

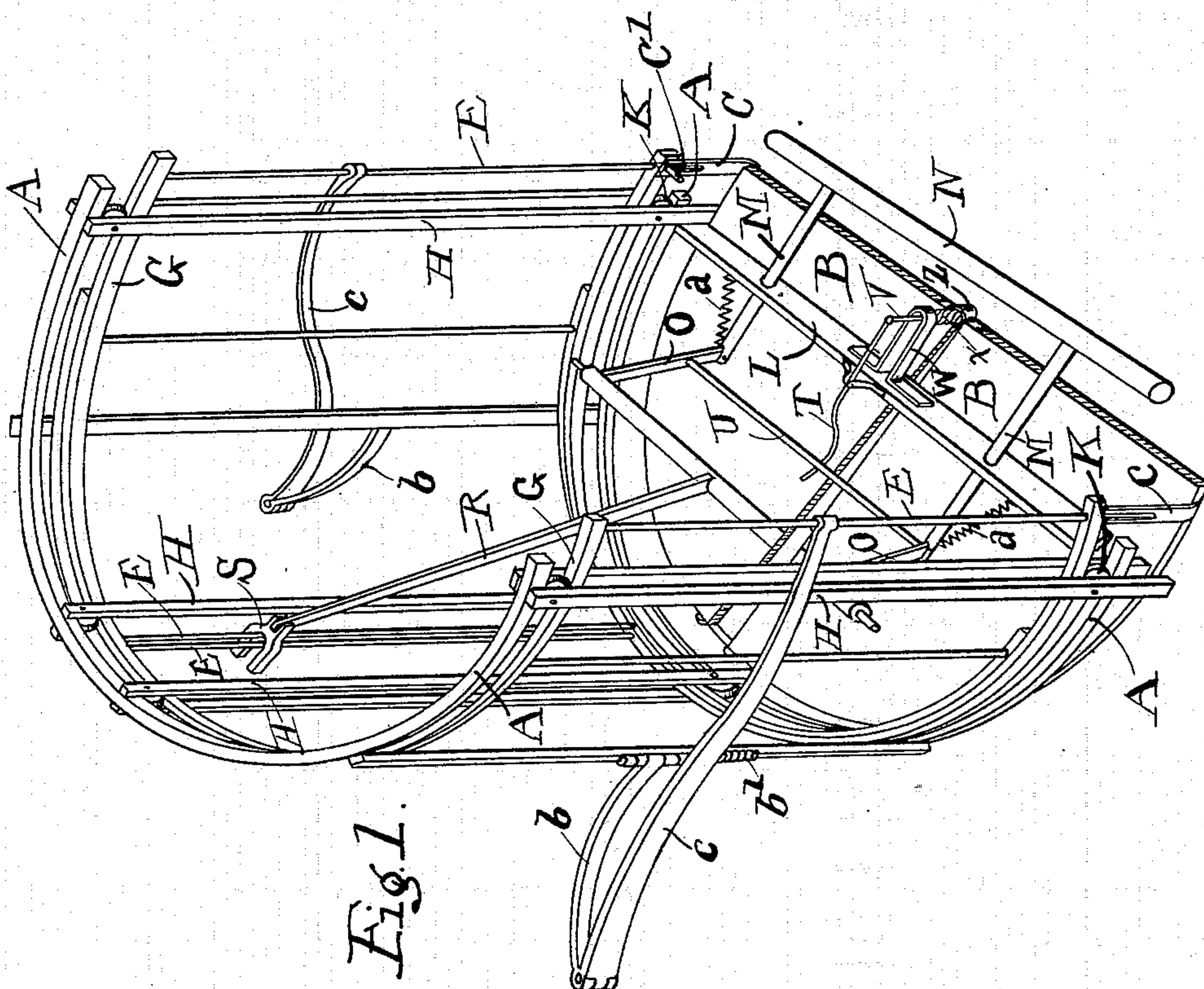
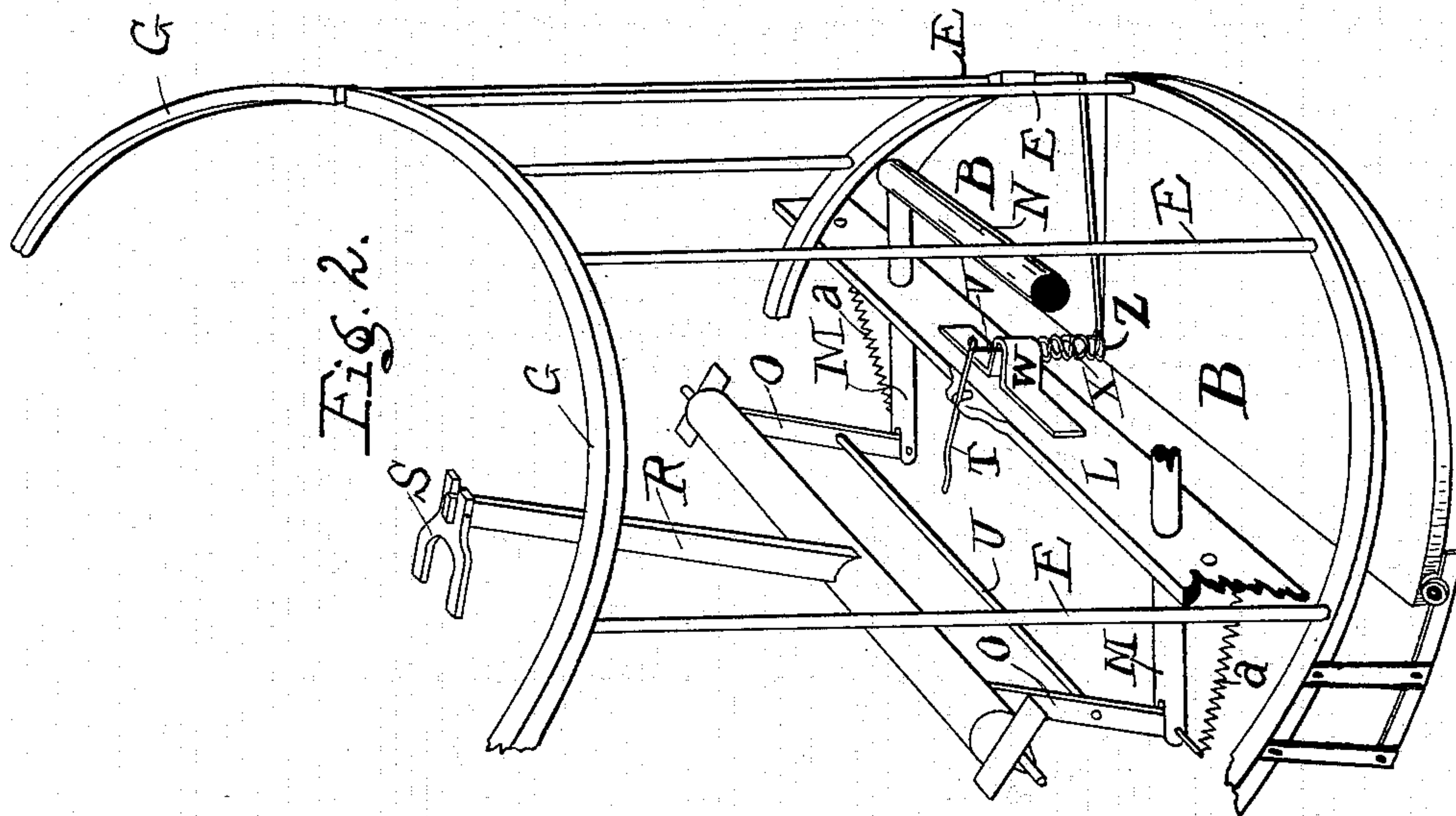
No. 612,340.

