

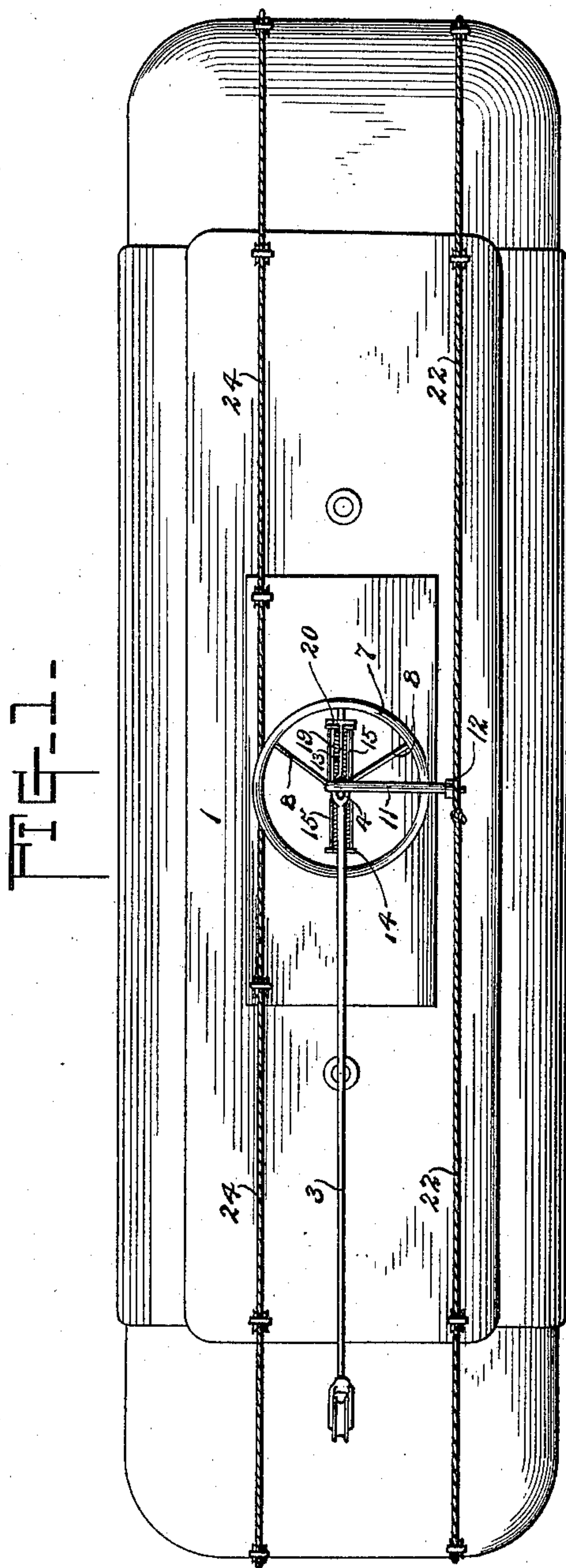
(No Model.)

