

Patented June 6, 1911.

994,423.

Fig. 1.

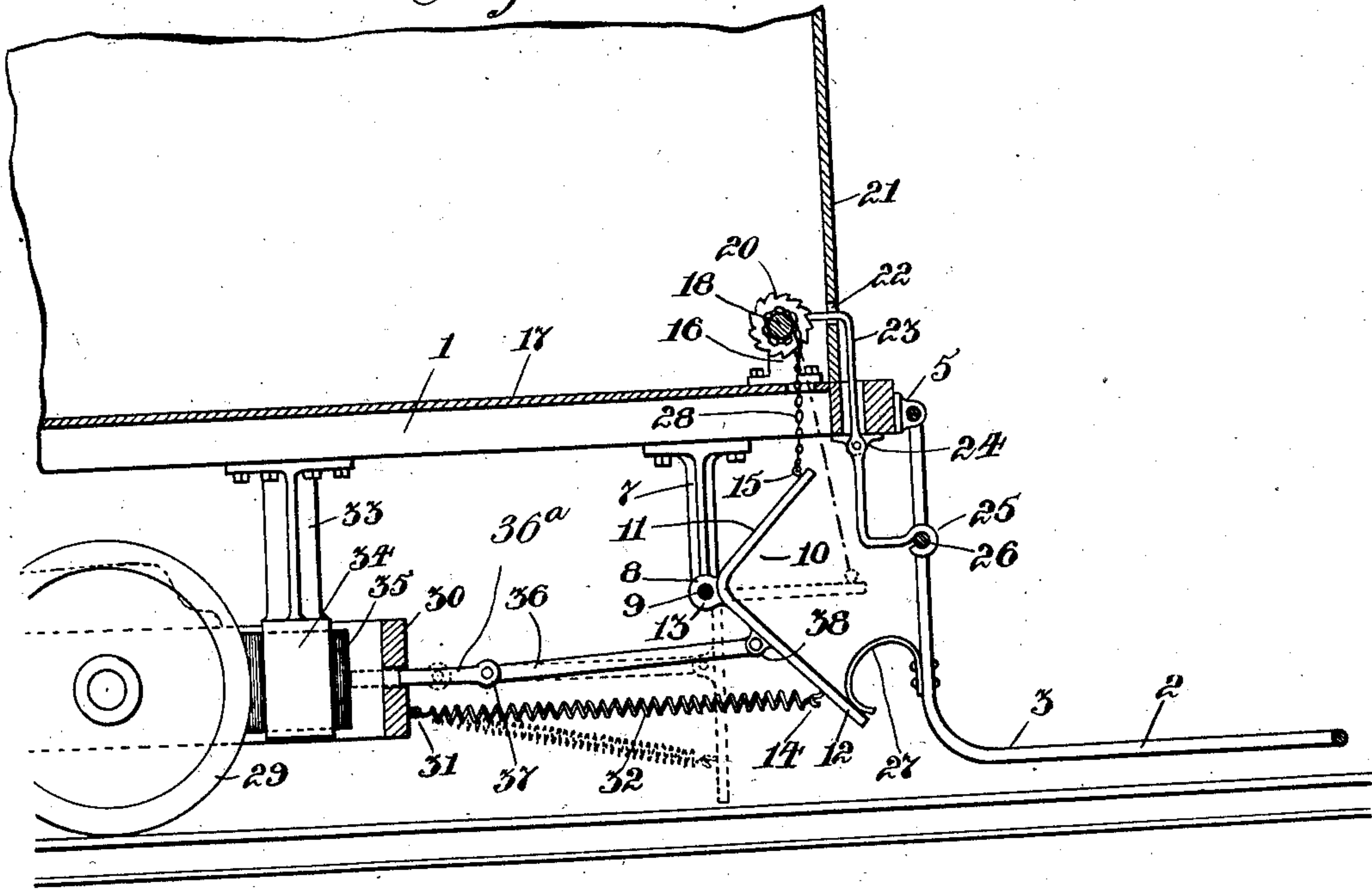
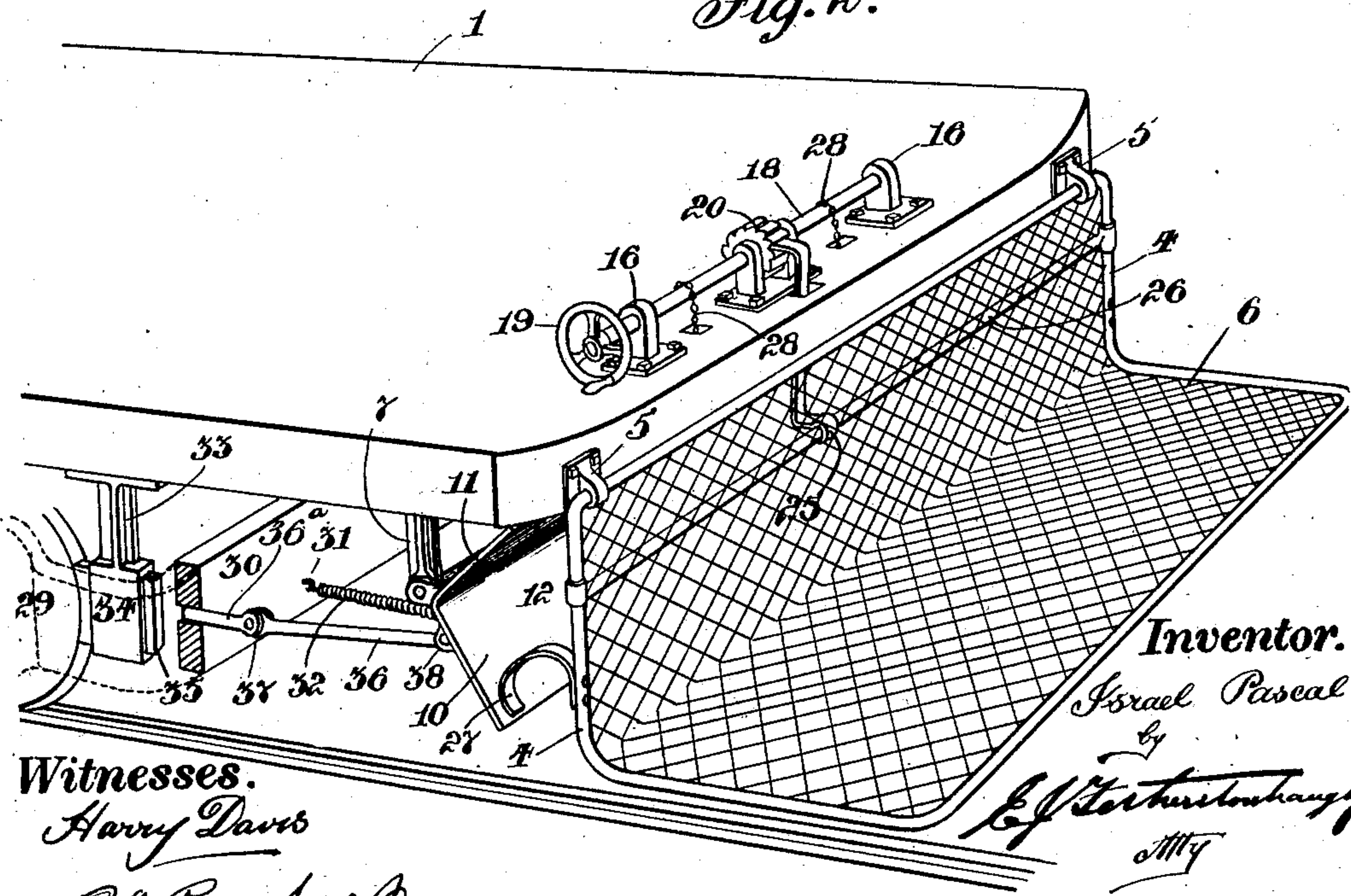


