

No. 773,619.

PATENTED NOV. 1, 1904.

H. M. ADAMS.
CAR FENDER.

APPLICATION FILED MAY 14, 1904.

NO MODEL.

Fig. 1.

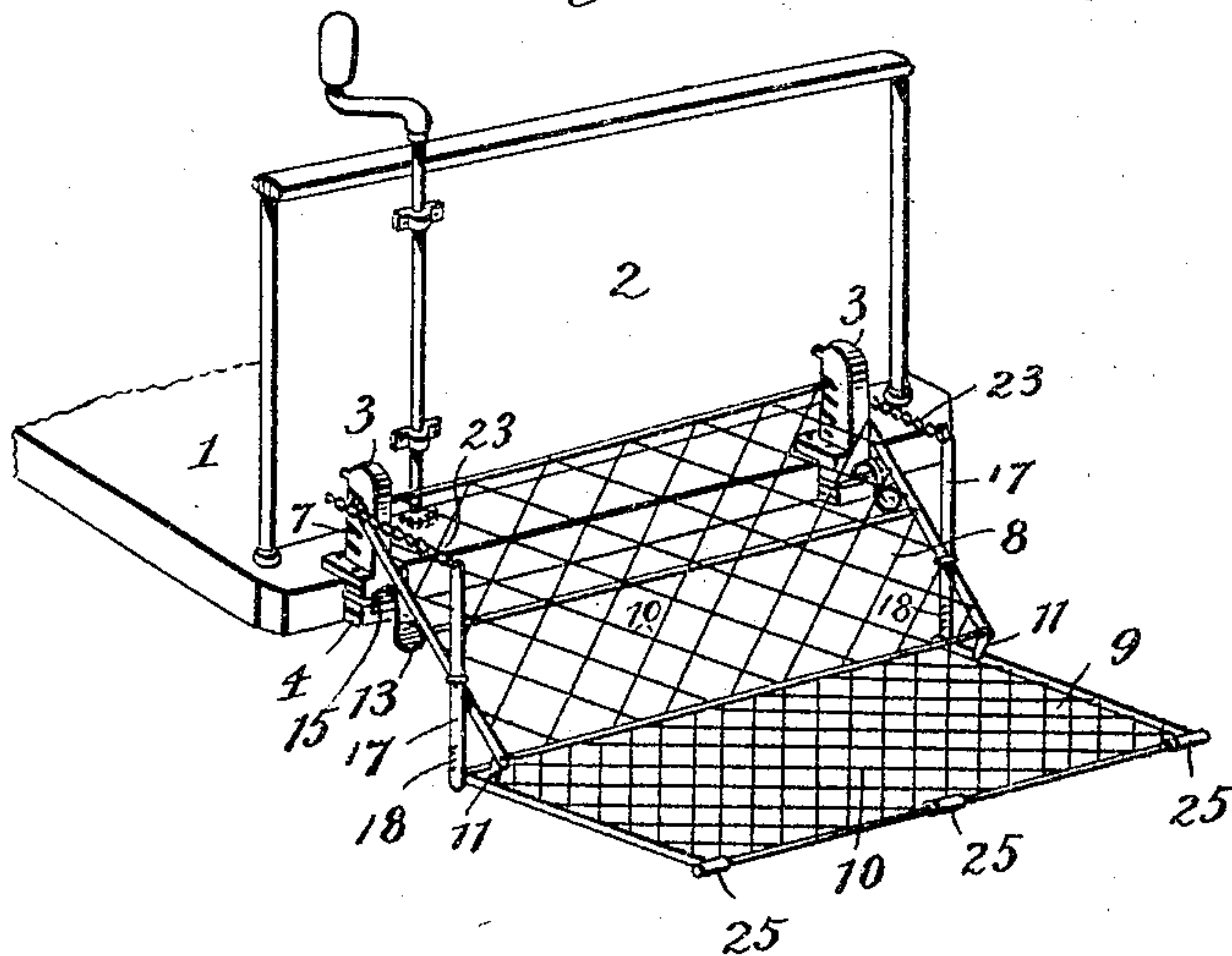


Fig. 2.

