(No Model.) 2 Sheets—Sheet 1.

J. W. T. GILLIAM.

RAILWAY CAR FENDER.

No. 520,230. Patented May 22, 1894.

Fig. 1.

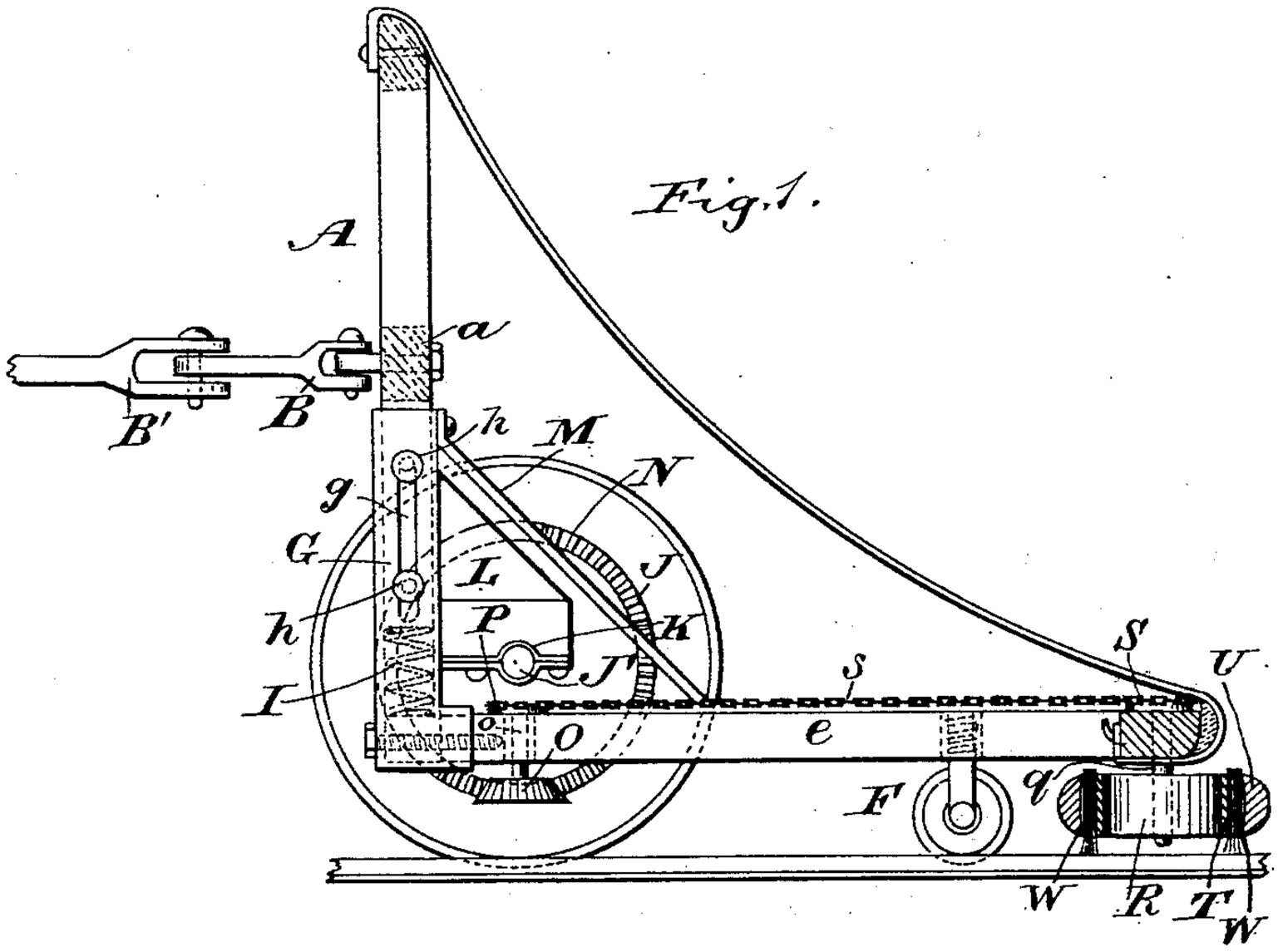
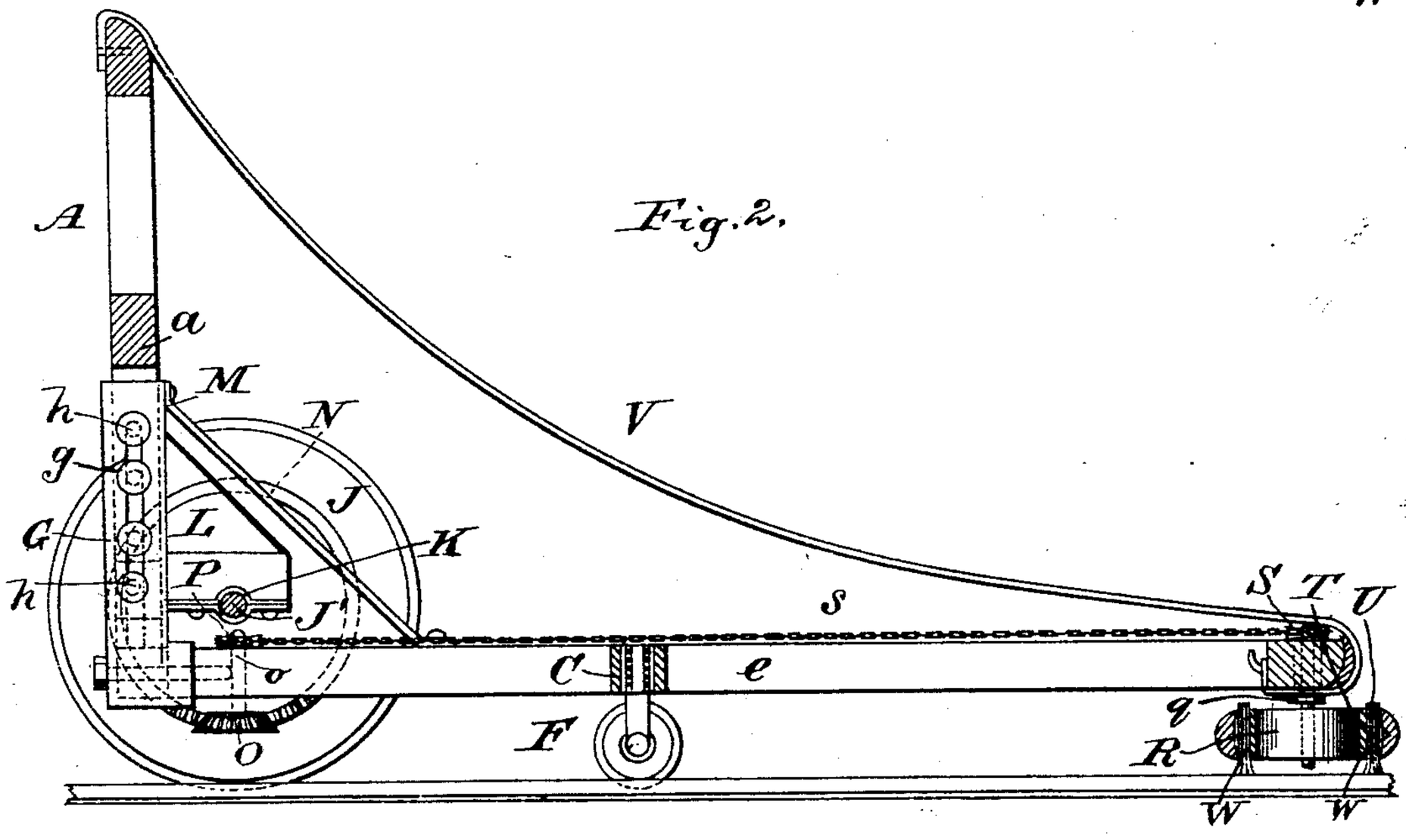


