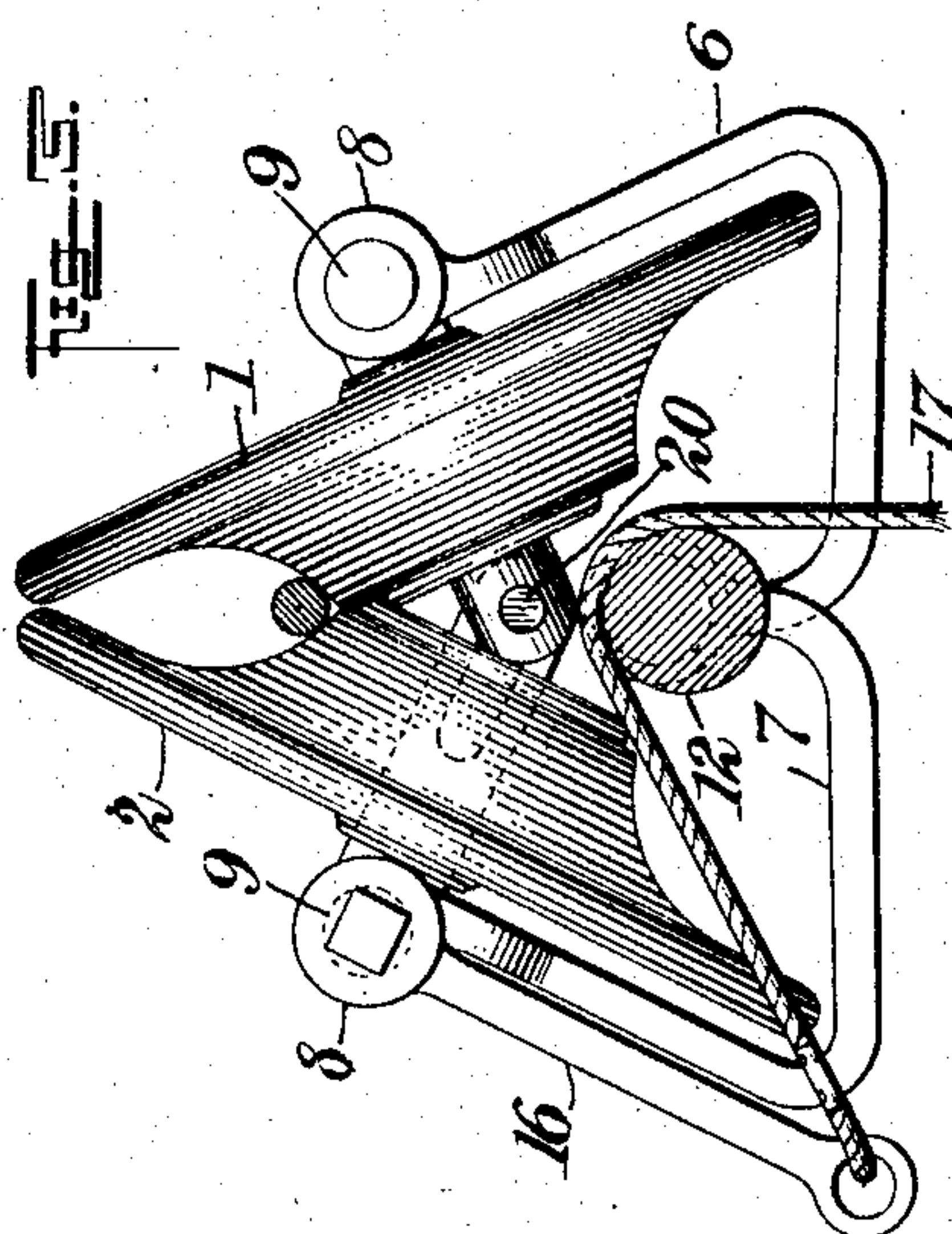
