

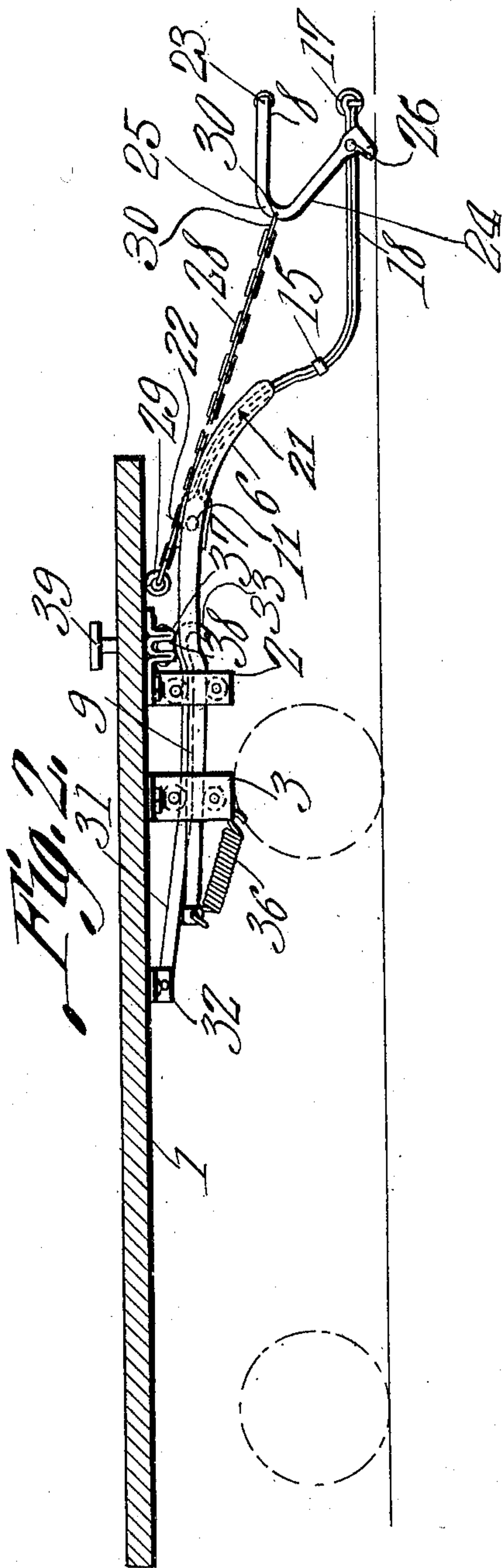
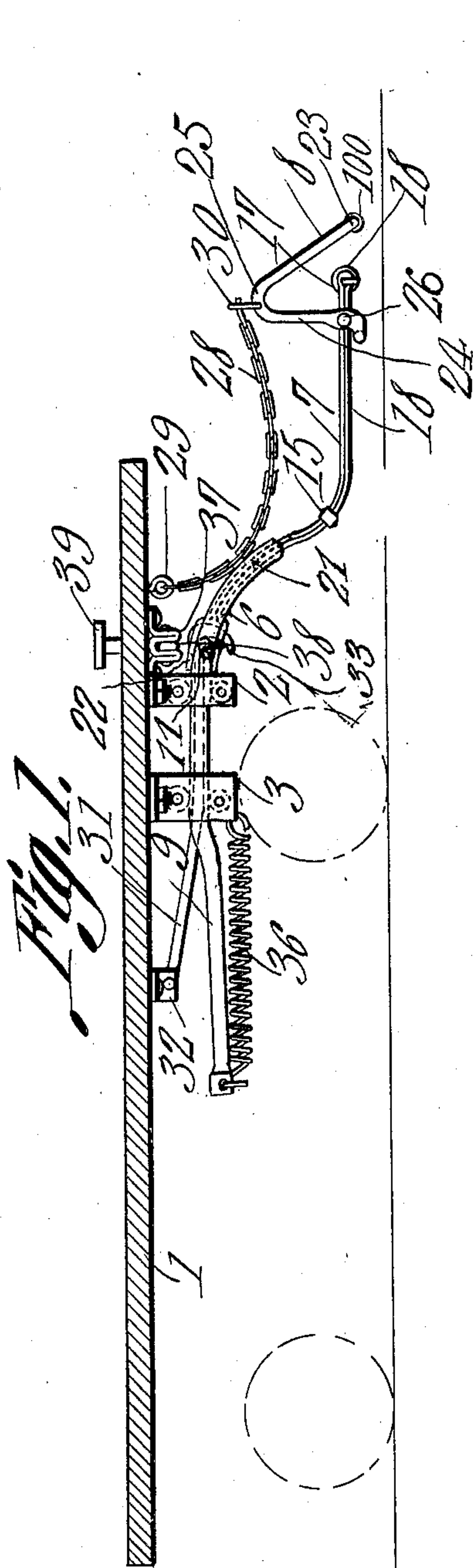
J. A. BOUGHTON.
FENDER.

