

No. 774,913.

PATENTED NOV. 15, 1904.

M. A. FILLMORE.  
AUTOMATIC BRAKE.  
APPLICATION FILED JUNE 2, 1904.

NO MODEL.

FIG. 1.

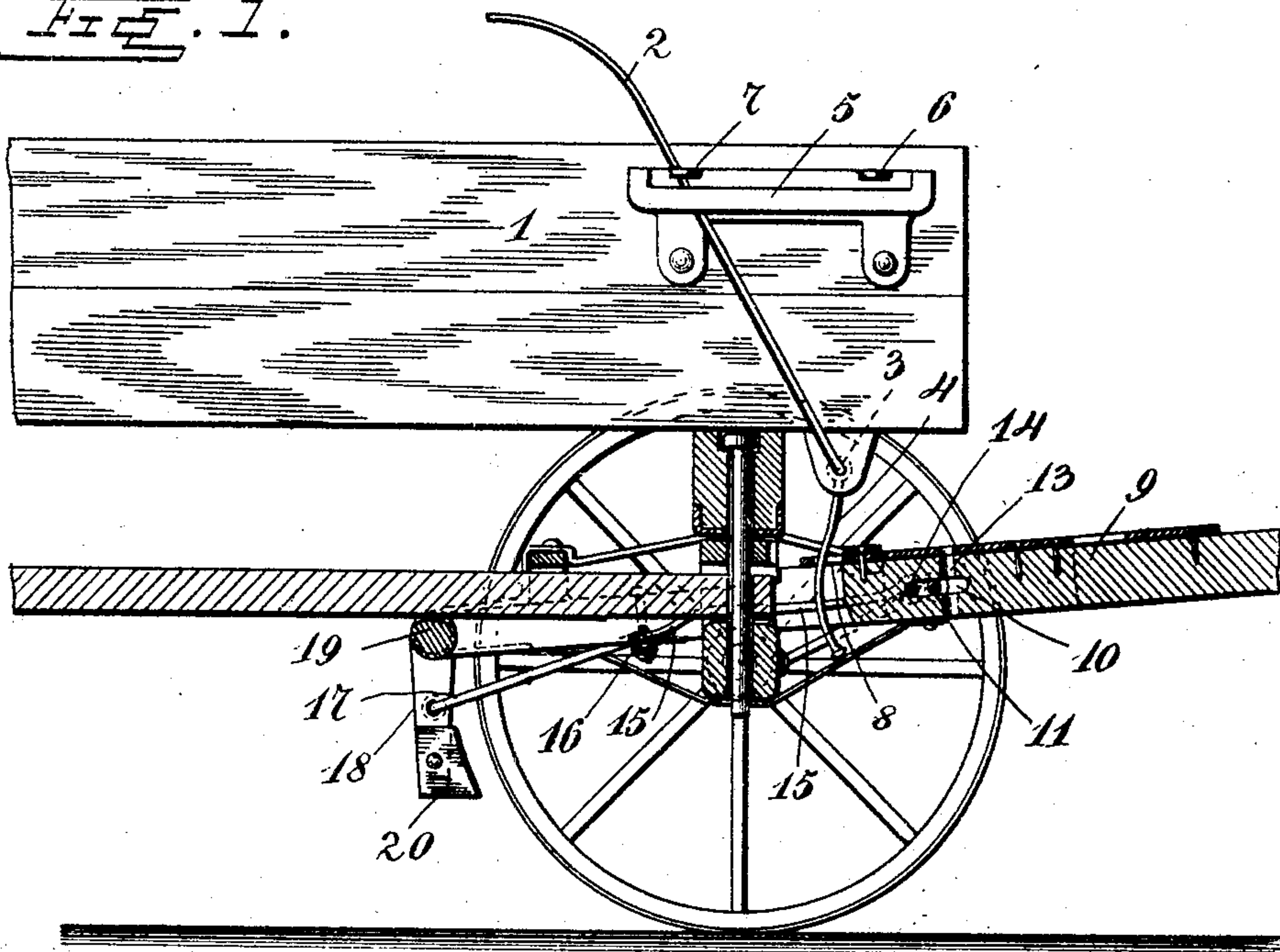
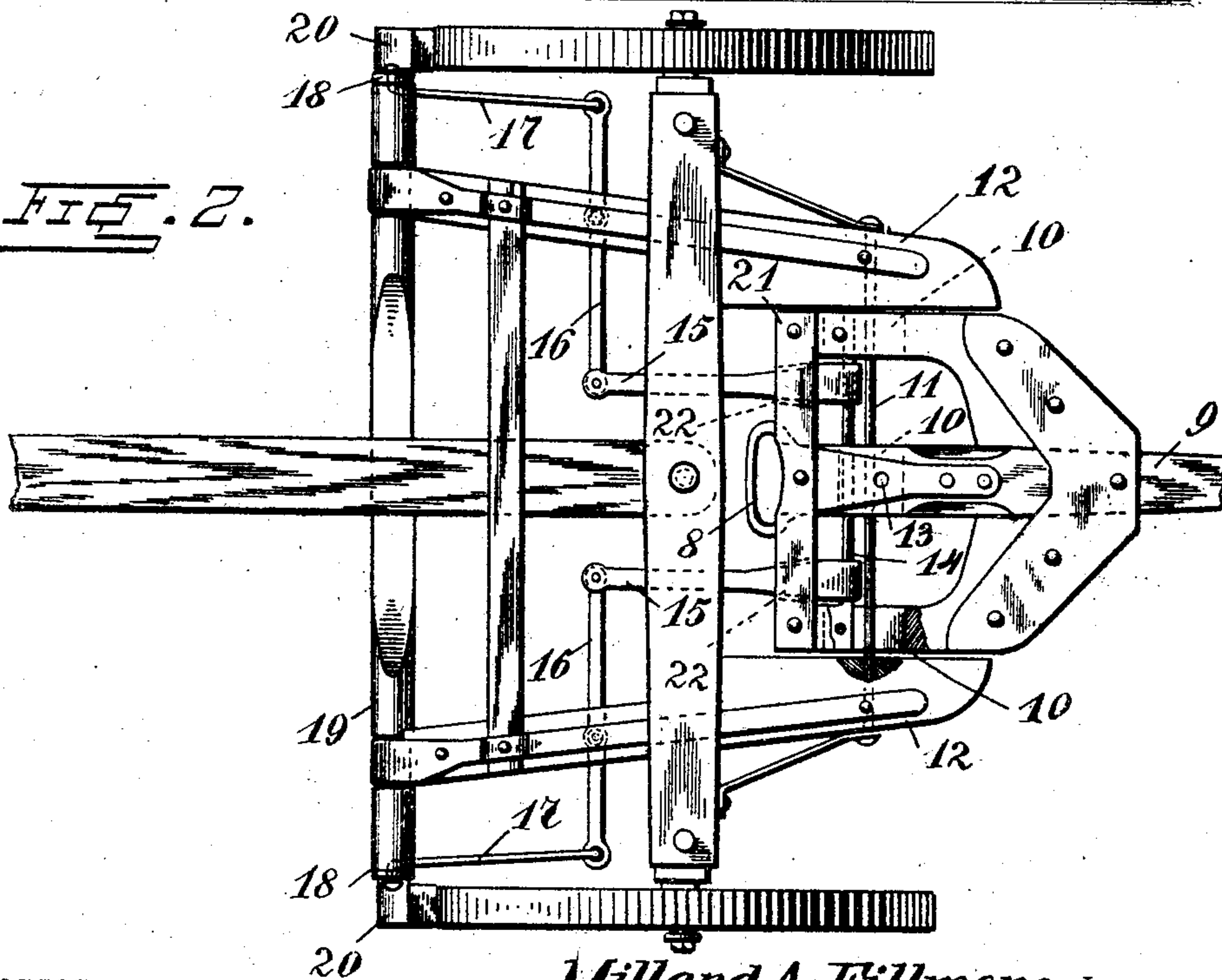


FIG. 2.



