

No. 786,219.

PATENTED MAR. 28, 1905.

S. KACSO.
TROLLEY.

APPLICATION FILED DEC. 9, 1904.

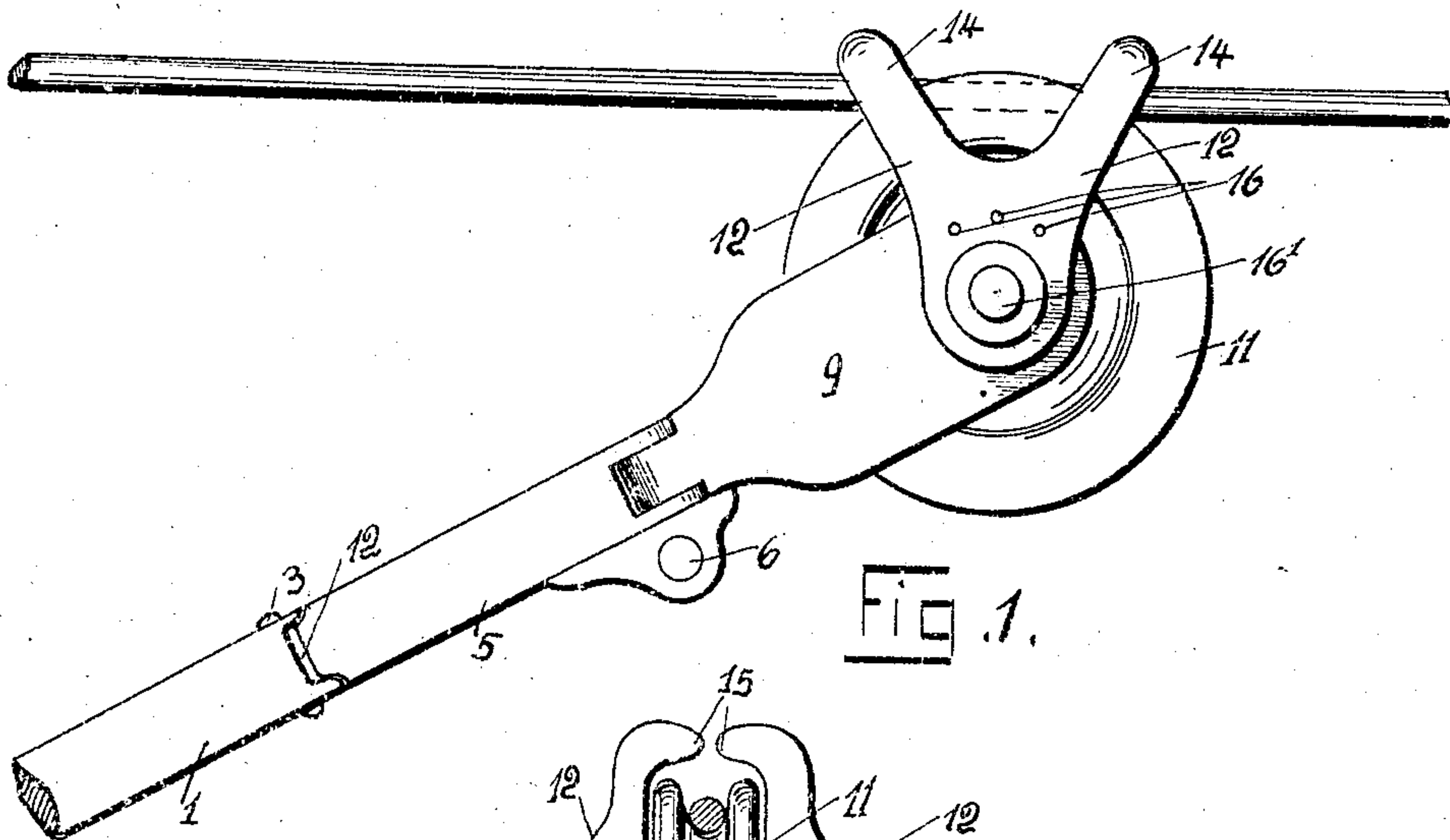


Fig. 1.

