

(No Model.)

2 Sheets—Sheet 1.

J. J. RHINE.
STREET CAR PILOT.

No. 535,078.

Patented Mar. 5, 1895.

Fig. 1

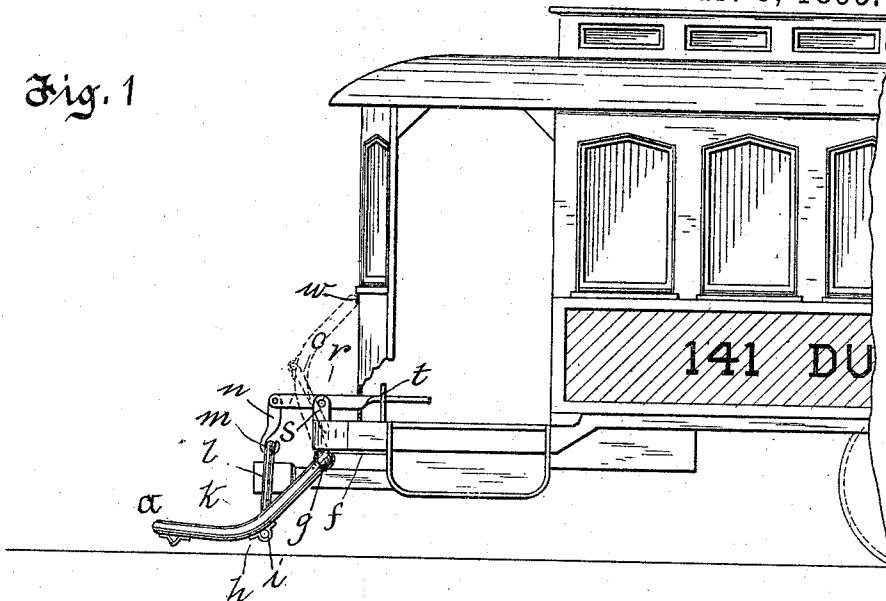
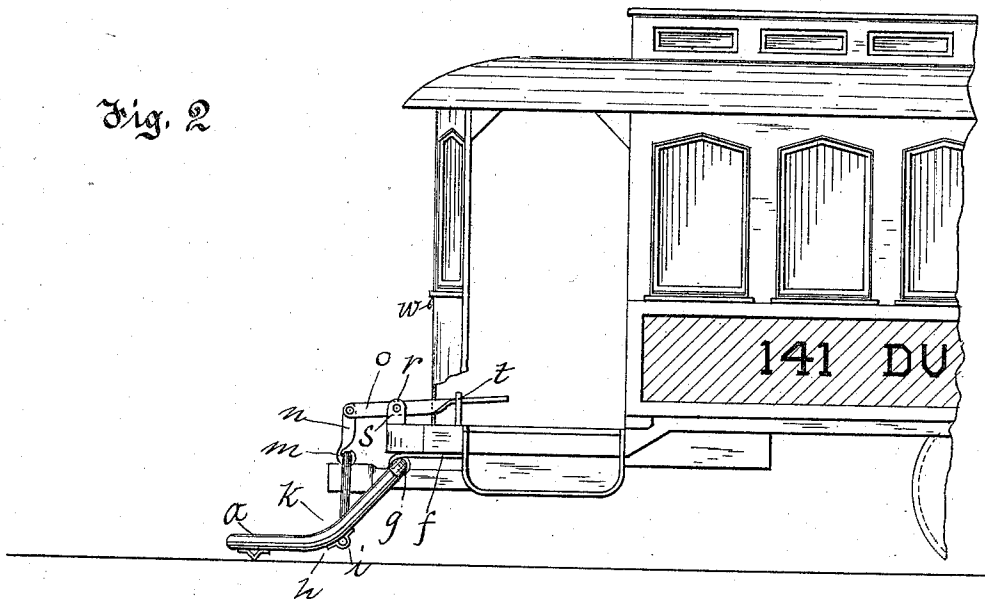


