

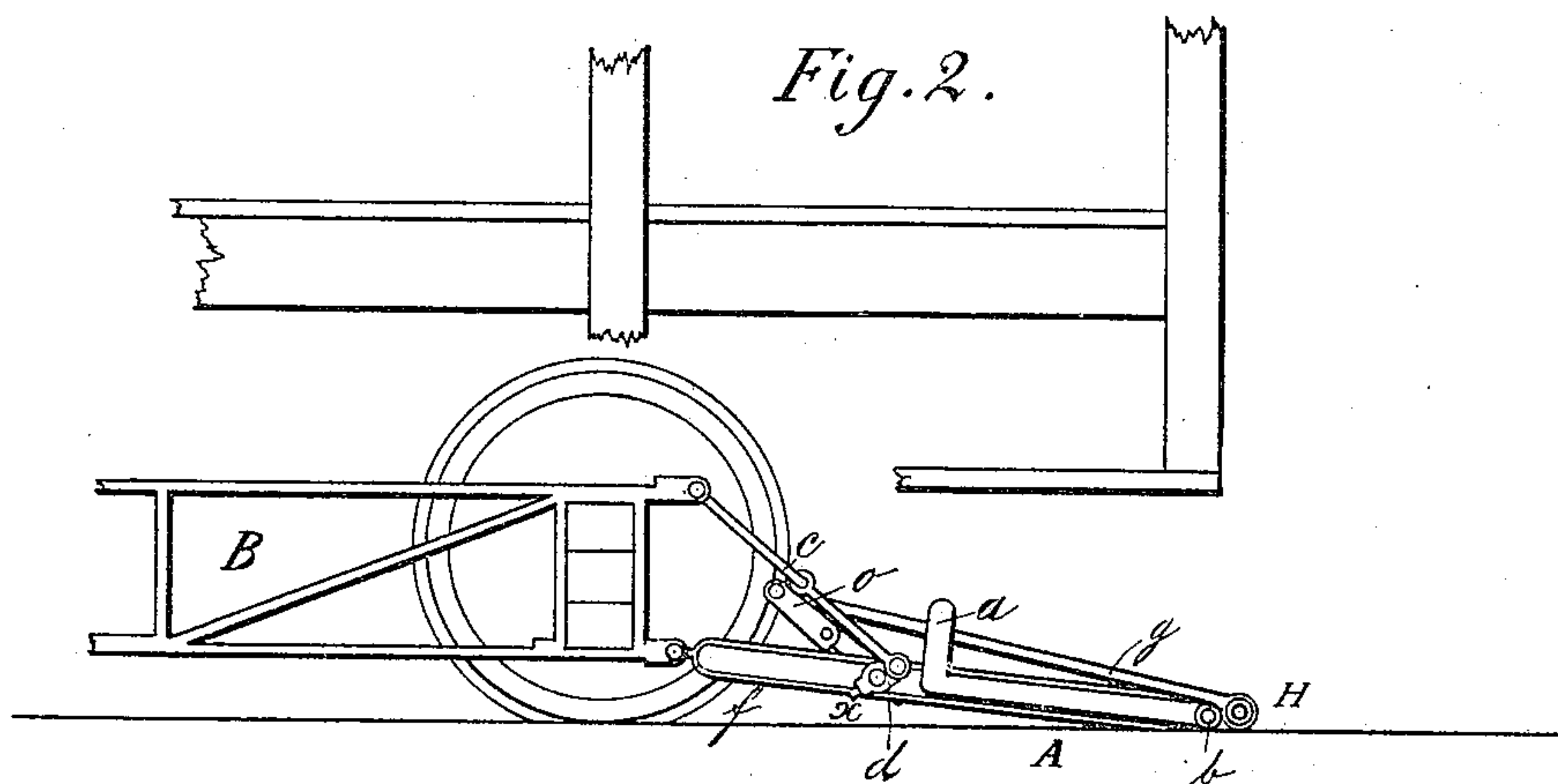