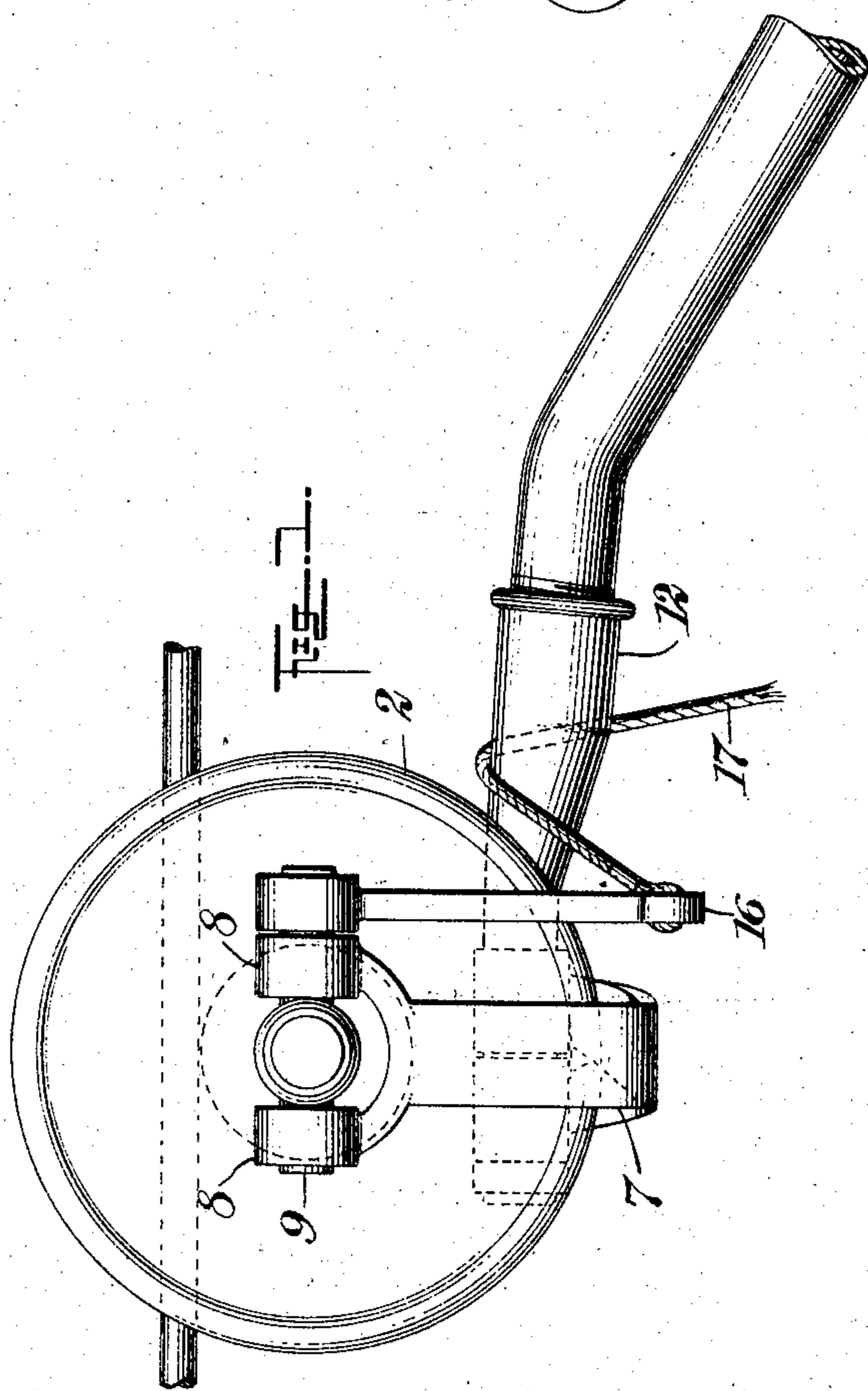
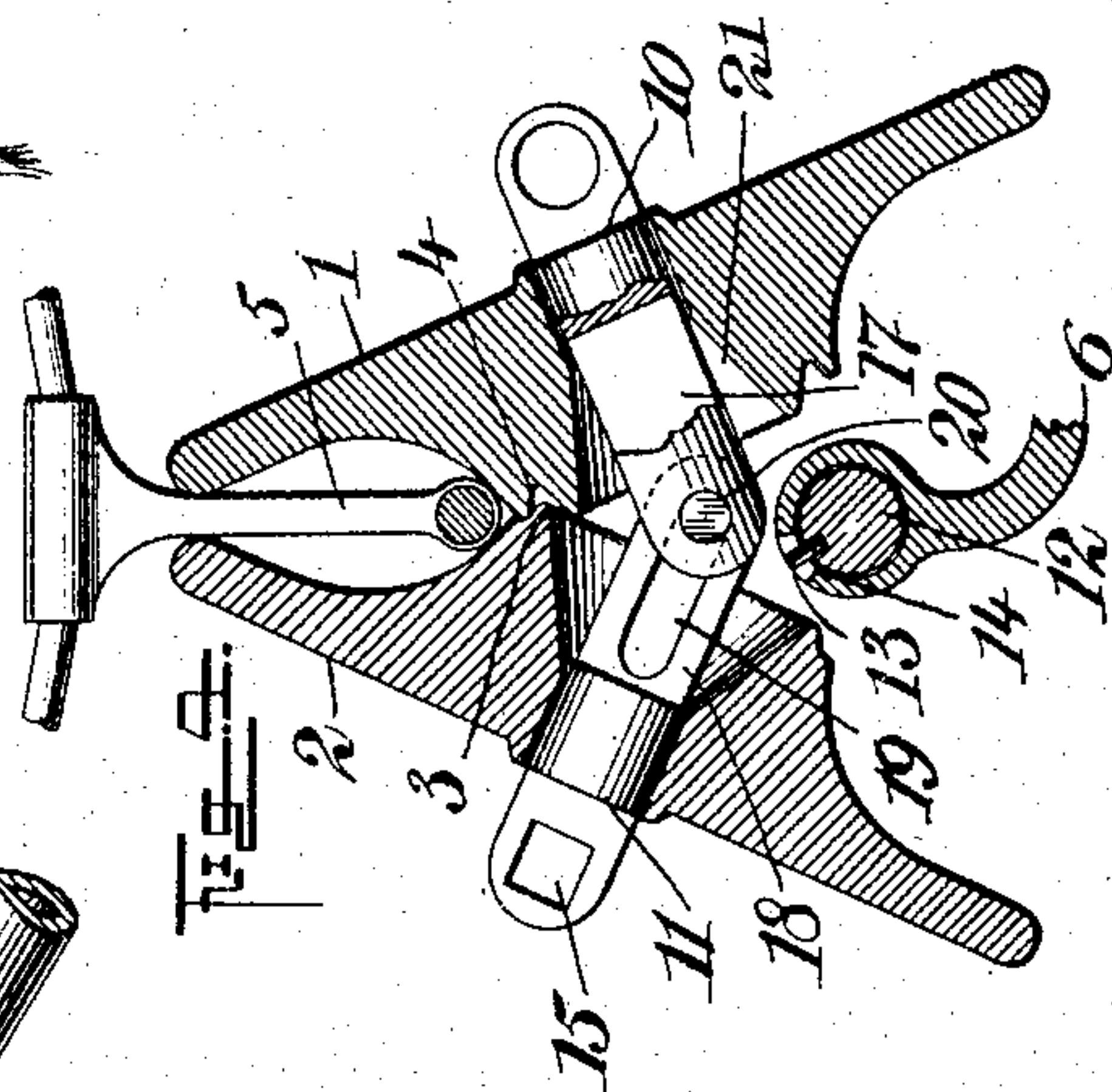
