

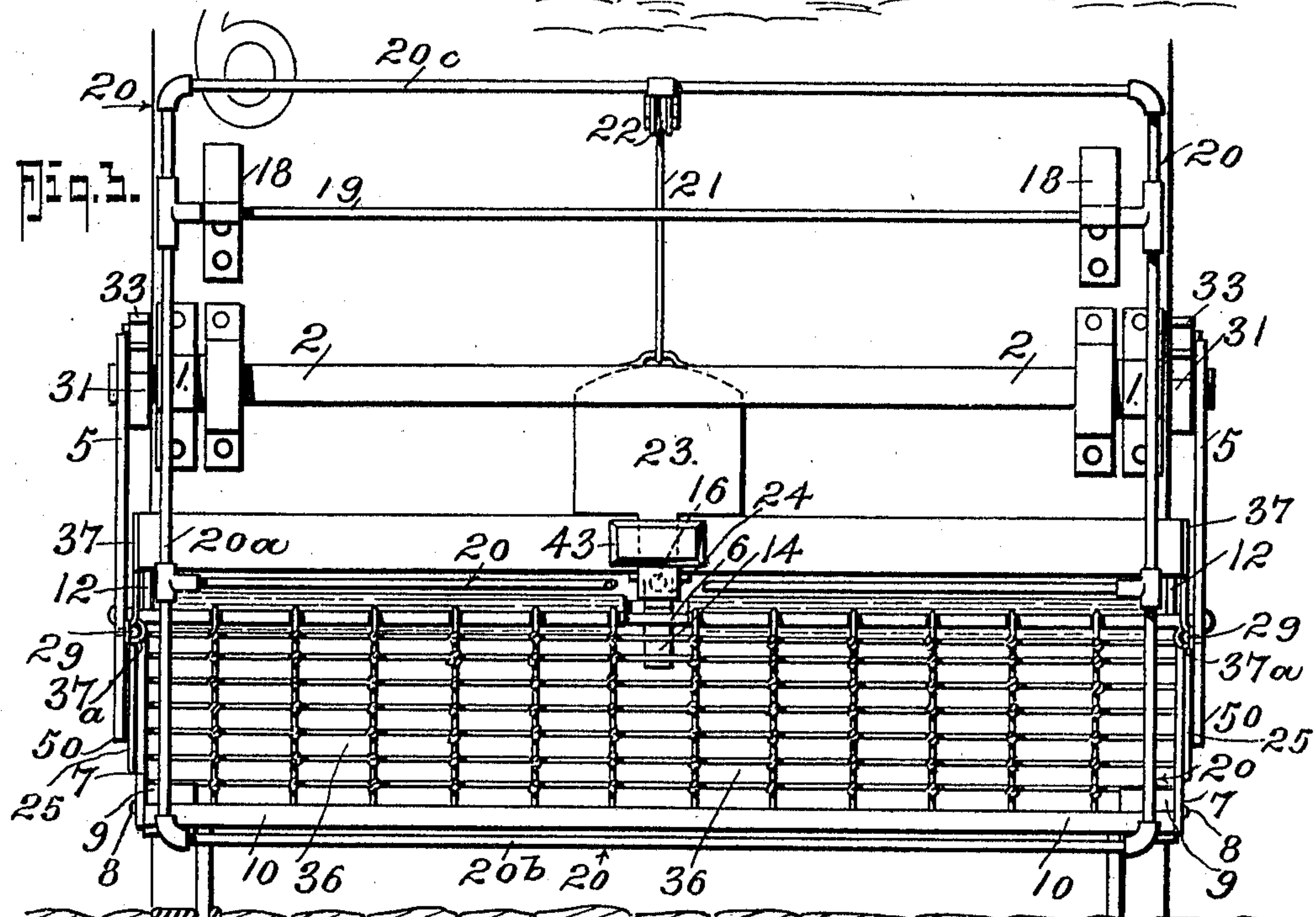