Fig. 2



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John J. Rhine
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Attorneys

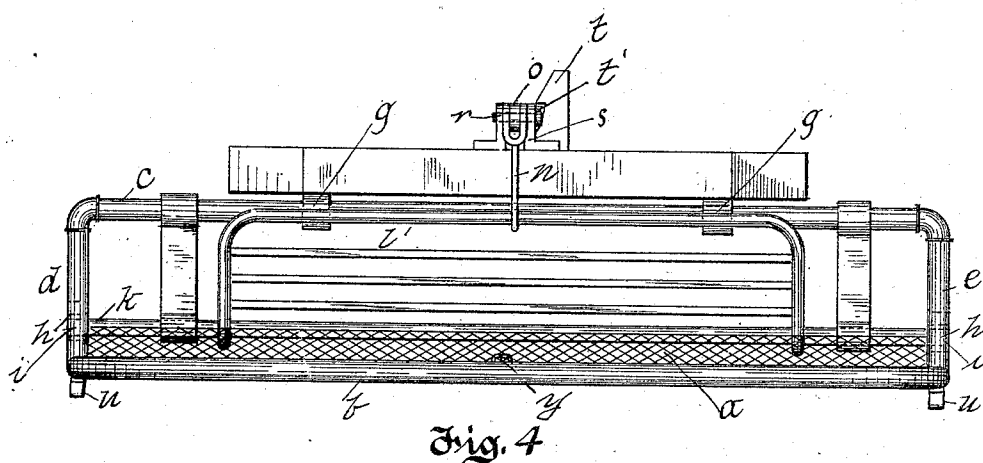
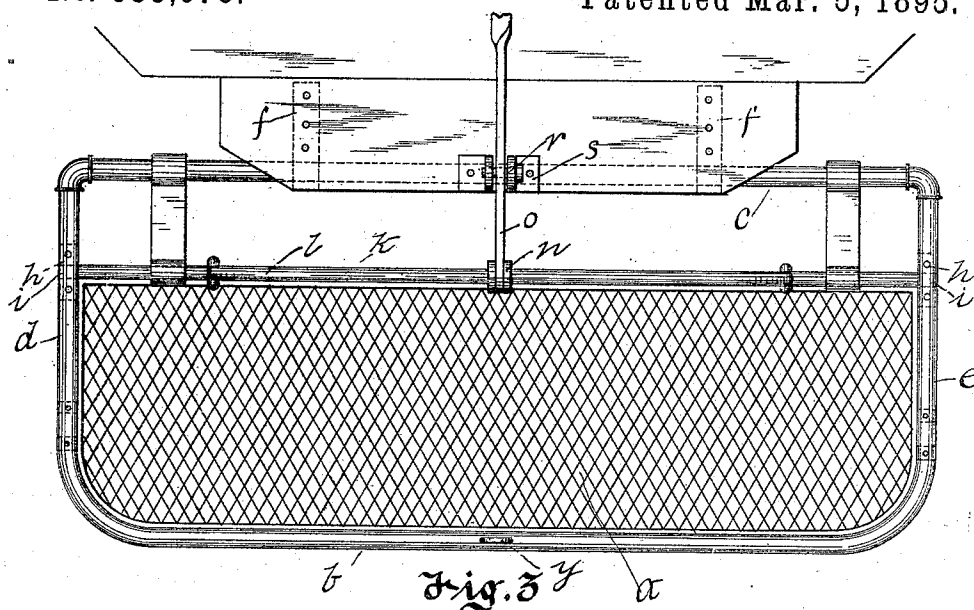
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UNITED STATES PATENT OFFICE.

JOHN J. RHINE, OF PITTSBURG, PENNSYLVANIA, ASSIGNOR OF TWO-THIRDS TO FREDERICK W. McKEE AND SAMUEL KELLY, OF SAME PLACE.

STREET-CAR PILOT.

SPECIFICATION forming part of Letters Patent No. 535,078, dated March 5, 1895.