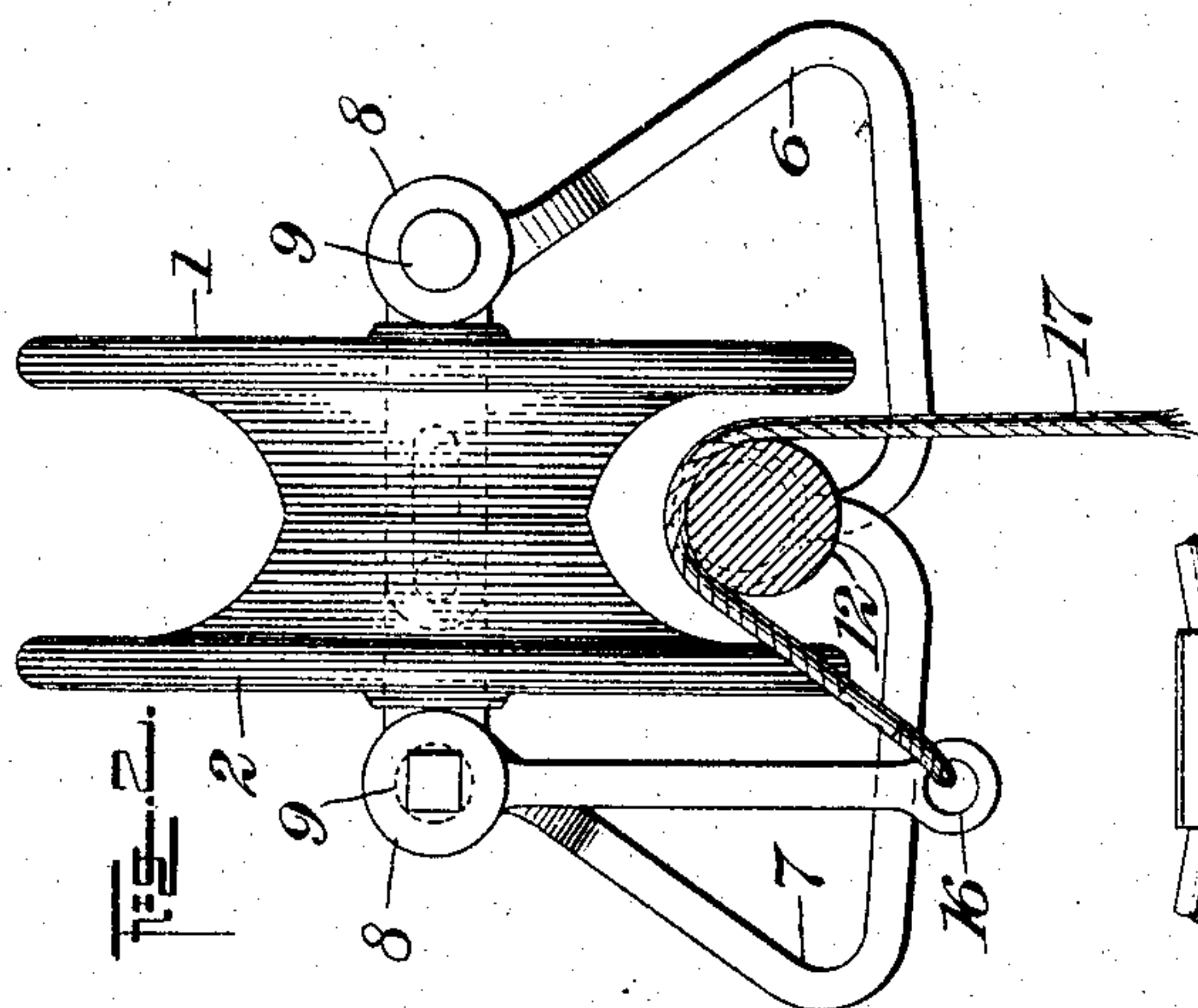


