

(No Model.)

C. T. RYLAND, Jr.

RAILWAY CABLE GRIP.

No. 354,873.

Patented Dec. 21, 1886.

Fig. 1.

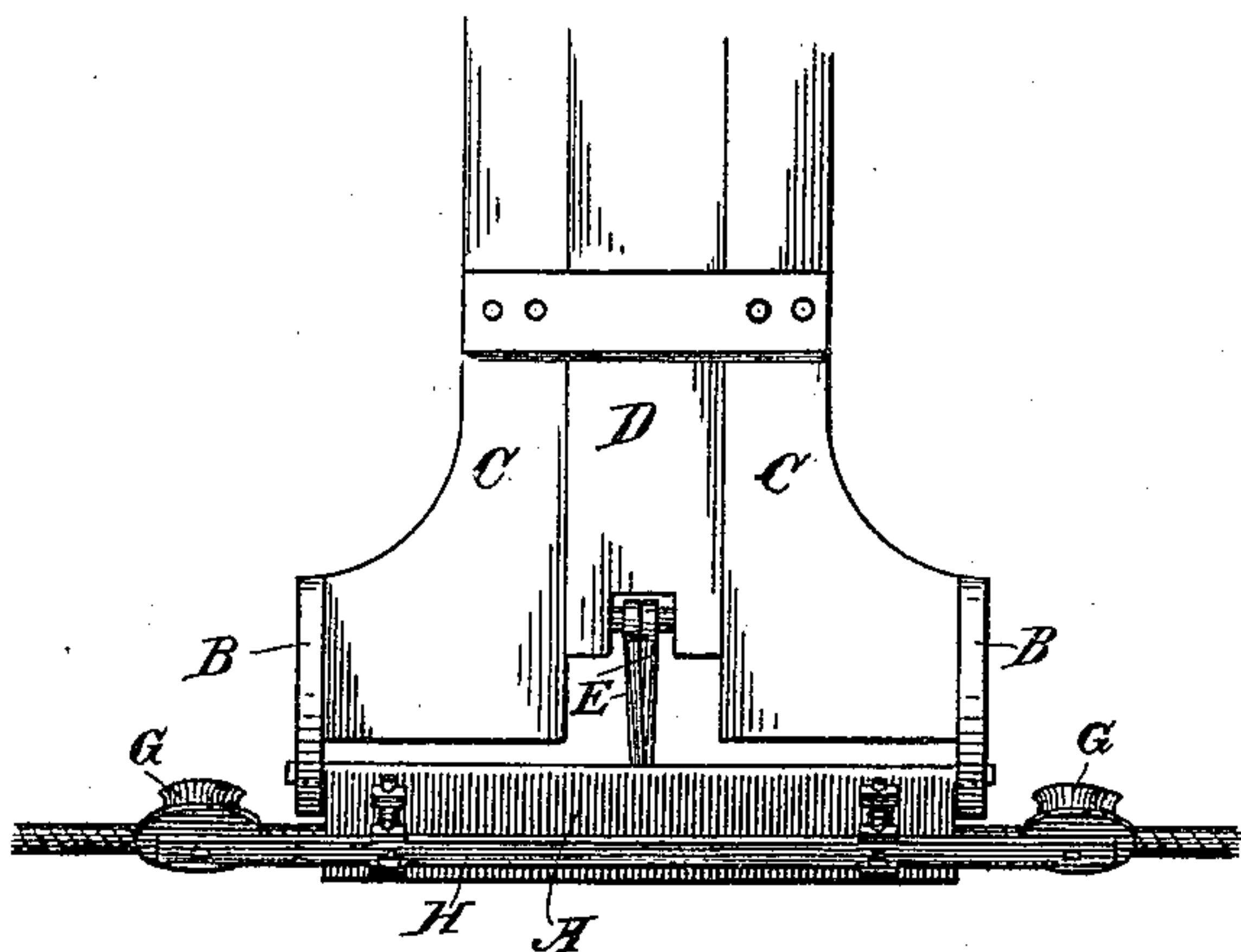


Fig. 2.

