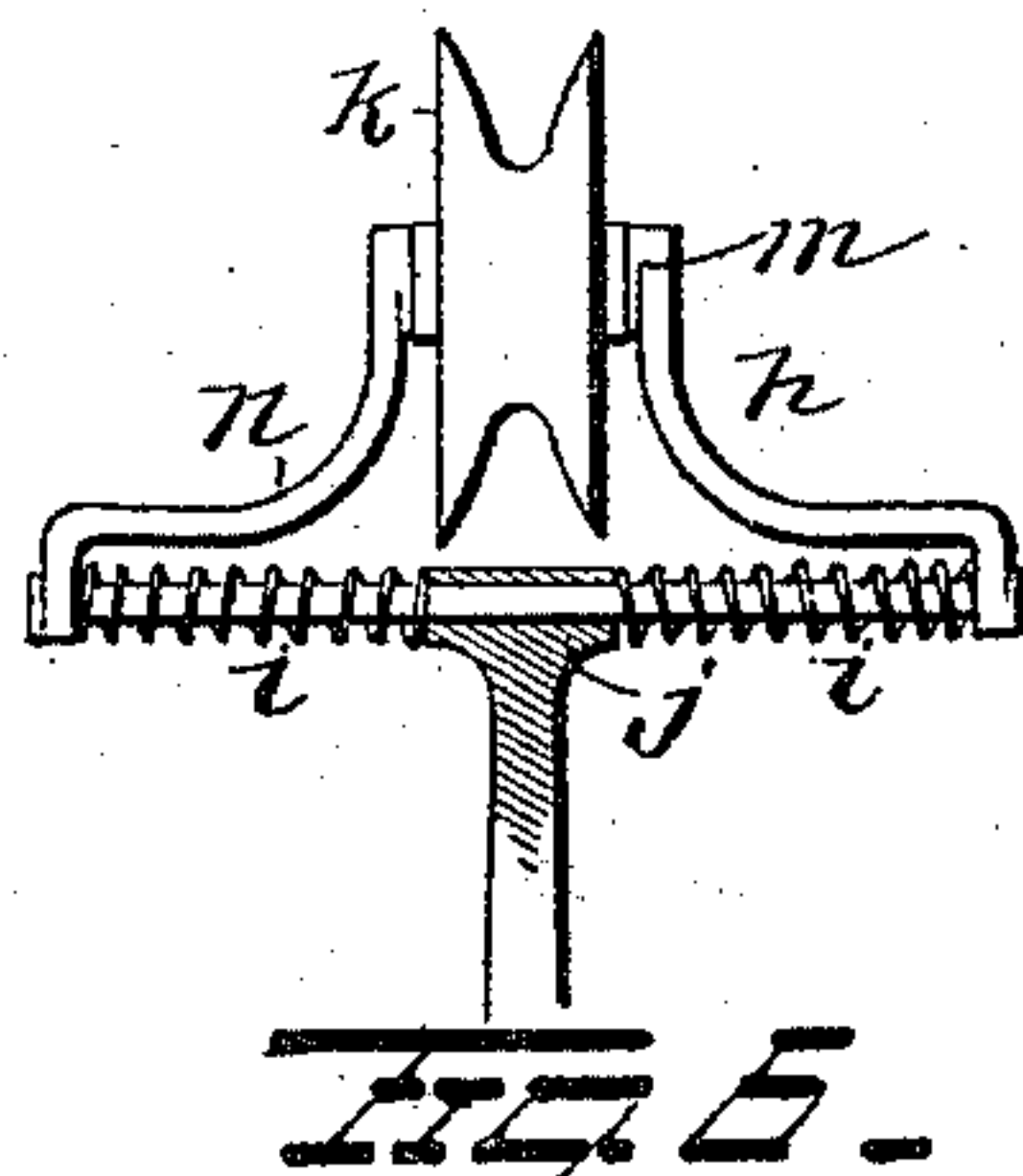
