

E. T. HARDIN.

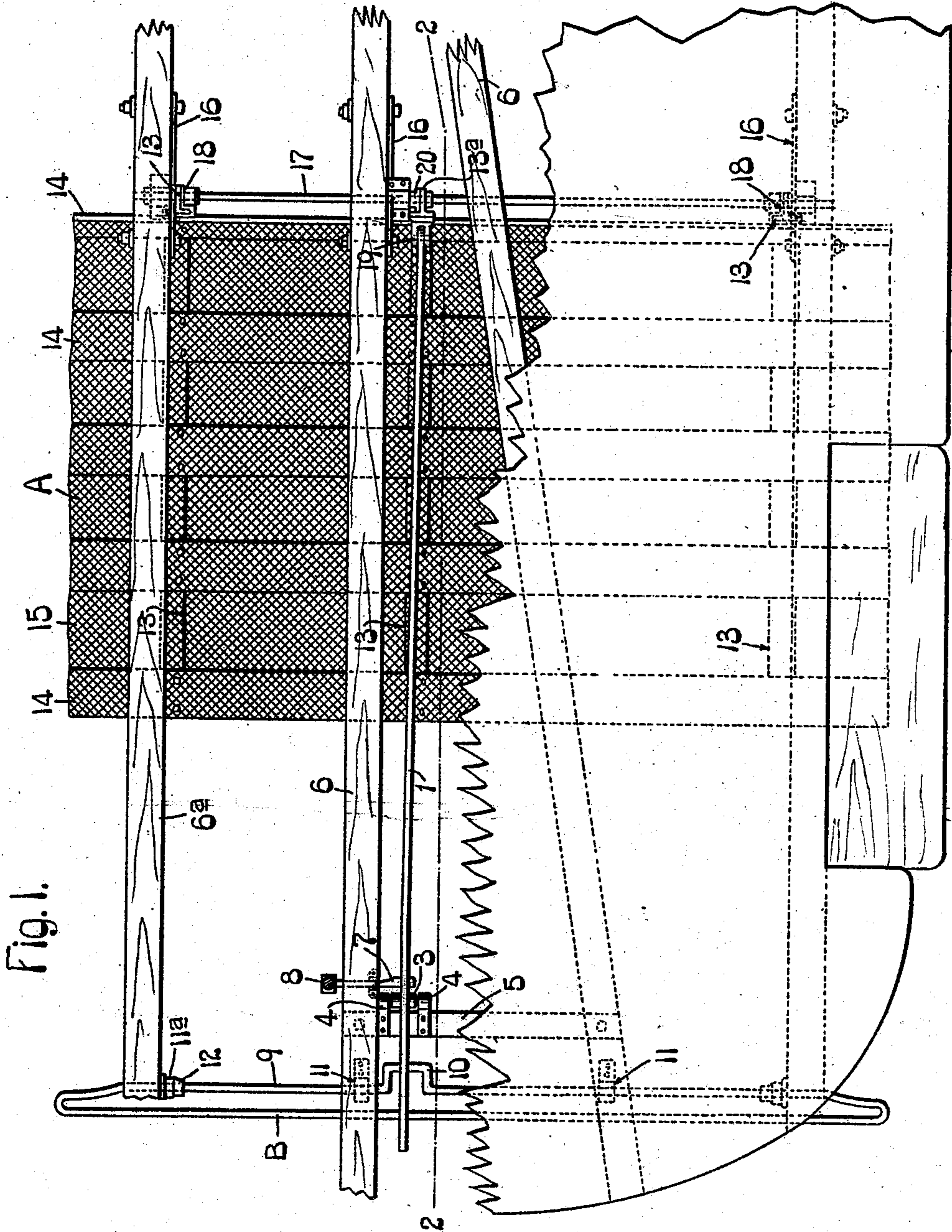
CAR FENDER.

APPLICATION FILED MAR. 23, 1908.

905,178.

Patented Dec. 1, 1908.

