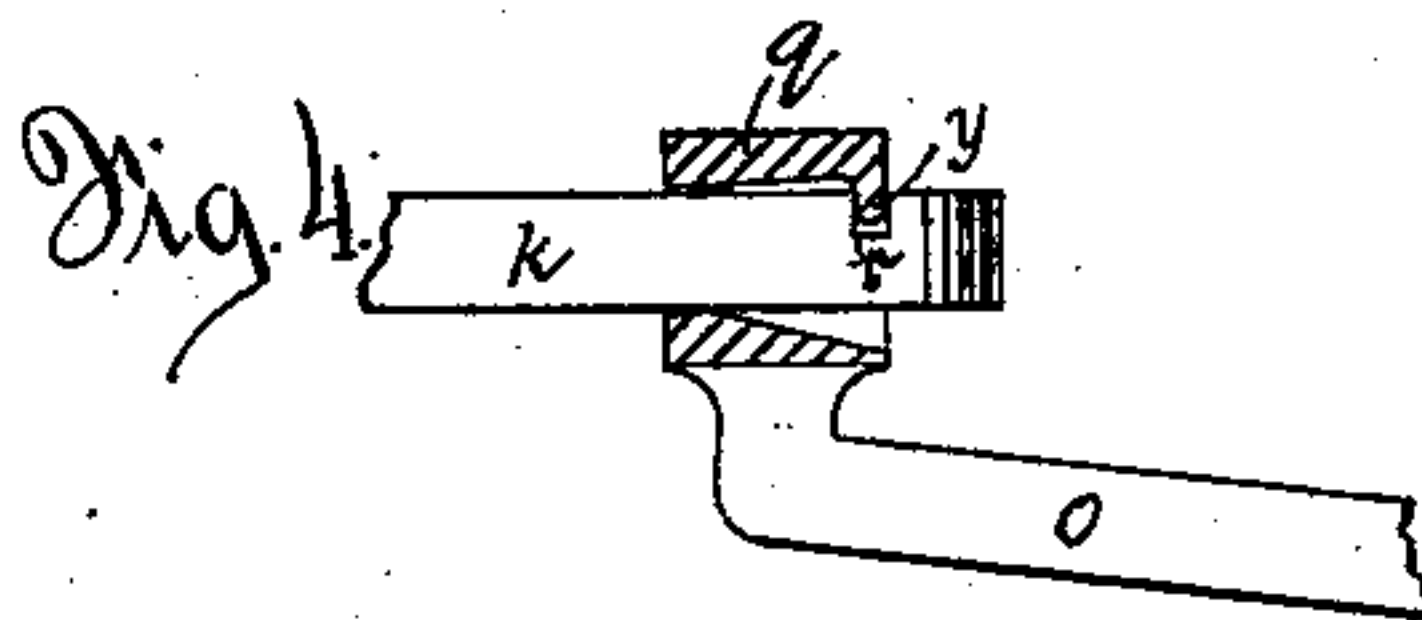