APPLICATION FILED AUG. 4, 1910.

983,476.

Patented Feb. 7, 1911.

2 SHEETS—SHEET 1.



Witnesses

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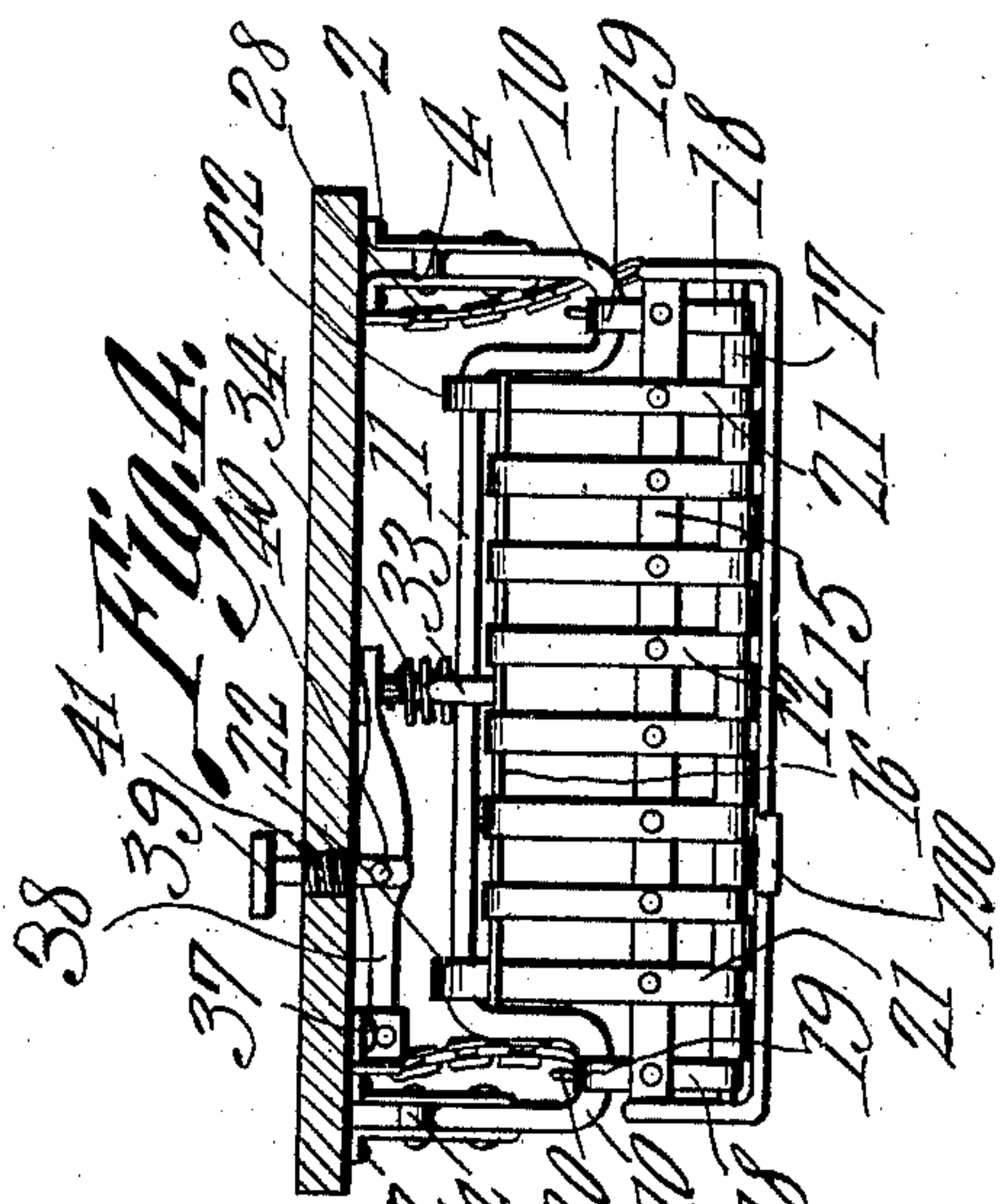
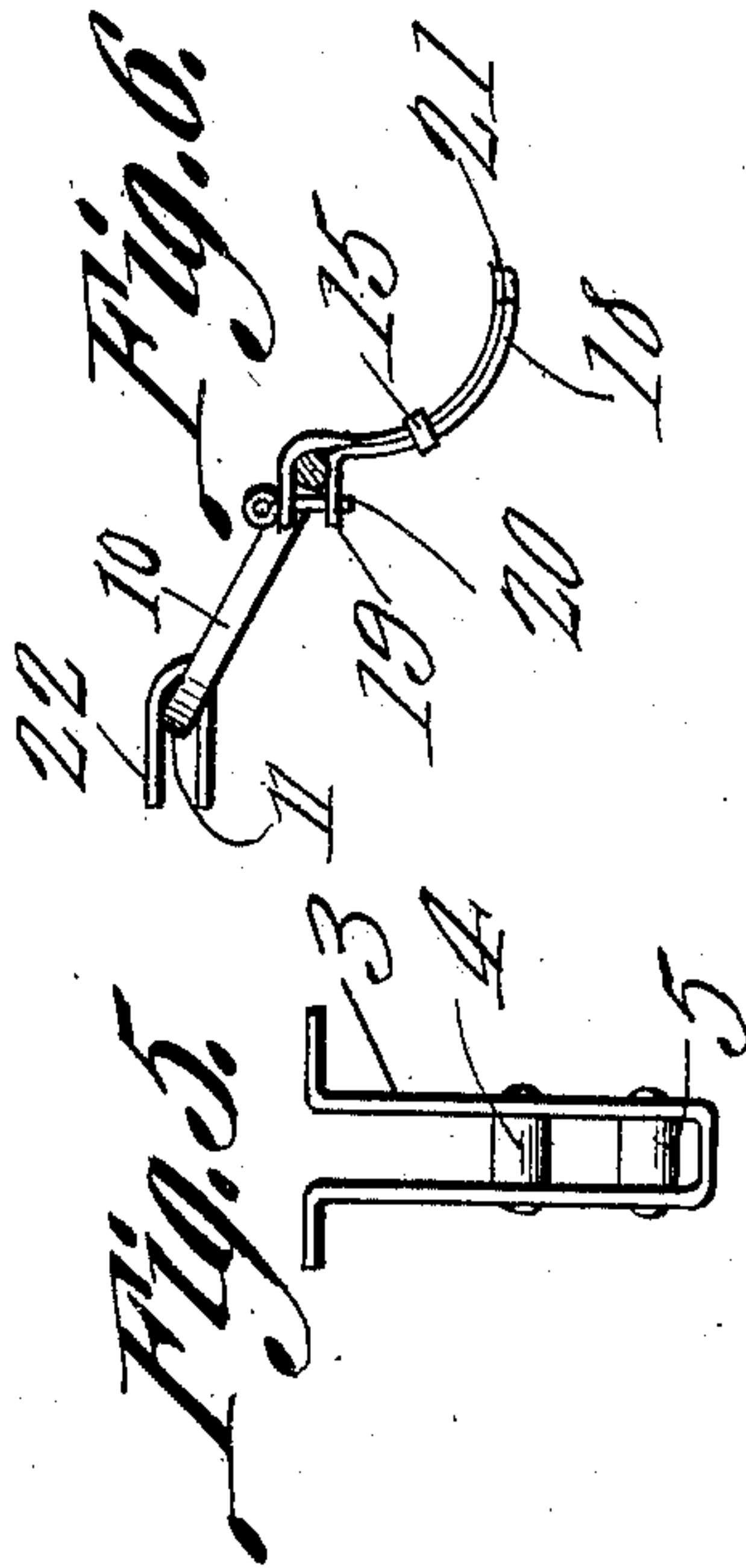