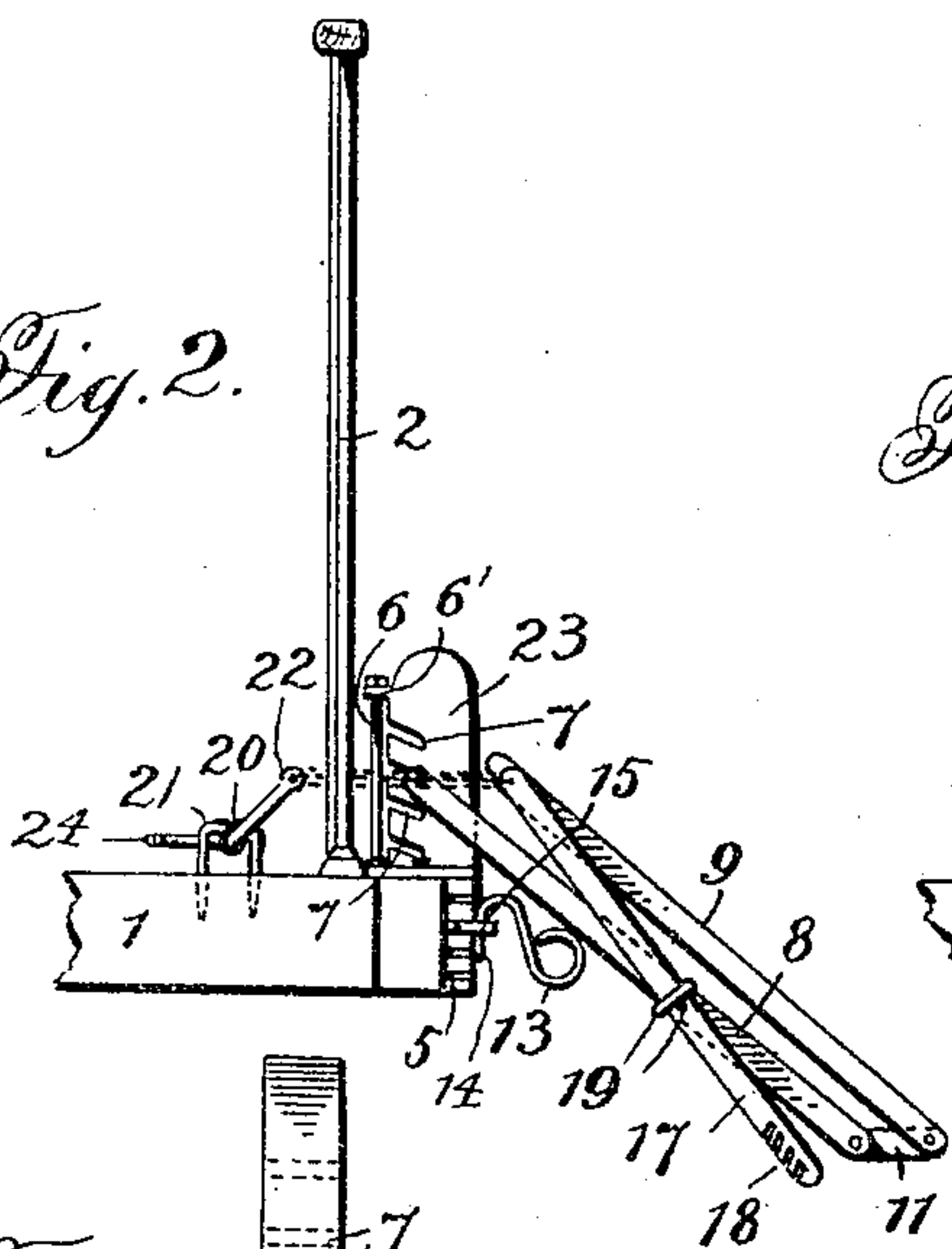


Fig. 3.

