

(No Model.)

W. PURLING.
CAR FENDER.

No. 551,231.

Patented Dec. 10, 1895.

Fig. 1.

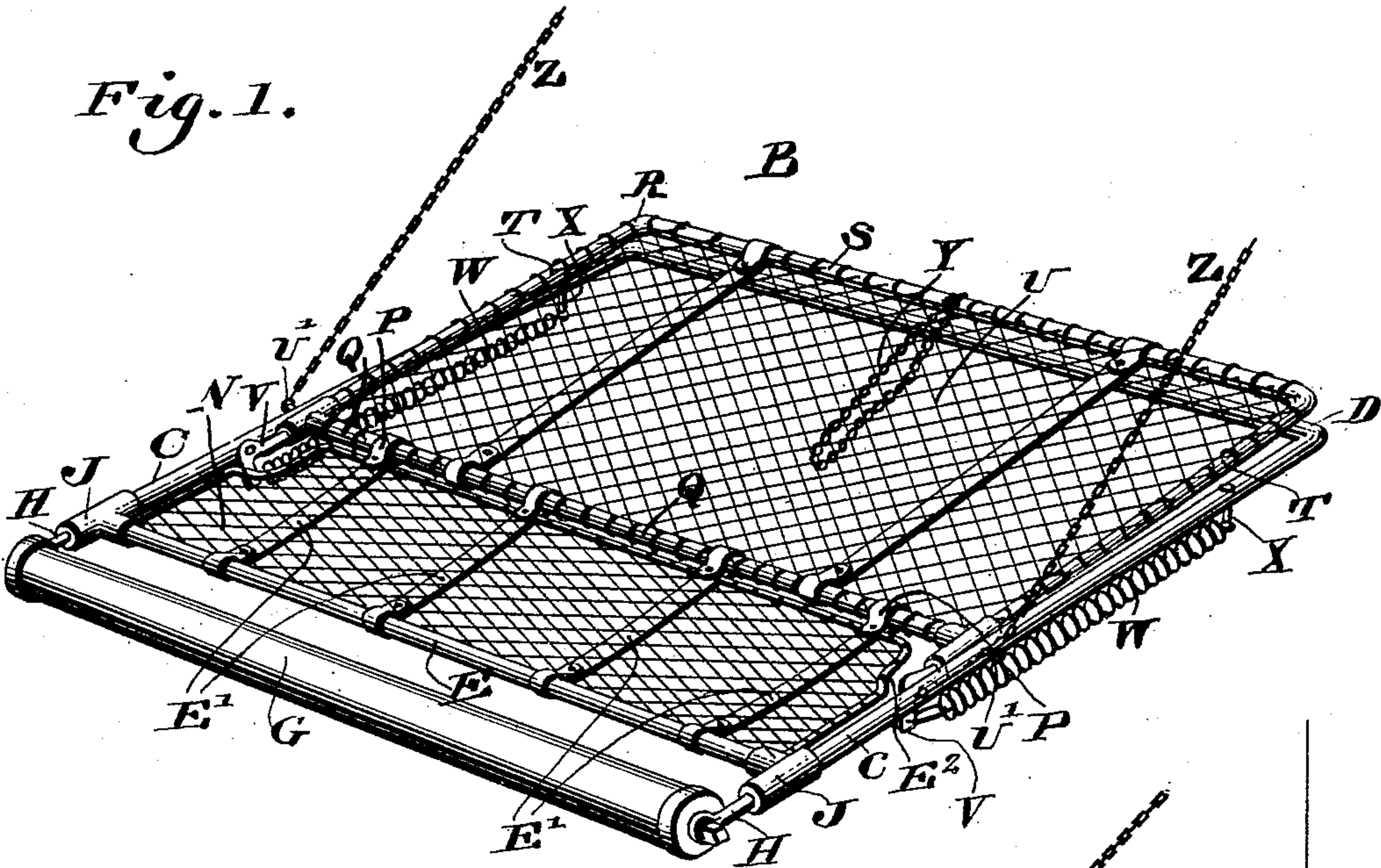


Fig. 2.

