No. 815,920. PATENTED MAR. 20, 1906.

B. LEV.

SEPARABLE FENDER FOR MOTOR CARS.

APPLICATION FILED JULY 15, 1904.

2 SHEETS—SHEET 1.

FIG. 1.

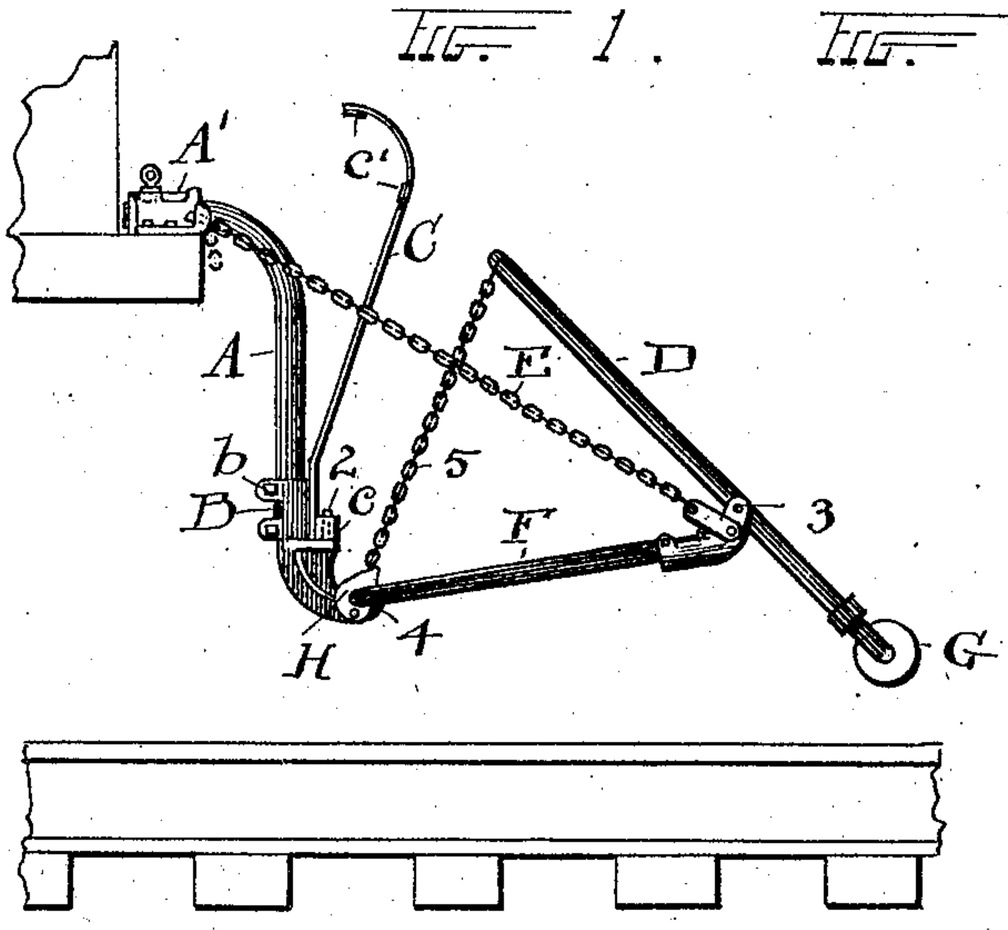


FIG. 2.

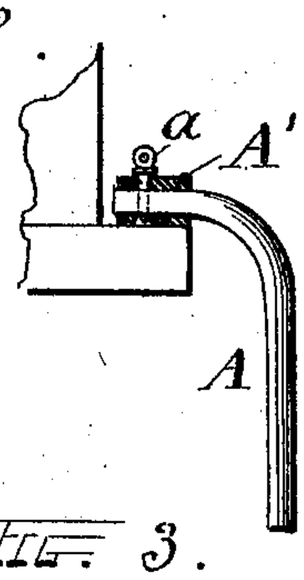


FIG. 3.