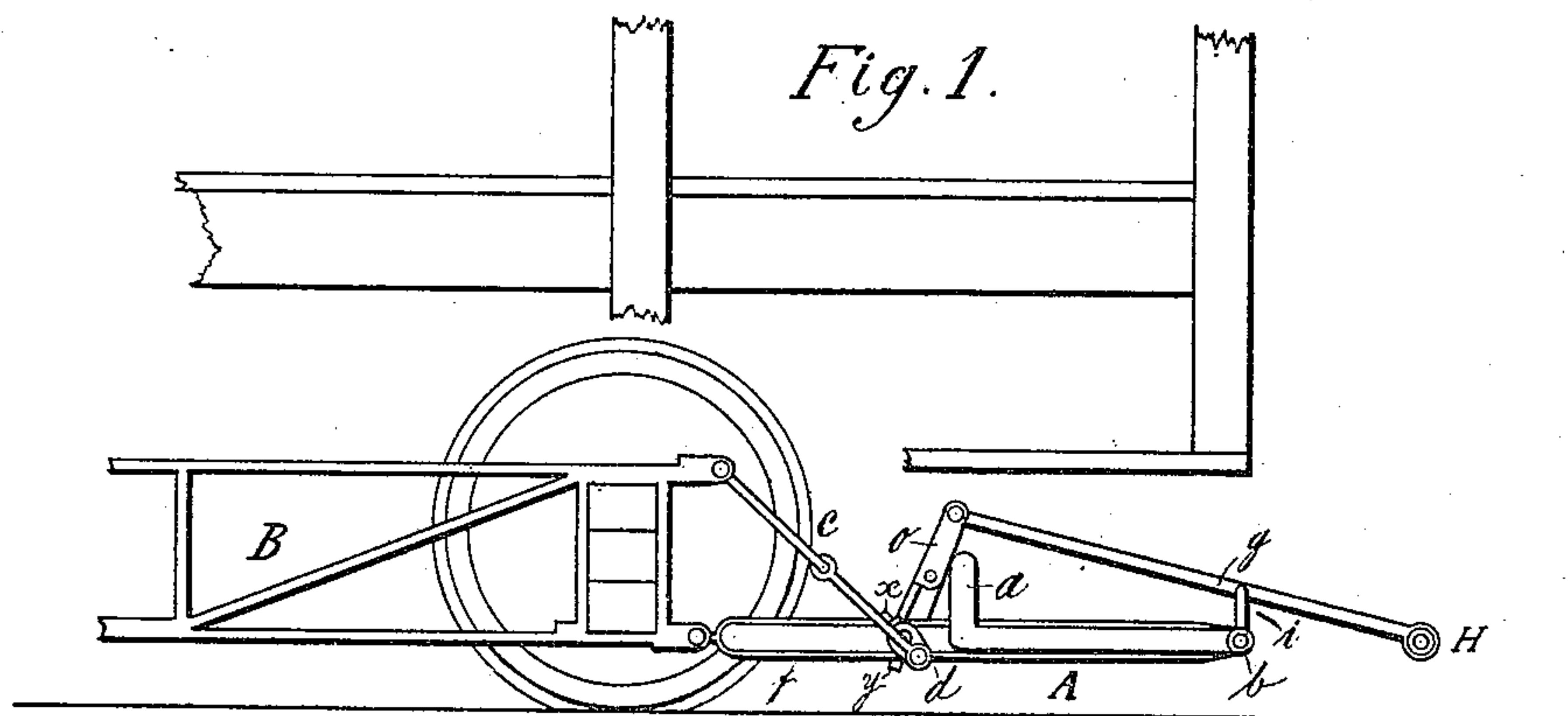
(No Model.)

