

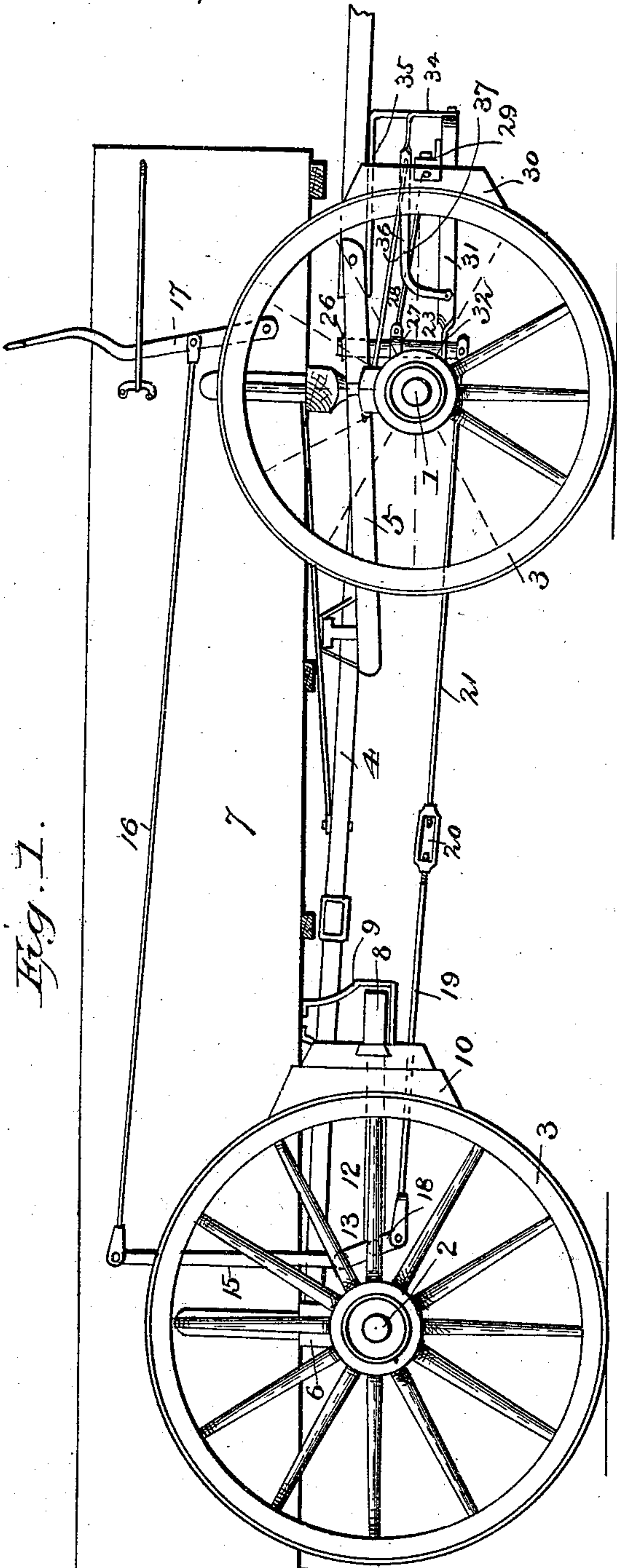
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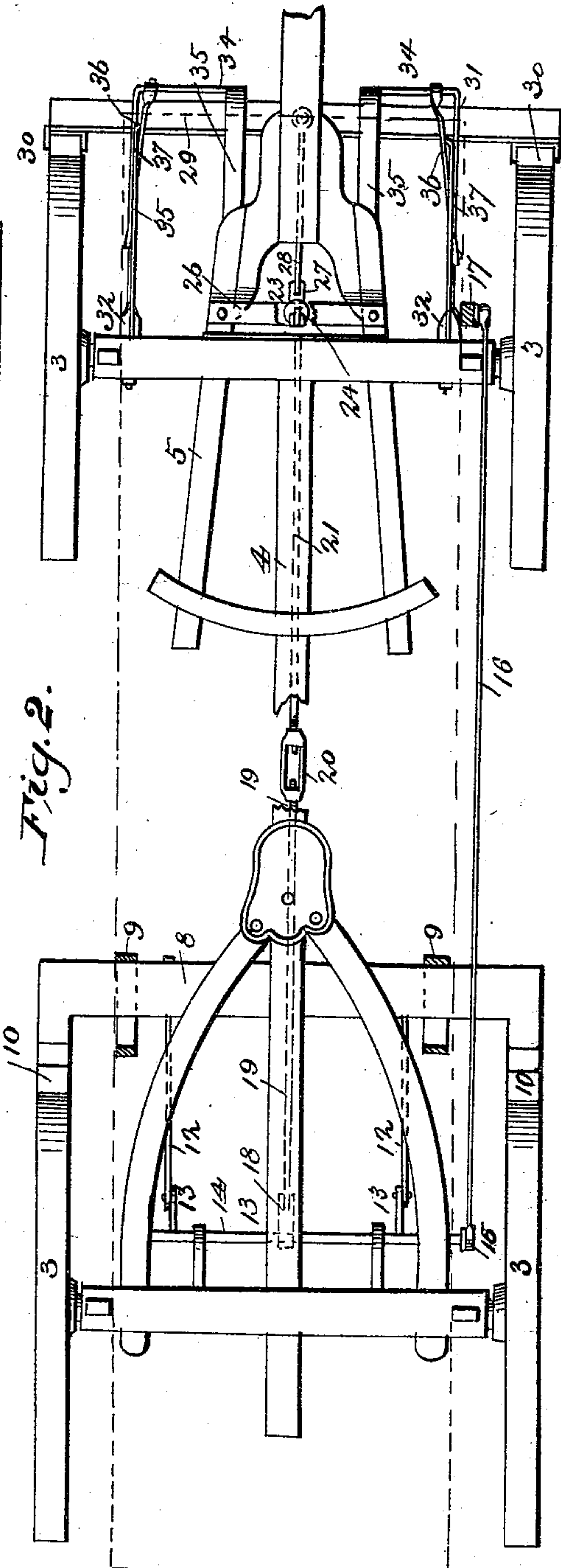
D. A. WILLIAMS.  
WAGON BRAKE.