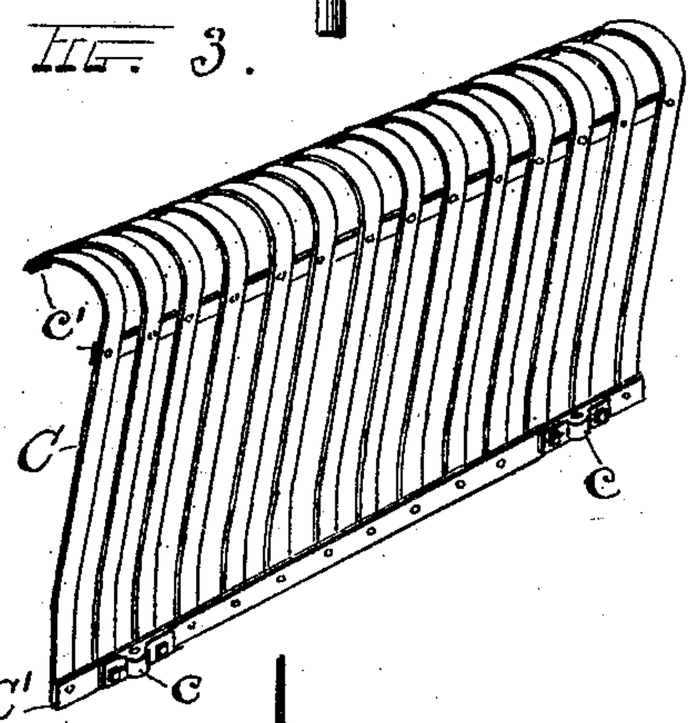
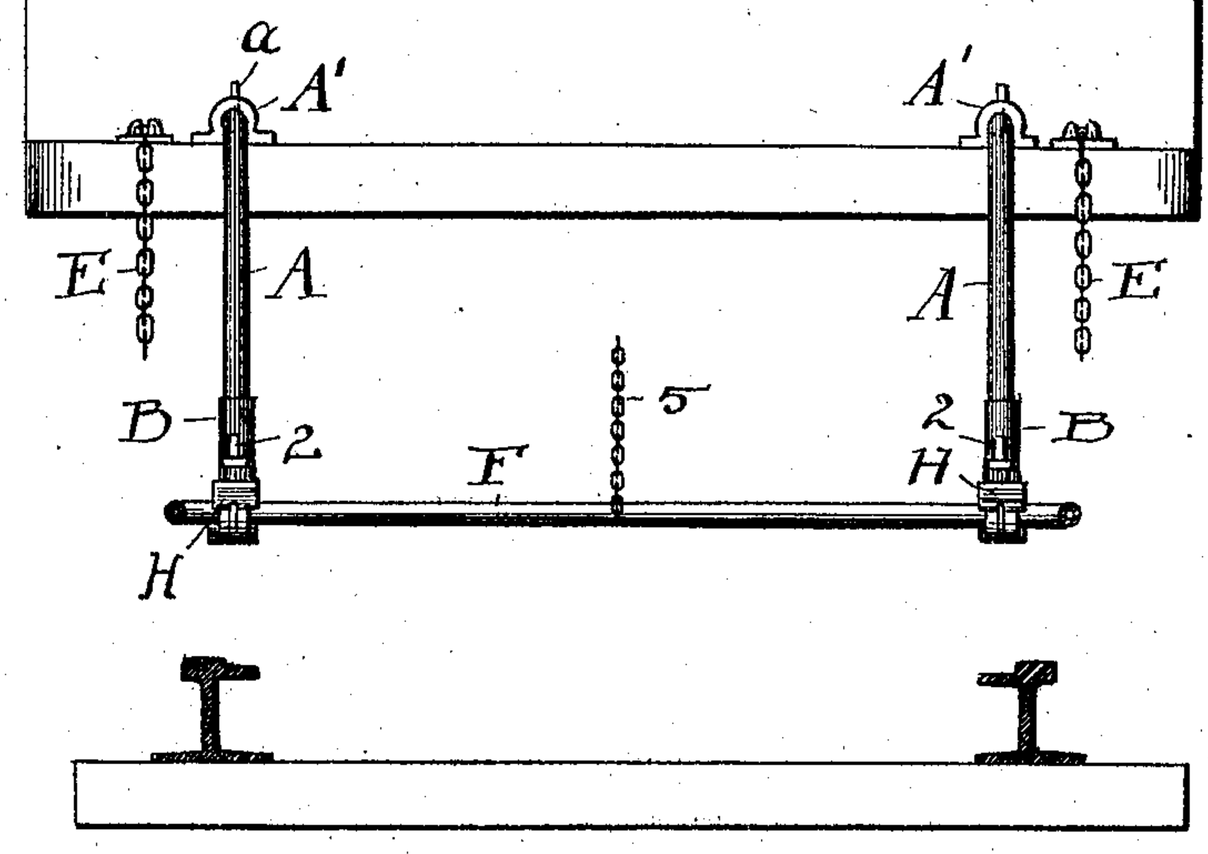


