No. 756,060. PATENTED MAR. 29, 1904.

F. A. SCHAAF.

CAR FENDER.

APPLICATION FILED MAR. 14, 1903.

NO MODEL.

Fig. 3.

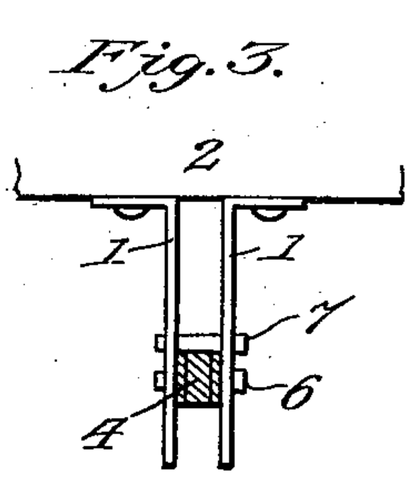
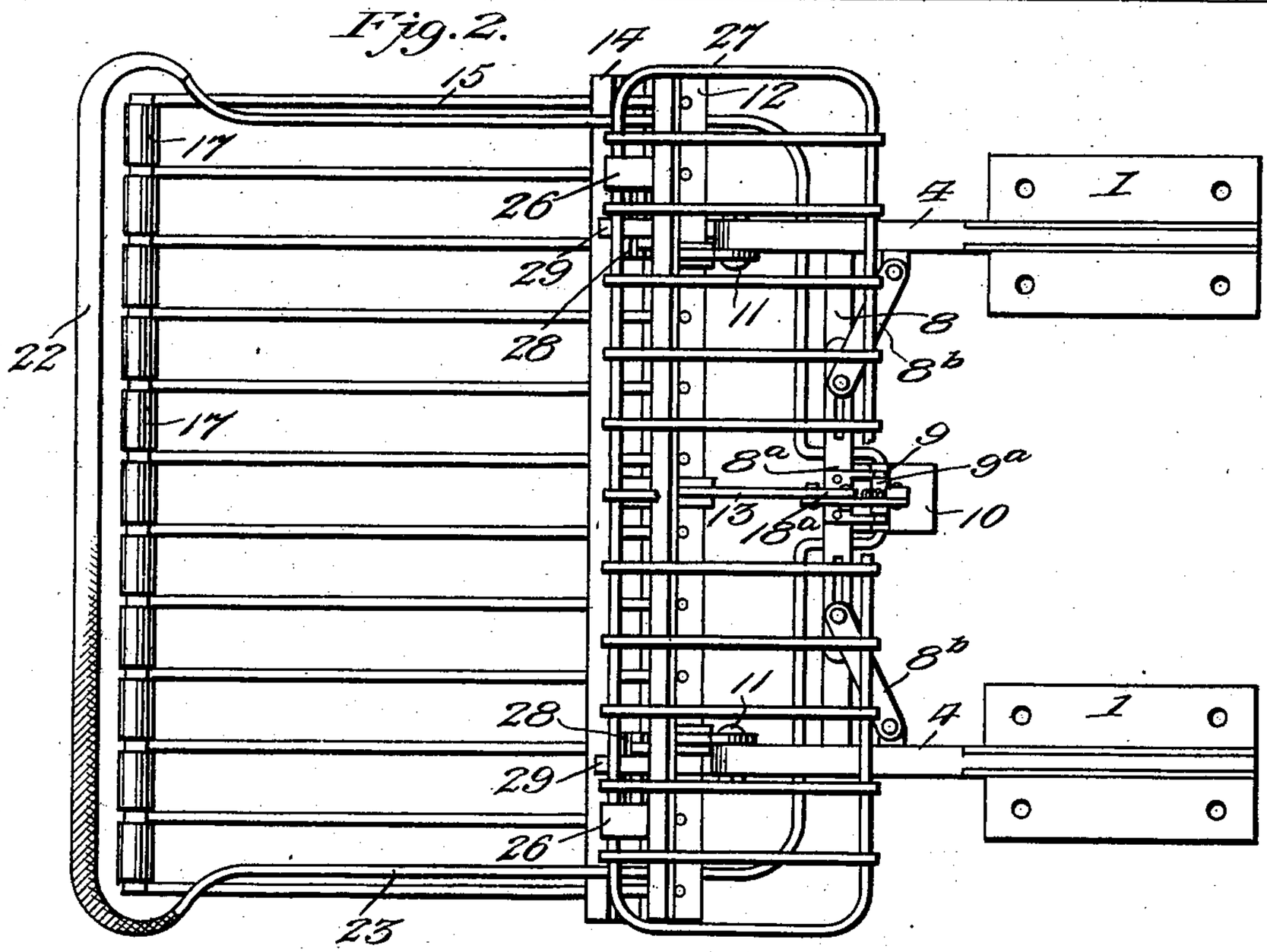


Fig. 1.