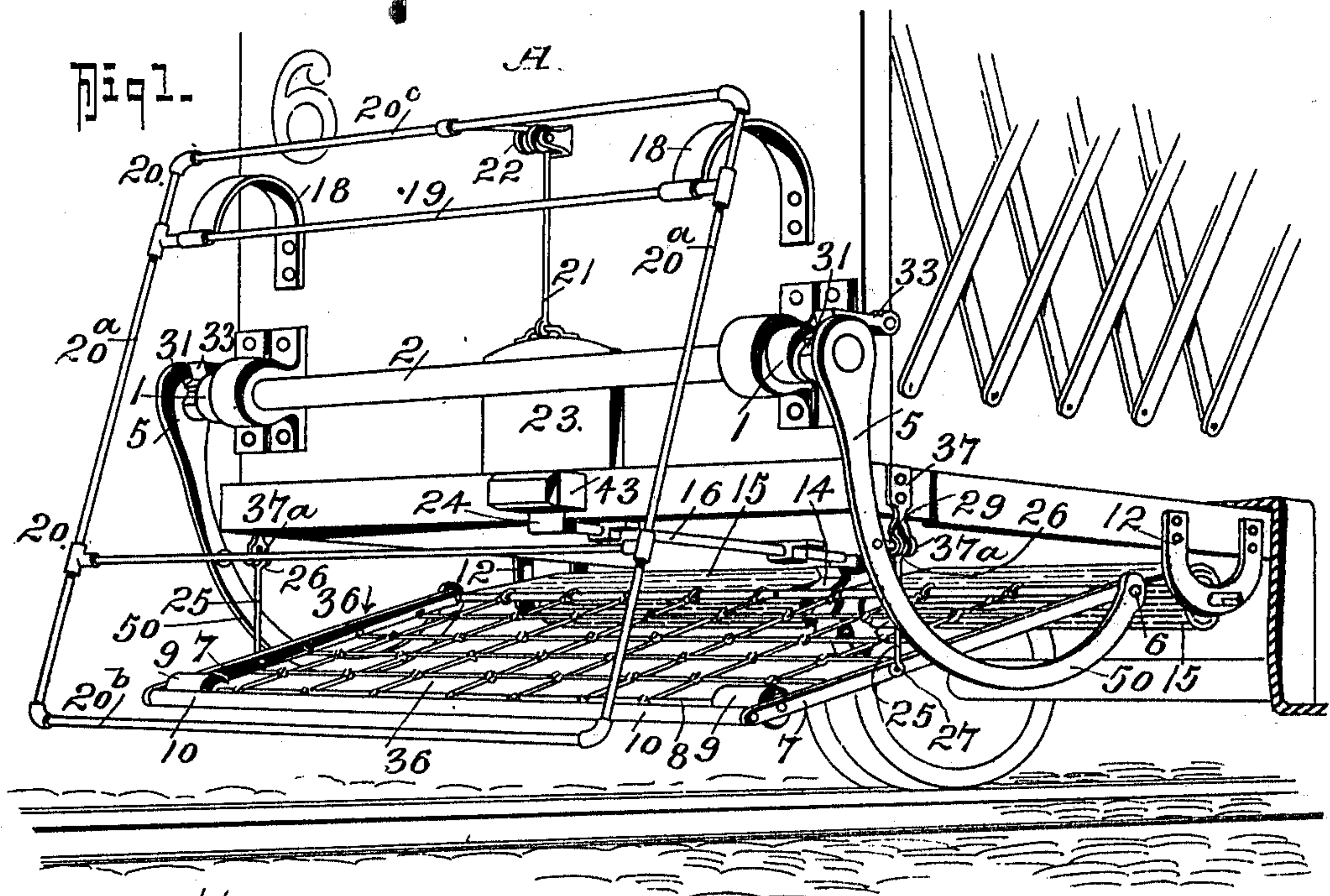
W. H. MARTIN.
CAR FENDER.

