

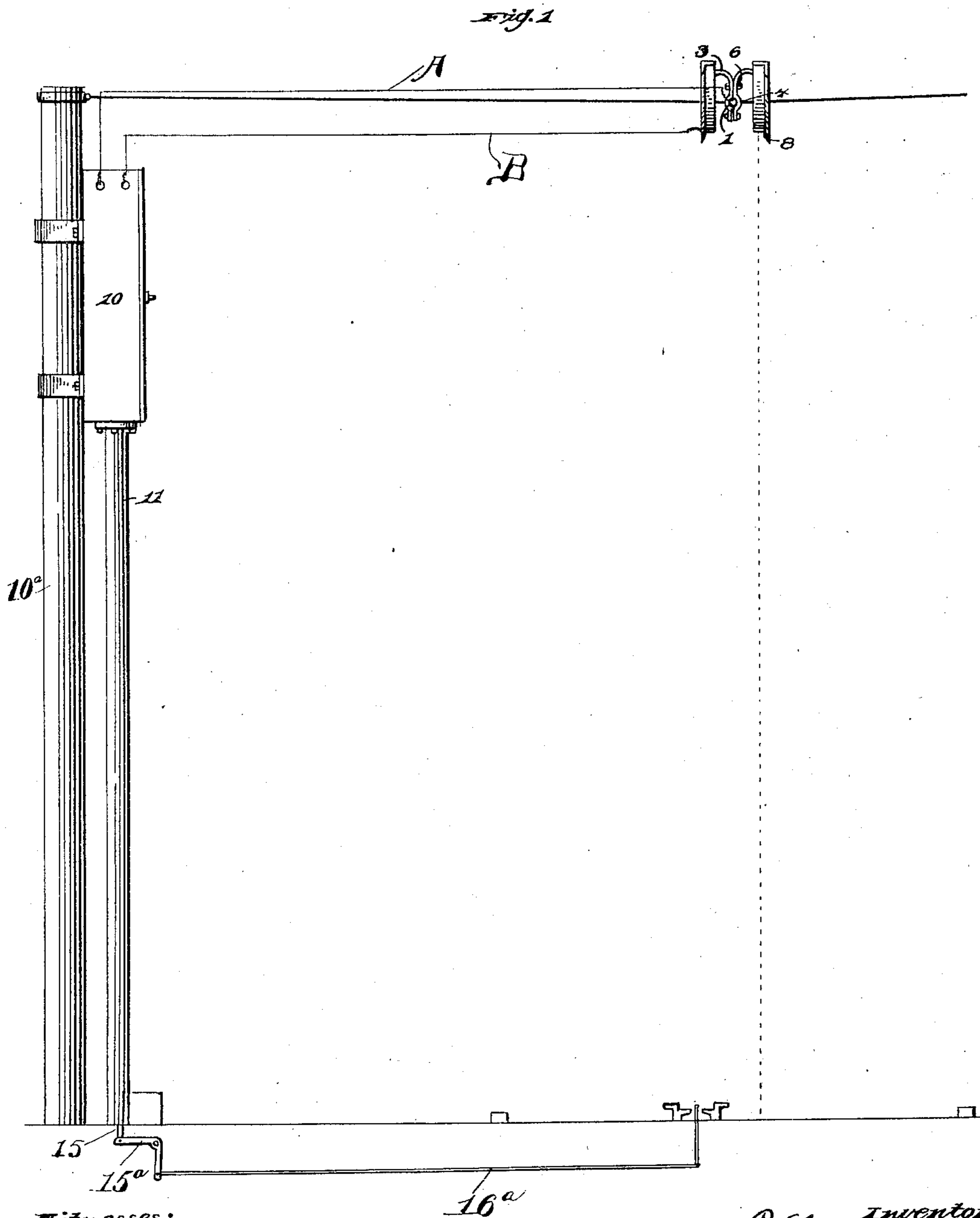
No. 736,063.

PATENTED AUG. 11, 1903.

R. L. BORDER.
ELECTRICAL SWITCH.
APPLICATION FILED MAR. 24, 1902.

NO MODEL.

2 SHEETS—SHEET 1.



Witnesses:

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M. Hunter

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att'y.