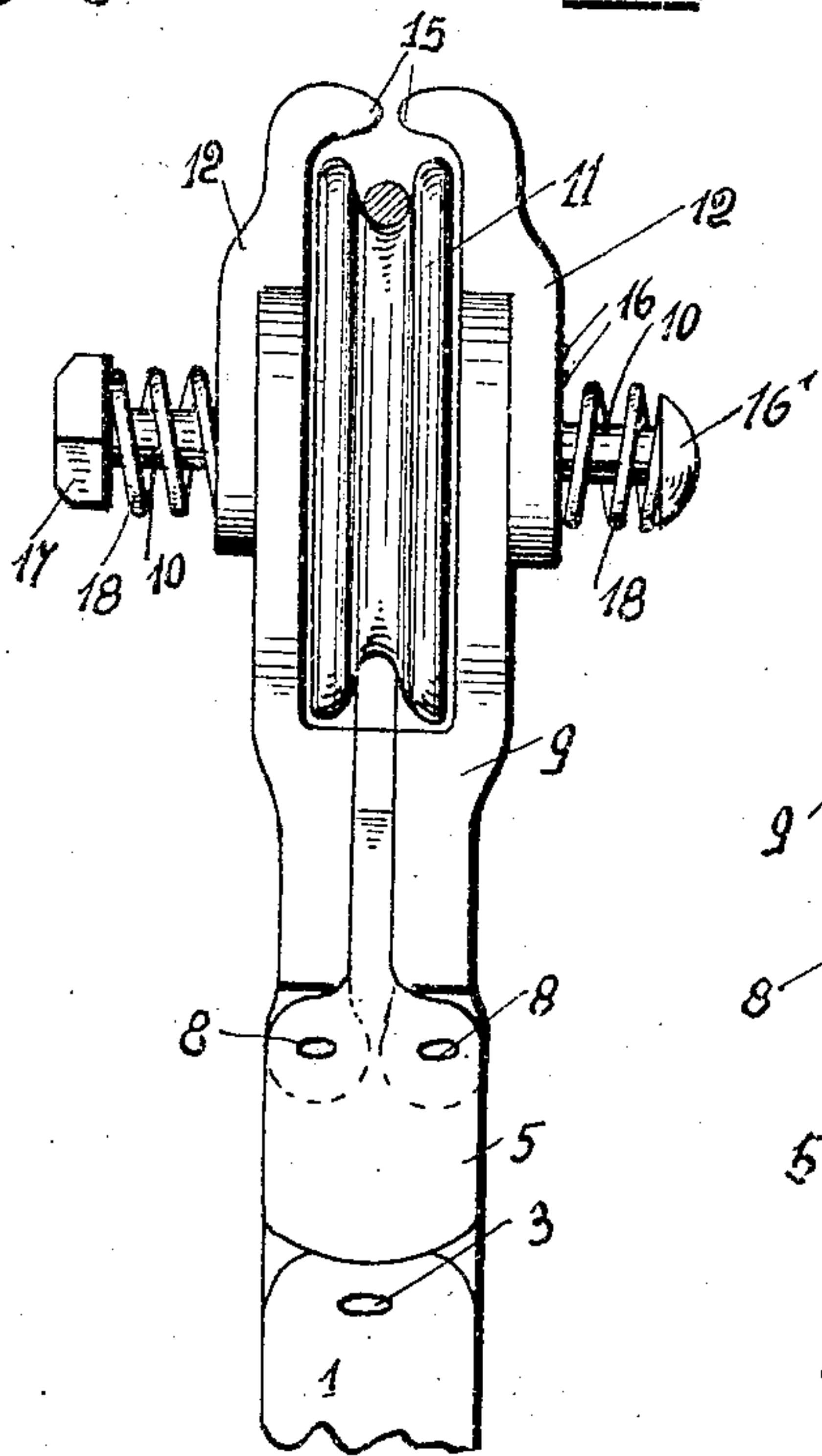


Fig. 2.