2 SHEETS—SHEET 1.



Witnesses  
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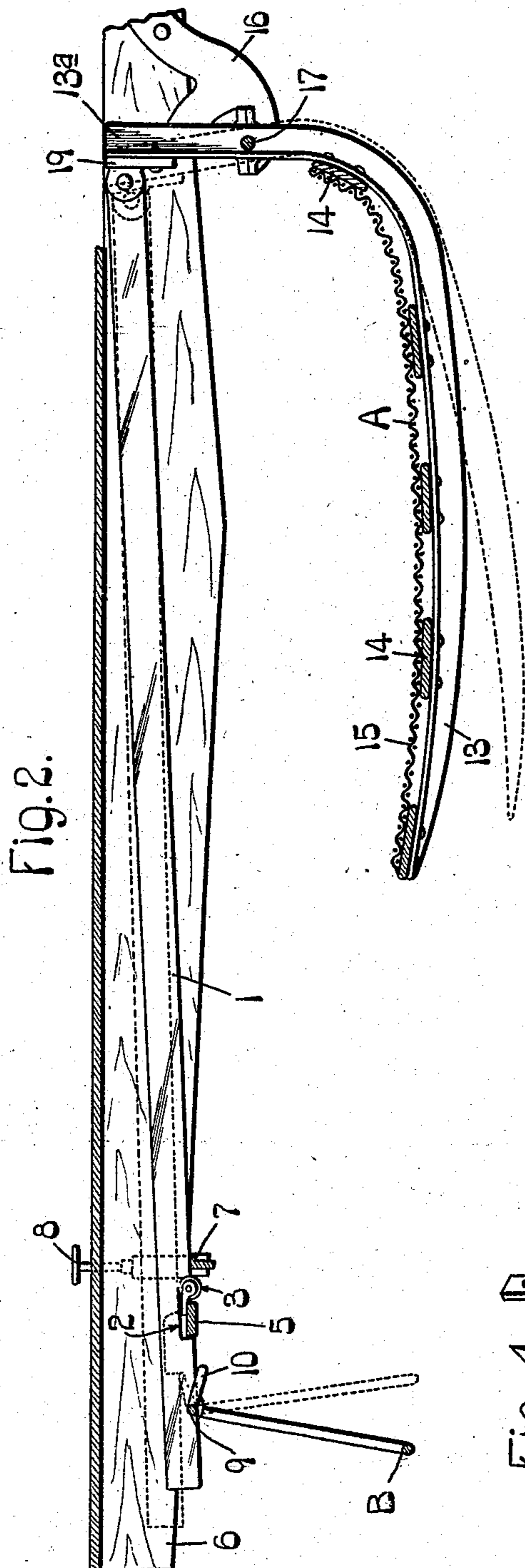


Fig. 2.

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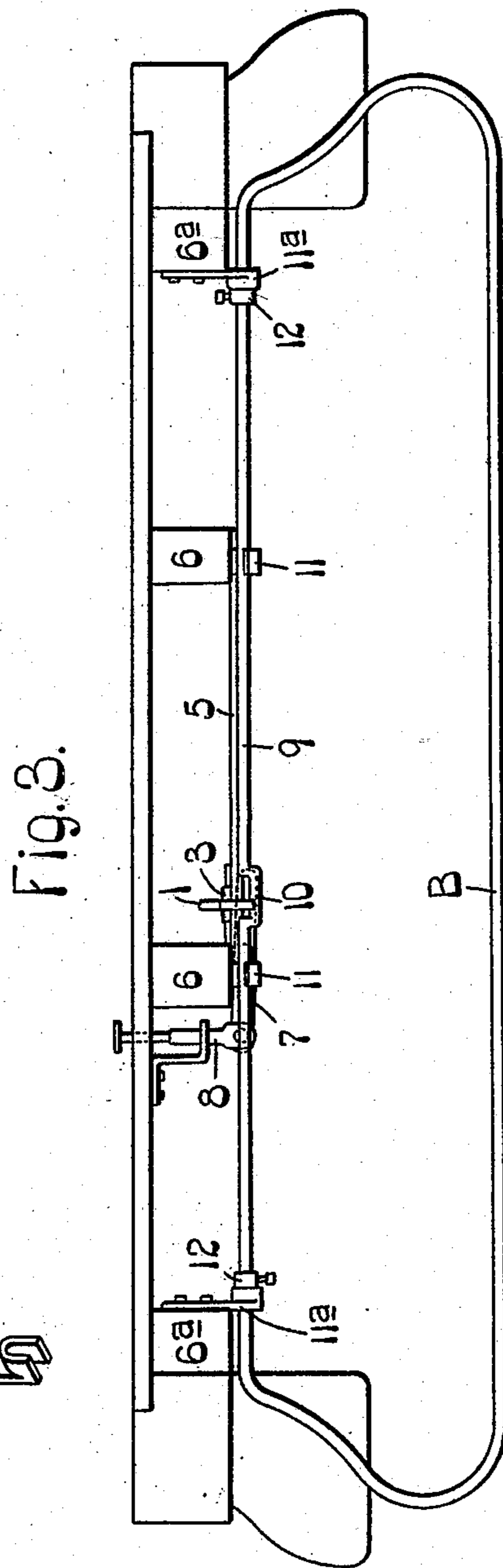