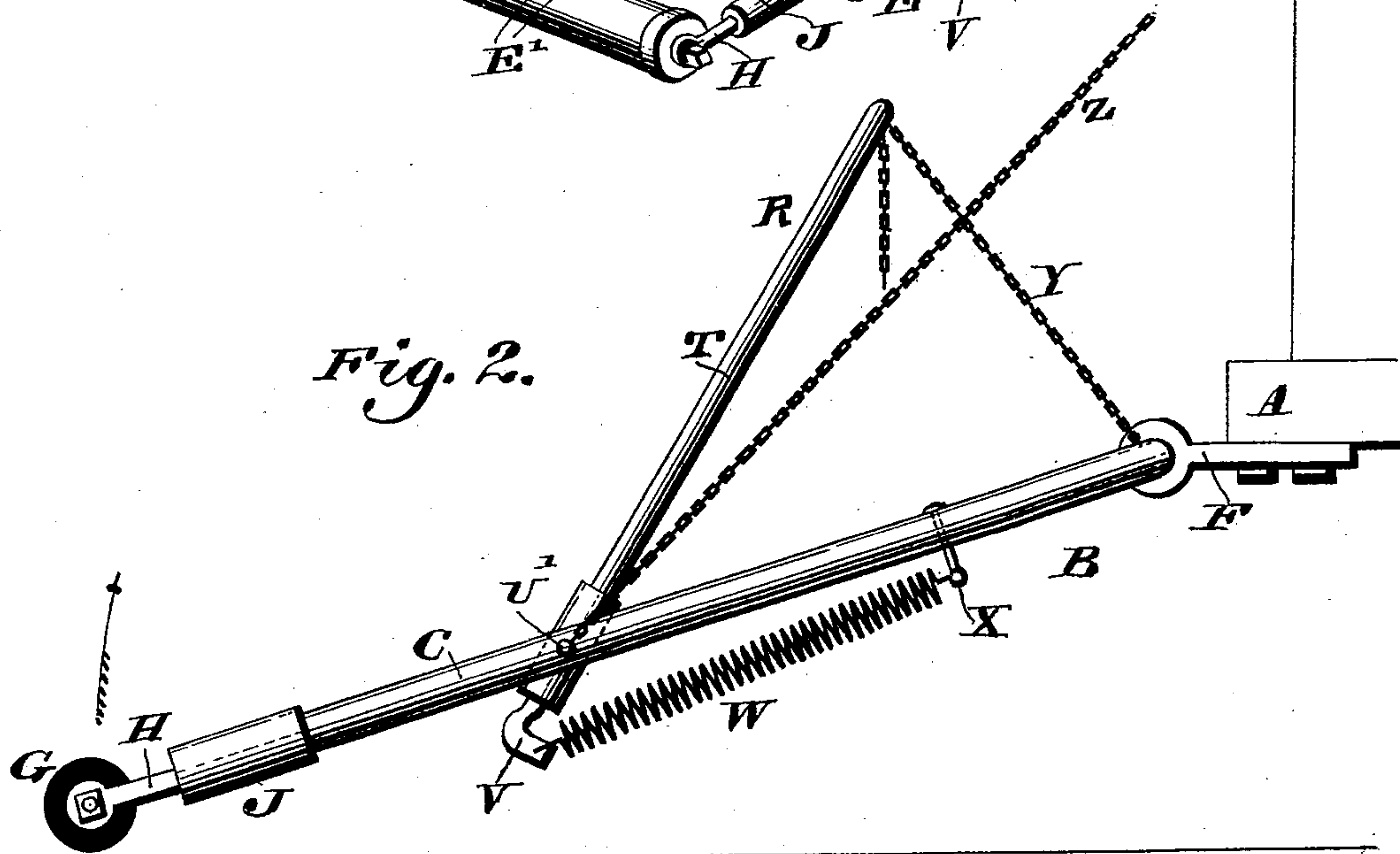
