

(No Model.)

J. W. SWARTS.  
CAR FENDER.

No. 561,293.

Patented June 2, 1896.

Fig. 1.

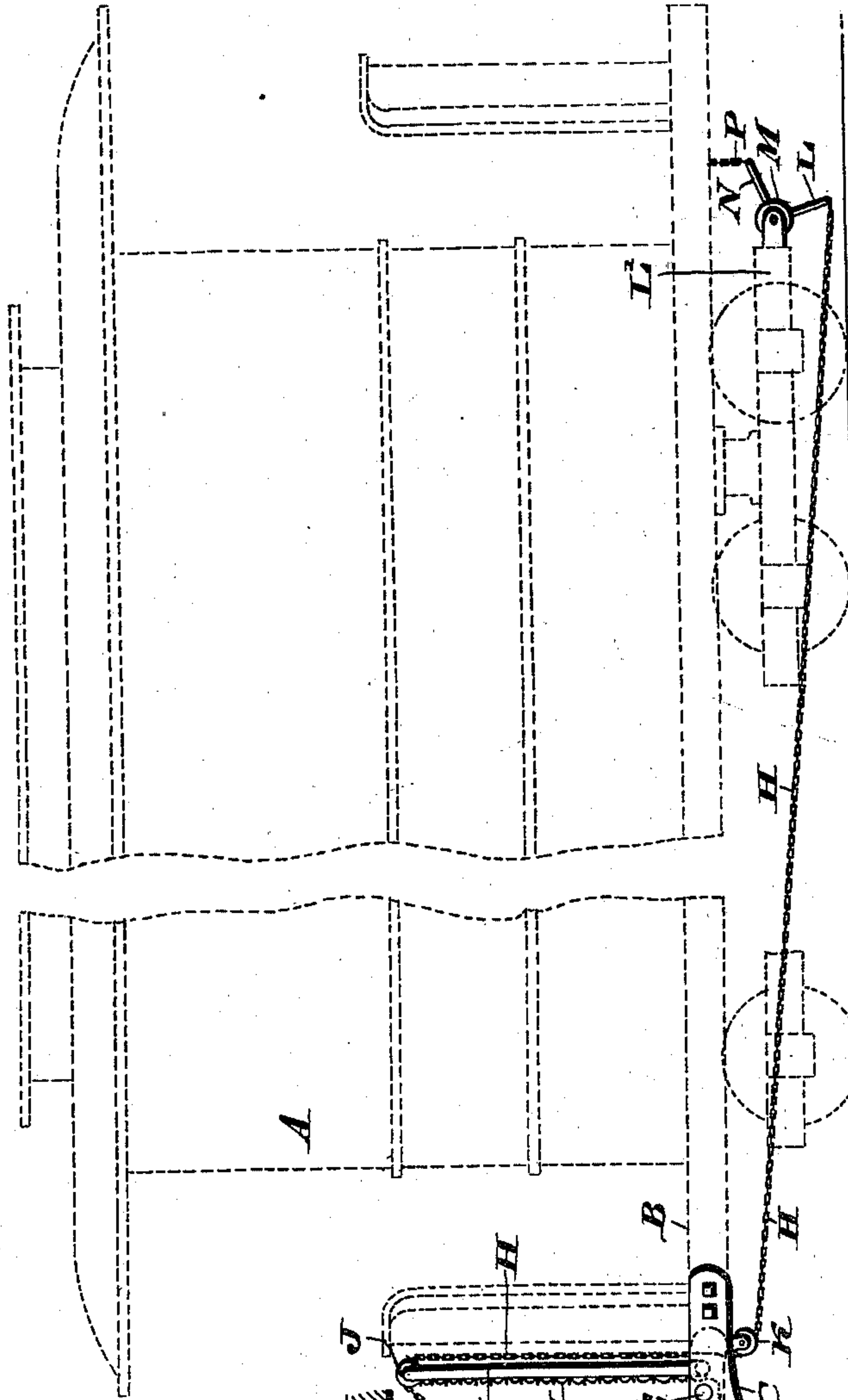
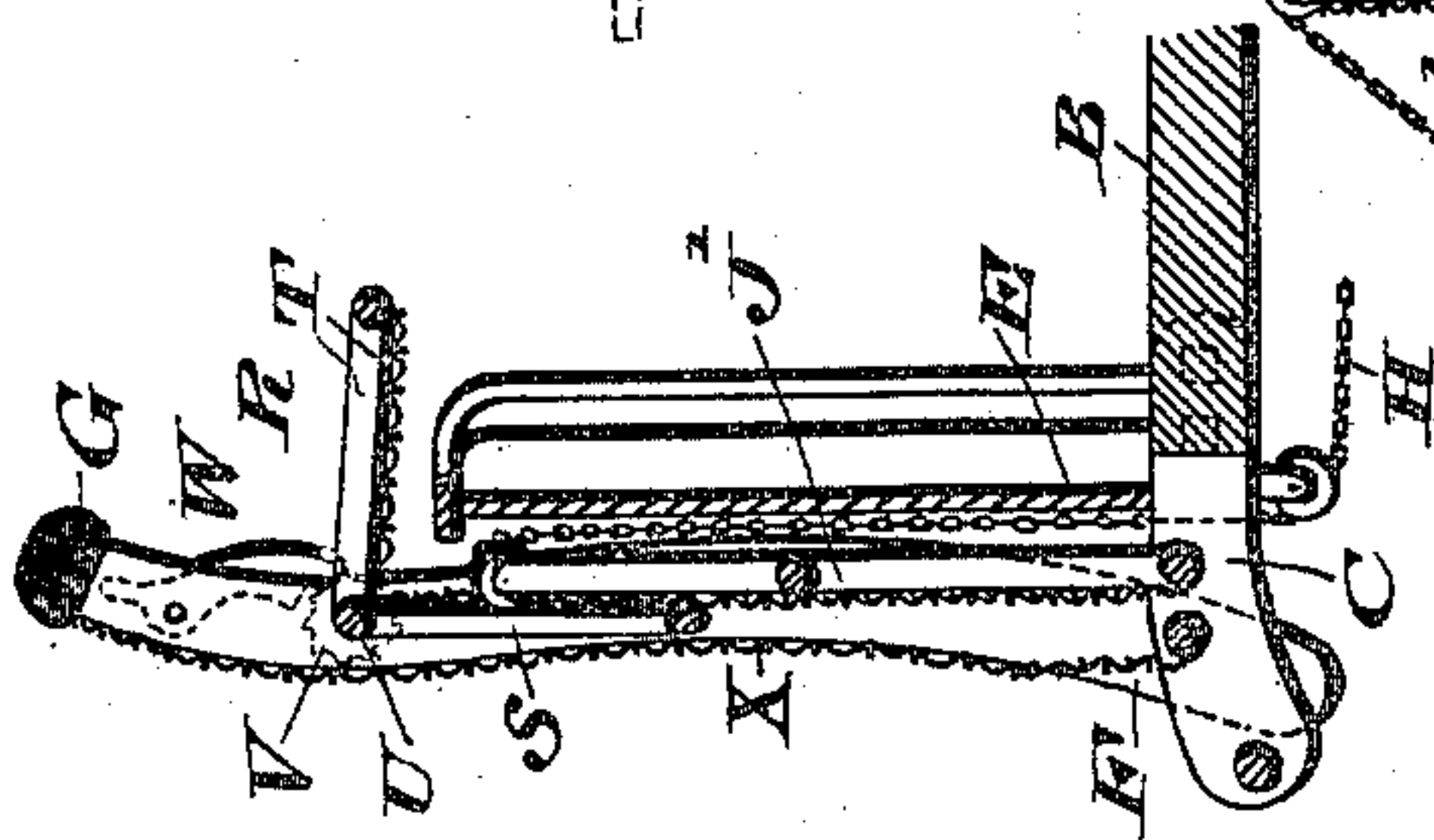


Fig. 2.



