

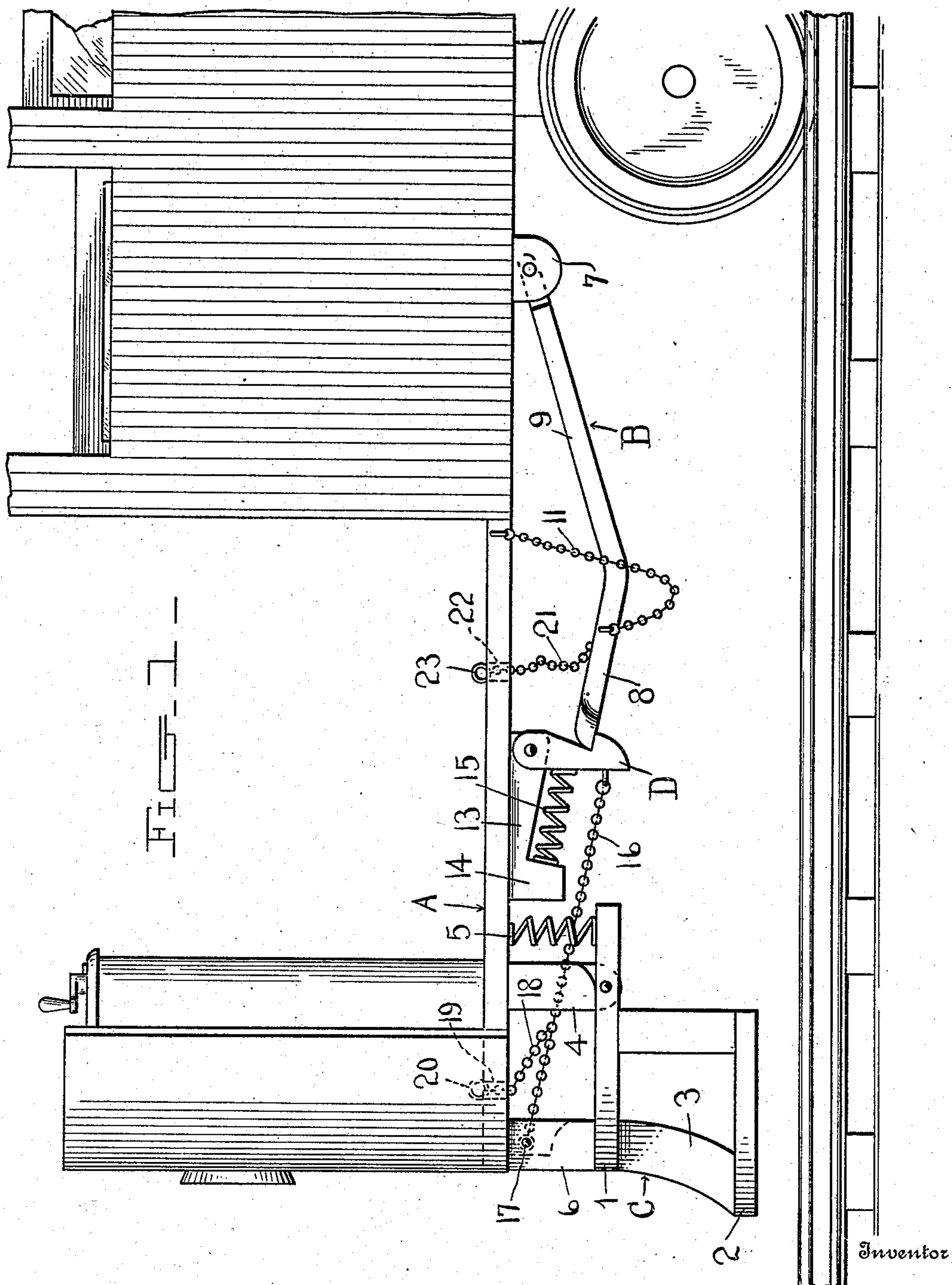
CAR FENDER.

APPLICATION FILED JULY 20, 1908.

936,782.

Patented Oct. 12, 1909.