Patented Oct. 11, 1898.

M. HIRSCH.
CAR FENDER.

(Application filed Mar. 13, 1897.)

(No Model.)



Morris Hirsch
Inventor

Witnesses
Geo. W. Hess.
A. G. McKinley

By his Attorneys Edwards & Ryan

UNITED STATES PATENT OFFICE.

MORRIS HIRSCH, OF NEW YORK, N. Y.

CAR-FENDER.

SPECIFICATION forming part of Letters Patent No. 612,340, dated October 11, 1898.

Application filed March 13, 1897. Serial No. 627,445. (No model.)

To all whom it may concern:

Be it known that I, MORRIS HIRSCH, a citizen of the United States, residing at 330 East Thirty-second street, city of New York, State of New York, have invented certain new and useful Improvements in Car-Fenders, of which the following specification, when taken in connection with the accompanying drawings, forms a clear, concise, and complete description of the same, so that one familiar with the state of the art may understand, construct, and use the same.

My invention relates to fenders for cars and other vehicles, and its object is to construct a fender which shall be simple in construction, positive and efficient in operation, and which will seize the body of a person falling or standing upon the track in front of the car and hold it out of the way of danger of being struck by the car.

The invention will be more fully described with reference to the accompanying drawings, in which—

Figure 1 is a perspective view of a fender embodying my invention, and Fig. 2 is a similar detail view of the sliding arms of the fender when in closed position.

