(No Model.) 2 Sheets—Sheet 1.

G. E. JOHNSON.

TROLLEY FINDER.

No. 583,868. Patented June 1, 1897.

FIG. 1

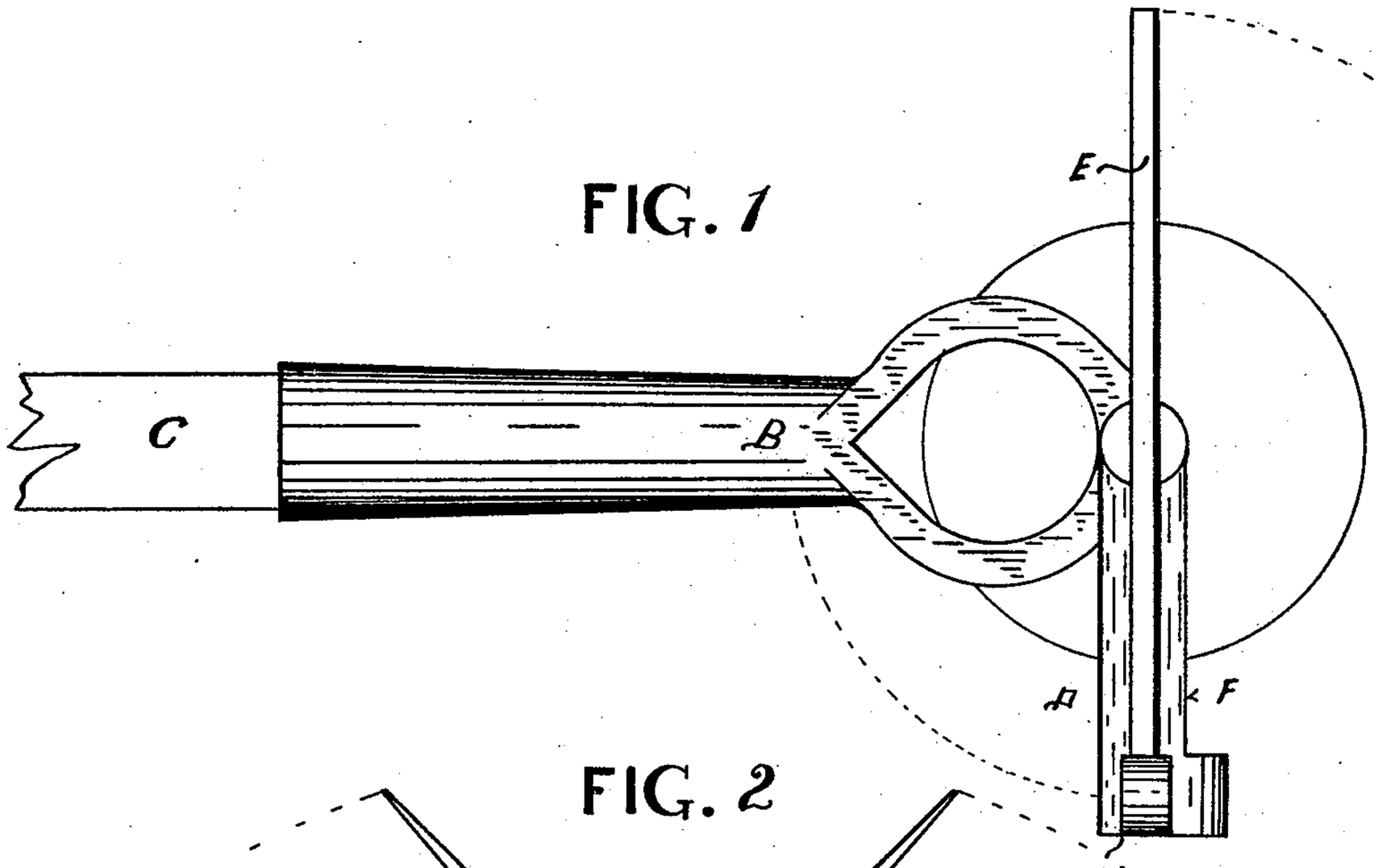
