

(No Model.)

R. SKEEN.
ELECTRIC CONTACT DEVICE.

No. 567,816.

Patented Sept. 15, 1896.

Fig. 3.

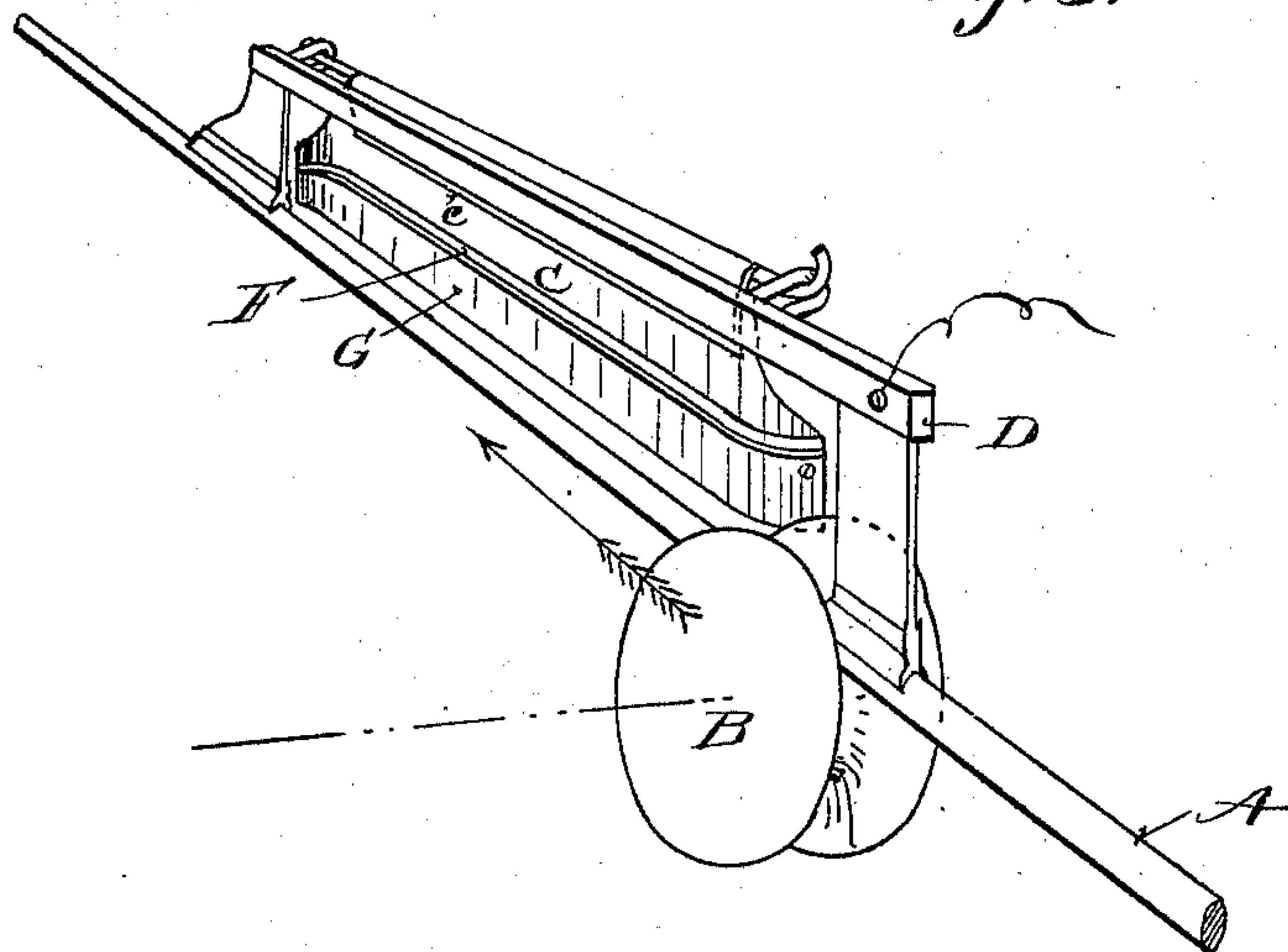


Fig. 2.