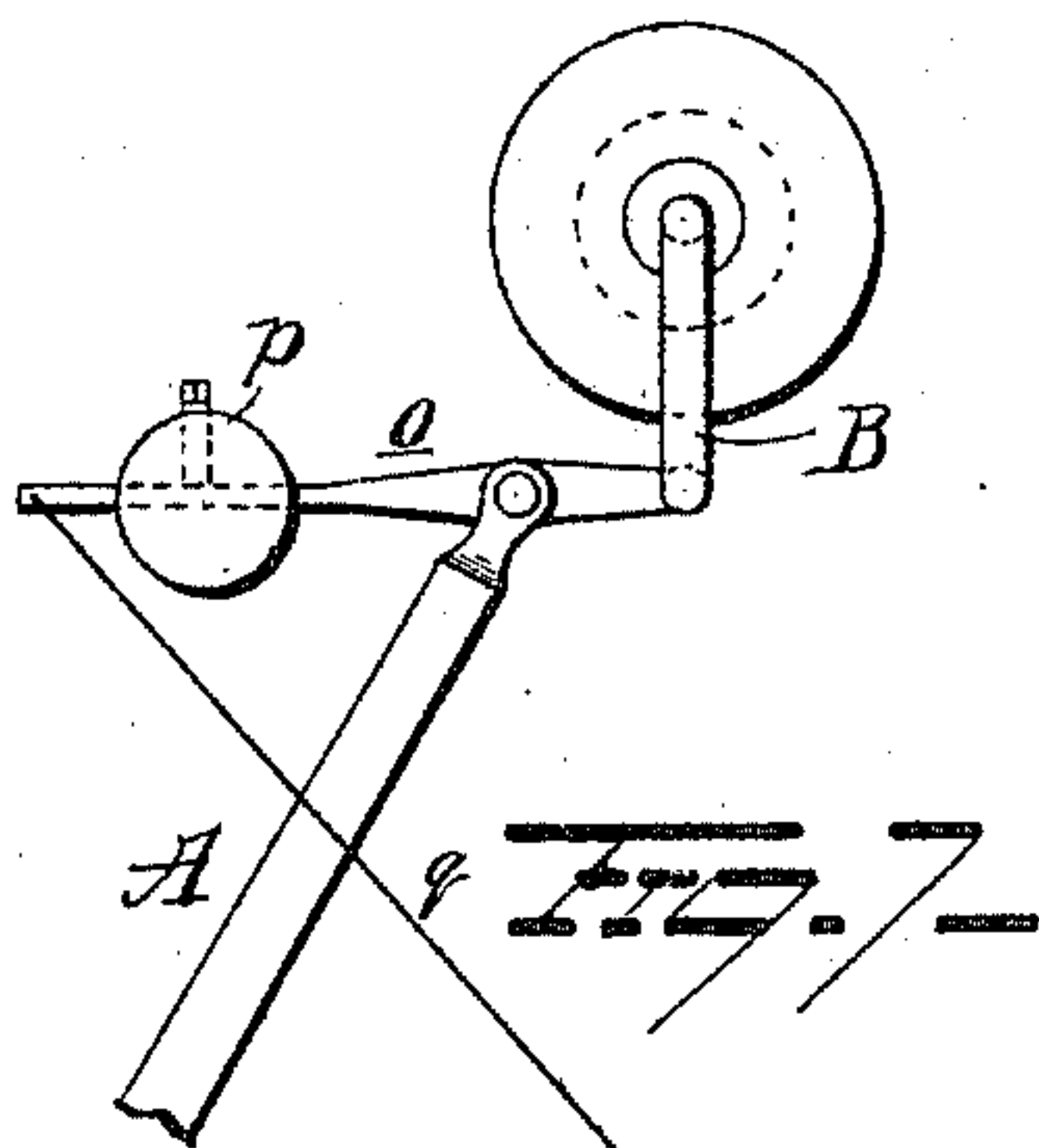
