

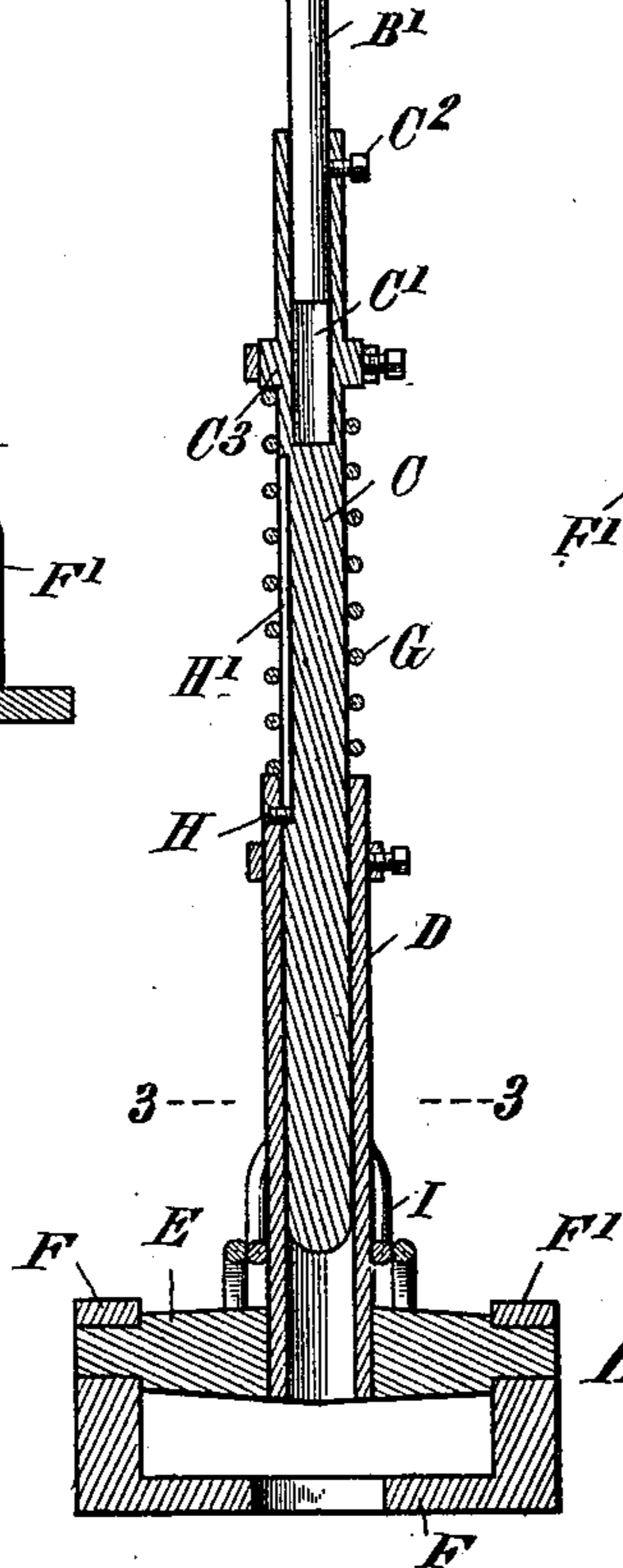