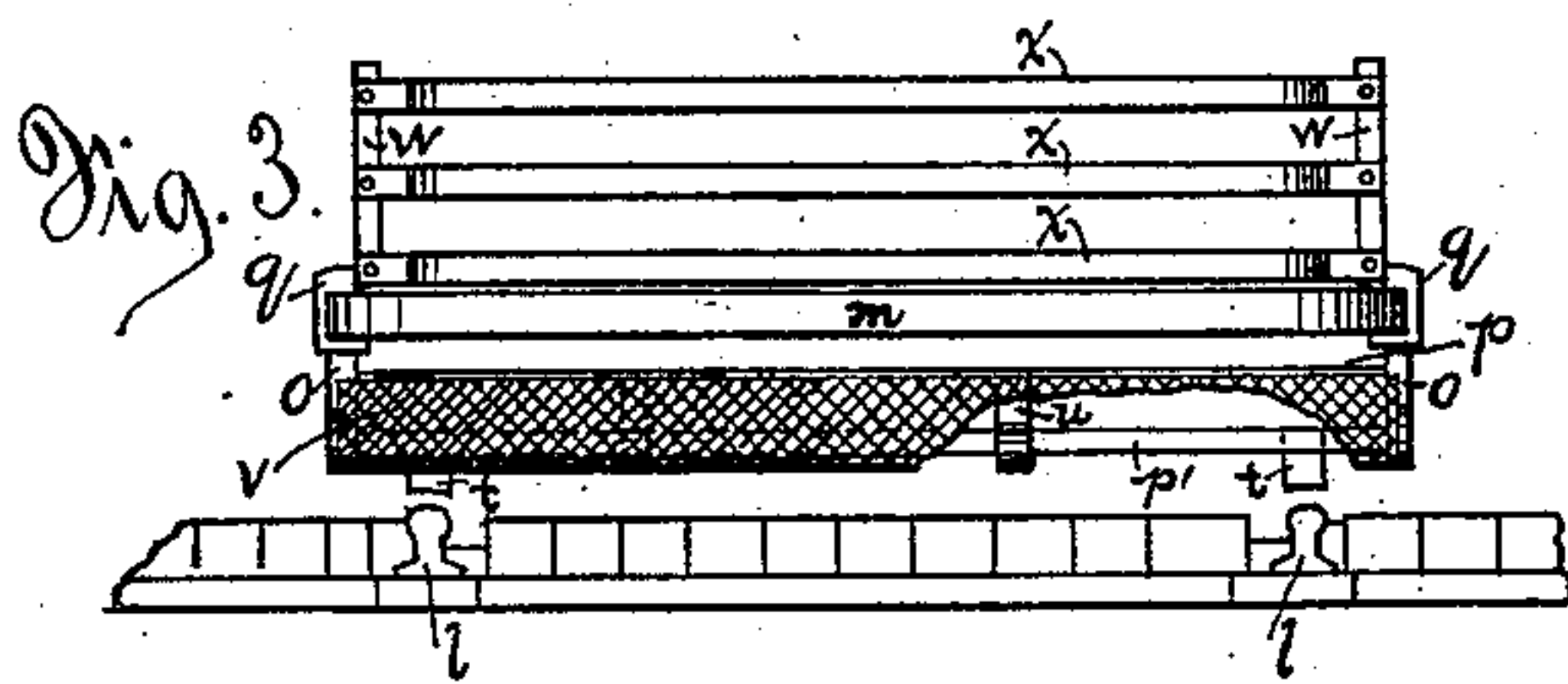
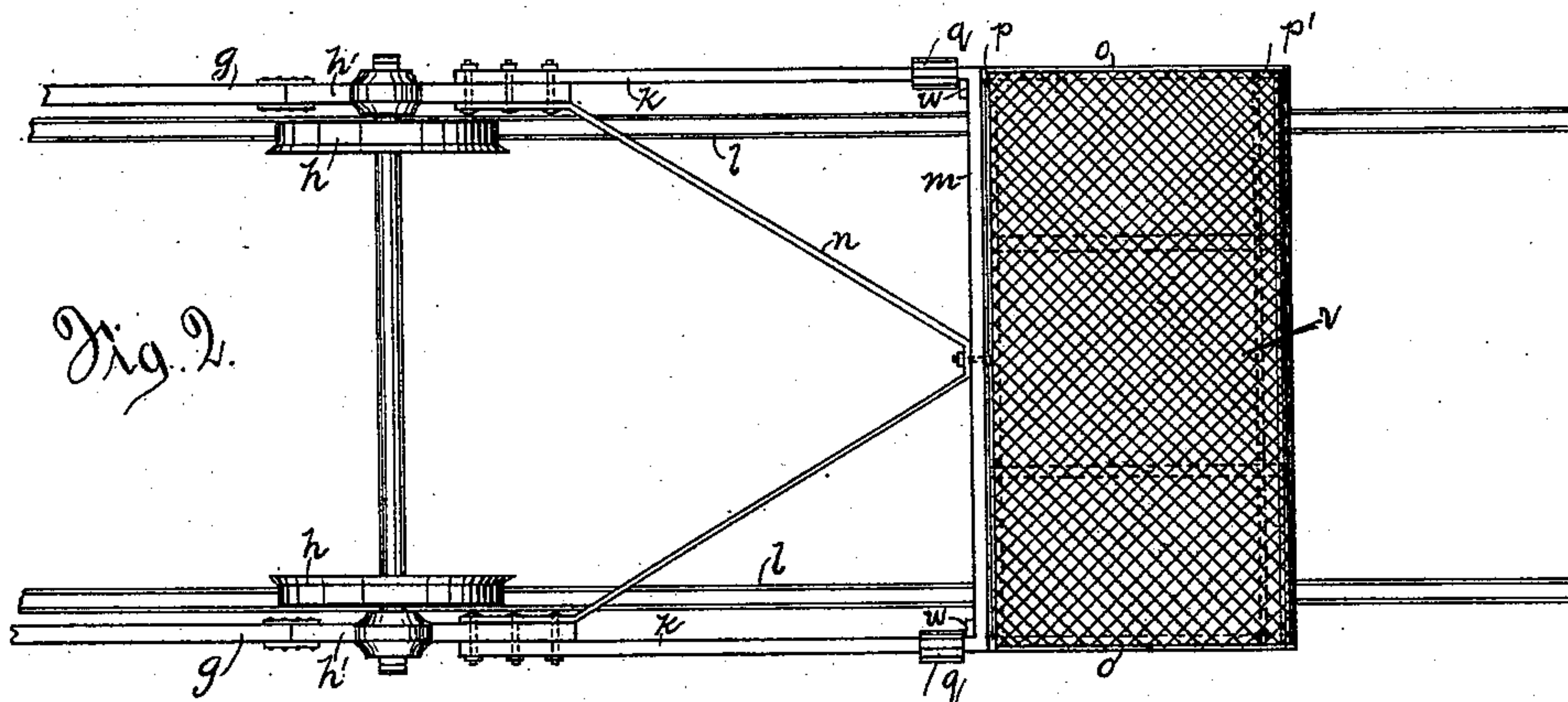