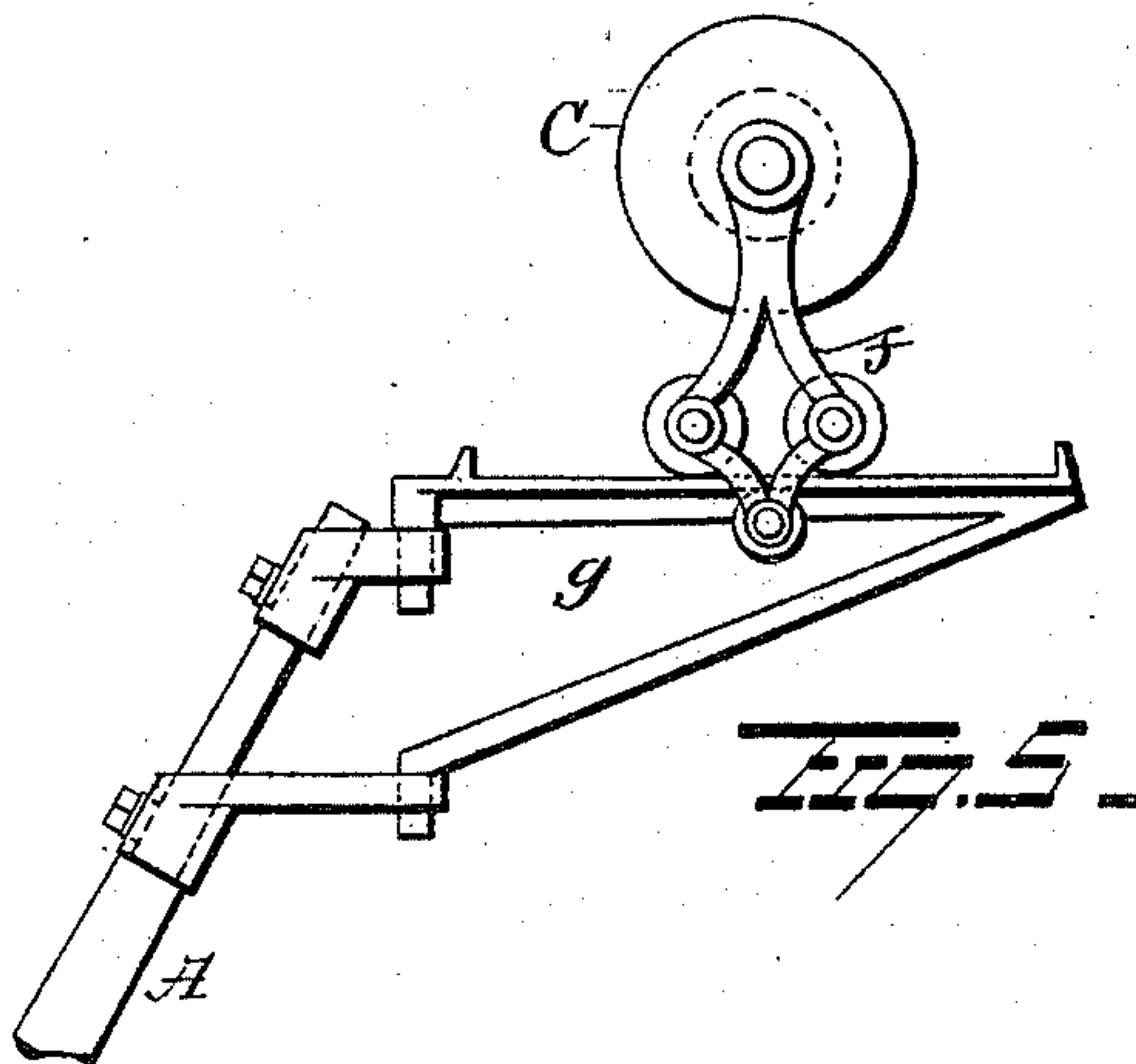
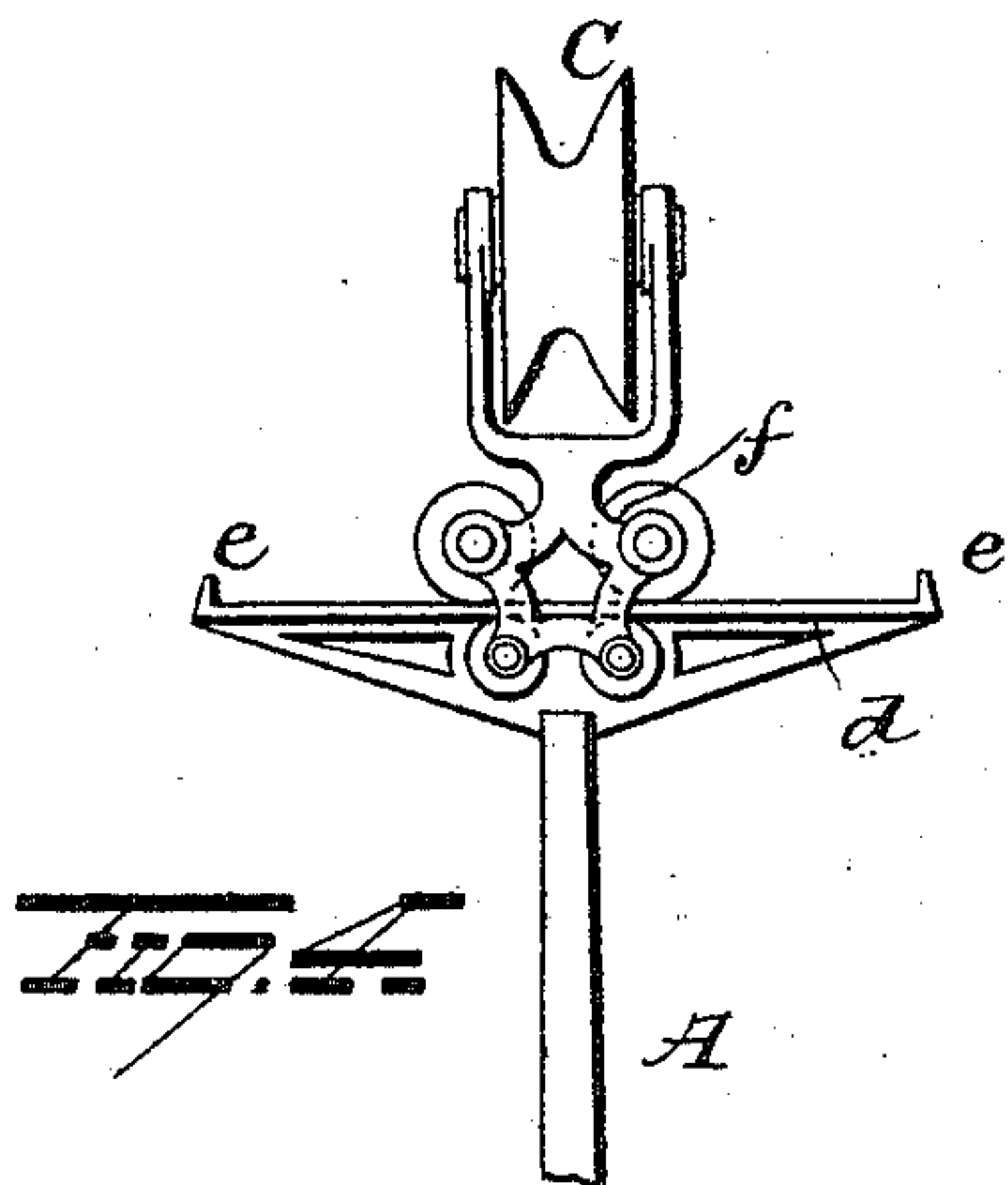
