(No Model.)

O. G. HALLENBECK.

CAR FENDER.

No. 556,845. Patented Mar. 24, 1896.

Fig: 1.

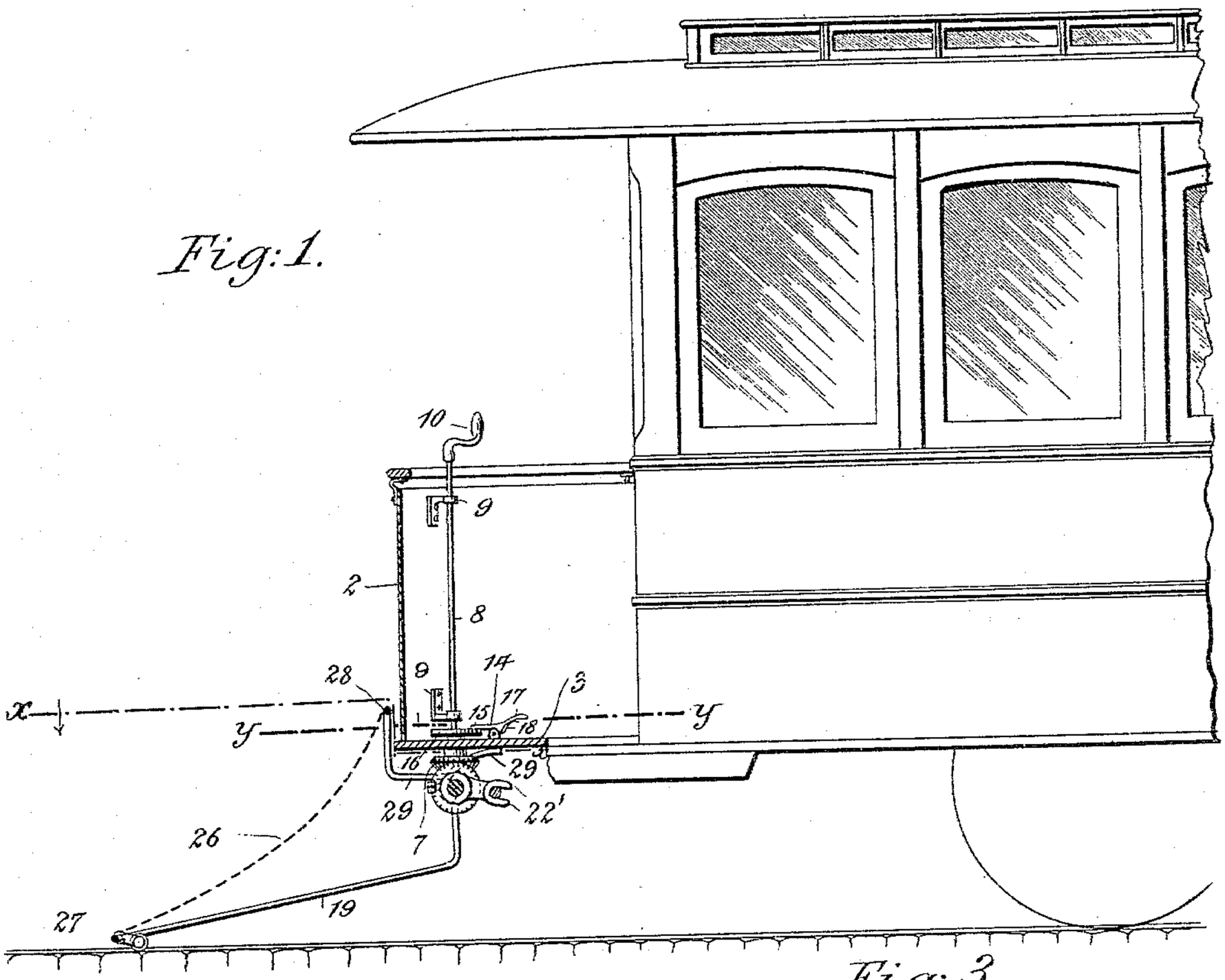
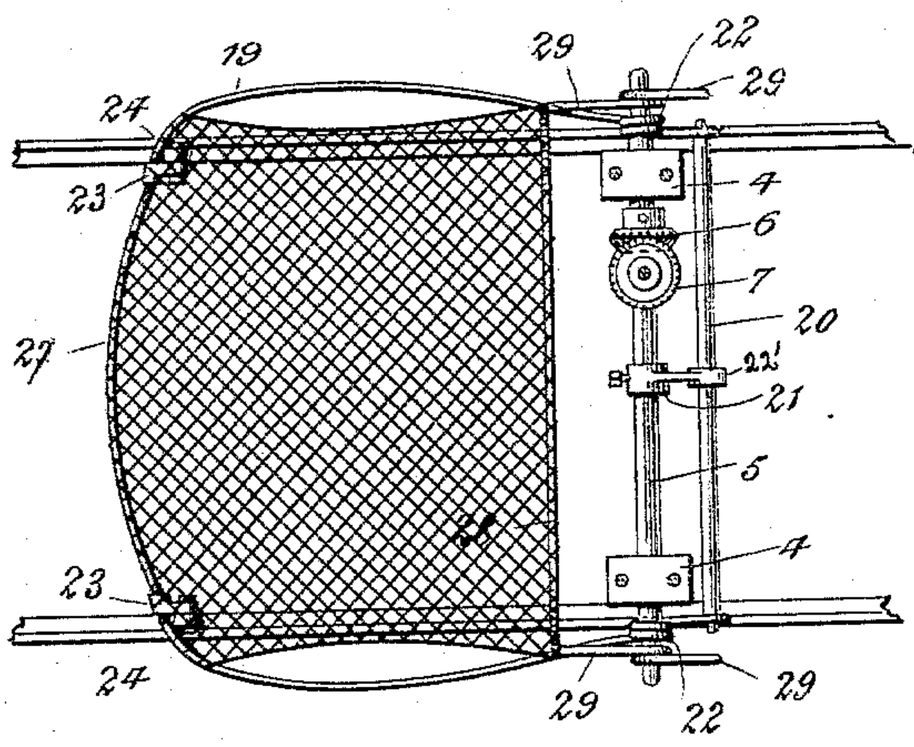