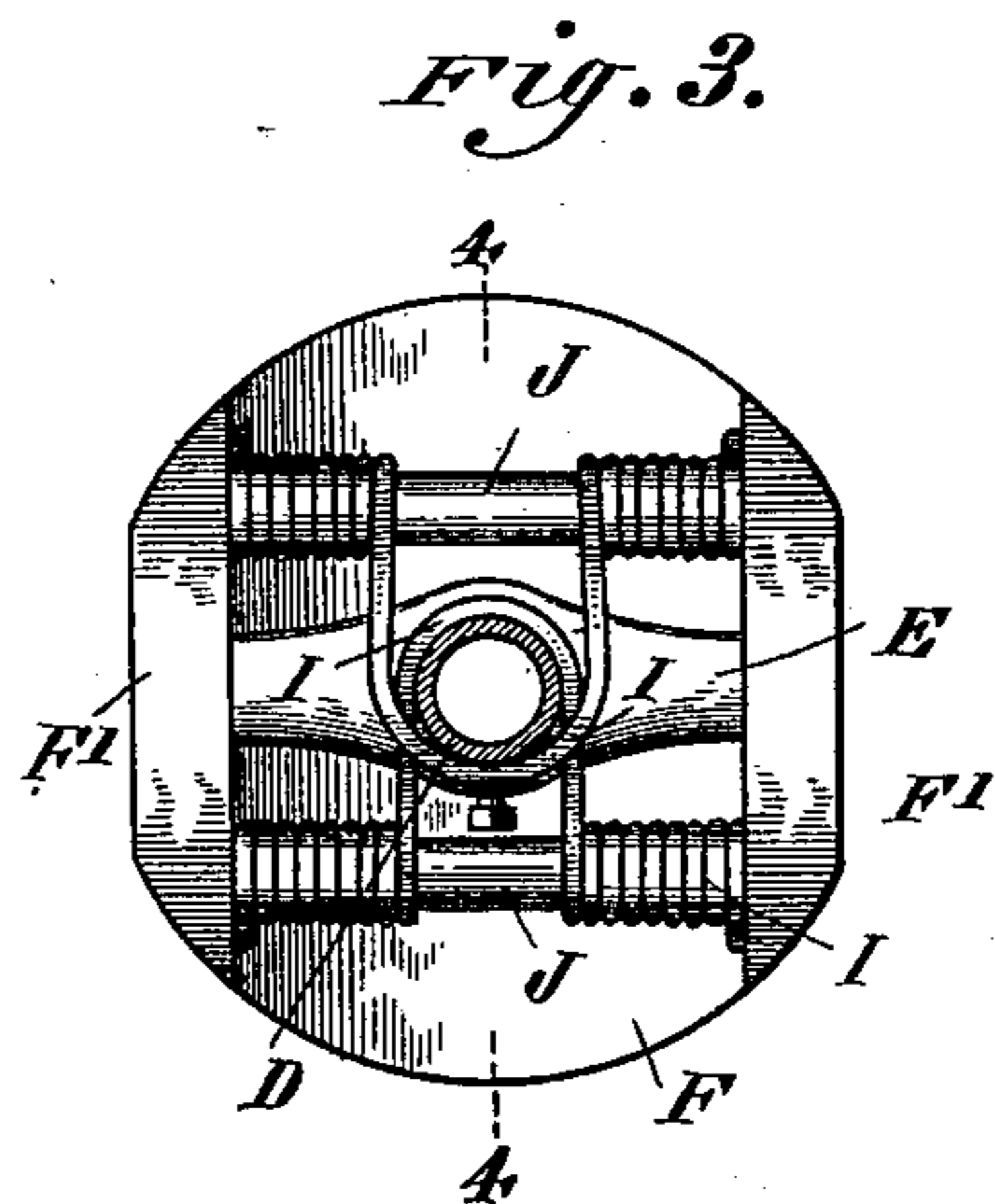
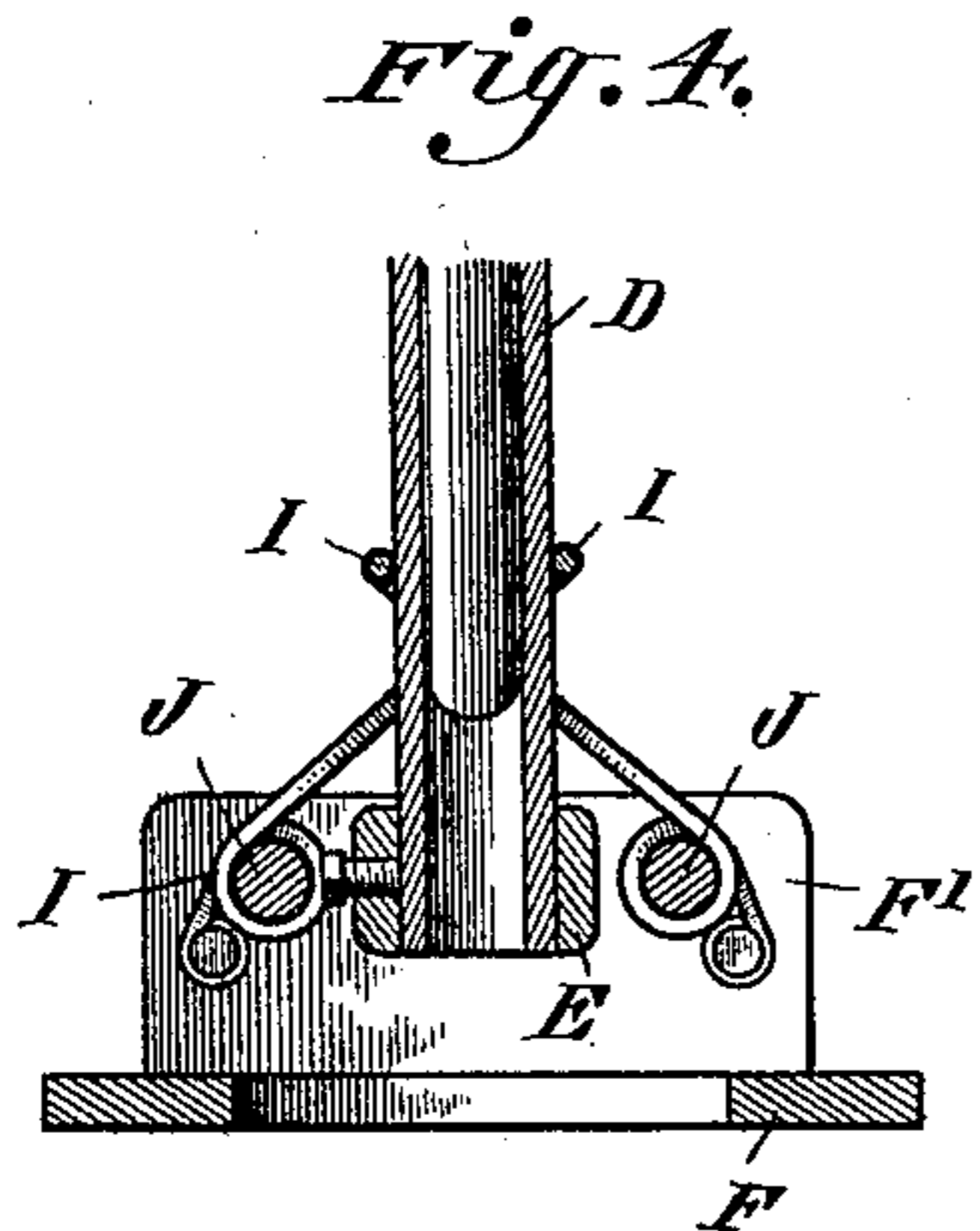
