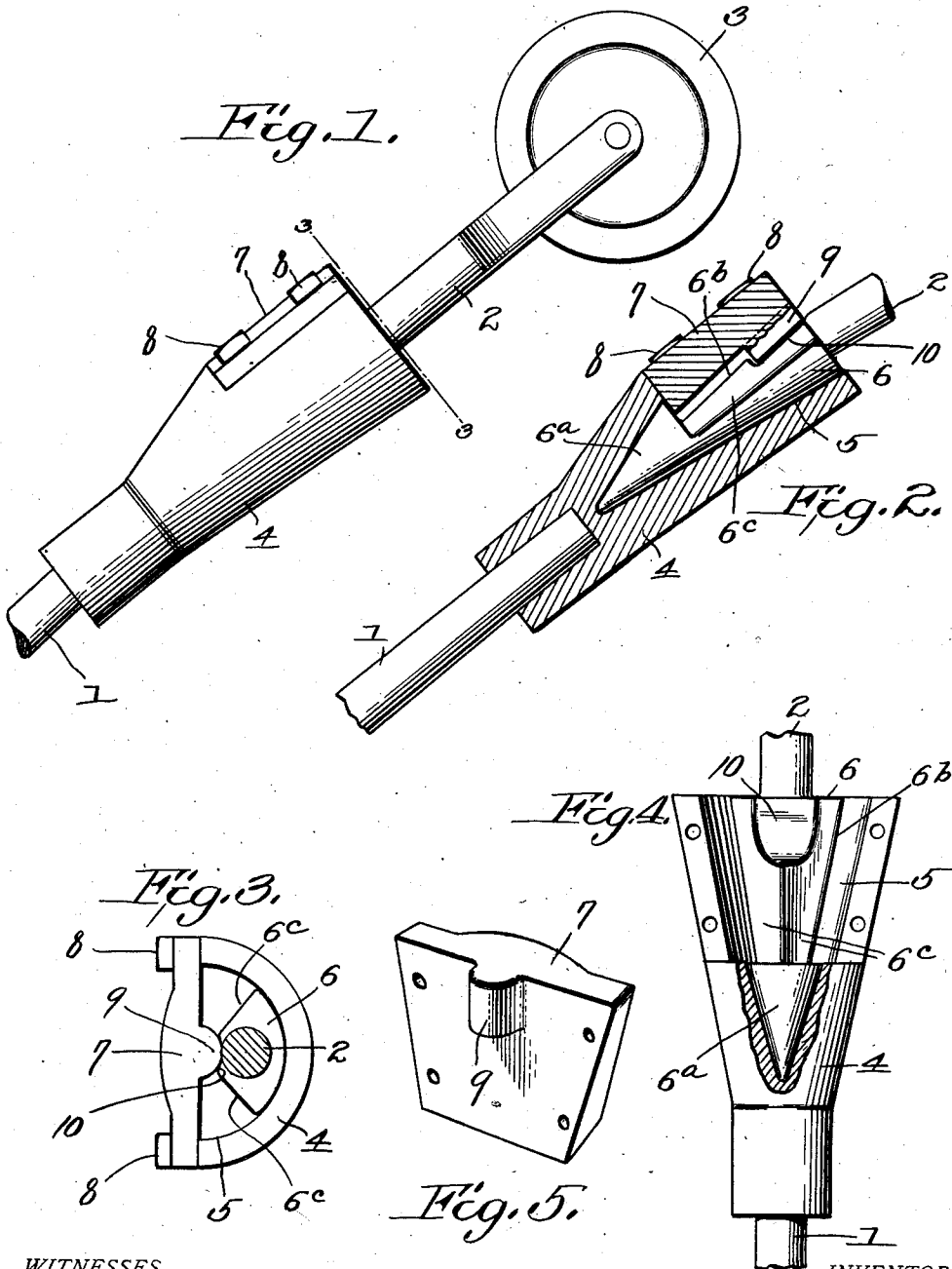


G. H. MEREDITH.
 SELF ADJUSTING TROLLEY POLE.
 APPLICATION FILED JULY 24, 1911.

1,022,959.

Patented Apr. 9, 1912.



WITNESSES

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SELF-ADJUSTING TROLLEY-POLE.

1,022,959.

Specification of Letters Patent.

Patented Apr. 9, 1912.

Application filed July 24, 1911. Serial No. 640,370.

To all whom it may concern:

Be it known that I, GEORGE H. MEREDITH, a citizen of the United States, residing at San Francisco, in the county of San Francisco and State of California, have invented new and useful Improvements in Self-Adjusting Trolley-Poles, of which the following is a specification.

The present invention relates in general to trolley poles such as are commonly employed in connection with electric railways utilizing the overhead system of current distribution, the primary object of the invention being the provision of a jointed trolley pole which embodies novel features of construction whereby the roller at the upper end of the pole is enabled to readily accommodate itself to the wire, thereby eliminating or reducing to a maximum the annoyance occasioned by the jumping of the trolley from the overhead wire.

