No. 764,915. PATENTED JULY 12, 1904.

A. CHRISTENSEN.

TROLLEY GUARD.

APPLICATION FILED APR. 29, 1904.

NO MODEL.

Fig. 4.

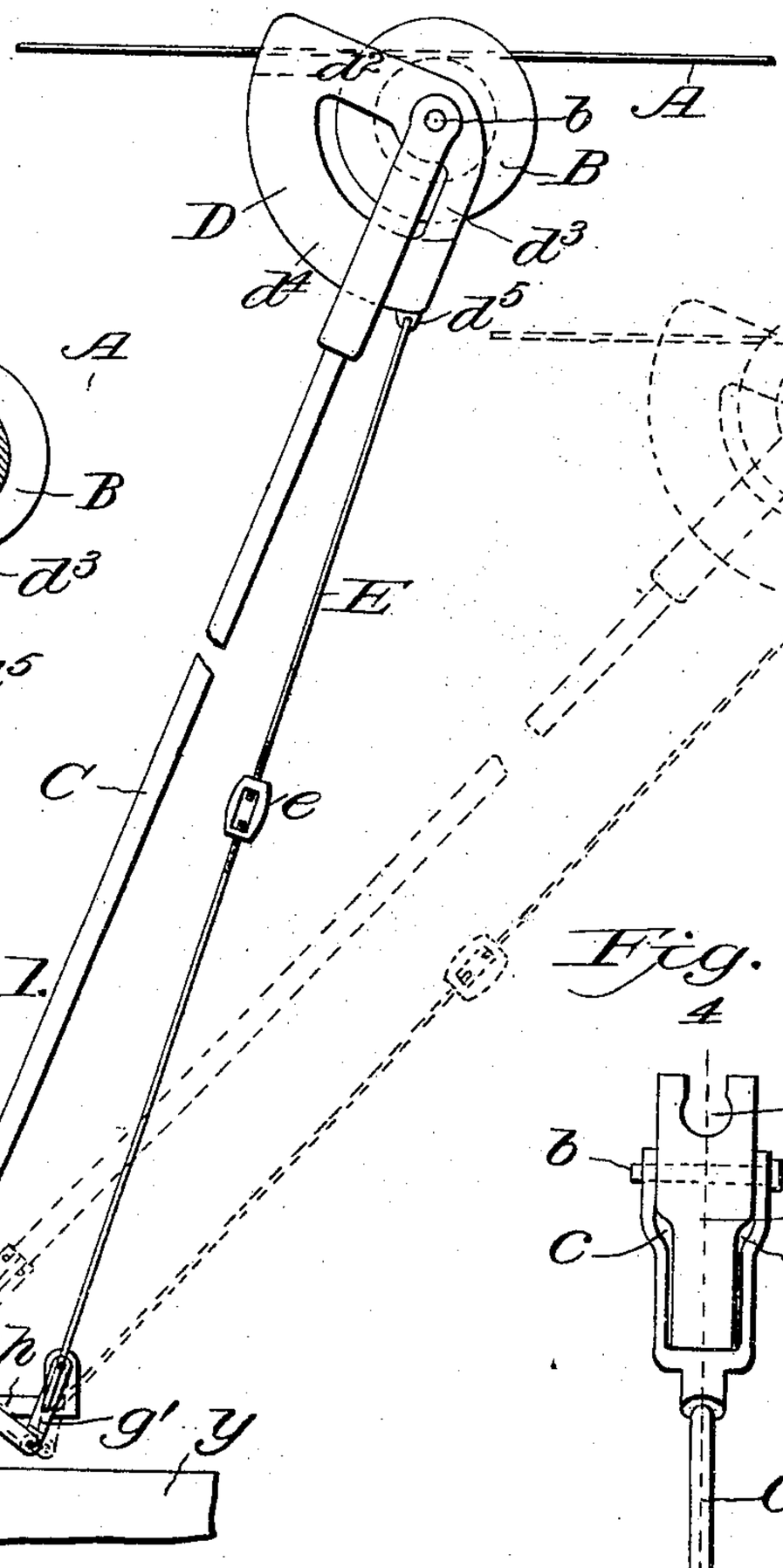

Fig. 1.

Fig. 3.