APPLICATION FILED OCT. 5, 1910.

Patented May 30, 1911.

2 SHEETS-SHEET 1.

993,609.



Witnesses

John J. Schrott
May C. Immich.

Inventor
William H. Martin

BY
Fred J. Dietrich & Co.
Attorneys.

W. H. MARTIN.

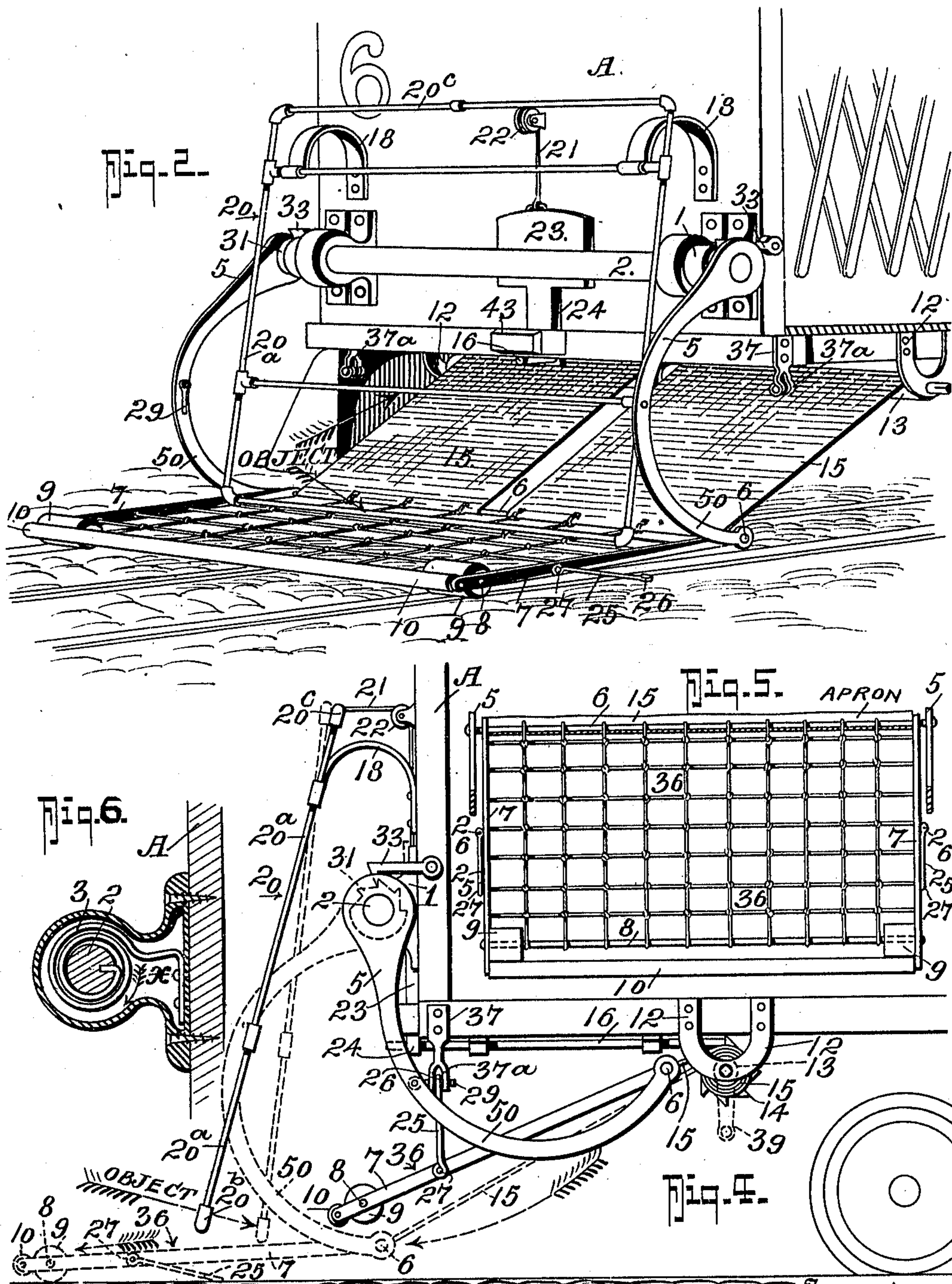
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UNITED STATES PATENT OFFICE.