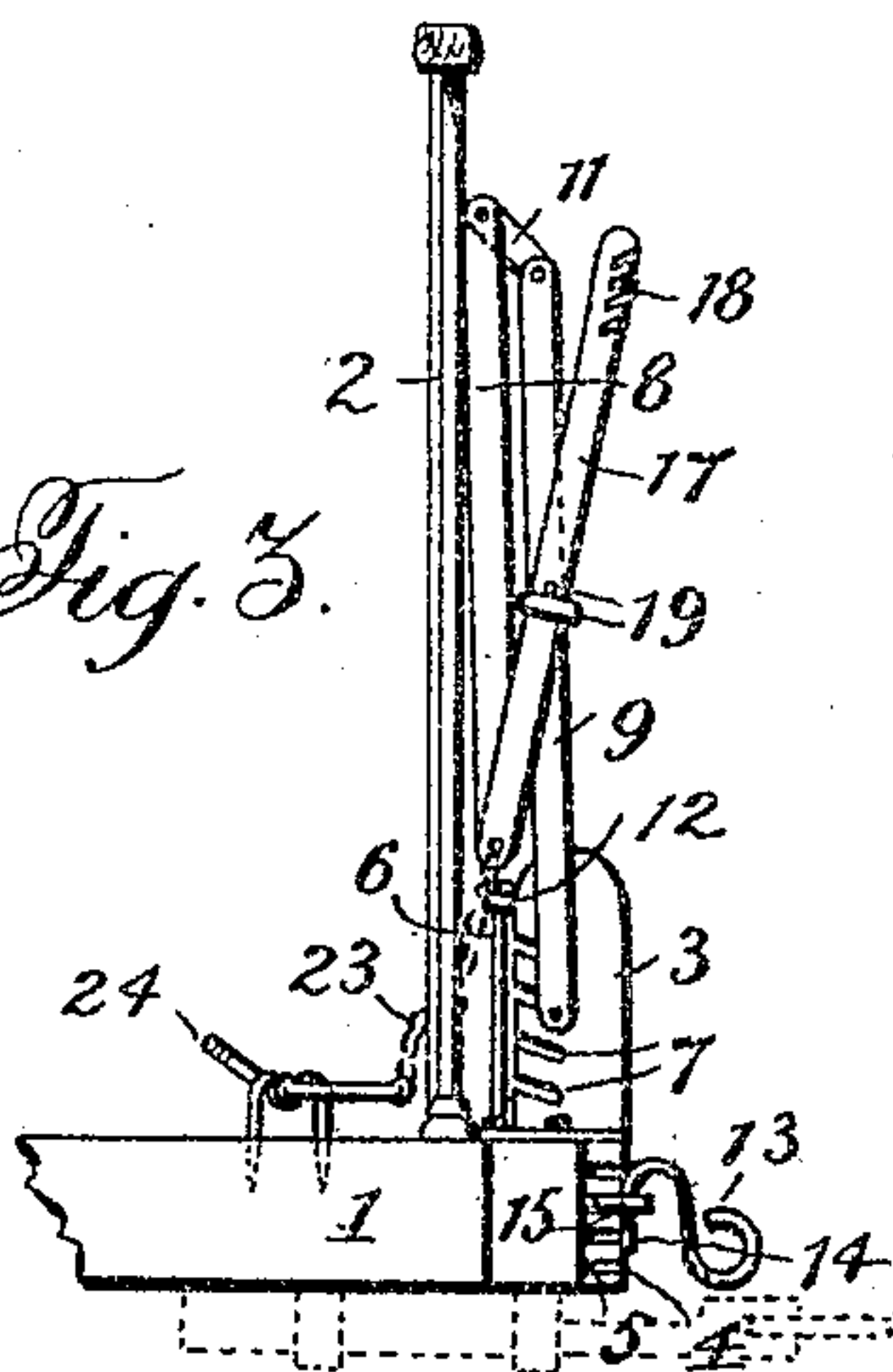


Fig. 4.