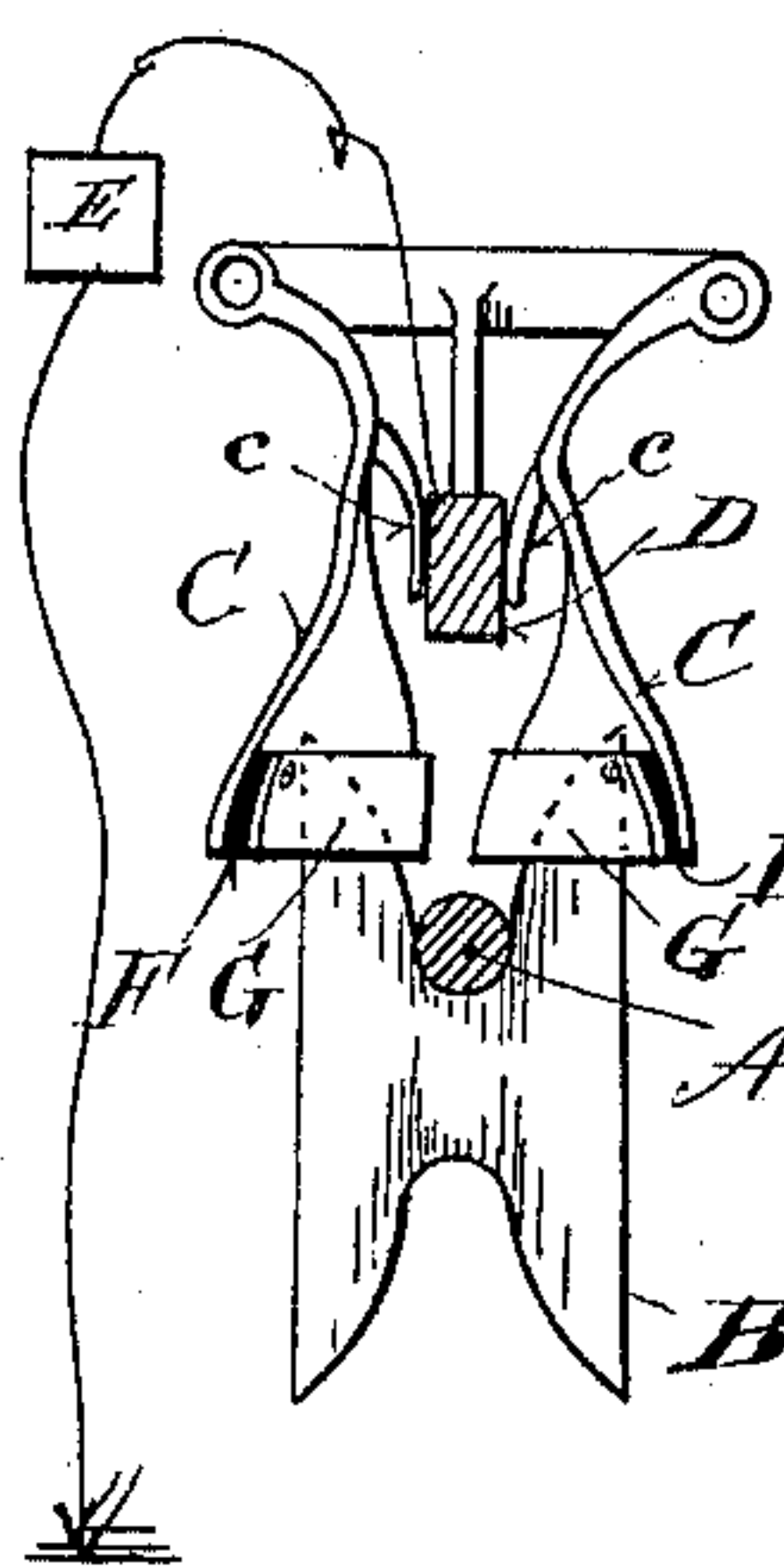
