

(No Model.)

W. H. PAUGH.
GUARD FOR STREET RAILWAY CARS.

No. 532,393.

Patented Jan. 8, 1895.

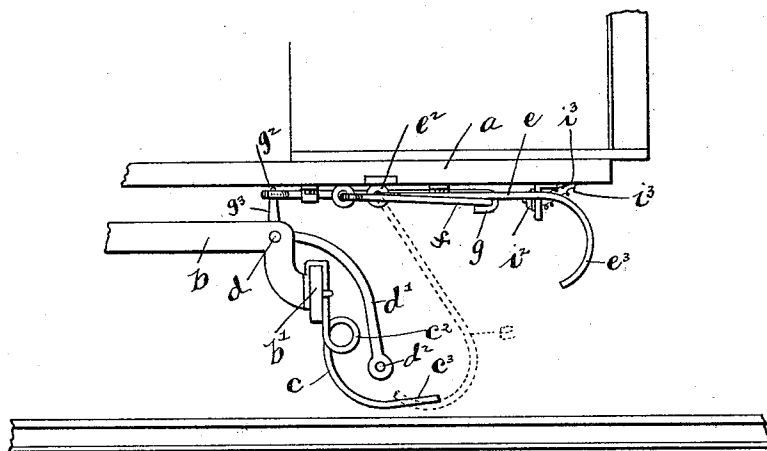


Fig. 1

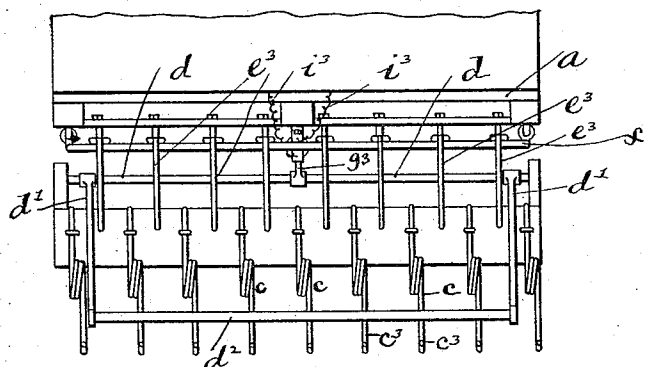


Fig. 2

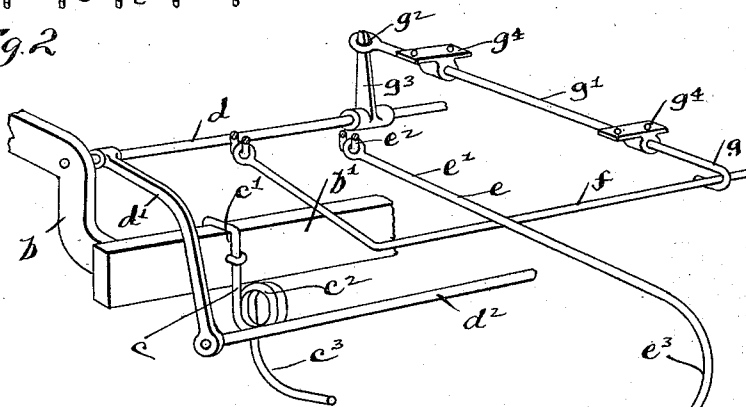


Fig. 3

Inventor.

Witnesses:

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WILLIAM H. PAUGH, OF COLUMBUS, OHIO.

GUARD FOR STREET-RAILWAY CARS.

SPECIFICATION forming part of Letters Patent No. 532,393, dated January 8, 1895.

Application filed June 25, 1894. Serial No. 515,608. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM H. PAUGH, a citizen of the United States, residing at Columbus, in the county of Franklin and State of Ohio, have invented a certain new and useful Improvement in Guards for Street-Railway Cars, of which the following is a specification.

My invention relates to the improvement of life guard attachments for street railway cars of that class which are adapted to be connected with cable, electric and other fast moving cars. The objects of my invention are to provide an attachment of this class of superior construction and arrangement of parts which will automatically pick up and support a person caught by a moving car and to produce improvements in details of construction which will be more fully pointed out hereinafter. These objects I accomplish in the manner illustrated in the accompanying drawings, in which—

Figure 1 is a side elevation of the forward portion of a car platform and frame showing my improvement thereon. Fig. 2 is a front elevation of the same and Fig. 3 is a view in perspective showing the framework and operating mechanism of my device in connection with the forward portion of the truck frame, duplicate parts being omitted for the sake of clearness.

