C. L. & R. W. SHARP.

CAR FENDER.

APPLICATION FILED OCT. 11, 1909.

948,640.

Patented Feb. 8, 1910.

2 SHEETS—SHEET 1.

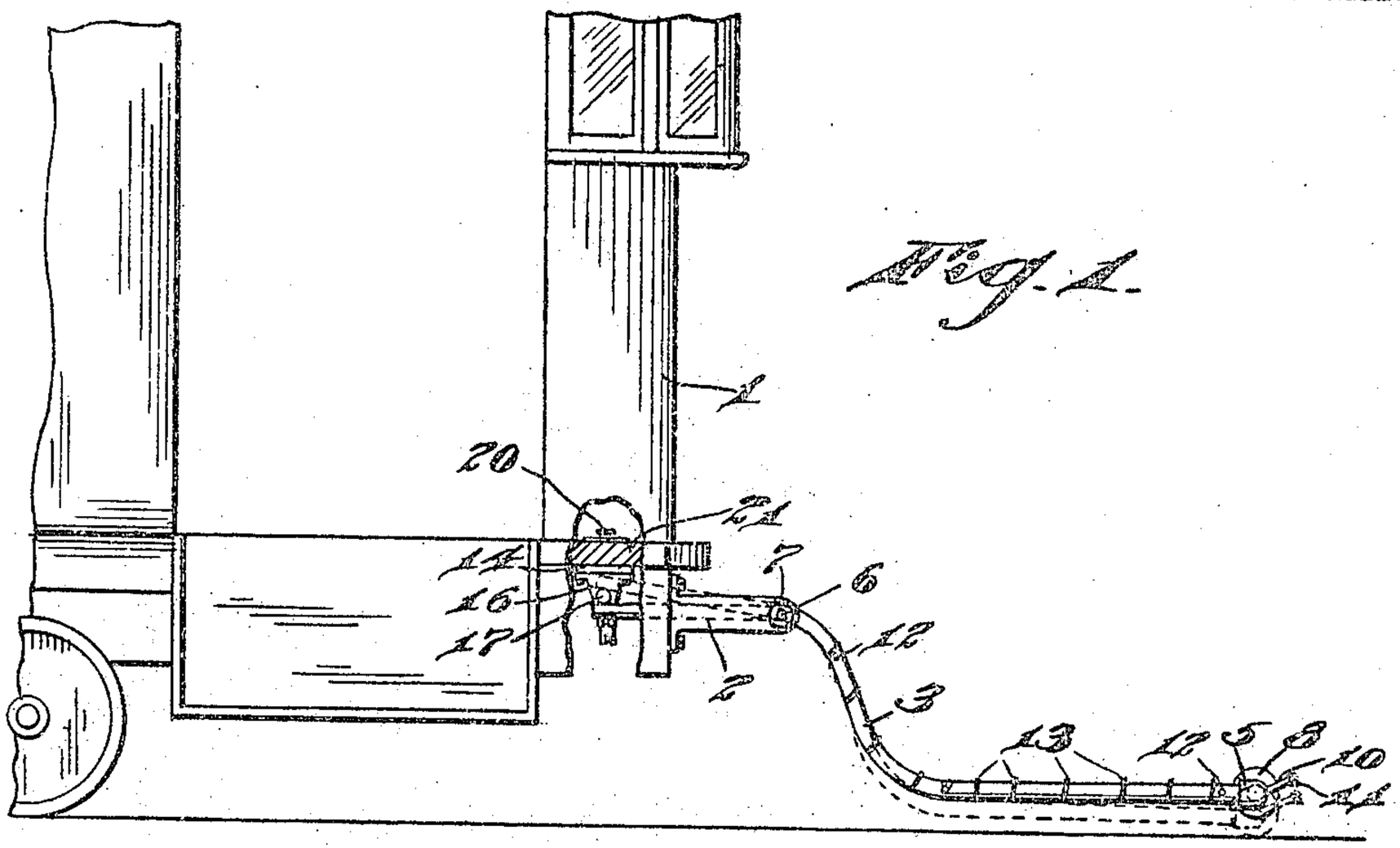

Fig. 1.