No. 780,388.

PATENTED JAN. 17, 1905.

G. H. TUTTLE.
TROLLEY.

APPLICATION FILED OCT. 26, 1904.



WITNESSES:

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UNITED STATES PATENT OFFICE.

GUTIE H. TUTTLE, OF SHORTER, ALABAMA.

TROLLEY.

SPECIFICATION forming part of Letters Patent No. 780,388, dated January 17, 1905.

Application filed October 26, 1904. Serial No. 230,042.

To all whom it may concern:

Be it known that I, GUTIE H. TUTTLE, a citizen of the United States, and a resident of Shorter, in the county of Macon and State of Alabama, have invented a new and Improved Trolley, of which the following is a full, clear, and exact description.

This invention relates to improvements in trolleys for engaging with overhead wires of electrically-operated railway-cars, the object being to provide a trolley of simple and novel construction that may be readily engaged with a trolley-wire or removed therefrom and that when in connection with a wire will be secured from accidental displacement.

I will describe a trolley embodying my invention and then point out the novel features in the appended claims.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the figures.

Figure 1 is a side elevation of a trolley embodying my invention. Fig. 2 is a front view thereof, showing the position of parts when engaging the trolley with a wire or detaching it. Fig. 3 is a front view indicating the position of parts when engaged with a wire, and Fig. 4 is a sectional view of the trolley.