No. 551,608.

Patented Dec. 17, 1895.



WITNESSES:  
H. L. Durand.  
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INVENTOR:  
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(No Model.)

2 Sheets—Sheet 2.

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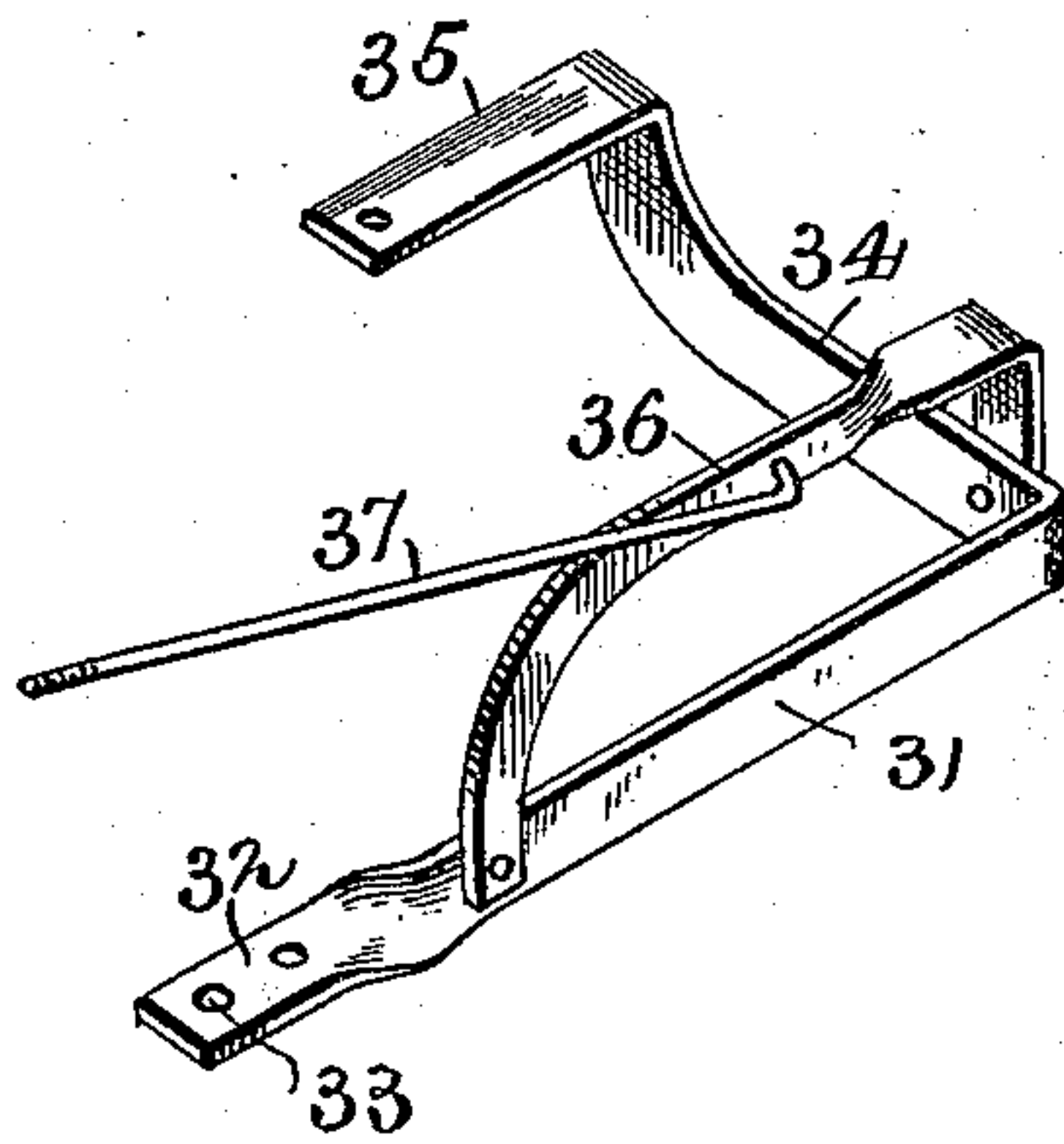
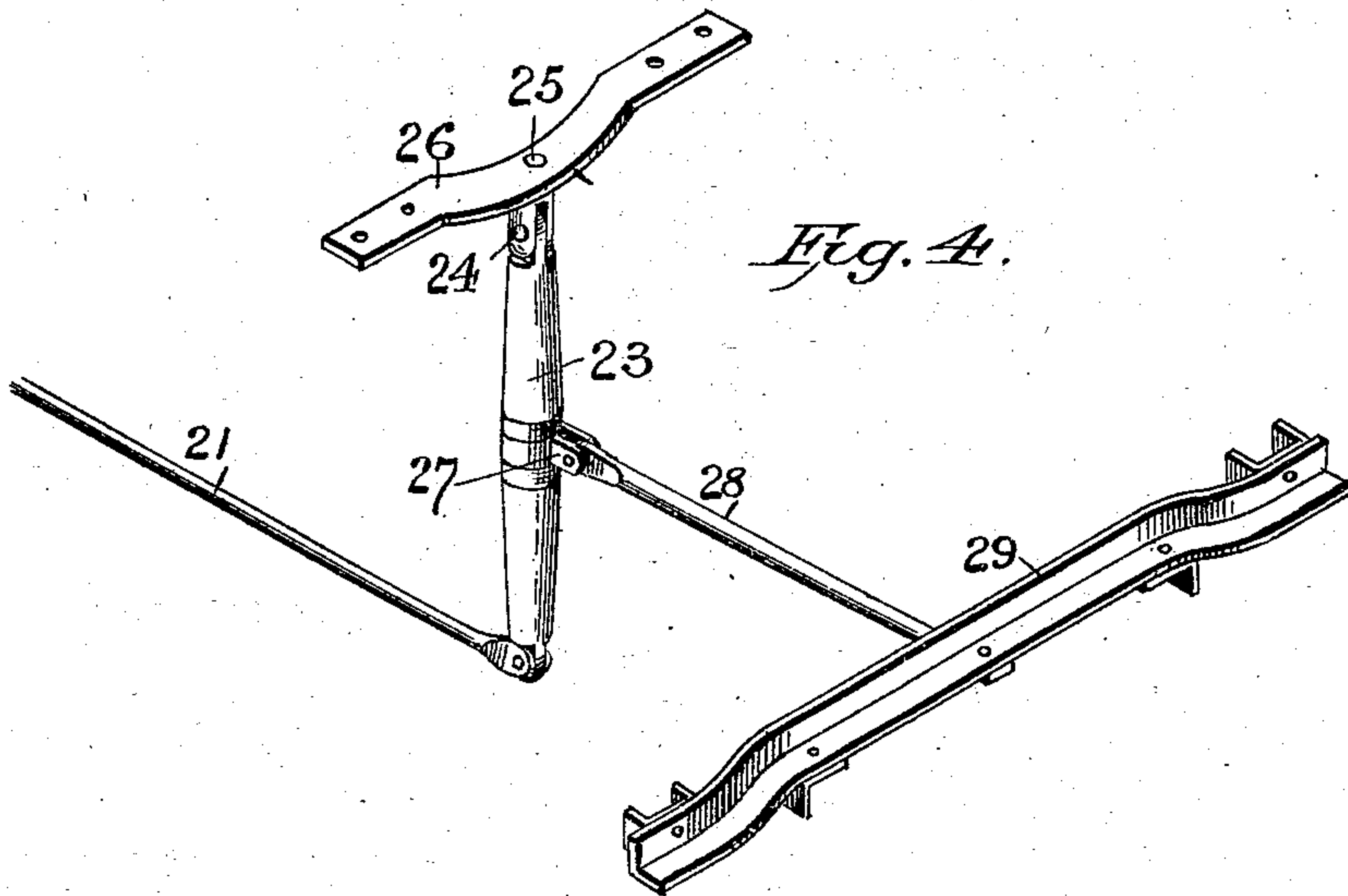


Fig. 3.