2 Sheets—Sheet 1.

J. T. HIMMEGER.
ELECTRIC STREET CAR TROLLEY.

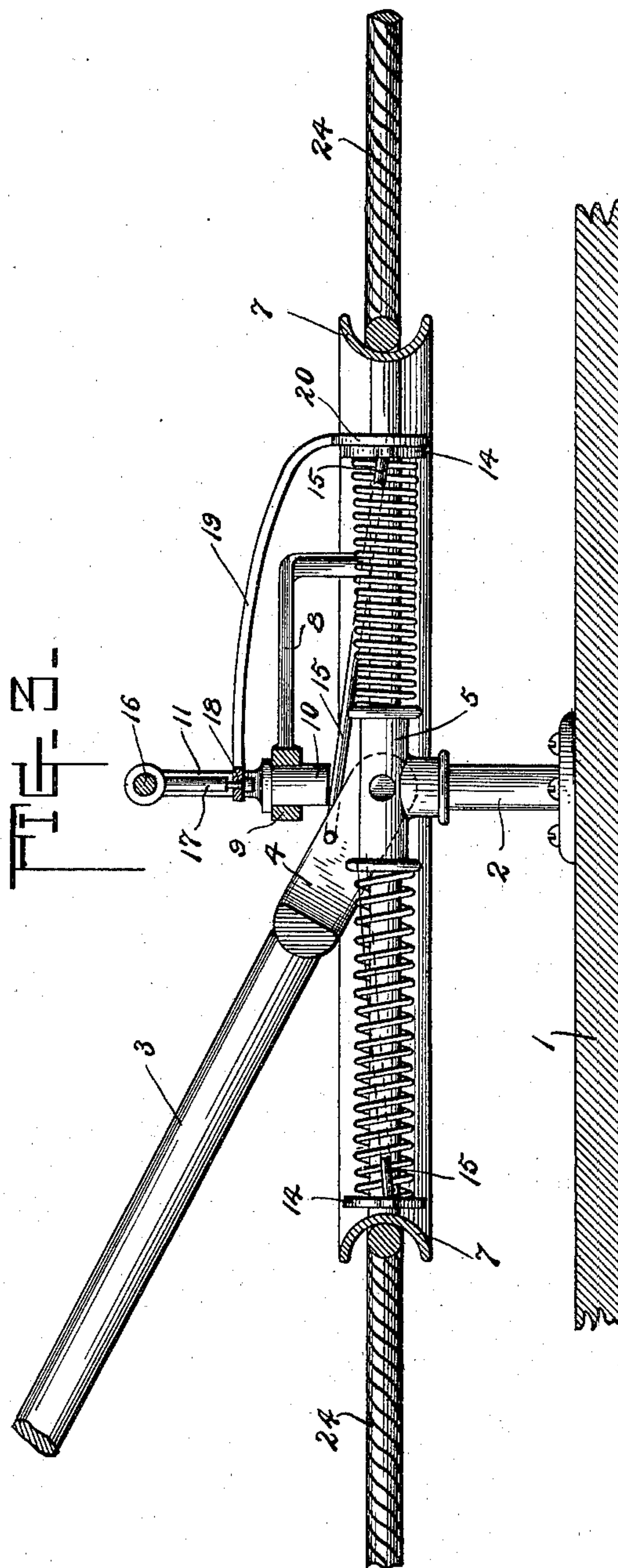
No. 598,661.

Patented Feb. 8, 1898.