Fig. 2.



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(No Model.)

2 Sheets—Sheet 2.

J. W. T. GILLIAM.

RAILWAY CAR FENDER.

No. 520,230. Patented May 22, 1894.

Fig. 3.

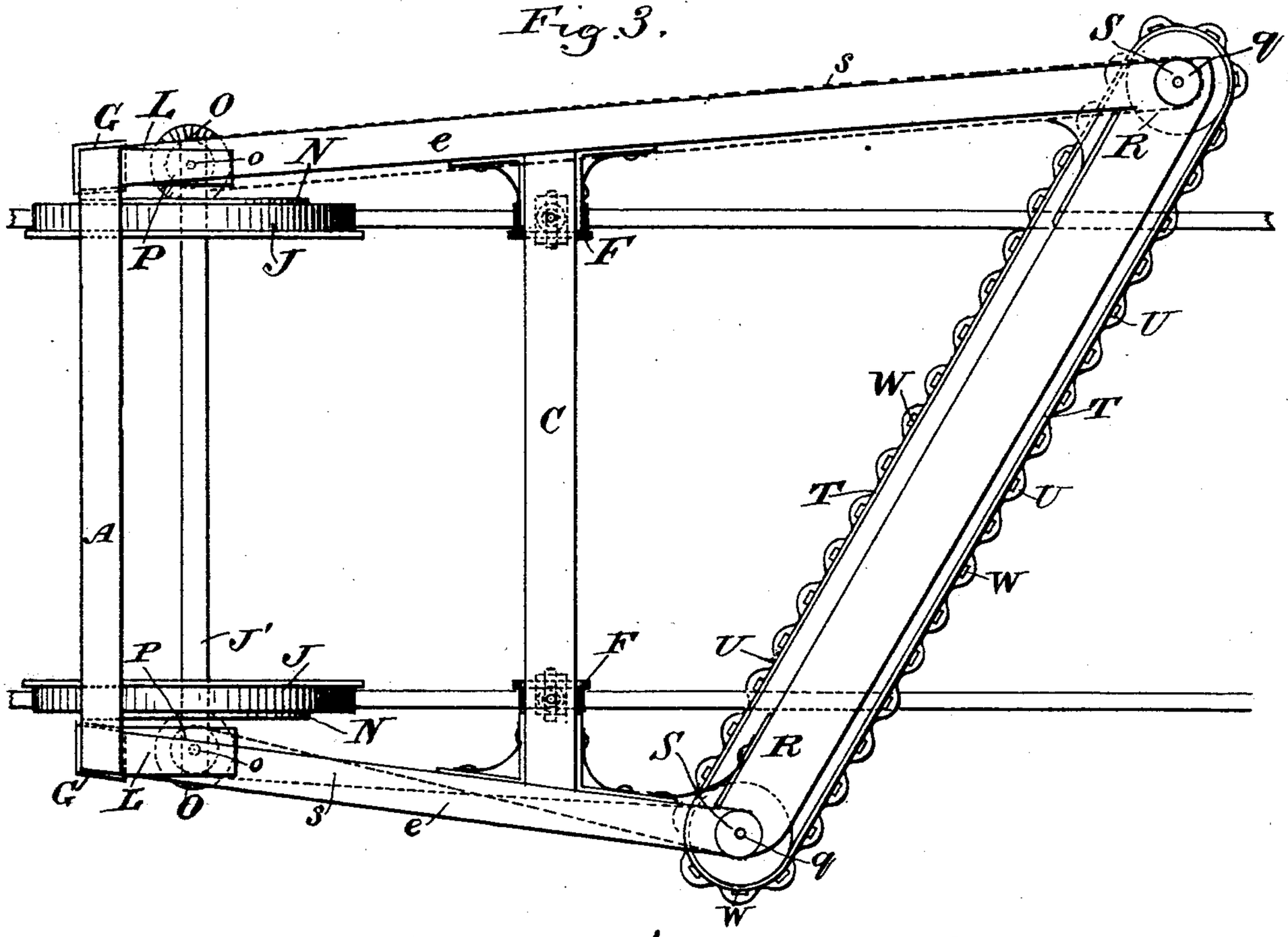
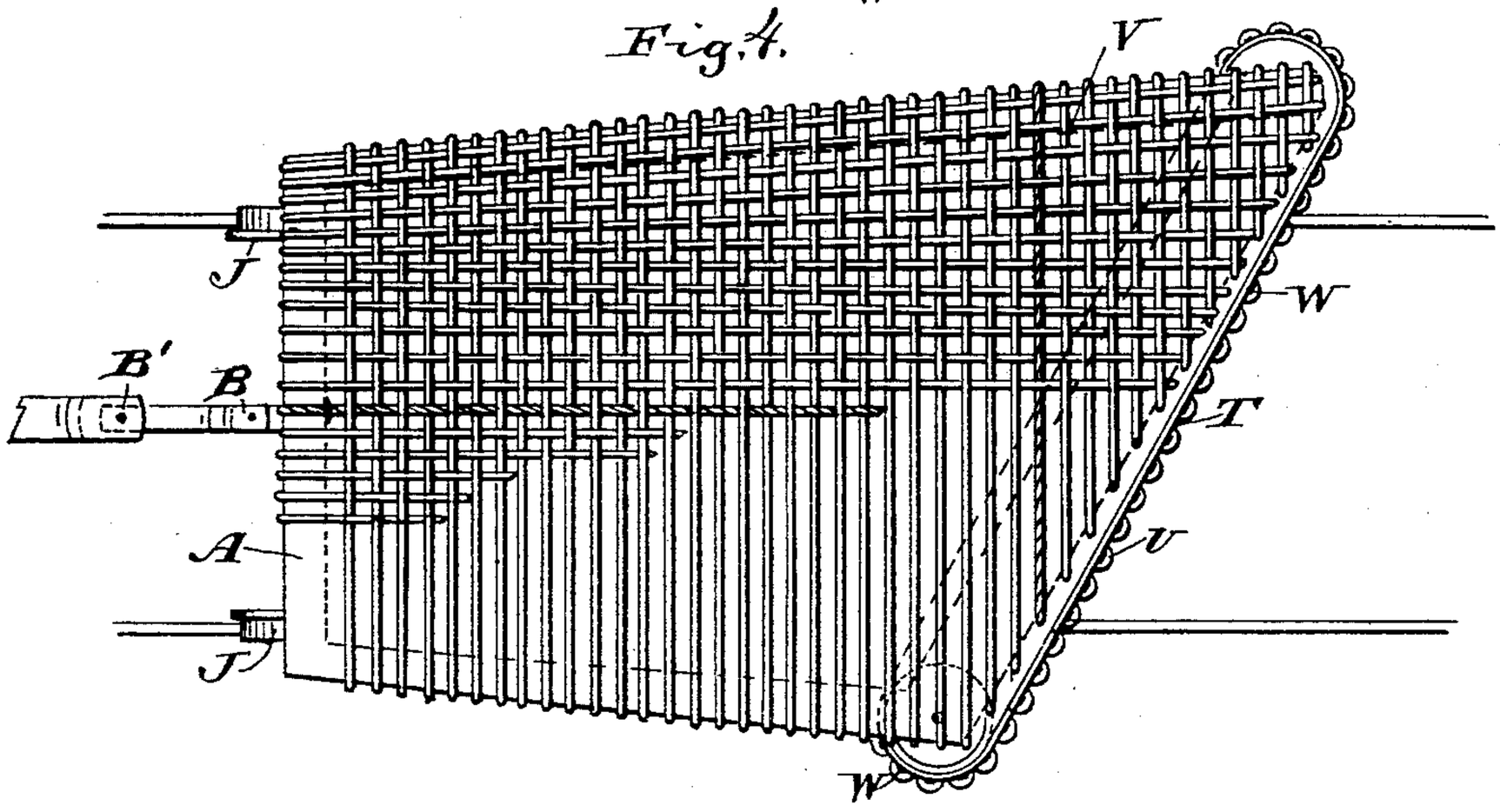


