

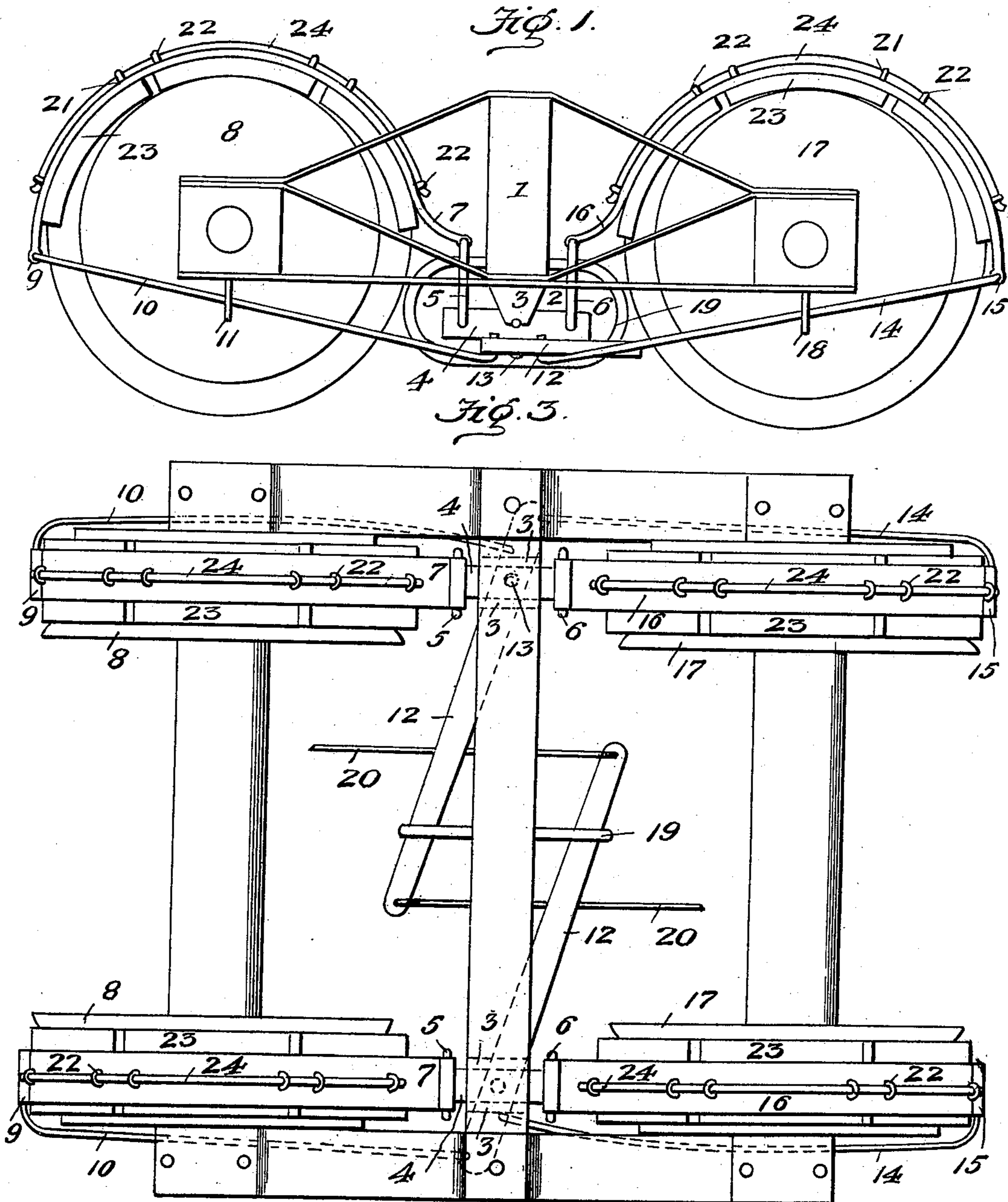
(No Model.)

2 Sheets—Sheet 1.

J. T. DAVIS.  
CAR BRAKE.

No. 598,981.

Patented Feb. 15, 1898.



Witnesses  
Wm. C. Ashlee  
J. A. Wilson.

Inventor  
Jesse J. Davis.  
By H. B. Wilson.  
Attorney

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Fig. 2.