FIG. 4



WITNESSES:

R. B. Moore

A. M. Moser

INVENTOR.

Benjamin Lev

BY H. J. Fisher

ATTORNEY.

No. 815,920. PATENTED MAR. 20, 1906.

B. LEV.

SEPARABLE FENDER FOR MOTOR CARS.

APPLICATION FILED JULY 15, 1904.

2 SHEETS—SHEET 2.

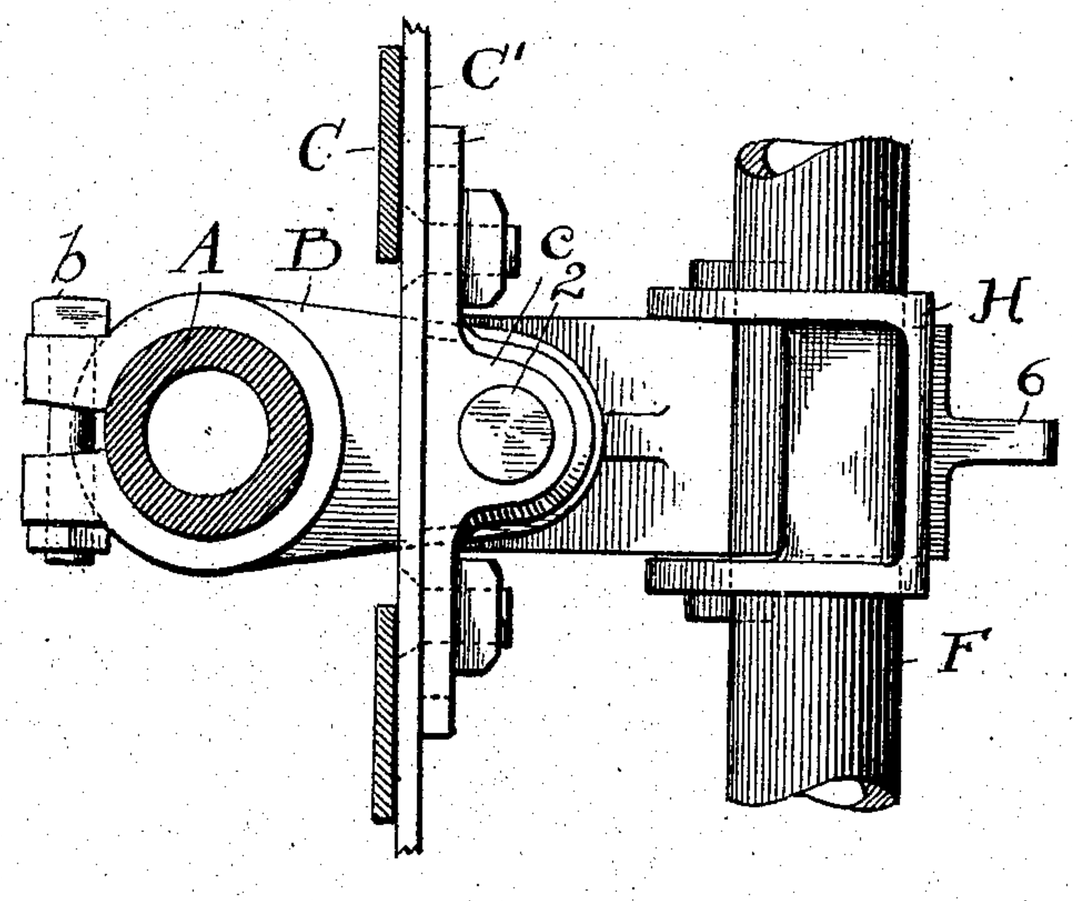


FIG. 5.