Similar letters refer to similar parts throughout the several views.

a represents the car platform and *b* represents the truck frame side arms which at their ends are connected with the usual cross boards *b'*. From each of these cross boards *b'* are made to depend spring catch hooks such as indicated at *c*, each of said catch hooks being formed of a piece of suitable spring wire, one end of which is, as indicated at *c'* connected with the cross bar *b'* from which it depends. The central portion of each of these catch hook arms is turned in one or more coils as indicated at *c''* while the lower portion thereof is bent forwardly and outwardly to form the hook shape shown at *c'''*. These hooks are arranged at desirable distances one from the other throughout the length of the frame piece *b'* and extend downward to points within close proximity of the street pavement or

track level. Journaled between the truck side frame pieces *b* at a point above and in rear of the cross pieces *b'* is a transverse shaft *d*. This shaft *d* has connected therewith forwardly extending arms *d'* which bend downward in front of and below the cross piece *b'* and the outer ends of which serve to support a horizontal rod *d''* which as indicated in the drawings is normally located a few inches above the hook projections *c'''* of the catch hooks *c*.

e represents a series of hook rods each of which consists of a straight portion *e'*, the inner end of which is jointedly connected with a suitable eye or staple *e''* which is secured to the under side of the car platform and the outer end portion of which is turned downwardly and inwardly to form a hook as indicated at *e'''*. The straight portions of these hook rods *e* are as indicated in the drawings, adapted to be supported in a horizontal position and held parallel with and adjacent to the under side of the car platform by means of a supporting bail *f* the forwardly extending and parallel side arms of which are also jointedly connected with the under side of the car platform. The outer and transverse arm of this supporting bail is normally retained in a position substantially parallel with the plane of the car floor by its engagement with the outer hook shaped end *g* of a trigger rod *g'*, the latter extending inwardly and terminating at a point over the shaft *d* in an eye *g''*. This rod eye is engaged, as shown, with the upper end of a finger *g'''* which rises, as shown, from the center of the length of said shaft *d* with which it is connected. This trigger rod *g'* may if desired be made to pass loosely through suitable bearing brackets *g''''* which may depend from the under side of the car platform.

i represents an ordinary electric push button which as shown in the drawings, may be supported upon a bracket *i''* which depends from the under side of the forward portion of the car frame in front of the hook rod *e* and *i'''* represents conducting wires which lead from the contact points of said button through a bell or source of electricity with which the car is supplied.

The operation of my improved guide is sub-

stantially as follows: A person coming into contact with the forward end of a moving car having my device thereon will be caught by the hooks *c* and the weight of the person thus caught will thereby be thrown upon the transverse rod *d*² and creates sufficient downward pressure of the latter to rotate the shaft *d* in a forward direction through the medium of the connecting arms *d'*. This movement of the shaft *d* and engagement of its finger *g*³ and trigger rod *d'* must result, as will readily be seen in said trigger rod being forced forward sufficiently to cause this hook portion *g* to disengage from the bail rod *f*. By thus dropping the rod *f* the hook rods *e* will be allowed, as shown, to drop to the positions indicated in dotted lines in Fig. 1 of the drawings, said hook rods being preferably so arranged as to cause their hook ends to project between the hook ends of the catch hooks *c* when thus dropped. In this manner the body of the person caught by the catch hooks may be embraced by the hook arms *e* and catch hooks *c* and safely carried along until the car is stopped. Owing to the springy character of the attachments *c*, it will be seen that any contact of the hook terminations of the same with projections in the street or between the car tracks, will result in said hooks springing upward and out of the way. The forward disengaged movement of the trigger rod *g'* must also result in a contact of the same with the push button *i*, the pressure upon the latter resulting in ringing an alarm bell with which the arms *i*³ are connected at any desir-

able point on the car, thus warning the motorman to stop the car.

It will be observed that the parts herein described are operated automatically and that the saving of the life of the person caught thereby is not dependent upon the car operator or motorman. It will also be observed that the parts herein shown and described are of such simple construction and arrangement as to admit of the ordinary forms of car frames and car truck frames being readily and cheaply equipped therewith.

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

In a life guard for street railway cars the combination with the car and truck frames and spring hooks depending as described from said truck frame ends, of a shaft *d* journaled between the truck frame sides, a series of hook arms *e* having their inner ends jointedly connected with the car frame, a supporting bail *f* having its ends jointedly connected with said car frame and a trigger rod *g'* adapted to hook into engagement with said bail and adapted to be forced out of said engagement by the partial rotation of the shaft *d* with which it is connected and means substantially as described for partially rotating said shaft, substantially as and for the purpose specified.

WILLIAM H. PAUGH.

In presence of—

C. C. SHEPHERD,
BARTON GRIFFITH.