Application filed November 6, 1894. Serial No. 528,013. (No model.)

To all whom it may concern:

Be it known that I, JOHN J. RHINE, a resident of Pittsburg, in the county of Allegheny and State of Pennsylvania, have invented a new and useful Improvement in Street-Car Pilots; and I do hereby declare the following to be a full, clear, and exact description thereof.

My invention relates to safety guards for street railway cars.

The object of my invention is to provide a simple device which may be quickly operated by the motorman where required to be used, and one which, when not in use, is carried at such a height from the track as to allow for the rocking of the car and the passing over of small obstacles, whereby the front end of the guard is relieved from great wear and tear.

To these ends my invention comprises certain improvements and combinations of parts, all of which will be fully hereinafter set forth and claimed.

To enable others skilled in the art to make and use my invention, I will describe the same more fully, referring to the accompanying drawings, in which—

Figure 1 is a side view of a car with my improved guard applied thereto. Fig. 2 is a like view showing the guard lowered. Fig. 3 is a plan view, and Fig. 4 is a front view.

Like letters of reference indicate like parts in each view.

The guard may be applied to any style of car, although the manner of connecting it to different styles of cars may vary to some degree. The guard *a*, which may be formed of tubing of suitable thickness, is composed of the front and rear cross-bars *b*, *c* and the side bars *d*, *e*, connected in any suitable manner. These bars form the frame which is covered with a flexible netting of wire or other suitable material. The side-bars *d*, *e* are slightly curved to give the guard somewhat the form of a cradle adapted to receive the body of an individual struck by the guard.

Secured to the body of the car are the rods

f which are bent at their forward ends to form bearings *g*. Within the bearings *g* is journaled the rear cross-bar *c* whereby said guard is free to swing up and down.

Secured to the side-bars *d*, *e* are the bearing blocks *h*, said bearing blocks in conjunction with the said side-bars forming the bearings *i*. Within the bearings *i* is journaled the shaft *k*.

To provide for the raising and lowering of the guard, a bail or handle *l* is secured to the shaft *k* while a hook *m* on the end of an arm *n* connects said bail or handle with the lever *o*. The lever *o* is fulcrumed at *r* to the uprights *s*. The inner end of the lever *o* engages with the notch *t* of the locking bar *t*.

The guard is provided with the shoes *u* secured to the front ends of the side-bars *d*, *e*, so that when the guard is lowered said shoes will move in contact with the track and relieve the wear and strain on the guard itself.

When the car is running with the guard in the position shown in Fig. 1, and it is desired to lower said guard so as to prevent a person in the path of the car from getting beneath the car, the motorman with his foot releases the inner end of the lever *o* from engagement with the locking-bar *t*. Upon the release of the lever the weight of the guard causes the forward end thereof to drop immediately to the track until the feet *u* are in contact therewith. The guard is thus brought so close to the track as to prevent the body of the person struck from getting beneath the car, while at the same time the body will naturally fall onto the netting, thus greatly breaking the force of the fall. When it is desired to bring the guard back to its normal position, the motorman places his foot on the inner end of the lever *o* and again secures said lever to the locking bar *t*.

In case it is desired to fold the guard up in front of the car, as shown in dotted lines in Fig. 1, it is only necessary to disengage the hook *m* from the bail *l*, when the guard may be folded back against the front of the car, a

link *y* on said guard engaging with the hook
w on said car, whereby the guard is held in
this position.

What I claim as my invention, and desire
5 to secure by Letters Patent, is—

The combination with a car, of a guard
having a shaft in the rear thereof journaled
in said car, a bail connected to said guard in
front of said shaft, and a releasable hooked

arm engaging said bail and connected to an 10
operating lever, substantially as set forth.

In testimony whereof I, the said JOHN J.
RHINE, have hereunto set my hand.

JOHN J. RHINE.

Witnesses:

ROBT. D. TOTTEN,
ROBERT C. TOTTEN.