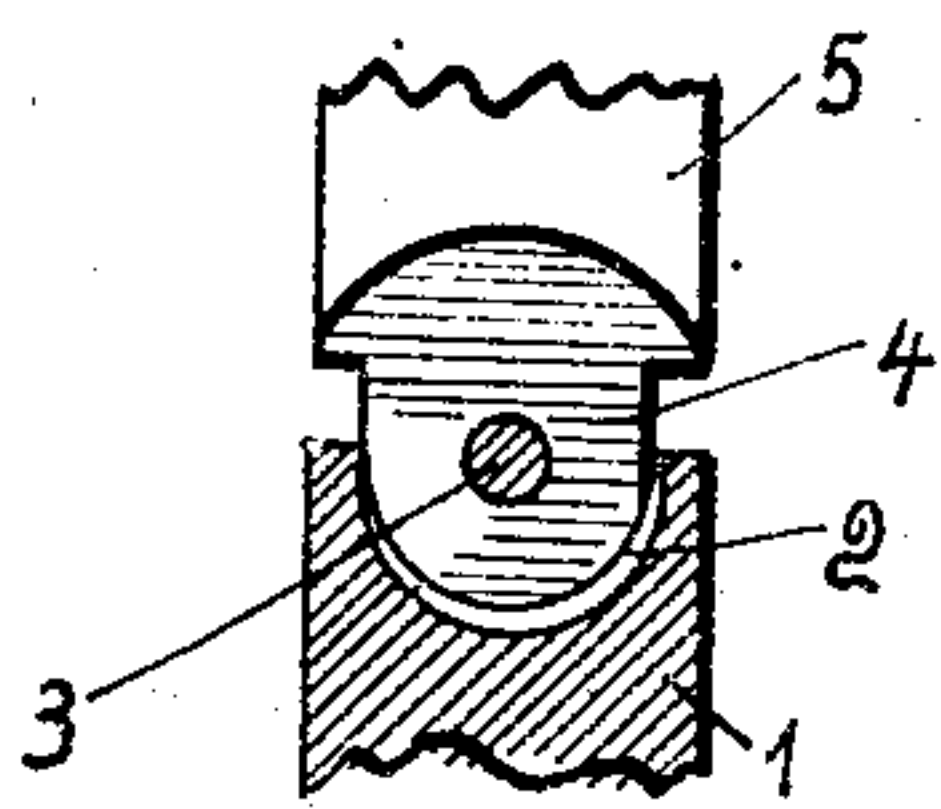


Fig. 3.

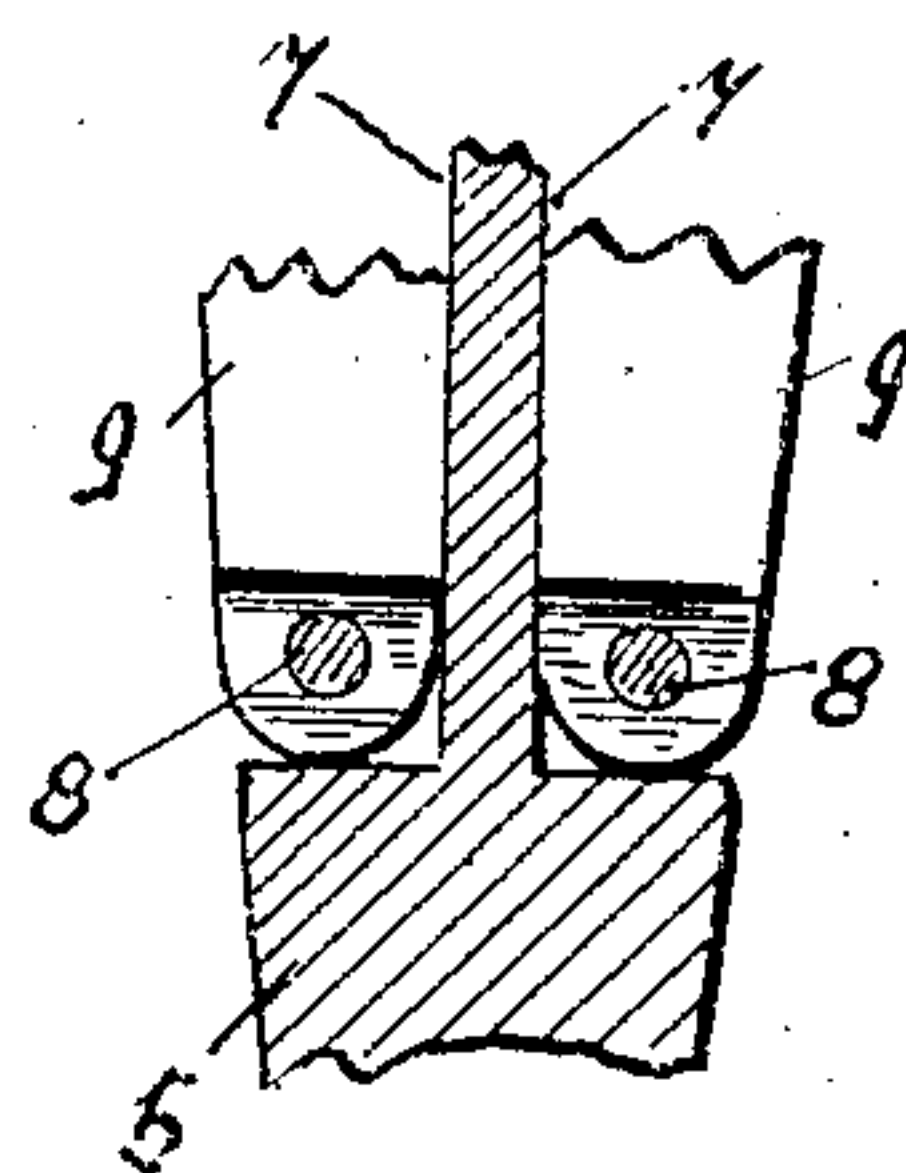


Fig. 4.

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UNITED STATES PATENT OFFICE.

SANDO KACSO, OF ALLEGHENY, PENNSYLVANIA, ASSIGNOR OF ONE-HALF
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TROLLEY.

