

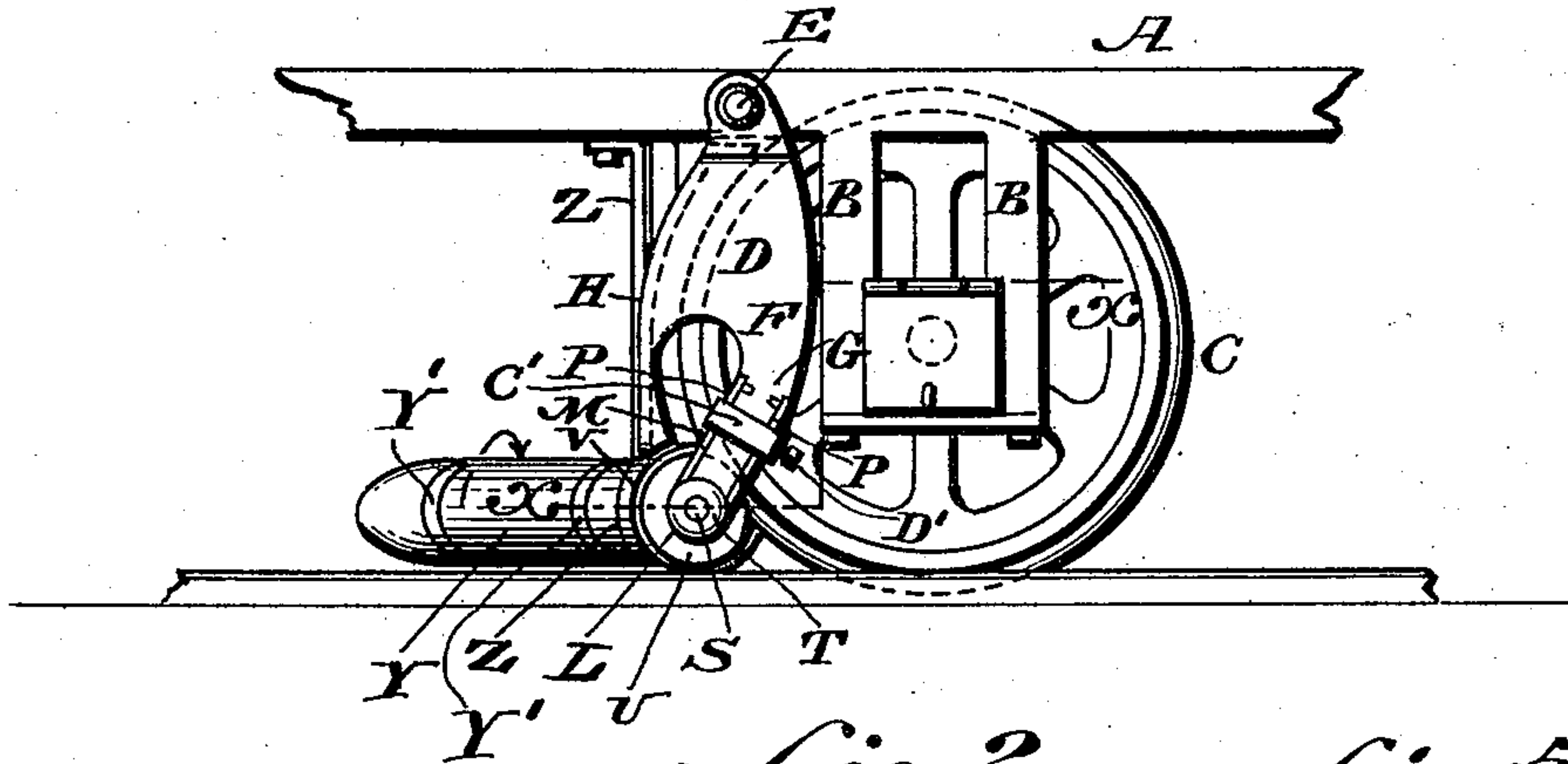
(No Model.)

