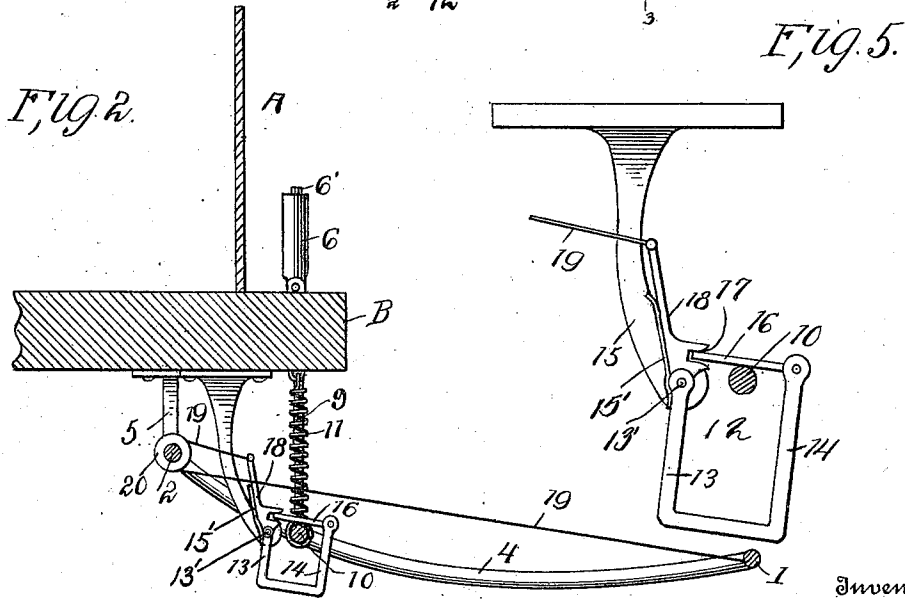
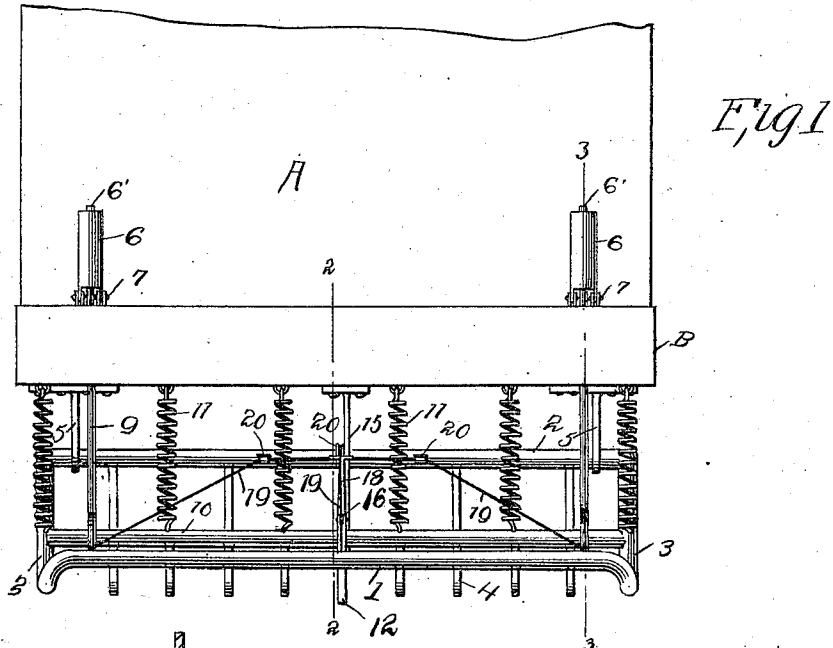


L. E. SULZER.
 OAR FENDER.
 APPLICATION FILED JUNE 21, 1910.

984,865.

Patented Feb. 21, 1911.