Fig. 2.



Witnesses

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No. 756,060. Patented March 29, 1904.

UNITED STATES PATENT OFFICE.

FRANK A. SCHAAF, OF CLEVELAND, OHIO.

CAR-FENDER.

SPECIFICATION forming part of Letters Patent No. 756,060, dated March 29, 1904.

Application filed March 14, 1903. Serial No. 147,821. (No model.)

To all whom it may concern:

Be it known that I, FRANK A. SCHAAF, a citizen of the United States, residing at Cleveland, in the county of Cuyahoga and State of Ohio, have invented new and useful Improvements in Car-Fenders, of which the following is a specification.

My invention relates to new and useful improvements in car-fenders; and its object is to provide a device of this character which is normally suspended above the tracks, but which will automatically drop into position thereon when the same is brought into contact with any object in the path thereof.

A further object is to provide novel mechanism for holding and releasing the fender at the proper times.

Another object is to employ a holding device by means of which the fender may be rigidly but detachably secured to a car.

With the above and other objects in view the invention consists in providing a frame having arms extending rearwardly therefrom and provided in their lower edges with recesses. These arms are adapted to be inserted between plates which are secured to the bottom of the car and depend therefrom and which are provided with parallel series of apertures. Pins are arranged within certain of these apertures and project into one or more of the recesses in the arms and serve to hold said arms rigidly but detachably and adjustably connected to the plates. Cross-strips are hinged to the arms of the frame, and a fender extends therefrom and is adapted to be held at a point slightly removed from the rails by means of a catch which normally engages the frame. A U-shaped operating-bar normally rests in position in front of the catch and is adapted when said bar is moved longitudinally to throw the catch out of engagement with the frame. Springs are employed for throwing the fender upon the track immediately after the catch has been released.

The invention also consists in the further novel construction and combination of parts hereinafter more fully described and claimed, and illustrated in the accompanying drawings, showing the preferred form of my invention, and in which—

Figure 1 is a longitudinal section through a car-fender in position upon a car. Fig. 2 is a plan view of the fender and the securing device used in connection therewith, and Fig. 3 is a section on line *x x* of Fig. 1.

Referring to the figures by numerals of reference, 1 1 are parallel plates which are secured to the bottom of a car 2 and are provided with parallel series of apertures 3 therein. Between each pair of plates is adapted to be inserted an arm 4, which has recesses 5 in the lower edge thereof. Pins 6 are detachably arranged within certain of the apertures in the plate and are so located as to support the arm 4 at a desired inclination between the plates. One of these pins preferably extends through one of the recesses 5, and the arm is adapted to be securely locked in position between the plates by means of a pin 7, which may be inserted through the plates at such a point above the arm as to prevent said arm from being swung upward from the pin within the recess 5. Arms 4 are connected by a cross-beam 8, having a slotted strip 8^a thereon, the ends of which are adjustably connected to the arms 4 by links 8^b. Parallel ears 9 extend laterally from the center of strip 8^a, and a roller 9^a is journaled therein. A lip 10 projects from beam 8 at a point under roller 9^a, and to the front end of each arm is hinged an ear 11, extending rearwardly from a cross-strip 12. This strip is connected, by means of a casting 13, to a similar cross-strip 14 thereunder, and rods 15 are fastened within said strips and extend forward therefrom to form a fender-guard. The forward ends of the rods are connected by a spindle 16, upon which are journaled rollers 17.

A slotted arm 18, having a slotted segment 18^a, extends rearwardly from the upper end of the casting 13 and is adjustably secured to a link 19^a, to which a catch 19 is pivoted. This catch is held normally in engagement with the roller 9^a upon strip 8^a by means of a coiled spring 20. An arm 21 projects downward from this catch and is adapted to overhang the end of the lip 10, before referred to. An operating-bar 22 is arranged in advance of spindle 16 and is connected to side bars 23, which extend through the fender-guard and

form a loop 24 at the rear end thereof, which normally rests upon lip 10 and is provided with a friction-roller 25. Arms 26 are secured to the cross-strip 12 and extend forward therefrom, and to these arms is hinged a guard 27, which may be of any suitable construction and is adapted to be supported in a raised position by the front of the car 2. Plates 28 are clamped upon some of the rods 15 at points between the cross-strips 12 and 14, and springs 29, which are secured to the lower surface of the beam 8, bear upon these plates for the purpose hereinafter more fully described.

