(No Model.) 2 Sheets—Sheet 1.

H. L. BEDFORD.

STREET CAR FENDER.

No. 553,664. Patented Jan. 28, 1896.

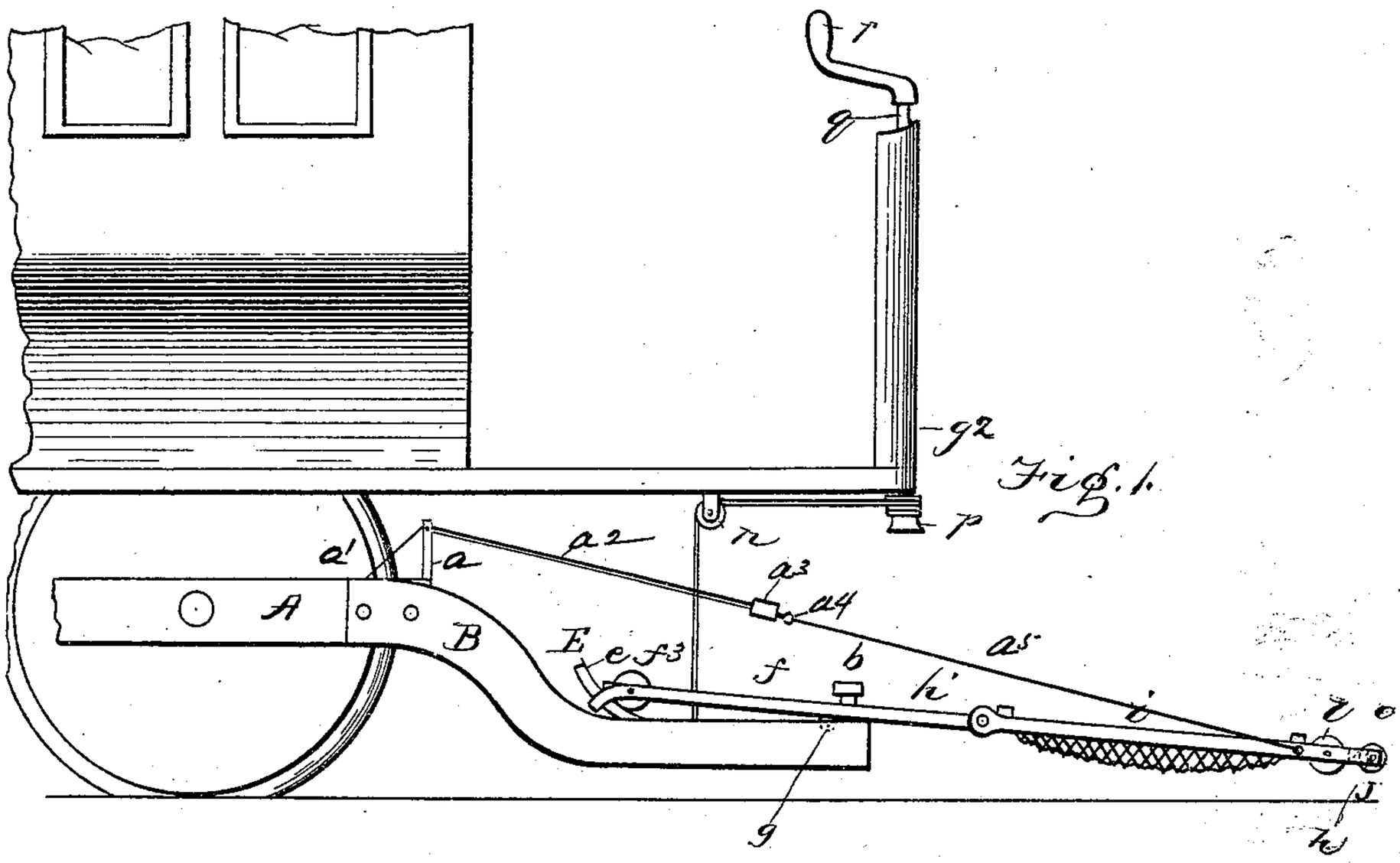

Fig. 1.