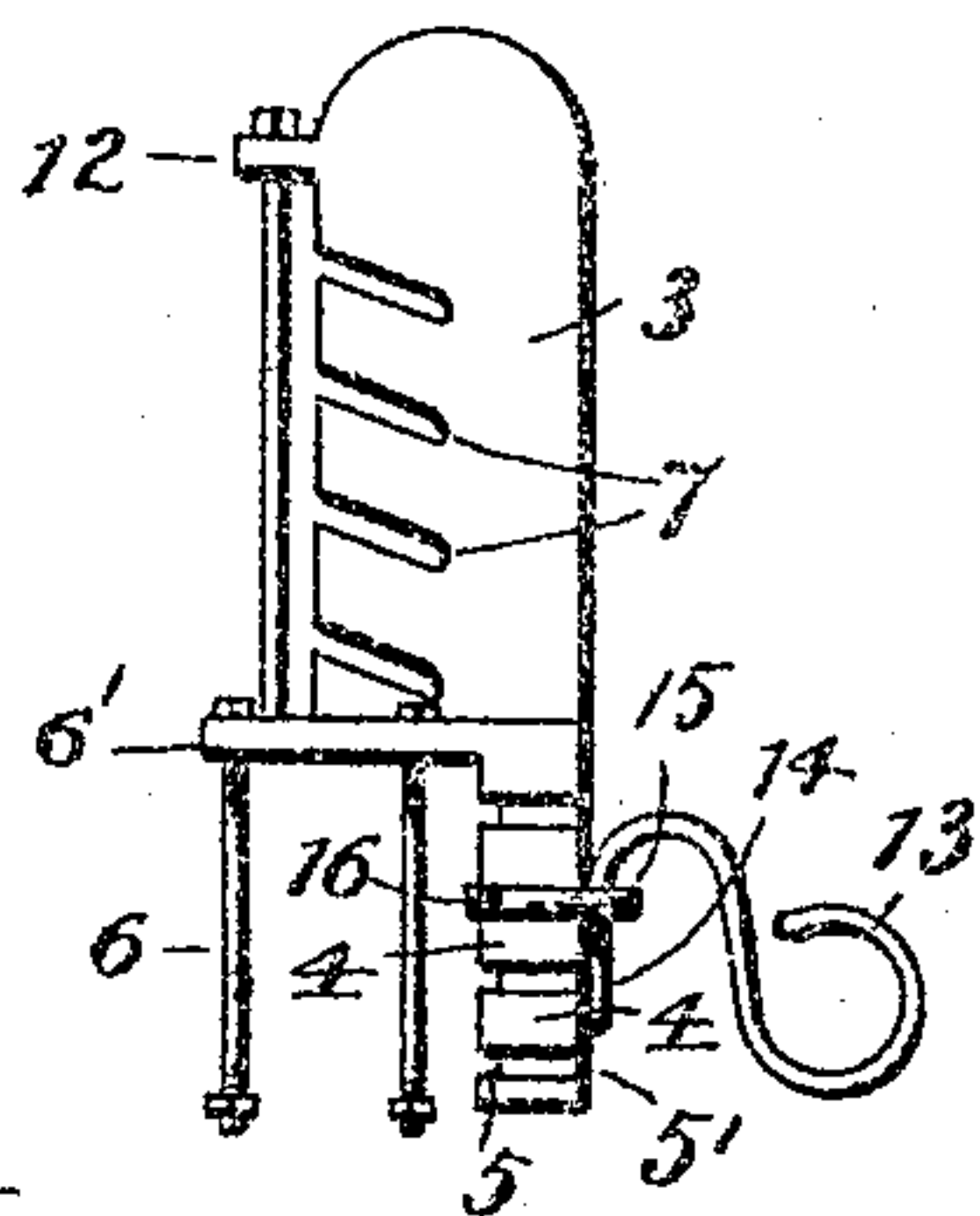


Fig. 5.

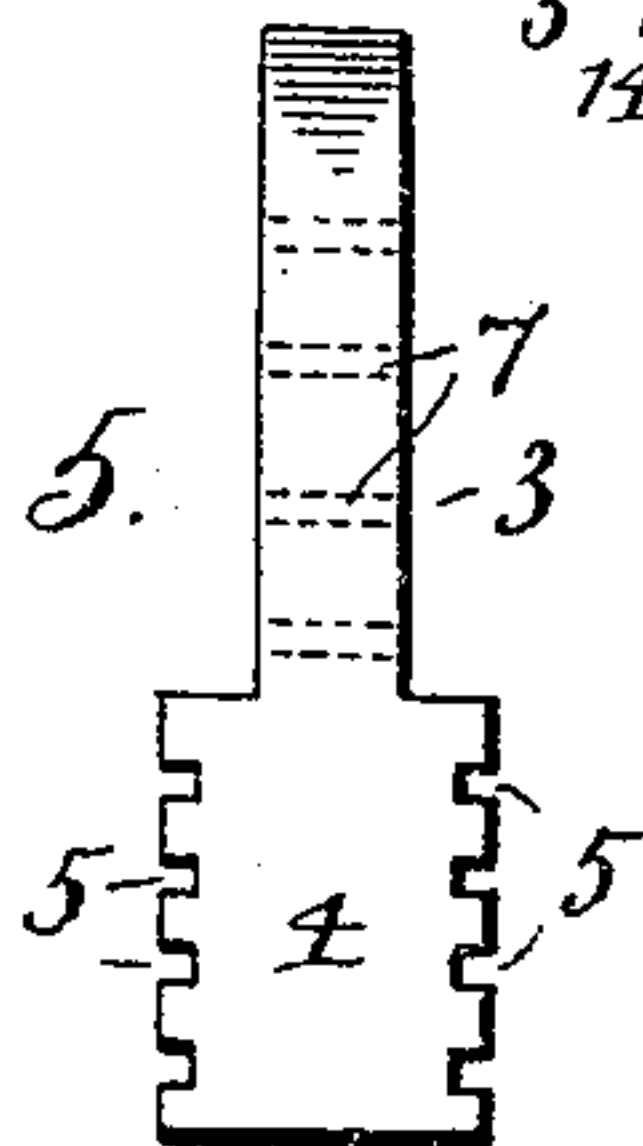


Fig. 6.

