

No. 880,963.

H. BOUCHARD.
TROLLEY POLE.

PATENTED MAR. 3, 1908.

APPLICATION FILED APR. 16, 1907.

2 SHEETS—SHEET 1.

Fig. 1.

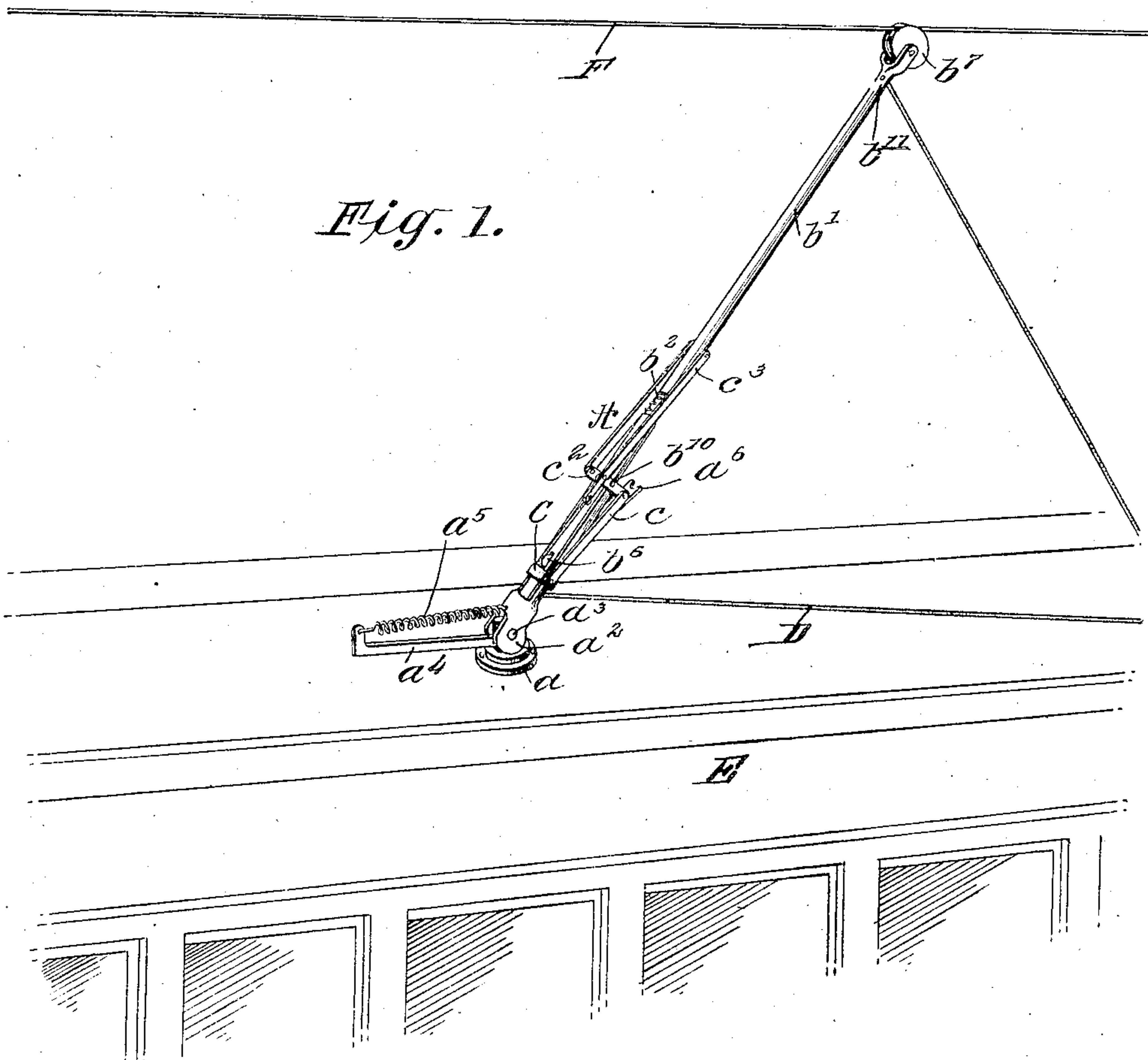
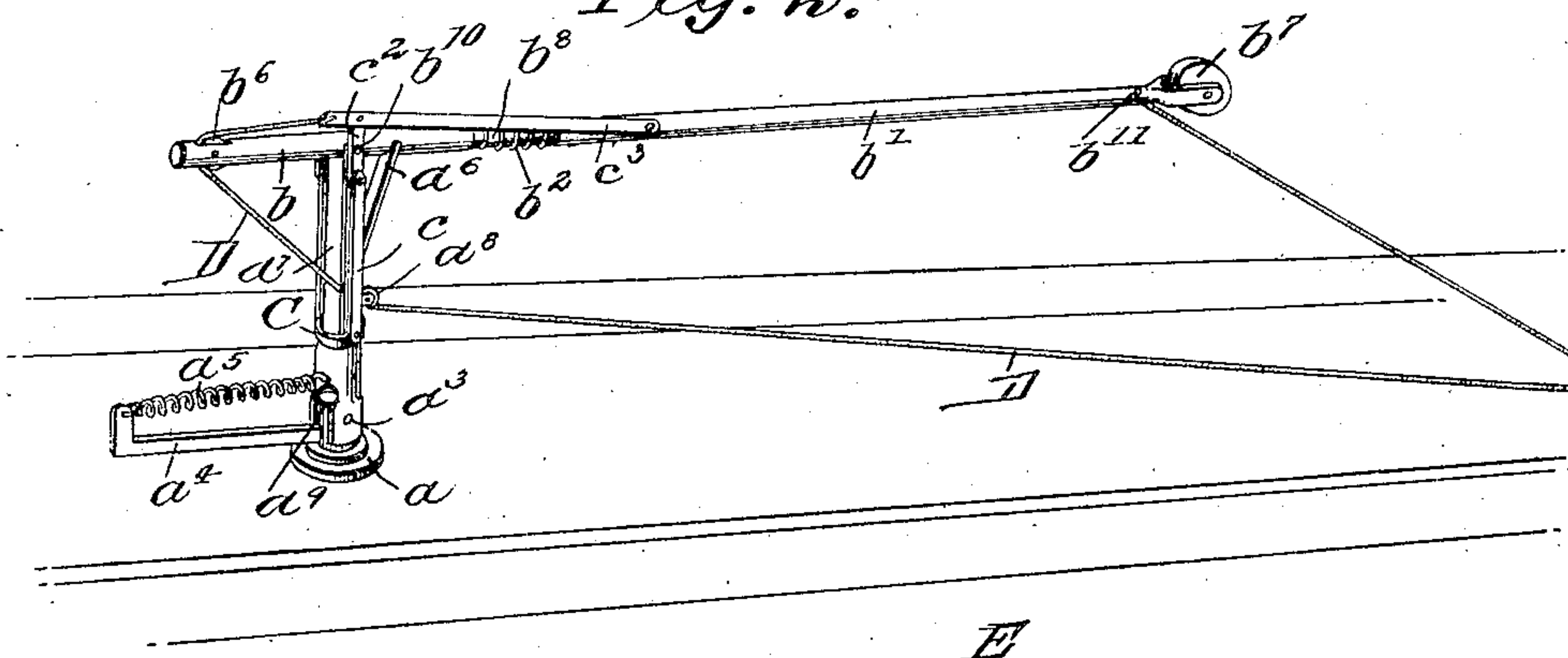