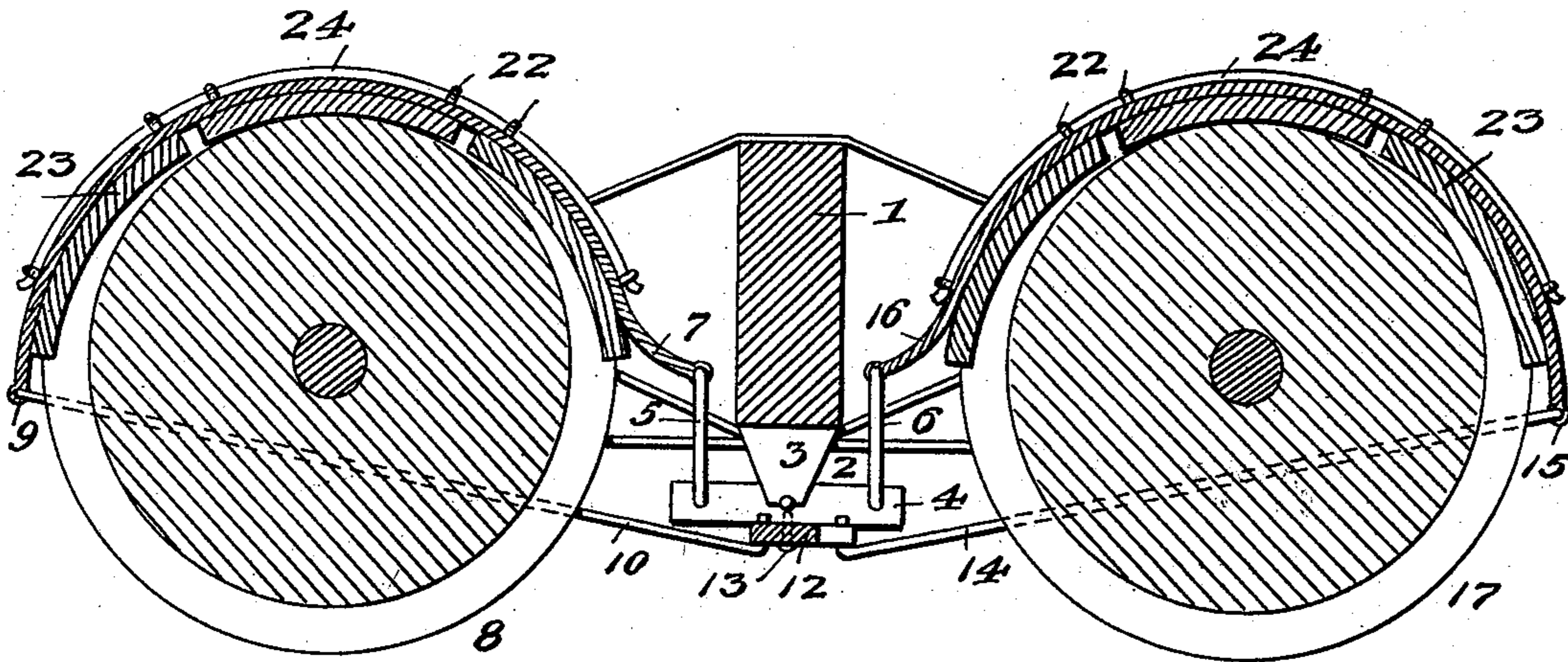