WITNESSES:

*P. H. Bagley.*

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Fig. 3.

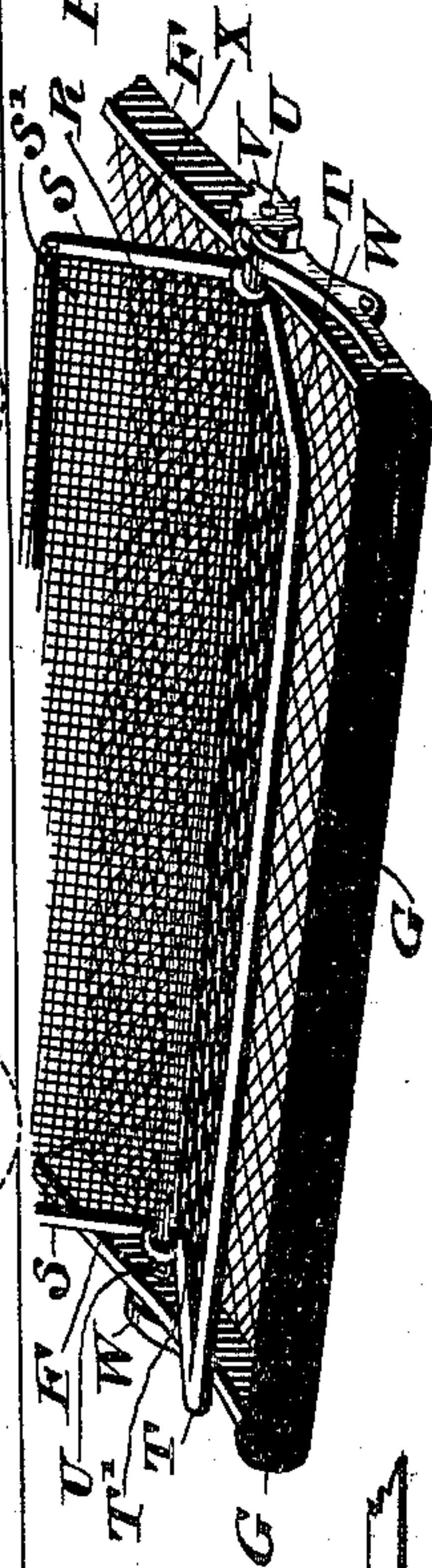
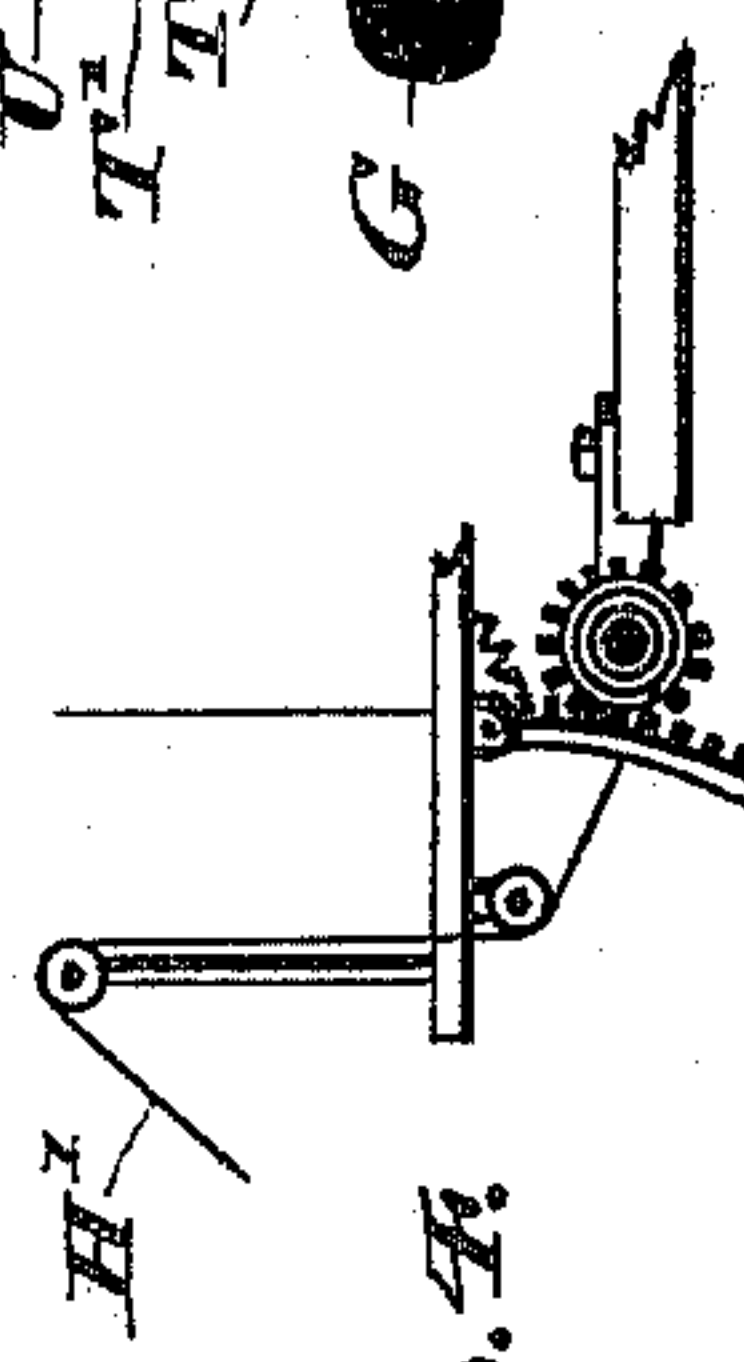


