(No Model.) 2 Sheets—Sheet 1.

W. F. S. ROBINSON.

CAR FENDER.

No. 525,285. Patented Aug. 28, 1894.

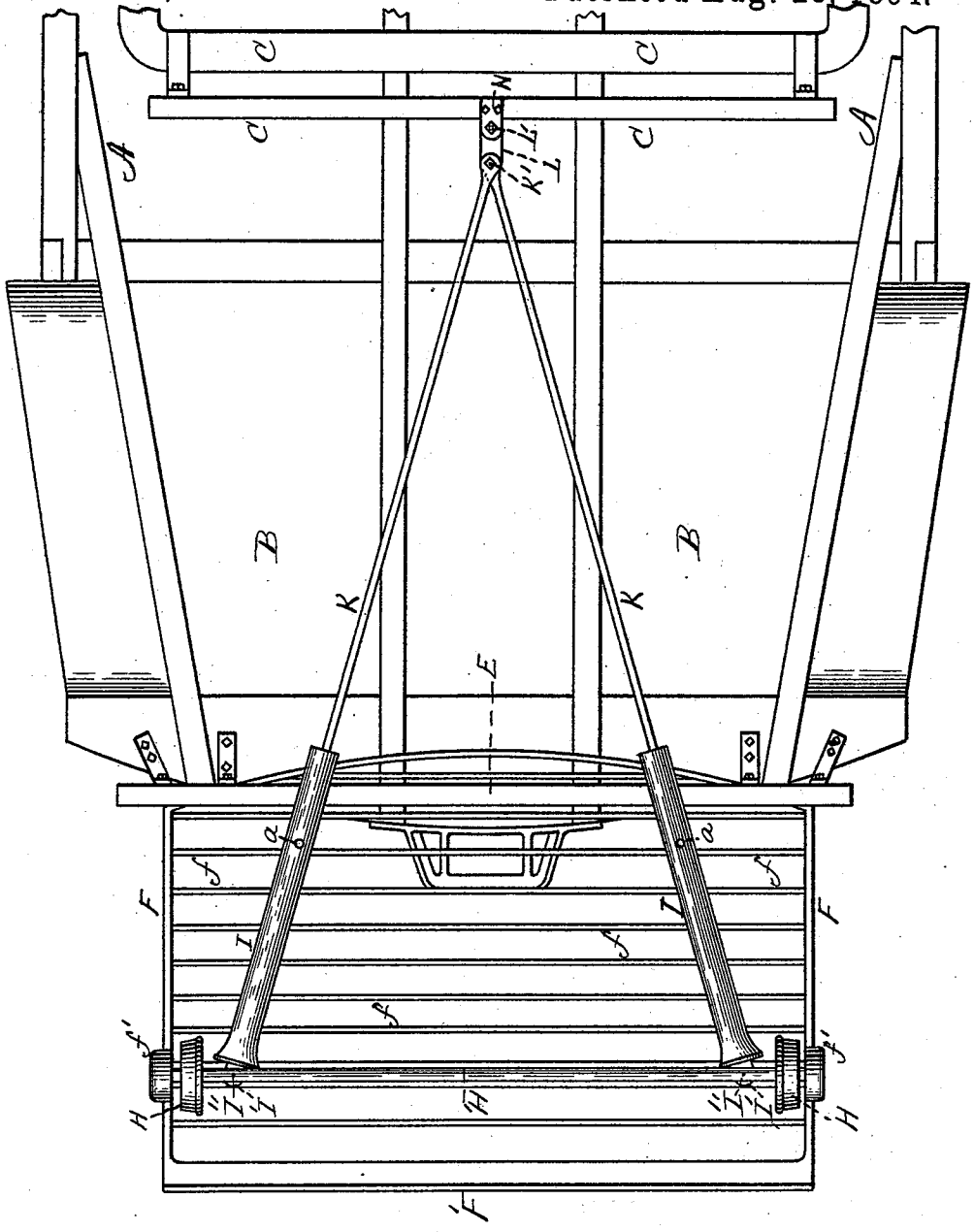

FIG. 1.

