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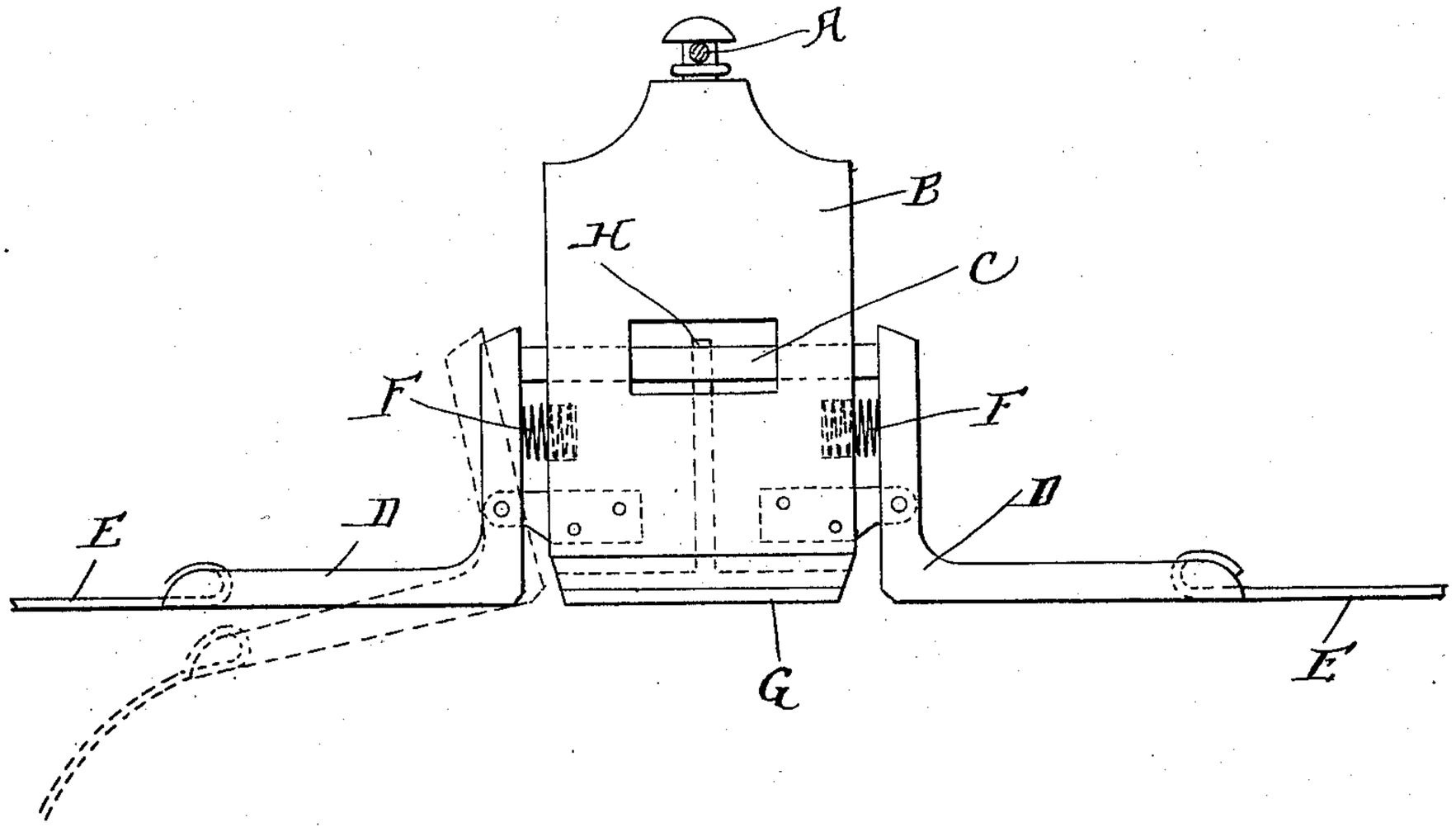
J. ANTIGA.

HANGER FOR TROLLEY WIRES.

APPLICATION FILED JULY 1, 1903.