3 SHEETS—SHEET 1.



Witnesses

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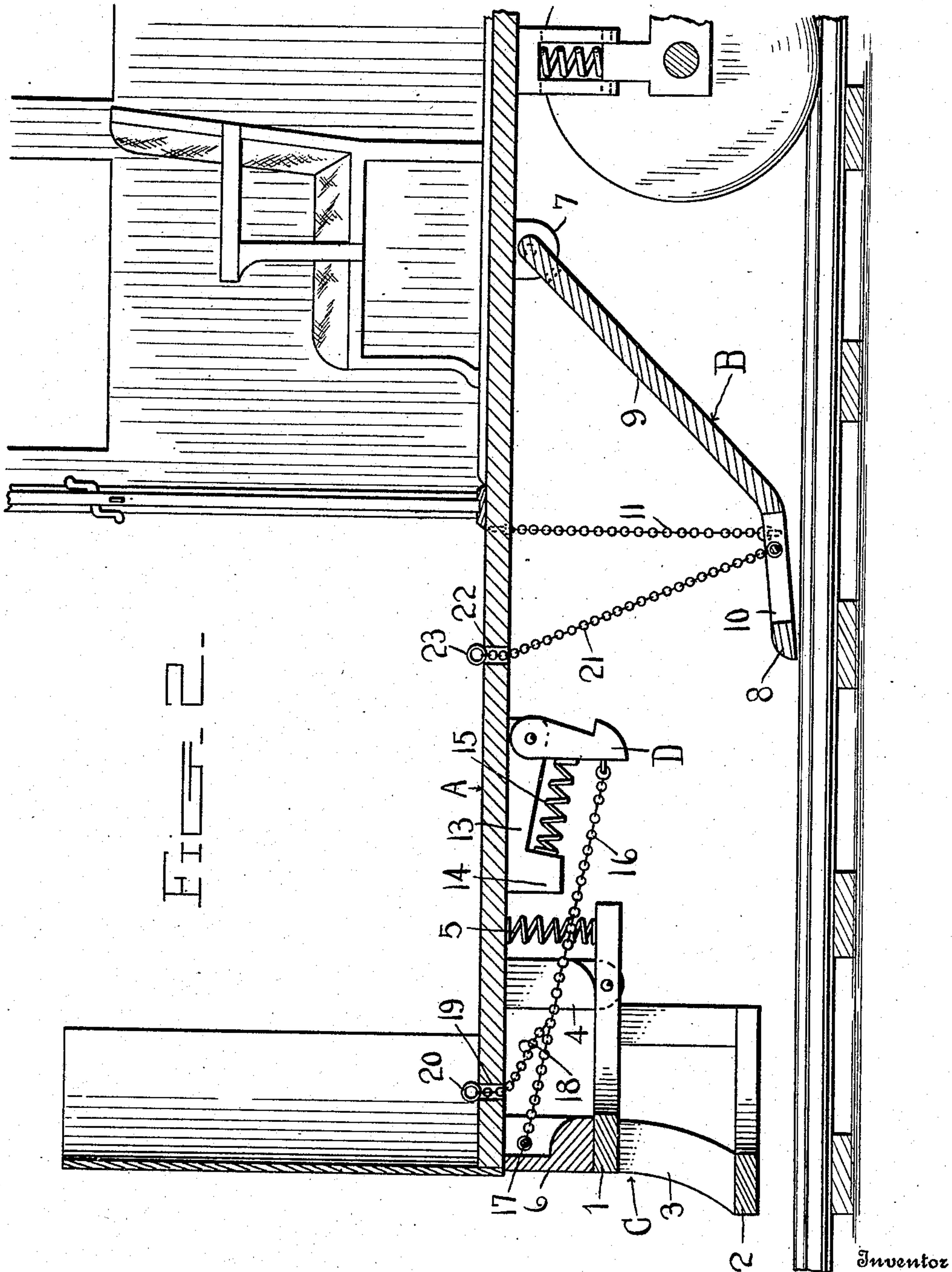