Fig. 4.



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UNITED STATES PATENT OFFICE.

JOHN W. T. GILLIAM, OF BALTIMORE, MARYLAND.

RAILWAY-CAR FENDER.

SPECIFICATION forming part of Letters Patent No. 520,230, dated May 22, 1894.

Application filed January 4, 1894. Serial No. 495,712. (No model.)

To all whom it may concern:

Be it known that I, JOHN W. T. GILLIAM, a citizen of the United States, residing at 241 North Fulton avenue, in the city of Baltimore, State of Maryland, have invented certain new and useful Improvements in Railway-Car Fenders of which the following is a full, clear, and exact specification.

My invention comprises certain new and useful improvements in car fenders, and the object of my invention is to so construct a fender that in striking a person it will first carry his feet laterally from under him, thus obviating the liability, as with the present fenders in use, of the feet being turned under the fender edge and the ankles being sprained or broken; my device causing the person struck to fall into or against a net, the arrangement of which will cause him to be shifted or fended to one side of the car. With this object in view reference is had to the annexed drawings, in which—

Figure 1 indicates a side elevation view of one end of the fender. Fig. 2 is a similar view to Fig. 1, partly in longitudinal section, and indicates the opposite side of the fender. Fig. 3 is a plan view with net removed, and better illustrates the movable mechanism, and Fig. 4 is a reduced top view, showing the net partly finished and in place.