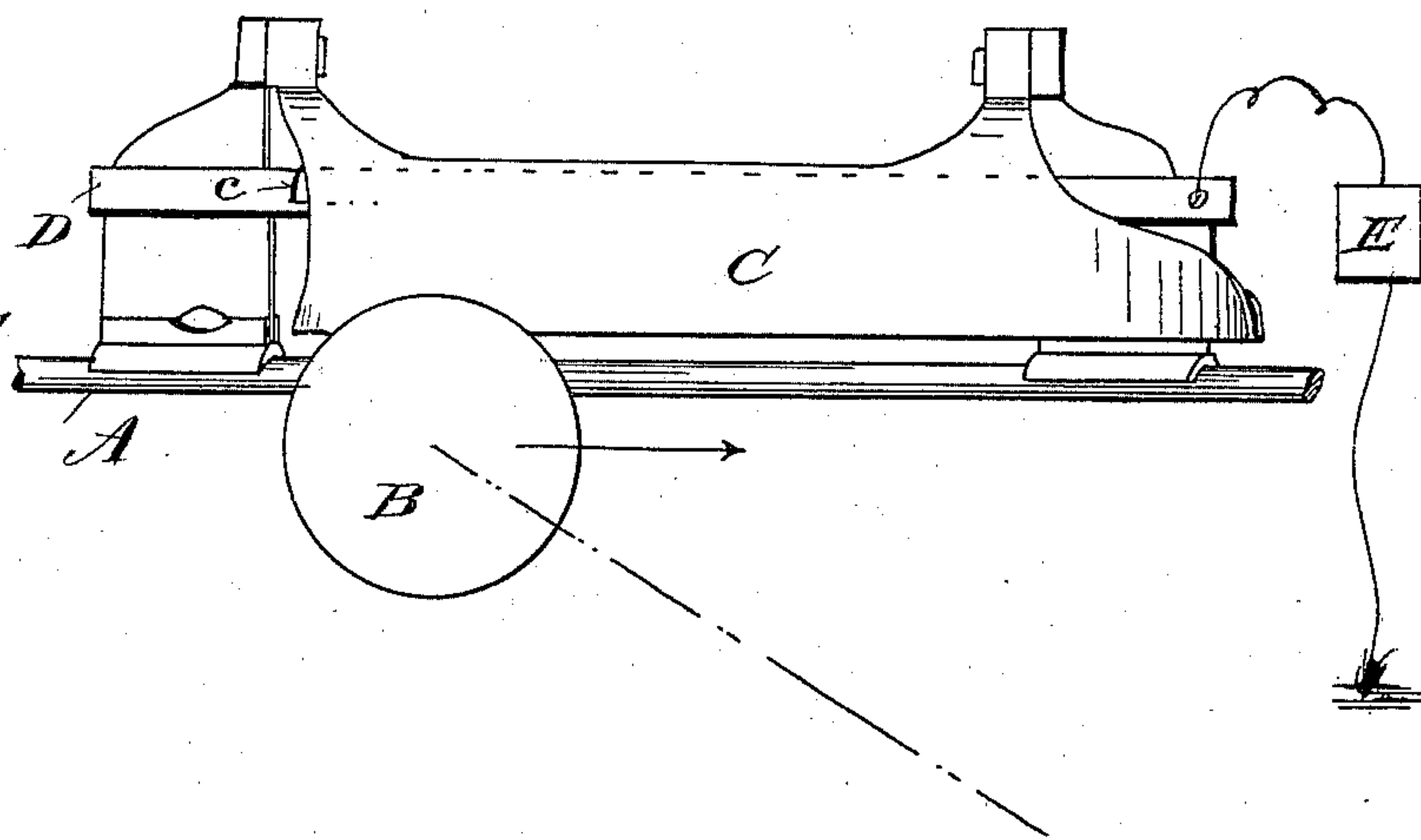