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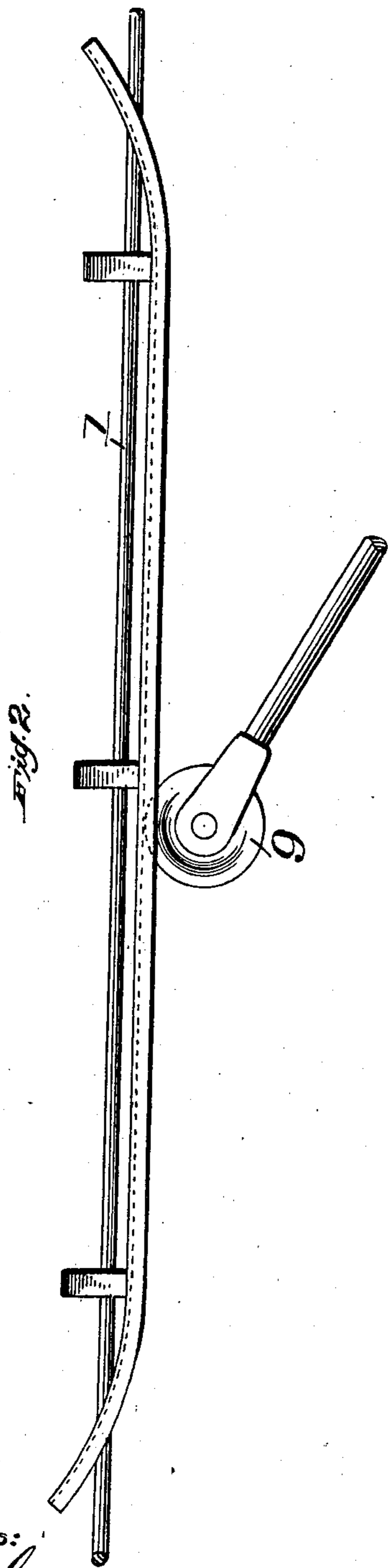


Fig. 4.