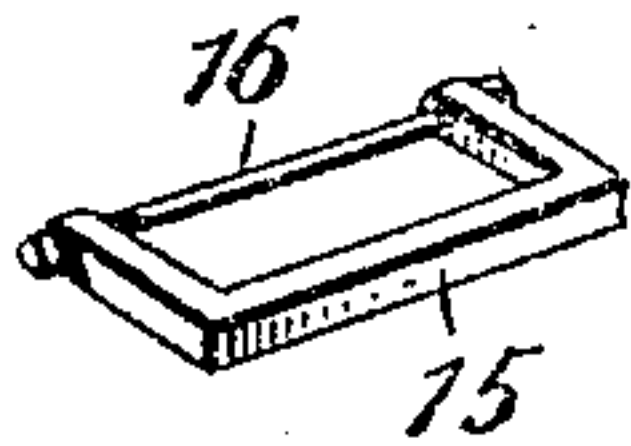
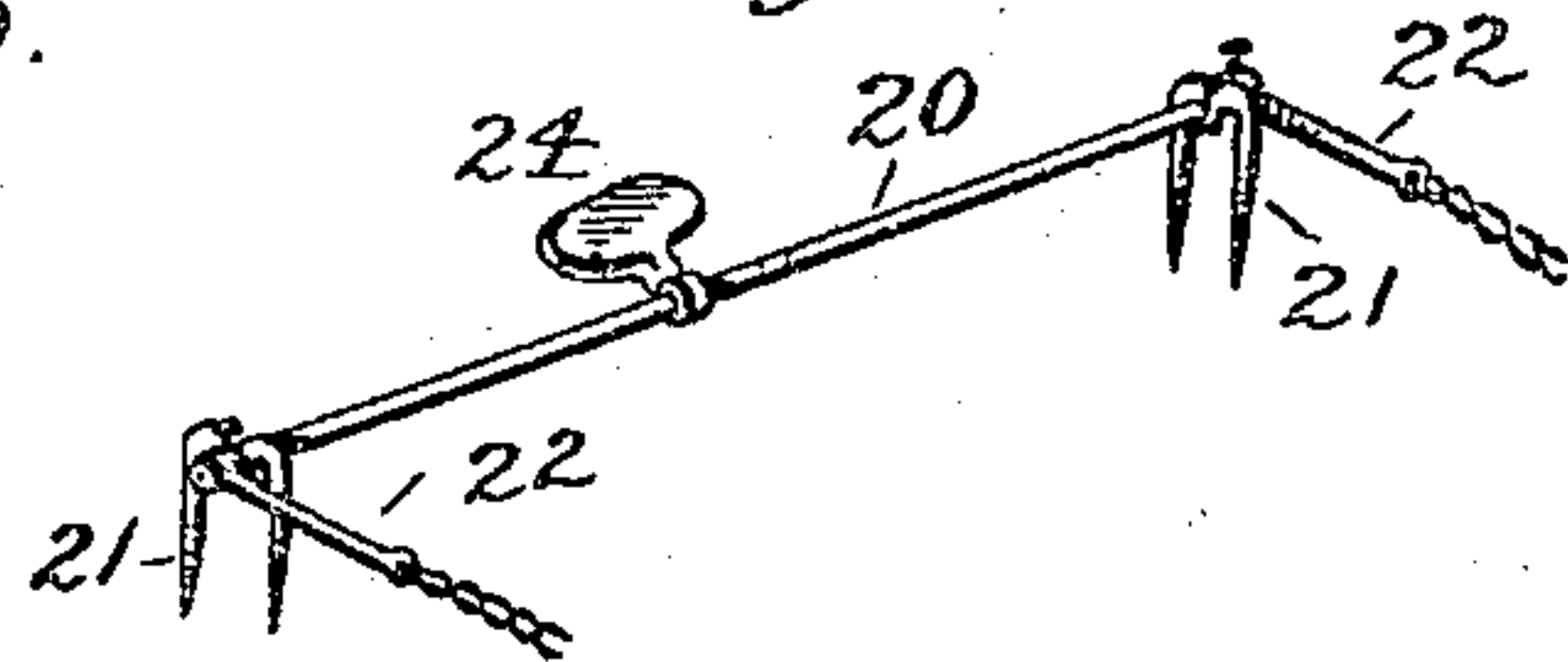


Fig. 7.



Witnesses:

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UNITED STATES PATENT OFFICE.

HUGH M. ADAMS, OF WASHINGTON, DISTRICT OF COLUMBIA.

CAR-FENDER.

SPECIFICATION forming part of Letters Patent No. 773,619, dated November 1, 1904.

Application filed May 14, 1904. Serial No. 208,019. (No model.)

To all whom it may concern:

Be it known that I, HUGH M. ADAMS, a citizen of the United States, residing at Washington, in the District of Columbia, have invented certain new and useful Improvements in Car-Fenders; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to improvements in car-fenders, and more especially relates to fenders of that type in which is embodied a tilting section.

The object of the present invention is to provide a car-fender of simple construction, thus reducing to a minimum the number of parts embodied therein and one in which the parts are so related as to insure positive action of the fender when struck by an object.