W. LOREY.  
CAR FENDER.

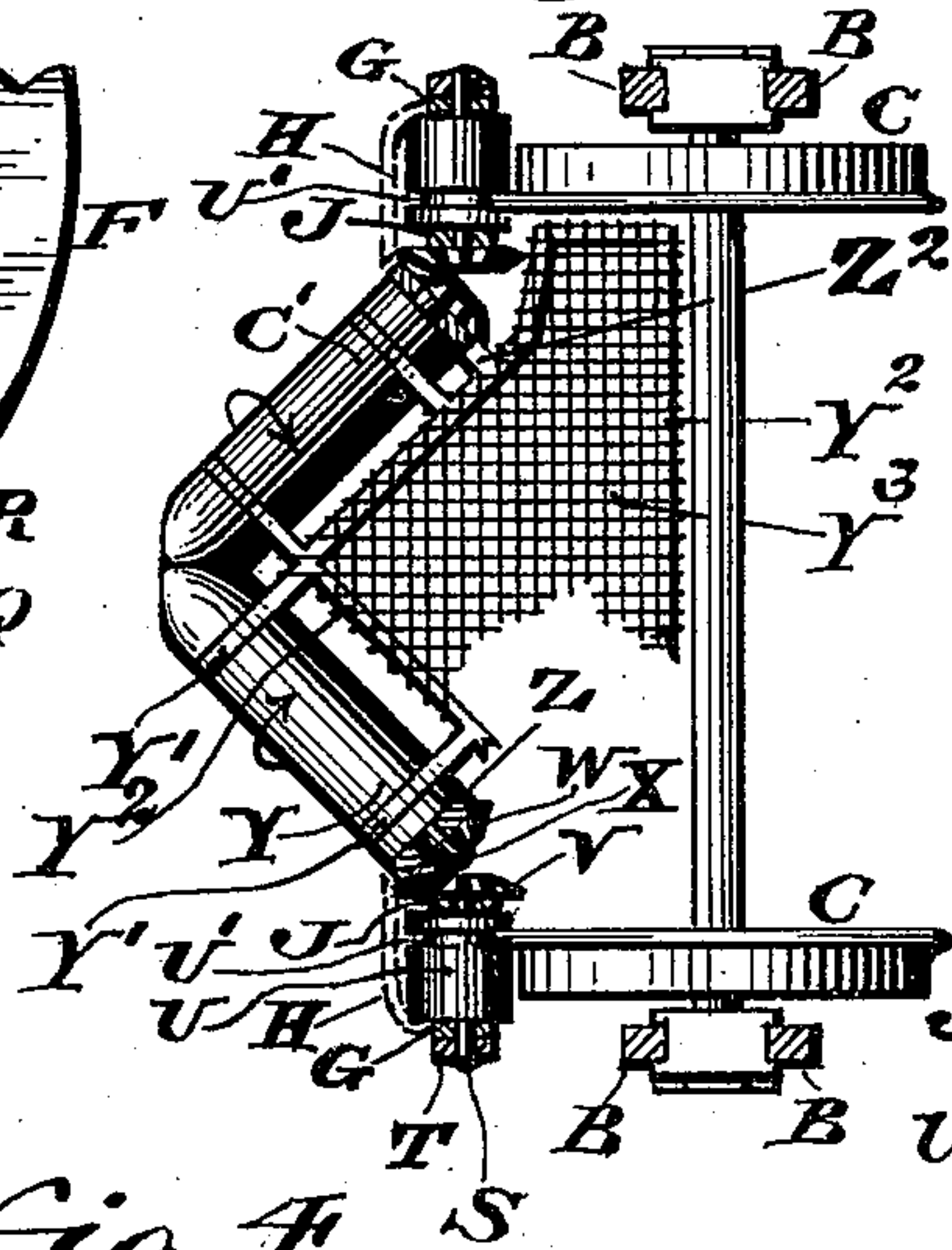
No. 574,551.

Patented Jan. 5, 1897.