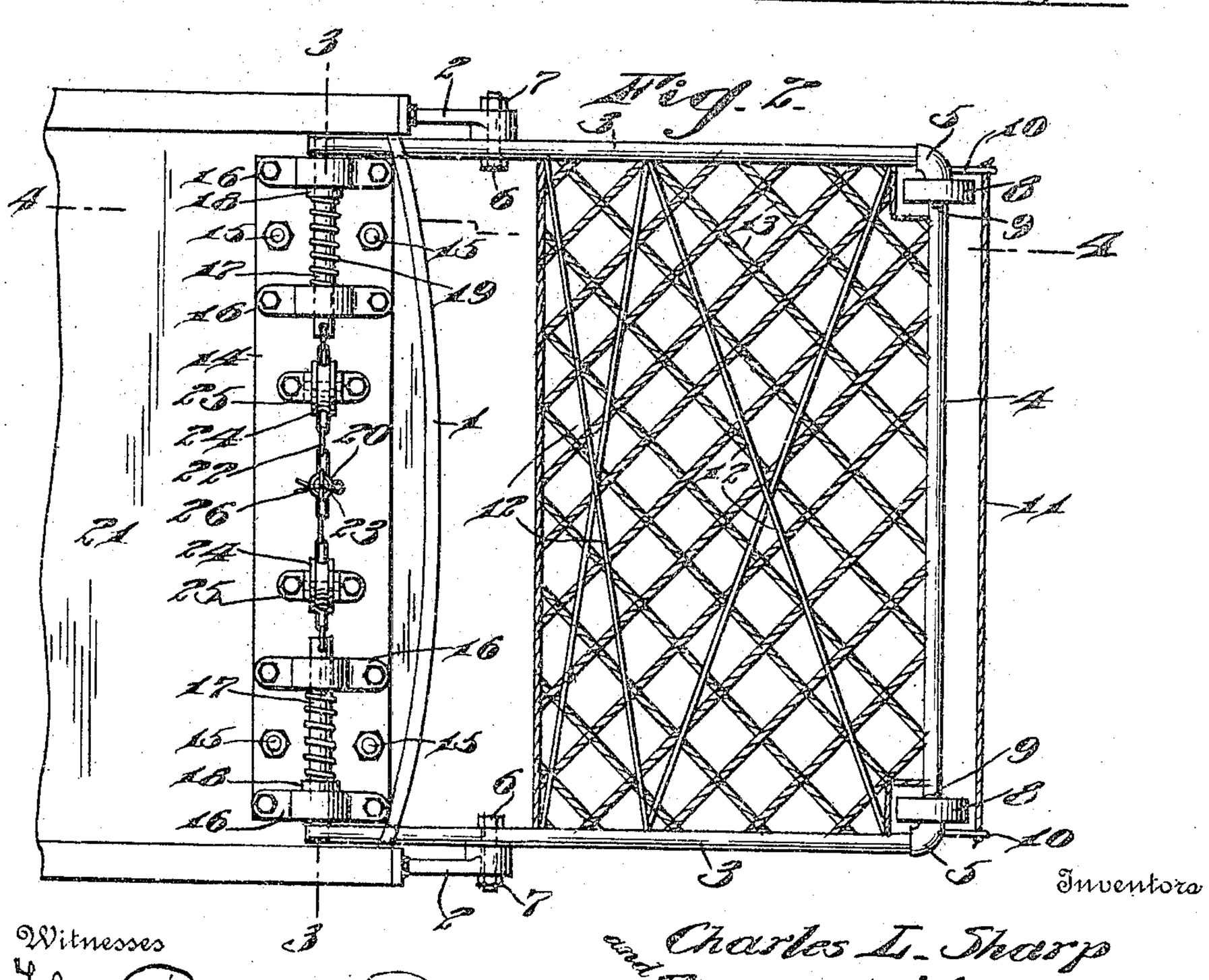

Fig. 2.