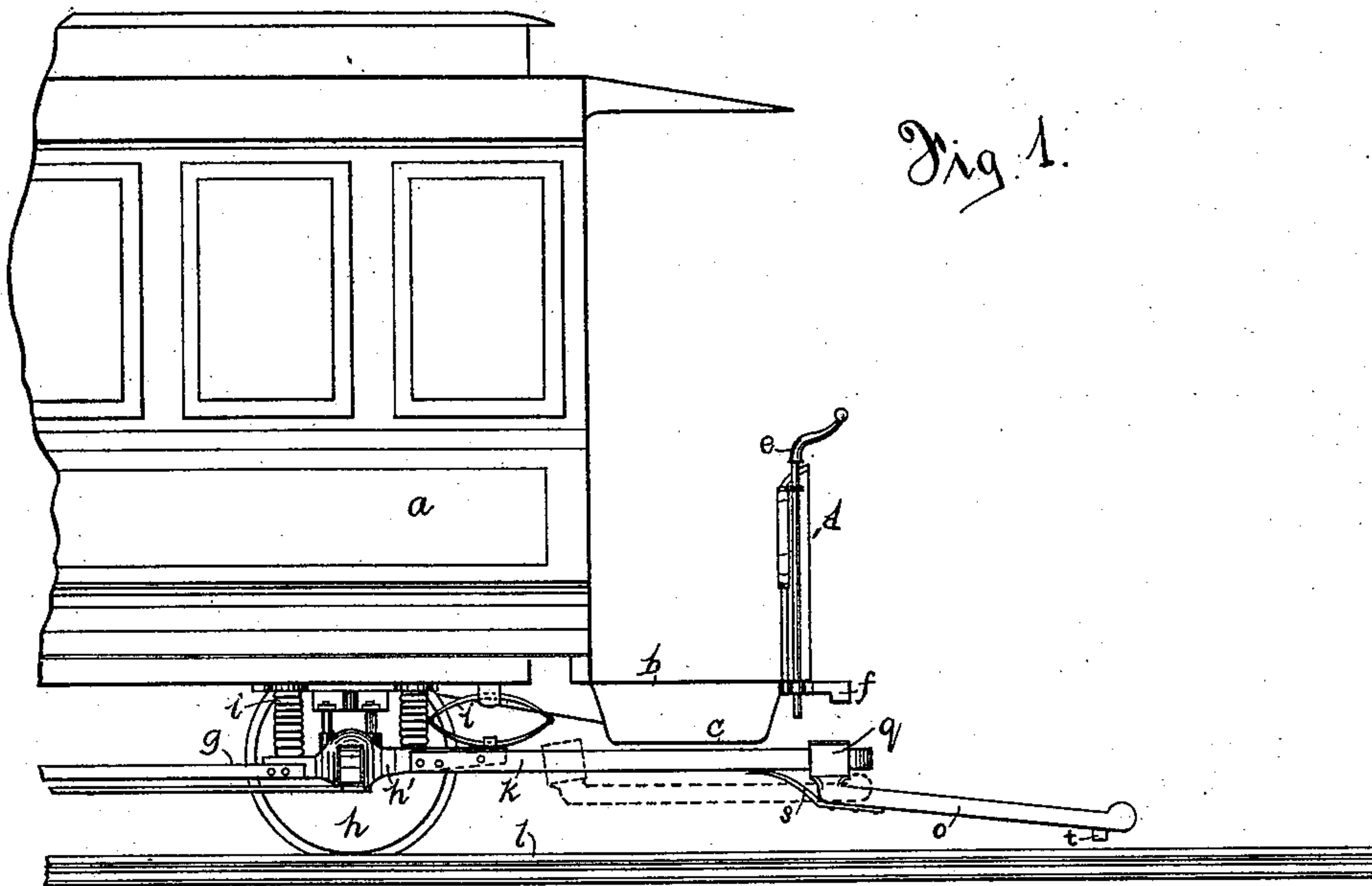