Fig. 2.



Witnesses.

Harry Davis

R. A. Penhance

Inventor.

Israel Pascal

By

E. J. Hutchinson

Att'y

UNITED STATES PATENT OFFICE.

ISRAEL PASCAL, OF MONTREAL, QUEBEC, CANADA, ASSIGNOR OF ONE-FIFTH TO SAM ROSENVEESEN, ONE-FIFTH TO MEYER DOBROFSKY, ONE-FIFTH TO HYMAN ASTROFF, ONE-FIFTH TO HYMAN SCHLEIFER, AND ONE-TENTH TO GEORGE ANTOINE BILOT, ALL OF MONTREAL, CANADA.

CAR-FENDER.

994,423.

Specification of Letters Patent.

Patented June 6, 1911.

Application filed August 4, 1910. Serial No. 575,441.

To all whom it may concern:

Be it known that I, ISRAEL PASCAL, resident in the city and district of Montreal, in the Province of Quebec, in the Dominion of Canada, a subject of the King of Great Britain, have invented certain new and useful Improvements in Car-Fenders, of which the following is a specification.

The invention relates to improvements in car fenders, as described in the present specification and illustrated in the accompanying drawings that form part of the same.

The invention consists essentially of the novel construction and arrangement of parts, whereby a rotatable guard member underneath the body of the car is automatically released by a trip member projecting forwardly and coincidently a braking device is applied by the movement of said guard member.

The objects of the invention are to devise a form of fender which will prevent an obstacle in the trackway from coming in contact with the wheels of the car and at the same time, retard the motion of said car, and generally to provide a simple, cheap and durable construction effective in operation and economical as regards maintenance.

In the drawings, Figure 1 is a side elevation of the front portion of the car partially in section, showing the device in its normal position in solid lines and its danger position in dotted lines. Fig. 2 is a perspective view of the front end of the car and of the device applied thereto.

Like numerals of reference indicate corresponding parts in each figure.

Referring to the drawings, 1 is the frame of the flooring of the car and part of the body of said car.

2 is a trip or front fender of ordinary type, preferably formed of the rod 3 having the vertical extending sides 4, pivotally secured in the brackets 5 at the front of the car, and the wire mesh 6. This is a comparatively well known form of fender of probably the commonest type and is usually made rectangular in shape and is adapted, under ordinary conditions, to itself catch the obstacle in the trackway of the car.

7 are brackets having the bearings 8 at their lower ends and rigidly secured at their

upper ends to the under side of the frame 1 at each side of the car.

9 is a shaft supported in the bearings 8. 55

10 is a protector wheel fender or guard member formed of suitable sheets of material and bent into a right angular shape to form the sections 11 and 12.

13 are ears secured to the protector 10 at the angle thereof and mounted on the shaft 9. The section 12 of the protector 10 is adapted in its lower position to reach to the rail, while the section 11 in its upper position is adjacent to the under side of the frame 1. 60 65

14 are hooks extending upwardly from the rear side of the section 12.

15 are eyes secured to the upper end of section 11. 70

16 are brackets forming bearings and secured to the top side of the frame 1 above the flooring 17 at the front end of the car.

18 is a shaft journaled in the brackets 16 and at one end extending therebeyond. 75

19 is a land wheel on one end of the shaft 18, though it must be understood that this shaft may be turned in any suitable way.

20 is a ratchet wheel fixedly mounted on the shaft 18. 80

21 is the dashboard of the car having an orifice 22 therethrough adjacent to the flooring 17 and opposite the ratchet 20.

23 is a pawl substantially Z-shaped engaging the ratchet wheel 20 and extending down through the front of the frame 1 and pivoted at 24, the lower end of said pawl projecting outwardly and terminating in the ring 25. 85

26 is a rod extending between and secured to the vertical ends 4 and through the ring 25, consequently any movement of the fender 2 affects the pawl 23. 90

27 are curved flat springs secured to the vertical sides 4 adjacent to the lower ends thereof and normally engaging the sections 12 of the guard member 10, consequently when said guard member is in its upward position, said springs will be in constant engagement with said guard member and hold the horizontal portions of the rod 3 in their upper position. 95 100

28 are chains secured at one end to the eyes 15 and at the other end to the shaft 18. 105

and adapted to wind around said shaft and hold said guard member 10 in its upward position, said pawl and ratchet retaining said guard member in its upper position by preventing said shaft 18 from rotation in one direction.

29 are the front wheels of the car.

30 is the pilot board or front bar of the truck frame having the eyes 31 projecting forwardly therefrom.

32 are springs at one end caught in the hooks 14 and at the other end to the eyes 31 and exerting a constant rearward pull on the sections 12 and guard member 10.

33 are brackets rigidly secured to the under side of the car and at their lower end carrying the brake shoe guides 34.

35 are brake shoes loosely held in the guides 34 and of any suitable material.

36 and 36^a are rods suitably jointed at 37 and at one end secured to the rear side of the section 12 by the lugs 38, and at the other end projecting through corresponding orifices in the pilot board 30 and engaging the rear side of the brake shoes 35, in the lower position of the sections 12.