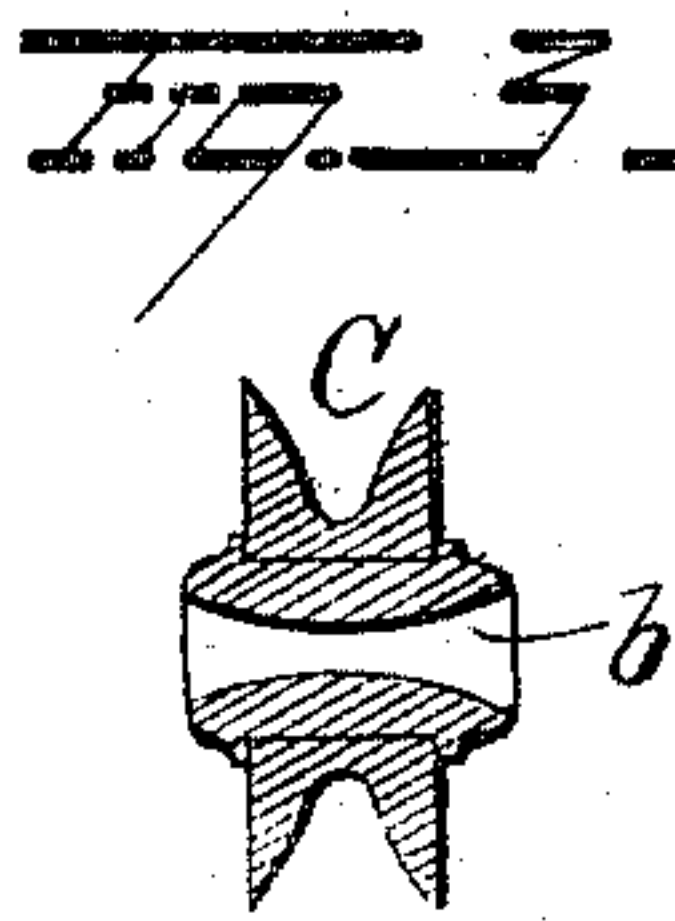
