

A. FEJA.  
TROLLEY POLE SUPPORT.  
APPLICATION FILED JULY 2, 1910.

1,007,438.

Patented Oct. 31, 1911.

FIG. 1.

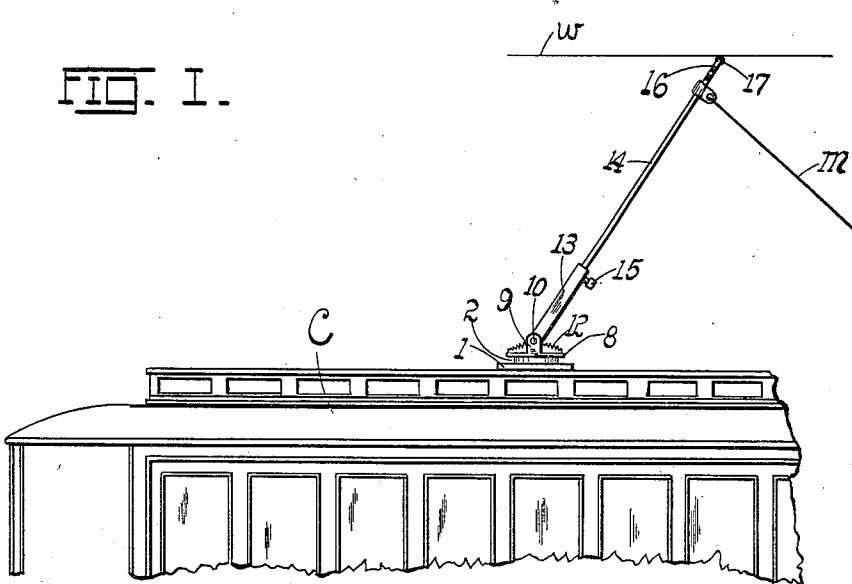


FIG. 2.

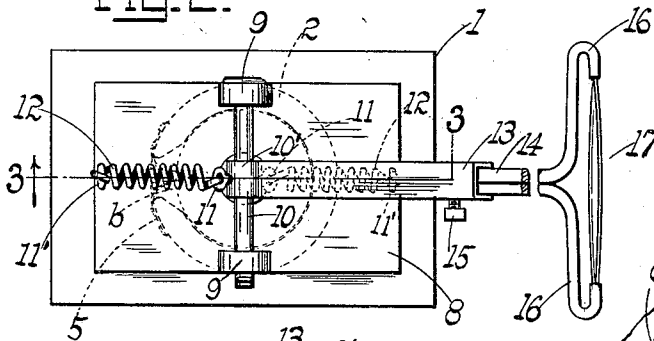
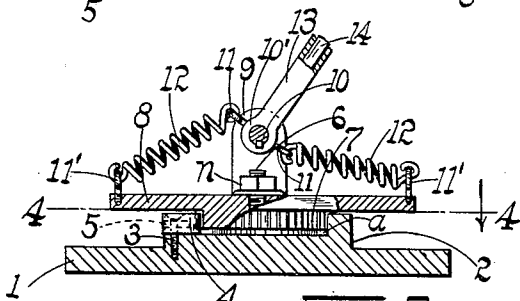
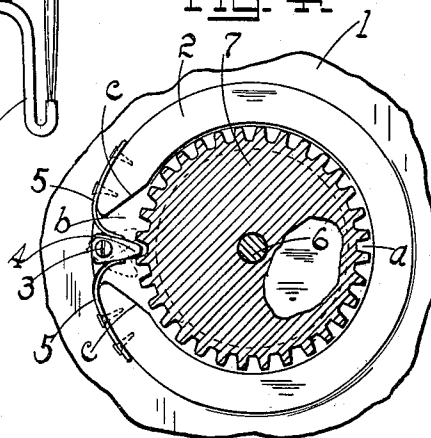


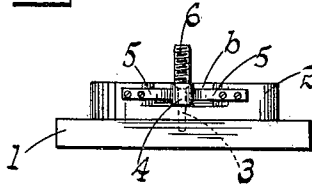
FIG. 4.



WITNESSES:

*Harry A. Reimer.*  
*W. C. Hillman*

FIG. 5.



INVENTOR.  
*Andrew Feja.*  
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# UNITED STATES PATENT OFFICE.

ANDREW FEJA, OF ST. LOUIS, MISSOURI.

## TROLLEY-POLE SUPPORT.

1,007,438.

Specification of Letters Patent.

Patented Oct. 31, 1911.

Application filed July 2, 1910. Serial No. 570,190.

*To all whom it may concern:*

Be it known that I, ANDREW FEJA, a subject of the King of Hungary, residing at St. Louis, State of Missouri, have invented certain new and useful Improvements in Trolley-Pole Supports, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming a part hereof.