WITNESSES

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B. W. Williams

INVENTOR

William F. S. Robinson

By his Atty

Henry W. Williams

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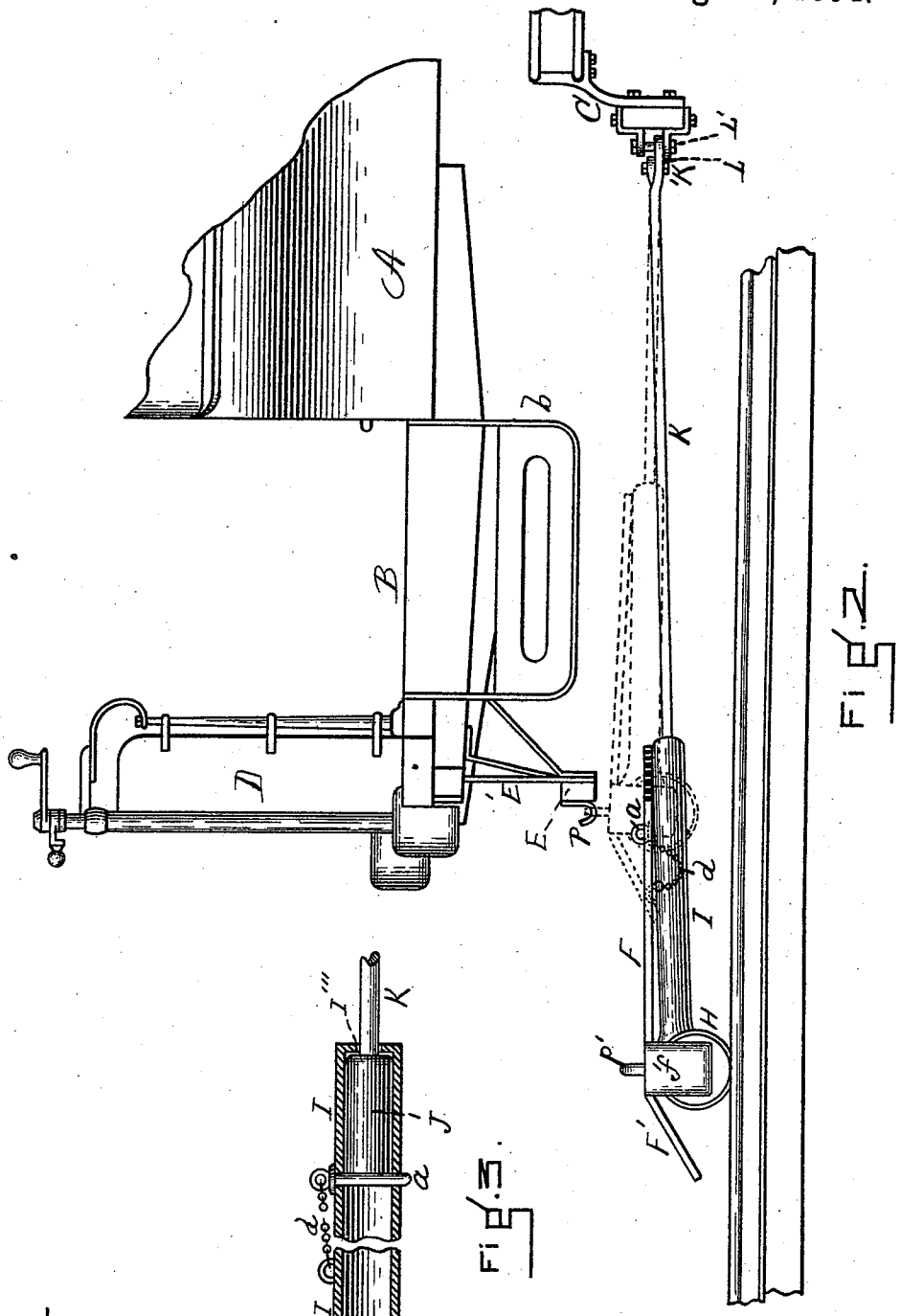

Fig. 2.

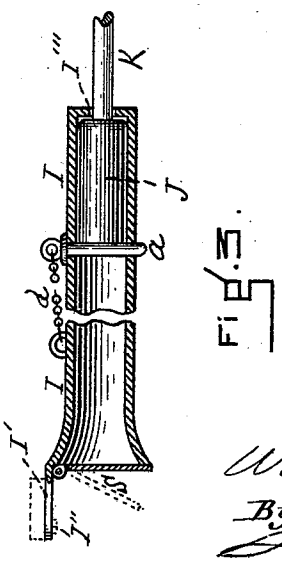

Fig. 3.

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UNITED STATES PATENT OFFICE.

WILLIAM F. S. ROBINSON, OF SOMERVILLE, MASSACHUSETTS.

CAR-FENDER.

SPECIFICATION forming part of Letters Patent No. 525,285, dated August 28, 1894.