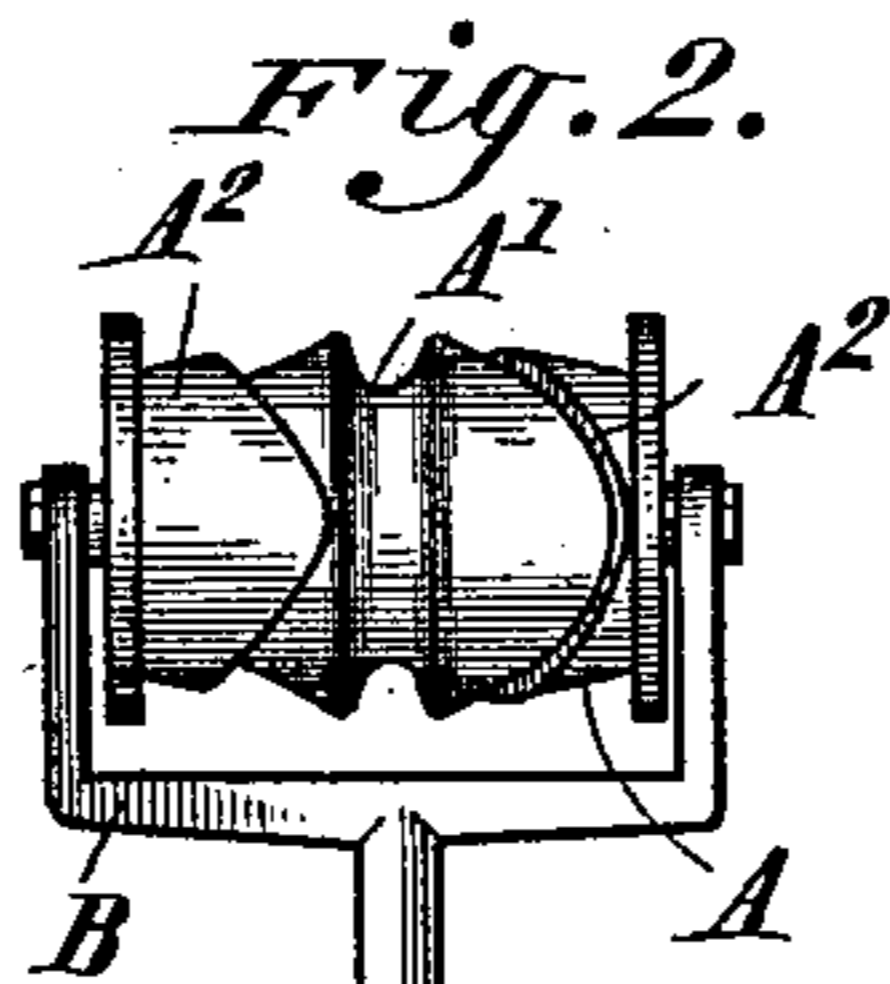