Fig. 3.

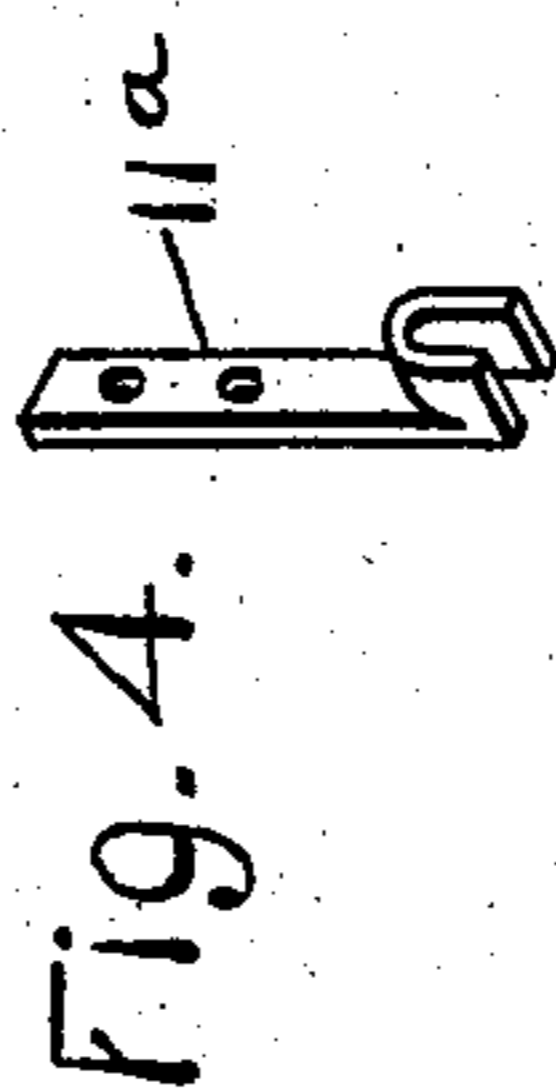


Fig. 4.

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# UNITED STATES PATENT OFFICE.

EDWARD T. HARDIN, OF HOT SPRINGS, ARKANSAS.

## CAR-FENDER.

No. 905,178.

Specification of Letters Patent.

Patented Dec. 1, 1908.

Application filed March 23, 1908. Serial No. 422,729.

*To all whom it may concern:*

Be it known that I, EDWARD T. HARDIN, a citizen of the United States, residing at Hot Springs, Arkansas, have invented a certain new and useful Improvement in Car-Fenders, of which the following is a full, clear, and exact description, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1 is a top plan view of a portion of a car platform provided with my improved fender and mechanism for operating same; Fig. 2 is a vertical sectional view taken on the line 2—2 of Fig. 1; Fig. 3 is a front elevation of the platform and the operating mechanism for the fender; and Fig. 4 is a perspective view of one of the open bearings 11<sup>a</sup> in which the tripping member is journaled.

This invention relates to car fenders, and particularly to that type which can be dropped or swung downwardly so as to prevent the wheels of the car from passing over an object lying on the track.