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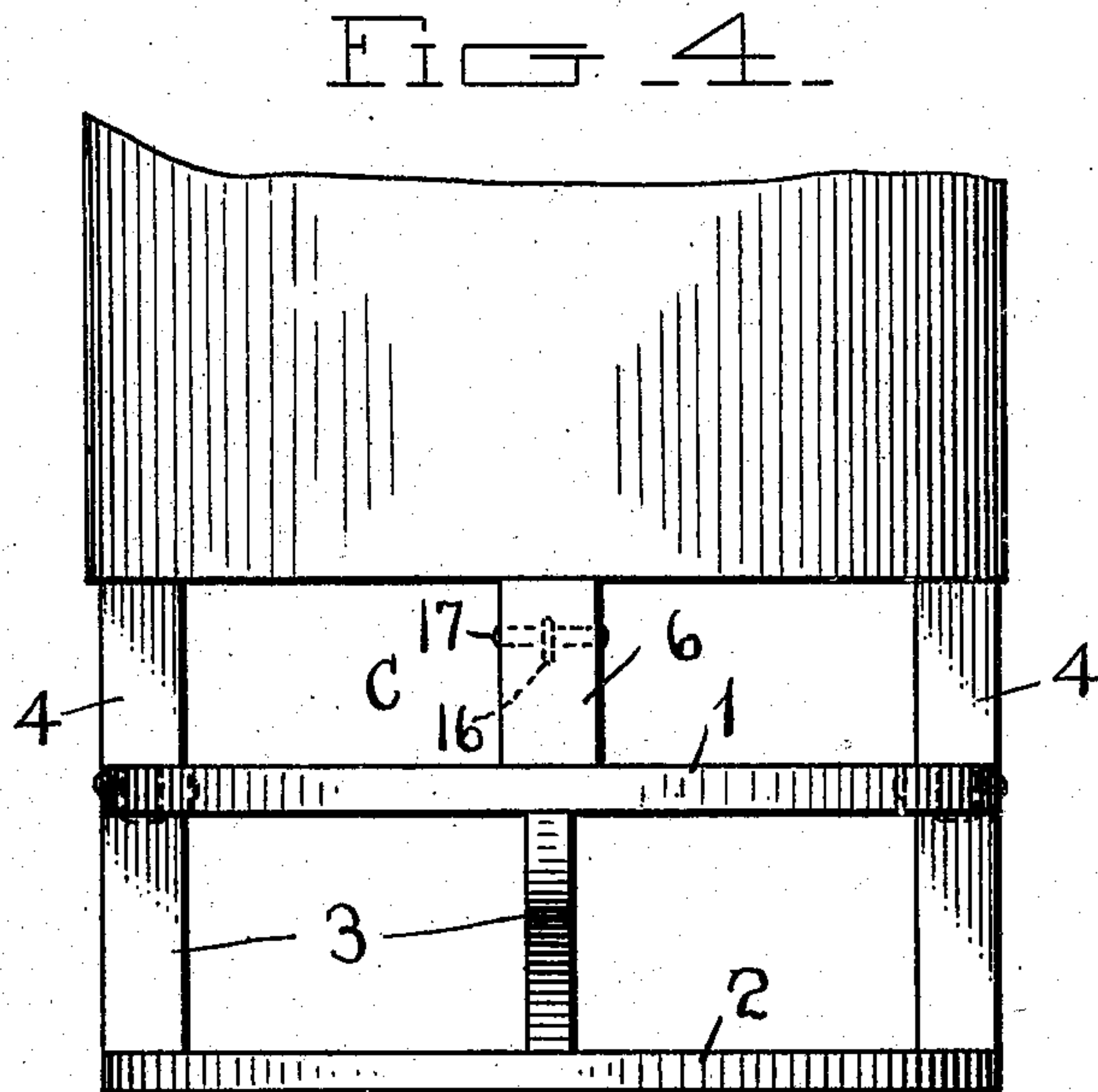