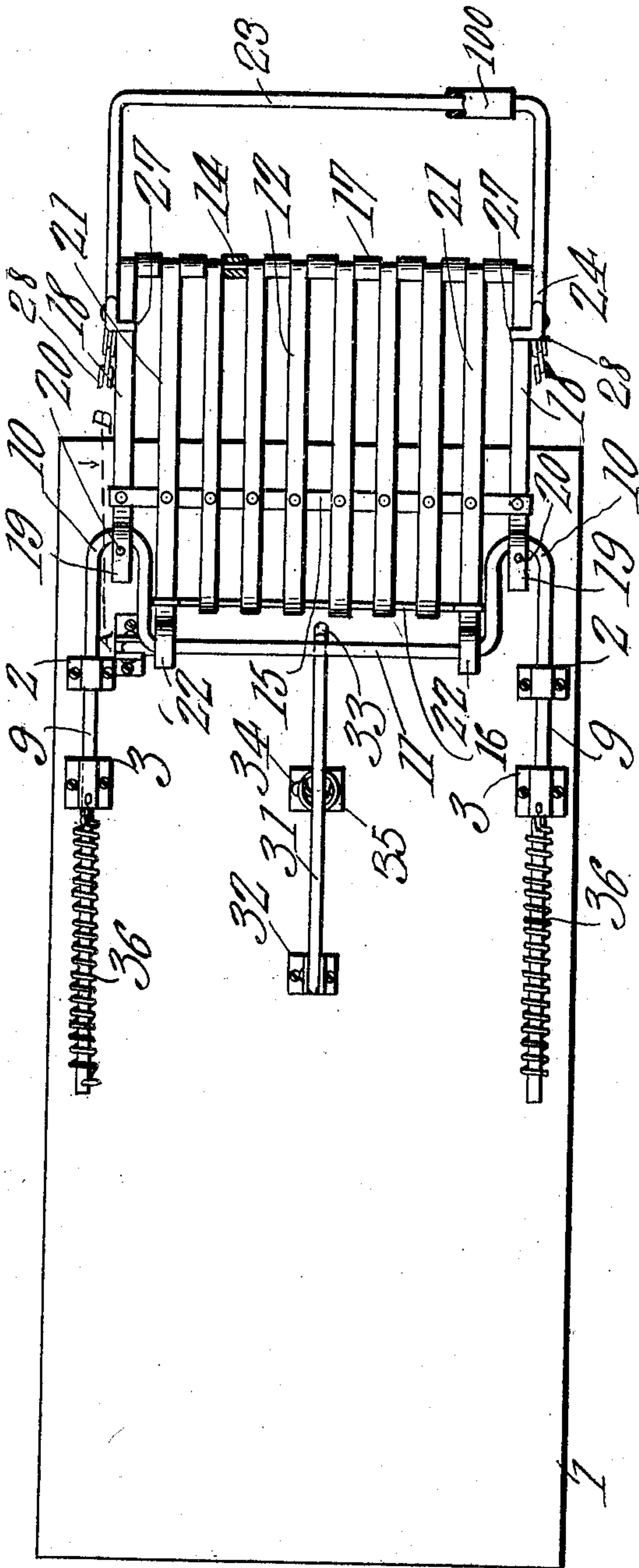
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UNITED STATES PATENT OFFICE.

