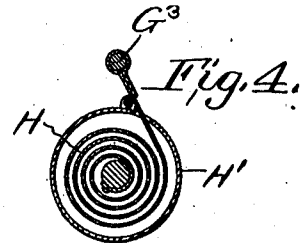
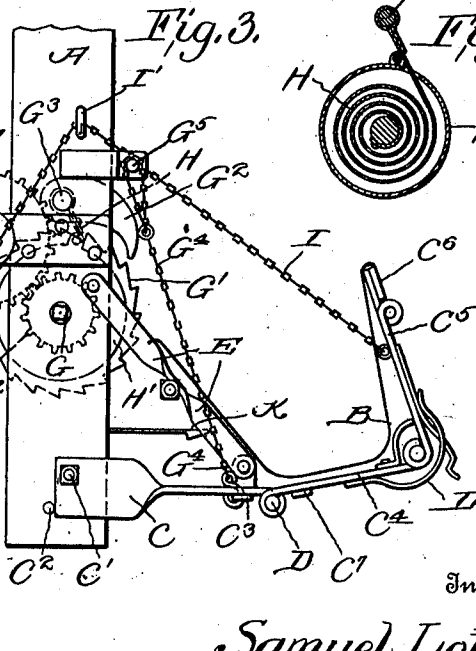
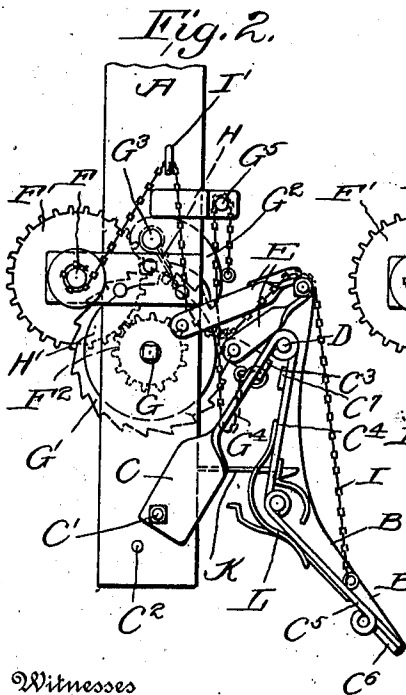
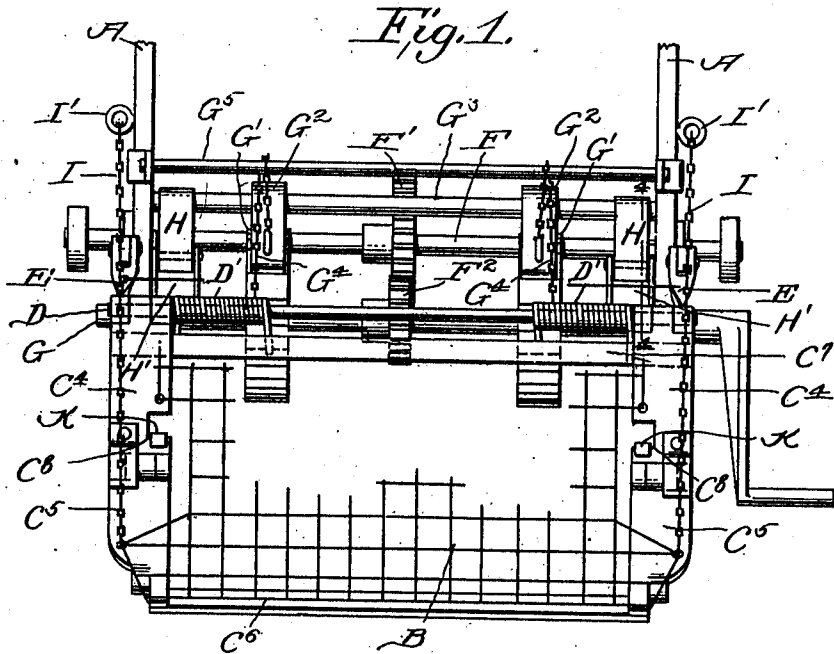


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CAR FENDER.
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CAR-FENDER.

970,699.

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To all whom it may concern:

Be it known that we, GEORGE FREY and SAMUEL LOTZ, citizens of the United States, at present residing at Steelton and Harrisburg, respectively, in the county of Dauphin and State of Pennsylvania, have invented a new and useful Improvement in Car-Fenders, of which the following is a specification.

This invention relates generally to car fenders, and more particularly to one which has for its object not only to prevent the person being struck by the car but also to pick up the said person and safely hold him in the fender net, thereby preventing all danger of rolling out of the fender, as has frequently occurred.

Another object of the invention is to provide a fender of this kind which can be quickly and easily set in position and which will act immediately the moment an object is struck.

With these objects in view our invention consists essentially in providing a frame constructed of foldable sections having a fender net connected thereto, together with means for normally holding the fender in its lowered position, together with means for releasing the locking mechanism and spring actuated elevating and folding means for raising and folding the fender, after it has been projected forwardly and downwardly.

The invention consists also in certain details of construction and novelties of combination, all of which will be fully described hereinafter and pointed out in the claims.

In the drawings forming a part of this specification: Figure 1 is a front elevation showing the fender in its normal position. Fig. 2 is a side elevation of the same, Fig. 3 is a side elevation showing the position the parts assume when the fender is tripped, and Fig. 4 is a detail section on the line 4-4 of Fig. 1.

Our invention, though particularly adapted for street cars, can be used upon automobiles, motor-trucks and similar vehicles.