WILLIAM H. MARTIN, OF GEYSERVILLE, CALIFORNIA, ASSIGNOR OF TWO-FIFTHS TO
JAS. B. NELSON, OF GEYSERVILLE, CALIFORNIA.

CAR-FENDER.

993,609.

Specification of Letters Patent.

Patented May 30, 1911.

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To all whom it may concern:

Be it known that I, WILLIAM H. MARTIN, residing at Geyserville, in the county of Sonoma and State of California, have invented a new and Improved Car-Fender, of which the following is a specification.

This invention relates to car fenders and more particularly to that type of fenders that are manually set or folded up during running and which, under contact with an object in advance of the car, automatically assume a safety or object-catching position.

The primary object of my invention is to provide an effective car fender of the general type referred to, of an economical but stable construction, easily mountable on the car body, that can be quickly set or adjusted to the normal position by a motorman, which when set, requires no attention from the motorman or other operator in charge of the propulsion of the car, in which the action thereof for life saving is entirely automatic and is such that danger of injury to the person being picked up is reduced to the minimum.

With other objects in view that will be hereinafter apparent, my invention consists in the peculiar construction, the novel arrangement and the combination of parts all of which will be hereinafter fully explained, specifically pointed out in the appended claims and illustrated in the drawings, in which:—

Figure 1, is a perspective view of the front end of a street car with my fender applied, the same being shown as set to its normal position. Fig. 2, is a similar view, the fender being shown to its operative or life saving position. Fig. 3, is a front elevation of the fender as on the end of a car, the parts being in the position shown in full lines in Fig. 4. Fig. 4, is a side elevation of the end of the car and the fender mechanism, the latter being shown in full lines to the normal or set position and in dotted lines, to its tripped or forward position. Fig. 5, is a plan view of the shooting or projectable fender member. Fig. 6, is a detail view of the spring connection on one end of the rock shaft, hereinafter referred to.

In the drawings I have shown a practical and preferred arrangement of parts that discloses my invention, but I desire it under-

stood the detailed way of securing or mounting the said parts on the car body and dash and the exact means for joining the several coöperating parts may be readily modified or varied without departing from my invention or the scope of the appended claims.

My improved construction of car fender, essentially comprises a projectable fender or catcher frame, manually operated means for pulling the said frame back and holding it normally under the front end of a car, a spring controlled means for shooting or projecting the said frame forwardly when released, a buffer frame that strikes the person as the car moves upon him, and connections that join the buffer frame and the detent devices that hold the spring actuated devices, for releasing the said detents as the body engages the buffer frame to permit the spring actuated devices shooting the life saving fender member under the person struck.

Referring now to the details of construction, 2 designates a rock shaft that is transversely mounted on the front of the car dash, it being journaled in the apertured lugs 1—1 secured upon the opposite ends of the dash. Normally the said shaft is rocked in the direction indicated by the arrow *x* on Fig. 6, by the coiled springs 3 fastened at one end to the shaft and at the other to the dash board A, and held within the spring barrels or casings, as shown in Figs. 3 and 6. A pair of curved arms 5 are fixedly mounted on the shaft 2 to move therewith, their lower or front ends being curved downwardly and backwardly so as to swing close to the ground when at the released or downward position, shown in dotted lines, in Fig. 4.

6 designates a cross bar that connects the lower ends of the throw or shoving arms 5 and to this rod is connected one end of a canvas apron 15, the other or upper end of which is connected to and winds about a windlass shaft 13, the journals of which are hung in U-shaped brackets 12 secured to the edges of the car bottom. Midway of its length the shaft 13 carries a ratchet 14 with which coacts a detent or locking rod 16 presently again referred to. 39 designates the crank for winding the windlass shaft 13.