JAMES A. BOUGHTON, OF SCHENECTADY, NEW YORK.

FENDER.

983,476.

Specification of Letters Patent.

Patented Feb. 7, 1911.

Application filed August 4, 1910. Serial No. 575,462.

To all whom it may concern:

Be it known that I, JAMES A. BOUGHTON, a citizen of the United States, residing at Schenectady, in the county of Schenectady and State of New York, have invented a new and useful Fender, of which the following is a specification.

It is the object of this invention to provide a fender for a car, adapted to move forwardly, under impact with an obstacle, to receive such obstacle.

Another object of the invention is to provide novel means for advancing the fender, and to provide novel means for holding the fender in retracted position, and for releasing the fender.

Another object of the invention is to provide a slidable, spring actuated fender, with a pivoted guard mechanism, adapted to be actuated, by the movement of the fender, to assume such a position that any object which is upon the fender, will be prevented from rolling therefrom.

Another object of the invention is to provide a fender of novel and improved form, and to devise means for mounting the fender upon a car body.

The drawings show typical embodiments merely, and it is to be understood that changes, properly falling within the scope of what is claimed, may be made without departing from the spirit of the invention.

In the drawings,—Figure 1 shows the invention in side elevation, the fender being held in retracted position; Fig. 2 is a side elevation showing the fender in advanced position; Fig. 3 is a bottom plan showing the fender in retracted position; Fig. 4 is a front elevation showing the fender in retracted position, the car body being sectioned. Fig. 5 is an end elevation of one of the supporting brackets in which the fender is mounted; and Fig. 6 is a section of the fender upon the line A—B of Fig. 3.

In the drawings, the car body is denoted generally by the numeral 1, and shown conventionally. Secured to the car body 1, relatively near to its end, and adjacent its lateral edges, are forward brackets 2, and rear brackets 3. One of these brackets 3 is shown in detail in Fig. 5, the view serving to illustrate the form of the brackets 2, as well. These brackets are preferably U shaped elements, between the arms of which are rotatably mounted upper rollers 4 and lower rollers 5.

That portion of the device which is described generally as the fender, consists of a carrying member 6, to which (referring to Fig. 1) a basket 7 is removably secured, a guard 8 being pivoted to the forward end of the basket 7. The carrying member 6, the basket 7 and the guard 8 will be described in detail hereinafter. Broadly speaking, the carrying member 6 is a U shaped element, the arms 9 of which extend rearward, the arms 9 being slidably mounted between the rollers 4 and 5 of the brackets 2 and 3, so that the carrying member may be advanced and retracted longitudinally of the car body 1. It is to be noted that the arms 9 of the carrying member 6 are arched upwardly, so that, when the carrying member 6 moves forwardly, the basket 7 which is assembled with the carrying member, will move into relatively close relation with respect to the track. Thus the feature will be clearly discerned by comparing Figs. 1 and 2 of the drawings. The arms 9 at their forward ends, are bent sharply upon themselves to form seats 10, the portion 11 of the carrying member being elevated above the seats 10, and disposed to the rear thereof.

The basket 7 comprises a plurality of slats denoted generally by the numeral 12. These slats 12 are connected, transversely of the basket, by a front brace 14 (see Fig. 3), by an intermediate brace 15, and by a rear brace 16, although this specific construction of the basket may be departed from without impairing the utility of the device. As is usual, a plurality of rollers 17 are journaled upon the front brace 14, between the slats 12, these rollers 17 serving to support the basket anti-frictionally, upon the track, when the basket is depressed.

The outer slats of the basket are denoted by the numeral 18, and by referring to Figs. 1 and 2 it will be seen that these slats are of double walled construction, the rear ends of the outer slats 18 being spaced apart to form fingers 19, adapted to fit in the seats 10 of the carrying member 6. Pins 20, or other securing members adapted to a like end, may be inserted through the fingers 19, whereby the basket may be held upon the carrying member 6.

The slats which are next to the outer slats 18 are denoted by the numeral 21, and these slats 21 are provided at their rear ends, with spaced fingers 22, adapted to straddle the

portion 11 of the carrying member 6. Preferably, the fingers 22 are devoid of securing devices such as those denoted by the numeral 20. It will be seen that by removing the
 5 pins 20, the basket 7 may readily be removed from the carrying member 6, and owing to the fact that the fingers 22 engage the portion 11 of the carrying member 6, above and to the rear of the seats 10, the fender, when
 10 mounted as shown in the drawings, will be retained upon the carrying member against tilting.