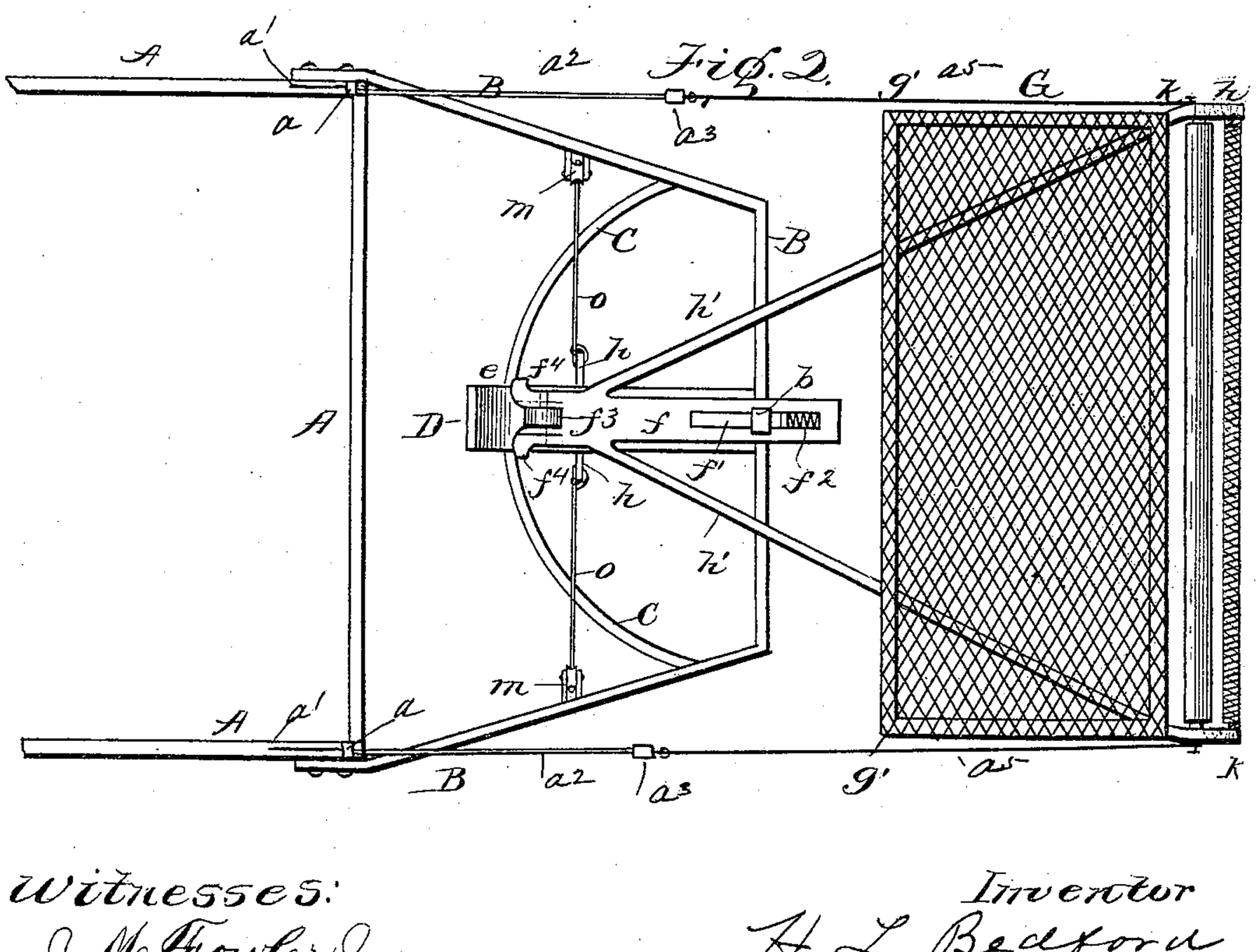

Fig. 2.

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(No Model.) 2 Sheets—Sheet 2.