(No Model.)

C. W. STRINGHAM.
CAR FENDER.

No. 533,969.

Patented Feb. 12, 1895.



Witnesses
A. C. Tanner.
J. W. Fuller

Inventor
Charles W. Stringham
By his Attorneys
Simonds, Burdett + Frothingham

UNITED STATES PATENT OFFICE.

CHARLES W. STRINGHAM, OF BROOKLYN, NEW YORK, ASSIGNOR, BY DIRECT AND MESNE ASSIGNMENTS, OF FIVE-SIXTHS TO GEORGE H. THOMPSON AND JOHN A. WILLIAMS, OF SAME PLACE, AND JOHN H. FAULSTICH, FREDERICK HAUSMANN, AND GEORGE KRAUS, OF NEW YORK, N. Y.

CAR-FENDER.

SPECIFICATION forming part of Letters Patent No. 533,969, dated February 12, 1895.

Application filed February 3, 1894. Serial No. 498,976. (No model.)

To all whom it may concern:

Be it known that I, CHARLES W. STRINGHAM, a citizen of the United States, residing at Brooklyn, in the county of Kings and State of New York, have invented certain new and useful Improvements in Car-Fenders, which improvements are fully set forth in the following specification and accompanying drawings, in which—

Figure 1 is a side view of the forward part of a car with the fender applied thereto and extended. Fig. 2 is a plan view with the car-body removed. Fig. 3 is a front view. Fig. 4 is a detail view partly in section, showing the locking device.

Similar reference-letters denote like parts in all the views.

The object of my invention is to provide a cheap and efficient, adjustable or extensible car-fender, and one which will not be subject to the movement of the body of the car. The great difficulty with the fenders now in use is, that they are attached to some part of the car-body, the motion of which causes the fender to move in whatever way the car-body moves, thus creating sufficient space between the fender and the ground to permit the body of a person struck by the car to be caught by the wheels, or other parts of the running-gear of the car. The purpose of my invention is principally to overcome this objection, and it consists of the means and mechanism hereinafter described, and more particularly pointed out in the claims.

The invention is illustrated as applied to the ordinary street railway or electric car.

Having reference to the drawings, the letter *a* denotes the body, *b* the platform, *c* the step, *d* the dash-board, and *e* the brake of an ordinary street-railway car.

f denotes the bumper, *g* the truck-frame, and *h* the wheels of said car.

i are the springs between the car-body *a* and the truck-frame *g*.

The letter *h'* indicates that part of the truck-frame *g* to which my fender is preferably attached, although it is obvious that it may be attached to any other desirable part of the

truck-frame, without departing from the spirit of my invention.

The letter *k* is a bar or rod of metal, or other suitable material, rigidly attached on each side of the car to that part of the truck-frame designated by the letter *h'*, extending parallel with the track *l*, and passing under the step *c* to about the end of the dash-board *d*. These rods *k* are connected at the outer extremities by a cross-piece *m*.

The letter *n* denotes braces attached to, and extending obliquely from, the cross-piece *m*, to that part of the truck-frame, *h'*, to which they are rigidly secured.