Application filed December 8, 1893. Serial No. 493,145. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM F. S. ROBINSON, a citizen of the United States, residing at Somerville, in the county of Middlesex and State of Massachusetts, have invented a new and useful Improvement in Car-Fenders, of which the following is a specification.

This invention relates to fenders for cars, preferably street cars, propelled by other than horse power, and it relates particularly to that class of fenders in which the fender runs on the track in front of the car. This fender has a pivotal or swiveled connection with the car-truck in order that it may safely pass around a curve in position on a line which is sufficiently near to being a radius of the circle of which the curve is an arc to prevent the fender from jumping the track, and in order that the rocking or swinging motion of the body of the car may not be communicated to the fender.

The nature of the invention consists in the novel construction and arrangement of parts fully described below, and illustrated in the accompanying drawings, in which—

Figure 1 is a plan view of the under side of my improved fender, and of a portion of the car and truck to which it is attached. Fig. 2 is a side elevation of the same. Fig. 3 is an enlarged detail in longitudinal vertical section of one of the tubes in which the connecting rods or piston rods play.

Similar letters of reference indicate corresponding parts.

A represents a portion of the car body, B the platform, *b* the steps, C a portion of the truck, D the dash board, and E a beam commonly termed the brake-beam, suspended from the front edge of the car platform by the usual hangers E′.

F is the frame of the fender proper or shelf, preferably provided with bars *f* extending transversely with the car. The construction of the fender proper or shelf F may be varied as desired. The front portion F′ of this fender, bends downward toward the track at an angle substantially as shown in Fig. 2, and the fender is provided on its under side, just to the rear of the part F′ with boxes *f′* supporting the axle H′ of the wheels H which are adapted to run upon the track and support the fender.

I I are tubes whose front ends are provided with suitable lips I′ secured to the axle H′ by means of the pivots I″. These tubes are set horizontally as shown, and within them are pistons or heads J, (Fig. 3) to whose rear ends are secured the rods K which extend through openings I‴ in the rear closed ends of the tubes I. The pistons J are held normally stationary in the tubes by means of bolts *a* which drop through suitable holes in the tubes in front of the pistons, as shown in Fig. 3, said bolts being secured by guard chains *d* to the fender, said chains being long enough to allow the fender to play with relation to the tubes, as below described. The tubes I and the rods K are set convergingly, as shown, and the rear ends of the rods are pivoted to each other by a pin K′, which is supported by a link L which is pivoted by a pin L′ to a bracket N extending forward horizontally from the truck C. When the car travels on a curved track, the pivot L allows the fender to swing and the wheels H to follow the curve, and the axle H′ takes a position nearly enough radial to the curvature of the track to prevent the wheels from jumping or traveling off the curve. When the car is reversed, the bolts *a* are lifted out from their positions and the fender pushed back, the rods K expanding as the tubes are slid back over them, by means of the pivots I″ and K′. The fender is then hung up by means of the hook P on the beam E and eye P′ on the fender, in the position shown in broken lines in Fig. 2. I prefer to furnish the front ends of the tubes I with doors or lids S, (Fig. 2) swinging freely from the upper edges, so as to prevent dirt, &c., from collecting therein and yet allow the air to escape, as the tubes are thrust back over the pistons J. It will be readily seen that as the fender is connected with the truck instead of the car body, it is not affected by the rocking or swinging of the car body. The forward ends of the tubes may be secured to any convenient parts of the fender.

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

1. In combination, a fender adapted to run on the track in front of the car, the car truck, and a pivoted connection between said fender and truck consisting essentially of a substantially horizontal tube or cylinder pivoted at its front end to the fender and a rod pivotally connected at its rear end with the truck and provided at its front end with a piston playing in said tube, substantially as set forth.

2. In combination, a fender adapted to run on the track, the car truck, the pair of convergingly and substantially horizontally arranged tubes or cylinders I pivotally secured at their front ends to the fender, and the pair of convergingly and substantially horizontally arranged rods K extending rearward from pistons within the said tubes and pivotally connected at their rear ends with each other and with the truck, substantially as described.

3. In combination, a fender adapted to run on the track, the pistons or cylinders I pivotally secured at their front ends to the fender and provided with the bolts *a*, the pistons J within the tubes and normally between the bolts and the rear ends of the tubes, and the rods K secured at their front ends to the pistons and at their rear ends connected pivotally together and with the truck, substantially as set forth.

WILLIAM F. S. ROBINSON.

Witnesses:
HENRY W. WILLIAMS,
J. M. HARTNETT.