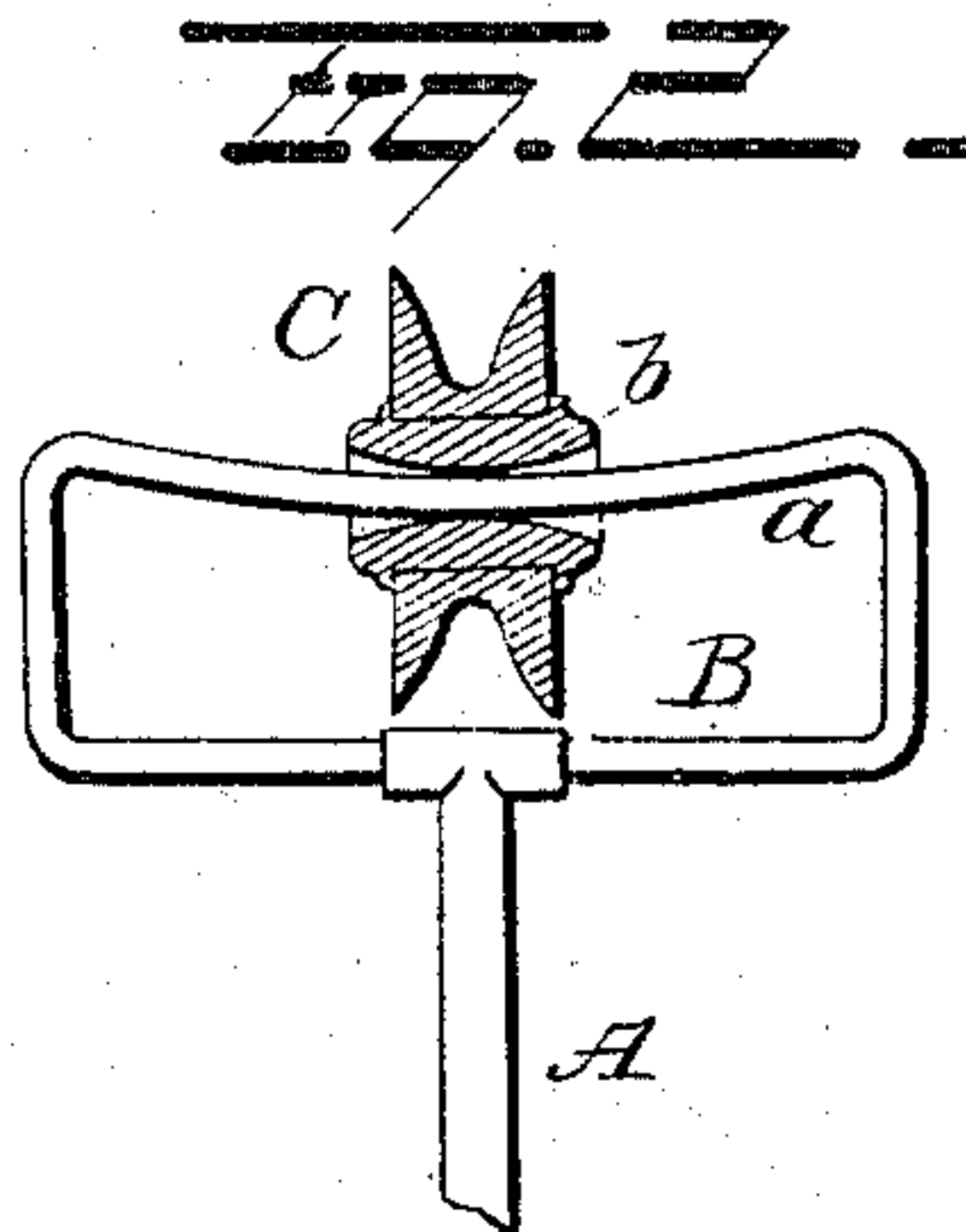
