No. 775,867. PATENTED NOV. 22, 1904.

W. S. STOCKTON.

TROLLEY.

APPLICATION FILED AUG. 18, 1904.

NO MODEL.

Fig. 1.

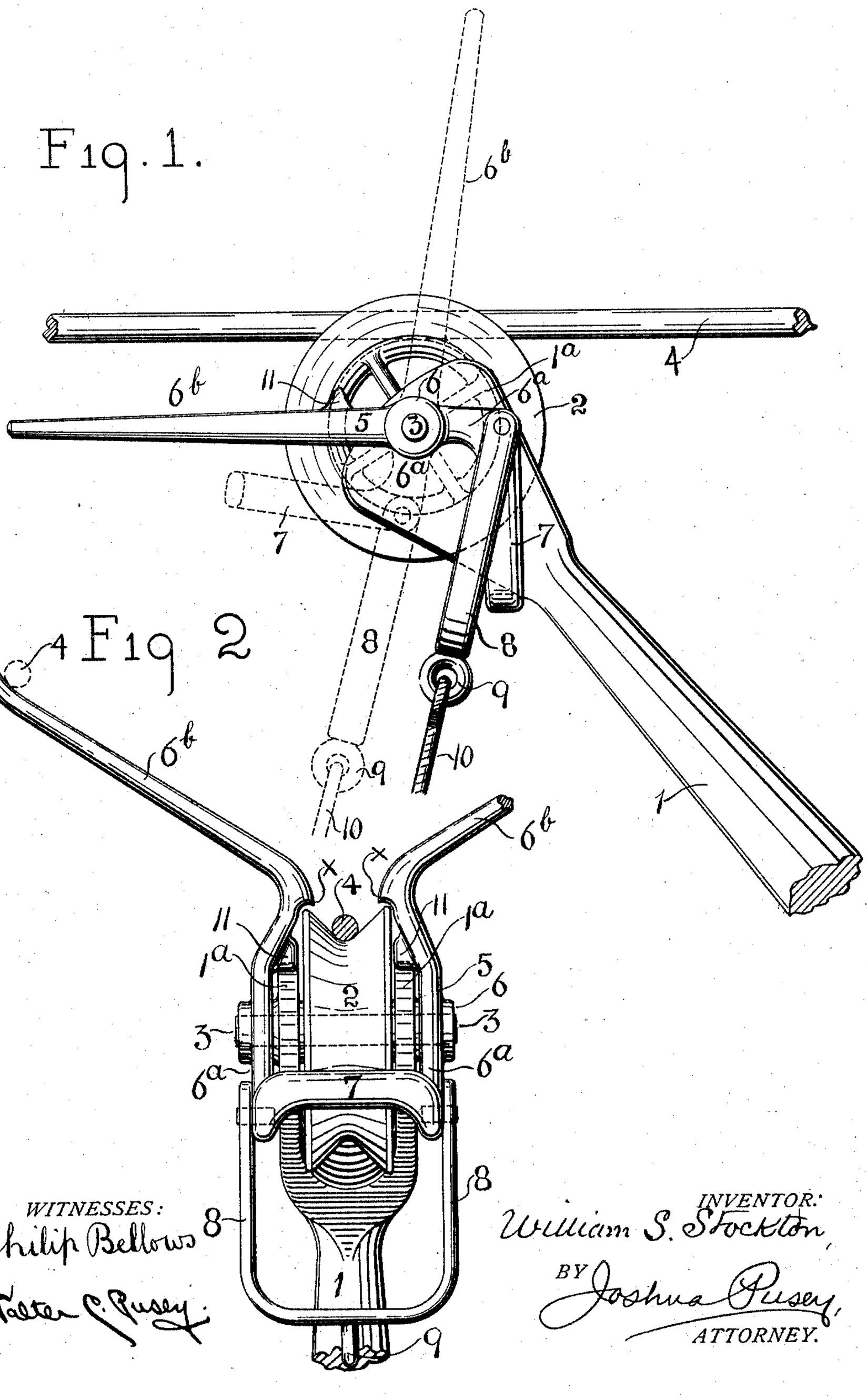

Fig 2

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No. 775,867. Patented November 22, 1904.

UNITED STATES PATENT OFFICE.

WILLIAM S. STOCKTON, OF PHILADELPHIA, PENNSYLVANIA.

TROLLEY.

SPECIFICATION forming part of Letters Patent No. 775,867, dated November 22, 1904.

Application filed August 18, 1904. Serial No. 221,214. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM S. STOCKTON, a citizen of the United States, residing at the city and county of Philadelphia, in the State of Pennsylvania, have invented certain new and useful Improvements in Trolleys, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, of which—

Figure 1 is a side elevation, the parts being in the normal position. Fig. 2 is an end elevation looking toward the rear, showing the parts when in the "finding" position.