One object of my invention is to provide a life-saving device comprising a fender, manually-operated means for causing said fender to move downwardly out of its normal position and also independent means operated by an object lying on the track for causing said fender to move downwardly.

Another object of my invention is to provide a car fender of simple construction and improved means for operating said fender.

Referring to the drawings which illustrate the preferred form of my invention, A designates a pivotally mounted fender arranged underneath the platform of a car, and 1 designates an operating bar connected to the upper end of said fender, as shown in Fig. 2, and extending toward the front end of the platform. A notch 2 is formed on the underneath side of the operating bar 1 adjacent the front end thereof and a roller 3 enters said notch and bears against one edge thereof so as to hold the fender in its normal elevated position, as shown in full lines in Fig. 2, said roller being carried by brackets 4 secured to a bar 5 that is fastened to the intermediate platform sills 6.

The manually-operated means which causes the fender A to swing downwardly into the position shown in broken lines in Fig. 2 consists of a lever 7 pivotally con-

nected to a bracket on the underneath side of one of the intermediate platform sills and having its free end arranged underneath the operating bar 1, as shown in Fig. 2, and a foot-operated plunger 8 pivotally connected to the opposite end of said lever and projecting upwardly through the platform so that it can be operated easily by the foot of the motorman. When the foot plunger 8 is depressed the lever 7 will raise the operating bar 1 and carry the shoulder thereon out of engagement with the roller 3 thereby releasing the fender A so that it can swing downwardly.

In addition to the manually-operated releasing means just described I have provided a device that is adapted to be operated by an object lying on the track for automatically releasing the fender so that it can swing downwardly. Said automatic releasing means consists of an approximately bail-shaped member pivotally connected to the platform sills and depending therefrom, as shown in Fig. 2, the lower portion of said member lying close to the track so that it will come into contact with an object lying on the track.

The member B preferably consists of a rod bent to form a bail and an upper portion 9 that connects the legs of said bail, said upper portion 9 being provided with a crank or laterally projecting arm 10 that lies underneath the front end of the operating bar 1, as shown in Figs. 1 and 2. When the lower portion of the member B strikes an object lying on the track, said member will be moved rearwardly into the position shown in broken lines in Fig. 2, and as the arm 10 on said member moves upwardly it will raise the operating bar 1 and thus carry the shoulder thereon out of engagement with the roller 3 so that the fender A can swing downwardly into the position shown in broken lines in Fig. 2.

The parts are restored to normal position by manually raising the fender, the upward movement of the fender drawing the bar 1 rearwardly so that the notch 2 therein will come into engagement with the roller 3.

The upper portion 9 of the member B is journaled in two open bearings 11 on the intermediate platform sills 6 and also in two open bearings 11<sup>a</sup> on the outside platform sills 6<sup>a</sup>, the bearings 11 being open on their upper sides so that they constitute the main supporting means for the member B

and the bearings 11<sup>a</sup> being open on their lower sides so that they bear downwardly on the upper portion 9 of the member B and prevent it from moving upwardly out of the bearings 11. The member B is prevented from shifting laterally by means of collars 12 adjustably connected to the upper portion 9 by means of set screws and bearing against the inside faces of the bearings 11<sup>a</sup>.

The fender A is composed of three members 13 spaced away from each other and each bent to form a horizontal portion and an upwardly projecting portion or arm. I prefer to form the members 13 from commercially rolled T-iron and connect them together by transversely extending slats 14 that are secured to the horizontal flanges of said members, a piece of wire netting 15 being preferably arranged over the slats 14, as shown in Figs. 1 and 2. Brackets 16 which project downwardly from the platform sills carry a transversely extending rod or shaft 17 and the outside members 13 of the fender are provided at their upper ends with bearings 18 that are journaled on said shaft 17, as shown in Fig. 1. The intermediate member 13 of the fender has an extension 13<sup>a</sup> that projects upwardly above the shaft 17 and the inner end of the operating bar 1 is pivotally connected to a bearing 19 on said extension 13<sup>a</sup>, as shown in Fig. 2. The supporting rod or shaft 17 passes through the vertical shank or leg of the extension 13<sup>a</sup> and a bushing 20 is interposed between the side of said extension and the supporting bracket 16 on one of the intermediate platform sills, as shown in Fig. 1.

