No. 898,375. PATENTED SEPT. 8, 1908.

F. A. JOHAN.

ROLLING AUTOMATIC CAR FENDER.

APPLICATION FILED JAN. 2, 1908.

2 SHEETS—SHEET 1.

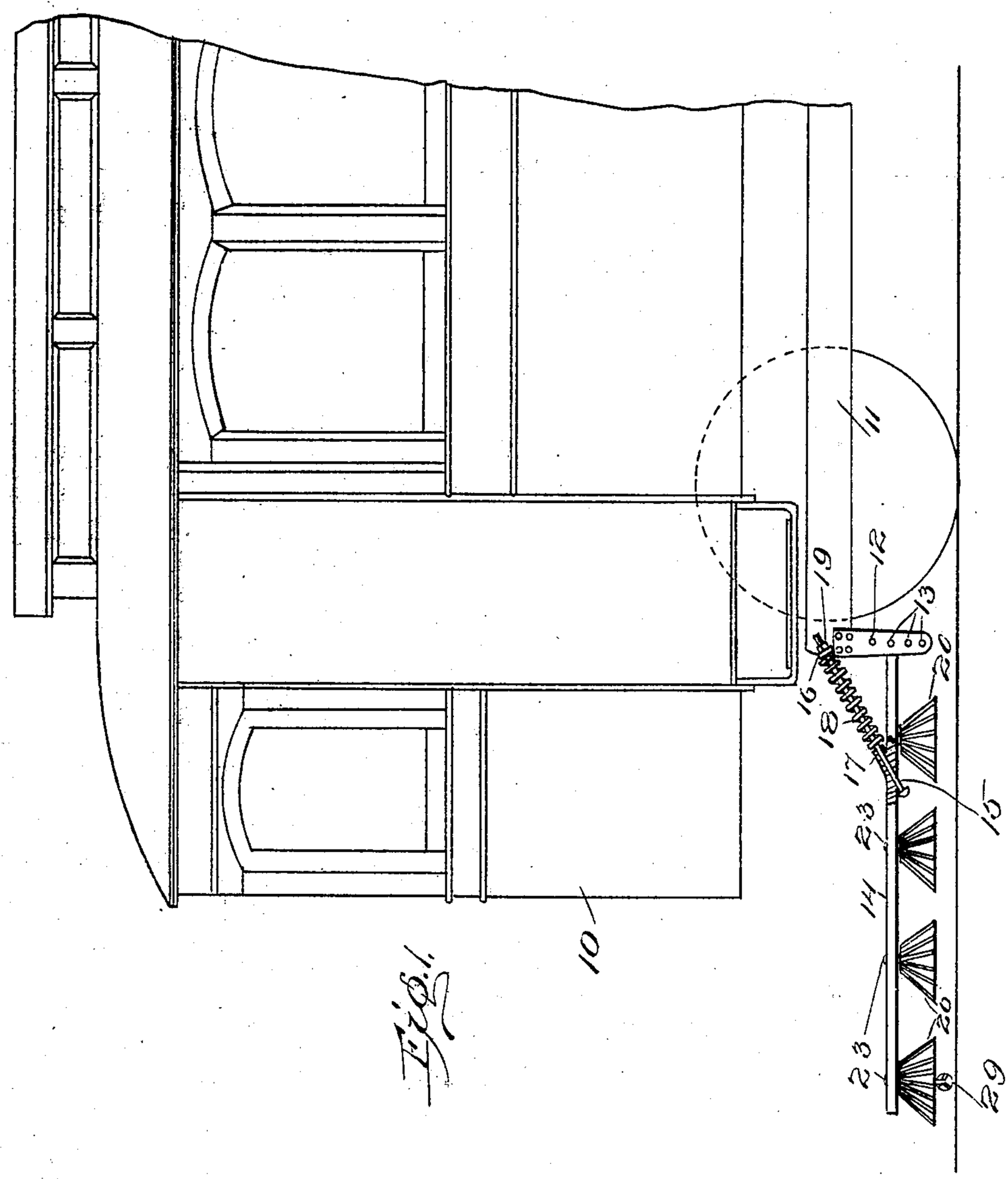

Fig. 1.