Witnesses

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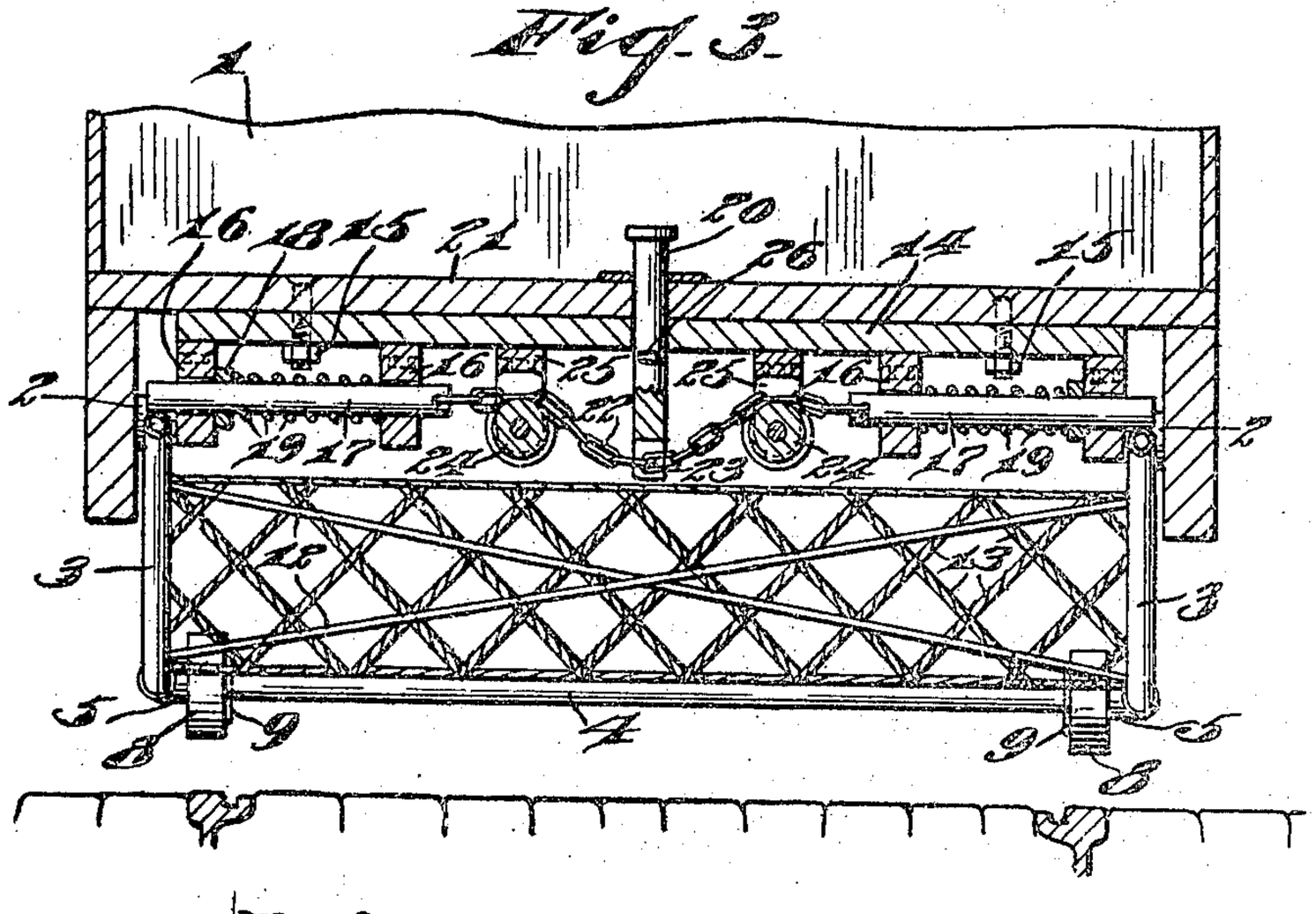
2 SHEETS—SHEET 2.

Fig. 3.