Fig: 3.

Fig: 2.



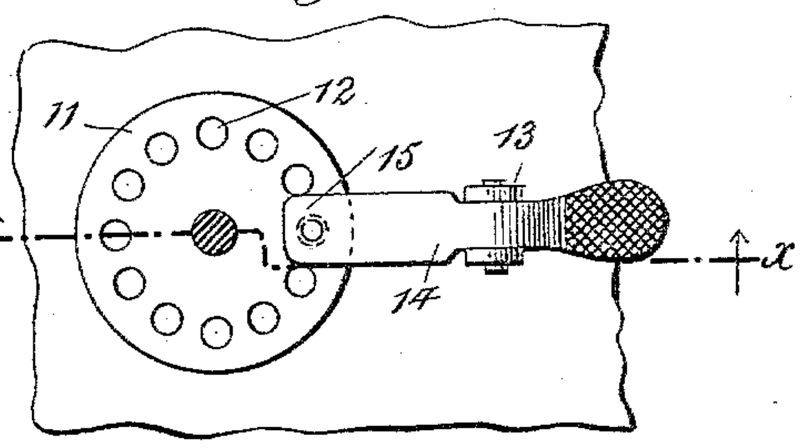
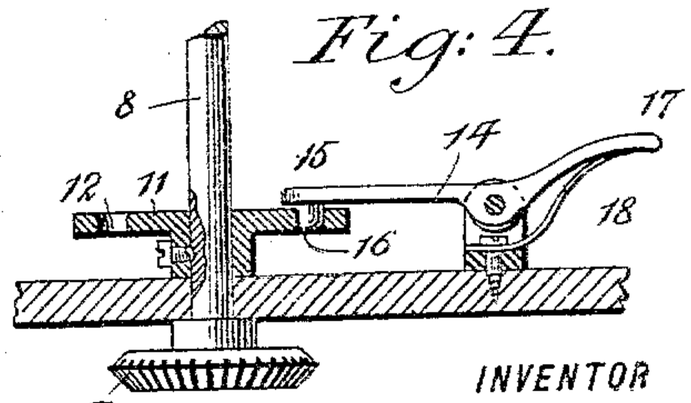


Fig: 4.



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CAR-FENDER.

SPECIFICATION forming part of Letters Patent No. 556,845, dated March 24, 1896.

Application filed March 26, 1895. Serial No. 543,236. (No model.)

To all whom it may concern:

Be it known that I, OVANDO G. HALLENBECK, a citizen of the United States, and a resident of New York, county of New York, and State of New York, have invented certain new and useful Improvements in Car-Fenders, of which the following is a specification, reference being had to the accompanying drawings, forming a part thereof, in which similar numerals of reference indicate corresponding parts in all the figures.