The present invention also contemplates the provision of a car-fender of extreme simplicity and which will preclude derangement of the parts, thus insuring positive action when the fender is required for use.

The invention also aims to provide a device of the character mentioned which is so constructed as to be readily adjustable for application to cars of different styles and to permit the fender being raised or lowered upon the car should such be desired, one in which the sections may be readily folded to remove the same from the zone of action of the car-coupler when the latter is required for use, and one in which the tiltable section is adapted to be tripped either automatically by contact with an object or manually by the car operator.

To the attainment of the foregoing and other objects, which will appear as the nature of the improvements is better understood, the invention consists, substantially, in the novel construction, combination, and arrangement of parts, as will be hereinafter fully described, illustrated in the accompanying drawings, and pointed out in the appended claims.

While the form of the invention herein shown and described is what is believed to be a preferable embodiment of the invention, it will of course be understood that the latter is susceptible of various changes in the form,

proportion, and minor details of construction, and the right is therefore reserved to modify or vary the invention as falls within the spirit and scope thereof.

In the drawings, Figure 1 is a perspective view of a car-fender constructed in accordance with the present invention and illustrated in applied position upon a car. Fig. 2 is an end elevation illustrating the sections of the fender as partially folded. Fig. 3 is a similar view illustrating the position of the fender when completely folded and removed from the zone of action of the car-coupler. Fig. 4 is a side elevation of one of the fender-supports removed from the car-platform. Fig. 5 is a front elevation thereof. Fig. 6 is a detail perspective view of the attaching-loop for the spring-buffers. Fig. 7 is a similar view of the device for manually tripping the fender.

Referring to the drawings, the numeral 1 designates the platform of a car, and 2 the dashboard thereof. Arranged upon the platform 1 in advance of the dashboard 2 is a series of fender-supports 3, two being preferably employed, although any desired number may be used, and said supports may be of any desired material, but preferably metal. The supports 3 are each provided with a downwardly-extending shank 4, the rear face of which bears against the front end of the platform 1 and is provided with a vertically-arranged series of notches or recesses 5, which communicate with similar notches 5', arranged at the sides of the shank, the purpose of which will be presently stated. The supports 3 are held in position upon the platform 1 through the medium of bolts 6 or their equivalent, which bolts pass through outwardly-extending flanges 6', projecting from the base of the supports 3, and the rear faces of the supports are provided with a series of downwardly-inclined slots 7. The width of the shanks 4 is the same as the distance between the edges of the side flanges 6' of each support. Consequently said shanks form comparatively wide bearing-surfaces for the buffer-springs, to be hereinafter referred to.

The fender proper comprises an upper section 8, which is preferably inclined, and a lower section 9, which occupies approximately

a horizontal plane, and said sections comprise rectangular frames in which are arranged longitudinally and transversely extending wires 10; but, if preferred, said frames may be covered with a suitable wire fabric or any other desired material. The lower section 9 is pivotally connected to the lower edge of the upper section 8 through the medium of depending links 11, which links are suspended from the lower bar of the section 8 and connected to the end bars of the section 9 at a point adjacent to the rear edge of said section. Thus the lower section 9 is so connected to the upper section 8 that the forward edge of the section 9 will normally gravitate unless restrained.

The bar constituting the upper edge of the section 8 is seated in one of the slots 7 in accordance with the height from the ground at which it is desired to suspend the fender, and to maintain said bar in said slots, and thus preclude displacement therefrom when the fender is struck by an object, a vertically-arranged locking-pin is passed through a rearwardly-projecting lug 12, arranged upon the upper end of each of the supports 3, the lower end of each of said pins being seated in its support.

In order to cushion the section 8 and at the same time maintain the section in an inclined position, a buffer-spring 13 is connected to and rests upon the shank 4 of each of the supports 3, the forward end of said spring being coiled and upon which the section 8 rests, while the rear end of said spring is provided with a depending tongue 14, which is seated in a U-shaped clip 15, straddling the shank 4, so that its legs fit the notches 5', and provided at its rear end with a removable pin or bolt 16, the latter in turn being seated in one of the notches or recesses 5, and thus locking the clip in its applied position to the shank 4 and at any desired point thereon. It will thus be seen that with the bar constituting the upper edge of the section 8 seated in the sockets 7 of the supports 3 and the end bars of the section 8 resting upon the springs 13 said section is held in a substantially fixed position upon said supports. By providing the springs 13 with the tongues 14, the latter being the width of the inner diameter of the clips 15, the remaining portions of the springs 13 provide a comparatively wide bearing-surface for the end bars of the section 8.