A further object of the invention is the provision of a peculiarly jointed trolley pole which admits of the upper end thereof swinging laterally in the arc of a circle and also having a simultaneous rotary movement whereby the trolley wheel is always held in such a position as to engage most readily with the wire.

A still further object of the invention is to provide a trolley pole of this general character which is simple and inexpensive in its construction, which comprises few and durable parts, and which can be readily assembled or taken apart as may be desired.

With these and other objects in view, the invention consists in certain novel combinations and arrangements of the parts as will more fully appear as the description proceeds, the novel features thereof being pointed out in the appended claims.

For a full understanding of the invention, reference is to be had to the following description and accompanying drawings, in which:—

Figure 1 is a side elevation of the upper end of a trolley pole constructed in accordance with the invention. Fig. 2 is a longitudinal sectional view through the same. Fig. 3 is a sectional view on the line 3—3 of Fig. 1. Fig. 4 is a plan view of the joint between the trolley pole sections, the cover plate being removed and portions being broken away, and Fig. 5 is a detail perspective view of the cover plate.

Corresponding and like parts are referred

to in the following description and indicated in all the views of the drawing by the same reference characters.

Specifically describing the present embodiment of the invention, the numeral 1 designates the lower section of the trolley pole which is carried by a railway car or the like and may be secured thereto in any suitable manner. The upper section 2 of the trolley pole has the trolley wheel 3 mounted thereon and is connected to the lower section 1 of the trolley pole by means of a novel joint which admits of the upper end of the trolley pole swinging laterally in the arc of a circle and having a corresponding rotary movement so as to hold the trolley wheel in proper position for engaging the wire at all times.

A casing 4 is rigidly secured to the upper end of the trolley pole section 1, the said casing being formed with a conical socket 5 which opens through the upper end thereof and loosely receives a cone 6 at the lower end of the trolley pole section 2. This cone 6 is adapted to turn about its axis, and the trolley pole section 2 is arranged at an angle to the axis of the cone so that as the latter turns the upper end of the trolley pole will swing in the arc of a circle. The apex portion 6^a of the cone is intact, while one side of the base of the cone is cut away at 6^b. It will also be observed that the corresponding side of the casing 4 is cut away to receive the removable cover 7, the said cover being held in position by suitable fastening members such as the screws 8. This cover extends into the cut away portion 6^b of the cone, and the lower end thereof projects over the apex 6^a and bears loosely against the same so as to hold the cone in position and at the same time admit of a free rotary movement thereof. A projection 9 is formed at the upper end of the cover plate 7 and engages a depression 10 in the cut away portion of the cone. The curved inner end of this projection 9 is substantially concentric with the axis of the cone so that as the cone turns within its bearing the face of the depression 10 will slide freely upon the projection, the rotary movement of the cone being limited by engagement of the inclined walls 6^c with the cover plate 7. As has been previously stated, the upper section 2 of the trolley pole is arranged at an angle to the axis of the cone so that as the cone revolves the trolley wheel is swung in the arc of a

circle and also twisted so as to accommodate itself readily to the wire. Such a construction will eliminate or very materially reduce the delays and annoyance occasioned by the continual jumping of the trolley from the wire.

Having thus described the invention, what I claim as new and desire to secure by Letters Patent, is:—

10 1. In a device of the character described, the combination of a trolley pole formed in sections, a casing applied to one of the sections and formed with a conical socket, and a cone applied to the opposite section and loosely received within the said socket, the second mentioned section being disposed at an angle to the axis of the cone.

20 2. In a device of the character described, the combination of a trolley pole formed in sections, a casing applied to one of the sections and provided with a conical socket, a cone applied to the opposite section and loosely received within the socket, the base of the cone being cut away on one side thereof and the said opposite section of the trolley pole being disposed at an angle to the axis of the cone, and means engaging the cut away portion of the cone to hold the cone in position and limit the rotary movement thereof.

30 3. In a device of the character described, the combination of a trolley pole formed in sections, a casing applied to one of the sections and provided with a conical socket having one side thereof cut away, a cone applied to the opposite section and loosely received within the socket, the base of the cone being cut away on one side thereof and the said opposite section of the trolley

pole being disposed at an angle to the axis of the cone, and a plate applied to the cut away portion of the casing, the said plate being received within the cut away portion of the cone and engaging the apex thereof to hold the cone in position, a projection being formed in connection with the plate which bears against the cut away portion of the cone and about which the cut away portion of the cone moves when the cone turns about its axis.

40 4. In a device of the character described, the combination of a trolley pole formed in sections, a casing applied to one of the sections and provided with a conical socket having one side thereof cut away, a cone applied to the opposite section and having the axis thereof disposed at an angle thereto, the said cone being loosely received within the socket and having the base thereof cut away on one side, and a plate applied to the cut away portion of the casing and received within the cut away portion of the base of the cone so as to engage the apex of the cone and hold the same against displacement, the said plate also serving as a stop for cooperation with the cut away portion of the cone to limit the turning of the cone and being formed with a curved projection which is concentric with the axis of the cone and bears loosely against the cut away portion thereof.

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

GEORGE H. MEREDITH.

Witnesses:

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M. A. ANDERSON.