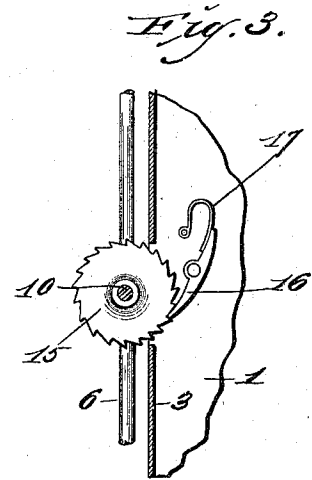
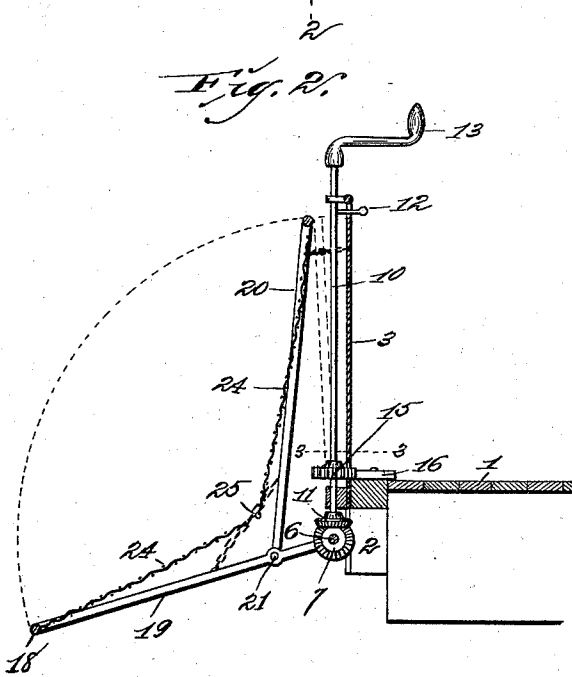
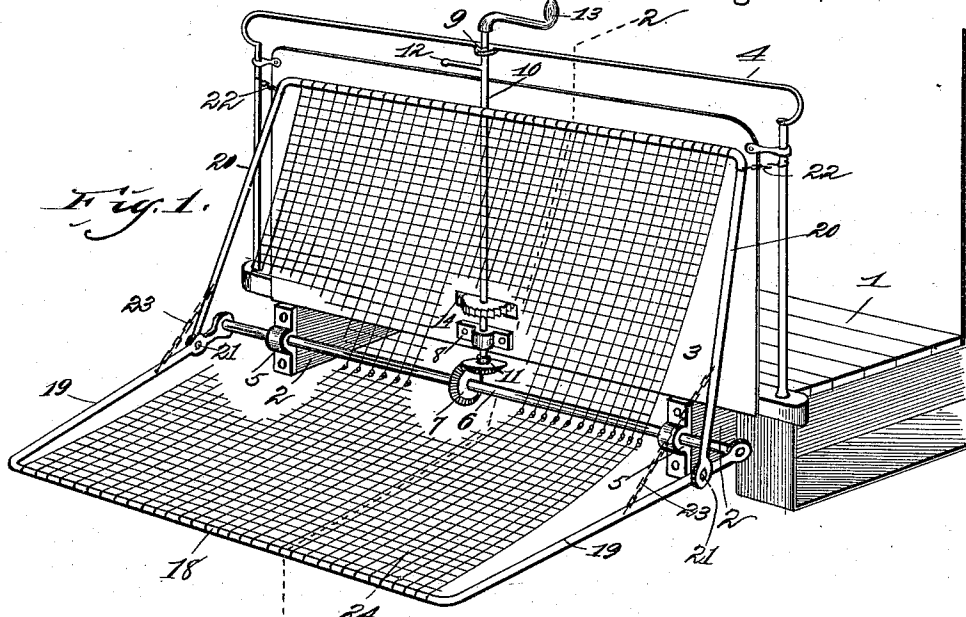


(No Model.)

J. B. HOAGLAND.
CAR FENDER.

No. 544,919.

Patented Aug. 20, 1895.



Attest
M. P. Smith
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by Higdon & Higdon & Longan
Attys.

UNITED STATES PATENT OFFICE.

JOHN B. HOAGLAND, OF ST. LOUIS, MISSOURI, ASSIGNOR OF FIVE-EIGHTHS
TO L. FRANK OTTOFY AND JAMES A. LANE, OF SAME PLACE.

CAR-FENDER.

SPECIFICATION forming part of Letters Patent No. 544,919, dated August 20, 1895.

Application filed April 8, 1895. Serial No. 544,875. (No model.)

To all whom it may concern:

Be it known that I, JOHN B. HOAGLAND, of the city of St. Louis, State of Missouri, have invented certain new and useful Improvements in Car-Fenders, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming a part hereof.

My invention relates to an improved car-fender; and it consists in the novel construction, combination, and arrangement of parts hereinafter described and claimed.

In the drawings, Figure 1 is a view in perspective of my improved car-fender, the same being applied to a car as required for practical use. Fig. 2 is a sectional view taken approximately on the indicated line 2 2 of Fig. 1. Fig. 3 is an enlarged horizontal sectional view taken on the line 3 3 of Fig. 2.

Referring by numerals to the accompanying drawings, 1 indicates a car-platform that is located in the usual manner upon the longitudinally-extending frame-timbers 2.