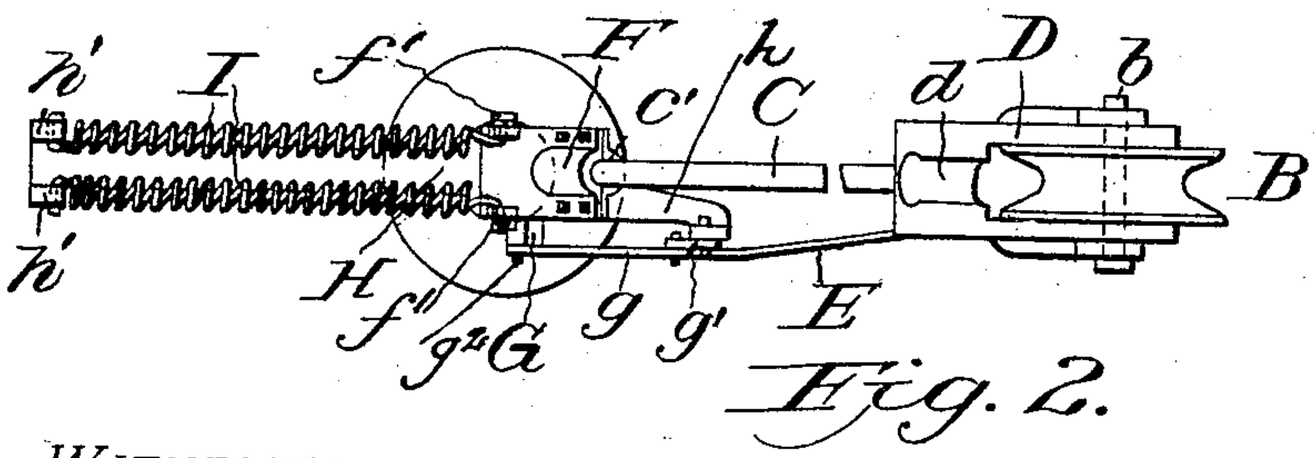

Fig. 2.

WITNESSES:

C. H. Walker

M. A. Schmidt

INVENTOR

Anton Christensen

By Milo B. Stevens and Co.

Attorneys

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UNITED STATES PATENT OFFICE.

ANTON CHRISTENSEN, OF CHICAGO, ILLINOIS.

TROLLEY-GUARD.

SPECIFICATION forming part of Letters Patent No. 764,915, dated July 12, 1904.

Application filed April 29, 1904. Serial No. 205,619. (No model.)

To all whom it may concern:

Be it known that I, ANTON CHRISTENSEN, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented new and useful Improvements in Trolley-Guards, of which the following is a specification.

My invention relates to trolley-guards, and has for its object a construction whereby the guard will preserve the same relative position with respect to the trolley-wheel and surround the feed-wire while the trolley-pole is in various positions, thus preventing the wheel from leaving the wire.

With this object in view the invention consists in certain novel features of construction hereinafter described and claimed, and shown in the appended drawings, in which—

Figure 1 is a side elevation, and Fig. 2 a plan view. Fig. 3 is a front view, and Fig. 4 a vertical section on the line 4 4 of Fig. 3.

Referring specifically to the drawings, A denotes a feed-wire, and B a trolley-wheel of usual construction, which is mounted on the spindle *b* in the harp *c* of the trolley-pole C. The lower end of the pole is secured at *c'* in a socket-piece F, which is pivoted at *f* to the block H, which is mounted on the base J to rotate horizontally, said base being secured to the top of the car Y. These parts form the usual trolley-stand.

The guard D is hung on the spindle *b* and comprises side arms d^2 and d^3, which extend forwardly and downwardly, respectively, from the spindle on opposite sides of the wheel and are joined by a web d^4, extending between the harp. The guard has a forked opening *d* on top, over which the feed-wire A passes. At d^5 at the rear end and bottom of the guard is a lug, to which a rod E is attached, which extends to and is secured to a lever *g'*, pivoted to the rear end of an arm *h* on the block H. The lever carries a link *g*, which is pivoted at g^2 to a lateral extension G on the socket-piece F. The rod E has a turnbuckle *e* for adjustment of the parts.

The socket-piece F has lugs *f'*, to which are attached the usual springs I for elevating the pole. The opposite end of the springs are attached at *h'* to the front end of the block H.

Referring to Fig. 1, it will be seen that when the trolley-pole is lowered to take a low wire, as shown in dotted lines, the link *g* and lever *g'*, through the connecting-rod E, will swing the guard D on the spindle B to preserve the same relative position with respect to the trolley-wheel. When the pole is elevated again to take a high wire, the same action takes place. This construction therefore renders a device especially useful on lines employing wires strung at different elevations.

Having thus described my invention, what is claimed as new, and desired to be secured by Letters Patent, is—

1. The combination with a trolley-stand, pole and wheel, of a guard hung on the wheel-spindle, a link pivoted to the pole-socket, a lever pivoted at one end to the link and at its upper end to the stand, and a connecting-rod between the lever and guard.

2. The combination with a trolley pole and wheel, of a guard hung on the wheel-spindle and having side arms which extend forwardly and downwardly from the spindle on opposite sides of the wheel, a web extending between the harp and joining the side arms in front, and an adjustable connection between the pole and guard for swinging the latter in operative position to take feed-wires of different elevations.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

ANTON CHRISTENSEN.

Witnesses:
FORREST G. SMITH,
W. G. BATCHELOR.