The object of the invention is to provide an improved finding device for trolleys that shall be simple in construction, efficient in operation, and that may be conveniently and readily applied to the trolleys in common use.

The precise nature of the invention will appear from the following specification.

Referring to the accompanying drawings, 1 is the usual spring-controlled trolley-pole, 2 the trolley-wheel that is rotatable upon a shaft or pin 3, that extends through and is secured to the bifurcations 1^a of the end of the pole between which the said wheel is placed. For the purposes of my invention the said pin is made of such length that its ends project a suitable distance beyond the sides of the said bifurcations.

4 is the conductor-wire, against which the wheel 2 is adapted to ride.

5 is a yoke comprising two similar arms 6, having opposite holes through which the pin 3 is adapted to pass, and a U-shape crown 7 connecting the forward ends of said arms and extending at right angles to the latter or thereabout. This yoke is pivotally mounted on the projecting ends of the pin 3, the location of the said holes being such, as shown, whereby the part 6^a of the arms 6 forward of the pivot may be said to constitute the short arms of a bifurcated lever and the part 6^b to the rear of the pivot the long arms of such lever. The latter arms are bent inwardly toward the periphery of the trolley-wheel and then flare outwardly, as seen in Fig. 2. The portions of the arms adjacent to said periphery project inwardly at *x* a short distance beyond—that is, overhang the latter, as shown. Pivoted to the short arm 6^b is a stirrup 8, having an eye 9, to which is secured the end of the usual cord or rope 10 for manipulating the trolley-pole and which in the present instance is used for operating my finding device, as hereinafter described.

When the yoke is in the normal or non-operating position, (shown by the full lines in Fig. 1,) the flaring arms thereof extend rearwardly in a horizontal position or thereabout, the gravity of these arms overbalancing the combined weight of the arms 6^a, together with the crown 7 and the stirrup 8, as also the rope, the yoke being maintained in the normal position by the crown 7 stopping against the under side of the trolley-pole, as seen in Fig. 1.

The construction of my invention being as described, the mode of operation is as follows: Should the trolley-wheel fly from the wire, it may be readily replaced on the latter. To do this the rope 10 is pulled downwardly at a suitable angle until the yoke 5 is rotated on its pivot to the position shown by dotted lines in Fig. 1—that is, to bring the flaring arms 6^b to or about the vertical position. (See Fig. 2.) The rope is then manipulated in a manner to bring the free ends of said arms below the plane of the conductor-wire and then to shift the pole so as to bring said arms into such position laterally that the wire will be within the line between the free ends of said arms—as, for example, as seen in Fig. 2, in which the wire 4 is a short distance within the bent free end of one of the arms 6^b. Thus the wire impinging against the upper side of the arm will, so to say, be readily found by the trolley-wheel—that is, the latter will be directed to the wire. In order to prevent the yoke 5 from being rotated too far upwardly—that is, beyond about the position indicated by the dotted lines in Fig. 1—I provide a suitable stop or projection 11, preferably on the side of one or both of the yoke-arms—that is, adapted to impinge against the bifurcated end portion of the trolley-pole. The weight of the crown 7, which when the yoke-arms are in the vertical position, extending about horizontally rearward of the pivot-pin, causes the yoke to rotate backwardly when the pull

on the rope is released to a point where the gravity of the arms 6^b will cause the yoke to return to the normal position.

By the construction described the device may be readily applied to the usual forms of trolley-pole without requiring any material alteration in any part of the latter, all that is required to be done in case the pin be too short to project sufficiently beyond the sides of the pole being to drive out the pin and substitute therefor a like one of suitable length to enable the yoke to be pivoted thereto.

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

1. The combination with the pole and trolley-wheel pivoted thereto, of the yoke pivoted on the pivot-pin of said wheel, and comprising the outwardly-flaring arms extending rearwardly of said pivot and the short arms extending forwardly of the latter, and the crown connecting the last-mentioned arms and adapted to stop against the under side of said pole, the stirrup pivoted to said short arms, and the rope secured to said stirrup, substantially as and for the purpose set forth.

2. The combination with the pole and trolley-wheel pivoted thereon, the yoke pivoted on the pivot-pin of said wheel and comprising the long outwardly-flaring arms extending rearwardly of said pivot and the short arms extending forwardly of the latter, and the crown connecting the last-mentioned arms, and adapted to stop against the under side of said pole, the stirrup pivoted to said short arms, the rope secured to said stirrup and the stop for limiting the upward throw of said long arms, substantially as and for the purpose set forth.

In testimony whereof I have hereunto affixed my signature this 6th day of June, A. D. 1904.

WILLIAM S. STOCKTON.

Witnesses:
H. S. SHELDON,
HEWIN N. SHELDON,
WILLIAM J. B. WILLIAMS.