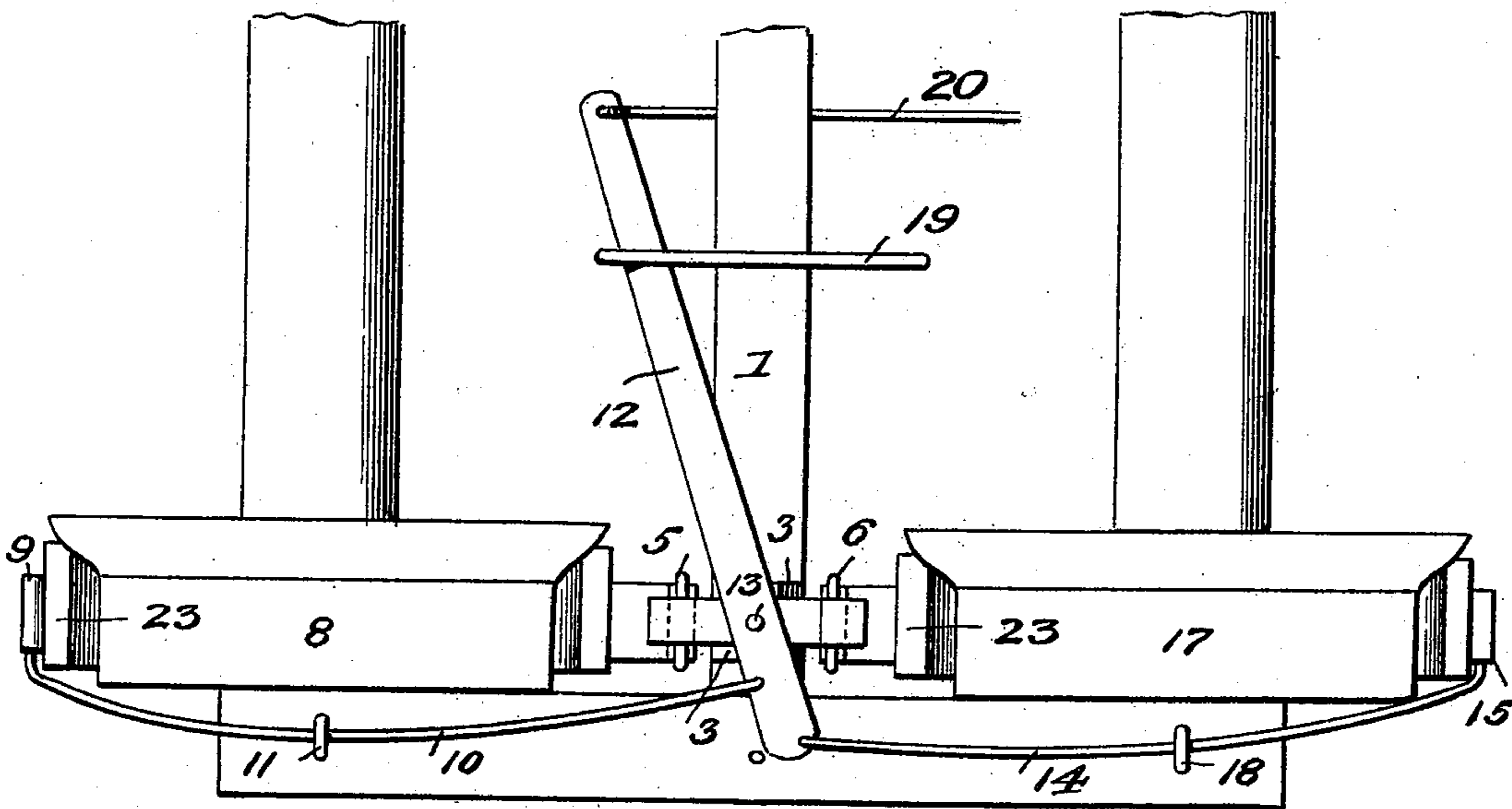