SPECIFICATION forming part of Letters Patent No. 786,219, dated March 28, 1905.

Application filed December 9, 1904. Serial No. 236,212.

To all whom it may concern:

Be it known that I, SANDO KACSO, a subject of the King of Austria-Hungary, residing at Allegheny, 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 drawings.

This invention relates to certain new and useful improvements in trolleys, and has for its object the provision of novel means whereby the trolley harp and wheel will be permitted to adjust itself to a trolley-wire when the vehicle carrying said trolley is passing around a curve or under a bridge.

Another object of this invention is to provide novel means in connection with the harp of a trolley whereby the trolley-wheel will be retained in engagement with the trolley-wire and prevented from leaving the same when obstructions—such as the overhead work, guide-wires, and the like—are being passed, and in constructing my improved trolley I have embodied novel features of construction whereby the trolley will be comparatively inexpensive to manufacture, strong and durable, and will withstand the rough usage to which devices of this character are generally subjected.

With the above and other objects in view reference will be had to the accompanying drawings, wherein like numerals of reference designate corresponding parts throughout the several views, in which—

Figure 1 is a side elevation of my improved trolley. Fig. 2 is an edge view of the same, and Figs. 3 and 4 are detail views of the pivotal connections employed in connection with my improved trolley.

To put my invention into practice, my improvement is adapted to be constructed in connection with the ordinary trolley-pole commonly used.

The trolley-pole, as designated by the reference-numeral 1, is provided in its upper end with a recessed concavity 2, in which is pivotally mounted by a pin 3 the contracted end 4 of an extension 5. The extension upon its

under face is provided with a depending pierced lug 6, to which the trolley-rope is adapted to be secured. The extension upon its upper end is cut away upon its sides, as indicated at 7 7, and pivotally mounted by a pin 8. At each side of the extension is an upwardly-extending arm 9, these arms comprising the harp of my improved trolley. In the arms 9 9 is secured a pin 10, upon which is rotatably mounted a trolley-wheel 11, this wheel being of the ordinary and well-known type. To the upper end of each arm is secured a substantially V-shaped member 12 12, this member being mounted upon the pin 10 and having its upwardly-extending prongs 14 14 bent inwardly over the trolley-wire, as indicated at 15. The members 12 12 are further secured to the arms 9 by rivets 16, whereby they will be prevented from rotating upon the pin 10. The pin 10 is provided with a head 16', and the opposite end of the pin is provided with threads, whereby a nut 17 may be secured upon the end of the pin. Interposed between the members 12 and the ends of the pin are the spiral springs 18 18, which normally hold the arms 9 9 in engagement with the trolley-wheel and prevent the same from spreading, whereby the trolley-wheel could become separated from the trolley-wire.

The pin 10, it is to be understood, passes through the members 12 12 and through the arms 9 9 somewhat loosely, so that the arms 9 9 may be swung apart to a limited extent, such movement, however, being opposed by the springs 18 18 and the arms 9 9 after having been sprung apart as described, being restored to their original position by the resiliency of said springs 18 18.

By employing the pivotal connections between the pole 1, the extension 5, and the arms 9 of the harp I have provided means whereby the trolley-wheel may adjust itself to the movement of the vehicle or car in respect to the trolley-wire, and the trolley will be at all times retained in close proximity to the wire by the overhanging or inwardly-extending prongs 14 14 of each member. The trolley-wheel may be easily and quickly removed from the wire by the downward pull

upon the trolley-rope, (not shown,) and may again be placed thereon by permitting the trolley-pole to travel until the wire engages the inwardly-extending prongs and separates the same, whereby the trolley-wire can be placed in engagement with the wheel, the separation of the prongs 14 14 being in either event effected by the pressure of the trolley-wire upon the beveled points of the prongs.

10 While I have herein shown the preferred manner of constructing my improved trolley, it is obvious that the same is susceptible to various changes, and that these changes may be made without departing from the general spirit and scope of the invention.

15 What I claim, and desire to secure by Letters Patent, is—

1. The combination with a trolley-pole, and wire, of an extension pivotally connected to said pole, arms pivotally mounted upon said extension, a trolley-wheel journaled between said arms and adapted to engage said wire, a

member carried by each arm, each member consisting of inwardly - extending prongs adapted to overlie said trolley-wire, and means 25 carried by said arms to hold said members in close proximity to one another, substantially as described.

2. The combination with a trolley-pole and a trolley-wire, of an extension pivotally connected to said trolley-pole, arms pivotally connected to said extension, a pin mounted in said arms, a trolley-wheel journaled upon said pin, members carried by said arms and adapted to overlie said trolley-wire, and means carried 35 by said pin to normally hold said members in close proximity to one another, substantially as described.

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

SANDO KACSO.

Witnesses:

H. C. EVERT,
E. E. POTTER.