

No. 666,177.

Patented Jan. 15, 1901.

E. S. BOOTH.
TROLLEY FINDER FOR ELECTRIC CARS.

(Application filed Sept. 19, 1900.)

(No Model.)

Fig. 1.

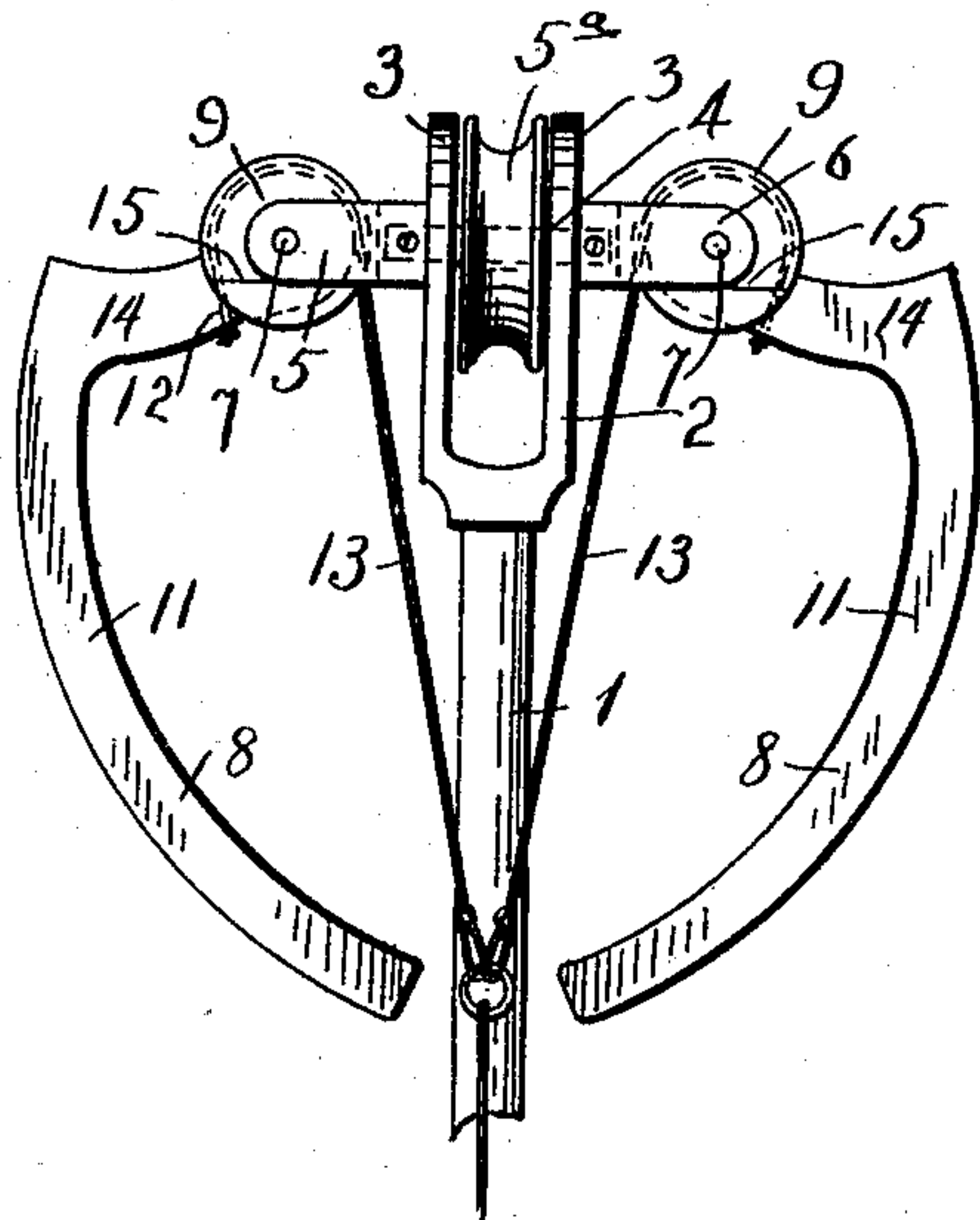
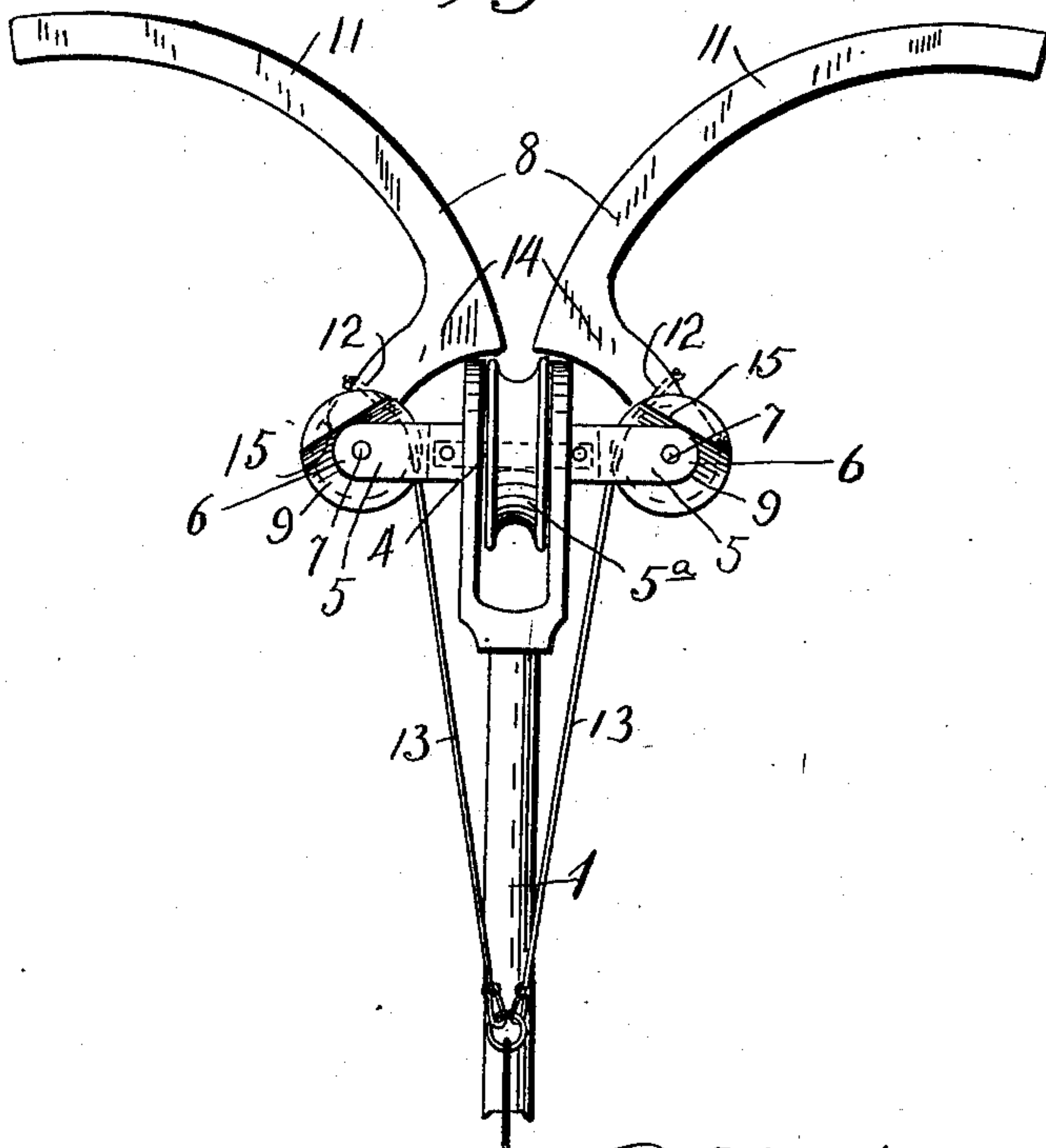


Fig. 2.