In the operation of this invention, if the car is traveling forward, the parts of the invention are in the position shown in solid lines in Fig. 1, but immediately after the fender 2 comes in contact with an obstacle, the pawl 23 is turned on its pivot, which releases it from engagement with the ratchet 20, thereby loosening the chains 28 which are immediately drawn out by the pull of the springs 32. The section 12 of the guard member 10 then reaches its lower position and prevents the obstacle from coming in contact with the wheels, should said obstacle pass the fender 2. Coincidentally with this operation, the brake shoes 35 are applied to the wheels by the engagement of the rod 36 with the rear side of said brake shoes and are held in engagement by the pull of the springs 32, until the chain 28 is again wound up on the shaft 18 by means of the hand wheel 19 or in any other suitable manner.

What I claim as my invention is:

1. In a car fender, the combination with the car body and a suitable running gear, of a guard member, brackets depending from the under side of said car body, a shaft supported at the lower end of said brackets and pivotally supporting said guard member, bearings supported on the flooring of said car body at the front end thereof, a ratchet wheel fixedly mounted on said shaft, a chain secured to and winding on said ratchet wheel shaft, and connecting said shaft with the upper section of said guard member, a pawl pivotally secured to the front end of said car body and engaging said ratchet wheel at its upper end, and a trip member pivotally secured at the front end of said car body and pivotally engaging the lower end of said

pawl and supported in a horizontal position against the lower section of said rotatable guard member.

2. In a device of the class described, in combination, a car body, a truck supporting said car body, brackets depending from said car body forwardly of said truck, a shaft supported at the lower end of said brackets, an angularly formed guard member pivotally supported on said shaft, bearings supported on the flooring of said car body at the front end thereof, a shaft journaled in said bearings, a ratchet wheel fixedly mounted on said shaft, a chain secured to said shaft and the upper section of said guard member and winding on said shaft, and a pawl pivotally secured to the front end of said car body and engaging said ratchet wheel, a trip member engaging the lower end of said pawl, a spring secured to the rear side of said trip member engaging the lower section of said guard member, and a spring attached to the truck frame and to the lower section of said guard member and exerting a constant pull on the latter.

3. In a device of the class described, in combination, a car body, a truck supporting said car body, brackets depending from the under side of said car body in front of said truck, a shaft supported at the lower end of said brackets, a right angularly formed guard member having lugs projecting from the angle thereof mounted on said shaft, bearings supported on the flooring of said car body, a shaft journaled in said bearings, a ratchet wheel fixedly mounted on said shaft, a chain winding on said ratchet wheel shaft and connecting said shaft with the upper section of said guard member, a pawl pivotally secured to the front side of said car body having its toothed member projecting inwardly and engaging said ratchet wheel and at the lower end having an offset extending outwardly, a fender member pivotally secured to the front end of said car body and extending downwardly and forwardly and engaging the offset at the lower end of said pawl, curved flat spring members secured to the rear side of said fender member and engaging the front side of the lower section of said guard member, and a helical spring connecting the lower section of said guard member with the truck frame and exerting a constant pull on said lower section.

4. In a device of the class described, in combination, a car body, a truck supporting said car body, brackets extending from the under side of said car body, a shaft supported at the lower end of said brackets, an angularly formed guard member pivotally supported on said shaft, means for raising said guard member, means for releasing said guard member, a spring connecting the lower section of said guard member with the

truck frame and exerting a constant pull on
said section, a brake shoe, a bracket secured
to the under side of said car body carrying
at its lower end a housing for said brake
5 shoe, and means connected to said guard
member for engaging said brake shoe on the
downward rotation of said guard member.

5. In a device of the class described, in
combination, a car body, a truck, brake shoes
10 engaging the front wheels of said truck,
brackets secured to the under side of said
car body and carrying housings for said
brake shoes, a rotatable guard member sup-
ported from the under side of said car body,
15 a spring connecting the truck frame with
said guard member and exerting a constant

pull on the latter, rods pivotally secured to
said guard member, rods pivotally secured
to the aforesaid rods and extending through
the truck frame and engaging said brake 20
shoes in the lower position of said guard
member, means for raising said guard mem-
ber and retaining it in its upper position,
and means for releasing the aforesaid means.

Signed at the city and district of Mon- 25
treal, in the Province of Quebec, in the Do-
minion of Canada, this 27th day of July,
1910.

ISRAEL PASCAL.

Witnesses:

G. H. TRESIDDER,
B. A. RENNBACH.