NO MODEL.



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No. 746,436. Patented December 8, 1903.

UNITED STATES PATENT OFFICE.

JUAN ANTIGA, OF MEXICO, MEXICO.

HANGER FOR TROLLEY-WIRES.

SPECIFICATION forming part of Letters Patent No. 746,436, dated December 8, 1903.

Application filed July 1, 1903. Serial No. 163,857. (No model.)

To all whom it may concern:

Be it known that I, JUAN ANTIGA, a citizen of the Republic of Mexico, residing at Mexico city, Mexico, have invented a certain new and useful Improvement in Hangers for Trolley-Wires, of which the following is a specification.

My invention relates to a new and useful improvement in hangers for trolley-wires, and has for its object to provide an improved hanger which is so constructed that if the trolley-wire is broken at any point the hanger will operate to cut off the current from the broken section of the wire at both ends of the section, thus preventing any damage being done by the grounding of the broken wires.

With these ends in view this invention consists in the details of construction and combination of elements hereinafter set forth and then specifically designated by the claim.

In order that those skilled in the art to which this invention appertains may understand how to make and use the same, the construction and operation will now be described in detail, referring to the accompanying drawing, forming a part of this specification, in which is represented a side elevation of my improved trolley-hanger, showing the same in its normal position in full lines and in dotted lines the position it would assume when one of the wires have become broken.

It is a well-known fact that when a trolley-wire is broken from any cause whatsoever and the broken wire descends toward the ground great damage is generally caused before the main station can be notified and the current cut off, and while this is more especially true of trolley-wires, it is also true of all wires over which a current of high potential passes, in which the ground is used for the return of the current. With my improved hanger I obviate this disadvantage by automatically cutting off the current from the broken wire instantly and before the wire reaches the ground.

My hanger may be supported or suspended in any manner desired from a cross-wire A or any other suitable support.

B is the body of the hanger, which may be of any suitable insulating material, and through this body B passes transversely a bar C, which extends outward a slight distance upon each side of the body.

D represents bell-crank levers pivoted to the body upon each side, the trolley-wires E being secured to the outer ends of the horizontal members of the bell-crank levers, and the lower surface of the horizontal members of the levers form a runway for the trolley-wheel. The tension of the wires will tend to normally hold the upper ends of the vertical members of the levers in contact with the transverse bar C, and thus the current will normally pass from one wire through the levers and transverse bar to the other wire.

F represents springs interposed between the body B and the vertical members of the bell-crank levers above the pivotal point. Thus it will be seen that should a section of wire upon one side of the hanger become broken, and the tension of the wire therefore removed, the spring F upon that side will act so as to throw the bell-crank lever out of connection with the transverse bar, and therefore cut off the current from the broken wire.

G is a metal runway secured upon the lower end of the body and in alinement with the trolley-wire, so as to provide a runway between the levers for the trolley-wheel, and, if desired, an electric connection can be made with this runway G by means of a rod H, extending upward through the body to the transverse bar C.

Of course in using this hanger around curves a gooseneck-support could be used, or any manner of suspension of the hanger could be utilized desired, and I do not wish to limit myself to any such details, as my invention consists solely in the automatic cutting out of the current when the wire is broken. Therefore I do not wish to be limited to the exact construction here shown, as slight modifications could be made without departing from the spirit of my invention.

Having thus fully described my invention, what I claim as new and useful is—

In a hanger for electric wires, an insulated body, bell-crank levers pivoted upon each side of the body, trolley-wires secured to the outer end of the horizontal members of the

bell-crank levers, a bar extending transversely through the body, the tension of the trolley-wires adapted to normally hold the vertical members of the bell-crank levers in contact with each end of the bar, springs interposed between the body and the vertical members of the bell-crank levers above the pivotal point, a metallic runway secured to the lower end of the body in alinement with the trolley-wire, an electric connection between said runway and the transverse bar, as and for the purpose specified.

In testimony whereof I have hereunto affixed my signature in the presence of two subscribing witnesses.

JUAN ANTIGA.

Witnesses:
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