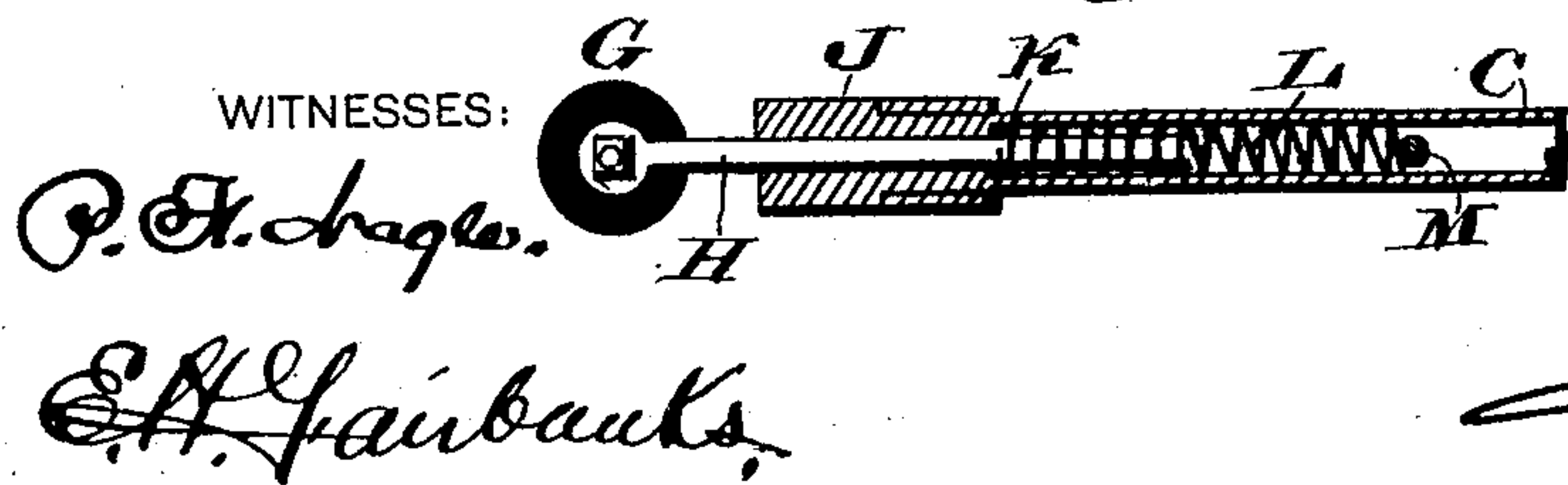