2 SHEETS—SHEET 1.



Witnesses
 William Smith

James M. Corde

L. E. Sulzer.

By *Victor J. Evans*

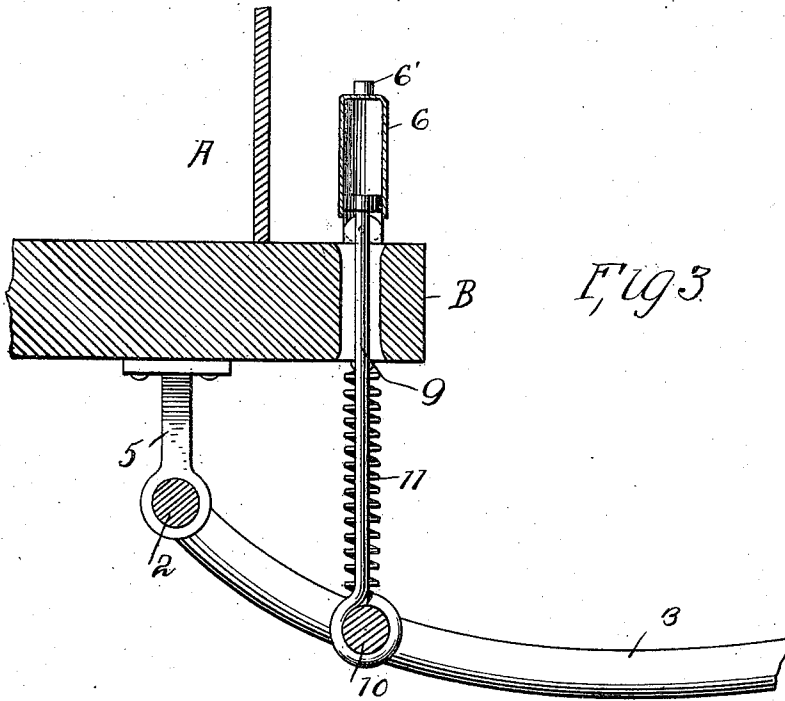
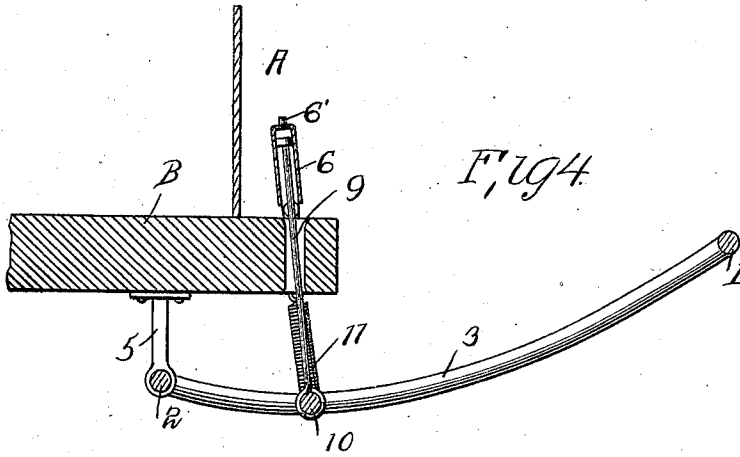
Attorney

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2 SHEETS—SHEET 2.



Inventor

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Witnesses

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UNITED STATES PATENT OFFICE.

LEO E. SULZER, OF CHILLICOTHE, OHIO.

CAR-FENDER.

984,865.

Specification of Letters Patent. Patented Feb. 21, 1911.

Application filed June 21, 1910. Serial No. 568,123.

To all whom it may concern:

Be it known that I, LEO E. SULZER, a citizen of the United States of America, residing at Chillicothe, in the county of Ross and State of Ohio, have invented new and useful Improvements in Car-Fenders, of which the following is a specification.

This invention relates to car fenders and particularly to those of the pivoted type, the object of the invention being to provide means for holding the fender normally downwardly to the extent of its movement and to provide automatically controlled means when weight is applied to the fender for releasing the same and for causing it to move upwardly carrying the object to a point of safety.

In the drawings, forming a portion of this specification and in which like numerals of reference indicate similar parts in the several views:—Figure 1 is a front elevation of my improved fender. Fig. 2 is a detail section taken on the line 2—2 of Fig. 1. Fig. 3 is a detail section taken on the line 3—3 of Fig. 1. Fig. 4 is a view similar to Fig. 3 but showing the fender in its elevated position. Fig. 5 is a detail view of the trip mechanism.

The fender consists of a basket-like member having a front bar 1, a rear bar 2, side bars 3 and slats 4. Any suitable number of slats may be provided, but as illustrated, such slats are connected at their rear ends to the bar 2 and at their front ends to the bar 1. These slats are curved downwardly and outwardly and then upwardly from the rear bar 2 forming a curved bottom-like structure for the fender as will be understood. The rear bar 2 is pivoted in suitable brackets 5 which depend from the bottom of the car A at a point directly at the rear of the bumper B.