A fender of this description is strong and of simple construction so that it can be manufactured at a low cost and as the apparatus comprises a manually-operated means for releasing the fender and also an independent automatic releasing means, a very efficient life-saving device is produced.

Having thus described my invention, what I claim as new and desire to secure by Letters Patent is:

1. An apparatus of the character described, comprising a pivotally mounted fender, an operating bar connected to said fender, a locking device which engages said bar so as to hold the fender in its elevated position, a manually operated device for releasing said bar from said locking device, a swinging member depending from the platform and adapted to be operated by an object lying on the track, and an arm on said member normally lying underneath said bar and adapted to move said bar out of engagement with its locking device when said member comes in contact with an object lying on the track; substantially as described.

2. An apparatus of the character described, comprising a pivotally mounted

fender, an operating bar connected to said fender and provided with a shoulder that engages a locking device which holds the fender in one position, a manually-operated device for releasing said bar from said locking device, and independent means adapted to be operated by an object lying on the track and provided with a rigid portion that directly engages said bar and moves it out of contact with said locking device; substantially as described.

3. An apparatus of the character described, comprising a pivotally mounted fender, an operating bar connected to said fender, a roller mounted on a stationary support for engaging a notch or shoulder in said bar to hold the fender in an elevated position, manually-operated means for moving said bar out of engagement with said roller so as to release the fender, and independent means adapted to be operated by an object lying on the track for moving said bar out of engagement with said roller so as to automatically release the fender; substantially as described.

4. An apparatus of the character described, comprising a pivotally mounted fender, an operating bar connected to said fender, a locking device cooperating with said bar to hold the fender in an elevated position, a lever for disengaging said bar from said locking device, a foot-operated plunger for actuating said lever, a swinging member depending from the platform and adapted to be operated by an object lying on the track, and an arm on said swinging member which directly engages said bar and releases it from said locking device; substantially as described.

5. An apparatus of the character described, comprising a pivotally mounted fender arranged underneath the platform of a car, an operating bar connected to said fender, a locking roller cooperating with a notch or shoulder on said bar to retain the fender in an elevated position, a manually-operated lever arranged underneath said bar for disengaging it from said locking roller, a pivotally mounted member depending from the platform and adapted to be operated by an object lying on the track, and an arm on said member for disengaging said operating bar from said locking roller; substantially as described.

6. An apparatus of the character described, comprising a pivotally mounted fender arranged underneath the platform of a car, an operating bar connected to said fender, a locking device cooperating with said bar for holding the fender in an elevated position, a swinging member depending from the platform and adapted to be operated by an object lying on the track for releasing said bar from said locking device, a plurality of bearings open on their upper

sides and connected to the platform sills for supporting said member, a plurality of separate bearings connected to the platform sills for preventing said member from moving upwardly out of the bearings first referred to, and means for preventing said member from shifting laterally; substantially as described.

7. An apparatus of the character described, comprising a pivotally mounted fender arranged underneath the platform of a car, depending brackets on the sills of the platform, a transversely extending rod or shaft that forms a fulcrum or pivot for said fender, an operating bar connected to the upper end of said fender and provided with a notch or shoulder, a roller mounted in stationary brackets and adapted to enter said notch to retain the fender in an elevated position, and means for releasing said bar from said shoulder; substantially as described.

8. In an apparatus of the character described, a pivotally mounted fender arranged underneath the platform of a car and composed of two outside members that are pivotally connected at their upper ends to a transversely extending shaft or supporting rod and a central member provided with an extension, an operating bar connected to said extension, locking means cooperating with said bar for holding the fender in an elevated position, and means for releasing said bar from said locking means; substantially as described.

In testimony whereof I hereunto affix my signature in the presence of two witnesses, this 14th day of March 1908.

EDWARD T. HARDIN.

Witnesses:

HENRY O. PRICE,  
JAMES THOMAS JACKSON.