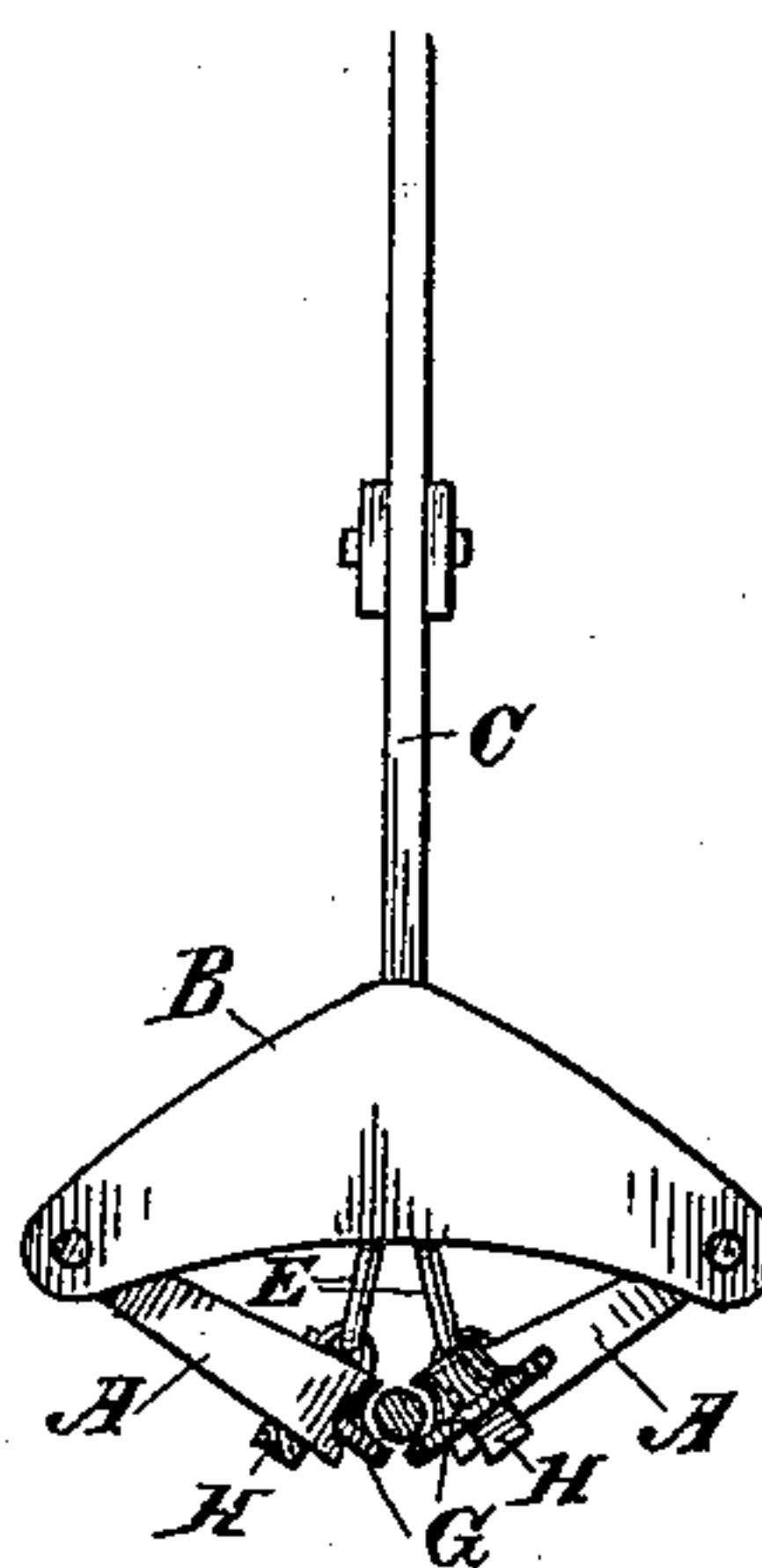