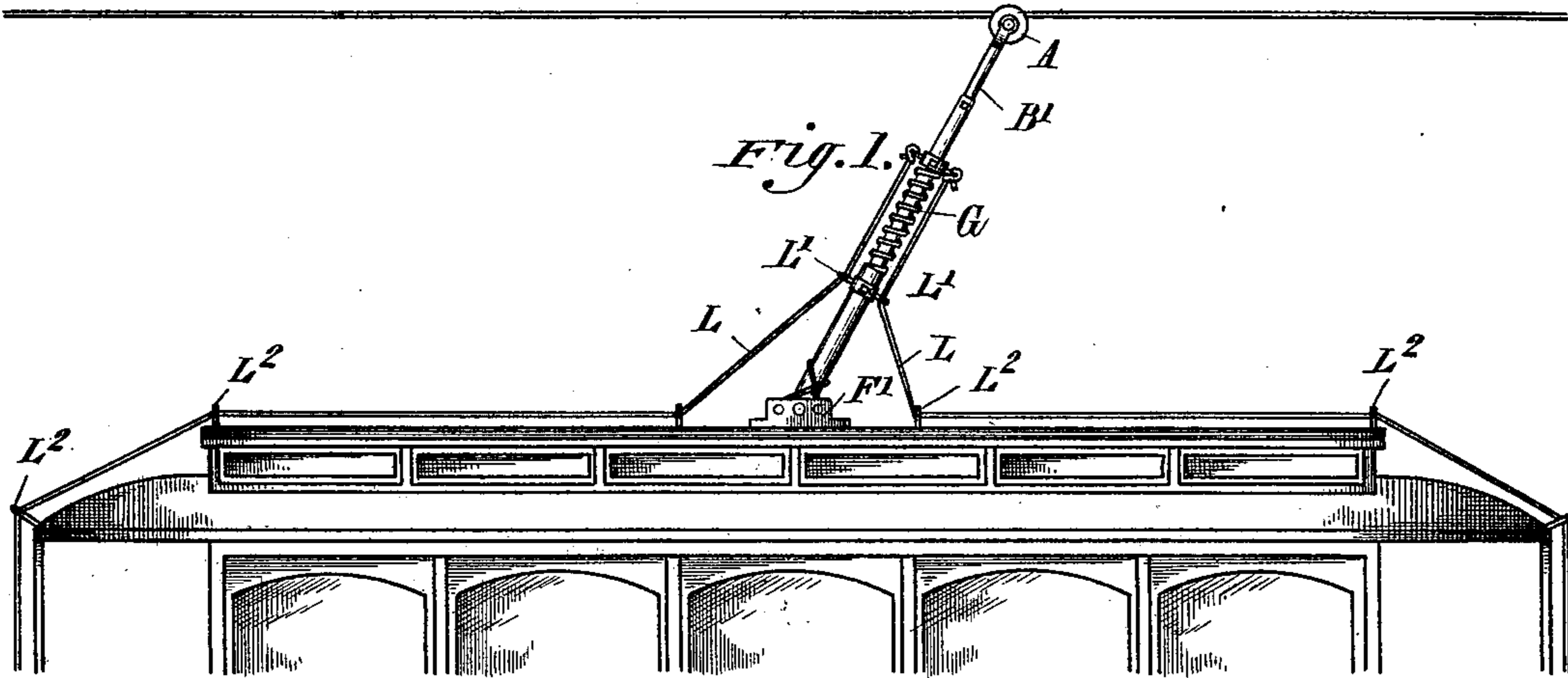
No. 630,780.