Fig. 2.



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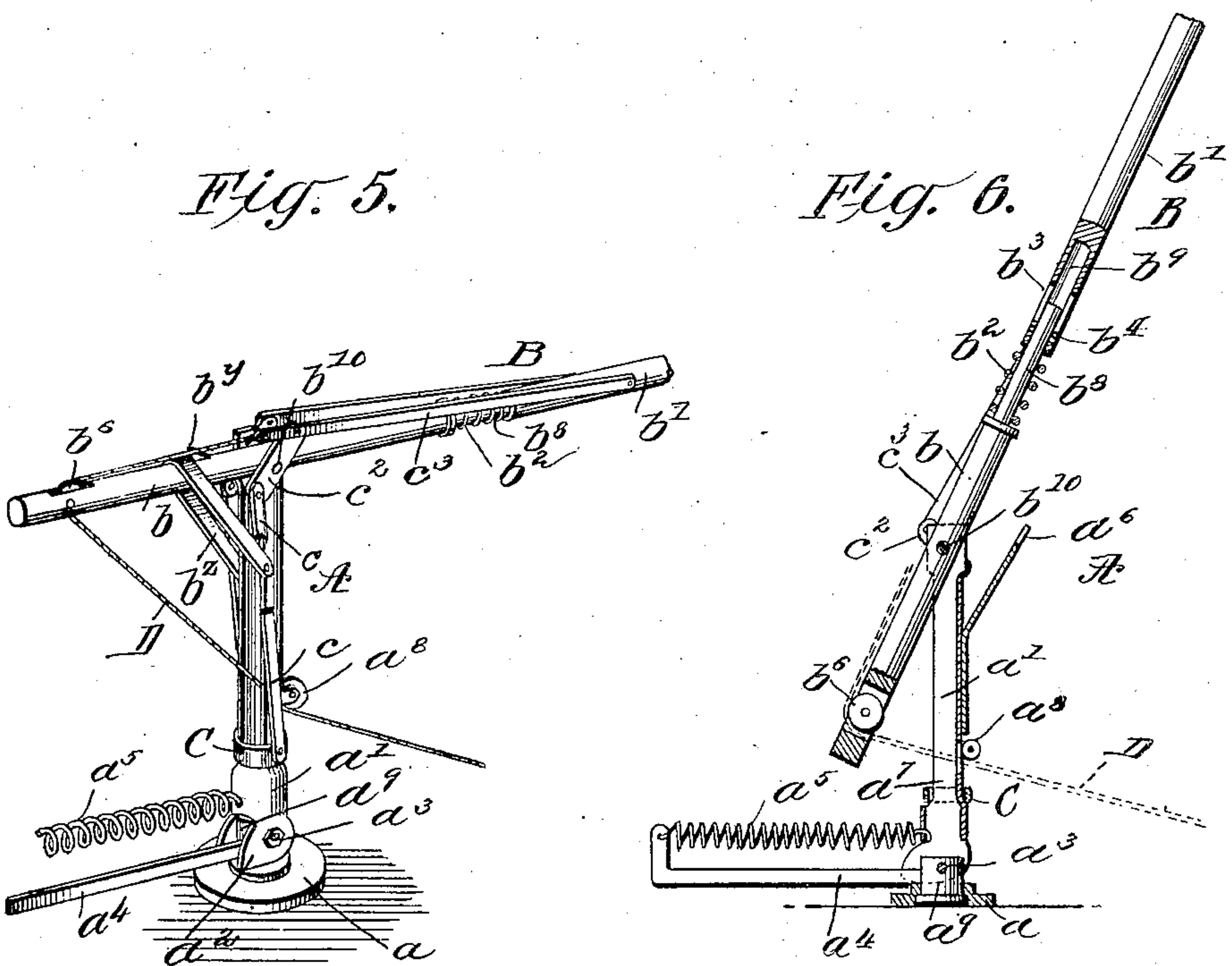