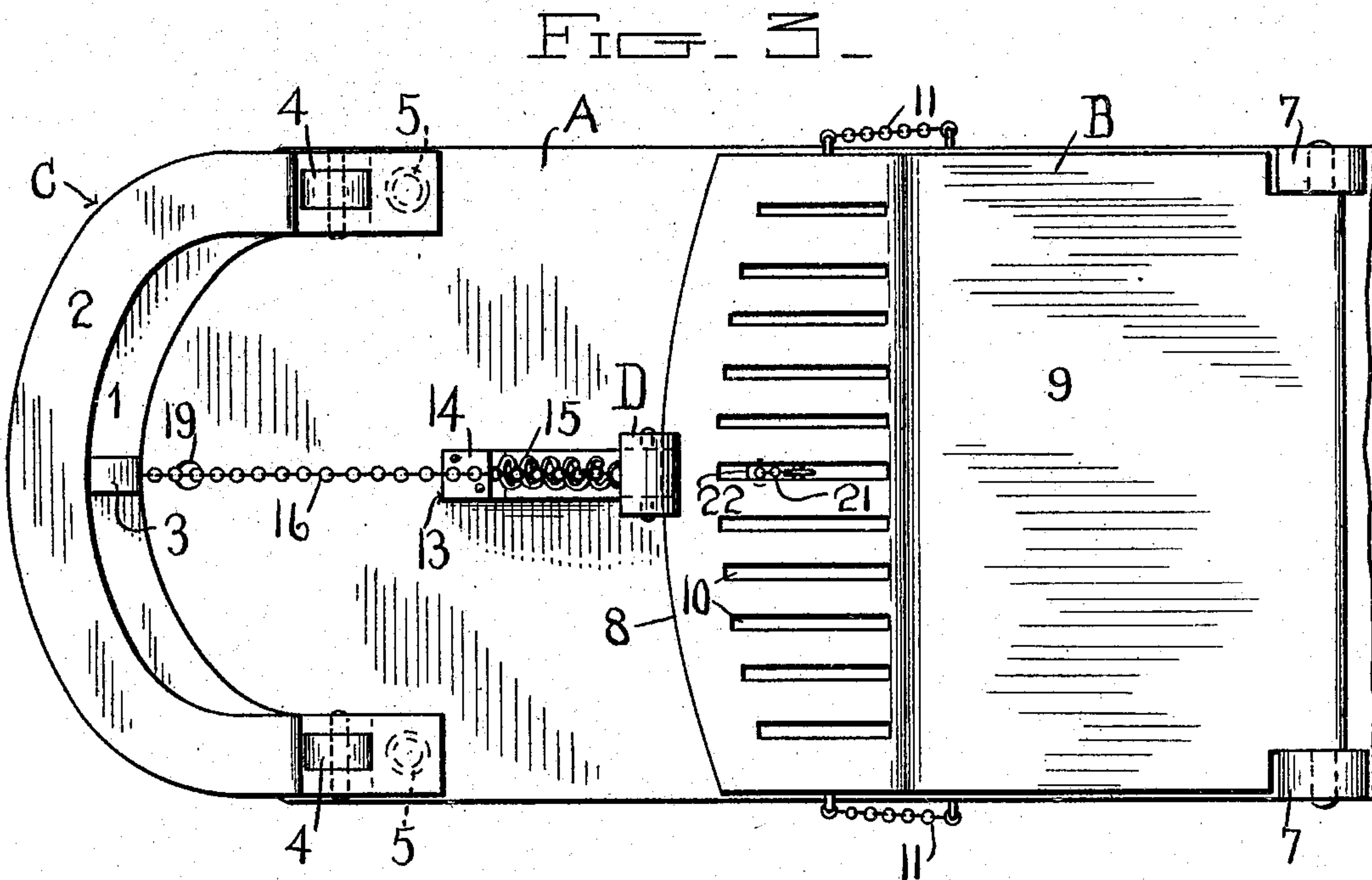
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3 SHEETS—SHEET 3.

