

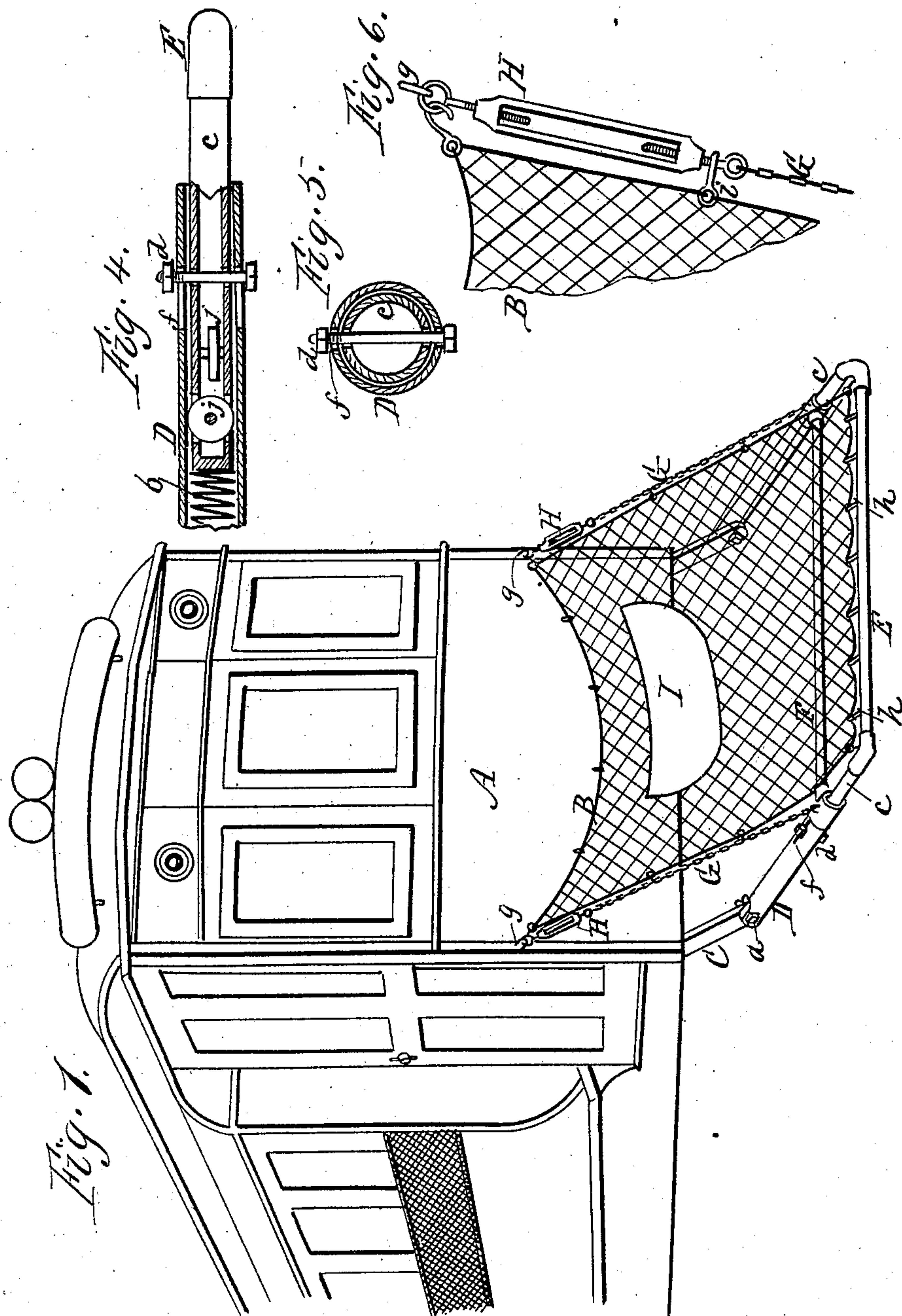
(No Model.)

2 Sheets—Sheet 1.

G. T. FOSTER.
SAFETY GUARD FOR STREET CARS.

No. 574,898.

Patented Jan. 12, 1897.



Witnesses:

J. A. Culver
Mrs. A. Gillette

Inventor.

Geo. T. Foster,
per R. F. Osgood,
Attorney.