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2 SHEETS—SHEET 2

Fig. 3

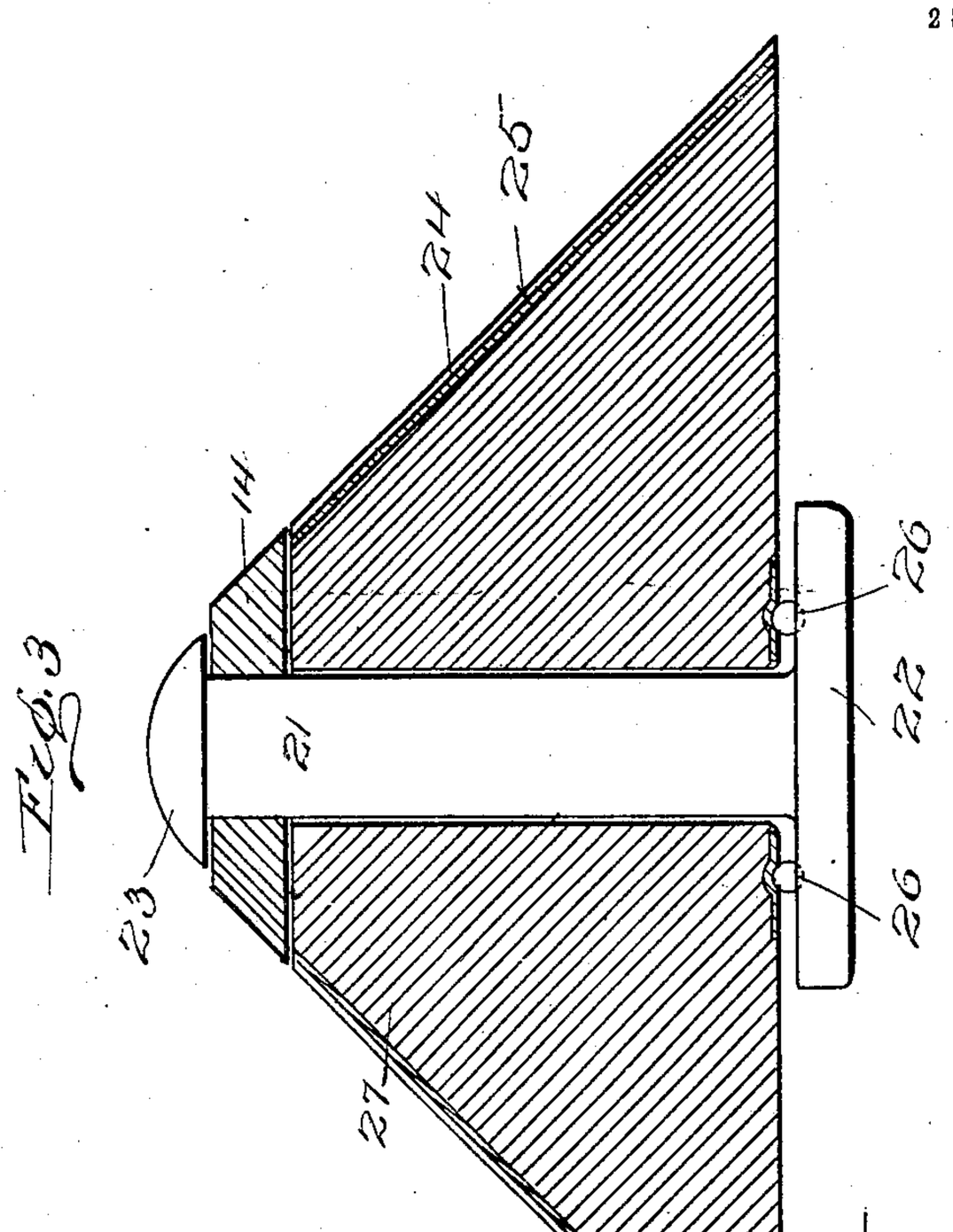
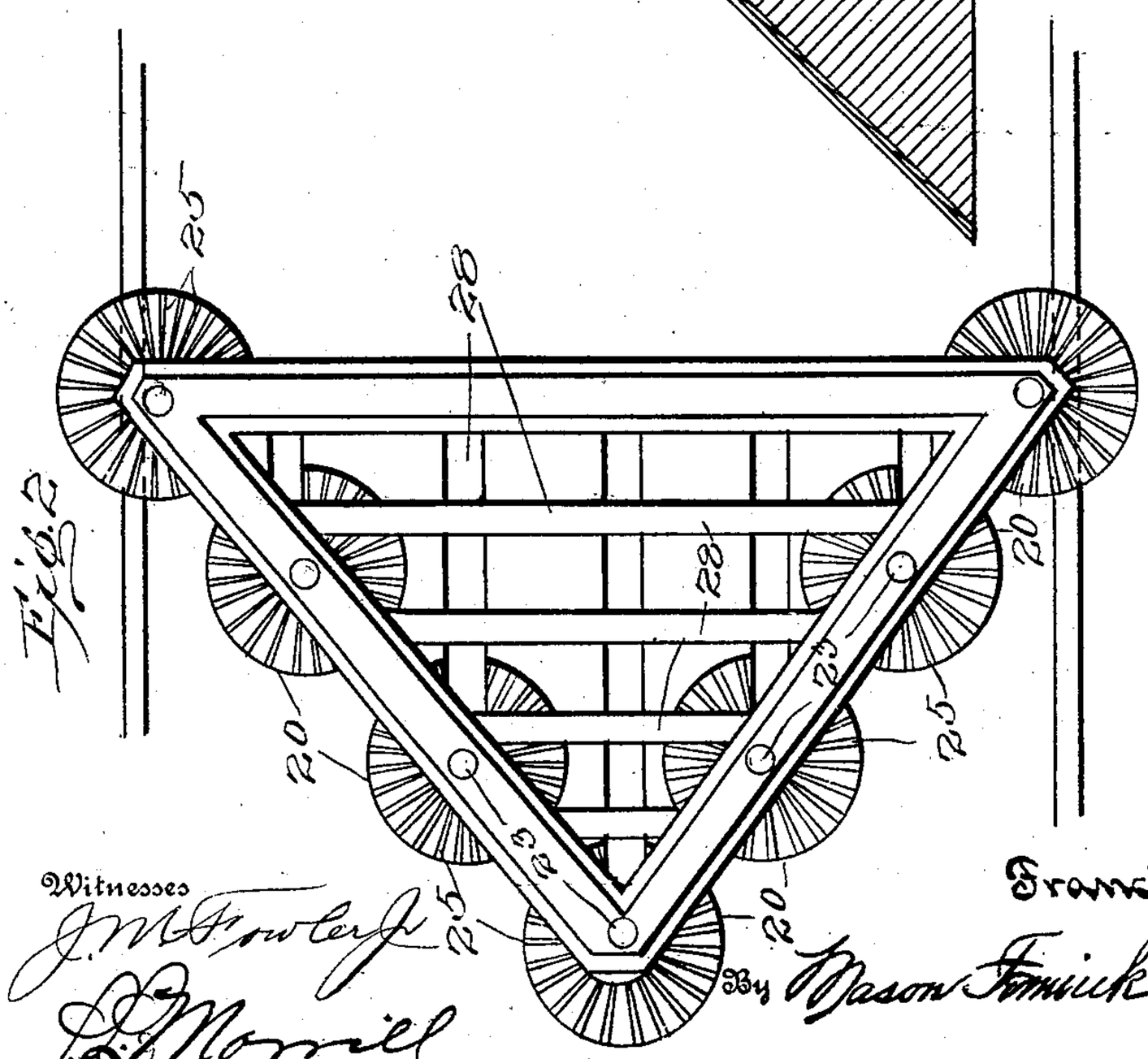