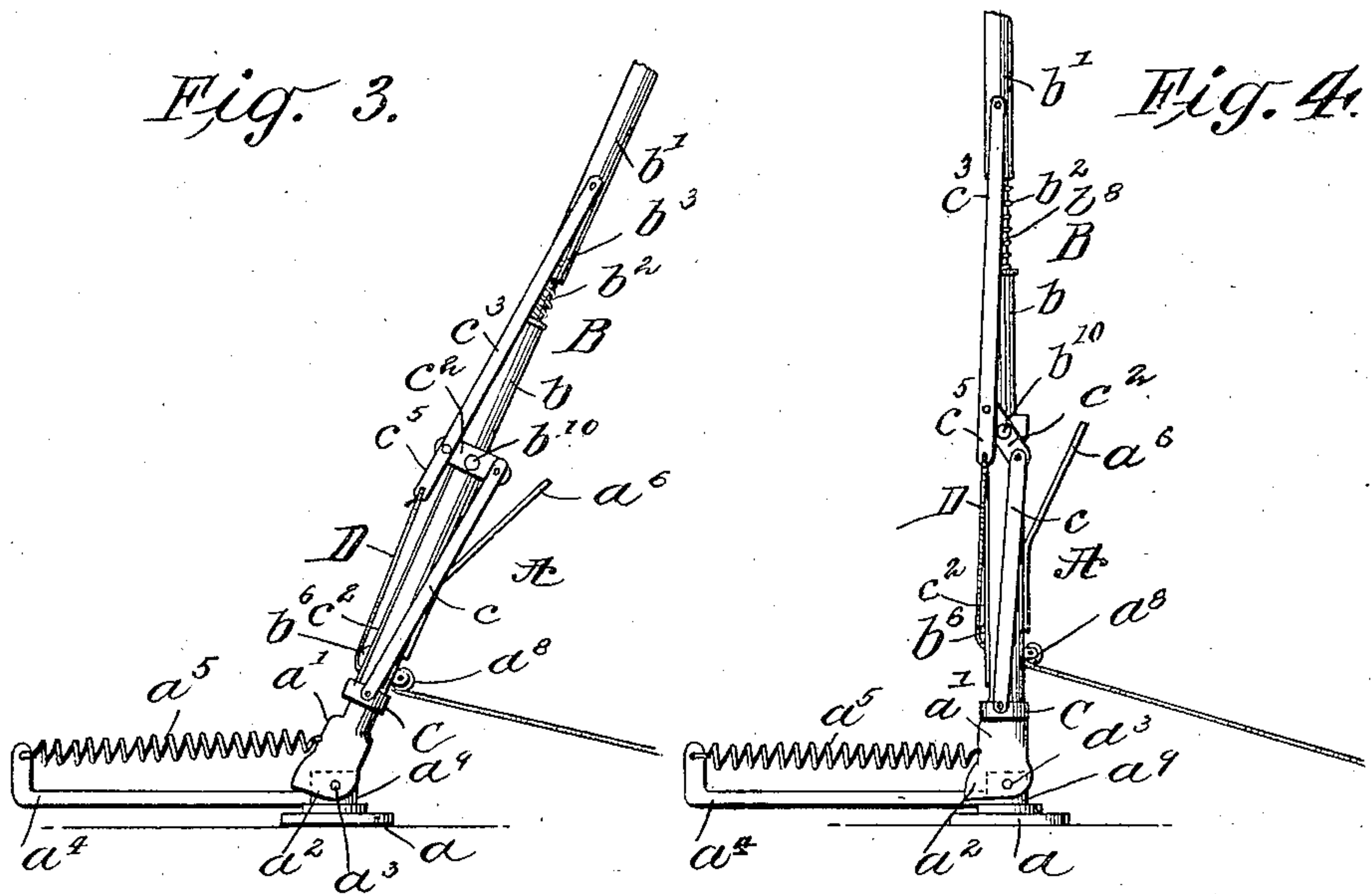
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WITNESSES