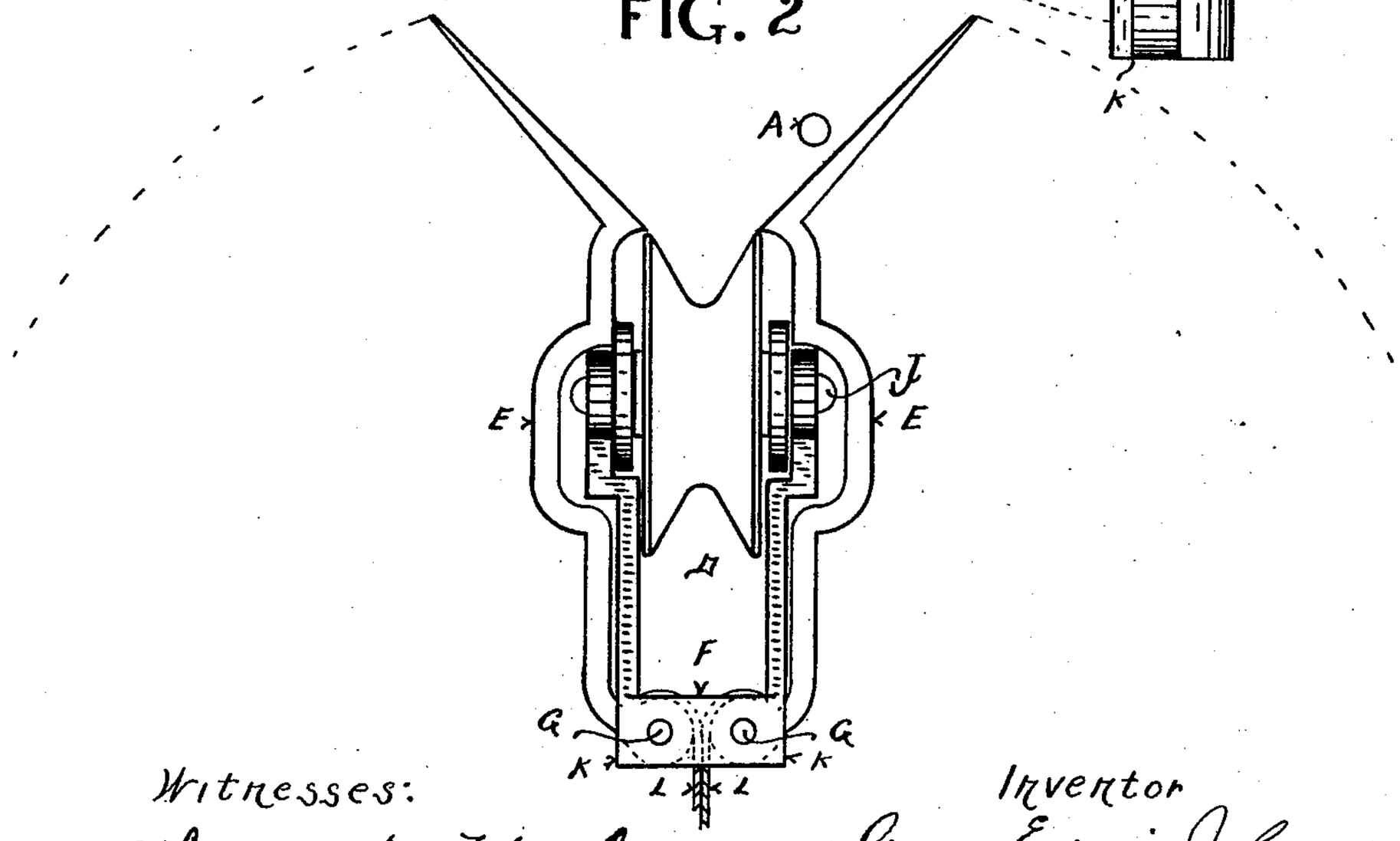


FIG. 2



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(No Model.) 2 Sheets—Sheet 2.