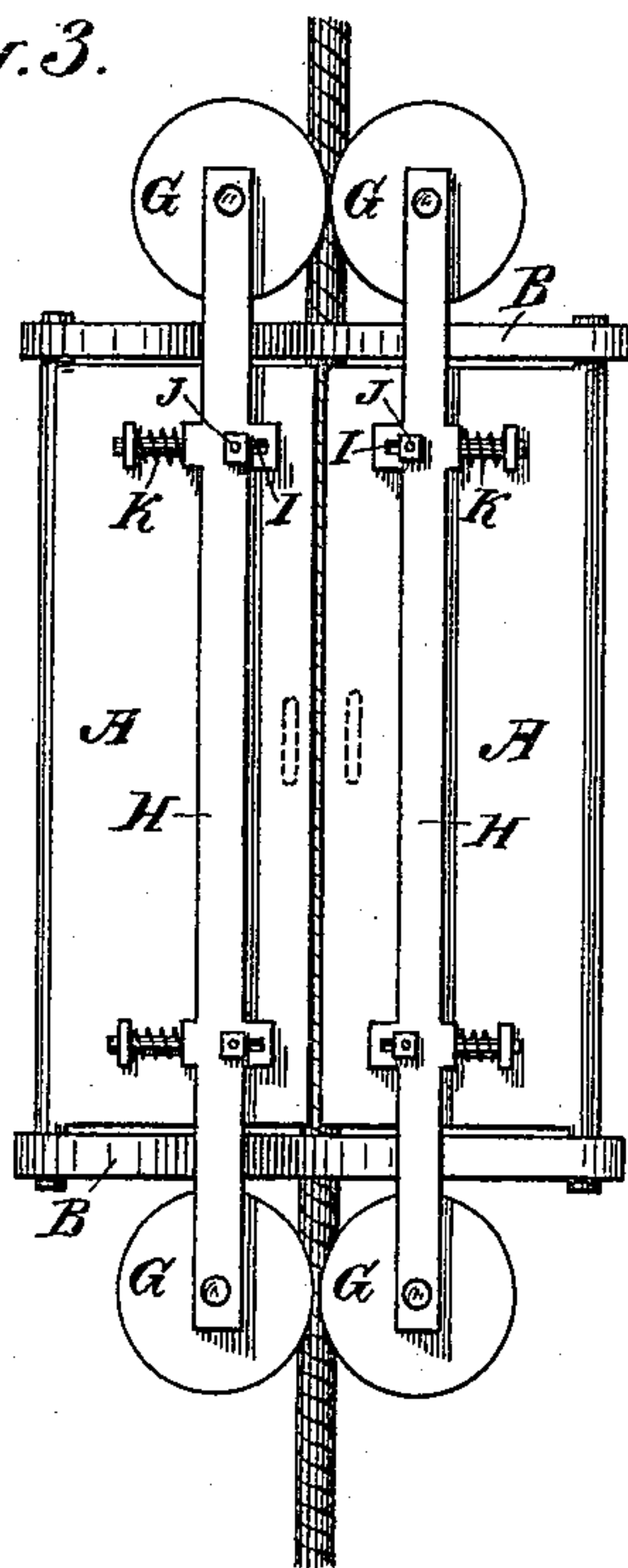