The bumper has mounted thereon near its ends a pair of dash-pots 6 which are hingedly connected to their supporting base members 7. Reciprocatory pistons 8 operate in the cylinders, and as shown, such pistons are provided with rods 9 whose lower ends are pivotally connected with the cross bar 10 of the fender. A suitable number of extensible springs 11 have their upper ends connected with the bumper B and their lower ends connected with the bar 10 of the fender, the springs serving to move the same upwardly.

A trip or retaining mechanism is employed for holding the fender downwardly

against the tension of the springs 11. This mechanism consists of a yoke-like member 12 having spaced arms 13 and 14. The arm 13 is supported by and pivoted to the bracket 15 which depends from the bumper B. The arm 14 is provided with a pivoted finger 16 which is engaged in the recess 17 of the dog 18. The pivot 13' which connects the arm 13 with the bracket also pivotally supports the dog. This dog is engaged by a leaf spring 15' on the member 12 and held thereby to normally close against the finger 16. A series of actuating connections 19 have their rear terminals connected with the dog 18, and as shown, such connections are mounted to travel over suitable pulleys 20 on the rear bar 2 of the fender and the forward ends of the connections are secured to the front bar 1 of the fender.

The construction of the trip or retaining mechanism described is such that the bar 10 of the fender may be placed between the arms 13 and 14 and against the pivoted finger 16 of such mechanism to hold the fender normally against the tension of the springs 11. When pressure or weight is applied to the fender, as for instance, when it collects an object, the fender will be moved downwardly to a slight extent and the weight of the object contacting with the connections 19 will be such as to cause the dog 18 of the retaining mechanism to be released from the finger 16. Under the action of the springs 11 the finger 16 will then be moved to an open position and the fender will be elevated to assume the position shown in Fig. 4 of the drawings.

From the construction shown and described it will be seen that immediately after an object has been collected by the fender it will be moved to a point of safety above the surface of the ground and away from the car wheels. The dash-pots 6 will act to retard the upward movement of the fender on release of the retaining mechanism thereby preventing such sudden movement as would tend to throw the object from the fender. At the top of the dash-pots are located suitable air-vent valves 6'.

I claim:—

1. In a car fender, a pivoted basket, spring means yieldingly supporting the basket, a member pivotally supported by the car and engaging the basket to hold the same normally against movement under action of the spring means, a dog engaging the said mov-

able member to hold the same operatively associated with the basket, and dog-releasing mechanism embodying a flexible actuating element extending across the basket and
5 operatively connecting the basket with the dog so that when weight is applied to the element the dog will be released from the said movable basket-engaging member.

2. A car fender comprising a basket pivotally supported by the car and extending forwardly therefrom, spring means connecting the car with the basket and operating to hold the basket normally in an elevated position, a bracket depending from the car, a movable member carried by the bracket and engaging the basket to hold the same normally at the downward limit of its movement against the tension of the spring means, a dog engaging the said movable
15 member to hold the same normally against pivotal movement, and releasing mechanism operatively connecting the basket with the dog so that when weight is applied to the basket and to the releasing mechanism the
25 dog will be released from the said movable member to permit the basket to move upwardly under the tension of the spring means.

3. A fender for cars comprising a basket
30 pivotally supported upon the car, a dash-

pot operatively connecting the car with the basket to retard the movement of the basket in one direction, spring means operating to hold the basket normally in an elevated position, movable means supported by the
35 car and operating to hold the basket normally against the tension of the said spring means, and releasing mechanism operating to release the said movable means from the basket to permit the basket to move up-
40 wardly under tension of the spring means when weight is applied to the releasing mechanism.

4. The combination with a movable fender, means for holding the same against
45 movement, means for tripping the holding means to release the fender, and mechanism for retarding the upward movement of the fender.

5. The combination with a fender, means
50 for moving said fender, holding devices, mechanism for releasing the holding devices, and pneumatic means for retarding the movement of the fender.

In testimony whereof I affix my signature in presence of two witnesses.

LEO E. SULZER.

Witnesses:

JOSEPH L. SULZER,
JOHN REIHERT.