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HENRY BOUCHARD, OF AUSTIN, TEXAS.

TROLLEY-POLE.

No. 880,963.

Specification of Letters Patent.

Patented March 3, 1908.

Application filed April 16, 1907. Serial No. 368,513.

To all whom it may concern:

Be it known that I, HENRY BOUCHARD, a citizen of the United States, and resident of Austin, in the county of Travis and State of Texas, have invented an Improved Trolley-Pole, of which the following is a specification.

My invention is an improvement in trolley poles, and consists in certain novel constructions and combinations of parts hereinafter described and claimed.

Referring to the drawings forming a part hereof, Figure 1 is a perspective view of a part of a car provided with my improved pole, showing the position taken by the pole when the wheel engages the trolley wire. Fig. 2 is a similar view showing the position taken by the pole when the wheel is disengaged from the wire. Fig. 3 is a detail side view of a part of the pole in one position. Fig. 4 is a similar view showing the pole in another position. Fig. 5 is a detail perspective view of the stand and a portion of the pole. Fig. 6 is a side view partly in section.

In the present embodiment of my invention, the trolley stand A, comprises a base a secured to the car E and having rotatably mounted therein the stud a^9 , to which is rigidly secured the projecting arm a^4 . The bracket a' is provided with ears a^2 on each side of the stud, and the ears are pivoted to the stud by means of the pins a^3 .

The bracket a' is substantially circular in shape and is provided with a recess a^7 for a purpose to be hereafter described. The pole B comprises a plurality of telescoping sections b, b' , the section b being provided with a pin b^8 engaging a recess b^9 in the section b' , and a spring b^2 is interposed between the section, the pin b^8 being provided with oppositely projecting trunnions b^4 , engaging slots b^3 in the sides of the recess, whereby to prevent the displacement of the sections. The section b is provided near the end thereof with trunnions b^{10} journaled in the bracket a' , and the end of the section below the trunnions is adapted to be received within the recess a^7 of the bracket.

A sleeve C is slidably mounted on the bracket, and is adapted to move over the recess and the end of the section b contained therein to retain the pole in alinement with and in fixed relation to the bracket. Levers c^2 are journaled on each of the trunnions b^{10} , and links c connect one end of each of the levers with the sleeve, the opposite ends of

the levers being connected by links c^3 with the outermost section b' of the pole.

It will be understood from the description that when the pole is moved into alinement with the bracket, and the extended end of the section b is engaged with the recess, the levers c^2 are rocked slightly on the trunnions enough to bring them out of line with the links but not enough to move the sleeve over the extended end of the section b within the recess. When, however, the wheel b^7 of the pole is engaged with the trolley wire F, the sections of the pole are moved towards each other against the resistance of the spring, thus rocking the levers into the position shown in Figs. 1 and 3, and moving the sleeve upward over the recess to engage the extended end of the section whereby to retain the pole in alinement with the bracket and in fixed relation with respect thereto, it being understood that the spring b^2 is not strong enough to overcome the resistance of the trolley wire.