FIG. 7.

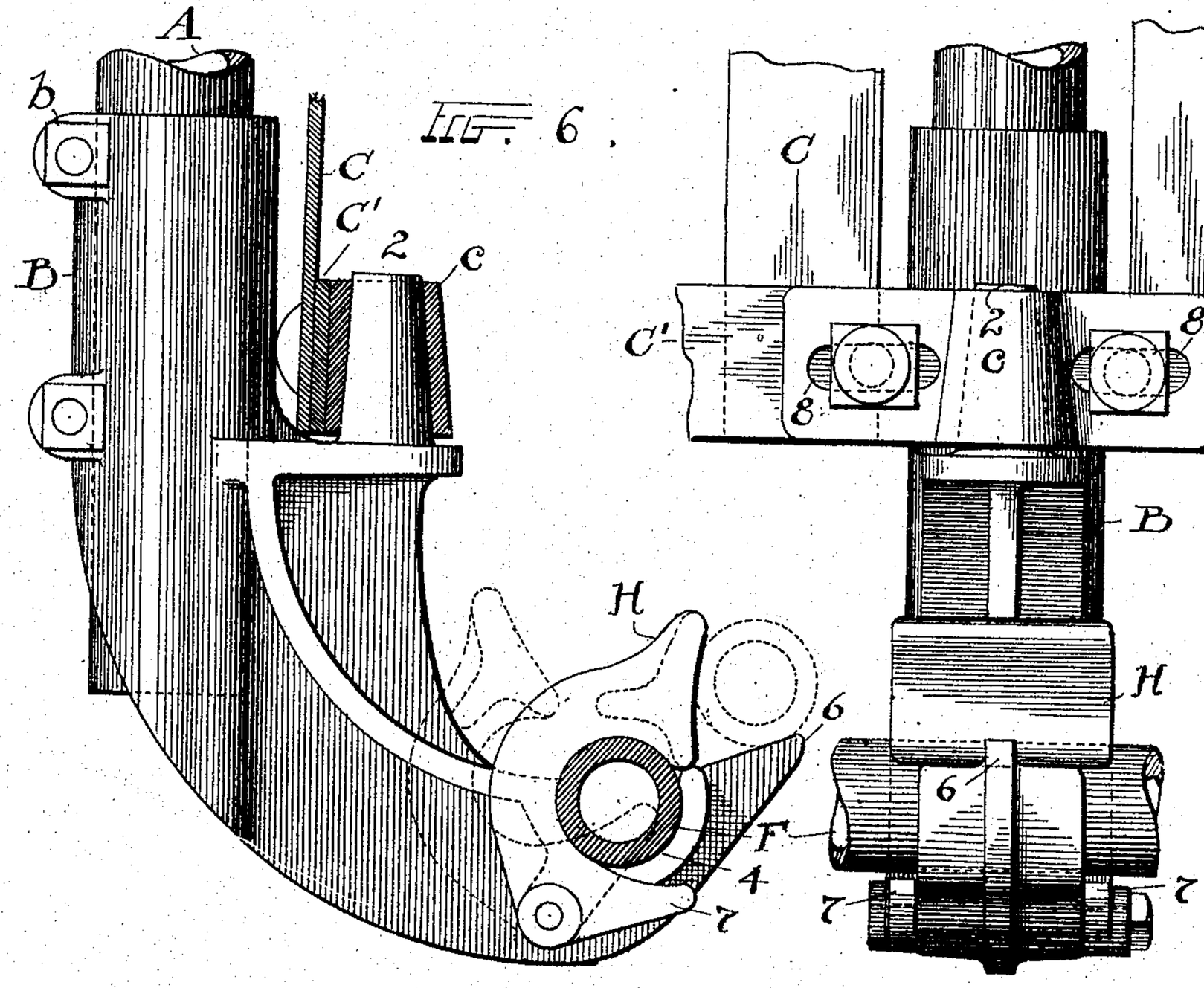


FIG. 6.