Patented Aug. 8, 1899.

H. C. LOUDERMILCH.
OVERHEAD TROLLEY.

(Application filed Dec. 10, 1898.)

(No Model.)



Witnesses
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UNITED STATES PATENT OFFICE.

HENRY C. LOUDERMILCH, OF ENDERS, PENNSYLVANIA.

OVERHEAD TROLLEY.

SPECIFICATION forming part of Letters Patent No. 630,780, dated August 8, 1899.

Application filed December 10, 1898. Serial No. 698,891. (No model.)

To all whom it may concern:

Be it known that I, HENRY C. LOUDERMILCH, a citizen of the United States, residing at Enders, in the county of Dauphin and State of Pennsylvania, have invented a new and useful Improvement in Overhead Trolleys, of which the following is a specification.

This invention relates generally to trolleys, and more particularly to overhead trolleys; and the object of the invention is to provide a special construction of trolley-wheel by means of which it will be impossible for the trolley to jump the wire, and in case the wire should escape from the groove of the wheel the adjacent portions of said wheel are of such construction as to guide the wire immediately back into the groove.

Another object of the invention is to provide means by which the trolley can be quickly and easily reversed when the car is intended to move in an opposite direction.

With these various objects in view my invention consists in the peculiar construction of the various parts and in their novel combination and arrangement, all of which will be fully described hereinafter and pointed out in the claim.

In the drawings forming part of this specification, Figure 1 is a side elevation of a portion of the car, showing the practical application of my invention to the top thereof. Fig. 2 is a side elevation of the trolley-wheel, the supporting-pole and adjacent parts being shown in section. Fig. 3 is a section on the line 3 3 of Fig. 2. Fig. 4 is a section on the line 4 4 of Fig. 3.

In carrying out my invention I employ a trolley-wheel A, having a central groove A', and upon opposite sides of said groove are arranged the eccentric or spiral-shaped shoulders A², said shoulders being so arranged that the wire will be guided back to the central groove A' in case it should escape therefrom and rest upon either side of the wheel adjacent to the groove. The wheel A is journaled in a bracket B, which is formed with a shank B', extending into a socket C', formed in the top of the adjustable trolley-pole C, said shank being secured by means of the set-screw C². The trolley-pole rests within a tubular shaft D, rigidly mounted on a trunnion or rock-shaft E, which is journaled in suitable brackets F', formed integrally with the base-plate F, which is rigidly secured to the top of the car. The pole C is adapted to slide up and down in the tube D and is normally held in an elevated position by means of a spring G, surrounding the said pole above the tubular shaft D and bearing upon a collar C³, formed upon the trolley-pole, and the movements of the trolley-pole within the tubular shaft are limited by means of a set-screw H, which passes through the tubular shaft D and enters a vertical groove H', produced in the side of the trolley-pole, thereby forming a limited vertical movement of the trolley-pole, but preventing its rotation, and also acting as a stop to prevent it being projected too far upwardly or downwardly. Coiled springs I are attached to the base by being coiled around the rods J, which extend across the base and are fastened to the brackets F', parallel with the trunnions or rock-shaft E and upon opposite sides thereof, the ends of the springs being fastened to the brackets, while their central portions are looped, as shown, and pass around the tubular shaft D from opposite sides, as most clearly shown in Figs. 3 and 4. By means of this construction the trolley-pole is held in substantially an upright position when the car is moving in either direction, and in order to reverse the position of the trolley-pole it is only necessary to draw the pole slightly downwardly and then give it a direct pull in the direction it is desired to move it, thereby avoiding the necessity of revolving the trolley-pole. In order to so operate the pole, I attach ropes L to each side of the trolley-poles, adjacent to the top thereof, pass said ropes down through guide-eyes L', arranged upon the tubular shaft D, and then through guide-eyes L², arranged upon the top of the car, said ropes extending in opposite directions to opposite ends of the car, so that the trolley can be reversed from either end.

It will thus be seen that I provide a simple and efficient construction of trolley-wheel proper, by means of which the wire will always be kept in the central groove, and it will also be noted that I provide a thoroughly practical means for holding the trolley-wheel to the wire, which means can be reversed whenever it is desired to move the car in the

opposite direction, and this invention being constructed as above described causes the trolley-wheel to be constantly in contact with the wire whether the trolley-pole is being
5 shifted or the car is in motion, thereby obtaining the interruption of the electric current, making it possible to have an electric head-light constantly giving light.

Having thus fully described my invention,
10 what I claim as new, and desire to secure by Letters Patent of the United States, is—

In an overhead trolley, a wheel having a central groove and shoulders or bosses arranged upon opposite sides thereof, the sides or edges of said shoulders being arranged in
15 spiral or eccentric order and parallel with each other, substantially as and for the purpose described.

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Witnesses:

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