Fig. 2



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UNITED STATES PATENT OFFICE.

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ROLLING AUTOMATIC CAR-FENDER.

No. 898,375. Specification of Letters Patent. Patented Sept. 8, 1908.

Application filed January 2, 1908. Serial No. 409,024.

To all whom it may concern:

Be it known that I, FRANCIS A. JOHAN, a citizen of the United States, residing at Seattle, in the county of King and State of Washington, have invented certain new and useful Improvements in Rolling Automatic 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.

This invention relates to fenders for cars and other vehicles and has for an object to provide a fender embodying new and improved means for removing obstructions from the track.

A further object of the invention is to provide in a fender a frame carrying a plurality of rollers disposed to engage with and slidably remove from the track any obstructions encountered thereon.

A further object of the invention is to provide a fender comprising a frame carried approximately horizontally above the track and having a plurality of vertically journaled rollers depended beneath the frame and in position to engage upon their periphery any obstruction upon the track and move it to one side of the track.

A further object of the invention is to provide in fenders having rollers a specific form of roller especially adapted for use and employment in such association.

With these and other objects in view, the invention comprises certain novel constructions, arrangements and combinations of parts as will be hereinafter fully described and claimed.

In the drawings:—Figure 1 is a view in side elevation of a portion of a conventional car with the improved fender associated therewith. Fig. 2 is a view in top plan of the fender removed from the car. Fig. 3 is a view in enlarged diametrical section of one of the rollers and associate parts.

Like characters of reference designate corresponding parts throughout the several views.

The fender forming the subject-matter of this application is adapted for association with substantially any form of car or vehicle as the car shown conventionally at 10 and is associated and connected with such vehicle in such mechanical way as is found desirable to correspond with the structure of the vehicle.

As illustrated the vehicle is provided with a conventional truck frame 11 to which is secured plates 12 depending upon opposite sides thereof and provided with a plurality of openings 13 preferably in vertical alinement in said plates.

The fender further comprises a substantially **A**-shaped frame 14 connected at its rear end pivotally with the plates 12 and supported by any approved yielding means as the bolt 15 extending in an inclined position through the said frame or a portion thereof and, at its upper end through an ear 16 formed upon the truck-frame. The fender frame 14 may be provided with an abutment 17 through which the bolt 15 extends having a shoulder positioned substantially at right angles to the axis of the bolt and a spring or other resilient member 18 will be disposed between the abutment 17 and the ear 16 the tension of which tends to hold the fender frame downwardly and permits the same to rise a limited distance when encountering rough track or uphill or when for any reason the fender frame should, for convenience, be lifted a short distance. The upper end of the bolt 16 is screw-threaded and provided with a nut 19 by which the length of such bolt and the consequent vertical position of the fender frame may be adjusted. Underneath the fender frame a plurality of rollers 20 are journaled, the said rollers being preferably of conical form or truncated as shown particularly in Fig. 3. The rollers may be journaled by any approved means and here shown by means of the bolt or rivet 21 having a head 22 disposed beneath the under side of the roller and the top preferably formed in a smooth upset head 23 upon the upper side of the frame 14 to prevent tearing or wounding engagement with the article or animal thrown upon the fender. The roller 20 may be made in any approved manner as of metal as shown at 24 and preferably corrugated as shown at 25 whereby greater frictional engagement is insured between the rollers and any object encountered. The part of the metal surrounding the bolt 21 and also the head 22 are preferably provided with grooves forming races for the balls 26 so that a thrust ball bearing is provided to support the rollers. For stiffening and

strengthening the rollers a wooden or other similar filler 27 may be provided filling the interior of said metal casing although such filler is not necessary to the proper working of the device.

The A-shaped frame 14 is preferably provided with a lattice or grid shown at 28 in any approved form, the said grid being provided for the purpose of strengthening the frame and also for supporting any article or object thrown upon the top of the fender frame. For further assisting in properly supporting and positioning the fender and frame a wheel or roller 29 is provided extending below the journal bolt of the vertical central bolt and positioned to engage with the track or ground when the frame is depressed to a necessary degree or when the track rises relative to such frame.

In operation it will be apparent that when any object is encountered upon the track it will be engaged by the periphery of one or more of the depending rollers 20 and as such rollers are arranged in inclined relation to the line of travel the same will be moved outwardly by the roller engaging it until such object engages the next roller which will continue the moving of the object until the same is moved beyond the rail upon either side of the track.

The rollers being formed in conical shape tend to lift the object from the track to make its removal to one side less difficult and also to assist in throwing upon the platform or frame any article or object encountered too large or too tall to be removed to one side as described.

What I claim is:—

1. A fender embodying a frame composed of beveled strips, rollers disposed beneath the frame and bolts forming journals for the rollers and provided with heads corresponding in formation to the bevel of the strips.

2. A fender embodying a frame having beveled longitudinal edges, rollers disposed beneath the frame and bolts extending through the frame and rollers, and provided with heads supplemental in slant to the bevel of the frame pieces.

3. A fender embodying a frame composed of strips having its opposite edges beveled, frusto-conical rollers disposed beneath the frame strips and provided with inclined sides complemental to the bevel of the frame strips, and bolts extending through the strips and rollers and provided with heads upon the upper side corresponding to the slant of the taper of the strips.

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

FRANCIS A. JOHAN.

Witnesses:

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L. C. MASSIE.