Witnesses  
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## UNITED STATES PATENT OFFICE.

MILLARD A. FILLMORE, OF BLAINE, WASHINGTON.

## AUTOMATIC BRAKE.

SPECIFICATION forming part of Letters Patent No. 774,913, dated November 15, 1904.

Application filed June 2, 1904. Serial No. 210,867. (No model.)

*To all whom it may concern:*

Be it known that I, MILLARD A. FILLMORE, a citizen of the United States, residing at Blaine, in the county of Whatcom and State of Washington, have invented a new and useful Automatic Brake, of which the following is a specification.

This invention relates to automatic wagon-brakes such as are adapted to be thrown into operation by the team on a downgrade and to be released thereby on a level or upgrade.

The object of the present invention is to improve the construction of such brakes in the following particulars: first, to adapt them to be locked in engagement with the wagon-wheels after they have been applied by the team and to permit greater pressure than that applied by the team to be exerted upon the brake-shoes; second, to adapt the brake to be easily thrown out of operation when it is desired to back the wagon without operating the brake-shoes; third, to adapt it to be employed with a wagon having not only a pivoted tongue, but also a removable body.

With these objects in view the invention resides in the novel combination and arrangement of parts and in the details of construction hereinafter described and claimed.

In the accompanying drawings, forming part of this specification, Figure 1 is a vertical central section, the wagon-body being shown in elevation; and Fig. 2 is a plan view with the wagon-body removed.

Like reference characters indicate like parts in the different views.

The body 1 of the wagon to which the improved brake of this invention is applied may be removable in any suitable and well-known manner to adapt the wagon to be used for carrying rails or the like. Adjacent to the seat of the driver is a brake-lever 2, which is connected at its lower end with a shaft 3, that extends transversely across the bottom of the wagon-body 1 and is mounted in suitable bearings. Depending from the central portion of the shaft 3 is an arm 4. The brake-lever 2, shaft 3, and depending arm 4 are rigid with each other, so that when the brake-lever is rocked in one direction the depending arm is moved in the opposite direction.

Fastened upon the wagon-body 1 and surrounding the brake-lever 2 is an elongated guide-bracket 5, which has at its forward end a projection 6 and at its rear end a projection 7. When the brake-lever has been rocked forward, it may be engaged with and held by the projection 6, and when it has been rocked to the opposite extreme of its movement it may be engaged with and held by the projection 7 for a purpose hereinafter to be described. Additional projections may be provided between the projections 6 and 7, if desired.

Loosely surrounding the lower portion of the depending arm 4 is a loop or traveler 8, fastened upon the rear end of the wagon-tongue 9. The tongue 9, which is broadened or enlarged at its rear end in a well-known manner, is formed with longitudinal slots 10 10, through which extends a cross-rod 11, attached to the forward hound-frame 12 of the wagon. By means of the rod 11 and slots 10 the tongue 9 is not only pivoted to the wagon hound-frame in such manner that it may rise up and down upon uneven roads or fields and be dropped to the ground when the team is unharnessed, but it also is capable of moving longitudinally with respect to the wagon-frame. A bolt-hole 13 is formed in the tongue 9 adjacent to the central slot 10. This bolt-hole 13 is adapted to receive a suitable bolt for holding the cross-rod 11 in the rear end of the slot 10, and thus preventing rearward longitudinal movement of the tongue 9 when it is desired to back the wagon without applying the brakes, as will be apparent hereinafter. The bolt-hole 13, of course, is used for the purpose described only when the wagon-body 1 has been removed, and it is consequently impossible to use the brake-lever 2 in the manner presently to be described.