When the operating-bar 22, which is in advance of the rest of the fender, comes into contact with an object in the path of said fender, it is thrown backward upon rollers 17, and the loop 24 is forced longitudinally on lip 10, thereby bringing roller 25 against arm 21 and swinging the catch 19 out of engagement with ear 9. The springs 29 will then promptly force the fender 15 downward, bringing the rollers 17 upon the track. The spring-guard 27 will prevent the object from coming violently into contact with the front of the car, and the fender will prevent it from passing under the car. To reset the fender, it is merely necessary to lift the same, and the catch 19 will then automatically engage roller 9^a. Prior to this resetting of the fender, however, the loop 24 will be replaced upon ear 10. It will be understood that the arms 4 can be arranged at any desired inclination between the plates 1, as pins 6 and 7 can be put in any of the desired apertures within said plates.

In the foregoing description I have shown the preferred form of my invention; but I do not limit myself thereto, as I am aware that modifications may be made therein without departing from the spirit or sacrificing any of the advantages thereof, and I therefore reserve the right to make such changes as fairly fall within the scope of my invention.

Having thus described the invention, what is claimed as new is—

1. In a car-fender, the combination with a car, of arms carried thereby, a fender mounted upon the arms, an ear, a catch mounted upon the fender to engage the ear to retain the fender elevated, and means to automatically trip the catch to release the fender.

2. In a car-fender, the combination with a car, of arms carried thereby, a fender mounted upon the arms, an ear, a spring-retained catch mounted upon the fender to engage the ear to retain the fender elevated, and means to automatically trip the catch to release the fender.

3. In a car-fender, the combination with a car, of arms adjustably mounted thereon, a fender mounted upon the arms, an ear, a catch mounted upon the fender to engage the ear to retain the fender elevated, and means to automatically trip the catch to release the fender.

4. In a car-fender, the combination with a car, of arms mounted thereon, a fender mounted upon the arms, an ear, a catch adjustably mounted upon the fender to retain the same elevated, and means to automatically trip the catch to release the fender.

5. In a car-fender, the combination with a guard, and parallel arms extending therefrom and having recesses in one edge thereof; of parallel plates having apertures therein, and pins detachably arranged within the apertures and adapted to support the arms and engage a recess therein.

6. In a car-fender, the combination with a car, of plates mounted thereon, arms carried by the plates, a fender mounted on the arms, an ear, a catch carried by the fender to engage the ear to retain the fender elevated, and means to automatically trip the catch to release the fender.

7. In a car-fender, the combination with a car, of plates secured thereto, arms adjustably mounted upon the plates, a fender mounted upon the arms, an ear, a catch carried by the fender to engage the ear to retain the fender elevated, and means to automatically trip the catch to release the fender.

8. In a car-fender, the combination with a car, of plates provided with apertures and secured thereto, arms, pins adapted to enter the apertures to engage the arms to adjustably mount the arms upon the plates, a fender mounted upon the arms, an ear, a catch carried by the fender to engage the ear to retain the fender elevated, and means to automatically trip the catch to release the fender.

9. In a car-fender, the combination with a car, of arms mounted thereon, a beam connecting the arms, a slotted plate mounted upon the beam, links connected to said plate and arms, a fender mounted upon the arms, an ear carried by the beam, a catch carried by the fender to engage the ear to retain the fender elevated and means to automatically trip the catch to release the fender.

10. In a car-fender, the combination with a car, of arms mounted thereon, means connecting the arms, an ear mounted on the said means, a lip mounted on the means below the ear, a fender mounted upon the arms, a catch carried by the fender to engage the ear to retain the fender elevated, and means adapted to rest upon the lip to automatically trip the catch to release the fender.

11. In a car-fender, the combination with a car, of arms carried thereby, a fender mounted upon the arms, an ear, a casting secured to the fender and provided with a slotted segment, a link adjustably connected to the segment, a latch carried by the link to engage the ear to retain the fender elevated, and means to automatically trip the catch to release the fender.

12. In a car-fender, the combination with a car, of arms mounted thereon, a fender mounted on the arms, an ear, a catch carried by the

fender to engage the ear to retain the fender elevated, means for automatically releasing the fender, and spring means carried by the arms to force the fender when released into contact with the roadway.

13. In a car-fender, the combination with a car, of arms mounted thereon, a fender mounted upon the arms, a guard hinged to the fender, an ear, a catch carried by the fender to engage the ear to normally retain the fender elevated, and means to automatically release the fender.

14. In a car-fender, the combination with a car, of arms mounted thereon, a beam connecting the arms, a fender mounted upon the arms, an ear carried by the beam, a lip carried by the beam, a catch carried by the fender to engage the ear to normally retain the fender elevated, and an operating-bar terminating in a loop, said loop fitting in the lip to trip the catch when the guard comes in contact with an object to release the fender.

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

FRANK A. SCHAAF.

Witnesses:

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