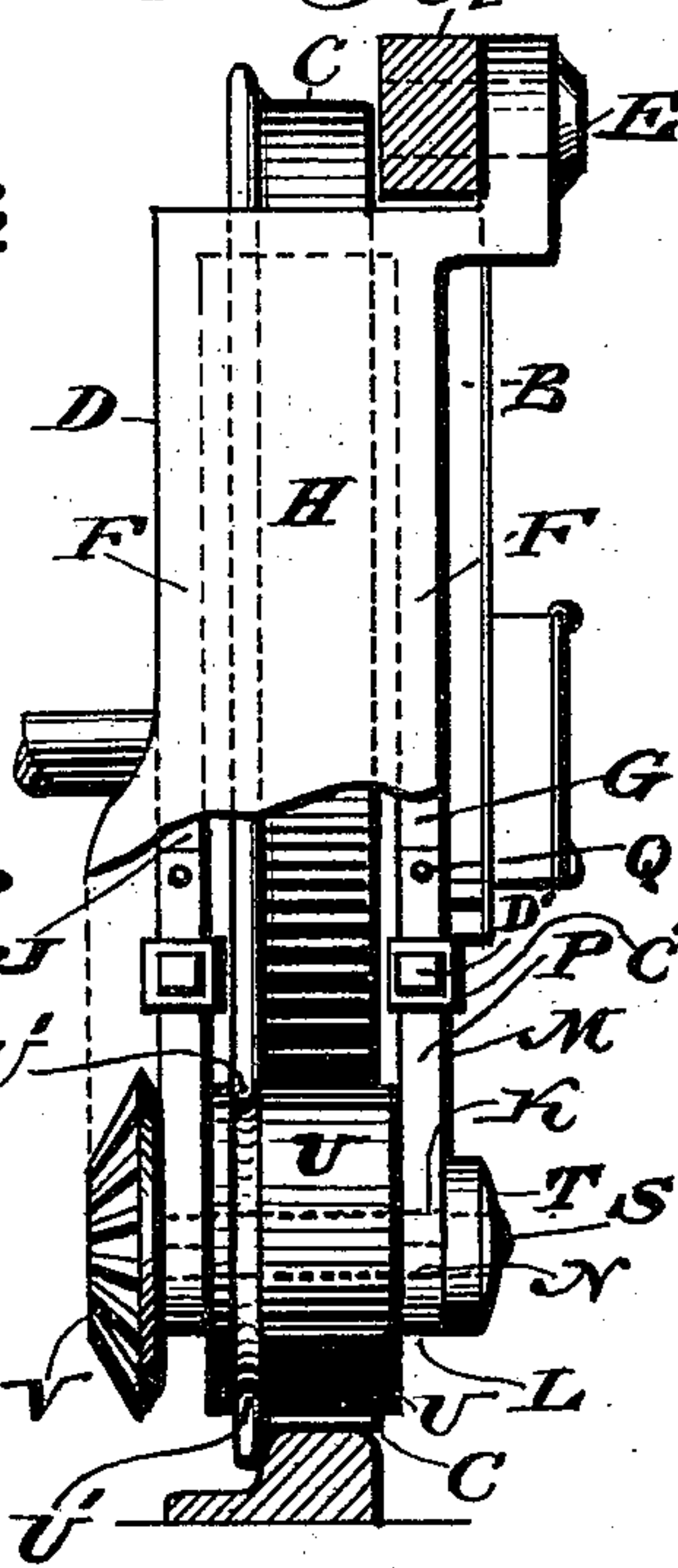
*fig. 1.*



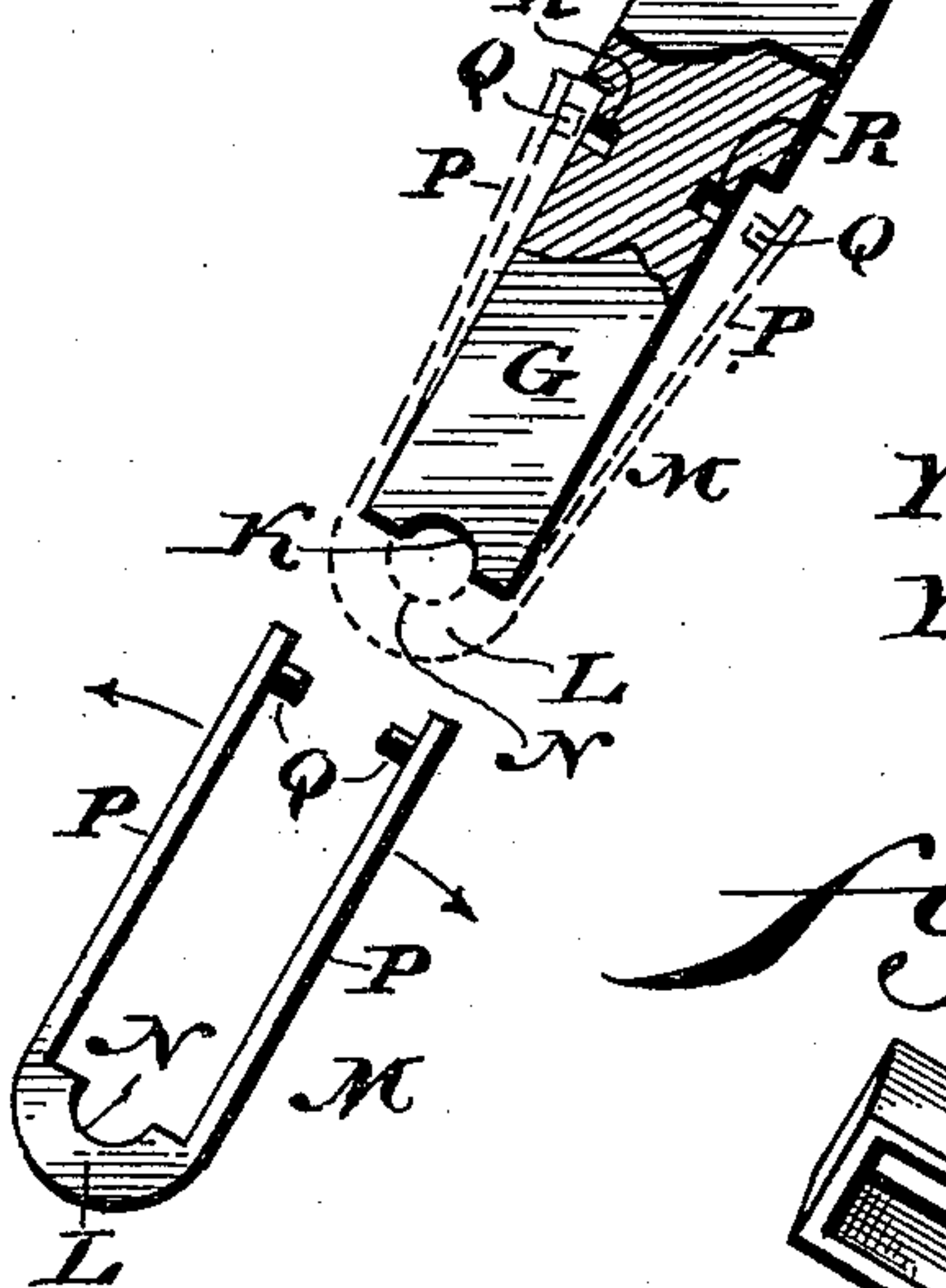
*fig. 2.*



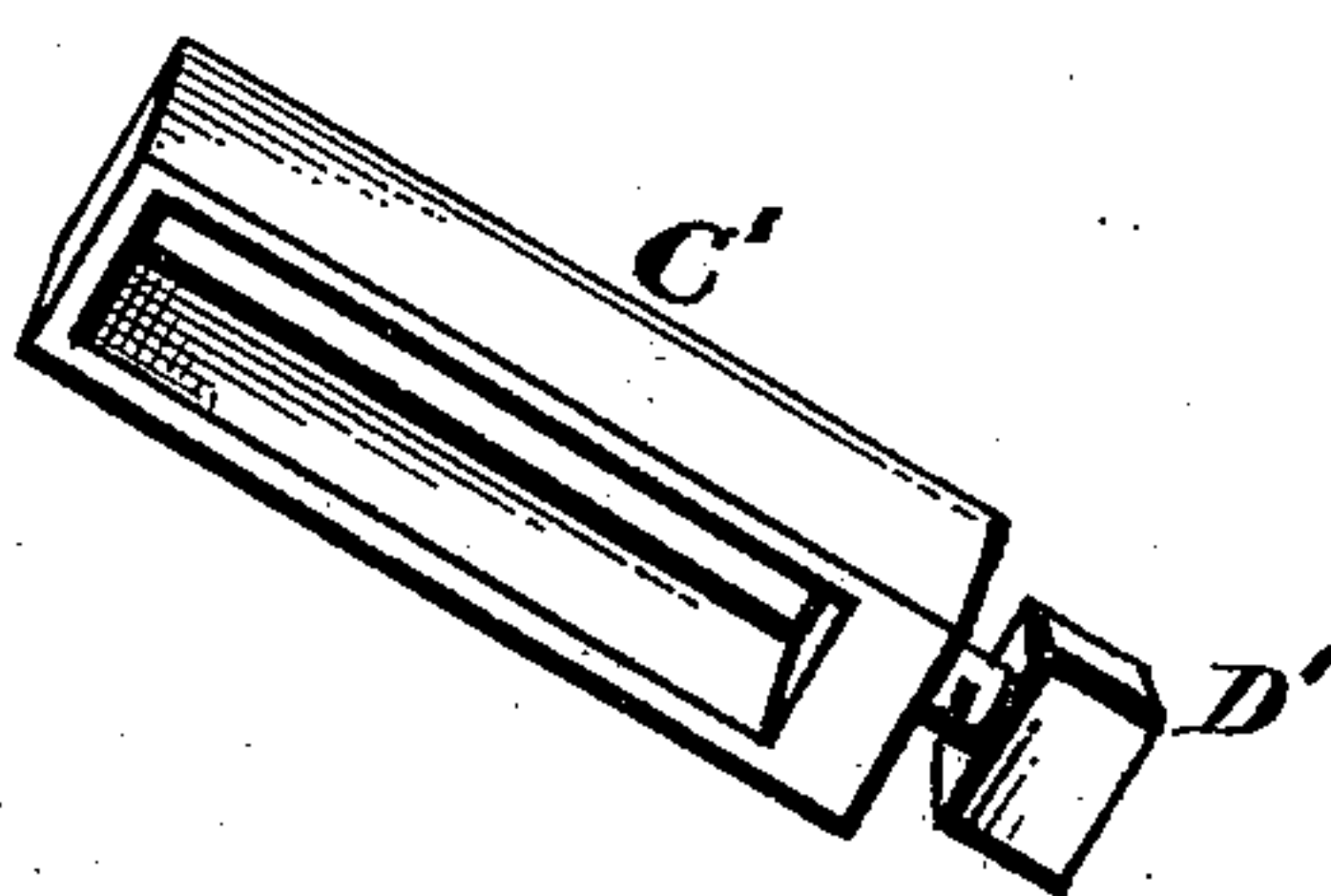
*fig. 5.*



*fig. 3.*



*fig. 4.*



WITNESSES:

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# UNITED STATES PATENT OFFICE.

WILLIAM LOREY, OF PHILADELPHIA, PENNSYLVANIA.

## CAR-FENDER.

SPECIFICATION forming part of Letters Patent No. 574,551, dated January 5, 1897.

Application filed April 9, 1896. Serial No. 586,819. (No model.)

*To all whom it may concern:*

Be it known that I, WILLIAM LOREY, a citizen of the United States, residing in the city and county of Philadelphia, State of Pennsylvania, have invented a new and useful Improvement in Car-Fenders, which improvement is fully set forth in the following specification and accompanying drawings.

My invention consists of a novel construction of car-fender in which provision is made for causing the person or object struck to either be thrown from the track out of the reach of the car-wheels or for causing the same to be received and carried upon a suitable netting or fender supported under the car, means being also provided for causing the proper parts of the fender to continuously rotate, as will be hereinafter explained.

It further consists of novel devices for assembling and locking the principal operative parts of the fender in position.