Fastened to the rear end of the tongue 9 is a cross-rod 14 to which are attached links 15 15, connected at their rear ends with levers 16 16, pivoted upon the forward hound-frame 12 of the wagon. The levers 16 16 are provided with links 17 17, connected with depending arms 18 18 on a shaft 19, mounted in suitable bearings upon the hound-frame 12. The bearings of the shaft 19 are such as to prevent longitudinal movement thereof. A



brake-shoe 20 is pivotally mounted upon the lower end of each depending arm 18 in position to contact with the periphery of the adjacent front wheel of the wagon.

5 The cross-piece 21 at the rear end of the tongue 9 is cut away on its lower surface, as shown at 22 22, adjacent to each link 15 to permit the forward end of the tongue to be tilted upward on uneven ground without causing  
10 the rear end thereof to bear upon and bend or break the links 15.

The method of operating the improved brake of this invention will be apparent from the foregoing description in connection with the  
15 drawings. When the wagon reaches a downgrade and the team begins to hold back, the tongue 9 is moved rearwardly and the brakes are applied through the links 15 and levers 16. If it be desired to lock the brakes in en-  
20 gagement with the wheels, the brake-lever 2 is thrown forward and engaged with the projection 6. This movement of the brake-lever causes the depending arm 4 to move rearwardly and by means of the loop or traveler  
25 8 to hold the tongue 9 immovably in its rearward position, thus locking the brake-shoes securely against the wheels. If it be desired to apply the brakes with increased force, the brake-lever 2 is forced still farther forward,  
30 thus causing the tongue 9 to move still farther in a rearward direction and applying the brakes more tightly. If it be desired to prevent the brakes from being applied in order to permit the wagon to be backed, the brake-  
35 lever 2 is thrown into its backward position and locked against the projection 7. This action causes the depending arm 4 to be swung forward against the rear end of the tongue 9, thus preventing said tongue from moving  
40 rearwardly to apply the brakes.

The elongated form of the loop or traveler 8, which loosely surrounds the lower end of the depending arm 4, permits said loop to swing to one side or the other as the wagon  
45 is rounding a curve. Furthermore, when it is desired to remove the body 1 to permit the wagon to be used for carrying rails or the like the depending arm slips out of the traveler 8 and permits this result to be accom-  
50 plished.

When the wagon is used without the body

and it is desired to prevent the brakes from being applied while backing, an ordinary bolt is slipped into the bolt-hole 13 in the rear end of the tongue, as previously mentioned. Such  
55 bolt by preventing the cross-rod 11 from moving longitudinally in the slots 10 insures that the brakes will not be applied.

The device of this invention is strong, simple, durable, and inexpensive in construction,  
60 as well as thoroughly practical and efficient in operation. In its novel combination and arrangement of parts and in its details of construction it presents an improvement over prior devices of a similar character.  
65

Changes in the precise embodiment of invention illustrated and described may be made within the scope of the following claims without departing from the spirit of the inven-  
70 tion or sacrificing any of its advantages.

Having thus described the invention, what I claim is—

1. In a wagon-brake, the combination with the forward hound-frame, of a transverse rod, a longitudinally-movable tongue having slots  
75 for the passage of such rod, a pivot-rod carried by the tongue, a brake-shaft pivoted to the hound-frame and carrying brake-shoes, intermediate levers pivoted to the hound-frame, and link connections between the  
80 brake-shoes, the intermediate levers, and the pivot-rod.

2. A wagon having a removable body, a depending arm thereon, means for operating the arm, a longitudinally-movable tongue, a loop  
85 on the tongue surrounding the depending arm and braking means operated by the tongue.

3. A wagon having a hound-frame, brake-operating means, a longitudinally-movable tongue pivoted therein, and a link connected  
90 with said tongue and with the brake-operating means, said tongue having a cut-away portion to avoid the bending of the link when the tongue tilts upward.

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

MILLARD A. FILLMORE.

Witnesses:

SAMPSON B. HUGHES,  
LOUIS MONTFORT.