WITNESSES:

A. M. Moser.

INVENTOR.

BY Benjamin Lev

H. P. Fisher

ATTORNEY.

UNITED STATES PATENT OFFICE.

BENJAMIN LEV, OF CLEVELAND, OHIO, ASSIGNOR TO ECLIPSE RAILWAY SUPPLY CO., OF KANSAS CITY, MISSOURI, A CORPORATION OF DELAWARE.

SEPARABLE FENDER FOR MOTOR-CARS.

No. 815,920. Specification of Letters Patent. Patented March 20, 1906.

Application filed July 15, 1904. Serial No. 216,722.

To all whom it may concern:

Be it known that I, BENJAMIN LEV, a citizen of the United States, residing at Cleveland, in the county of Cuyahoga and State of Ohio, have invented certain new and useful Improvements in Separable Fenders for Motor-Cars; and I do declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to improvements in separable fenders for motor-cars; and the invention consists in a fender in which the several parts are constructed to be conveniently detached and separated and again united, all substantially as shown and described, and particularly pointed out in the claims.

In the accompanying drawings, Figure 1 is a side elevation of my improved fender, shown in working position on a car; and Fig. 2 is a detail, partly in section, showing especially the mechanism whereby the fender-hangers are rendered detachable from the car. Fig. 3 is a perspective view from the front of a back-spring frame hereinafter more fully described. Fig. 4 is a front elevation of the lower part of the car-body and the hangers and the rear portion of the carrier-frame engaged in said hangers and showing the relative elevation thereof as compared with the track beneath. Fig. 5 is an enlarged detail, partly in section, of the lower portion of one of the hangers and parts associated therewith beneath. Fig. 6 is a side elevation of the mechanism shown in Fig. 5, and Fig. 7 is a front elevation of said mechanism.

In fenders of the kind to which this invention relates it is desirable to have the same separable as to parts and detachable as a whole for removal from a car or for transfer from one end of the car to the other.

When a metallic fender is made substantial enough to withstand the shock and strain of accident, it becomes a heavy object to be handled with all the parts together. Fenders of this kind are made by me which are adapted to be removed bodily from one end of the car to the other by persons taking hold at each side and carrying it around; but such fenders being unwieldy at best there is a demand on certain roads for a separable fender adapted to be taken apart and enabling such parts to be taken off and put back as the fender is reassembled at the other end of the car. Now having this object in mind I provide two hangers A, suitably spaced apart from the front of the car and preferably of tubular pattern for lightness, as well as for strength, and detachably secured to the car by means of a socket-support A′, fixed upon the car-frame, and a bolt *a*, engaged through said socket member and a hole in the end of the hanger. In this connection reference is made to concurrent applications bearing Serial Nos. 217,724 and 216,726, which have adjustable connections as their subject-matter. The said hangers are curved at their upper ends to a right angle, so as to enter the socket A′, and upon their lower ends there are clamped substantially hook-shaped cast-metal foot-supports B, which are bolted through their clamping portions by bolts *b* upon the said hangers A and are adjustable up and down thereon, so as to be adaptable to cars of different elevations and according as a road may desire to run close to or farther from the road-surface; but when the said bolts are fastened the said supports and hangers become practially one, and the supports constitute essential portions of the hangers and are regarded as practically a portion thereof in this description and claims.

The several operative parts of the fender are carried by the foot-supports B, and to this end the back-spring frame is provided with tapered sockets *c*, flaring somewhat downwardly and engaged on correspondingly-tapered studs or posts 2 on the front upper portion of the supports B, so that the said frame may be set down upon or over the said posts and held firmly thereon without danger of coming loose or being detached except purposely by hand. The tapered form of the connection for the said frame makes the engagement perfectly tight and practically the same as if the posts were rigid therewith, while the frame is easily lifted off the said posts and carried away and replaced when desired. The said frame is constructed with a horizontal bar C′ at its bottom and one or more connecting bars or slats *c′* higher up on said springs, and the springs them-

selves are of spring sheet metal fastened upon said bars or slats and the whole constitute one separate and removable part.