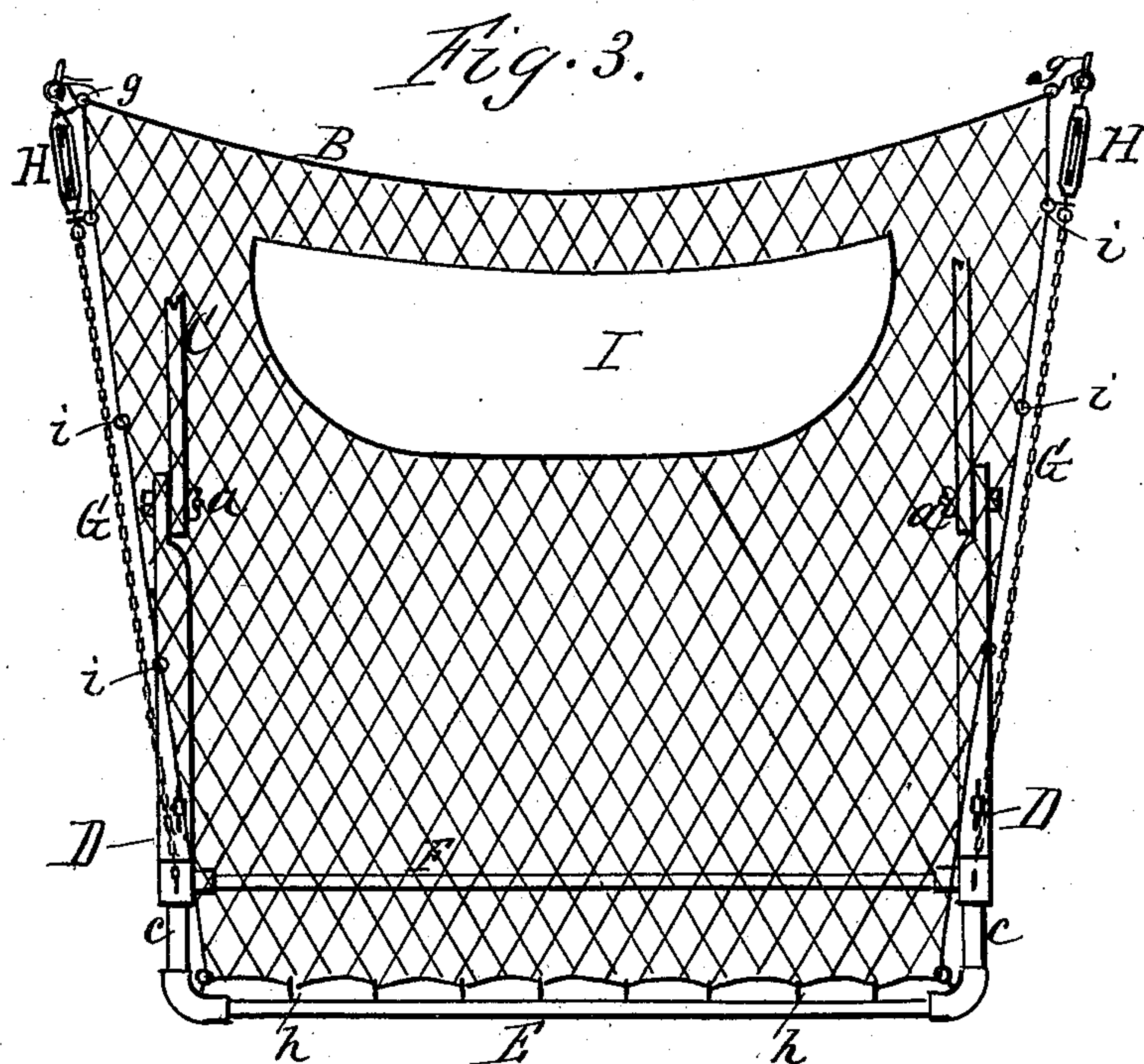
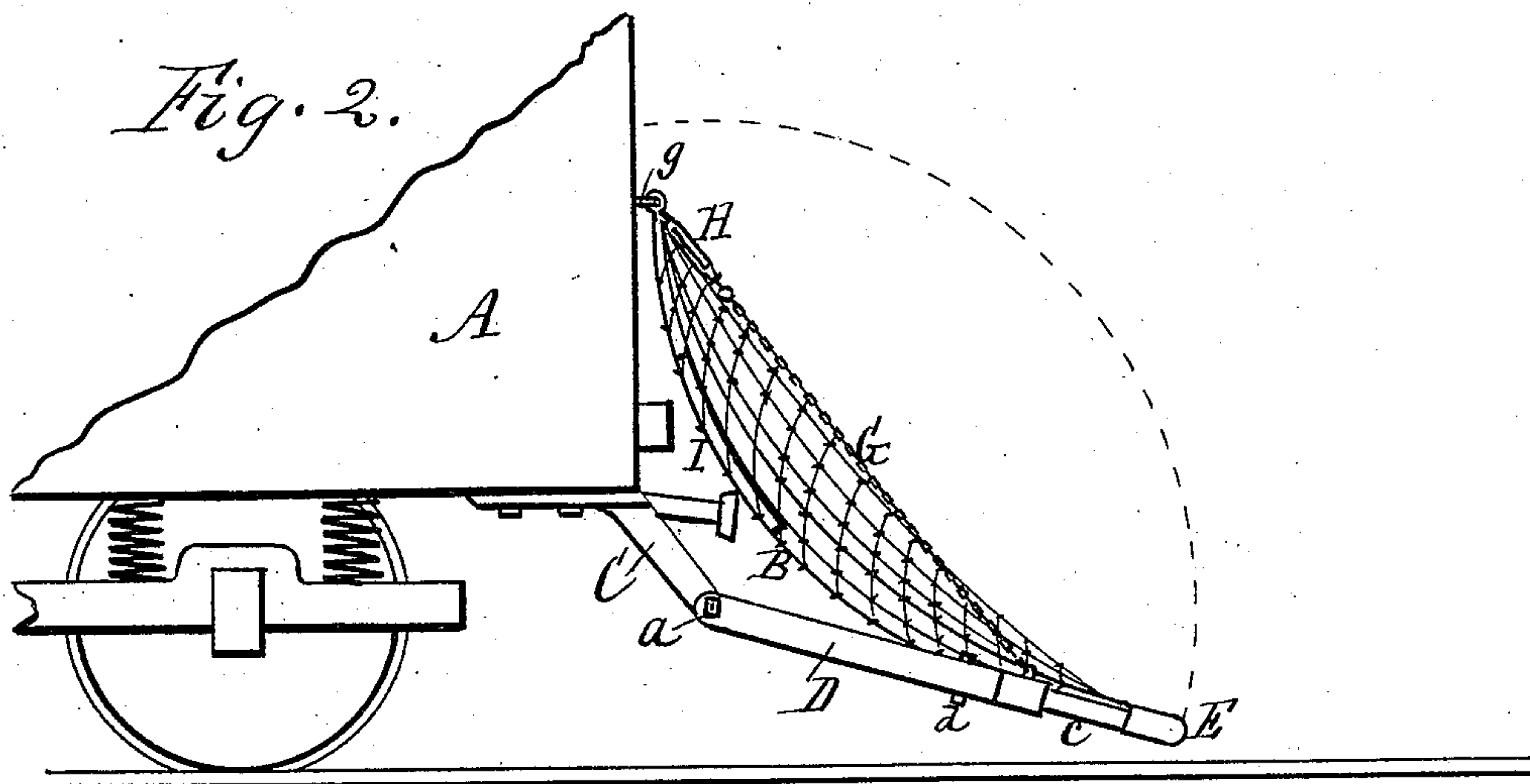
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Geo. T. Foster Inventor.
Mr. R. F. Osgood,
Attorney.