It is desirable that the lower section 9 shall be retained in substantially a horizontal position, and to the accomplishment of this end a pair of latch-bars 17 is employed, one of said bars being pivoted upon each end of the section 8, and said bars are provided in their rear edges with upwardly-inclined shallow notches 18, which are designed to engage the ends of the bar constituting the rear edge of the section 9, which project through the frame far enough to permit such engagement, and thus maintain the forward edge of said sec-

tion elevated from the ground. The bars 17 are pivotally connected to the section 8 through the medium of pins and clips 19, and said clips are so constructed as to permit the lower ends of the latch-bars 17 freely swinging forwardly, but limiting their rearward movement, and thereby maintain the notched ends thereof in fixed relation to the rear edge of the section 9. It will thus be seen that by reason of the links 11 any pressure upon the forward edge of the section 9 occasioned by contact of said section with a body will swing said section rearwardly, and thus disengage the rear bar thereof from the notches 18, whereupon the forward edge of the section 9 will gravitate, and thus effectually prevent the body or object passing beneath said section.

To manually operate the latch-bars 17, a rock-shaft 20 is arranged upon the platform 1 in rear of the dashboard, said shaft being suitably journaled in bearing-brackets 21, carried by the car-platform, and connected to the ends of said shaft is a pair of levers 22, which levers are in turn connected, through the medium of chains 23 or their equivalent, with the upper ends of the latch-bars 17. The rock-shaft 20 is also provided with a suitable actuating device 24, preferably in the form of a foot-lever, and by applying pressure to said device it will be seen that the shaft 20 may be rocked in its bearings to raise the levers 22 to a vertical position, and thus impart to the chains 23 movement in a rear direction. This movement will swing the latch-bars 17 upon their pivots, thus moving the lower ends thereof in a forward direction and from engagement with the lower section 9, whereby said section is freed and will gravitate in a manner similar to its movement when automatically released from said latch-bars.

If desired, a single latch-bar may be employed, in which event the same would be located at substantially the central part of the upper section 8 and pivoted upon a bar intermediate the end bars and similar thereto; but by employing a pair of bars it is obvious that a firmer engagement with the lower section is effected, and thus any tendency of said section to oscillate is effectually prevented.

In Figs. 2 and 3 is disclosed the manner in which the fender may be folded, and in the former figure it will be noted that the section 9 rests against the section 8, the links 11 freely permitting the section 9 to be swung to this position, and when the section 9 has been so moved the two sections together may be swung to the vertical position (shown in Fig. 3) and against the dashboard 2, the bar at the upper edge of the section 8 forming a pivot about which said sections swing. The fender is thus removed from the zone of action of the car-coupler, and the latter may be used without interfering with or damaging the fender.

Suitable rollers 25 are arranged upon the forward edge of the lower section 9 to engage with the rails or ground and provide a rolling contact therewith.

5 The normal position of the fender in use is as illustrated in Fig. 1, in which position it is seen that the lower section 9 is engaged by the latch-bar 17 and maintained in substantially a horizontal position. If at any time
10 the lower section 9 is struck by an object, said section will swing upon the links 11, thereby freeing the rear edge thereof from engagement with the latch-bars 17, whereby the front edge of the section 9 will immediately gravitate, and the rollers 25 will provide a rolling contact with the rails or ground.
15 On the other hand, should the operator of the car desire to release the section 9 pressure is applied to the foot-lever 24 to rock the shaft 20, in which movement, as described, the levers 22 are elevated, thereby swinging the upper ends of the latch-bars 17 rearwardly by means of the chains 23 and releasing the latch-bars from engagement with the lower section.
25 When the section 9 contacts with an object, the springs 13 cushion the fender as an entirety from the shock incident thereto, and consequently the whole fender will yield slightly under the influence of the shock, and thus the
30 parts thereof are prevented becoming broken.

If at any time it is desired to adjust the height of the fender, the upper bar of the section 8 is seated in one of the slots 7 above that previously occupied by the bar, which
35 correspondingly lifts the entire fender structure, it being obvious that the pins 12 are first removed to permit displacement of the bar of the section 8, and after said bar has been replaced in a new position the pins 12
40 are again introduced in their respective positions. The front end of the lower section 9 may be raised or lowered by adjusting the rear bar of section 9 in the different notches of the latch-bars 17.

45 Should it be necessary to adjust the position of the springs 13, the pins or bolts 16 are first removed, the clips 15 moved upwardly or downwardly, as the case may be, along the shanks 4 to a new position, whereupon the
50 pins 16 are again introduced into one of the recesses 5, thus locking the clips in their adjusted positions.

Having thus described the invention, what is claimed as new, and desired to be secured by
55 Letters Patent, is—

1. In a car-fender, the combination with an upper and a lower section, the latter being pivotally connected to the upper section and movable relatively thereto, of a pair of fender-supports carried by a car and provided with a series of slots, the upper section being seated in said slots and adapted to be adjusted at different points along said supports, means for preventing displacement of the upper
60 section from said slots, and means for holding

ing the lower section in substantially a horizontal position.

