I. H. LUNT.

TROLLEY HARP. APPLICATION FILED SEPT. 6, 1905. Isaac H.Lunt, Inventor.
by On A. Witnesses

STATES PATENT OFFICE.

ISAAC H. LUNT, OF BARRE, VERMONT.

TROLLEY-HARP.

No. 816,239.

Specification of Letters Patent.

Patented March 27, 1906.

Application filed September 6, 1905. Serial No. 277,187.

To all whom it may concern:

Be it known that I, Isaac H. Lunt, a citizen of the United States, residing at Barre, in the county of Washington and State of Ver-5 mont, have invented a new and useful Trolley-Harp, of which the following is a specification.

This invention relates to trolley-poles for overhead conductors, and more particularly o to means for permitting lateral movement of the trolley-wheel in traveling around curves

or in passing over switches.

The object of the invention is to provide a casing or housing for attachment to the trol-15 ley-pole and adapted to pivotally support the trolley head or harp, said harp being yieldably supported in alinement with the trolley-pole by a pair of centering-springs.

A further object of the invention is to sim-20 plify and improve this class of devices so as to add to their utility and durability, as well as

to reduce the cost of manufacture.

With these and other objects in view the invention consists in the construction and 25 novel combination and arrangement of parts | limit the lateral movement of the trolley-hereinafter fully described, illustrated in the | harp, while by removing the pin 10 the harp, accompanying drawings, and pointed out in the claims hereto appended, it being understood that various changes in form, propor-30 tions, and minor details of construction may be resorted to without departing from the principle or sacrificing any of the advantages of this invention.

In the accompanying drawings, forming a 35 part of this specification, Figure 1 is a front elevation of a portion of a trolley-pole, showing my improved attachment in position thereon. Fig. 2 is a side view of the same. Fig. 3 is a longitudinal sectional view, and 40 Fig. 4 is a perspective view, of the casing or

housing detached.

Similar numerals of reference indicate corresponding parts in all the figures of the

drawings.

The numeral 5 designates a portion of a trolley-pole the upper end of which is provided with a reduced extension 6, defining oppositely-disposed shoulders 7. Detachably secured to the extension 6, as by screws 50 or similar fastening devices 8, is a casing or housing 9, and pivotally mounted within the casing on a transverse pin or bolt 10 is the harp or head 11 of the trolley-wheel 12. The casing or housing is substantially triangular 55 in shape, as shown, and preferably formed in two sections spaced apart by integral later-

ally-extending projections or lugs 18 and rigidly secured together in any suitable manner, as by rivets or similar fastening devices 13, each section being formed with a depending 60 arm or extension 14, adapted to engage the shoulders 7. The shank 15 of the trolleyharp is normally supported in alinement with the trolley-pole by means of oppositely-disposed centering-springs 16, one end of each 65 of which bears against the shank 15, while the opposite end thereof passes between the arms 14 and is riveted or otherwise rigidly secured to the trolley-pole, as indicated at 17. By having the trolley-harp pivotally 70 mounted within the casing and yieldably supported in alinement with the trolley-pole the trolley-wheel will readily accommodate itself to any lateral movement of the car in traveling around curves or in passing over switches, thereby reducing to a minimum the friction and wear on both the trolley wheel and overhead conductor.

Attention is called to the fact that the inclined walls of the projections 18 serve to so harp, while by removing the pin 10 the harp, together with the trolley-wheel, may be quickly detached from the casing when it is desired to use a different style of trolley- 85

wheel.

It will thus be seen that there is provided an extremely simple and inexpensive device admirably adapted for the attainment of the ends in view.

Having thus described the invention, what

is claimed is—

1. The combination with a trolley-pole, of a sectional housing secured to the pole and formed of side sections spaced apart by lat- 95 eral projections, a harp pivotally mounted between the side walls of the housing and springs disposed on each side of the harp for supporting the latter in alinement with the trolley-pole.

2. The combination with a trolley-pole, of a housing detachably secured to the pole and formed of a pair of side sections spaced apart by lateral projections, a harp mounted for lateral movement between the side sections ro: of the housing, and springs secured to the trolley-pole and having their free ends bearing against the harp for yieldably supporting the latter in alinement with said pole.

3. The combination with a trolley-pole, of 110 a sectional housing secured to the pole and formed of detachable side sections spaced

apart by lateral projections, the walls of which are inclined or beveled, and a trolley-harp mounted for lateral movement between the sections of the housing and yieldably supported in alinement with the trolley-pole, the inclined walls of the projections serving to limit the lateral movement of the trolley-harp.

4. The combination with a trolley-pole, of a sectional housing detachably secured to the pole and formed of side sections spaced apart by lateral projections, a trolley-harp mounted for swinging movement between the sections of the housing, and springs secured to the trolley-pole and having their free ends bearing against the harp for yieldably supporting the latter in alinement with said trolley-pole.

5. The combination with a trolley-pole provided with a reduced extension defining

oppositely-disposed shoulders, of a sectional housing secured to the extension and formed of detachable side sections spaced apart by lateral projections, said side sections being provided with spaced depending arms adapted to engage said shoulders, a trolley-harp pivotally mounted for lateral movement between the side sections of the housing, and springs secured to the trolley-pole between the depending arms and having their free 30 ends bearing against the harp for yieldably supporting the latter in alinement with the trolley-pole.

In testimony that I claim the foregoing as my own I have hereto affixed my signature 35

in the presence of two witnesses.

ISAAC H. LUNT.

Witnesses:

F. H. Andrus, Elwin L. Scott.