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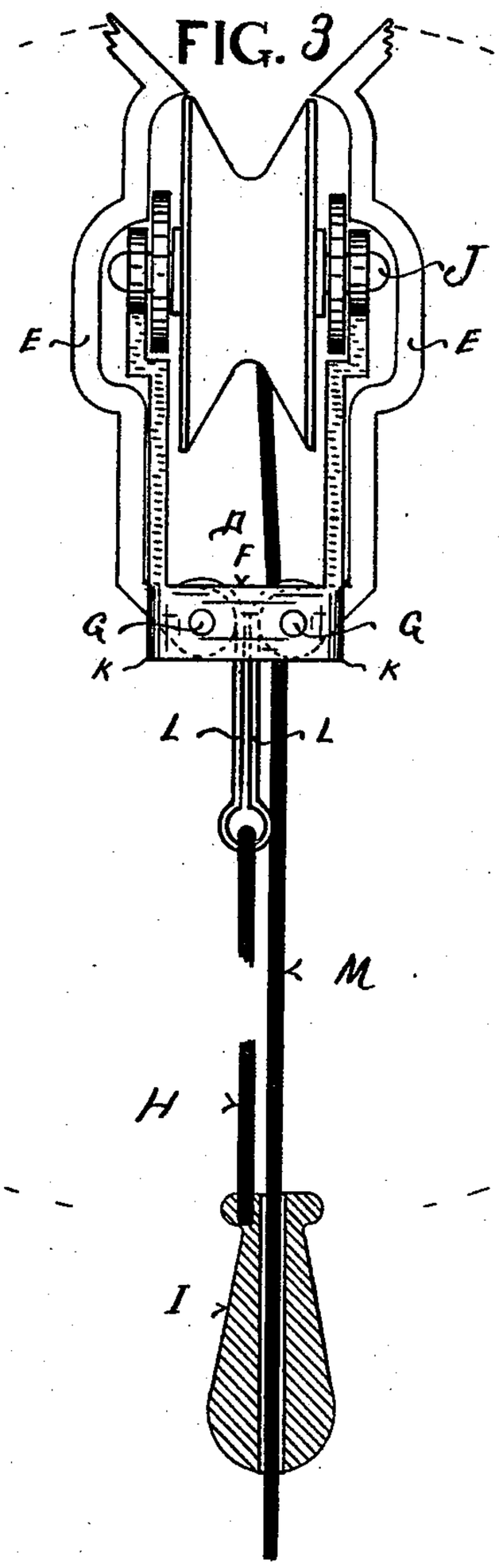
FIG. 3



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UNITED STATES PATENT OFFICE.

GEORGE EDWIN JOHNSON, OF LOS ANGELES, CALIFORNIA, ASSIGNOR OF ONE-HALF TO HENRY SCHAEFER, OF SAME PLACE.

TROLLEY-FINDER.

SPECIFICATION forming part of Letters Patent No. 583,868, dated June 1, 1897.

Application filed August 21, 1896. Serial No. 603,493. (No model.)

To all whom it may concern:

Be it known that I, GEORGE EDWIN JOHNSON, a citizen of the United States, residing at Los Angeles, in the county of Los Angeles and State of California, have invented a certain new and useful Trolley-Finder, of which the following is a full, clear, and exact specification, reference being had to the accompanying drawings.

My invention relates to improvements in trolley-replacers; and the object of my invention is to produce a device by which a trolley can be placed in contact with a trolley-wire without going to the trouble of getting the trolley-wheel exactly in line with the trolley-wire, thus rendering it possible to place a trolley in contact with a trolley-wire while the car upon which the trolley is placed is in rapid motion, or make it an easy matter to properly replace a trolley when it is moved from one end of the car to the other, as is the case where the direction in which the car is going is reversed. I attain these objects by the mechanism illustrated in the accompanying drawings, in which—

Figure I is a side elevation of a trolley-support embodying my invention and illustrating the same in the position it would occupy when it is desired to use it for replacing a trolley upon a trolley-wire. Fig. II is a rear elevation of an ordinary trolley-support with my improved trolley-replacer attached thereto. This view explains how the device operates in replacing a trolley to the proper position in relation to a trolley-wire. Fig. III is a similar view to Fig. II, excepting that in this view the cord used for operating the trolley-pole, both independent and in conjunction with the replacer, is shown.