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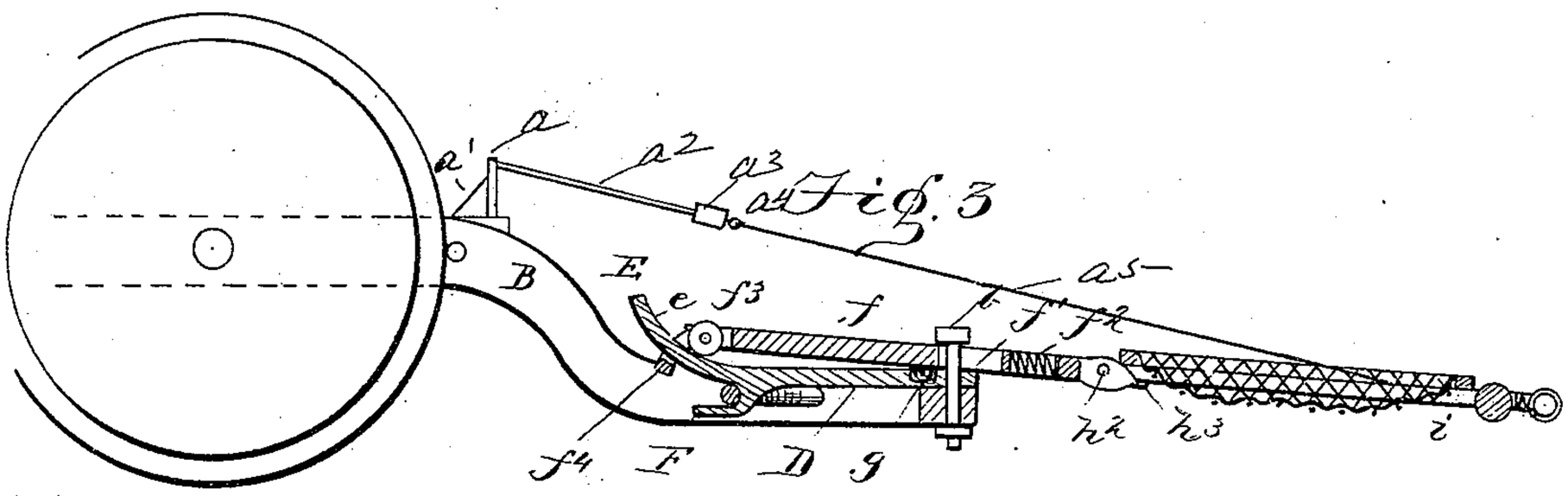

Fig. 3

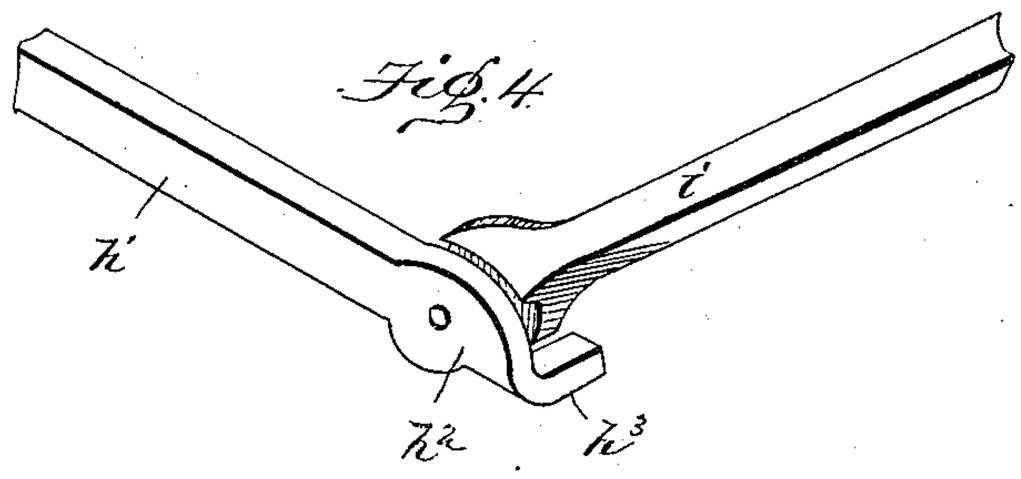

Fig. 4

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UNITED STATES PATENT OFFICE.

HUGH LAWSON BEDFORD, OF BAILEY, TENNESSEE.

STREET-CAR FENDER.

SPECIFICATION forming part of Letters Patent No. 553,664, dated January 28, 1896.

Application filed June 11, 1895. Serial No. 552,397. (No model.)

To all whom it may concern:

Be it known that I, HUGH LAWSON BEDFORD, a citizen of the United States, residing at Bailey, in the county of Shelby and State of Tennessee, have invented certain new and useful Improvements in Street-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.

My invention is an automatic street-car fender; and it consists of a projection extending in front of the car, hinged at such an angle that its front end will nearly touch the surface of the track, and so constructed that when it strikes an object it falls to the ground, so as to pick the object up. Said fender is provided with a proper netting, and it is also connected with mechanism to turn it to the right or left, that it may at all times cover the track.

In the accompanying drawings, Figure 1 is a side elevation of my invention. Fig. 2 is a top plan view. Fig. 3 is a longitudinal sectional view. Fig. 4 is a detail view.

My invention is described as follows:

A represents the frame of a car-truck; B, the front extension, its rear ends being secured to the frame A.

C is a bow-rod, each end secured to the front extension B, the bow extending backward. The bow is the arc of a circle.

