No. 863,984. PATENTED AUG. 20, 1907.

N. J. GREENISON.

TROLLEY.

APPLICATION FILED JAN. 28, 1907

Fig. 1.

Fig. 4.

Fig. 2.

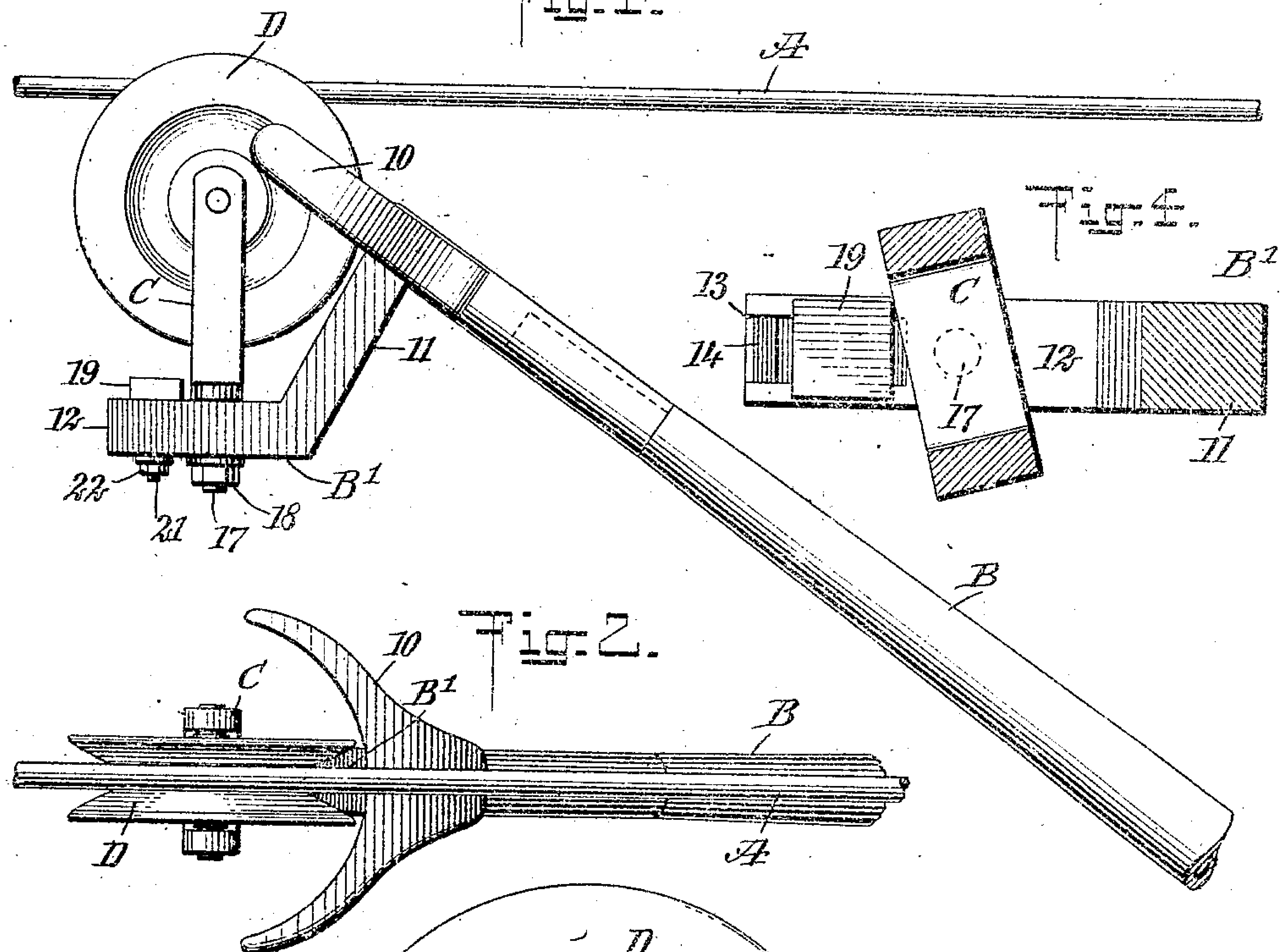
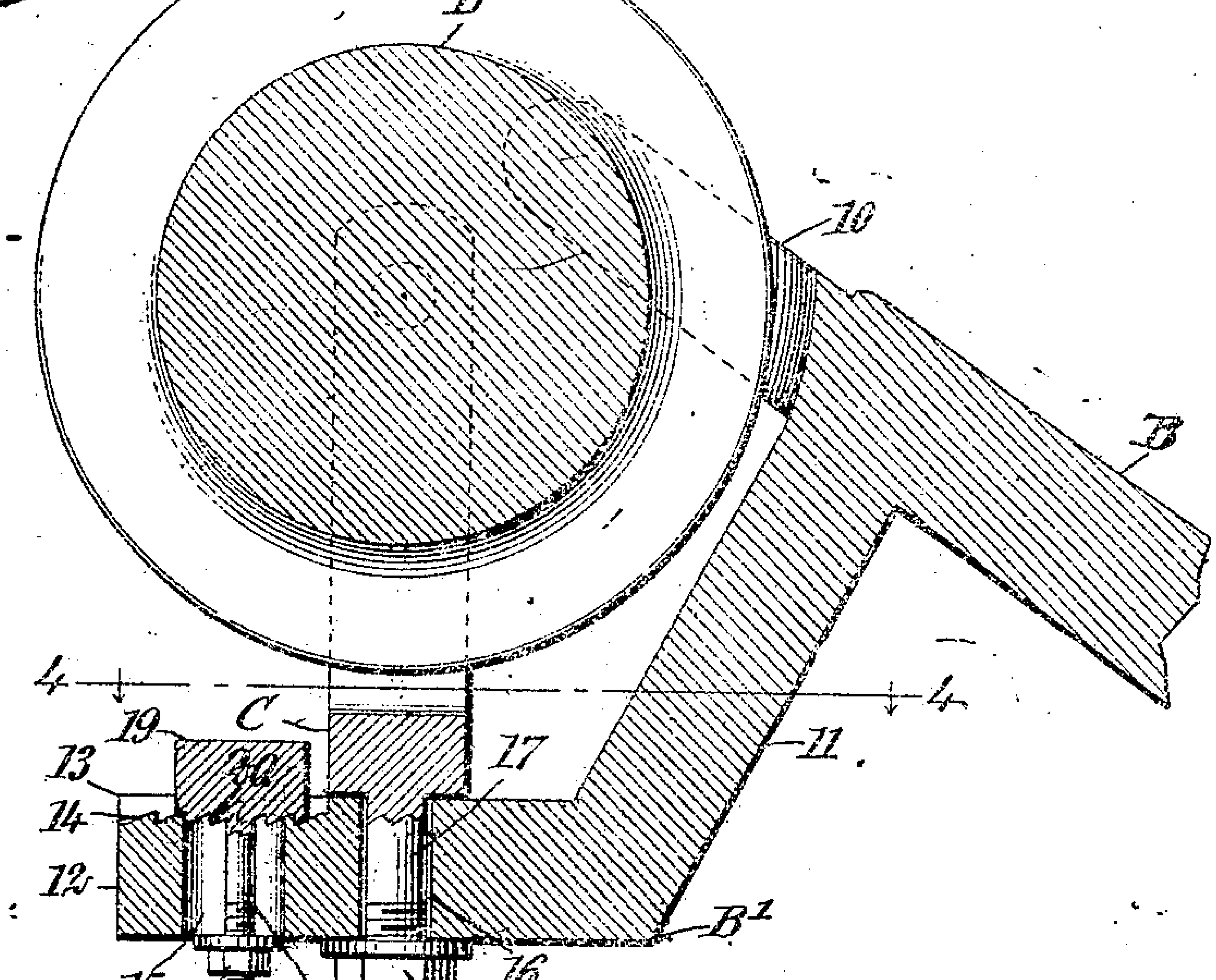