WITNESSES

A. M. Lynton.
J. E. Tappan



INVENTOR

Joseph T. Himmeger.
by John Wedderburn
Attorney

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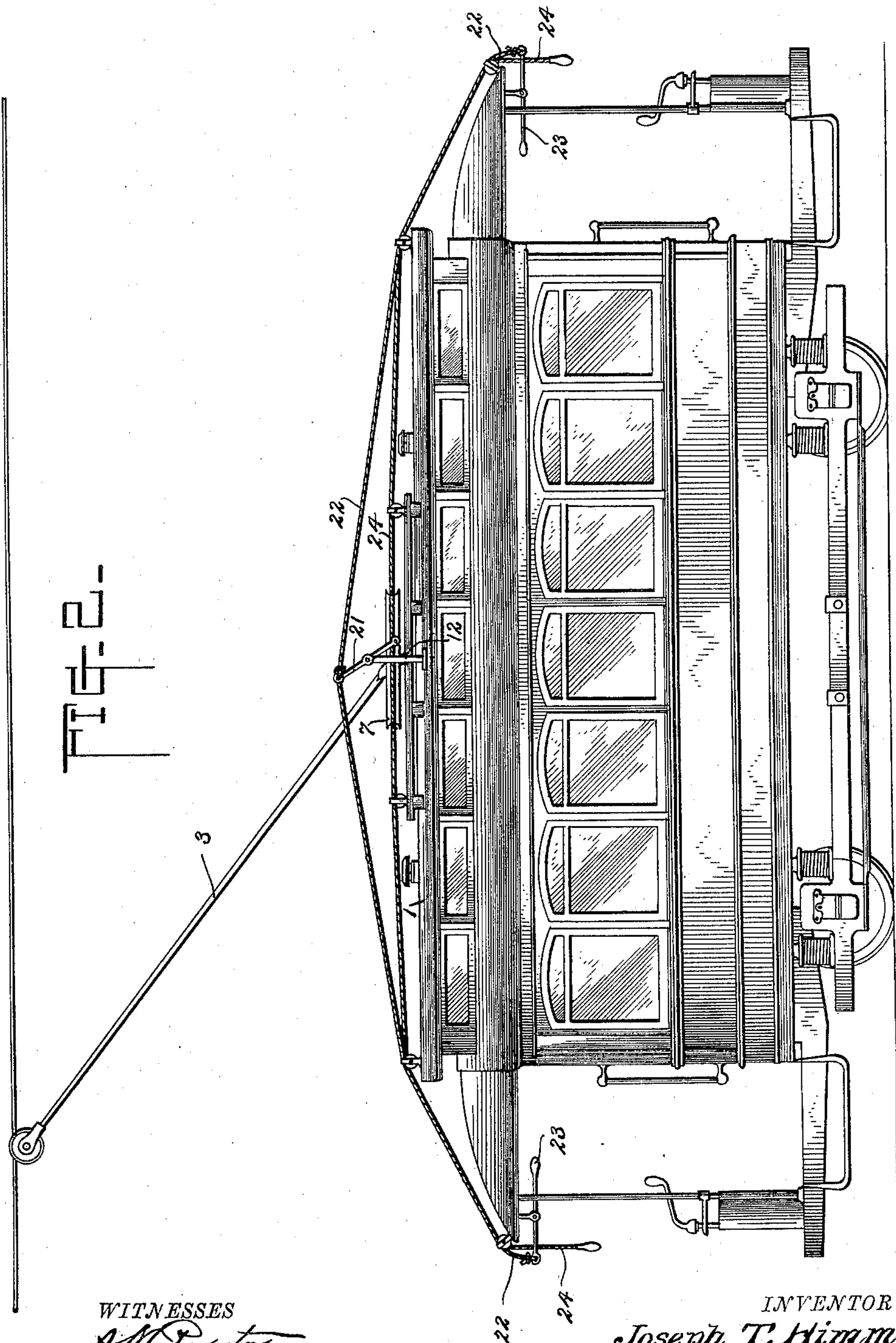


Fig. 2-

WITNESSES

A. M. Poynter
J. E. Tappan

INVENTOR

Joseph T. Himmegeer
by John Wedderburn
Attorney

UNITED STATES PATENT OFFICE.

JOSEPH T. HIMMEGER, OF LA RUE, OHIO.

ELECTRIC STREET-CAR TROLLEY.

SPECIFICATION forming part of Letters Patent No. 598,661, dated February 8, 1898.

Application filed October 20, 1896. Serial No. 609,445. (No model.)

To all whom it may concern:

Be it known that I, JOSEPH T. HIMMEGER, a citizen of the United States, residing at La Rue, in the county of Marion and State of Ohio, have invented certain new and useful Improvements in Electric Street-Car Trolleys; 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.

This invention has reference to a novel construction in devices for shifting the trolley-pole of electric cars, and has for its object to provide means whereby said pole can be shifted by the motorman without leaving the platform of the car.

The invention consists in the features of construction hereinafter specifically claimed. In the accompanying drawings, forming a part of this specification, Figure 1 is a top plan of a car provided with my invention. Fig. 2 is a side elevation with the pole-shifting devices illustrated in vertical section. Fig. 3 is a vertical section of the pole-shifting devices in detail, showing the parts in the position they will assume when the pole is being shifted.