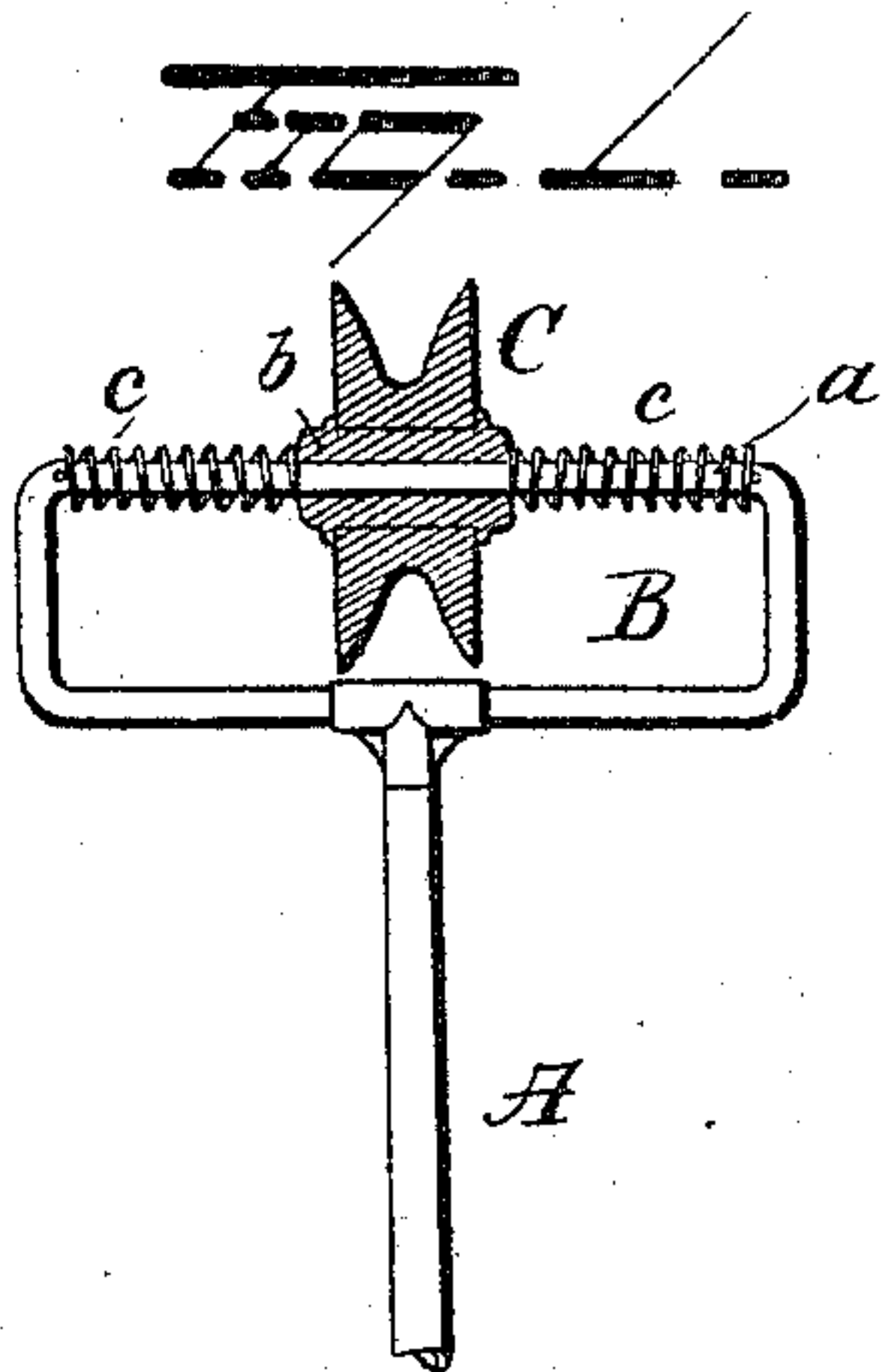