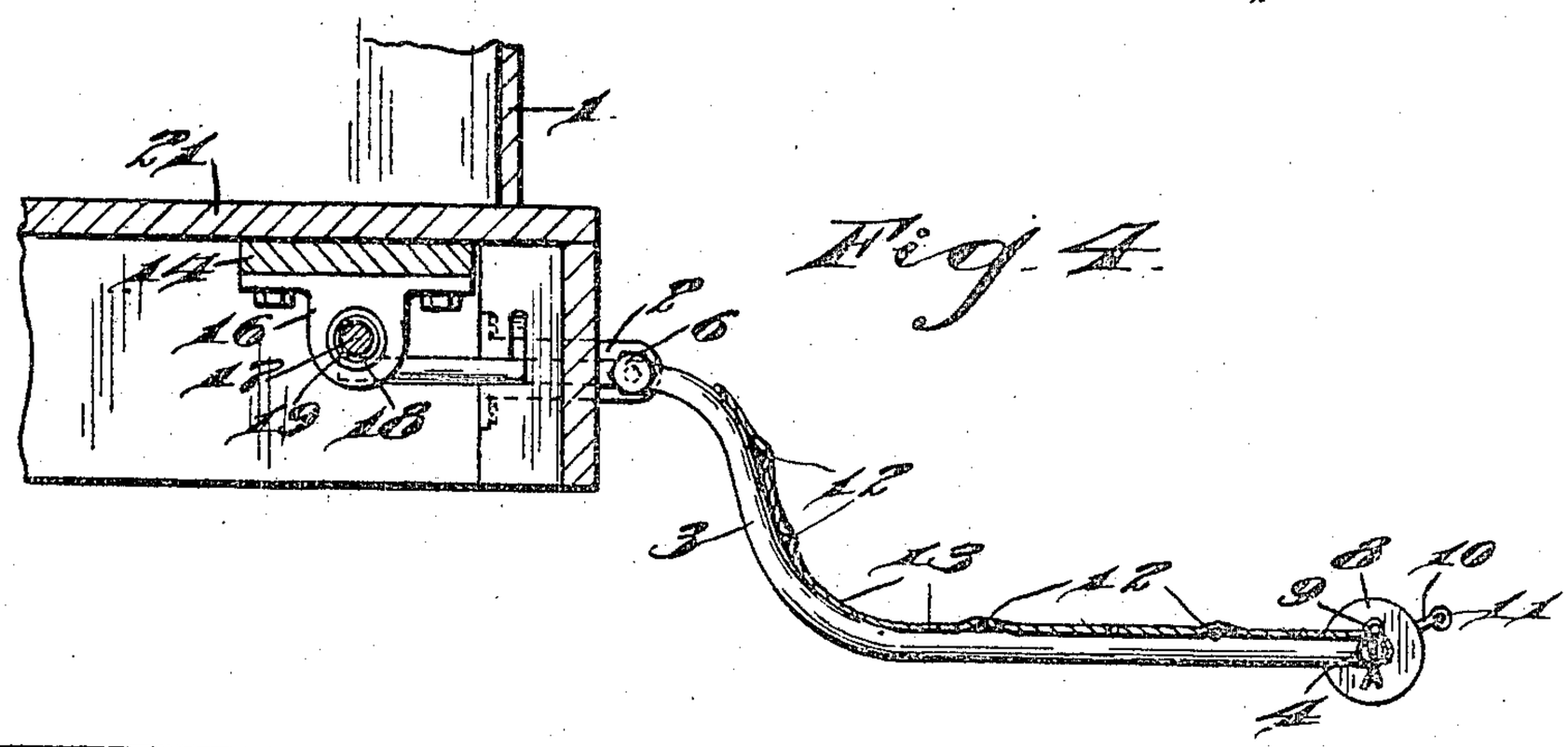
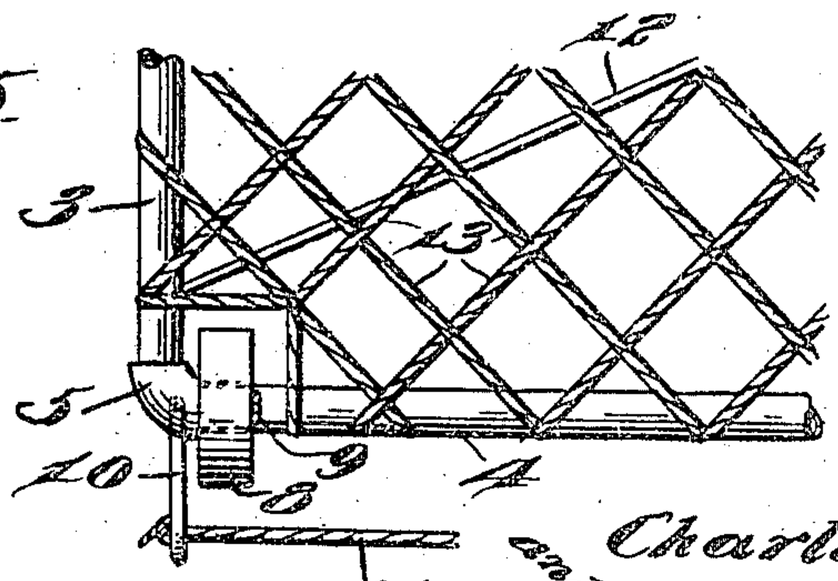


Fig. 4.

Fig. 5.



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UNITED STATES PATENT OFFICE.

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CAR-FENDER.

948,640. Specification of Letters Patent. Patented Feb. 8, 1910.

Application filed October 11, 1909. Serial No. 522,170.

To all whom it may concern:

Be it known that we, CHARLES L. SHARP and RICHARD W. SHARP, citizens of the United States, residing at Camden, in the county of Camden and State of New Jersey, have invented certain new and useful Improvements in Car-Fenders, of which the following is a specification.