Fig. 4.



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# UNITED STATES PATENT OFFICE.

JOSEPH WILSON SWARTS, OF PHILADELPHIA, PENNSYLVANIA.

## CAR-FENDER.

SPECIFICATION forming part of Letters Patent No. 561,293, dated June 2, 1896.

Application filed August 31, 1895. Serial No. 561,082. (No model.)

*To all whom it may concern:*

Be it known that I, JOSEPH WILSON SWARTS, 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 a projecting frame is suitably attached to the body of a car, said frame having rotatably mounted thereon an angular or other shaped cradle or basket which is adapted to be rotated by the impact of the object struck, so as to form in conjunction with the fender proper a receptacle which will prevent the said object from rolling out of the fender upon the car-track, means being provided for locking said cradle or basket in position.

It further consists of novel means for causing the fender to be always sustained in a proper position relative to the track notwithstanding the vibration of the car.

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 car to which the same is applicable, the fender being shown in operative position. Fig. 2 represents a side elevation of the fender in folded or inoperative position. Fig. 3 represents a perspective view showing the movable basket or cradle in the act of rotation, and Fig. 4 represents a side elevation of a portion of a modification.

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

Referring to the drawings, A designates the body of the car, B the platform thereof, and C hangers, brackets, or arms attached thereto.

D designates a fender having a frame which is pivotally attached to said hangers at E, said frame consisting of the sides F, which are joined at their front portion by means of the cross-bar or buffer G.

H designates a chain or other connection which has one end attached to a suitable portion of the fender and is then passed over a pulley J, which is journaled in the upright

frame J', adjacent to the dashboard of the car, said chain being deflected under the pulley K and thence rearwardly, having its other end attached to the arm L of the rock-shaft or rod M, which is rotatably mounted in ears attached to the truck-frame L', the relative position of said arm L being insured by means of the connection of the chain P to the arm N, which is mounted on said rod M, whereby it will be seen that the rocking of the car will always cause the fender to sustain substantially the same relative position to the track, and the vibrations of the car will therefore not be imparted to the fender.