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# UNITED STATES PATENT OFFICE.

DAVID ADELBERT WILLIAMS, OF BOULDER, COLORADO.

## WAGON-BRAKE.

SPECIFICATION forming part of Letters Patent No. 551,608, dated December 17, 1895.

Application filed May 27, 1895. Serial No. 550,860. (No model.)

*To all whom it may concern:*

Be it known that I, DAVID ADELBERT WILLIAMS, a citizen of the United States, and a resident of Boulder, in the county of Boulder and State of Colorado, have invented certain new and useful Improvements in Wagon-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, which form a part of this specification.

My invention relates to improvements in wagon-brakes, and its object is to provide an improved construction of the same, which will brake both the rear and front wheels when the operating-lever is actuated, thus rendering it very efficient when used with heavy wagons in hilly or mountainous countries.

The invention consists in the novel construction and combination of parts herein-after fully described and claimed.

In the accompanying drawings, Figure 1 is a side elevation of a wagon provided with a brake mechanism constructed in accordance with my invention. Fig. 2 is a plan view of the running-gear and brake mechanism, the wagon-body being removed. Figs. 3 and 4 are detail views.

In the said drawings, the reference-numerals 1 and 2 designate the front and rear axles respectively, 3 the wheels, 4 the reach, 5 the hounds, 6 the sand-board, and 7 the body which may be of any ordinary or suitable construction.

The numeral 8 designates the rear brake-beam working in brackets 9, depending from the wagon-body at each side, and provided with brake-shoes 10 at each side. This beam is connected by rearwardly-extending arms 12 with cranks 13 on the ends of a transverse rotatable shaft 14. Secured to this shaft at one end is a lever 15 which extends upward along the side of the wagon-body and at its upper end is provided with a forwardly-extending rod 16 connected with an operating-lever 17. Secured to the shaft 14, at or near the center, is a crank 18, to which is pivoted a forwardly-extending rod 19, connected by a turnbuckle 20 with another rod 21, which is pivotally connected with the lower end of

a vertical lever 23. To the upper end of this lever is pivoted a stud 24, the upper end of which is pivoted to a transverse bar 26, resting upon and secured to the hounds immediately in front of the sand-board.

Located on the lever 23, at or near its center, is a loose collar 27, having ears to which is pivoted a bar 28, leading to and secured to the front brake-beam 29, which is angular in cross-section, and provided at each end with brake-shoes 30. This beam is supported near each end in a stirrup 31, (shown in detail in Fig. 3,) consisting of a longitudinal metal bar, the rear end of which is given a half-turn, forming an arm 32, with holes 33 by which it may be clipped to the front axle by means of clips. The front end of this bar is bent inwardly, then upwardly, and then rearwardly, forming two arms 34 and 35, the latter of which is bolted to the hounds. The numeral 36 designates a guide-bar bolted to said bar, and is connected by a brace-rod 37 with the sand-board outside the hounds. By this construction the stirrup will move with the hounds and axle when the wagon is turned, carrying with it the front brake beam and shoes, the pivotal connections of bar 28, collar 27, lever 23, and rod 21, permitting of such movement.

The operation will be readily understood. As the operating-lever is actuated the rear brakes will be applied, and through the connections 19, 21, 23, 27 and 28 the front brakes will also be applied.

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

1. In a wagon brake the combination with the operating lever, the connecting rod, the vertical lever, the transverse shaft, the cranks, the arm pivoted thereto, the rear brake beam and the brake shoes, of the central crank secured to the said shaft, the vertical lever at the front of the wagon, the rods connecting the same, the transverse bar secured to the hounds, the stud connected therewith to which the upper end of said lever is pivoted, the arm pivoted to said lever, the bar pivoted to said arm, the front brake beam and shoes and stirrup; substantially as described.

2. In a wagon provided with brake mechanism of the character described, the combina-

tion with the stirrup connected at one end with  
the axle and at the other with the hounds,  
the guide bar and the brace rod, of the angu-  
lar brake beam supported by said stirrup,  
5 the rod connected therewith, the arm to which  
said rod is pivoted, the vertical lever to which  
said arm is pivoted, the stud to which said  
lever is pivoted, the transverse bar secured  
to the hounds having an angular opening  
10 with which the correspondingly shaped shank

of the stud engages, the rod pivoted to the  
lower end of said lever and means for actu-  
ating the same; substantially as described.

In testimony that I claim the foregoing as  
my own I have hereunto affixed my signa- 15  
ture in presence of two witnesses.

DAVID ADELBERT WILLIAMS.

Witnesses:

SHEP MADERA,

D. A. ROBINSON.