- 0 My invention has relation to improvements in trolley-pole supports or anchors; and it consists in the novel details of construction more fully set forth in the specification and pointed out in the claim.
- 15 In the drawings, Figure 1 is a side elevation of a car-roof showing my invention applied; Fig. 2 is a top plan of the anchor and pole, the latter being broken; Fig. 3 is a vertical section on the line 3—3 of Fig. 2, parts being in elevation; Fig. 4 is a horizontal section on the line 4—4 of Fig. 3; and Fig. 5 is a view of the socket-wall of the base-plate, looking in the direction of the gap in said wall.
- 25 The object of my invention is to construct a trolley pole anchor which will permit of rotation of the base of the pole with a view of reversing the direction of the pole when the car is ready to make a return trip.
- 30 A further object is to provide an anchor which will yieldingly lock the pole, once the same has been set in proper position to effect engagement between the trolley and the trolley-wire.
- 35 The advantages of the invention will be readily apparent from a detailed description thereof which is as follows:—

Referring to the drawings, C represents a portion of a conventional trolley car to the roof of which the device is secured. Carried on the roof is a base-plate 1 in the center of which is formed a socket *a* bounded by the annular wall 2 in which is formed a gap *b* bounded by outwardly converging sides *c*. At the center of the gap is pivotally mounted about a spindle 3, an oscillating pawl 4 tapering inwardly or toward the center of the socket. In its normal position the axis of the pawl is substantially on the radius of the circles defining the bounding faces of the wall 2, being maintained in said position by the free ends of the flexed springs 5, 5, engaging the side

faces of the pawl, the fixed ends of the springs being secured to the outer peripheral face of the wall 2 on each side of the gap *b*.

Projecting from the center of the socket *a* is a stud or spindle 6 which passes centrally and loosely through a gear-wheel 7 formed with or carried at, the bottom of a bearing or supporting plate 8 to which the pole is directly secured. The gear wheel 7 fits loosely in the socket *a*, the teeth thereof being engaged by the oscillating pawl 4, the springs 5, 5, whereof allow the pawl to yield in either direction, depending on the direction in which the plate 8 and its gear-wheel are turned. The upper end of the stud 6 is screw-threaded to receive a nut *n* by which the plate 8 is held thereon against accidental displacement. The sides of the plate 8 are provided with arms or lugs 9, 9, in which the terminals of the cylindrical rocker-bar 10 are mounted, the central portion of the bar having secured thereto a collar 10'. To eye-bolts 11, 11, projecting in opposite directions from the collar 10' of the rocker-bar, are secured the adjacent ends of contracting springs 12, 12, the opposite ends of the springs being secured to eye-bolts 11' on bearing plate 8. From the collar 10' of the rocker-bar 10 projects upwardly an elongated socket 13 forming the lower section of an extensible trolley-pole which is secured in position when adjusted to the proper length, by a set-screw 15. The forks 16 of the pole carry between them the elongated spindle-like trolley 17, very commonly used by traction companies.

When the car reaches the end of its journey in one direction, the conductor or motor-man seizes the cable *m*, pulls the trolley away from the wire *w*. He then draws on the cable so as to rotate the pole, together with the plate 8 and its gear-wheel 7 about the axis of the stud 6, it being immaterial (since the pawl 4 yields either way) whether the rotation of the parts be in one direction or the other. As rotation is thus imparted to the gear-wheel 7, the pawl 4 readily yields to allow the teeth of the wheel to pass by; and when the pole has been swung around to reverse position to enable the car to make a return trip, the cable is released, whereupon the proper spring 12 will

force the pole upward, effecting reengagement of the trolley with the line wire *w*. The pawl 4 being permanently between the teeth of the wheel 7, prevents accidental excessive rotation of the plate 8, that is to say, a rotation which would cause the trolley to jump the wire, but yet always permitting (by reason of the yielding character of the springs 5, 5) that limited oscillation of the plate and gear-wheel to allow the pole and its trolley-pole to conform themselves to the various curvatures of a line-wire which may prevail on a given road. By having a pair of springs 12, 12, (one spring on each side of the rocker-bar 10) the trolley is kept under better control, the springs acting conjointly to maintain the pole in proper engagement with the wire. Of course, the active spring will always be the one to which the greater stretch has been imparted for an inclination of the pole in a given direction, such inclination elevating one of the eye-bolts 11 secured to the rocker-bar 10, and depressing the opposite eye-bolt (Fig. 3). By having two springs 12, the pole may be tilted in either direction indiscriminately.

Having described my invention, what I claim is:—

In combination with a plate secured to a car-roof, an annular wall projecting from said plate and forming a socket, said wall having a gap bounded by outwardly tapering sides, a pawl pivotally mounted at the center of the gap and pointing inwardly toward the socket, a central stud in the socket, a plate provided with a gear-wheel and passed loosely over the stud, the gear-wheel freely rotating in the socket and engaging the pawl, flexed yielding springs secured to the socket walls on either side of the gap and having free ends engaging the side faces of the pawl, a spring-controlled rocker-bar mounted on the plate on the side opposite the gear-wheel, and a trolley-pole secured to the rocker-bar, substantially as set forth.

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

ANDREW FEJA.

Witnesses:

W. C. KILLEEN,  
JOSEPH KARDOS.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."