(No Model.)

H. A. SEYMOUR.
TROLLEY FOR ELECTRIC RAILWAYS.

No. 572,933.

Patented Dec. 8, 1896.



Witnesses
E. J. Nottingham
G. J. Downing.

Inventor
H. A. Seymour

UNITED STATES PATENT OFFICE.

HENRY A. SEYMOUR, OF WASHINGTON, DISTRICT OF COLUMBIA, ASSIGNOR
TO THE GENERAL ELECTRIC COMPANY, OF NEW YORK.

TROLLEY FOR ELECTRIC RAILWAYS.

SPECIFICATION forming part of Letters Patent No. 572,933, dated December 8, 1896.

Application filed June 15, 1896. Serial No. 595,652. (No model.)

To all whom it may concern:

Be it known that I, HENRY A. SEYMOUR, of Washington, in the District of Columbia, have invented certain new and useful Improvements in Trolleys for Electric Railways; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to an improvement in electric railways, and more particularly to trolley devices therefor, the object of the invention being to provide simple and efficient means whereby to prevent the accidental escape of the trolley-wheel from the wire, especially in rounding curves.

With this object in view the invention consists in the combination, with a trolley-pole, of an elongated support attached to the upper end thereof and a trolley-wheel adapted to travel laterally on said support.

My invention further consists in the combination, with a trolley-pole, of an elongated support attached to the upper end thereof, a trolley-wheel adapted to travel laterally on said support, and means for normally retaining said trolley-wheel in a central position on said support.

My invention further consists in the combination, with an elongated support, of a carrier adapted to travel thereon and a trolley-wheel mounted on said carrier.

My invention further consists in the combination, with a trolley-pole, of an elongated support attached to the upper end thereof, a carrier adapted to travel on said support, and a trolley-wheel mounted on said carrier.

My invention further consists in certain novel features of construction and combinations and arrangements of parts, as hereinafter set forth, and pointed out in the claims.

In the accompanying drawings, Figure 1 is a view illustrating an embodiment of my invention. Figs. 2, 3, 4, 5, 6, and 7 are views illustrating modifications.

