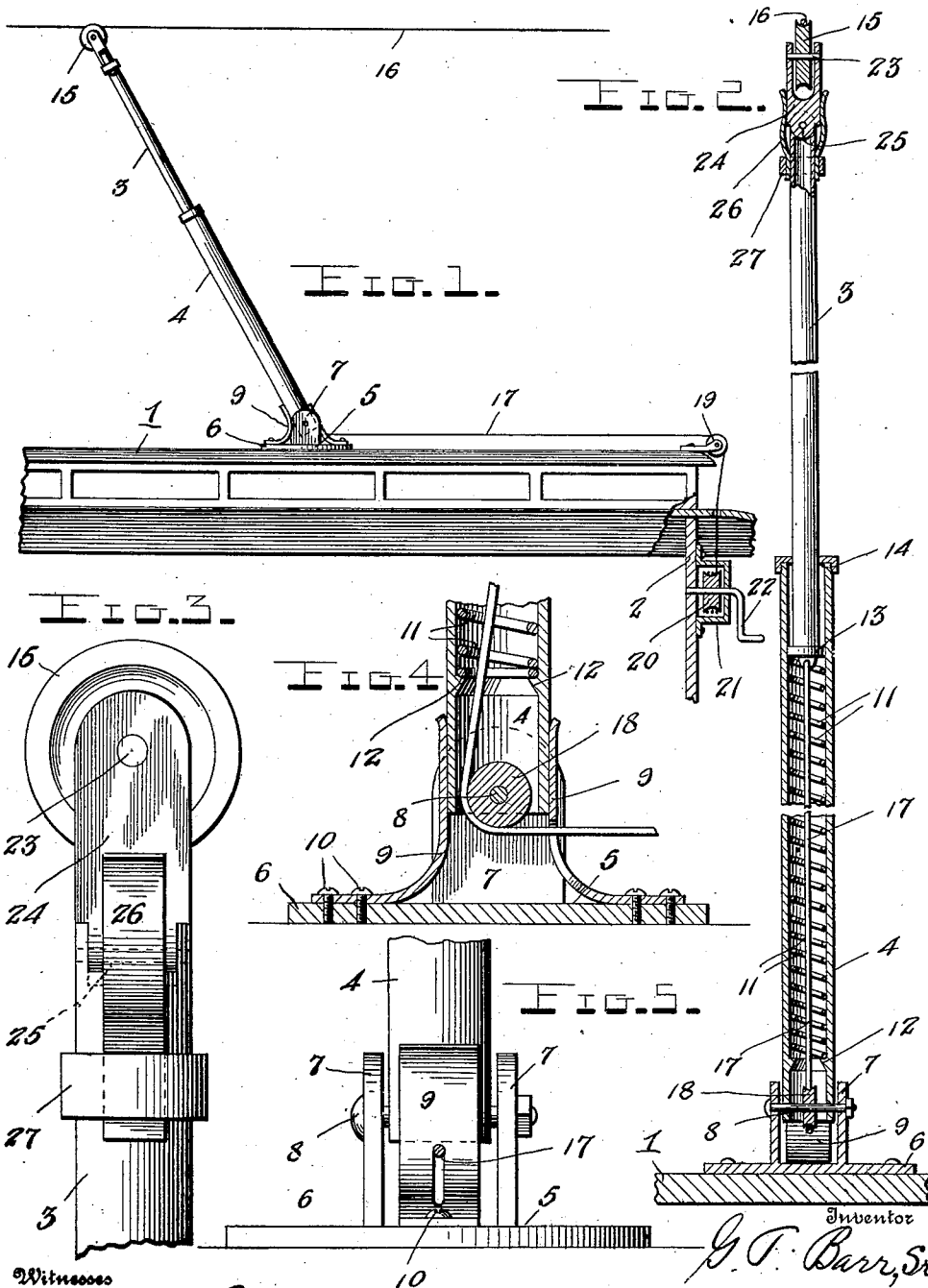


G. T. BARR, SR.
TROLLEY POLE.
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Witnesses

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UNITED STATES PATENT OFFICE.

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TROLLEY-POLE.

No. 915,152.

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To all whom it may concern:

Be it known that I, GEORGE T. BARR, SR., a citizen of the United States, residing at Waco, in the county of McLennan and State of Texas, have invented certain new and useful Improvements in Trolley - Poles, of which the following is a specification, reference being had to the accompanying drawings.

This invention relates to improvements in trolley poles, and consists of the novel features of construction and the combination and arrangement of parts hereinafter fully described and claimed.

The object of the invention is to improve and simplify the construction and operation of devices of this character and to provide one which will adapt itself to the trolley wire and which, when it leaves the same, may be quickly and easily replaced by the motorman without the latter leaving his place at the front of the car.

The above and other objects of the invention are attained in its preferred embodiment illustrated in the accompanying drawings, in which—

Figure 1 is a side elevation of the improved trolley pole showing it applied to a car; Fig. 2 is a vertical section through the same; and Figs. 3, 4 and 5 are detail views.