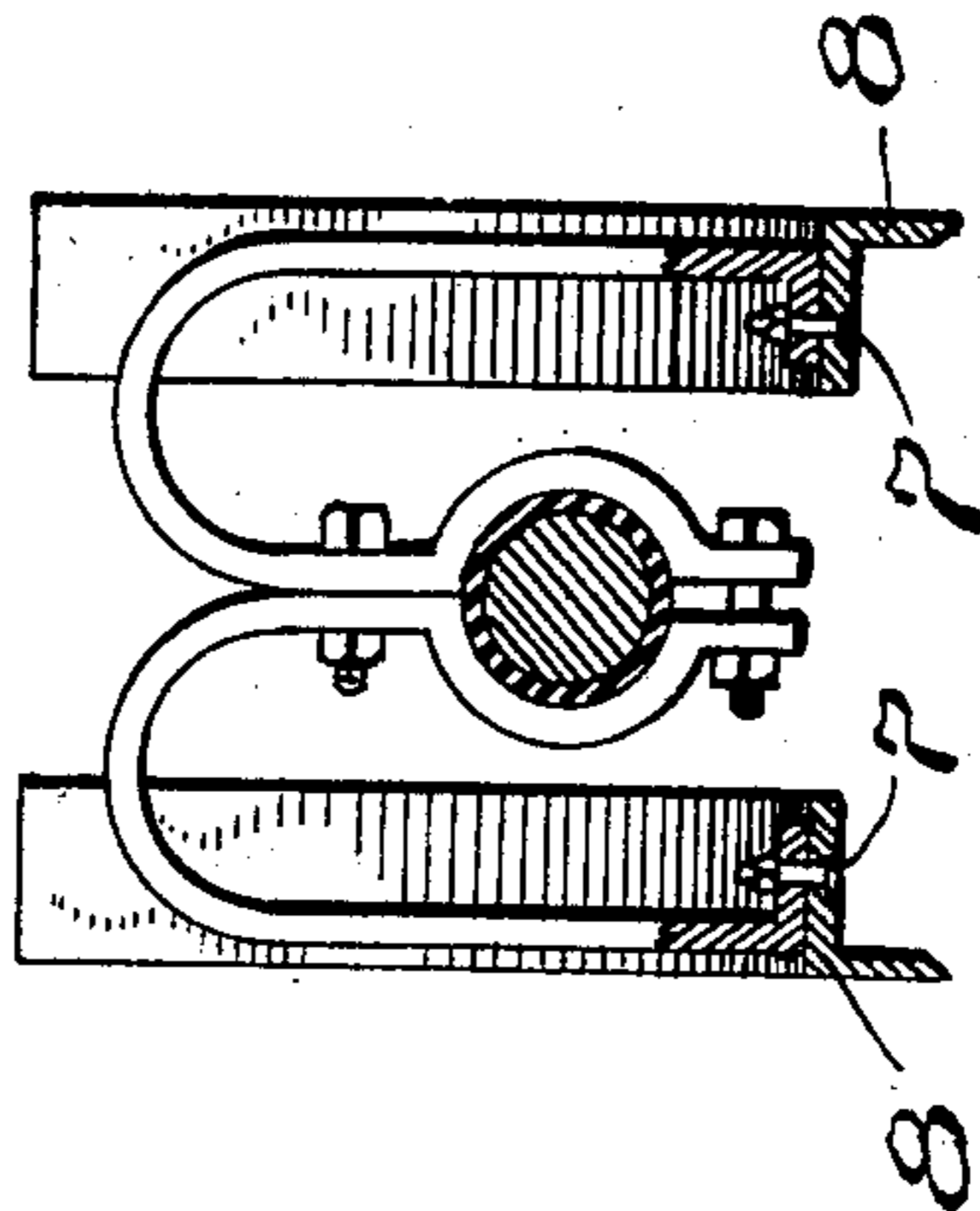
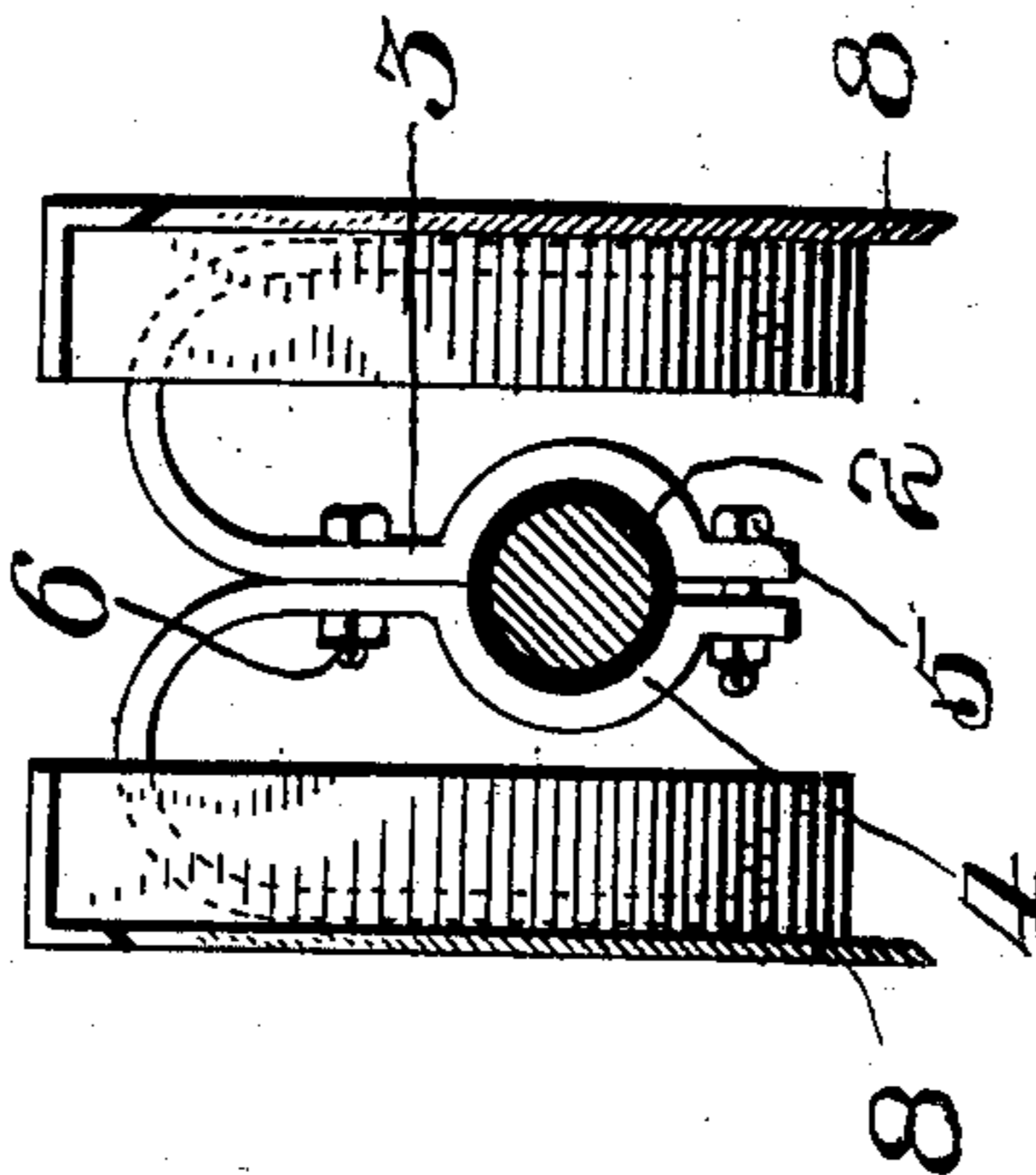


Fig. 3.