This invention relates to fenders or guards for tramway or other cars; and the object thereof is to provide a simple and effective device of this class which is adapted to be folded adjacent to the dashboard of the car or extended in front of the car when desired.

The invention is fully disclosed in the following specification, of which the accompanying drawings form a part, in which—

Figure 1 is a vertical section through the dashboard and platform of a car provided with my improvement at one side of the center thereof; Fig. 2, a section on the line $x\ x$ of Fig. 1; Fig. 3, a section on the line $y\ y$ of Fig. 1, and Fig. 4 a section on the line $x\ x$ of Fig. 3.

Referring to the drawings, the numeral 2 designates the dashboard of a car, and 3 the platform thereof. Secured to the bottom of the platform in any desired manner at each side thereof are hangers 4, (shown in Fig. 2,) in which is mounted a shaft 5, having rigidly secured thereto a beveled gear-wheel 6, adapted to engage with a corresponding beveled gear-wheel 7 rigidly connected with the lower end of a lever-bar 8, which passes upward through the car-platform, where it is properly supported, and through guides or braces 9 secured to the dashboard, and which is provided at its upper end with a crank-lever 10. Immediately above the platform is mounted on said bar 8 a wheel 11, (more clearly shown in Fig. 1,) having on its under side a downwardly-projecting extension rigidly secured to said shaft, provided near its outer edge with a row of perforations 12, and pivotally connected with a support 13 secured to the platform is a lever 14, one end 15 of which is provided with a lug or projection 16 on its under surface adapted to enter the perforations 12 in the wheel 11, the other end 17 of said lever being provided with a spring 18 adapted to hold the end 15 of the lever in contact with the ring 11, these elements of construction being most clearly shown in Figs. 3 and 4.

My fender proper is composed of a frame consisting of a heavy wire or rod 19 and a body portion consisting of a network of wire or other material, the ends of the wire frame being coiled around the shaft 5 mounted in the hangers 4, preferably outside of said hangers, as shown in Fig. 2, and extended backwardly and being rigidly secured to the opposite ends of the bar 20, which secures them in their proper position with relation to the shaft 5. Secured to the shaft 5, centrally thereof, is a lever or arm 21, the outer end of which is provided with jaws 22′, which are adapted to grasp or inclose the shaft 20. The coils 22 of the wire frame 19 are rigidly secured to said shaft, and as thus constructed it will be seen that the shaft 5, the wire frame 19, and the shaft 20 constitute a frame which is revoluble in the hangers 4, and may be operated by means of the crank-lever 10, the bar 8, and the beveled gear-wheels 6 and 7, the latter being connected with said bar.

If it is desired to fold the fender or guard-frame adjacent to the car, it is only necessary to grasp the lever 10 and turn it to the right, when said result will be accomplished. If, however, it is desired to project the said fender or guard-frame in front of the car, the lever 10 is turned to the left, when the fender will be extended in the position shown in Figs. 1 and 2, as will be readily understood.

Secured to the fender-frame at opposite sides thereof are arms or supports 23, which carry rollers 24 pivotally connected with said arms and adapted to travel on the rails of the track, which constitute a firm support and guide for the forward end of the frame or fender, as will be readily understood.

The frame formed by the wire 19 is preferably covered with a netting composed of wire or other desired material and formed in any desired manner, which is adapted to receive any person or object which may be struck by the fender or guard and thrown backward thereon. I also contemplate the use of a flexible netting 26, composed of any desired material and formed in any desired manner and

of the same general form as the guard or fender, the front edge of which is secured to the front of the fender-frame at 27 and the opposite or rear end of which is connected with an auxiliary frame 28 in any desired manner, said frame being provided with downwardly and inwardly directed sides 29, which are coiled around the ends of the shaft 5 and extended upward and backward and adapted when the front part of the frame is depressed to press against the bottom of the platform of the car, as shown in Fig. 1.

The coils of the sides 29 of the frame 28 on the shaft 5 are loosely connected with said shaft, and the said frame is therefore free to move thereon, and it will thus be seen that if a person or other object be thrown upon the netting 26 the spring-frame 28 will yield to the weight thus cast thereon, so as to break the force of the fall, and will immediately resume its former position, or that shown in Fig. 1, when the person or object is removed from the netting.

In operation the fender may be raised to a vertical position in front of the dashboard by means of the rod 8 through the crank-lever 10, or projected in a horizontal position in front of the car, as is shown in Figs. 1 and 2 and as hereinbefore indicated, and in each position it is locked and securely held by means of the lever 14, operating in connection with the plate 11 secured to said rod, said lever being operated by the foot or hand applied to the end 17 thereof or in any other desired manner.