3 indicates the ordinary dashboard, and 4 the usual hand-hold or guard surrounding said dashboard. Fixed to the ends of the frame-timbers 2, or to brackets that are bolted to said frame-timbers, are journal-boxes 5, in which is mounted for rotation transversely-extending shaft 6. Rigidly fixed upon this shaft 6, adjacent the center thereof, is a beveled gear-pinion 7. Bolted to the front of the dashboard 3, immediately above and slightly to one side of this beveled gear-pinion, is a journal-bearing 8. Formed in the guard-rail 4, in vertical alignment with the journal-bearing 8, is a journal-bearing 9, and mounted for rotation in these vertically-aligned journal-bearings 8 and 9 is a shaft 10. Rigidly fixed upon the lower end of this shaft 10 is a beveled gear-pinion 11, the same meshing with the beveled gear-pinion 7. Formed integral with the shaft 10 and extending at right angles thereto through the space between the top of the dashboard and the guard-rail 4 is a short arm or lever 12. Located upon the upper end of the shaft 10 is a crank-handle 13. Formed in the dashboard 3, immediately above the journal-bearing 8, is a transverse slot 14. Rigidly fixed upon the

shaft 10 and extending through this slot 14 onto the floor of the platform 1 is a ratchet-wheel 15, and pivoted upon the floor of the car-platform adjacent to this ratchet-wheel 15 is a dog 16, with which a U-shaped spring 17 engages to cause the point of said dog to engage the teeth of said ratchet-wheel.

18 indicates a rod or bar the ends 19 of which are bent at right angles to the main body portion thereof, thus making a U-shaped frame. The ends of the end portions 19 are rigidly fixed upon the ends of the transversely-extending shaft 6.

20 indicates a frame that is approximately of the same size and form as is the frame just described, and the ends of said last-mentioned frame 20 are pivoted by means of bolts or pins 21 to the end portions 19 of the bar 18 immediately in front of the fixed ends of said end portions. This frame 20 normally stands in a vertical plane, the upper end thereof lying adjacent to the upper end of the dashboard 3. Short chains—such as 22—connect the upper ends of this frame with the ends of the dashboard 3 or the sides of the guard-rail 4. Said chains 22 are for the purpose of restricting the forward movement of the upper end of the frame 20. Chains 23 connect the U-shaped frames adjacent where they are pivoted together, and said chains restrict the downward movement of the forwardly-extending frame.

24 indicates a net constructed of either wire or cord; or said net may be in the form of a sheet of canvas or analogous material. When said net is constructed of wire, it is essential that there be a joint or hinge connection—such as 25—approximately at the longitudinal center of said net. The upper and lower ends of said net are secured to the transverse portions of the U-shaped frames in any suitable manner.

The operation is as follows: While the car is running, the frame comprising the bar 18 and rearwardly-bent ends 19 extends forwardly and downwardly in front of the car; the forward end of said frame riding a suitable distance above the track-rails and surface of the ground. By regulating the length of the chains 23 the proper height at which the

forward end of the forwardly-extending frame is to be carried is obtained. Should the bar 18 of the forwardly-extending frame contact with a body—such as a person or animal—
 5 said body will be thrown onto and be caught by the net 24, and as the weight of said body is thrown onto said net 24 the ends of said net will draw upon the ends of the U-shaped frames and tend to close the same. As the
 10 frame 20 cannot move downwardly, the forwardly-extending frame will move upwardly a slight distance. After this forwardly-projecting frame moves upwardly it is prevented from returning to its normal position
 15 by reason of the spring-actuated dog 16 engaging against the ratchet-wheel 15, and said ratchet-wheel 15 is fixed upon the vertical shaft 10, that connects the beveled gear to the transverse shaft 6. To close or fold the
 20 fender up against the dashboard of the car, while said car is being coupled to another car, or for various other reasons, the operator manually engages either the lever 12 or crank-handle 13 and rotates the shaft 10 approximately a quarter of a turn. The bevel-
 25 pinion 11, mounted on the lower end of said shaft, will impart motion to the bevel-pinion 7, mounted on the transverse shaft 6, and said shaft 6 being rotated will carry the forwardly-extending frame up against the frame
 30 20 and dashboard 3, as indicated by dotted lines in Fig. 2. Said fender will be held in this closed position as the spring-actuated dog 16 engages against the ratchet-wheel 15, that is rigidly mounted upon the vertical
 35 shaft 10. To lower the folding portion of the fender the operator disengages the point of the dog 16 from the ratchet-wheel 15 and the folding portion of the fender will, by

reason of its own weight, lower to the proper position.

A fender of my improved construction is adapted to be located upon any of the various forms of cars, can be expeditiously folded or closed while the cars are being coupled together, can be constructed at minimum cost, is positive in operation, and possesses superior advantages in point of simplicity, durability, and general efficiency.

What I claim is—

50 A car fender, comprising a pair of journal-boxes located upon the end of a car, a shaft journaled in said boxes, a U-shaped frame having its ends fixed to said shaft, a U-shaped frame having its ends pivoted near the ends
 55 of and to the first mentioned frame, chains connecting said U-shaped frames, chains connecting the upper end of the last mentioned frame to the dashboard, a flexible net connecting the ends of said frames, a bevel gear-
 60 pinion located upon the transversely positioned shaft, suitable journal-bearings located upon the dashboard and in vertical alignment with each other, a shaft journaled in said bearings, a bevel gear-pinion mounted
 65 upon the lower end of said shaft and meshing with the first mentioned bevel gear-pinion, a ratchet-wheel located upon said shaft, a spring-actuated dog for engaging the teeth of said ratchet-wheel, and an operating handle for operating this vertically moving
 70 shaft.

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

JOHN B. HOAGLAND.

Witnesses:

M. G. IRION,

JOHN C. HIGDON.