2 Sheets—Sheet 1.

G. RISCHMULLER.
SAFEGUARD FOR CABLE AND HORSE CARS.

No. 440,749.

Patented Nov. 18, 1890.



Witnesses.

Henry Rischmüller
Harry L. Jordan

Inventor.
George Rischmüller

(No Model.)

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Fig. 3.

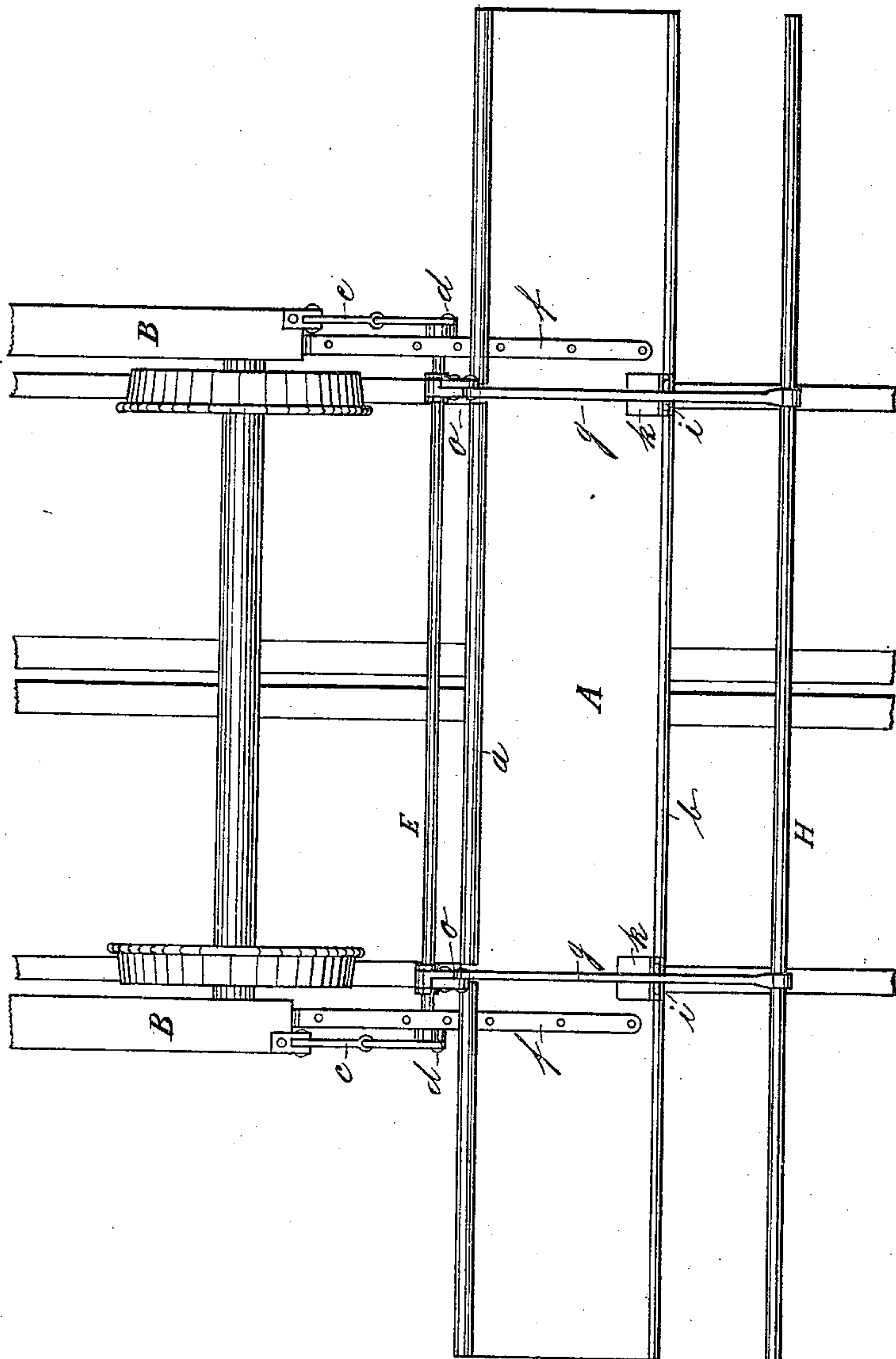


Fig. 4



Witnesses.
Henry Rischmüller
Harry L. Horden.