Passing now to a detailed description of the guard 8, it will be seen that the same
 15 is U-shaped in general outline, the portion 23 thereof extending across the fender, in front of the basket 7. The arms 24 of the guard are bent as at 25, the extremities of the arms 24 being pivoted, as shown at 26,
 20 to the basket 7, adjacent the forward end thereof. The rear lower extremities 27 of the arms 24 are carried beneath the basket 7 and engage the outer slats 18, (see Fig. 3) to uphold the guard in the position shown
 25 in Fig. 1 of the drawings. When the guard 8 is thus disposed, the portion 23 of the guard will be disposed in front of the basket 7. Spaced flexible members 28, preferably chains, are united at their forward ends as
 30 shown at 30, with the guard 8, preferably at the points 25 where the arms 24 of the guard are bent. The rear ends of the flexible members 28 are secured, as shown at 29, to the car body 1.

Referring to Figs. 1 and 3, it will be seen that when the fender is retracted, as shown in Fig. 1, the chains 28 hang slack, the portion 23 of the guard 8 being disposed in front of the basket 7. When, however, the
 40 fender is advanced, as shown in Fig. 2, the chains 28 will be drawn taut, the portion 23 of the guard 8 being disposed above the basket 18. By this construction, the guard 8 and the chains 28 serve, when the fender is advanced, as shown in Fig. 2, to house in the basket 7 upon its front and sides, so that any object which has fallen into the basket, cannot roll therefrom.

Resilient means for moving the fender from the position shown in Fig. 1 to that shown in Fig. 2, are provided. Likewise, a latch mechanism is provided whereby the fender may be held in the position shown in Fig. 1, against the action of the resilient means to actuate the fender forwardly. The latch mechanism and the actuating means will now be described.

A lever 31 is disposed longitudinally of the car body 1, the rear end of this lever 31
 60 being pivotally mounted in a fulcrum bracket 32, secured to the lower face of the car body. The forward end of the lever 31 terminates in hook 33. This hook 33 is adapted to engage the portion 11 of the
 65 carrying member 6, to hold the carrying

member in the retracted position shown in Fig. 1, against the action of retractile springs 36, the forward ends of which are secured to the brackets 3, the rear ends of the springs 36 being secured to the rear ends
 70 of the arms 9 of the carrying member 6. The hook 33 is normally held out of engagement with the portion 11 of the carrying member 6 by means of a retractile spring 34, the lower end of which is connected to the
 75 lever 31, the upper end of the spring 34 being secured to a suitable bracket 35, which said bracket is connected to the car body 1.

A device is provided for depressing the lever 31, against the action of the spring 34,
 80 so that the hook 33 may engage the portion 11 of the carrying member 6. This device for depressing the lever 31 includes a lever 38, disposed transversely of the car body 1. The outer end of this lever 38 is pivoted in
 85 a fulcrum bracket 37, secured to the lower face of the car body 1, the free, inner end of the lever 38 being adapted to bear upon the lever 31 to depress the same. The lever 38 is actuated by a plunger 39 which is slidably mounted in the car body 1 and pivoted,
 90 as shown at 40 to the lever 38. This plunger 39, together with the lever 38 is normally held in uplifted position by means of a compression spring 41, engaging the plun-
 95 ger 39 and the car body 1, as shown in Fig. 4. The portion 23 of the guard may carry a tubular rubber covering 100. Compared with the springs 36, the spring 34 is very weak. This construction prevents the
 100 spring 34 from drawing the forward end of the bar 31 upwardly to disengage the hook 33 from the portion 11 when the fender is in the position shown in Fig. 1.

Referring to Figs. 1 and 2 particularly,
 105 the operation of the device is as follows, presupposing that the fender is held in the retracted position shown in Fig. 1. When the portion 23 of the guard 8 strikes an obstacle, the carrying member 6 will, in the
 110 first instance, be slid rearwardly to a slight extent, perhaps half an inch or so. This movement of the carrying member 6 will be sufficient to disengage the portion 11 of the carrying member 6 from the hook 33, where-
 115 upon the spring 34 will lift the lever 31, so that the springs 36 may slide the fender, including the carrying member 6, the basket 7 and the guard 8, forwardly, into the position shown in Fig. 2. The initial impact
 120 between the guard 8 and the obstacle will serve to tilt the guard slightly. As the fender thus moves forward, the chains 28 will be drawn taut, tilting the guard 8 rearwardly, so that the portion 23 thereof will
 125 be positioned above the basket 7, as hereinbefore described. Thus, the object which has been deposited in the basket 7 will be retained therein, against displacement. Moreover, owing to the arcuate form of
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