

No. 705,020.

Patented July 22, 1902.

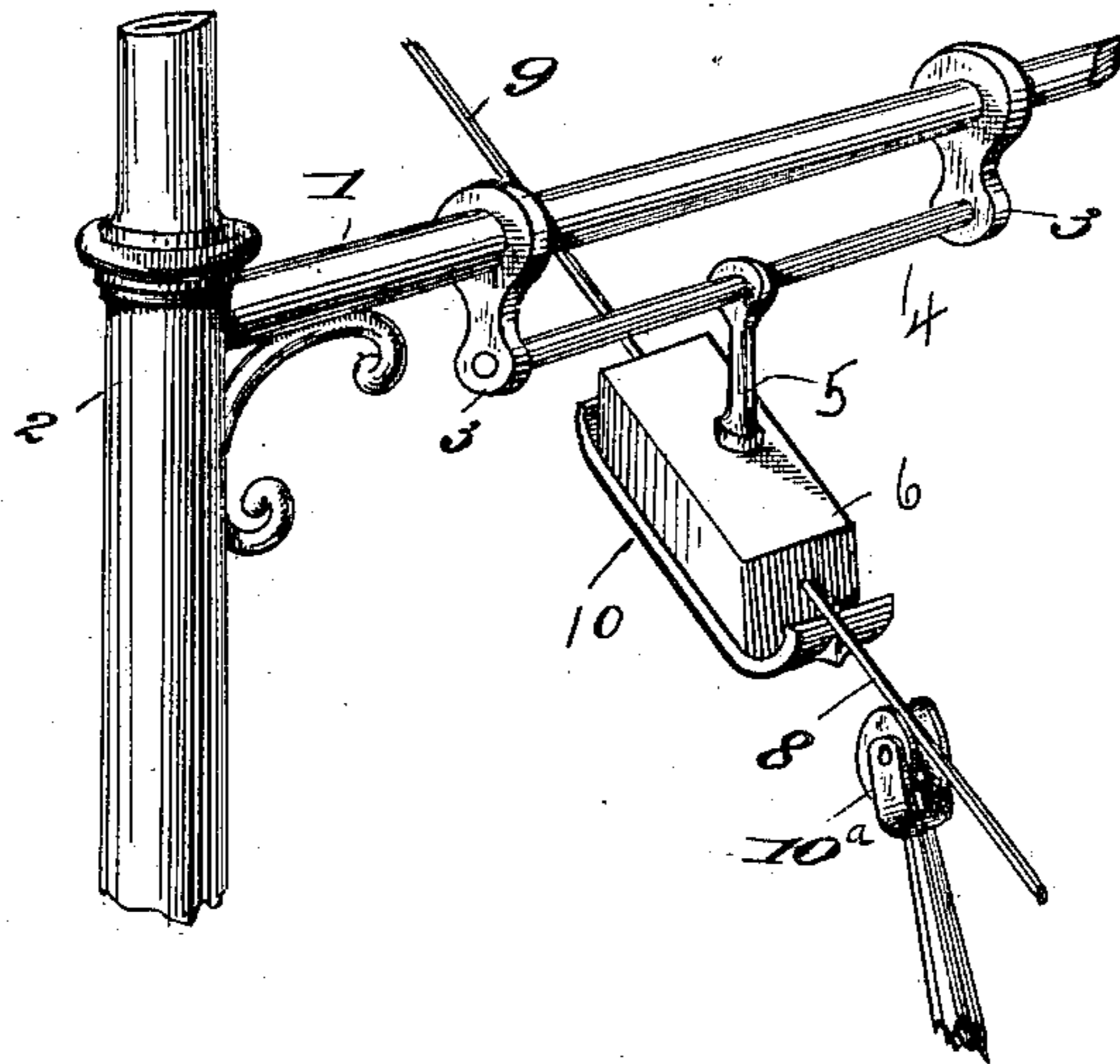
G. BELLANGÉ.

SAFETY CONTACT INTERRUPTER FOR ELECTRIC WIRES.