Referring more particularly to the drawings, A A represent two segmental arms joined together by straight parallel braces H H to form a semicylindrical framework. This framework is attached to the front of the car, with the hollow side to the front. The car is not shown in the drawings, but it will readily be understood that in Fig. 1, for instance, the car would be to the left and the frame attached in the vertical position shown to the front of the car. Inside the frame are segmental arms G G, similar to the arms A A, but of only half the length, the arms G G being connected by vertical parallel braces E E, thus forming two frames, quarter-sections of a cylinder. Rollers K K are located between the frames A A and G G in order that the latter will be free to slide back and forth within the outer semicylindrical frame. Attached to the inner lower ends of the sliding arms are quadrant-shaped plates B B, which are normally adapted to cover the end of the semicylindrical framework and which are hinged together at Z in order that when the sliding arms move outward the plates will be

swung upon their hinge and form a semicircular flat surface in front of the framework. Carried by the stationary frame are swinging arms *b b*, which springs *b' b'* tend to throw forward. Pivoted to the outer ends of the arms *b b* are connecting-arms *c c*, connected with the sliding frames. A suitable brace L connects the sides of the stationary frame, in which is mounted a sliding bumper M N M, which is connected with a lever R O O U, pivoted in the stationary frame at P and carrying at one end a fork S, adapted to engage the two inner vertical braces E E of the sliding arms. Springs *a a* tend to hold the bumper to the front and thus hold the fork in engagement with the braces named. When the fork is drawn back and the braces released, the springs *b' b'* will throw the sliding frames and quadrant-shaped plates to the front.

In the operation of the device above described the fender is normally in the position shown in Fig. 1. As soon as it strikes an object the bumper N will be pressed in and by the movement of the lever R the fork S will be drawn from the braces E E. This will release the sliding arms, and the spring-actuated swinging levers *b b* and connecting levers *c c* will throw the sliding arms and quadrant-shaped plates to the front, thus scooping up and holding in the person upon whom the fender is operating. It will be seen that with the construction above described a body will not be thrown aside to be struck and injured by passing vehicles, but will be picked up and held in safety.

In some instances it may be desirable that when the sliding arms are thrown forward the quadrant-shaped plates shall be depressed to rest upon the ground. In such case I provide a spring X, surrounding a rod V, pivoted to both plates and passing through a bracket W in the brace L. To the upper end of the rod V is attached a lever T, fulcrumed in the brace and passing under the cross-piece U of the lever R O O U. When in this position, the lever T is pressed down and compresses the spring X. When the bumper is pushed in, the cross-piece U, which is part of the bumper, will slide back and off of the end of lever T and allow the latter to swing upward, impelled by the expansion of spring X against the bracket W and the corners of the

quadrant-shaped plates, which are hung upon the rod V, attached to the other end of lever T. This will cause the corners of the quadrant-shaped plates to be depressed at Z. In order that the front part of the plates should also be depressed, the connection of the ends of the plates to the sliding arms may be such as to permit a vertical sliding motion of the plates upon the sliding framework. Such connection is shown in the drawings, wherein C C are slotted hooks hung upon a stud in the sliding arms, thus allowing that portion of the plates a certain amount of vertical movement relative to the arms. When the arms are thrown forward, the corners of the plates at Z will be depressed by the spring and the corners at the front will fall by gravity and will also be depressed slightly by the action of the spring upon the plates, but the rear corners, which have no vertical movement relative to the sliding arms, will not be depressed. The plates will therefore form a scoop having its center depressed and its sides elevated.

Having thus described my invention, I declare that what I claim is—

1. In a fender, the combination of a semi-cylindrical framework carried by the car, two segmental sliding arms within said frame, and means whereby when a body strikes said fender said segmental arms will be thrown forward to meet each other in front of the fender, substantially as described.

2. In a fender, the combination of a semi-

cylindrical framework carried by the car, two segmental sliding arms within said frame, springs adapted to throw said arms forward to meet each other in front of the fender, means for normally holding said sliding arms within said framework, and means for releasing said arms when a body is struck by said fender, substantially as described.

3. In a fender, the combination of a semi-cylindrical framework carried by the car, two segmental sliding arms within said frame, a quadrant-shaped plate attached to each of said sliding arms at the end of said framework, and means whereby when a body strikes said fender said segmental arms will be thrown forward, with said quadrant-shaped plates, to meet each other in front of the fender, substantially as described.

4. In a fender, the combination of a semi-cylindrical framework carried by the car, two segmental sliding arms within said frame, a quadrant-shaped plate attached to each of said sliding arms at the end of said framework, springs adapted to throw said arms forward to meet each other in front of the fender, means for normally holding said sliding arms within said framework, and means for releasing said arms when a body is struck by said fender, substantially as described.

MORRIS HIRSCH.

Witnesses:

ELSA PERLITZE,
THOS. A. AITON.