In the following specification, A indicates the fender frame, bearing a cross bar *a* to which is attached a coupling B, which is in turn connected with the car coupler B′, Figs. 1 and 4.

C is a brace securing the side pieces *e e* of the said frame together, and supporting or guiding the swiveled flanged guide wheels F F which assist the proper traveling of the fender over the track. The fender is of an independent construction, so that it can be coupled to any car, in which feature it differs from all other forms of such devices. The side pieces *e* are provided at their ends with metal plates or sockets G, which are securely bolted to the said pieces, and are preferably provided with guide slots *g*, through which pass guide bolts *h;* the said bolts being secured to the aforesaid frame A. A spiral spring I is placed within each aforesaid socket, and has a bearing upon the bottoms of the same and against each end of the frame A. Other means than that just described may be employed for taking up the vibration caused by the wheels running over the rails. Said wheels J are journaled by means of the axles J′ turning in the journals K which are secured to the socket or guide plates G by means of brace L. Another brace M may be provided to strengthen the socket G and the side piece *e*.

Secured to one side of the wheels J are circularly arranged bevel cogs N, meshing with which are the beveled gear wheels O, journaled in perpendicular bearings *o;* and securely fastened to the shafts of said beveled gear wheels O are sprocket or driving wheels P. At the extreme forward ends of the fender frame are journaled at *q* rollers or pulleys R, to the upper ends of the shafts of which pulleys are likewise attached sprocket or power wheels S, running from and around which wheels S are chains or belts *s* which connect them with the power wheels P, and thereby when the fender is moved forward impart through the wheels J and the mechanism described, a rotary movement to the rollers or pulleys R, around which and across the front of the fender passes a belt T in a hypotenuse line, which belt is provided throughout the length of its outer surface with buffers or pads U, formed of soft rubber or other flexible material.

Covering the fender frame is a net V, designed to catch any object that the fender may come in collision with, the fender serving to throw or fend any object colliding therewith to one side.

W indicates removable brushes, situate along the line of belt T, and adapted to sweep the track.

The line of the aforesaid buffers, or pads, is placed somewhat forward of the front of the net, the object being that when the fender is coupled to a car and the turning of the wheels and mechanism, as described, rotates the pulleys or rollers and the belt T,—when a person is struck by the fender the pads or buffers U, having a laterally sliding motion, first strike against and force the feet from under said person sidewise, when the net V receives such person, the said net on account

of its inclination and the angle at which it is set having a tendency to throw or shift an object to one side in case it should not fall squarely into it.

Having now described my invention, what I claim, and desire to secure by Letters Patent, is—

1. A car fender having movable mechanism, a continuous line of cushions crossing in a single hypotenuse line the track of travel and operated by said mechanism, substantially as set forth.

2. An individual and detachable car fender, wheels supporting and guiding said fender, mechanism operated by said wheels, and a continuous line of cushions movably supported by said fender and movable across the track and said fender, and having motion imparted by said mechanism with the movement of said fender, substantially as set forth.

3. An individual and detachable car fender, mechanism supporting and operated by said fender, a continuous belt or chain movable in a single hypotenuse line across the track and the front of said fender, and a series of projecting buffers secured to said belt or chain, substantially as set forth.

4. A car fender supported by wheels, a gear wheel meshing with and operated by teeth upon one side of said supporting wheels, a chain or belt operated by said gear wheel, rollers supporting a belt or chain and operated by the aforesaid mechanism, and cushions secured to and carried by said chain or belt, and movable across the line of said track and fender, substantially as set forth.

5. A car fender having a line of cushions movable across the track and said fender, and mechanism operated by the traveling of said fender and imparting a movement to said cushions, a net secured to the frame and forming a part of said fender for the reception of an object colliding therewith, substantially as and for the purpose set forth.

6. In a car fender, the combination of horizontal side bars, a rear frame work, and vertically slotted guide ways connecting said side bars and rear frame work, together with coiled springs between said side bars and the rear frame work, substantially as described.

7. The combination with a car fender having a horizontally rotating belt, of removable track cleaning brushes situate along the line of said belt, substantially as set forth.

In testimony that I claim the foregoing I have hereunto set my hand this 6th day of October, 1893.

JOHN W. T. GILLIAM.

Witnesses:
JOHN L. HEBB,
E. LEHNERT.