In the drawings 1 denotes the top of a car and 2 one of the ends of the same.

The improved trolley pole consists of upper and lower telescoping sections 3, 4 each of which is tubular and the latter of which is pivotally mounted in a base 5 arranged upon the car top 1. This base or head consists of a bottom plate 6 from which rise two spaced bearing plates 7 for a pivot bolt 8. This bolt passes through the lower end of the section 4 of the pole and forms a pivot upon which the latter may be swung longitudinally. Leaf springs 9 are arranged on opposite sides of the pole and have their outer and lower ends secured to the plate 6 by fastenings 10. The inner and upper ends of the springs 9 are free and bear against the front and rear faces of the pole section 4 to maintain the latter in an upright position. Said ends of the springs also project between the plates or standards 7 and are retained in position by the same.

The upper pole section 3 slides within the lower one 4 and it is projected outwardly by

a coil spring 11 arranged in the lower section 4 and confined between an annular stop shoulder 12 adjacent to the lower end of the section 4 and a bottom plate 13 upon the lower end of the section 3. Said plate 13 projects beyond the edge of the section 3 and forms an annular stop shoulder adapted to engage an inwardly extending flange 14 forming a stop shoulder in the upper portion of the section 4. The spring 11 maintains the trolley wheel 15 at the top of the pole section 3 in contact with the trolley wire 16 and said wheel is adapted to be lowered beneath said wire by means of an operating cord 17 attached to the bottom plate 13 and extending down through the spring 11 and the pole section 4 and around a guide pulley 18 journaled upon the pivot bolt 8 at the lower open end of said section 4. The cord 17 extends from the pulley 18 to a guide pulley 19 journaled adjacent to the end 2 of the car and from said pulley 19 to a winding drum 20 journaled in a bracket frame 21 upon the front end of the car within convenient reach of the motorman. The shaft of the drum 20 is provided with a crank handle 22 by means of which the cord 17 may be readily wound upon said drum to lower the trolley wheel.

The trolley wheel 15 is journaled at 23 in the forked upper portion of a head 24, the lower end of which has a semicircular portion pivoted on a transverse pivot 25 in the recessed upper end of the upper pole section 3. Leaf springs 26 secured on opposite sides of the pole section 3 by a clamping band 27 have their upper free ends bearing against the opposite sides of the trolley head 24 so as to maintain the latter in an upright or perpendicular position. This pivotal and spring connection for the head 24 permits the trolley wheel to adapt itself to the trolley wire in rounding curves and at similar places.

From the foregoing it will be seen that the springs 9 will hold the pole in a perpendicular position and that the spring 11 will hold the upper section projected and the wheel 15 against the trolley wire. Should said wheel leave the wire, the flange or shoulder 13 will engage the flange or shoulder 14 and prevent the two sections of the pole from separating. In such case, when it is desired to replace the wheel upon the trolley wire the motorman turns the crank 22 to wind the cord 17 upon

the drum 20 and thereby lower the wheel 15 beneath the wire 16. The cord 17 is then slowly unwound so that the spring 11 projects the trolley wheel upwardly and into engagement with the wire, it being understood that the trolley pole is mounted in the center of the car and that the wire 16 is arranged centrally over the track.

Having thus described the invention what is claimed is:

1. A trolley pole comprising a base having a bottom plate and spaced upright plates, a horizontal pivot in the latter, a pole having upper and lower tubular telescoping sections, the lower section having an open bottom mounted on said pivot, a guide pulley journaled on said pivot within the open bottom of the lower pole section, a spring for projecting the upper pole section, a trolley wheel carried by the upper pole section, oppositely disposed angular leaf springs each having one end secured to the bottom plate of the base, the other ends of said springs projecting upwardly and bearing against opposite points on the lower pole section to maintain the pole in an upright position, one of said springs being formed with an opening, and a cord attached to the lower end of the upper pole section and extending through the lower pole section, around the guide pulley and

through said opening in one of said leaf springs, substantially as described.

2. A trolley pole comprising a base having a bottom plate and spaced upright plates, a horizontal pivot in the latter, a pole having upper and lower tubular telescoping sections, the lower section having its bottom open and mounted on said pivot, stop flanges upon said sections for limiting their sliding movement, a stop shoulder in the lower section, a coil spring in the lower section between said stop shoulder and the bottom of the upper section, a spring pressed trolley head pivoted to the upper section, a trolley wheel journaled in said head, leaf springs fixed to the base and bearing against opposite sides of the lower section, a guide pulley journaled upon the pivot of the lower section and arranged in the latter, an operating cord attached to the upper section and extending through the coil spring and the lower section and over said guide pulley, guides for said cord, and a winding drum for said cord, substantially as described.

In testimony whereof I hereunto affix my signature in the presence of two witnesses.

GEORGE T. BARR, Sr.

Witnesses:

MOORE HAYS,
C. JOHNSTON.