It further consists of novel details of construction, all as will be hereinafter set forth.

Figure 1 represents a side elevation of a car-fender embodying my invention and a portion of a truck-frame to which the same is applicable. Fig. 2 represents a plan and partial sectional view of Fig. 1, a portion of the car platform or body being removed and the section being taken on line  $x\ x$ , Fig. 1. Fig. 3 represents, on an enlarged scale, a detail view of a hanger and the supporting or locking device whereby the fender is held in position. Fig. 4 represents a perspective view of a clamping device employed. Fig. 5 represents, on an enlarged scale, a front elevation of a part of the fender seen in Fig. 1, a portion of the same being broken away.

Similar letters of reference indicate corresponding parts in the several figures.

Referring to the drawings, A designates a portion of the truck-frame of a car, and B designates a hanger in which the car-wheels C are mounted.

D designates a guard or shield for said wheels, which is also adapted to serve the function of a hanger, said shield being supported from the truck-frame A by means of the pin or bolt E and having the side portion F, from which depends the arm G, and the front portion or face H, which substantially covers the front of the car-wheels, as will be

evident from Figs. 1 and 5, whereby the object struck will be normally prevented from contacting with said wheels. 55

J designates an arm which depends from the shield D, adjacent the interior surface of the wheels, said arm J being in substantial alinement with the arm G.

K designates a portion of a bearing which is located near the extremity of the arm G, against which the portion N of the head L of the strap M is adapted to abut, said head L having therein the other half of the bearing, so that when the portions K and N are in juxtaposition a cylindrical bearing will be formed. 60 65

P designates arms attached to said head L, which have projecting inwardly therefrom the studs Q, which when the parts are in assembled position are adapted to engage the sockets R in the arm G, as will be evident from Fig. 3. 70

C' designates a slotted block which is adapted to be slipped upon the arm G before the parts are in the position seen in dotted lines, Fig. 3, after which said block C' is moved downwardly into the position seen in Figs. 1 and 5, where it is held in place by means of the set-screw D'. 75

S designates an axle or shaft which has its bearings in the arms G and J, it being understood that said arms are constructed substantially alike and are each provided with straps, &c., for said axle, which are of course in alinement. 80 85

T designates a head attached to said axle S, which is adapted to abut against the outer portion of the arm G and its strap.