Fig. 3.



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CAR-FENDER.

SPECIFICATION forming part of Letters Patent No. 551,231, dated December 10, 1895.

Application filed August 31, 1895. Serial No. 561,074. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM PURLING, a subject of the Emperor of Germany, (having resided one year last past in the United States and declared my intention of becoming a citizen thereof,) 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 picking up the object or thing struck, and thus preventing it from serious injury, means being also provided for enabling the fender to be readily folded up when economy of space is desired, and provision being also made for applying the same to existing cars without necessitating any change in the construction thereof.

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

Figure 1 represents a perspective view of a car-fender embodying my invention, showing the position the parts assume after an object has been struck. Fig. 2 represents a side elevation of the same and a portion of a car-body to which it is applicable, showing especially the position the fender assumes before an object is struck. Fig. 3 represents a vertical section through one of the arms which carry the rods to which the buffer is attached, showing particularly the means for giving a yielding movement to said buffer.

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

Referring to the drawings, A designates a portion of a car-body to which the fender B is attached, the same consisting of the sides C and the front and rear cross-rods D and E, said fender being rotatably mounted in the arms or brackets F, which may be secured to the car-body in any convenient manner.

G designates a buffer which may consist of a suitable rubber hose or tubing, the same having attached to each end thereof an arm H, which is adapted to work in an extension J of said sides C, the latter being hollow and provided with a pin M therein, which acts as a stop for the spring L, one end of said spring

abutting against said pin, while its other end is in contact with a shoulder K on the rod H, whereby it will be seen that the buffer G will normally be held in forward position; but in case an object is struck it will yield somewhat by reason of the tension of the spring L, as will be understood from Fig. 3.

N designates netting which is mounted upon the front cross-rod E and is supported by the bars E' and the frame E², said bars having attached to the rear end thereof suitable ears or straps P, in which is mounted the cross-rod Q of the frame R, the latter consisting of the rear cross-rod S and the side portions T, said frame R being provided with suitable netting U.

V designates arms or hooks which are attached to said sides T and each of which in the present instance projects downwardly and has attached thereto an end of the spring W, the other end of the latter being attached to the pin X, which is secured in any suitable manner to the sides C of the frame B. The frame R is also mounted by the journals or pins U' on the frame B, whereby it will be seen that a rotary or oscillating movement may be imparted to the former.

Y designates a chain or other connection which has one end attached to the frame B, while its other end is secured to the frame R, thereby limiting the upward movement of the latter, as will be understood from Fig. 2.

Z designates chains which extend from a suitable portion of the fender or frame B to the dashboard of the car, said chains being capable of being operated by the motorman, so as to raise or lower the fender relative to the track, as desired.

The operation is as follows: The parts in their normal position are as seen in Fig. 2, the frame R being inclined by reason of the springs W at an angle to the frame B. If now an object is struck, its impact with the buffer G will cause the same to move rearwardly to a slight extent, thus preventing any serious shock, and the object will fall backward and be caught in the netting N, and at the same time be thrown rearwardly upon the netting U and the frame R, which latter will then assume substantially the position seen in Fig. 1, by reason of the resiliency of

the springs W, the object struck being thus caught up and carried along without serious injury. The object being removed, the fender will assume the position seen in Fig. 2, by reason of the springs W, in which it is shown ready for operation.

When economy of space is desired, the frame R can be pressed down upon the frame B into substantially the position seen in Fig. 1, in which position the fender can be readily folded up or transported, as is evident.

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

1. A car fender consisting of side pieces, a front cross rod joining the same, a buffer having a yielding connection with the front portion of the fender, front and rear frames provided with netting, said rear frame being pivotally mounted adjacent to said front frame, which latter is connected with said front cross rod, arms projecting beyond the pivotal point of said rear frame, and springs each having one end attached to a suitable fixed point, and their other ends to said arms, whereby the rear frame of the fender is normally held in inclined position, substantially as described.

2. A car fender consisting of the side pieces C, and the front cross rod E, the buffer G suitably mounted upon the fender, the frame R, having the cross rod Q, and pivotally mounted in said sides C, the frame E², connected with said cross rods E and Q, a portion of said frame R having arms extending beyond its pivotal attachment, the springs W having one of their ends attached to said arms, and their other ends to a suitable fixed

point, the chain Y, common to said frame R and the sides C, and means for supporting the fender in position, said parts being combined substantially as described.

3. A car fender consisting of the frame B, suitably attached to the car, said frame having the front and rear cross rods E and D, and the sides C, the buffer G mounted on the arms H, the latter having the shoulders K, the pins M, the springs L intermediate said shoulders and pins, the netting N, supporting devices therefor, the frame R consisting of the cross rods Q and S, and the sides T, the netting U therefor, the journals U' and the straps P on which said frame R is rotatably mounted, the chain Y, springs W having an end of each attached to a suitable portion of said frames B and R, and the chains Z for supporting the above, substantially as described.

4. A car fender consisting of the frame B suitably attached to a car, the forward portion of said frame having a netting secured thereto, and the rear portion of said frame being open, a yielding buffer mounted in the forward portion of said frame B, the frame R pivotally mounted on said frame B over the open portion of the latter, arms V attached to said frame, springs extending from said arms to a fixed point, and means for holding said frame R normally in an inclined position, substantially as described.

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Witnesses:

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