So far as described, it is obvious that by

winding up the windlass shaft the arms 5 will be swung backwardly and upwardly and held under tension by the springs 3.

36 designates the saving section or member of the fender and it, in the construction shown, is a rectangular frame that includes side bars 7 that are pivotally joined with the cross bar 6, the said bars being joined by the cross front bars 8 to which, to the side bars 7 and to the cross bar 6, is attached the edges of the screen body that forms the life saving fender section proper. On the front cross bar 8 is mounted a pair of rollers 9 for engaging and riding the fender frame 36 over the ground as it drops and shoots forward and in the front end of the side bars 7 of the said frame 36 is mounted a yieldable friction roller 10 of less diameter than the rollers 9, so as not to touch the ground, said roller 10 forming a yielding impacting end so as to not bruise or otherwise injure the limbs or body of the person being caught.

It will be noticed the frame 36 is pivotally hung at its inner end only and for holding the front end up from the ground when the fender frame 36 is back, the said fender frame 36 has a pair of side rods 25 pivoted to their arms 7 as at 27 and having eyes 26 for extending into the forked and apertured ends 37^a of pendent brackets 37.

29 designates pins fixedly secured to the arms 5 that pass through the forked ends 37^a of the hangers 37 and through the eyes 26 of the hangers 25 when the arms 5 are swung back as shown in full lines in Fig. 4, for holding up the member 36 of the fender.

20 designates the buffer which consists of a rectangular framing formed of the side arms 20^a, the bottom cross bar 20^b and a top cross bar 20^c, the said frame being preferably open. The buffer frame 20 also includes a cross or pivot rod 19 fixedly secured to the outer ends of stout bowed spring metal hangers 18 secured to the car dash at a point above the rock shaft 2.

23 designates a counter-weight hung on a cord or cable 21 that takes over a guide pulley 22 centrally mounted on the car dash and is secured to the upper cross rod of the buffer frame. The weight 23 has a pendent heel portion 24 that slides through a guide 43 on the front end of the car bottom and, when down, projects over the front end of the detent or locking rod 16 and holds the same from sliding forward to release the ratchet 14.

From the foregoing, taken in connection with the drawings, the complete construction and the advantages of my invention will be readily apparent.

By reason of the peculiar arrangement of the parts shown and described, it is apparent that by winding up the windlass shaft the canvas apron 15 winds thereon and

pulls the fender section 36 back under the car to the full line position in Fig. 4, in which position it is held by the hangers 25 being locked in the ends of the pendent members 37 by the pins 29 on the arms 5, the windlass shaft 13 being held locked by shoving the rod 16 to engage the ratchet 14, it being understood the bowed springs 18 serve to swing the buffer frame with its lower edge forward, thus letting the heel of the weight 23 drop down in front of the outer end of the rod 16.

33 designates gravity dropped pawls pivoted to the car dash and arranged to drop onto the ratchet disk members 31 on the rock shaft 2, the teeth of the ratchet members being so positioned that the pawls 33 interlock therewith only after the arms 5 are swung out to the dotted line position, see Fig. 4, so as to hold the fender member 36 to its automatically set position.

The manner in which the parts shown and described operate is best explained as follows: Assuming the parts to be in their normal position, see Figs. 1 and 6, should an object, a person, for example, then be struck by the car, the buffer frame 20 will be swung so as to cause the upper end to move outwardly and thereby pull on the cable 21 which then lifts the weighted keeper 23 away from the rod 16, and the latter being now free to move forwardly, the ratchet 14 is thereby released and frees the arms 5 so that the springs 3 will rock the shaft 2 to swing the said arms outwardly to the position shown in dotted lines in Fig. 6, and full lines in Fig. 2, the canvas apron 15 at the same time being drawn from the windlass shaft 13. The hanger rods 25, which have a limited swing relatively to the frame 36, are now released, as the pins 29 are pulled out from the hangers 37 as the arms 5 are swung forwardly under spring action, and since the frame 36 is released when the said pins are pulled out, it drops and is moved forwardly and downwardly under the object that was struck by the buffer frame, and further, since the said frame 36 moves directly over the ground level it will positively slide under the standing or falling body that was hit by the car.