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UNITED STATES PATENT OFFICE.

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CAR-FENDER.

936,782.

Specification of Letters Patent.

Patented Oct. 12, 1909.

Application filed July 20, 1908. Serial No. 444,343.

To all whom it may concern:

Be it known that I, CHARLES T. KOENIGSBERG, a citizen of the United States, residing at Holland, in the county of Ottawa, State of Michigan, 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.

The present invention relates to improvements in car-fenders, and it has for its principal object the provision of an extremely simple device of that class comprising a buffer and a scoop, both of which are attached to the floor in such a manner as to be capable of a swinging movement, the scoop being normally held in raised or inoperative position by a catch which is automatically released from engagement therewith when the buffer strikes a body or other obstruction upon the track whereupon the scoop is free to swing downward into position to pick up the obstruction as the car continues its movement.

The invention resides especially, however, in the specific construction of the buffer; in the particular manner in which the buffer is attached to the car; and in the particular devices employed for connecting the buffer with the catch.

The invention also resides in the particular construction of the scoop.

The preferred embodiment of the invention is illustrated in the accompanying drawings, in which corresponding parts are designated by the same reference characters throughout the several views.

Of the said drawings, Figure 1 is a fragmental side elevation of the front platform of a car equipped with the improved fender, the scoop being shown in its raised position. Fig. 2 is a longitudinal section showing the scoop lowered. Fig. 3 is a bottom plan view of Fig. 1. Fig. 4 is a front elevation.

Referring more particularly to the drawings, A designates generally the front platform of the car, B the scoop, C the buffer, and D the catch located between the latter and the scoop.

The buffer, as shown in Figs. 3 and 4, consists primarily of upper and lower arcuate or yoke-shaped members 1 and 2 connected

by a series of vertical straps 3, the central strap having its lower end curved forwardly, so as to dispose the front portion of the lower yoke in advance of that of the upper yoke, which latter, however, has its legs extending beyond those of said lower yoke. The buffer as a whole, is pivoted to a pair of depending brackets 4 secured to the forward portion of the floor of the platform A, the reduced free ends of said brackets projecting through the openings formed in the legs of the upper yoke 1 adjacent the rear ends thereof. The forward portion of the buffer is normally forced upwardly or toward the floor of the platform, owing to the interposition of a pair of expansible coil springs 5 between the extreme rear ends of the legs of the yoke 1 and the floor, such upward movement being limited by means of a stop block 6 fastened to the upper yoke member 1 which stop block is thus forced into contact with the floor as shown in Fig. 4.

The scoop B which is disposed longitudinally of the car and is located in the rear of the buffer is pivotally connected with the floor of the platform for movement toward and from the ground, the rear end of the scoop being provided with lateral trunnions which fit in perforations formed through a pair of depending brackets 7 which are secured to said floor, the side edges of the scoop being cut away at their rear ends to permit the formation of said trunnions. The scoop, as shown in Fig. 2 consists of front and rear sections 8 and 9 set at an angle to each other, and integrally connected together at their mutually-adjacent inner edges, said sections having a series of longitudinal slots 10 formed therein to decrease the weight of the scoop. The scoop is further supported from the platform by means of a pair of chains or other flexible elements 11 which are connected at their lower ends to the side edges of the front section 8 and at their upper ends to the adjacent edges of the platform, the length of the chains determining the extent of the downward movement of the scoop as will be understood. The scoop is normally retained in its raised or inoperative position by means of the engagement of the hooked lower end of a catch D, with the beveled forward edge of the section 8, said catch being pivoted at its upper end to the rear end of a longitudinally-disposed strap 13 which is bolted or otherwise secured

to the lower face of the floor of the platform and is located between the scoop and the buffer, as shown in Fig. 4. At its front end, the strap is formed with a depending shoulder 14 between which and the catch is interposed an expansible coil spring 15 which bears at opposite ends against the rear wall of the shoulder and the front face of the catch, the tension of the spring forcing said catch yieldingly toward the scoop. The spring itself is retained in position in any desired manner as for instance, by having its ends fitted in openings formed in the shoulder and the catch, the upper end of which latter is preferably bifurcated to admit of its straddling the strap, owing to which construction, it is held against lateral displacement. The catch has further connected thereto the rear end of a chain or similar flexible element 16 whose forward end is made fast to an eye-bolt or securing pin 17 set into the stop block 6, said chain having connected thereto, intermediate its ends, the rear end of a second chain 18, whose upper end extends through an opening 19 formed in the front end of a platform and terminates in a ring or similar device 20 by means of which it is tensioned, the diameter of the ring being greater than that of said opening. In like manner, the scoop is connected with a chain 21 whose lower end is fastened to the section 8, and whose upper portion extends through an opening 22 formed in the platform in alinement with the opening 19. The upper end of said chain 21 likewise terminates in a ring or other operating device 23.

From the foregoing, it will be apparent that during the progress of the car, if the buffer comes in contact with a prostrate body or other obstruction upon the track, its contact with such obstruction will cause it to swing rearwardly upon its pivots, whereupon the catch D will be released from engagement with the scoop, owing to the tightening of the chain 16. The scoop is then free to move downwardly of its own weight into operative position, so as to pick up the obstruction over which the buffer has ridden. When the car has been brought to a stop and the body removed from the scoop, the latter may be raised into engagement with the catch by means of the chain 21, the passage of the chain through the opening 22 in the floor of the platform rendering it unnecessary for the motorman to leave the car.

