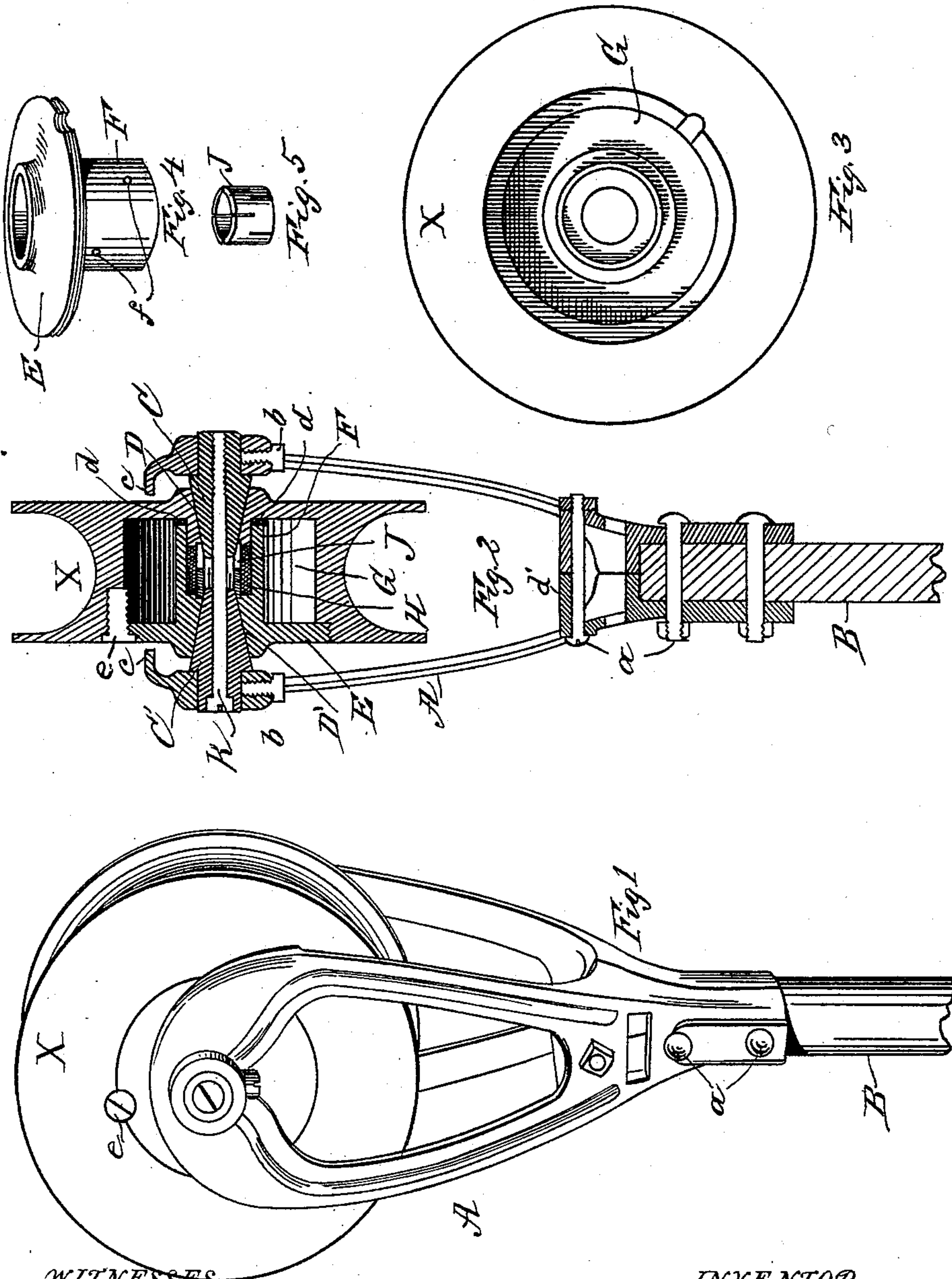


(No Model.)

J. D. SWACICK.  
TROLLEY.

No. 538,295.

Patented Apr. 30, 1895.



WITNESSES  
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# UNITED STATES PATENT OFFICE.

JUDSON D. SWACICK, OF CANTON, OHIO.

## TROLLEY.

SPECIFICATION forming part of Letters Patent No. 538,295, dated April 30, 1895.

Application filed October 29, 1894. Serial No. 527,227. (No model.)

*To all whom it may concern:*

Be it known that I, JUDSON D. SWACICK, a citizen of the United States, and a resident of Canton, county of Stark, State of Ohio, have  
5 invented a new and useful Improvement in Trolleys, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, making part of this specification.