A represents a trolley-pole which may be connected with the roof of a car in any desired manner. To the upper end of the pole a rectangular frame B is secured and adapted to project laterally from the pole in

both directions, the upper bar *a* of said frame constituting a support for a trolley-wheel C. The trolley-wheel C is mounted upon a sleeve or carrier *b*, and the latter is located loosely on the bar or support *a* of the rectangular frame B, so as to have a free sliding movement thereon. From this construction and arrangement of parts it will be seen that when the car is rounding a curve the trolley-wheel will be permitted to have free lateral movement, so as to readily accommodate itself to the curved trolley-wire and thus be prevented from accidental escape from the latter.

It may be found desirable to provide means whereby to normally retain the trolley-wheel centrally between the ends of the rectangular frame or support when it is running on a straight trolley wire or conductor, and for this purpose coiled springs *c c* may be employed, as shown in Fig. 1.

Instead of using the coiled springs *c* the bar or support *a* might be so bent as to be inclined in both directions from the center, as shown in Fig. 2, and thus cause the sleeve or carrier *b* to gravitate toward the center of said bar. When this form of the invention is employed, the bore of the sleeve or carrier *b* should be conical from its center to both ends, as shown in Fig. 3.

In the form of the invention shown in Fig. 4 the support is composed of a horizontal flanged rail *d*, having stops *e* at its ends, and the carrier for the trolley-wheel, instead of consisting of a sleeve, as above described, is made in the form of a carriage *f*, (similar to a cash-carrier carriage,) provided with a suitable bracket, in which the trolley-wheel is mounted.

In the form of the invention shown in Fig. 5 the form of carrier shown in Fig. 4 may be used, but a swinging bracket *g*, attached to the trolley-pole, is substituted for the elongated supports above described for the trolley-wheel.

In the form of the invention shown in Fig. 6 the elongated frame *h* employed is somewhat similar to the frame B, (shown in Fig. 1,) but instead of being secured to the trolley-pole its lower bar *i* is adapted to slide in a sleeve *j*, secured to the top of the trolley-pole, and the trolley-wheel *k* is mounted on

an arm *m*, projecting from the upper bar *n* of the frame. Thus, instead of permitting a lateral movement of the trolley-wheel on its support, as above described, the necessary lateral play is accomplished by permitting a movement of the trolley-wheel support.

In the form of invention shown in Fig. 7 an arm *o* is pivotally connected to the upper end of the trolley-pole, and to one end of said pivotal arm the elongated frame or support B is secured at a point centrally between its ends, or, if desired, the supports shown in Figs. 2 and 4 might be attached to the pivoted arm *o*. The free end of the pivoted arm *o* may be provided with a weight *p* and connected with the end of the car by a cord *q* for insuring the proper contact of the trolley-wheel with the trolley-wire.

Various slight changes might be made without departing from the spirit of my invention or limiting its scope, and hence I do not wish to limit myself to the precise details of construction herein set forth.

Having fully described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. The combination with a trolley-pole, of an elongated support attached to the upper

end thereof, a carrier adapted to travel on said support and a trolley-wheel mounted on said carrier, substantially as set forth.

2. The combination with a trolley-pole and an elongated support at the upper end thereof, of a carrier adapted to travel on said support, a trolley-wheel mounted on said carrier and means for normally maintaining said carrier and trolley-wheel in and automatically returning them to their position centrally between the ends of said elongated support, substantially as set forth.

3. The combination with a trolley-pole, of an elongated support attached to the upper end thereof, said support being inclined in both directions from the center, a carrier mounted to travel on the support, the opening through said carrier being enlarged at both ends and a trolley-wheel mounted on said carrier, substantially as set forth.

In testimony whereof I have signed this specification in the presence of two subscribing witnesses.

HENRY A. SEYMOUR.

Witnesses:

S. G. NOTTINGHAM,
R. S. FERGUSON.