2. In a car-fender, the combination with an upper and a lower section, the latter being pivotally connected to the upper section and movable relatively thereto, of a pair of fender-supports carried by a car and provided with a series of slots, the upper section being seated in said slots and adapted to be adjusted at different points along said supports, pins arranged in said supports at the rear faces thereof and adapted to prevent displacement of the upper section from said slots, and means for holding the lower section in substantially a
70 horizontal position. 75 80

3. In a car-fender, the combination with an upper and a lower section, the latter being pivotally connected to the upper section and movable relatively thereto, of a pair of fender-supports carried by a car and provided with a series of slots, the upper section being seated in said slots and adapted to be adjusted at different points along said supports, means for preventing displacement of the upper section from said slots, means for holding the lower section in substantially a horizontal position, and springs carried by said supports and against which the upper section is adapted to rest for cushioning said section. 85 90

4. In a car-fender, the combination with an upper and a lower section, the latter being pivotally connected to the upper section and movable relatively thereto, of a pair of fender-supports carried by a car and provided with a series of slots, the upper section being seated in said slots and adapted to be adjusted at different points along said supports, means for preventing displacement of the upper section from said slots, means for holding the lower section in substantially a horizontal position, springs carried by said supports and against which the upper section is adapted to rest for cushioning said section, and means for maintaining said springs in adjusted positions along said supports. 95 100 105 110

5. In a car-fender, the combination with an upper and a lower section, of supports carried by a car, and to which the upper section is pivoted, said supports being provided with downwardly-extending shanks, clips arranged upon said shanks and adjustable thereon, and springs carried by said clips and against which the upper section is adapted to rest, whereby said springs cushion said sections. 115 120

6. In a car-fender, the combination with an upper and a lower section, the latter being pivotally connected to the upper section and movable relatively thereto, of a pair of fender-supports carried by a car and provided with a series of slots, the upper section being seated in said slots and adapted to be adjusted at different points along said supports, means for preventing displacement of the upper section from said slots, and latch-bars pivoted to the upper section and engaging the lower section. 125 130

tion for maintaining the latter in substantially a horizontal position.

7. In a car-fender, the combination with an upper and a lower section, the latter being 5 pivotally connected to the upper section and movable relatively thereto, of a pair of fender-supports carried by a car and provided with a series of slots, the upper section being seated in said slots and adapted to be adjusted 10 at different points along said supports, means for preventing displacement of the upper section from said slots, latch-bars pivoted to the upper section and engaging the lower section for holding the latter in substantially a horizontal position, and means for actuating said 15 latch-bars for releasing the same from engagement with the lower section.

8. In a car-fender, the combination with an upper and a lower section, the latter being 20 pivotally connected to the upper section and movable relatively thereto, of a pair of fender-supports carried by a car and provided with a series of slots, the upper section being seated in said slots and adapted to be adjusted 25 at different points along said supports, means for preventing displacement of the upper section from said slots, latch-bars pivoted to the upper section and engaging the lower section for holding the latter in substantially a horizontal position, a rock-shaft journaled upon 30 the car-platform, and connections between said rock-shaft and said latch-bars for operating the latter when said shaft is rocked.

9. In a car-fender, the combination with an 35 upper and a lower section, the latter being pivotally connected to the upper section and movable relatively thereto, of a pair of fen-

der-supports carried by a car and provided with a series of slots, the upper section being seated in said slots and adapted to be adjust- 40 ed at different points along said supports, means for preventing displacement of the upper section from said slots, latch-bars pivoted to the upper section and engaging the lower section for holding the latter in substantially 45 a horizontal position, a rock-shaft journaled upon the car-platform, connections between said rock-shaft and said latch-bars for operating the latter, and a foot-lever carried by said rock-shaft for actuating the latter. 50

10. In a car-fender, the combination with an upper and a lower section, the latter being pivotally connected to the upper section and movable relatively thereto, of a pair of fen- 55 der-supports carried by a car and provided with a series of slots, the upper section being seated in said slots and adapted to be adjusted at different points along said supports, means 60 for preventing displacement of the upper section from said slots, latch-bars pivoted to the upper section and engaging the lower section for holding the latter in substantially a horizontal position, a rock-shaft journaled 65 upon the car-platform, levers carried by said rock-shaft, and connections between said levers and the latch-bars for releasing the latter from engagement with the lower section when the rock-shaft is actuated.

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

HUGH M. ADAMS.

Witnesses:

J. FRED. KELLEY,
WM. N. CROMWELL.