G. A. LEFLEY.

TROLLEY.

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962,365. Patented June 21, 1910.

Fig. 1.

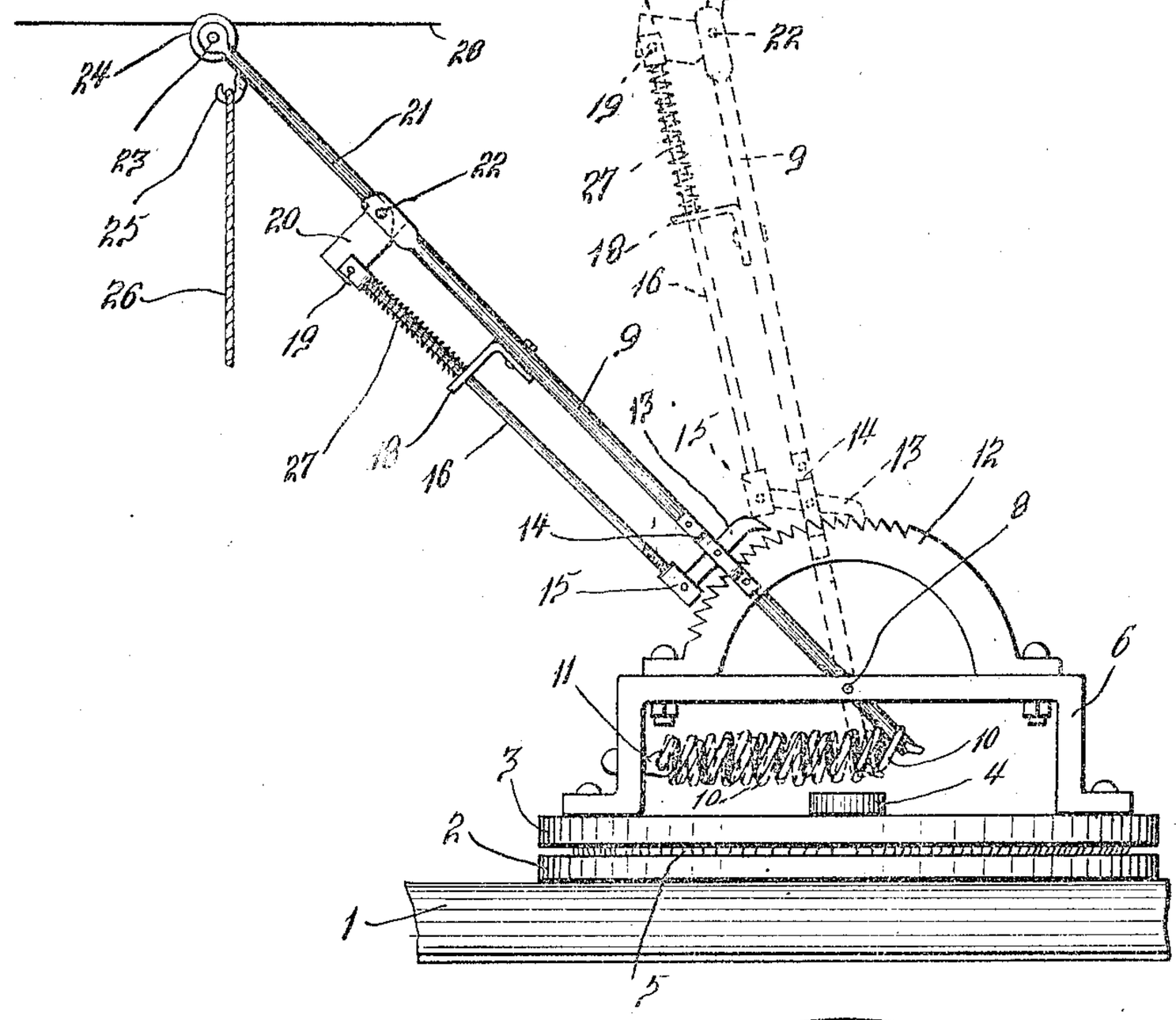
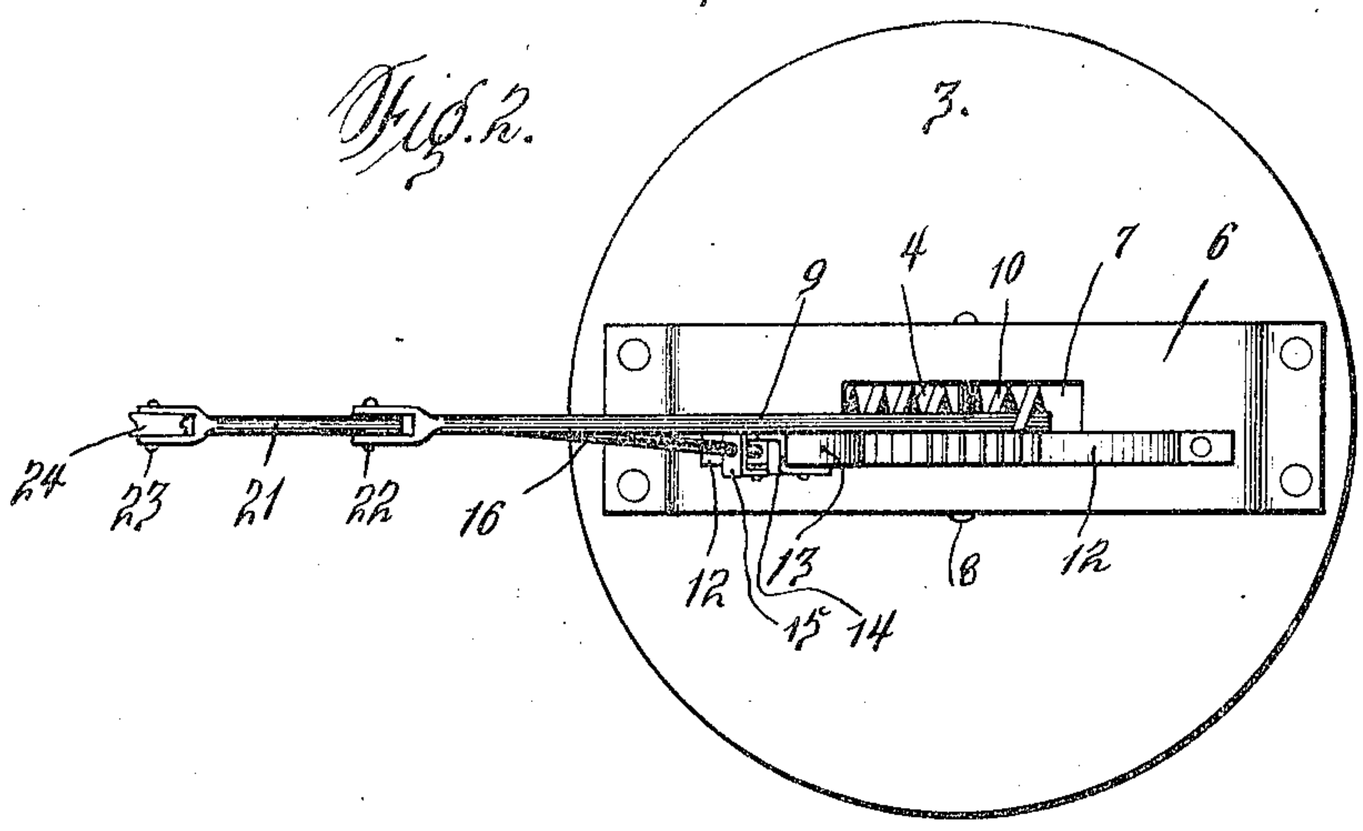