Similar letters refer to similar parts throughout the several views.

In the drawings, A represents a trolley-wire; B, an ordinary trolley-support; C, a trolley-pole where it enters the sleeve constituting a part of the frame of the support B, and D my complete invention, which is formed of the arms E E, the frame F, the pins G G, the cord H, and the handle I, the said parts being connected together as follows: The frame F is attached to the trolley-support by the shaft J, upon which it is pivoted in such manner that it can rotate upon said shaft, as shown in dotted lines in Fig. I. The object of pivoting the said frame in this manner is to provide a means whereby it can be thrown out of the position shown in Fig. I and into a position in which the arms E E will stand longitudinally in line with the trolley-support when the arms E E come in contact with cross-wires or other obstructions in the trolley-line, thus preventing any damage being done to either the trolley-line or the trolley-support or any of its connections by them coming in contact with cross-wires or other obstructions.

The frame F is constructed of one piece and provided with the slots K K, into which the arms E E are pivoted by the pins G G. The part of the arms which are located within the slots K K are made circular or disk-shaped, as shown in Figs. II and III, and extending around the periphery of the said disk-shaped parts of the arms is rove the cords L L, with the ends thereof fastened to the arms in such manner that by pulling the said cords downward the arms are rotated upon the pins G G, causing them to assume the position, as shown in Figs. I, II, and III, and by releasing the tension upon said cords the said arms assume the position shown in dotted lines in Figs. II and III.

The cords L L terminate in one cord H, which is fastened to the handle I in such manner that by pulling the said handle downward the arms are operated, as specified, without moving the trolley-support.

The cord (shown by letter M) is attached to the trolley-support in the usual manner of trolley-cords and is provided so that it can be attached to a trolley-car to prevent the trolley-pole from flying upward when the trolley-wheel leaves the wire. At the same time by attaching this cord to the car and leaving the cord attached to the handle loose upon the cord M, as shown in Fig. III, it is obvious that the arms E E are never raised to the position as shown in Figs. I, II, and III except when the handle I is pulled downward.

Thus it is plain that in this device the arms E E can be thrown to a position that will assist in catching a trolley-wire when desired, but the arms are never elevated except by

pulling downward upon the handle I, and when the arms are elevated should they come in contact with an obstruction such as cross-wires or other obstructions they can turn backward out of the way and thus obviate breaking them or any of the trolley-wire connections.

Now, having fully described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. In a trolley-replacer, the combination of the frame F, the arms E E, the pins G G, the cords L L, the cord H and the handle I, the whole assembled together in the manner and for the purpose as specified.

2. The combination with a trolley-wheel and its support, of a depending frame pivoted upon the axle of the trolley-wheel, two arms pivoted to the said frame and arranged to drop by gravity away from each other in a plane transverse to the trolley-wire, and means for raising said arms to cause them to straddle the trolley-wire, substantially as described.

3. The combination with a trolley-wheel, and its support, of a depending frame pivoted upon the axle of the trolley-wheel, two arms curved and pivoted at their lower ends to said frame to drop by gravity away from each other in a plane transverse to the trolley-wire, cords arranged on the curved lower ends of the pivoted arms, and a handle attached to the free ends of said cords, whereby the arms may be swung up toward each other to straddle the trolley-wire, substantially as described.

4. The combination of a trolley-wheel support, a bifurcated swinging frame pivoted at its upper ends to the end of said support, a trolley-wheel journaled between said upper ends of the frame, two arms provided at their lower ends with curved portions pivoted to the lower end of said frame and arranged to drop by gravity away from each other in a plane transverse to the trolley-wire, cords arranged on said curved portions of the pivoted arms, a tubular handle connected to said cords at their free ends, and a cord attached to the trolley-wheel support and passing through said handle, substantially as described.

GEORGE EDWIN JOHNSON.

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