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E. J. PARKER & L. N. COLWELL.

TROLLEY HEAD.

APPLICATION FILED APR. 27, 1904.

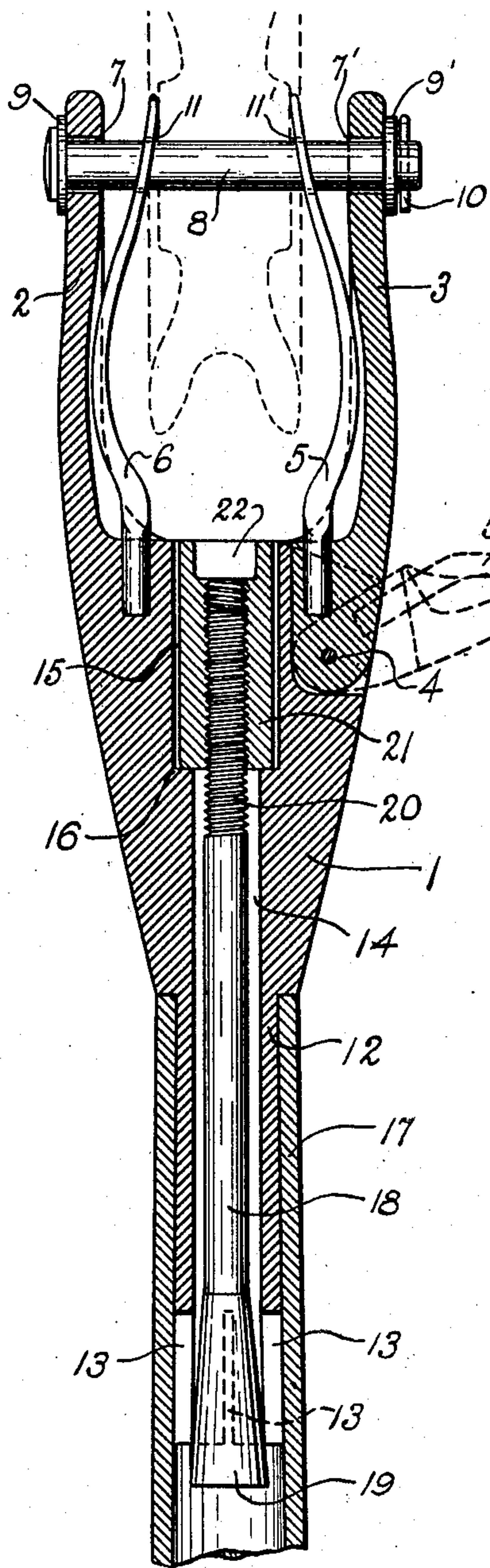


Fig. 2

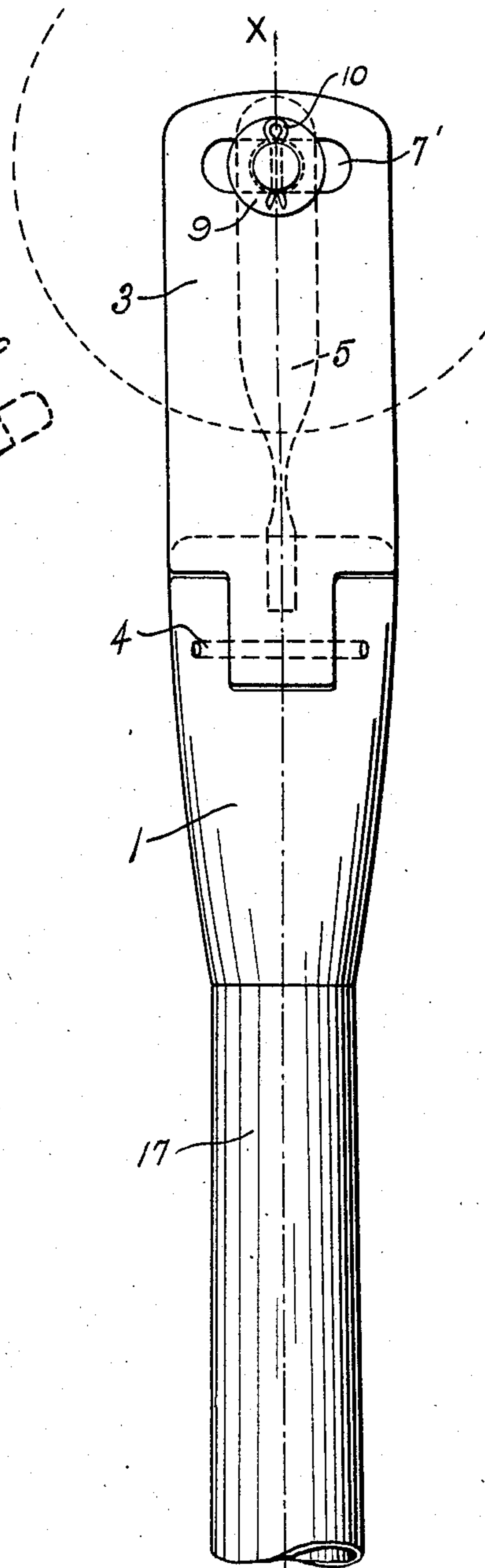


Fig. 1

WITNESSES

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EUGENE J. PARKER AND LOUIS N. COLWELL, OF PROVIDENCE, RHODE ISLAND.

TROLLEY-HEAD.

SPECIFICATION forming part of Letters Patent No. 785,372, dated March 21, 1905.

Application filed April 27, 1904. Serial No. 205,180.

To all whom it may concern:

Be it known that we, EUGENE J. PARKER and LOUIS N. COLWELL, citizens of the United States, residing at Providence, in the county of Providence and State of Rhode Island, have invented a certain new and useful Improvement in Trolley-Heads, of which the following is a specification, reference being had therein to the accompanying drawings.

Our invention relates to trolley heads or casings for trolley-wheels and commonly known as "trolley-harps," and has for its purpose improved facilities for substituting new for old wheels, means for permitting a variation of the plane of the wheel during the passage of curves, and an improved means of uniting the end of the harp and trolley-pole.

To the above ends our invention consists in the novel structure and combination of parts hereinafter described, and illustrated in the accompanying drawings, wherein—

Figure 1 is a side elevation of the new trolley-head, showing in broken lines a contact-spring and trolley-wheel; and Fig. 2, a transverse section of the same on line *x x* of Fig. 1, indicating by dotted lines one of the side walls in open position.

Like reference-numerals indicate like parts throughout the views.

The body 1 of the trolley-head carries the side members 2 3. One of the sides, 3, is pivoted at its lower extremity by the pintle 4 and carries a contact-spring 5. Mounted in the body opposite the latter is the second contact-spring 6. The side members are provided with oblong horizontal openings 7 7', in which are loosely carried the ends of the spindle 8. The spindle carries upon both ends washers 9 9' and upon one end a cotter-pin 10. Openings 11 11' in the springs 6 and 5, respectively, allow