The trolley consists of two sections 1 2, which are divided transversely of the trolley-axis, so that the said sections may be swung into parallelism, as indicated in Fig. 2, or when engaged with a wire to swing at an acute angle with relation to each other, as indicated in Figs. 3 and 4. The outer sides of the sections are flanged, as indicated, and the hub of one section is provided with an annular bead 3 for interlocking or engaging in an annular channel 4, formed in the hub of the other section. By this arrangement when the trolley is engaged with a wire the sections will meet at the upper sides of the hub-sections, and their flanges will also meet, as indicated in Fig. 3. The flanges will be permitted to separate, however, when reaching a hanger 5, as indicated in Fig. 4.

The support or harp for the trolley consists of two members 6 7, having outwardly-

disposed lower portions and upwardly and inwardly inclined outer portions, the upper ends of said outer portions being provided with perforated lugs 8, through which pins 9 pass, the said pins also passing through openings in shaft members 10 11. The harp members are mounted to swing on the trolley-pole 12, and they are limited in their swinging movement by means of pins 13, extended from the pole through slots 14 in the collars of said harp members. The reduced outer end of the shaft-section 11 has an angular opening 15, and the pins 9 engaging therein are correspondingly shaped, and attached rigidly to the outer ends of these pins is a downwardly-extended lever 16, to which the trolley-cord 17 is connected, the said trolley-cord, as indicated in the drawings, being extended over the top of the trolley-pole and down at the side opposite the lever 16.

The shaft-sections 10 11 not only have swinging connection one with the other, but they have longitudinal sliding connection with each other. The section 10 at its inner portion is bifurcated or provided with a slot 17, in which the reduced inner end 18 of the section 11 may slide, and this reduced end 18 is provided with a longitudinal slot 19 to receive a pin 20, attached to the inner end of the shaft-section 10. To permit of the free movements of the shaft-sections, the openings through the trolley members at the inner end are tapered or made funnel-shaped, as indicated at 21.

In the operation when it is desired to engage the trolley with the trolley-wire a downward pull on the cord 17 will cause a rocking of the harp-sections and spread the trolley members into parallelism, as indicated in Fig. 2. Then when engaged with the wire and upon releasing the cord the pressure of the trolley members against the wire caused by the usual spring connection between the trolley-pole and the car-roof will cause the trolley members to swing into oblique relation to each other, as indicated in Fig. 3.

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

1. A trolley comprising two sections separated transversely of the axis, and a support

for the sections whereby the sections may move into parallelism and also into oblique relation with each other.

2. A trolley comprising two sections separated transversely of the axis, a shaft on which the sections are mounted, the said shaft consisting of two members mounted to swing and having sliding relation one upon the other, and a supporting-harp for the shaft.

3. A trolley comprising two sections separated transversely of the axis, a harp consisting of two swinging sections, a shaft having its ends connected to said harp-sections, the said shaft consisting of two members having swinging connection and also sliding connection, and a lever having connection with one of the shaft-sections.

4. A trolley comprising two sections separated transversely of the axis, one of said sections having an annular rib on its hub portion, and the other of said sections having an annular channel to receive said rib, a harp, and a shaft connected to said harp and extended through the trolley-sections, the said shaft consisting of two members having swinging and sliding connection with each other, and a lever connected to one of the shaft members.

5. A trolley comprising two sections separated transversely of the axis, a trolley-pole, a harp consisting of two sections mounted to swing on the pole, the said harp having perforated lugs, a shaft consisting of two sections extending through the trolley and having swinging and sliding connection, pins passing through the perforations of said lugs of the harp and through said shaft-sections, and a lever connected to one of the pins.

6. A trolley comprising two sections separated transversely of the axis, each section being provided with an opening through its hub portion, the opening being funnel-shaped at the inner end, a harp, a shaft having connection with the harp and extended through the openings of the trolley-sections, the said shaft consisting of two members having sliding and swinging connection, and a lever having connection with one of the shaft-sections.

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

GUTIE H. TUTTLE.

Witnesses:

W. P. WILLIAMS,
H. C. TUTTLE.