The tilting body-carrier D is supported from the frame F, which has upturned ends pivotally engaged by the carrier at 3, and the frame F is preferably made of strong tubing and extends across the rear between the supports B and hangers relatively, as seen in Fig. 4, and rests in curved seats 4 in supports B, while its front is supported by chains E from the car-body. The said chains are so arranged that they may be let out or taken up, according as it is desired to raise or lower the carrier D, and the said carrier is itself provided with a chain 5, which connects with the cross portion of frame F at its lower end and likewise is adapted to be taken up or let out as the inclination or elevation of the carrier is to be changed. A cushioning or striking roller G is supported on the front and lower portion of the carrier D, as usual, and any suitable means may be employed for holding the said carrier D down in a reversely tilted position, as when an object has been picked up thereby. Sometimes a plain pivotally-supported spring-pressed hook to engage the cross portion of the frame D at the rear is used, and any sufficient means will answer my purpose. Each of the said supports B is provided with a tongue or projection 6 in front of the bearing 4 for frame F, which has a somewhat rearwardly-inclined top edge adapted to serve as a rest for the said frame F before it enters its seat, and the said frame is held securely in upon its seat by means of a hook H of peculiar construction pivoted upon the sides of the support B substantially beneath the bearing 4 and adapted to swing entirely over the top of the said frame forward thereof, as shown in Fig. 6. Then in order to hold the said frame upon its seat so that it cannot become detached except when purposely removed I provide the said hook with a forward projection 7 at its bottom extending in front of its pivot and projecting under the frame F. With this construction the projection 7 serves to hold the hook securely over and upon the frame F, so that it cannot get out of bearings 4 unless purposely removed. The engaging position of hook H is seen in full lines in Fig. 6 and the disengaging position in dotted lines. The hook also takes substantially this position when the frame F is placed in bearings 4, and the said frame coming down upon projection F forcibly depresses the hook to locking position. The frame F serves both as a support and brace for carrier D, and the two can be practically folded together for removal.

The socket-pieces *c* on the spring-frame C are shown as adjustable in Fig. 7, having slots 8, through which they are secured to said frame, and are thus adapted to different widths of hangers.

What I claim is—

1. In car-fenders, hangers for the fenders having right-angled ends, in combination with sockets constructed to be attached to the car and adapted to have the said hangers detachably fastened therein, substantially as described.

2. In car-fenders, separate and detachable hangers provided each with an adjustable support at its lower end and a spring-fender frame removably seated upon posts on the said supports, substantially as described.

3. In car-fenders, a set of hangers having tapered posts vertically upon their front portions, and a spring-fender frame having correspondingly-tapered sockets seated upon said posts, substantially as described.

4. In car-fenders, a pair of hangers having forwardly-extending portions at their bottom provided with seats open from the top, a supporting-frame for the carrier resting in said seats and hooks to engage over said frame and seats, substantially as described.

5. In car-fenders, a set of hangers having seats at their lower portion, a supporting-frame for the carrier resting in said seats from above, and hooks engaged over said frame upon its seats having forward projections extending beneath said frame, whereby said hooks are engaged automatically and held in locking position, substantially as described.

6. In car-fenders, a car and a set of hangers detachably supported at their upper ends upon the car, a frame-support removably clamped upon the lower end of each hanger and having a seat for a frame and a projection forward from said seat, a frame resting upon said seats and hooks engaging over said frame at its seats and provided with forward extensions at its lower portion beneath said frame, substantially as described.

7. In car-fenders, a set of hangers and supports adjustably secured upon said hangers, said supports provided with tapered posts at their front and top, in combination with a spring-fender having sockets tapered to seat over said posts and adjustably secured upon said frame, substantially as described.

In testimony whereof I sign this specification in the presence of two witnesses.

BENJAMIN LEV.

Witnesses:
R. B. MOSER,
C. A. SELL