Having thus described my invention, what I claim is:

1. In a car fender of the character described, the combination with the car body and the dash, a rock shaft mounted on the dash front and spring rocked in one direction, side arms pendent from the shaft to move therewith, a catcher fender member hung at the rear end between the said side arms and having a roller bearing on the front end, a windlass including a ratchet journaled on the car platform, a winding member thereon connected with the lower ends of the side arms, and a locking rod

slidable on the car platform for engaging the ratchet of the windlass; of a buffer frame pivotally hung near its upper end on the dash front, a counter-weight having a portion for sliding down in front of the locking rod to hold it in engagement with the windlass ratchet, a guide on the dash and a flexible connection that passes over the guide, and joins with the upper end of the buffer frame and with the counter-weight.

2. In a car fender of the character stated, a horizontally movable catcher frame, manually operated means for pulling the said frame back, a rock shaft on the front of the car, spring-rocked in one direction, arms on which the rear end of the catcher frame is hung, a lock device on the arms, a means held by the said lock device for supporting the front end of the catcher frame, and a buffer mechanism coöperating with the manually operated means that pulls the catcher frame and spring rocked shaft back, whereby to release the said means when struck by an object.

3. In a car fender of the character described, the combination with the car platform and dash, of a rock shaft transversely mounted on the front of the dash, and spring rocked to its outer or thrust movement, arms pendent from said shaft to rock therewith, a catcher fender section hung at its rear end on the said arms and having a roller bearing at the front or drop end, manually operated means for pulling the arms back under spring tension, other means for holding up the drop or front end of the catcher section and a buffer mechanism on the car front coöperating with the means for holding the arms back and the catcher section elevated and arranged, when struck, to release the said arms and the catcher section.

4. In a car fender of the character described, the combination with the car platform and dash, of a rock shaft transversely mounted on the front of the dash, and spring rocked to its outer or thrust movement, arms pendent from said shaft to rock therewith, a catcher fender section hung at its rear end on the said arms and having a roller bear-

ing at the front or drop end, manually operated means for pulling the arms back under spring tension, other means for holding up the drop or front end of the catcher section, and a buffer mechanism on the car front coöperating with the means for holding the arms back and the catcher section elevated, and arranged, when struck, to release the said arms and the catcher section, and automatic means for locking the said arms and the catcher section in their forwardly thrust position.

5. A street car fender of the character described, comprising the following elements in combination with a car body, a rock shaft mounted on the front end of the car and spring-turned in one direction, depending arms fixedly held on the said shaft, a windlass connected to the arms for swinging them upwardly against the spring tension of the rock shaft, and a catcher frame held in the lower end of the arms to project forwardly therefrom, a detent for holding the windlass in its wound-up position, and a buffer frame mounted on the front dash connected to the detent to move the said detent to release the windlass as the buffer frame strikes an object.

6. The combination with a car platform and dash; of a rock shaft mounted on the front of the dash, springs for rocking the shaft in one direction, and rearwardly curved arms fixedly mounted on and pendent from the rock shaft and a catcher frame hingedly mounted at the rear end between the lower ends of the pendent arms, a manually actuated means for swinging the arms under the car platform and holding them locked in such position, other means for sustaining the front end of the catcher frame from the car body, a tiltable buffer frame on the car dash, and devices actuated by the tilting of the buffer frame for releasing the rock shaft and its arms and the catcher frame.

WILLIAM H. MARTIN.

Witnesses:

E. D. WILLIAMS,
PETER TORAL.