Q designates a cross-rod which is common to each of the arms C and upon which rests the frame of the fender when the same is in operative position, as indicated in Fig. 1.

R designates a basket or cradle employed, which in the present instance is of angular shape, and consists of the two members S and T, which are mounted upon the shaft or cross-rod U, which is suitably journaled in the sides F of the frame B.

V designates ratchet-wheels which are attached to said shaft U and which are engaged by the pawls W, which may be pivoted to the frames F, a suitable spring or weight being employed, if desired, to hold the nose of said pawls always in engagement with said ratchets. The members S and T are provided with suitable netting S' T', as is best seen in Fig. 3, in which the cradle R is shown in the act of rotating from the position seen in full lines, into the position seen in dotted lines in said figure.

X designates netting which is attached to a proper portion of the frame of the fender D, the same extending between the sides F.

Y designates netting which is mounted on the frame J'.

The operation is as follows: Referring first to Fig. 1, in which the parts are shown in operative position, when an object is struck the impact of the same against the portion S of the movable cradle R will cause the same to rotate until said portion S is in contact with the netting X, it being noticed that when the fender is in operative position the portion T is in contact with the netting X, and said portion S will stand at nearly a right angle thereto, as seen in Fig. 1. The impact of the



object struck having rotated the cradle R as stated, the portion T will be substantially at a right angle to said netting X, as indicated in dotted lines in Fig. 1, and the object struck  
 5 will be received in the cradle and thus be prevented from rolling out upon the track, the cradle R being shown in Fig. 3 in the act of moving from one extreme position to the other. When it is desired to fold up the  
 10 fender, the cradle R is rotated until the portion T is at a right angle substantially with the netting X, whereupon the frame can be readily turned upwardly into the position seen in Fig. 2, and there held by any suitable  
 15 means.

The cradle R is at all times held in its proper position by means of the pawls W, and in order to shift the same into the position seen in full lines in Fig. 1 it is only neces-  
 20 sary to elevate the nose of the pawls out of engagement with the ratchets, whereupon the said cradle may be made to assume the desired position.

In Fig. 4 I show a segmental rack attached  
 25 to the body of the car and a pinion mounted on the truck, said pinion meshing with said rack, so that as the car-body rises and falls the pinion is rotated by the rack, and the shaft of the pinion winds up or unwinds the  
 30 chain H', the operation then being similar to that hereinbefore set forth.

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

35 1. A fender having mounted thereon, the angular cradle R, which is formed of the members S and T united as one at the angle of the cradle and having a shaft at said angle connected therewith, and means directly on said

shaft and the frame of the fender for locking 40 said cradle.

2. The angular cradle T, the shaft U secured to said cradle at the angle of the cradle, the fender on whose frame said shaft is mounted, the ratchet-wheel V which is se- 45 cured directly to said shaft and the pawl W mounted on said frame, engaging said ratchet, substantially as described.

3. A car-fender consisting of the arms C, a cross-rod Q common thereto, the fender-frame 50 journaled in said arms and adapted to rest on said rod Q, the cross-bar or buffer G, a rod U mounted in said frame, ratchet-and-pawl mechanism for limiting the movement of said rod and the cradle R consisting of the frames 55 S and T mounted on said rod U, in combination with means for holding the fender always in the same relative position to the track, substantially as described.

4. In a car-fender, a pivoted fender, an 60 upright frame adapted to be secured to a car-body, and having a pulley at its upper end, a rock-shaft adapted to be journaled in a car-truck beneath said car-body, and provided with arms projecting at angles to each other, 65 a chain connected with said fender and passing upward over said pulley on said upright frame, and down around a pulley on the car-body, and then connected with one of said projecting arms, and a flexible connection 70 between the other projecting arm and said car-body, said parts being combined substantially as described.

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Witnesses:

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