Fig. 3.



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UNITED STATES PATENT OFFICE.

CAIUS T. RYLAND, JR., OF SAN JOSÉ, CALIFORNIA.

RAILWAY-CABLE GRIP.

SPECIFICATION forming part of Letters Patent No. 354,873, dated December 21, 1886.

Application filed October 13, 1886. Serial No. 216,183. (No model.)

To all whom it may concern:

Be it known that I, CAIUS T. RYLAND, Jr., of San José, Santa Clara county, State of California, have invented an Improvement in Railway-Cable Grips; and I hereby declare the following to be a full, clear, and exact description of the same.

My invention relates to a novel gripping device to be used in connecting the car of a cable railway with the endless traveling rope, which moves in a tube or tunnel beneath the road-bed, said tube or tunnel being slotted on the upper side to admit the shank of the gripping apparatus to pass through it.

My invention consists in jaws having the outer edges hinged or journaled in a suitable frame-work, and the inner edges formed or provided with shoes, which are adapted to grasp the cable when the edges of the jaws are moved toward each other in a segment of a circle turning about their hinges or journals. In connection with these jaws are adjustably-flanged rollers, which serve to pick up the cable and direct it so that the jaws may grasp it.

The operating-shank travels in guides extending downwardly from the car to the grip-frame, and this shank is connected with the inner edges of the gripping-jaws by links, so that when drawn upward the jaws will be closed and when dropped they will be opened.

Referring to the accompanying drawings for a more complete explanation of my invention, Figure 1 is a side view of my device. Fig. 2 is an end view. Fig. 3 is a bottom plan view.

A A are the gripping-jaws, which are made of considerable length in the direction of the traveling cable, and of a sufficient width, having their outer edges hinged or journaled in the transverse bars B of the gripping-frame. These bars are fixed, as shown, to the guides or standards C, which extend upwardly from them into the body of the car, to which they are properly attached, leaving between them a channel, in which the operating-shank D may travel.

The inner edges of the jaws A are provided with shoes having the semicircular curved channels made in them to grasp the rope, or, if desired, the channel may be made directly in the edges of the jaws; but it is preferable to have independent shoes, which may be renewed when sufficiently worn. To the inner

edges of the jaws links E are connected to extend from the jaws upward to the lower end of the shank D, to which they are hinged or pivoted, so that when the shank is drawn upward by a lever connected with it within the car the inner edges of the jaws will be brought together, so as to grip the cable with an increased pressure as they approach the position in which they will stand in a horizontal plane. When released, they will drop down by gravitation, turning about the fulcrum pins or hinges of the outer edges, so as to entirely separate from and drop below the cable, thus leaving it free to travel without touching the jaws.

In order to assist in picking up the cable and to prevent it from dropping entirely out of the jaws whenever it is desired to slacken the grip, I have shown rollers G, which are fixed to the ends of the bars H, extending horizontally beneath the jaws and parallel with their gripping-edges. These bars H have transverse slots, as shown at I, and pins J pass through these slots, securing the bars to the shoes and allowing them to slide to or from the inner edges of the jaws. Upon these pins stout spiral springs K are fitted to press against the bars from the outside, and thus force them toward each other. It will be seen from this that when the jaws are dropped the springs will force the bars inwardly, and the pulleys or rollers G, which have wide flanges upon their lower edges, will be forced inwardly, so as to support the rope and prevent its dropping entirely below the level of the jaws, and when the jaws are drawn up about their hinges or fulcrums, so as to be closed, the rollers will bring the rope up between the jaws, and as the jaws are brought together, so as to close upon the rope, the rollers will be forced back by the pressure, compressing the springs, which act upon their supporting-bars, as before described.

By this construction I provide a very effective and easily-operated grip.

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

1. The gripping-jaws having their edges parallel with and in proximity to the traveling cable, and having their outer edges hinged or journaled in a frame-work, so that the jaws

may swing around in the arc of a circle to drop or grip the cable, in combination with a vertically-sliding shank moving in guides, and the links by which said shank is connected
5 with the inner edges of the gripping-jaws, substantially as herein described.

2. The gripping-jaws having their outer edges hinged or journaled in a frame-work, so that the jaws may swing in the arc of a circle,
10 and a grip-shank connected with said jaws, so as to cause them to grip or release the cable, in combination with the flanged rollers or

pulleys journaled upon the opposite ends of the transversely slotted bars, the guide-pins on which the bars move to and from the cable, 15 and the springs pressing upon the outer edges of the bars, substantially as herein described.

In witness whereof I have hereunto set my hand.

CAIUS T. RYLAND, JR.

Witnesses:

J. W. FINDLAY,
JOS. VILLAR.