Our invention relates to improvements in car fenders, the object of the invention being to provide a fender which is normally supported with its forward end elevated slightly above the track, and which, when released from such position by the motorman of the car, will fall, and move along close to the track, with rollers on the forward end of the fender, running on the track, said fender being securely locked in this position, until released by suitable means to most effectually pick up a person or object on the track, and prevent any possibility of the fender passing over that person or object.

A further object is to provide a fender whose longitudinal side members are pivotally supported between their ends, and the rear ends of whose side members are normally held in one position, by means of spring-pressed rods, supported under the car frame, and which rods are constructed and adapted to be withdrawn by means of a foot operated plunger, projecting through the platform. When said plunger is released, after the fender has fallen, said rods will project below the inner ends of the fender and securely lock the fender in its adjusted position.

A further object is to provide an improved fender, which will be of extremely simple inexpensive construction, which can be readily attached to any of the well-known types of street cars in use, and which can be quickly operated by the motorman, and will most effectually pick up a person or object on the track.

With these and other objects in view, our invention consists in certain novel features of construction and combinations and arrangements of parts as will be more fully hereinafter described and pointed out in the claims.

In the accompanying drawings, Figure 1, is a view in side elevation partly broken away, illustrating our improvements attached to the forward end of the car. Fig. 2, is a bottom plan view. Fig. 3, is a view in vertical cross section on the line 3—3 of Fig. 2. Fig. 4, is a view in vertical longitudinal section on the line 4—4 of Fig. 2, and Fig. 5, is a fragmentary enlarged plan view of one forward corner of the fender.

1 represents the forward end of an ordinary street car, to which brackets 2 are secured and support side members 3 of our improved fender. These side members 3, as well as the forward member 4 of the fender, are preferably composed of pipe or tubes which are connected, at the point of juncture by couplings 5, and the side members are pivotally secured between their ends to the brackets 2, by means of bolts 6 and nuts 7, as seen most clearly in Fig. 2. The forward member, or cross rod 4 of the fender, serves as a journal upon which rollers 8 are mounted. These rollers are located adjacent the couplings 5 and are held against lateral displacement by means of cotter pins 9. Forwardly projecting lugs 10, on the couplings 5, are connected by a rope or cable 11, which latter, is drawn taut, and serves as a flexible buffer to engage a person or object, affording an elastic cushioning contact, and also preventing contact of the person or object with the rollers 8. The members 3 and 4 of the fender are suitably braced by rods 12, and are connected by any suitable form of flexible rope netting 13 so as to afford an elastic and flexible cushion, or receptacle, to catch the person or object deposited therein, when picked up by the fender.

To the under face of the car frame, a cross bar or timber 14 is secured, by means of screws or bolts 15. To this bar 14, adjacent its ends, two pairs of brackets 16 are secured, and support sliding rods 17, the latter having shoulders 18 thereon, and between which shoulders, and one of each pair of brackets 16, coiled springs 19 are provided around the rods 17 to normally hold the rods projected outwardly beyond the outside brackets, and across both of the inner ends of the side members 3 of the fender. When these rods are projected outwardly and located above the inner ends of the members 3, the forward end of the fender will be supported in a position slightly elevated above the track, as shown in full lines in Fig. 1. When these rods 17 are drawn inward, the forward end of the fender will fall by gravity to the position shown in dotted lines in Fig. 1, with the rollers 8 supported upon the track and the pins 17 when permitted will

spring out under the rear ends of the members 3 and lock the fender in this lowered position, preventing its accidental elevation. To operate these pins 17, a plunger 20 is mounted in the platform 21 of the car, and is adapted to be moved by the motorman's foot when desired. This plunger 20 is provided with a bifurcated lower end, to straddle a chain or other flexible connecting device 22, and a cross pin 23, in the bifurcated end of plunger 20, is positioned between one of the links of the chain 22 so as to couple the plunger and chain together. This chain 22 is connected at its ends, to the respective rods 17, and passes over pulleys 24 supported in brackets 25, secured to the bar 14, and located between the inner ends of the rods 17, and the plunger 20.

It will be noted that the springs 19, on rods 17, which exert an outward pressure on the rods, serve also to elevate the plunger 20 to the position shown in Fig. 3, this upward movement of the plunger being limited by a cotter pin, or other suitable device 26, located in an opening in the plunger 20, intermediate the ends of the latter, and below bar 14.