Referring now to said drawings, 1 indicates the roof of a car provided with a center post 2. The trolley-pole 3 has a bifurcated lower end 4, that is pivoted to a hub 5, rotatably mounted upon the post 2, the pivots between the bifurcated end 4 and hub 5 being situated over the axial center of said post. Extending from the said hub 5 are two arms 6, connected at their outer ends with a pulley 7. The said pulley 7 is further provided with a plurality of spokes 8, provided at their inner ends with a boss 9, concentric with the hub 5 and post 2 and which receives the trunnion 10, depending from the inner end of the bracket 11. The outer end of this bracket is rigidly secured to the standard 12 outside of the pulley 7. It will be seen from the foregoing description that the pulley is securely held to rotate upon the trunnion and post 2. Mounted upon the arms are the springs 13, whose inner ends engage the hub 5 and whose outer ends bear against collars 14 upon said arms. The said collars 14 are connected by

means of links 15 with the bifurcated end portion 4 of the trolley-pole. The parts are so arranged that when said trolley-pole engages the boss 9 it stands in an inclined position, as shown in Fig. 2, the spring serving to hold the same yieldingly in this inclined position. Mounted upon the bracket 11 is a shaft 16, having at its inner end a crank-arm 17, situated over the center of the axis of the pole. The lower end of this crank-arm 17 is situated and secured within an opening 18 in the end of the bar 19 in such a manner that it has a swivel as well as a slightly-swinging connection therewith. The outer end of this bar 19 is provided with a plate 20, that is situated beyond one of the collars engaging the end of the spring on the arm 6. This arm extends on the side of the pole opposite to that on which the trolley-pole inclines, and the outer end of the shaft 16 is provided with an arm 21, to which are connected the cables 22, extending to the ends of the car and connected with the operating-levers 23. Connected with and trained around the pulley 7 are two cables 24, that extend to opposite ends of the car, being retained by suitable guides and pulleys. It will be seen that by pulling on these cables 24 the pulley is turned in opposite directions.

This device is operated in the following manner: As shown in Figs. 1 and 2, the trolley is in operative position, with the car traveling toward the right. When it is desired to travel in an opposite direction, the motorman, by pulling on one of the cables 22, throws the arm 21 to an upright position, thereby bringing the crank-arm of the shaft 17 longitudinally in alinement with the axis of the pulley. This has the effect of contracting the spring controlled by the bar 19, which allows the other spring to expand and consequently to throw the outer end of the trolley-pole downwardly, as will be obvious. The parts are held in this position by the levers 23, and then by pulling on one of the cables 24 the pulley and trolley-pole can be swung to the extent of a half-circle to bring the trolley-pole into the other position, and by releasing the cables 22 the springs will elevate the pole, as shown.

Having now described my invention, what

I claim as new, and desire to secure by Letters Patent, is—

1. In a device of the kind specified, an upright post, a rotatable pulley mounted thereon, a trolley-pole carried by said pulley, a hollow boss carried by said pulley and concentric therewith, a bracket provided with a downwardly-extending trunnion on its inner end that is situated within said hollow boss, and means for rotating said pulley and for depressing said trolley-pole.

2. In a device of the kind specified, a rotatable pulley having radial arms 6, a pivoted trolley-pole pivoted to said arms, springs upon said arms 6 connected with and acting upon said trolley-pole, and devices for retracting one of said springs, substantially as described.

3. In a device of the kind specified, a rotatable support for a trolley-pole, a trolley-pole hinged thereto, springs connected with and controlling the elevation and depression of said trolley-pole, a shaft situated over said trolley-pole support and provided with a crank-arm situated over the center of said support, a connection between said crank-arm and one of said springs for contracting said

springs, and devices for turning said shaft, substantially as described.

4. In a device of the kind specified, an upright post, a hub rotatably mounted thereon and arms upon said hub, a pulley carried by said arms, cables connected with said pulley for rotating the same, a trolley-pole pivoted to said hub, springs situated upon said arms and having their outer ends connected by means of links with said trolley-pole, a rotatable shaft having a crank-arm situated over the axis of said pulley and having swivel and swinging connection with the bar connected with the outer end of one of said springs, spokes 8 having a hollow boss concentric with said pulley, a bracket upon which said shaft is supported having a trunnion situated within said boss, and cables for turning said shaft, substantially as described.

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

JOSEPH T. HIMMEGER.

Witnesses:

M. H. BAIN,
S. W. CLARK.