUIS H. RICKLES.

Witnesses:

R. G. HEWITT,
LEE ALEXANDER.