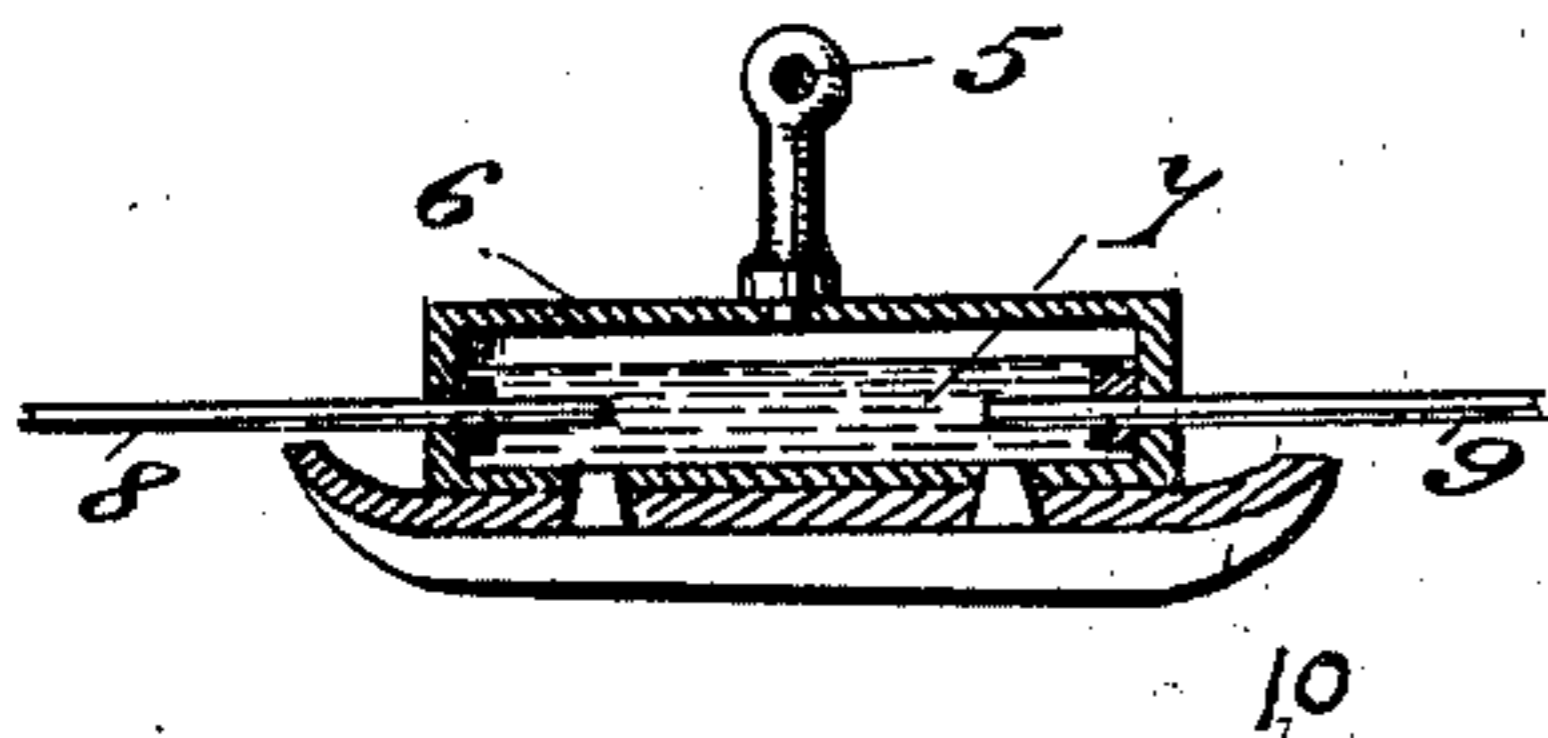
(Application filed Sept. 9, 1901.)

(No Model.)