Should the wheel become disengaged from the trolley wire, the spring b^2 will force the sections apart, thus rocking the lever c^2 on the trunnions and moving the sleeve C from over the recess and from engagement with the extended end of the section b , thus permitting the pole to drop into the position shown in Figs. 2 and 5, and preventing the engagement of the pole with guy wires and the like.

One of the links c^3 is extended forwardly as at c^5 , and to the extension is connected one end of a rope or cable D, the said rope passing downward over a pulley b^6 journaled in the lower end of the innermost section b of the trolley pole, and rearwardly over a pulley a^8 journaled on the bracket a' , the opposite end of the rope being connected to the pole as at b^{11} , adjacent to the trolley wheel b^7 , the rope being of sufficient length so that the middle portion thereof extends to the rear platform of the car.

A rest a^6 is arranged on the bracket a' for receiving the pole when it is in the position shown in Figs. 2 and 5, and a spring a^5 is connected with the arm a^4 and with the bracket a' , whereby to normally retain the bracket in the erect position.

In operation, when it is desired to engage the trolley wheel with the trolley wire, traction is made on the end of the rope D connected with the innermost section b to bring the pole into the position shown in Fig. 4.

The opposite end of the pole is now manipulated through the end of the rope attached thereto to bring the trolley wheel into engagement with the wire, and when this is done, the pressure of the wire moves the sections toward each other, thus moving the collar C over the recess and into engagement with the end of the innermost section.

It will be evident from the description, that the pole is extensible and contractible, and that the means for retaining the pole in alinement with the bracket and in fixed relation with respect thereto, is operated by the extension and contraction of the pole, the extending of the pole acting to release the retaining means.

In Fig. 5 the rest a^6 is replaced by a loop b^z pivoted to the bracket and engaging the end of the pole section b , a lug b^y being arranged on the pole section to limit the motion of the loop.

I claim:

1. The combination with the supporting bracket, of a trolley pole comprising a plurality of telescoping sections, the innermost section being provided with trunnions, near one end thereof for engaging the bracket, said bracket being recessed for receiving the end of the section, a sleeve slidable on the bracket, levers pivoted on the trunnions, a connection between one end of each of the levers and the sleeve, a connection between the other end of each of the levers and the outermost section of said pole, and a spring interposed between the sections for normally retaining them in extended position, whereby to move the sleeve from over the end of the section to release it from the recess.

2. The combination with the supporting bracket, of a trolley pole comprising a plurality of telescoping sections, the innermost section being provided with trunnions, near one end thereof for engaging the bracket, said bracket being recessed for receiving the end of the section, a sleeve slidable on the bracket, a connection between the sleeve and its outermost section, whereby to move said sleeve from over the end of the section when the sections are moved apart, and a spring normally acting to move the sections apart.

3. The combination with the bracket, of a trolley pole comprising a plurality of telescoping sections, one of said sections being hinged to the bracket, means for retaining the pole in alinement with the bracket, a con-

nection between the other section and the retaining means, whereby to release said retaining means when the sections are extended, and a spring acting normally to extend the sections.

4. The combination with the bracket, of a trolley pole pivoted to the bracket, said pole comprising a plurality of telescoping sections, means for retaining the pole in alinement with the bracket, means whereby the extending of the sections will release the retaining means, a spring acting normally to extend the sections, and a cable having its ends connected with the ends of the pole whereby to manipulate the same.

5. The combination with the bracket, of a trolley pole pivoted to the bracket, said pole comprising a plurality of telescoping sections, means for retaining the pole in alinement with the bracket, means whereby the extending of the sections will release the retaining means, a spring acting normally to extend the sections, and a rest on the bracket for supporting the pole when out of alinement with the bracket.

6. The combination with the bracket, of a trolley pole pivoted to the bracket, said pole comprising a plurality of telescoping sections, means for retaining the pole in alinement with the bracket, means whereby the extending of the sections will release the retaining means, and a spring acting normally to extend the sections.

7. The combination with the bracket, of a trolley pole pivoted to the bracket, said pole comprising a plurality of telescoping sections, means for fixing the pole with respect to the bracket, means whereby the extension of the pole will release the retaining means, and a spring acting normally to extend the pole.

8. The combination with the trolley stand, of an extensible pole pivoted thereto, means for fixing the pole with respect to the stand, means whereby the extension of the pole will release the fixing means, and means acting normally to extend the pole.

9. The combination with the trolley stand, of an extensible pole pivoted thereto, means acting normally to extend the pole, and means whereby the contraction of the pole will fix said pole with respect to the stand.

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Witnesses:

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