Fig. 1.



Witnesses:
J. Forrester
agent Mathey

Inventor:
Robert Skeen
By H. M. Phisted.
Attorney.

UNITED STATES PATENT OFFICE.

ROBERT SKEEN, OF MADISON, ILLINOIS, ASSIGNOR TO THE SKEEN ELECTRIC SWITCH AND SIGNAL COMPANY, OF ST. LOUIS, MISSOURI.

ELECTRIC CONTACT DEVICE.

SPECIFICATION forming part of Letters Patent No. 567,816, dated September 15, 1896.

Application filed February 17, 1896. Serial No. 579,611. (No model.)

To all whom it may concern:

Be it known that I, ROBERT SKEEN, a citizen of the United States, residing at Madison, in the county of Madison and State of Illinois, have invented certain new and useful Improvements in Electric Contact Devices, of which the following is a specification, reference being had therein to the accompanying drawings.

10 This invention relates to certain new and useful improvements in electric contacts, especially adapted to trolley-wheels traveling past the same.

15 The object of my improvements is to complete the electric circuit when the trolley or other traveling energizer passes my contact device in one direction and to avoid completing said circuit when it passes in the other direction.

20 The peculiarities of my contact will be hereinafter described and claimed.

25 In the accompanying drawings, on which like reference-letters indicate corresponding parts, Figure 1 represents a side view of my contact device in connection with a trolley wire and wheel; Fig. 2, an end view with trolley-wheel making electric contact with the wings, and Fig. 3 a single wing.

30 The letter A designates the live trolley-wire or electric conductor, and the letter B the trolley traveling along the same. Above the trolley-wire and insulated from it is pivoted a pair of wings C C, depending in the path of the trolley-wheel and yet out of contact with the trolley-wire. One wing of the pair may be used, as in Fig. 3, and the wing may be otherwise mounted. A bar D is mounted on the trolley-wire, preferably, and insulated from the wire and the adjacent wings. Electrical connections are made for this bar, such as to a signal E and thence to the ground. These depending wings make electric contact with said bar when energized and moved laterally by the passing trolley. The bar thus forms a secondary contact-piece, engaged by spring extensions c of the wings. Each wing is turned outward at one end beyond the rim of the trolley-wheel, so that when the wheel approaches the wing from that end it will pass at one side or between the wings, separating them and breaking contact with

the bar D, while from the other direction the wheel will pass on the outside of each wing, Figs. 1 and 2, energizing them and the secondary contact and completing the circuit through the signal or other apparatus. On the inside of each wing is secured a strip of insulating material F, having a guard-strip G, with which the wheel contacts without energizing the wing when passing along that side of it. Indurated fiber may be used for the insulating-strip, which may be used without the guard-strip G in some cases.

35 In my application Serial No. 562,984 I have shown a double-winged contact device. In this present application I have shown a single contact-piece extending along above the trolley-wire and substantially parallel thereto, and adapted to be energized simply by and through the trolley-wheel itself. There is thus no danger of accidental contact with the live trolley-wire, as in an old construction, in which a flexible wire is suspended below the trolley-wire and is lifted up into contact with the live wire by the trolley-wheel. Neither is there in my device the obstruction to the trolley-wheel presented by the supporting-hanger for the subteriorly-located contact-wire of the old construction before mentioned, but the under side of the trolley-wire is perfectly clear of any attachments that are liable to cause a jump in the trolley-wheel when it strikes them. Neither is there required in my construction any additional mechanism carried on the trolley-pole, but the contact-piece is energized directly from the trolley-wheel alone as it rolls along the smooth unobstructed trolley-wire.

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

1. A trolley contact device comprising an insulated bar to be mounted above a trolley-wire, depending contact-plates carried thereby in the path of the trolley, said plates being turned outward at one end and having a secondary contact with said bar, and electrical connections by which the circuit is opened or closed according to the direction of travel of the trolley.

2. A trolley contact device comprising one or more wings to be located in the path of a

trolley for contact therewith, and each wing having a spring extension forming a secondary contact portion, a matching contact bar or piece insulated from said wing or wings, 5 and electrical connections for said bar, substantially as described.

3. A trolley contact device comprising a contact-piece insulatively mounted above the trolley-wire in the path of the trolley, one end 10 lying outside the path of the trolley-wheel groove, and a strip of insulating material along one wheel-contacting side of said piece, substantially as described.

4. The combination with a trolley-wire and 15 trolley-wheel, of a contact device comprising a contact-wing provided with an insulating-strip along one side, said wing being laterally movable and curved to effect contact of

the wheel on one side from one direction and on the other side from the other direction, 20 and electrical connections energized when the wing is in electrical contact with said trolley.

5. In a trolley contact device, a laterally-movable piece insulatively mounted above the trolley-wire, its lower edge lying in the 25 path of the trolley, a guard-strip mounted along one side of the lower edge of said piece, and insulating material between said guard-strip and said piece.

In testimony whereof I affix my signature 30 in presence of two witnesses.

ROBERT SKEEN.

Witnesses:

ALFRED A. MATHEY,
H. M. PLAISTED.