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UNITED STATES PATENT OFFICE.

RUPERT L. BORDER, OF PITTSBURG, PENNSYLVANIA, ASSIGNOR OF ONE-HALF TO W. H. TUDOR.

ELECTRICAL SWITCH.

SPECIFICATION forming part of Letters Patent No. 736,063, dated August 11, 1903.

Application filed March 24, 1902. Serial No. 99,634. (No model.)

To all whom it may concern:

Be it known that I, RUPERT L. BORDER, a citizen of the United States, residing at Pittsburgh, in the county of Allegheny and State of Pennsylvania, have invented a new and useful Improvement in Electrical Switches, of which improvement the following is a specification.

This invention relates to certain new and useful improvements in trolley-wheel guides used in connection with electrically-operated switches; and the primary object thereof is to provide a device of this type which can be readily attached to the trolley-wire.

A still further object of the invention is to provide a device of this character that will be extremely simple in construction, strong, durable, comparatively inexpensive to manufacture, and highly efficient in its use.

With the above and other objects in view the invention consists in the novel construction, combination, and arrangement of parts, to be hereinafter more fully described, and specifically pointed out in the claims.

In describing the invention in detail reference is had to the accompanying drawings, forming a part of this specification, and wherein like numerals of reference indicate like parts throughout the several views, in which—

Figure 1 is a side elevation showing the parts operatively connected. Fig. 2 is a side elevation of the trolley-wire, showing the guides attached thereto and the trolley-wheel in position. Fig. 3 is an enlarged vertical sectional view taken on Fig. 2 in front of the hangers for securing the guides. Fig. 4 is a similar view showing the connection of the hangers and guides.

In the accompanying drawings the reference-numeral 1 designates a trolley-wire, over which is secured at a point near the switch-tongue an insulated cover 2.

3 represents the clamping-sections, provided with inwardly-curved arms 4, which embrace the insulated covering of the trolley-wire and being bolted together, as shown at 5 and 6. The outer ends of these arms 4 are

secured at 7 to the metallic guides 8, which are engaged by the trolley-wheel 9, carried by the trolley-arm of an electric car. The trolley-wheel 9 is of the well-known construction, the same being circumferentially grooved for contact with the trolley-wire when the said wheel is raised to its full extent, and it has a width that enables it to run along on the two parallel metallic contact-guides 8 when the said trolley-wheel reaches the said guides and leaves the trolley-wire.

10 indicates a box suitably supported upon the pole 10^a and casing 11, within which is mounted the electrically-controlled switch-operating mechanism.

15 indicates a rod slidably mounted in the casing 11 and having its upper end projecting into the box 10 and being adapted to be reciprocated by the said mechanism, which movement is imparted to the bell-crank lever 15^a and connecting-rod 16^a, which actuates the switch-tongue (not shown) in either direction.

A and B indicate the circuit-wires for the switch-controlling mechanism, which are connected to the trolley-wire and guides, respectively.

The manner of operating my improved device, as well as the many advantages obtained by the use thereof, will be readily apparent from the foregoing description, taken in connection with the accompanying drawings.

It will be noted that various changes may be made in the details of construction without departing from the general spirit of my invention.

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

1. The combination with an electric switch-throwing device, of a section of trolley-wire, trolley-wheel guides arranged on opposite sides of and insulated from the said wire, curved arms secured to the said guides, and means for securing the said arms to the said trolley-wire, substantially as described.

2. The combination with an electric switch-throwing device, of a section of trolley-wire,

trolley-wheel guides arranged on opposite sides of the said wire, and inwardly-curved arms insulated from the said wire, said arms having their outer ends detachably secured
5 to the said guides and their inner ends encircling the said trolley-wire and detachably secured thereto, substantially as described.

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

RUPERT L. BORDER.

In presence of—

JOHN GROETZINGER,
M. HUNTER.