passage for the spindle therethrough. The removal of the cotter-pin and contiguous washer releases the hinged member 3, permitting the latter with its contact-spring to swing free of the spindle and permit the exchange of the trolley-wheel mounted thereon. The body terminates in a shank 12, having longitudinal slits 13 in its lower portion. Both the

body and shank is traversed by a cylindrical opening 14, whose upper diameter is enlarged at 15 to form an internal annular shoulder 16.

The trolley-pole 17 embraces the tubular shank 12 and is held in engagement with the latter by the following mechanism: A shaft 18, vertically mounted in the head, has a conical-shaped lower extremity 19, projecting slightly below the end of the shank 12 and having a maximum diameter in excess of the interior diameter of the shank. The upper portion of the shaft is threaded at 20 and has mounted thereon a nut 21, revoluble in the opening 15 and resting upon the shoulder 16. The upper portion of the nut is provided with a socket 22 to allow ingress of a socket-wrench to operate the nut when desired. It is obvious that as the nut 21 is turned the shaft 18 rises, simultaneously forcing by the tapered extremity 19 the slitted portion of the shank 12 outwardly into frictional contact with the inner surface of the trolley-pole 17.

Having described our invention, what we claim is—

1. In a trolley-head, the combination with the body of a trolley-arm mounted upon the body, and expanding means carried by the body for frictionally engaging the body and pole.

2. In a trolley-head, the combination with the body provided with a split shank of a trolley-pole embracing said shank; and means within the body for expanding the split shank into engagement with the trolley-pole.

3. In a trolley-head, the combination with the body provided with a tubular split shank of a trolley-pole embracing said shank, a shaft provided with an inclined extremity traversing the shank, and means in the head and engaging the shaft for elevating the shaft and expanding the shank.

In testimony whereof we have affixed our signatures in presence of two witnesses.

EUGENE J. PARKER.
LOUIS N. COLWELL.

Witnesses:

HORATIO E. BELLows,
HENRY C. GAGNER.