Fig. 3.



WITNESSES

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TROLLEY.

No. 863,984. Specification of Letters Patent. Patented Aug. 20, 1907.

Application filed January 28, 1907. Serial No. 354,450.

To all whom it may concern:

Be it known that I, NELSON J. GREENISON, a citizen of the United States, and a resident of the city of New York, (borough of the Bronx,) in the county and State of New York, have invented a new and useful Improvement in Trolleys, of which the following is a full, clear, and exact description.

The purpose of the invention is to provide a construction of trolley that will be automatic in its action relatively to the line wire, and to provide a pivotal support for the trolley wheel and adjustable means for regulating the rotary movement of the said trolley wheel support, whereby the trolley wheel will automatically accommodate itself to any curve or any obstruction along the line, and will maintain a constant contact with a line wire, while the car carrying the trolley remains on the track.

Another purpose of the invention is to provide a trolley of the character described that will be of a very simple and economic construction.

The invention consists in the novel construction and combination of the several parts as will be hereinafter fully set forth and pointed out in the 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 the improved trolley; Fig. 2 is a plan view of the same; Fig. 3 is a vertical longitudinal section drawn upon an enlarged scale; and Fig. 4 is a horizontal section taken practically on the line 4—4 of Fig. 3.

A represents the line wire, B the trolley pole, which pole is provided at its upper end with a fork 10, as is clearly shown in Fig. 2. A stepped projection B′ is provided for the forked end 10 of the trolley pole B, which stepped projection extends downwardly and forwardly from the central portion of the said fork, comprising a downwardly and forwardly extending member 11 and a horizontal base member 12. The base member 12 at its forward portion is provided with a longitudinal recess 13 in its upper face, and in the bottom wall of this recess 13 ratchet teeth 14 are produced. The said horizontal member 12 of the stepped projection B′ is further provided with a forward opening 15 that extends through it from its bottom to its top portion, where the teeth 14 are located, and the said horizontal member 12 is provided with a second opening 16 to the rear of the opening 15, and the opening 16 likewise extends through said member from top to bottom.

The opening 16 loosely receives a shank 17 of a U-shaped bearing C, in which bearing a trolley wheel D is mounted to turn, the trolley wheel being of the conventional type. The lower end of the shank 17 of the bearing C is threaded to receive a nut 18 which has bearing against the under face of the said member 12 of the stepped projection B′, as is shown in Figs. 1 and 3, serving to hold the bearing for the trolley D in place, yet admitting of the said bearing having rotary movement. The rotary movement of the bearing C is, however, controlled by a block 19 which may be of any desired shape, but preferably the end of the block that faces the bearing C is more or less rounded off at its side portions, or inclined at such portions, but it will be understood that this limiting block 19 may be rectangular, if so desired. The said block 19 is provided with teeth 20 on its under face, adapted to engage with the teeth 14 in the recess 13 of the stepped extension B′, as is clearly shown in Fig. 3.

The block 19 is provided with a stem 21 that extends down through the opening 15 in the horizontal member 12 of the said extension member B′, as is also shown in Fig. 3. The lower end of the stem 21 is threaded to receive a nut 22, whereby to hold the block 19 in its adjusted position, and it will be understood that washers of any suitable character are employed in connection with the nuts 18 and 22. By adjusting the block 19 closely to the bearing C of the trolley wheel D, the movement of the bearing C is lessened, but the extent of the movement of said bearing may be increased by adjusting the block 19 away from the said bearing.

The construction above described admits of the trolley wheel D automatically accommodating itself to even the most acute curves, and likewise enables the wheel to pass obstructions in its path, without leaving the line wire A.

The mounting of the wheel and the manner in which it is controlled is exceedingly simple and practical, and the fork 10 serves to prevent adjacent wires from interfering with the wheel in its passage along the line wire.

It will be observed, that by the proper adjustment of the block 19, the angle of rotation of the trolley wheel support may be adjusted within predetermined limits.

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

1. In a trolley, a pole, an extension from the pole, a trolley wheel support mounted for rotation in the said extension, means engaging the support for limiting the rotation thereof within a predetermined angle and means for adjusting the engaging means whereby to vary the angle.

2. In a trolley, a pole, an angular extension from the under face of the forward end of the pole, a trolley wheel support mounted to turn in the said extension, means engaging the support for limiting the movement of the support within a predetermined angle and means for adjusting the engaging means whereby to vary the angle.

3. In a trolley, a pole, a fork at the outer end of the pole, an angular member extending downwardly from the central portion of the fork, a trolley wheel support

mounted to turn in said extension, and an adjustable element carried by the extension limiting the movement of the said trolley wheel support.

4. In a trolley, a pole, a fork at the outer end of the pole, an angular bracket extension carried downwardly from the central portion of the fork, which extension is provided with a recess having teeth formed in its bottom wall, a trolley wheel support revolubly mounted in the bracket extension within the compass of the said fork, a block movable to and from the trolley wheel support, and means for holding the said block and the said trolley wheel support in position relatively to the said bracket extension.

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

NELSON J. GREENISON.

Witnesses:

MICHAEL SLANE,

HERBERT J. CANTRELL.