The operation is as follows: The fender is normally supported in the position shown in full lines in Fig. 1, that is with the forward end of the fender elevated slightly above the track, and the rods 17 projected outwardly and above the rear ends of the fender, so as to support the latter in this position. When the motorman sees an object or person upon the track, he immediately depresses plunger 20, which operation draws rods 17 inwardly, against the action of springs 19, and the weight of the forward end of the fender, causes this forward end to fall, with the rollers 8 running on the track, and hence the forward end of the fender in extremely close contact with the ground. When the motorman releases his foot from the plunger 20, springs 19 promptly force the rods 17 outward, in a position below the rear ends of the bar 3 of the fender, and hence prevent any upward tilting movement of the forward end of the fender and thereby securely locking the fender in its lowered position, preventing any possibility of a person or object passing below the fender, and compelling the fender to pick up such person or object and deposit it upon the flexible netting 13. Cross rod or cable 11, which as above stated, is drawn taut from lug 10 to lug 10, and serves as a yielding or cushioning contact device to engage the object, prevents a sharp blow, and thereby avoids, to a great extent, such injury as may be caused by the first contact of the ordinary fender with a person or object.

Various slight changes might be made in the general form and arrangement of parts described, without departing from our invention, and hence we do not restrict ourselves to the precise details set forth, but consider ourselves at liberty to make such slight changes and alterations as fairly fall within the spirit and scope of the appended claims.

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

1. In a car fender, the combination with a car, of a fender pivotally supported between its ends on said car, means normally engaging the inner or rear ends of the fender to normally hold the forward end of the fender elevated, and means for operating said first mentioned means whereby the rear end of the fender is permitted to be elevated by the weight of the forward end of the fender as the latter descends, and said first mentioned means being constructed to lock the fender in its lowered position.

2. In a car fender, the combination with a car, a fender pivotally supported between its ends on said car, means normally engaging the inner or rear ends of the fender to normally hold the forward end of the fender elevated, means for operating said last mentioned means whereby the rear end of the fender is permitted to be elevated by the weight of the forward end of the fender as the latter descends, and said first mentioned means being constructed and adapted to move below the rear ends of the fender whereby the forward end of the fender will be locked in its lower or depressed position.

3. In a car fender, the combination with a car of a fender pivotally supported between its ends on said car, spring-pressed rods on the car normally positioned above the inner or rear ends of the fender, said fender being heavier at its forward end, and means for withdrawing said rods from above the inner ends of the fender and permitting them to project below the inner ends of the fender when the forward end of the fender drops.

4. In a car fender, the combination with a support, of a fender pivoted between its ends on said support, spring-pressed means normally holding said fender elevated above the ground, and means for operating said holding means, whereby said fender is permitted to fall into close proximity to the ground, said last mentioned means being constructed to lock the fender in this lower position.

5. In a car fender, the combination with a support, of a fender pivotally supported between its ends in said support, spring-pressed rods normally positioned above the rear ends of said fender and holding the forward end of the fender elevated above the ground, and adapted to be positioned below the rear ends of the fender when the forward end of the fender falls, and means for drawing said rods from above the rear ends

of said fender to permit the forward end of the fender to fall.

6. In a car fender, the combination with a support, of a fender pivotally supported between its ends in said support, spring-pressed rods normally positioned above the rear ends of said fender and holding the forward end of the said fender elevated above the ground, and means for withdrawing said rods from above the rear ends of said fender to permit the forward end of the fender to fall, and said rod-operating-means constructed and adapted after said fender has been permitted to fall, to be projected outward below the rear ends of the fender so as to lock the fender in its lower position.

7. In a car fender, the combination with a support, of a fender frame comprising side members and a forward member connecting them, means pivotally connecting said members between their ends to said support, rollers on the forward member, lugs projecting forwardly from the forward member, a flexible connecting device drawn taut and connecting said lugs in front of said rollers, and means normally holding said fender elevated above the ground and constructed to permit said fender to fall with its rollers in contact with the ground or track, and lock the fender against upward movement.

8. In a car fender, the combination with a car, a pair of brackets on the car, and a fender frame pivotally supported between its ends in said brackets, of a cross bar secured to the car frame, brackets on said cross bar, spring-pressed rods supported in said brackets and normally projected outward into the path of movement of the rear ends of the fender, to normally hold the forward end of the fender elevated, a vertically movable plunger, pulleys supported on said bar and a flexible connecting device connecting the inner ends of said rods with said plunger and positioned above said pulleys.

In testimony whereof we have signed our names to this specification in the presence of two subscribing witnesses.

CHARLES L. SHARP.
RICHARD W. SHARP.

Witnesses:
S. W. FOSTER,
EMMA WEBER.