It will be further understood that owing to the connection of the supplemental chain 18 with the main or operating chain 16, the latter may be tightened, and the catch in consequence, released from engagement with the scoop by the motorman independent of any movement of the buffer, the chain 18 extending through the opening 19 so as to permit it to be grasped by the motorman.

The forward extension of the buffer, as well as the bowing thereof permits the buffer to be rocked upon coming into contact with an obstruction upon the tracks, and to easily ride over such obstruction, at the termination of the rocking movement.

Further description of the invention is deemed unnecessary in view of the foregoing.

What is claimed is:

1. The combination with a car platform having a pair of openings formed through its floor, one in advance of the other, of a longitudinally-disposed scoop pivoted at its rear end to the floor for movement toward and from the ground; a movable catch attached to the floor in advance of the scoop and arranged for engagement with the front end thereof when the scoop is in its raised position; a swinging buffer pivoted to the floor in advance of the catch; a flexible element connecting the buffer and the catch for releasing the latter from engagement with the scoop when the buffer is swung in one direction, to permit the scoop to swing downwardly; a flexible element connected at its lower end to the scoop and extending through the rear opening in the platform floor, to permit the scoop to be raised into engagement with the catch; and a flexible element connected at its rear end to the first-mentioned flexible element for automatically releasing the catch from engagement with the scoop independently of the movement of the buffer.

2. The combination with a car platform having front and rear pairs of depending brackets secured to its floor, of a longitudinally-disposed scoop pivoted at its rear end to the rear pair of brackets, for movement toward and from the ground; a swinging buffer pivoted to the front pair of brackets; a strap secured to the floor between the scoop and buffer, and provided at its forward end with a depending shoulder; a depending catch pivoted to the rear end of the strap and arranged for engagement with the front end of the buffer when the latter is raised; means interposed between the shoulder and the catch for normally forcing the latter toward the scoop; and a flexible element connected at its opposite ends to the buffer and the catch, for automatically releasing the latter from engagement with the scoop when the buffer is swung in one direction, to permit the scoop to swing downwardly.

3. The combination with a car platform having front and rear pairs of depending brackets secured to its floor, of a longitudinally-disposed scoop pivoted at its rear end to the rear pair of brackets, for movement toward and from the ground; a forwardly-bowed buffer pivoted to the front pair of brackets, the lower portion of the buffer pro-

jecting beyond the upper portion thereof; a strap secured to the floor between the buffer and the scoop, said strap being provided at its forward end with a depending shoulder; 5 a catch pivoted to the rear end of the strap and arranged for engagement with the front end of the scoop when the latter is in its raised position; means interposed between said shoulder and catch, for normally forcing the latter toward the scoop; and a flexible 10 element connected at its opposite ends to the buffer and the catch, for automatically releasing the latter from engagement with the scoop when the buffer is swung in 15 one direction, to permit the scoop to swing downwardly.

4. The combination with a car platform having front and rear pairs of depending brackets secured to its floor, of a longitudi- 20 nally-disposed scoop pivoted at its rear end for movement toward and from the ground; a buffer pivoted to the front pair of brackets, said buffer comprising upper and lower arcuate straps, the lower strap projecting 25 forwardly of the upper strap; means inter-

posed between the ends of one of said straps and the floor for normally holding the forward portion of the buffer in raised position; a strap secured to the floor between the buffer and the scoop, said strap being pro- 30 vided at its forward end with a depending shoulder; a catch pivoted to the rear end of the strap and arranged for engagement with the front end of the scoop, when the latter is in its raised position; means interposed be- 35 tween the shoulder and the catch for yieldingly forcing the latter toward the scoop; and a flexible connection between the forward portion of the buffer and the catch, for automatically releasing the latter from 40 engagement with the scoop, when the buffer is rocked against the action of the first-mentioned means, to permit the scoop to swing downwardly.

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

CHARLES T. KOENIGSBERG.

Witnesses:

CHARLES S. McBRIDE,

WM. H. THORNTON.