UNITED STATES PATENT OFFICE.

GEORGE T. FOSTER, OF ROCHESTER, NEW YORK.

SAFETY-GUARD FOR STREET-CARS.

SPECIFICATION forming part of Letters Patent No. 574,898, dated January 12, 1897.

Application filed November 14, 1895. Serial No. 568,912. (No model.)

To all whom it may concern:

Be it known that I, GEORGE T. FOSTER, of Rochester, in the county of Monroe and State of New York, have invented a certain new and useful Improvement in Safety-Guards for Street-Cars; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the drawings accompanying this application.

My improvement relates to street-car guards in which a net attached to a jointed frame is hung in advance of the car and is capable of being turned up out of the way when not in use. In general features it is similar to that patented by me February 6, 1894, No. 514,121.

The invention consists in the special combination and arrangement of parts herein-after described and claimed.

In the drawings, Figure 1 is a perspective view of the apparatus attached to one end of a street-car. Fig. 2 is a side elevation. Fig. 3 is a plan view of the attachment removed from place. Fig. 4 is a longitudinal section of a portion of one side of the frame, showing the sliding attachment. Fig. 5 is an enlarged cross-section of the same. Fig. 6 is an enlarged view of one of the tightening devices and one corner of the net.

A indicates an ordinary street-car. B is the net attached in front of the same, said net being made of rope, cable, or any other suitable material. The frame for the attachment of the net is as follows:

C C are two angle-irons permanently attached to the front of the car and inclining downward and outward. D D are tubular arms pivoted at *a a* to these irons and extending forward in a downwardly-inclined direction. In these tubular arms are spiral springs *b b*.

E is a buffer-rod consisting of a piece of pipe or rod extending crosswise of the track and running near thereto. Its ends *c c* are bent at right angles and enter the open ends of the tubular arms D D and bear against the springs *b b*. The springs hold the buffer-rod outward, but in case the buffer-rod strikes an obstruction in the road-bed it yields and slides back and clears the obstruction, thus preventing the guard from being broken. If it strikes a person, the contact is near the feet,

the recoil preventing injury, and the person is thrown over on the net, which catches and holds him safely. The buffer-rod is held in position by bolts *d d*, resting loosely in the ends *c c* and sliding through slots *f f* in opposite sides of the tubular arms D D. These slots gage the throw of the buffer-rod and prevent it from being forced out of place. The ends *c c* of the buffer-rod have friction-rollers *j j* resting inside the tubular arms and rolling against the sides to lessen friction. The rollers stand at right angles to each other, as shown.

F is a stiff cross-bar in the rear of the buffer-rod, connecting the two tubular arms D D and keeping them in place. The net B is attached at its upper end by hooks *g g* to rings on the end of the car and at its lower end to hooks *h h*, attached to the buffer-rod, standing thereby in an inclined position, as shown.

G G are two chains, one on each side of the net, the lower ends being attached to the outer ends of the tubular arms D D and the upper ends to turnbuckles H H, which are attached to the hooks *g g* on the end of the car. The chains are provided with loops *i i*, into which the net is hooked. These chains give strength and stability to the sides of the net and support the same at a given height, so that when the net is depressed by the weight of a body the sides remain elevated, and the net then forms a bag which holds the body and prevents it from falling off. The chains can be used effectively without the turnbuckles, but the latter are desirable to take up slack.

I is a board attached to the net in such position as to rest in front of and cover the end of the car-bumper and draw-bar, thereby serving as a shield to prevent contact with said parts if a person is thrown upon the net, and also forming a large surface to strike upon. If desired, it may be padded. Its position is such that when the frame is folded up against the car the board folds in flatwise with the net and is then located above the bumper and draw-head, so that a trailer can be readily connected with the draw-bar, the net and the board both standing above the bumper and coupling. By thus folding the parts up the cars can be housed end to end without loss of space.

Having described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. In a safety-guard for street-cars, the combination of a pivoted frame, a buffer-rod with bent ends resting in the outer tubular ends of the frame, springs for forcing the rod outward, a net attached at one end to the car and at the other to the buffer-rod, and a stiff board forming a pad attached to the flexible net and covering the draw-head, and so arranged that when the frame is turned up the board folds in flatwise with the net and above the draw-head, as herein shown and described.

2. In a street-car guard, the combination, with the flexible net B, attached at one end to the car and at the other to the buffer-rod of the supporting-frame, of the board I attached

to the meshes of the net and covering the draw-head of the car, as and for the purpose specified.

3. In a street-car guard, the combination of the tubular arms D D, the buffer-rod E provided with bent ends entering the arms, the friction-rollers *j j* attached to the bent ends and standing at right angles to each other, the springs *b b* for forcing the bent ends outward, and the bolts *d d* attached to the bent ends and playing loosely in slots *f f* of the tubular bars, as and for the purpose specified.

In witness whereof I have hereunto signed my name in the presence of two subscribing witnesses.

GEO. T. FOSTER.

Witnesses:

R. F. OSGOOD,

GEO. A. GILLETTE.