U designates a wheel or roller having the groove U' therein, mounted on said axle S, which is adapted to be moved into contact with the car-wheel C when an object is struck, and thereby cause the axle S to rotate, as well as the bevel-gear V thereon, after its impact with said object. 90 95

W designates a bevel-gear adapted to mesh with said gear V, said gear W being mounted upon the shaft X, which has one end rotatably mounted in bearings Z, suitably supported at an angle to the line of movement of the car, said shaft having a roll Y mounted thereupon. The other end of the roll Y is of conical shape, and is supported by the arms Y' Y', which are attached to the frame Y<sup>2</sup>; 100



which carries the netting  $Y^3$ , said frame  $Y^2$  being supported by its attachment to the hangers  $Z$  through the arms  $Z^2$ , (seen at the upper portion of Fig. 2,) the above description  
 5 having been confined to one half or side of the fender, although it will be understood that the other half, comprising the roller  $C'$  and its adjuncts, is mounted, supported, and actuated in substantially the same manner as  
 10 has been already described.

The operation is as follows: The parts are seen in their normal positions in Figs. 1, 2, and 5, the manner of assembling being apparent, it is thought, from Fig. 3, the strap  $M$   
 15 when in desired position being held in place by the slotted block  $C'$ . The rollers  $U$  being normally in contact with the car-wheel  $C$ , it will be evident that the same must rotate in unison, and that their rotation will be im-  
 20 parted to the rolls  $Y$  and  $C'$ , whereupon it will be apparent that if an object is struck the tendency will be to either throw the same directly from the track, or if this should not take place, the object will be rolled upon the  
 25 netting  $Y^3$  in the direction indicated by the arrows in Figs. 1 and 2, and so prevented from serious injury by reason of the rotation of the rolls  $Y$  and  $C'$ .

The object struck will be prevented from  
 30 contacting with the forward portion of the wheels through the medium of the shield or guard  $H$ , it being thus apparent that provision is made for preventing injury to the same in any instance.

The parts can be readily dismantled or dis-  
 35 connected by loosening the set-screws  $D'$  and moving the block  $C'$  into the proper position, after which the straps  $M$  can be readily moved, thereby enabling the shafts or axles  $S$  and  
 40 their adjuncts to be withdrawn or replaced according to requirements.

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

45 1. In a car-fender, a shield supported in front of a running wheel of a car, a wheel on said shield adapted to contact with said running wheel, rolls carried by a frame, and mechanism intermediate said wheels and rolls

for rotating the latter, substantially as de- 50 scribed.

2. In a car-fender, a shield in front of the running wheel of a car, arms extending from said shield, a wheel and axle journaled in said arms and adapted to contact with said  
 55 running wheel, rolls suitably mounted, and mechanism intermediate the latter and said arms for rotating said rolls, substantially as described.

3. In a car-fender, the strap  $M$  having the  
 60 head  $L$ , and arms  $P$  provided with studs  $Q$ , in combination with an arm having sockets therein, and the recessed portion  $K$ , the latter being adapted to be placed in juxtaposi-  
 65 tion with a similar recessed portion  $N$  in the head  $L$ , and means for holding said strap in position, substantially as described.

4. A car-fender having hangers  $D$  provided with the portions  $F$  and  $H$ , the arms  $G$  de-  
 70 pending from said hangers, bearings therein, the axles  $S$  supported in said bearings, said axles having heads  $T$  and gears  $V$  mounted thereon, in combination with the gears  $W$  and the rolls  $Y$  and  $C'$  suitably supported, sub-  
 75 stantially as described.

5. In a car-fender, a stationary frame hav-  
 ing a netting and projecting arms at its front end, rolls journaled in said arms and having  
 80 conical abutting ends, bevel-wheels on the other ends of said rolls, swinging shields for the front running wheel of the car, having depending side arms, wheels journaled in said  
 85 arms and adapted to contact with said running wheels, and bevel gear-wheels on the shaft of said shield-wheels adapted to mesh with said bevel-wheels on the ends of the rolls, said parts being combined, substan-  
 tially as described.

6. In a car-fender, shields pivotally sup-  
 90 ported in front of the running wheels of a car, wheels rotatably mounted upon said shields, a frame and rolls thereon actuated by said running wheel, substantially as de-  
 scribed.

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Witnesses:

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