Inventor.
George Rischmüller.

UNITED STATES PATENT OFFICE.

GEORGE RISCHMULLER, OF SAN FRANCISCO, CALIFORNIA.

SAFEGUARD FOR CABLE AND HORSE CARS.

SPECIFICATION forming part of Letters Patent No. 440,749, dated November 18, 1890.

Application filed June 26, 1890. Serial No. 356,803. (No model.)

To all whom it may concern:

Be it known that I, GEORGE RISCHMULLER, a citizen of the United States, residing at No. 934 B Capp street, in the city and county of San Francisco, State of California, have invented a new and useful Safeguard for Cable and Horse Cars, of which the following is a specification.

My invention relates to improvements in safeguards for cable and horse cars, in which a hinged apron operates in conjunction with a horizontal cross-bar; and the objects of my improvement are, first, to raise the guard sufficiently above the road to clear all obstructions connected with the road-bed, and, second, to make a perfect shield, as in case of an accident the front edge of the guard drops down onto the track and slides along on the rails, and when in this position it will prevent persons from getting under the guard as well as under the wheels. I attain these objects by the mechanism illustrated in the accompanying drawings, in which—

Figure 1 is a side view of the lower front part of a cable car and shows the guard in a horizontal position as it appears when in general use. Fig. 2 is also a side view of the lower part of a cable car and shows the guard of the cross-bar H as having been collided with by an obstacle on the road. Fig. 3 is a top view of the guard with a portion of the track and showing the rails. Fig. 4 is a detailed section of the stud *i* and the pipe *b*.

Similar letters refer to similar parts throughout the several views.

The wooden apron A is hinged to the truck B, and provided on the rear side with a rib *a* to prevent persons from rolling over or behind said apron, and on the front edge with a pipe *b*, in which the studs *i* are journaled, as referred to hereinafter. It is held in horizontal position by the rods *c*, which are fastened on one end to the top part of the truck B and on the other to the crank *d*, which is secured with a set-screw *x* to the shaft E, and this turns between the fork-shaped hinges *f*, which carry the apron A. Onto the cranks *o*,

which are also fastened with a set-screw *y* to the shaft E, are secured the rods *g*, which carry the cross bar or pipe H. The object of this cross-bar is to throw in case of an accident the front edge of the apron down onto the track, which occurs as soon as it strikes an obstacle, as can be seen in Figs. 1 and 2.

The rods *g* are held up at the front edge of the guard by the studs *i*, which are journaled into the pipe *b* and fold backward into a pocket *k*.

The cranks *o* rest onto the rib *a*, as shown in Fig. 1, and are kept in this position by the weight of the guard itself, for the center lines of the carrying-rods *c* are on the opposite side of the center of the shaft E. They are also hinged in their centers to allow the guard A to drop down still lower, as represented in Fig. 2; but they only can fold up to one side, as will be seen in Figs. 1 and 2.

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

1. In a safeguard for cable and horse cars, the combination of a hinged apron having a rib *a* attached to its rear side and a pipe *b* to the front edge with the studs *i* journaled into the same, the shaft E, journaled between the fork-shaped hinges *f*, and provided with the cranks *d* and *o*, fastened to the same by set-screws *x* and *y*, said cranks to be connected, respectively, to rods *c*, which carry the apron, and to rods *g*, provided with a cross-bar H, all combined and arranged to operate substantially in the manner and for the purpose set forth.

2. In a safeguard for cable and horse cars, the combination of a tripping device comprising a shaft E, provided with cranks *d* and *o*, placed in such position that the cranks *d* with rods *c* will carry the apron, the apron-rods *g*, and a cross-bar H, to operate substantially as and for the purpose specified.

GEORGE RISCHMULLER.

Witnesses:

HENRY RISCHMÜLLER,
HARRY L. WORDEN.