It will thus be seen that I accomplish the object of my invention by means of a device which is extremely simple in construction and operation, which is readily applied to the platforms of tramway-cars now in use, and without change in the construction thereof, which is also perfectly adapted to accomplish the result for which it is intended, and which when once applied and ready for use cannot be easily injured or broken, and thus necessitate repairs and frequent alterations or changes therein.

I do not limit myself to the exact form, construction and combination of parts shown, as it is evident that many changes therein and modifications thereof may be made without departing from the scope of my invention; but,

Having fully described said invention, its construction and operation, what I claim, and desire to secure by Letters Patent, is—

1. The combination, with a car, of a shaft supported below the platform thereof, a fender or guard-frame mounted on said shaft and secured thereto, a lever-bar in gear with said shaft and extending upward through the platform, and an auxiliary frame also mounted on said shaft and extending forward of the platform, and a flexible net secured to the forward end of the fender or guard-frame and to said auxiliary frame, substantially as shown and described.

2. The combination, with a car, of hangers secured beneath the platform at either side thereof, a shaft mounted in said hangers, a fender or guard having a frame consisting of a wire or rod, the ends of which are coiled around the ends of said shaft and extending backwardly and connected with the ends of a bar which is supported thereby, a lever secured to said shaft and provided with jaws adapted to grasp the said bar and hold the same therein, a lever-bar provided with a beveled gear-wheel adapted to operate in connection with a gear-wheel secured to the shaft, said bar being extended upward through the platform of the car and provided at its upper end with a crank-lever, substantially as shown and described.

3. The combination, with a car, of hangers secured beneath the platform at either side thereof, a shaft mounted in said hangers, a fender or guard having a frame consisting of a wire or rod, the ends of which are coiled around the ends of said shaft and extended backwardly and connected with the ends of a bar which is supported thereby, a lever secured to said shaft and provided with jaws adapted to grasp the said bar and hold the same therein, a lever-bar provided with a beveled gear-wheel adapted to operate in connection with a beveled gear-wheel secured to the shaft, said bar being extended upward through the platform of the car and provided at its upper end with a crank-lever, an auxiliary frame connected with said shaft and extending forward of the platform, and a flexible netting secured thereto and to the forward end of the fender or guard-frame, substantially as shown and described.

4. The combination, with a car, of hangers supported beneath the platform at each side thereof, a shaft mounted in said hangers, a fender or guard having a frame consisting of a heavy wire or rod, the ends of which are coiled around the ends of said shaft and secured thereto and extended backward and connected with a rod or bar adjacent to the shaft, a lever rigidly secured centrally of said shaft and provided with jaws adapted to engage with said rod, a vertically-arranged lever-bar extending through the platform and provided at its lower end with a beveled gear adapted to engage a corresponding gear secured to the shaft, and the upper end of said lever being provided with a crank-arm, an auxiliary frame consisting of a wire or rod having sides or end pieces coiled around the ends of said shaft and extending backward and adapted to contact with the platform of the car, the body of the frame being extended forward in front of said platform, and a flexible netting secured to said frame and to the front end of the fender or guard-frame, which is also provided with rollers adapted to travel on the rails of the track, and a plate rigidly secured to the lever-bar above the platform of the car, having perforations therein, and a lever pivoted to said platform, provided with

a lug or projection adapted to engage said perforations, the construction and arrangement being such that the fender or guard-frame may be folded in front of the dash-board of the car or projected forward thereof so that the rollers thereon will come in contact with the rails of the track, and be locked in position, substantially as shown and described.

5. In a car-fender, the combination of a horizontal shaft arranged beneath the car, a vertical shaft in operative engagement with the horizontal shaft, the shaft 20, a frame secured on said horizontal shaft, and having its ends fastened to the said shaft 20, and an arm 21 rigidly secured on the horizontal shaft and having jaws 21′ to inclose the shaft 20, substantially as described.

6. In a car-fender, the combination of a vertical shaft, a horizontal shaft in operative engagement with the vertical shaft, the shaft 20, an arm 21 rigidly secured to the horizontal shaft and having jaws to inclose the shaft 20, a wire 19 bent to form the fender-frame and having its ends coiled around the horizontal shaft and secured to shaft 20, an auxiliary frame arranged on said horizontal shaft, substantially as described.

In testimony that I claim the foregoing as my invention I have signed my name, in presence of two witnesses, this 21st day of March, 1895.

OVANDO G. HALLENBECK.

Witnesses:
PERCY T. GRIFFITH,
A. M. CUSACK.