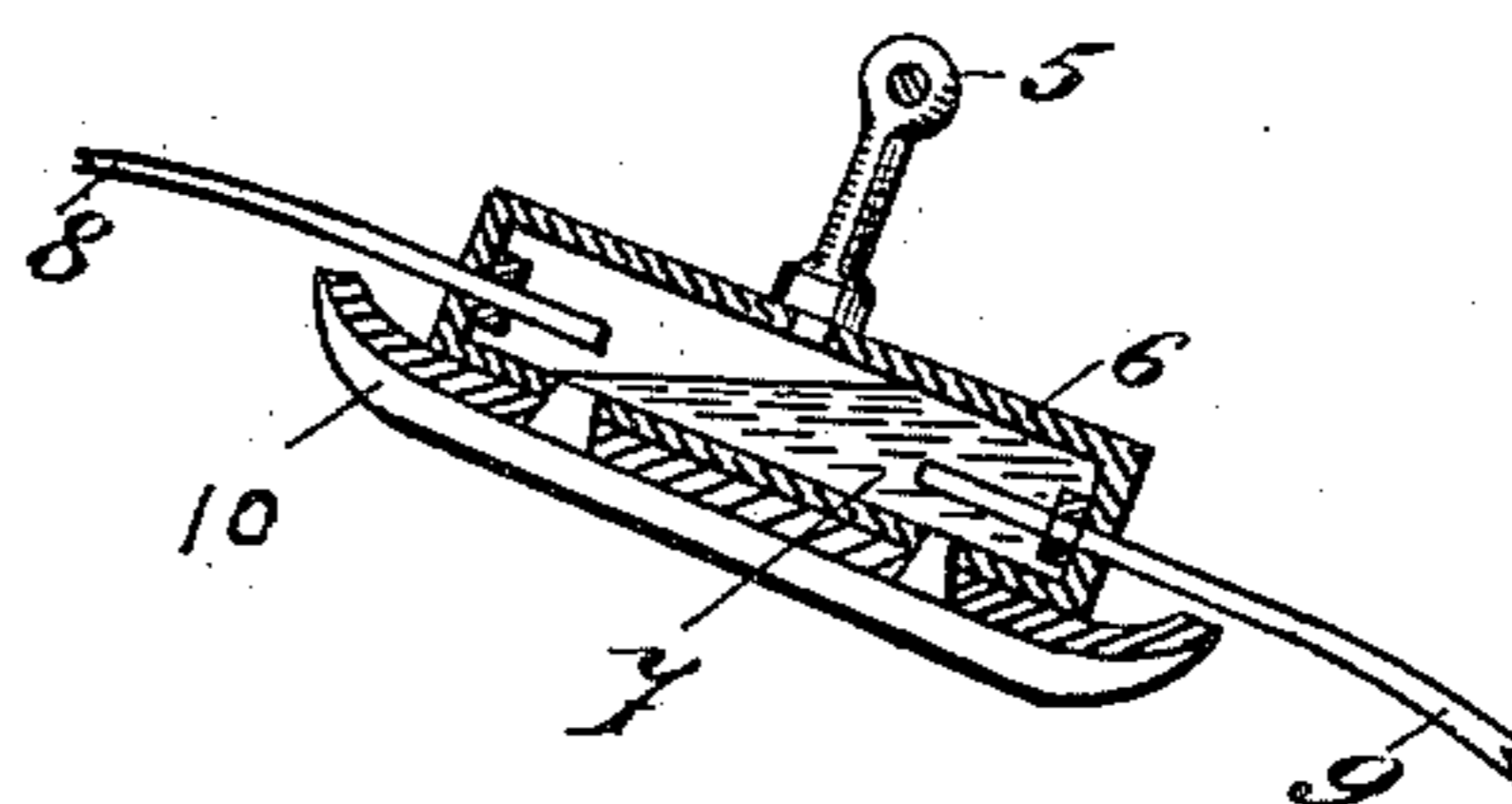
*Fig. 1.*



*Fig. 2.*



*Fig. 3.*



Witnesses:

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# UNITED STATES PATENT OFFICE.

GASTON BELLANGÉ, OF ARCACHON, FRANCE.

## SAFETY CONTACT-INTERRUPTER FOR ELECTRIC WIRES.

SPECIFICATION forming part of Letters Patent No. 705,020, dated July 22, 1902.

Application filed September 9, 1901. Serial No. 74,755. (No model.)

*To all whom it may concern:*

Be it known that I, GASTON BELLANGÉ, a citizen of the French Republic, and a resident of Arcachon, France, have invented certain new and useful Improvements in Safety Contact-Interrupters for Electric Wires, of which the following is a specification.

The object of the present invention is an electrical appliance the object of which is to interrupt the current received by it from a wire and which is normally communicated to another wire when one of the said wires is broken or displaced.

This invention is applicable to a large variety of cases; but by way of example in the present description it will be regarded as applied to the overhead wire of an electric tram-car.

In the accompanying drawings, Figure 1 is a perspective view of the appliance. Fig. 2 is a longitudinal vertical sectional view. Fig. 3 is a view showing the interrupter when the wire is breaking.

To the arm 1 of a column 2 is suspended by two supports 3 a cylindrical rod 4, upon which may freely turn a hanger 5, to which is fixed a box 6. This box is made of an insulating material and is partially filled with mercury, (shown by the reference-number 7, Figs. 2 and 3,) in which are submerged the ends of the wires 8 and 9, which extend entirely through the ends of the casing. Under the bottom of the box 6 is fixed a plate 10, provided with a V-shaped projection the two ends of which are bent upwardly, so as to facilitate the passage of the collecting-trolley 10<sup>a</sup>, Fig. 1. In the event of one of the wires 8 and 9 breaking, falling, or moving out of

its proper position it carries with it the box 6, and consequently the mercury contained in the said box moves into the lowermost part, Fig. 3. For this reason when the mercury has moved the end of the other wire is above the level of the mercury and is no longer in contact with the same. The current is interrupted, and thus it becomes impossible for any accident to result from the electric discharge of the broken wire.

The practical use of this appliance is not limited to the above-described example. The safety contact-interrupter may be applied to any electric wires, cables, and the like for the purpose of automatically stopping the current.

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

In a contact-interrupter, the combination of a casing having a quantity of mercury therein, of a hanger centrally secured to said casing, conductor-wires extending entirely through the ends of said casing and engaging said mercury, a pair of suitably-mounted supports suitably spaced apart carrying a rod, the upper end of said hanger being centrally and movably mounted on said rod, and a plate carrying a V-shaped projection mounted on the under face of the said casing for engagement with the trolley-wheel, substantially as described.

In testimony whereof I have hereunto set my hand in presence of two witnesses.

GASTON BELLANGÉ.

Witnesses:

LOUIS TRICOT,  
CLYDE C. TOURGEE.