To the front beam of the part B and in the center thereof is hinged by the bolt *b* a plate D, having extending from its lower face a thumb F, which works under the bow C in such a manner as to keep the said plate from rising or falling and at the same time allowing the rear end of said plate to be turned to the right or left by mechanism hereinafter described. The rear part E of said plate is turned up, so as to make an inclined plane *e*. Said plate in its front end and immediately in rear of the bolt *b* is provided with a roller *g*. Pivoted on the upper face of said plate D is a plate *f*, provided near its front end with a slot *f'*, through which the bolt *b* works. Said plate runs on the roller *g*, and the front end of said slot is provided with a spring f^2, the purpose of which is hereinafter described. The rear end of said plate is provided with a roller f^3, which is adapted to run up the inclined plane *e* and thereby throw the rear end of said plate downward. The rear end of said plate *f* is also provided with fingers f^4, the ends of which work under and against the lower face of the part E and keep the wheel f^3 down to the track of the incline *e*. Said plate *f* is also provided with short perforated side extensions *h*, and extending forward from each side of said plate *f* are arms *h'*, each terminating in a jaw-hinge h^2, having each a rest h^3. To these jaw-hinges are secured two other arms *i*, the lower faces of which rest against the rest h^3. Journaled in the front end of these arms is a cylindrical bumper *j*, the ends of which rest against springs *k*. Immediately in rear of this bumper is journaled a roller *l*. Said cylindrical bumper *j* is made of soft material, so that when it strikes the object in front of it the object may not be injured. The springs *k* and f^2 are also for the purpose of softening the blow. On top of the said arms *i* is secured a framework and netting G long enough to completely cover the track and wide enough to keep the person tripped from falling over the back end of it and under the wheels. The netting may extend from the points *g'* and be connected to the front guard g^2, if desired. The object of the parts *i* being hinged to the parts *h'* is that the front part of the guard may be turned up when the car is not in use.

To the inner face of the side bars of the part B are secured side pulleys *m*, and to the lower face of the car are also secured side pulleys *n*.

In the perforation of the extension *h* is secured one end of a cord *o*. Said cord passes under one of the side pulleys *m*, over one of the side pulleys *n*, and then around a pulley *p*, thence over the other side pulley *n*, thence under the other side pulley *m*, and is then secured to the opposite extension *h*. The pulley *p* is rigidly secured to shaft *q*, having a handle *r*, that it may be operated by the driver or motorman.

The operation of this device is as follows: By means of the parts *r*, *q*, *p*, *n*, *m*, *h* and *o* the guard is turned to the right or left, keeping it constantly in front of the car. The front end runs very near to the ground or the

face of the track, and when the bumper *j* strikes an object the plate *f* runs backward and the wheel f^3 runs up the incline *e* and thus throws the front end of the arms *i* down until the roller *l* strikes the face of the track, and as the object cannot get under the front end it must fall into the netting G. In order to relieve the strain on the parts B and rests h^3, I erect on the front ends of the truck-frames A standards *a*, braced by braces *a'*, (see Fig. 1,) and from said standards, extending forward, are rods a^2, on the ends of which are screwed buckle-nuts a^3, and in the front ends of said buckle-nuts are pivoted turning-eyes a^4, and from the eyes a^4 extend cords a^5, the front ends of which are secured to the front ends of the arms *i*.

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

1. In combination with a car, the front extension B; plate D, pivoted on the front bar of said front extension and provided at its rear end with the incline *e;* plate *f*, having in its front end the slot *f'*, and spring f^2, and in the rear end the roller f^3, adapted to climb the incline *e*, and the fingers f^4; side arms *h'*; hinged parts *i*, having in their front ends the bumper *j*, and roller *l;* and frame and netting G, substantially as shown and described and for the purposes set forth.

2. In combination with a car, the front extension B, provided with the bow C; plate D, pivoted on the front bar of said front extension and provided with thumb F, grasping said bow, and at the rear end of said plate the incline *e;* plate *f*, having in its front end the slot *f'*, and spring f^2, and in its rear end the roller f^3, adapted to climb the incline *e;* and the fingers f^4, adapted to keep the wheel f^3, to the face of the incline *e;* hinged parts *i*, having in their front ends the springs *k*, bumper *j*, and roller *l;* frame and netting G; cord *o*, having its ends secured to the plate *f*, and passing under pulleys *m*, over pulleys *n*, and around pulley *p*, substantially as shown and described and for the purposes set forth.

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

HUGH LAWSON BEDFORD.

Witnesses:

SIMON GERARD LUNDEL,

ROBERT MARCHANT HEATH.