In carrying out our invention we employ two standards A, which are securely fixed to the forward end of the car or other vehicle, and to these standards are connected all the other parts of our device. The fender net B is connected to a frame which comprises the horizontal arms C, pivotally connected to the standards A at C', and limited in their downward and outward

movements by means of the stops C², these arms C being connected by means of a cross-beam C³. Arms C⁴ are hinged to the arms C and extensions C⁵ are hinged to the forward ends of the arms C⁴, and the forward ends of the extensions C⁵ are connected by means of a cross-piece C⁶, and these various arms, extensions and cross-pieces constitute a sectional foldable frame to which the fender-net B is attached in any suitable manner. A hinge rod D extends entirely across the frame and forms the pivotal connection between the arms C and C⁴, and surrounding said hinge rod are the coiled springs D', one end of each spring bearing upon the cross-piece C³ and the other end of each spring against the cross-piece C⁷, the purpose of which spring will appear hereinafter.

Hinged braces E connect the arms C and the standards A and limit downward movement of the fender and support the same when in its tripped position as shown in Fig. 3. A shaft F is mounted in suitable bearings at the rear of the standards A and carries a gear F' which is adapted to mesh with a pinion F² which pinion is mounted upon a shaft G journaled in the standards and carrying ratchets G' which are adapted to be engaged by pawls G², said pawls being mounted upon a bar G³ and arranged to be lifted by means of chains G⁴ connected to the pawls and to the fender frame, said chains passing around a rod G⁵, said rod being supported upon the standards A. The shaft G has two convolute springs H connected thereto, said springs being arranged in suitable cases H' the outer ends of said springs being fixed to the rod or bar G³ which also serves to carry the pawls. Elevating chains I are connected to the sides of the fender frame, and pass upwardly through eyes or loops I' attached to the standards, and at their upper ends are wound around the extended ends of the shaft F, said shaft, it will be remembered, being operated by the spring actuated shaft G through the medium of the gear and pinion.

The spring actuated shaft is normally held locked by the pawls engaging the ratchets, but when the fender is struck, the arms C are lowered which operation raises the pawls out of engagement with the ratchets and the springs being free to act rotate the shaft G which in turn drives the shaft F and winds up the chains I, said ac-

tion serving to not only lift the fender, but also to fold up the front or extended portion thereof so that the person struck is caught and held in the fender when so folded.

In order to hold the fender in its normal or lowered position I employ two spring catches K and in folding the arms E are forced outwardly and the arms C raised. The arms C⁴ are then turned down against the tension of the springs D', and this movement is continued until the noses of the spring catches K engage the notched portions C⁸ of the arms C⁴, and when this engagement is had the forward end of the fender can be freely dropped and hang in such position inasmuch as springs L attached to the under side of the arm C⁴ will serve to support the said forward end of the fender. Power is applied to the shaft G through the medium of a suitable crank and after it has once been wound the pawls engaging the ratchets will hold the said parts locked in their proper positions.

When the fender is in this position, the lower end of it will come in contact with any object which may be in front thereof and such forceful contact will force the frame downward sufficiently to release it from the spring catches, and the moment the frame is so released, the force of the springs D' will immediately act upon the fender to project the forward end forwardly and upwardly so as to pass completely under the object struck, and during this downward movement of the frame, the chains will operate to lift the pawls, and these being lifted the spring actuated shaft will immediately act upon the chains connected to the outer ends of the fender and the winding action of the chains will lift the forward end of the fender so as to not only pick up the object but to hold it therein in such a manner as to prevent all possible chance of falling or working out of the fender after it has once been operated. After the fender has served to pick up and carry the person, it can be quickly and easily brought back to its normal position, and the spring shaft rewound ready for another operation.

Having thus fully described our invention, what we claim as new and desire to secure by Letters Patent, is:

1. A car fender comprising a sectional frame having a net or fabric connected thereto, means for holding said frame and net in a downwardly projected position, together with means for releasing the fender, projecting the lower end forwardly and upwardly and then folding the said

frame and net to envelop the object struck, substantially as described.

2. In a street car fender, the combination with a sectional foldable frame having a net or fabric connected thereto, means for holding said frame and net in its normal position, spring actuated means for projecting the said frame forwardly and upwardly when released, together with spring actuated winding means for raising the frame and net, substantially as described.

3. In a car fender, the combination with a sectional foldable frame, of a spring actuated shaft, means for locking said shaft and means connecting the foldable frame with the said locking means whereby when the fender is tripped the locking means will be released and the spring actuated shaft will cause the said fender to be raised and folded, substantially as described.

4. In a car fender, the combination with a spring actuated shaft, and means for locking the same, of a sectional foldable frame having a fender net connected thereto, means for locking said frame in its normal position, spring actuated means carried by said frame for projecting it forwardly and upwardly upon its release, together with means connecting the said frame with the shaft locking means whereby when the fender is dropped the shaft will be released for the purpose of raising and folding the fender, as described.

5. In a car fender, the combination with a sectional foldable frame having a fender net connected thereto, catches for holding the said frame in its normal position, a spring actuated shaft provided with means for locking the same, connections between the fender frame and locking means for the purpose of releasing said means, chains connecting the frame and spring actuated shaft whereby the fender is raised and folded for the purpose of picking up and holding the object struck, as set forth.

6. A car fender comprising a foldable sectional frame adapted to be supported in front of an object and normally held in such position, spring actuated means for holding said frame in such position, and spring actuated means for projecting the said fender frame forwardly and upwardly when released, together with means for elevating and folding the said frame, and fender, substantially as described.

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