Witnesses:
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UNITED STATES PATENT OFFICE.

EDWIN S. BOOTH, OF WATERVILLE, MAINE.

TROLLEY-FINDER FOR ELECTRIC CARS.

SPECIFICATION forming part of Letters Patent No. 666,177, dated January 15, 1901.

Application filed September 19, 1900. Serial No. 30,528. (No model.)

To all whom it may concern:

Be it known that I, EDWIN S. BOOTH, a citizen of the United States, residing at Waterville, in the county of Kennebec and State of Maine, have invented new and useful Improvements in Trolley-Finders for Electric Cars, of which the following is a specification.

My invention relates to trolley-finders; and the object of the same is to produce a device of this character which will be simple in construction and efficient in operation, one which will not interfere with the normal use of the trolley, but which may be readily brought into operation when desired to assist in engaging the trolley.

With this object in view my improved finder consists of the novel construction now to be described and claimed.

In the drawings which accompany this specification and of which they form a part, Figure 1 is a front elevation of my finder with the arms down. Fig. 2 is a front elevation of the same with the arms raised.

Like numerals of reference designate like parts wherever they occur in both views.

The numeral 1 designates the pole of a trolley, which is surmounted by a bifurcated head 2, having cheeks 3. Mounted to revolve on a shaft 4, journaled in the cheeks 3, is a sheave 5^a. The shaft 4 extends through the cheeks 3 and supports on its projecting ends a pair of bifurcated heads 5. These heads 5 are rigidly keyed to the shaft 4, and their cheeks 6 support cross-pins 7. Pivoted on the cross-pins 7 are a pair of curved arms 8. Each of these arms 8 is integral and consists, essentially, of two parts, a sheave 9 and a curved arm 11. The arms 11 are parabolic and are pierced by apertures 12, which furnish a means for attaching cords 13 for operating the device. The elbows extend backward at 14 to serve as stops to limit the upward swing of the arms by contacting with the head 2 at 14. Projecting flanges 15 are formed integral with the sheaves 9 and serve to limit the downward swing of the arms, and thus keep them from clashing. By reason of the construction just described the arms are free to hang at any angle to the trolley-pole, since the heads 5 are free to turn in any direction. Thus my finder is operative for any and all angles of the trolley-pole.

Supposing the arms 8 to be in the initial

position shown in Fig. 1, the operation of my finder is as follows: The trolley-pole is first swung around to a point approximately beneath the supply-wire. Then the cords 13 are pulled, which energy is communicated to the arms 8 by the sheave 9. The arms 8 respond and swing upward till the elbows 14 contact with the head 2. This brings them in the position shown in Fig. 2. The trolley is now gradually released, all the time holding the cord 13 taut, and the arms 8 permitted to embrace the supply-wire to deflect it into engagement with sheave 5^a. The cord 13 is now slackened, and the arms 8 drop by gravity until the flanges 15 contact with the cheeks 6.

I do not wish to be limited to the exact details of construction, as these may be modified in many particulars without departing from the spirit of my invention.

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

1. In a trolley-finder, the combination, substantially as described, of a trolley-pole surmounted by a sheave constructed to run on the supply-wire, and mounted to rotate on a transverse shaft, bifurcated heads keyed to the opposite ends of said shaft, arms pivotally mounted in said heads and provided with means for limiting their upward and their downward swing and constructed to be operated to embrace said supply-wire to deflect it into engagement with said sheave, and means for operating said arms.

2. In a trolley-finder, the combination, substantially as described, with a trolley-pole and a sheave loosely mounted therein on a shaft extending transversely said trolley-pole, of sheaves bearing arms and mounted on said shaft near the ends thereof, curved arms formed integral with said sheaves and constructed to be raised to embrace the supply-wire, flanges on the faces of said sheaves, said flanges being constructed to contact with said shaft to limit the movement of said arms, and means for raising said arms.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

EDWIN S. BOOTH.

Witnesses:

LILLIAN M. SMALL,
NORMAN K. FULLER.