Fig. 2.

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# UNITED STATES PATENT OFFICE.

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## TROLLEY.

962,365. Specification of Letters Patent. Patented June 21, 1910.

Application filed September 24, 1909. Serial No. 519,428.

*To all whom it may concern:*

Be it known that I, GEORGE A. LEFLEY, a citizen of the United States of America, residing at West View, in the county of Allegheny and State of Pennsylvania, have invented certain new and useful Improvements in Trolleys, of which the following is a specification, reference being had therein to the accompanying drawing.

This invention relates to trolleys, and the objects of my invention are, first, to provide a street-car with a trolley that will normally remain upon the trolley-wire or electrical conductor; second, to furnish the trolley with simple and effective means for limiting an upward movement of the trolley when displaced; third, to furnish a sectional trolley-pole that can be used in connection with various kinds of trolley driven cars, and fourth, to furnish positive and reliable means for controlling the action of a trolley-spring employed for retaining a trolley upon a wire.

With the above and other objects in view, the invention consists in a novel construction, combination and arrangement of parts to be hereinafter described in detail and then claimed.

Reference will now be had to the drawings wherein like numerals of reference designate corresponding parts throughout the views in which:—

Figure 1 is a side elevation of the trolley, and Fig. 2 is a plan of the same.

In the drawings:—the reference numeral 1 denotes the roof of a car or similar vehicle which is provided with a circular base-plate 2 adapted to revolubly support a plate 3, these plates being maintained in position by a king bolt 4 and by anti-friction balls 5 interposed between said plates.

6 denotes a frame mounted centrally of the plate 3, said frame having the top thereof provided with a longitudinal slot 7. Pivotally mounted in the slot 7 by a transverse pin 8 is a trolley-pole section 9 having the lower ends thereof connected to a retractile spring 10, which is connected to one end of the frame 6, as at 11.

12 denotes a vertical semi-circular rack secured to the top of the frame 6 at one side of the slot 7. Adapted to engage this rack is a pawl 13 pivotally mounted in a bracket 14 secured to the side of the pole section 9. The end of the pawl 13 is provided with a pivoted stirrup 15 and adjustably connected to the stirrup is a rod 16 movably mounted in a bracket 18 carried by the under side of pole section 9. The rod 16 is parallel with the pole section 9 and has the upper end thereof bifurcated and pivotally connected as at 19 to the angular end 20 of a yoke section 21. This yoke section has the angular end thereof pivotally mounted in the upper bifurcated end of the pole section 9, as at 22. The upper end of the yoke section 21 is provided with the conventional form of yoke 23 and trolley-wheel 24, also with a depending hook 25 to which a cable 26 is connected.

27 denotes a coiled spring encircling the rod 16 between the bracket 18 and the bifurcated end of said rod, said spring cooperating with the rod 16 in normally maintaining the trolley-wheel 24 upon the trolley-wire 28.

The yoke section 21 is adapted to longitudinally aline with the pole section 9, and should the trolley-wheel become accidentally displaced, the tension of the spring 27 moves the yoke section 21 out of alinement with the pole section 9, as shown by dotted lines in Fig. 1, causing the pawl 13 to engage the rack 12 and limit the upward movement of the pole section 9. By pulling downward upon the cable 26, the trolley can be easily replaced upon the trolley-wire 28.

Having now described my invention, what I claim as new is:—

1. In a trolley, the combination with a shiftable frame and a pole section pivotally mounted therein, of a rack carried by said frame, a yoke section pivotally connected to the upper end of said pole section and having an angular extension, a pawl pivotally-connected to said pole section and adapted to engage said rack for limiting the movement of the pole section in one direction, a stirrup pivoted to the pawl, and a spring-controlled rod pivotally connected at one end to the angular end of the yoke section and at its other end attached to the stirrup.

2. In a trolley, the combination with a shiftable frame and a pole section pivotally mounted therein, of a rack carried by said frame, a yoke section pivotally connected to the upper end of said pole section and having an angular extension, a pawl pivotally-connected to said pole section and adapted to engage said rack for limiting the movement of the pole section in one direction, a stirrup pivoted to the pawl, and

a spring-controlled rod pivotally connected at one end to the angular end of the yoke section and at its other end adjustably connected to the stirrup.

3. In a trolley, the combination with a shiftable frame and a pole section pivotally mounted therein, of a rack carried by the frame, a yoke section having an angular lower end pivotally connected to the pole section, a pawl pivotally attached to the pole section and adapted to engage said rack for limiting the movement of the pole section in one direction, a spring-controlled rod having a bifurcated upper end pivotally attached to the angular end of said yoke section and having its lower end screw-threaded, and a stirrup carried by the pawl and adjustably connected to the screw-threaded end of said rod.

4. In a trolley, a spring-controlled pole section, a yoke section pivoted to the pole section, a rack and pawl carried by the pole section and adapted to engage said rack for limiting the movement of the pole section in one direction, a spring-controlled rod extending in parallelism with respect to the pole section, and arranged exteriorly of the pole section and pivotally-connected at its upper end to the yoke section, means for adjustably connecting the lower end of said rod to said pawl, said rod having a screw-threaded lower end, and a stirrup pivoted to the pawl and adjustably connected to the threaded end of said rod.

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

GEORGE A. LEFLEY.

Witnesses:

MAX H. SROLOVITZ,

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