Fig. 4.



Witnesses  
*Wm. C. Ashieley*  
*J. A. Wilson*

Inventor  
*Jesse J. Davis.*  
By *H. B. Willson.*  
Attorney

# UNITED STATES PATENT OFFICE.

JESSIE T. DAVIS, OF BOONEVILLE, MISSISSIPPI.

## CAR-BRAKE.

SPECIFICATION forming part of Letters Patent No. 598,981, dated February 15, 1898.

Application filed May 17, 1897. Serial No. 636,948. (No model.)

*To all whom it may concern:*

Be it known that I, JESSIE T. DAVIS, a citizen of the United States, residing at Booneville, in the county of Prentiss and State of Mississippi, have invented certain new and useful Improvements in Car-Brakes; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention has relation to improvements in car-brakes; and the object is to simplify and improve the construction of the brake and at the same time increase its effectiveness.

To these ends the novelty consists in the construction, combination, and arrangement of the same, as will be hereinafter more fully described, and particularly pointed out in the claim.

In the accompanying drawings the same reference-numerals indicate the same parts of the invention.

Figure 1 is a side elevation of a car-truck, showing my improved brake in position. Fig. 2 is a longitudinal section of the same. Fig. 3 is a top plan view. Fig. 4 is a bottom plan view.

1 represents the truck-bolster, and near its outer ends are secured the shoes 2 2, formed with depending ears 3 3, between which is centrally fulcrumed a rock-lever 4, in the opposite free ends of which are pivoted the lower ends of the links 5 and 6. The upper end of the link 5 is connected to the inner end of a strap 7, which extends over the top of the wheel 8 to a point on the opposite side approximately in the same horizontal plane as the lever 4, and its outer end is formed with a transverse eye 9, in which is pivoted one end of a rod 10, which passes through a guide-bracket 11. Its opposite end is pivoted in the outer end of the shorter arm of the brake-lever 12, which is fulcrumed on a projecting stud 13 on the face of the rock-lever 4. A second rod 14 is pivoted to the shorter arm of the brake-lever 12, and it passes through the guide-bracket 18, its outer end engaging an eye 15 of the strap 16, which extends around the top of the wheel 17, its inner end being pivoted to the upper end of the link 6 on the rock-lever 4. The rods 10 and 14 possess sufficient stiffness to suspend the brake-

shoes slightly above or in slight contact with the wheels.

The inner end of the brake-lever 12 passes through a guard 19, secured to the bolster, and its free end is pivoted to the brake-rod 20, which may be operated in the usual manner by hand or power, as desired.

The straps 7 and 16 are of spring-steel and are formed with a series of slots 21, which receive the eyes 22 of the sectional brake-shoes 23, secured to the inner face of the strap by a spring-rod 24, which passes through said eyes 22 to detachably secure said sectional brake-shoes in position.

The brake-rods 20 20 are connected in the usual manner by a chain to a vertical brake-shaft, (not shown,) one of which is mounted at each end of the car and is provided with the usual brake-handle for manipulating the same. When the brake is released, the spring-rod 24 tends to assume a horizontal position to release the brake-shoes from the wheels.

The operation of the brake is as follows: When the lever 12 is drawn forward by the rod 20, the rods 10 14 are drawn inwardly by the action of the shorter arm of the lever 12 to close the brake-shoes on the wheel 17. The lever 12 being fulcrumed on the rock-lever 4, which is its movable fulcrum-point, allows it to adapt itself to the compression of the brake-shoes on the car-wheels—that is to say, the rod 14 will close its shoes first, and then the fulcrum-point of the lever 12 is transferred to the inner connected end of the rod 14, so that a further movement of the brake-rod 20 will draw the rod 10 farther in and close the shoes on the wheel 8, and it will thus be seen that the rock-lever 4 automatically adapts itself to the varying position of the brake-lever 12. At the same time the brake-lever 12 is in motion. Its movement tends to tilt the rock-lever, so that while the link 6 is moved slightly upward the greater movement of the rod 10 compensates for this and closes the brake-shoes on the wheel 17, and as the opposite end of the rock-lever moves in the reverse direction it tends to draw the link 5 downward on the wheel 8, which compensates for the shorter movement of the rod 10, and the two movements taken in conjunction furnish the requisite movement of the shoes to brake the wheels 8.

Although I have specifically described the construction and relative arrangement of the several elements of my invention, I do not desire to be confined to the same, as such  
5 changes or modifications may be made as clearly fall within the scope of my invention without departing from the spirit thereof.

Having thus fully described my invention, what I claim as new and useful, and desire to  
10 secure by Letters Patent of the United States, is—

A car-brake, comprising the rock-lever 4, the links 5 6 secured to the opposite ends thereof, the straps 7 and 16 connected at one  
15 end to said links and provided with the slots 21, the sectional brake-shoes provided with

the eyes 22 extending through said slots, and detachably secured to said straps by the spring-rods 24, the rods 10 14 connected to the outer ends of said straps and passing through  
20 guide-brackets 11 18, and having their inner ends secured to the shorter arm of the brake-lever 12, said lever being fulcrumed on a stud 13 on the face of the rock-lever 4, substantially as shown and described. 25

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

JESSIE T. DAVIS.

Witnesses:

W. W. CUNNINGHAM,  
G. W. PLAXCO.