10 My invention relates to improvements in trolleys for electric railway cars.

The object of the invention is to provide adjustable journal bearings, and means for oiling the bearings.

15 With these objects in view, my invention consists of certain features of construction and combination of parts as will be hereinafter described and claimed.

Figure 1, of the drawings is a perspective  
20 of my invention. Fig. 2, is a transverse section through the wheel and frame. Fig. 3, is a plan view of the wheel, showing the central recess. Fig. 4, is a perspective of the cap for the recess or side of the wheel, with one side  
25 of the bearing. Fig. 5, is a similar view of a small thimble or cylinder, adapted to receive the points of the spindles.

A represents the frame or trolley wheel support, formed in two parts, which are secured  
30 together, and to the trolley pole B by the bolts *a*. At the upper end portion of the frame, are provided conical spindles C, C', secured in the frame by the set screws *b*. The top portion of the frame is circular in outline,  
35 and flanged in toward the wheel as shown at *c*, for the purpose of preventing the trolley wire getting between the wheel and the frame, and at the lower end portion of the frame, inwardly projected studs *d'* are provided, that  
40 determine the distance between the two sides, and a support against which the bolt may be drawn, to secure the parts in desired relation.

In the trolley wheel X is provided a conical socket D, adapted to receive the conical spin-  
45 dle C, and in the removable side E, of the wheel is provided a similar conical socket D' for a similar conical spindle C'. On the inside face of the removable side E, is provided a cylinder portion F, integral with the side,  
50 that rests on a packing ring *d*, when the cap or side is placed in position as shown in Fig.

2. For the purposes of this application, I have formed a screw thread about the edge of the removable side E, and in the edge of the recess in the side of the wheel X, and se-  
55 cured by the set screw *e*, thus forming an oil chamber G, about the cylinder F, which is provided with apertures *f*, to allow oil to pass from the outer chamber G, to an inner cham-  
60 ber H.

The small cylinder or thimble J, is placed in position shown in Fig. 2, before the side piece E is placed in operative position. The end portions of the spindles C and C', pass into the  
65 ends of cylinder J, which is provided with slots *h*, that admit oil to the spindles. The chamber H should be packed with mineral wool, to prevent too free a flow of oil, to the spindle.

The spindles C and C', are adjusted in the  
70 conical sockets or journal boxes D and D', by the through bolt K as shown in Fig. 2, the thread being turned into a threaded portion, provided in spindle C. To supply the wheel  
75 with oil, the screw *e* is removed, and the recess G filled and the screw returned to secure the side E in position.

Having thus fully described the nature and object of my invention, what I claim is—

1. The combination in a trolley of the sup-  
80 porting frame A, having inwardly directed conical spindles, the wheel X, having a removable side, cylinder F, conical sockets or bearings adapted to receive the spindles, the oil chamber G, and means for adjusting the  
85 spindles in the sockets, substantially as described and for the purpose set forth.

2. The combination in a trolley, of a sup-  
90 porting frame, spindles secured thereto, a wheel composed of two parts, one part being provided with an oil chamber and with a screw thread edge and the other part having a thread edge to take the threaded edge of the chambered part, and a set screw subserv-  
95 ing the double purpose of preventing the two parts of the wheel unscrewing, and to afford means for allowing a lubricant to be intro-  
duced into the chamber, substantially as de-  
scribed.

3. The combination in a trolley, of the sup-  
100 porting frame, having secured thereto, inwardly directed conical or tapering spindles,

a wheel as X, having in the sides thereof, tapered sockets or bearings, an oil reservoir G, an inside oil chamber H, and means for securing the spindles and bearings in desired  
5 adjustment, substantially as described and for the purpose set forth.

4. The combination in a trolley of the supporting frame, having secured thereto inwardly directed conical or tapering spindles,  
10 a wheel having in the sides thereof, and central thereto, conical sockets, adapted to receive the conical spindles, a removable side and bearing, an apertured inwardly projected cylinder F, oil reservoir G, oil chamber H,  
15 apertured sleeve J; adapted to receive the end portions of the spindles C and C', means for securing the removable side E, to the side of

the wheel, and a means for adjusting the spindles to the bearings in the wheel.

5. The combination in a trolley of the frame 20 having bearings at its upper end, tapering hollow spindles seated therein, set screw for holding the spindles in said bearings, a wheel having tapering bearings to receive the tapering spindles, and a through bolt passing 25 through said spindles whereby they may be adjusted in the wheel bearings, substantially as described.

In testimony whereof I have hereunto set my hand this 12th day of October, A. D. 1894. 30

JUDSON D. SWACICK.

Witnesses:

W. K. MILLER,

CHAS. R. MILLER.