The letter *o* denotes the sides of the fender, connected by the cross-pieces *p*, *p'*, and provided with sleeves *q*, which permit of their sliding back and forth on the rods *k*. These sleeves are provided with projections *y* adapted to fit into the slots *r* in the rods *k*.

The letter *s* denotes a leaf-spring attached on each side of the fender, the free end of each spring resting upon the under side of the rod *k*.

The letter *t* denotes projections extending downward from each side of the forward part of the fender toward the track.

u are bars slightly curved downwardly and extending from one cross-piece *p* to the other cross-piece *p'*.

v denotes wire netting, or other suitable material, attached to the sides and ends of the fender and covering the same. The wire netting is rolled over the front part of the fender to serve as a cushion.

The letter *w* denotes upright posts of wood or other suitable material, rigidly attached to and extending upwardly from the cross-piece *m*, and connected by the cross-pieces *x*.

The operation is as follows: When the fender is not in use it may be shoved under the platform of the car and assumes the position shown in the dotted lines in Fig. 1. When it is desired to extend the fender, the same is drawn out from under the car, the sleeves *q* sliding on the rods *k* permitting of such movement; the projections *y* engage the slots *r*, thereby preventing the fender from being pushed back under the car. The

springs *s* by their pressure upon the under side of the rods *k* prevent the fender and the projections *t* from touching the ground. The upright posts *w* and the cross-pieces *x* serve to cover up the space between the forward end of the platform and the cross-bar *m*. When it is desired to shove the fender under the car, the fender is raised sufficiently to disengage the projections *y* from the slots *r*, and the same may be then pushed with all its parts under the platform of the car. By this arrangement of parts I am enabled to keep the fender when extended in a stationary position and at a slight distance from the ground, the stability being due to the fact that the fender is attached to the truck-frame instead of to the car-body.

If the fender meets with a movable obstruction, such obstruction, when struck, is caused to fall on the fender, the projections *t* on the front part of the fender falling upon the track and serving, in a measure, as a brake.

It is obvious that the means for preventing the fender when extended from being pushed back under the platform, may be of various constructions, and that the springs, for keeping the fender off the ground, may be of various kinds and attached at different places on the fender, without departing from the spirit of my invention.

What I claim, and desire to secure by Letters Patent, is—

1. In a railway car, or other like vehicle, the combination of the posts *w*, the rods *k*, provided with slots *r*, the fender provided with sleeves *q* having projections *y*, and the springs *s*, substantially as described.

2. In a railway car, or other like vehicle, the combination of the posts *w*, the rods *k*, provided with slots *r*, the fender, provided with sleeves *q*, having projections *y*, the springs *s* and the projections *t*, substantially as described.

3. In a railway car, or other like vehicle, the combination of the rods *k*, provided with slots *r*, the fender, provided with sleeves *q*, having projections *y*, the springs *s*, the projections *t*, the upright posts *w* and the cross-pieces *x*, substantially as described.

4. In a railway car, or other vehicle, the combination of the rods *k*, provided with slots *r*, and a fender provided with sleeves *q*, having projections *y*, substantially as described and for the purposes set forth.

5. In a railway car, or other vehicle, the combination of the rods *k*, provided with slots *r*, a fender, provided with sleeves *q*, having projections *y*, and the projections *t*, substantially as described and for the purposes set forth.

6. In a railway car, or other like vehicle, the combination of the posts *w*, cross-pieces *x*, the rods *k*, provided with slots *r*, and a fender provided with sleeves *q*, having projections *y*, substantially as described and for the purposes set forth.

7. In a railway car, or other like vehicle, the combination of the rods *k*, provided with slots *r*, a fender provided with sleeves *q*, having projections *y*, and the springs *s*, substantially as described and for the purposes set forth.

8. In a railway car, or other like vehicle, the combination of the rods *k*, provided with slots *r*, a fender provided with sleeves *q*, having projections *y*, and a cushioning device on the forward part of said fender, substantially as herein described.

9. In a railway car, or other like vehicle, the combination of the upright posts *w*, the cross-pieces *x*, and an extensible car-fender provided with projections *t*, all substantially as described.

CHARLES W. STRINGHAM.

Witnesses:

A. C. TANNER,
N. L. FROTHINGHAM.