

(No Model.)

J. F. BLAKE.
ELECTRICAL CONTACT MECHANISM.

No. 518,133.

Patented Apr. 10, 1894.

Fig. 1.

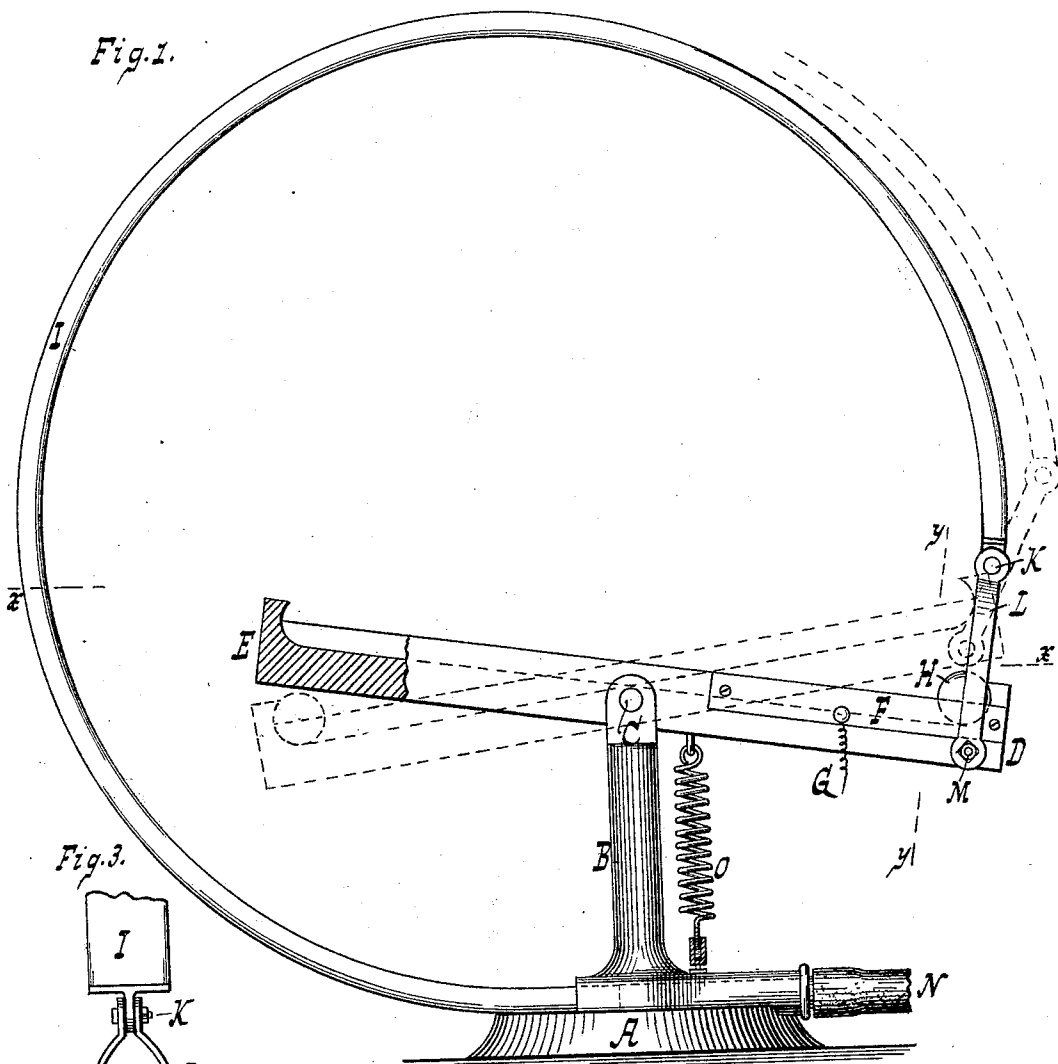


Fig. 3.

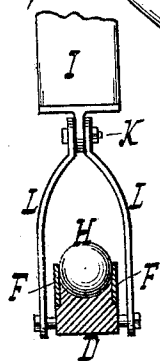
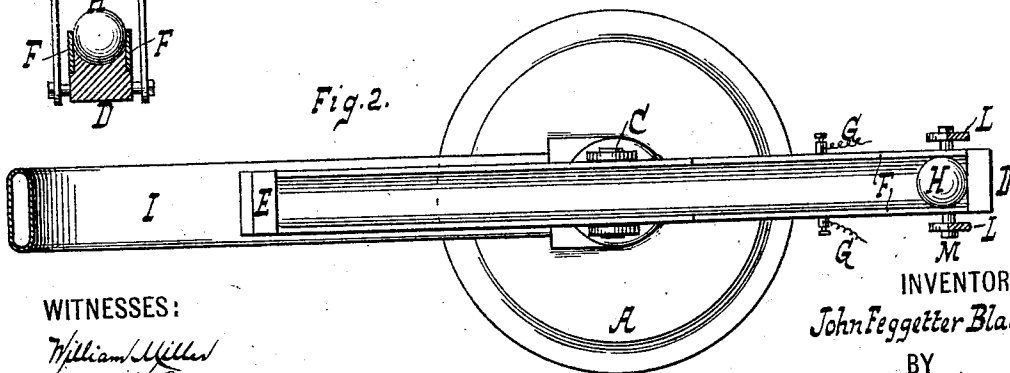


Fig. 2.



WITNESSES:

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UNITED STATES PATENT OFFICE.

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ELECTRICAL CONTACT MECHANISM.

SPECIFICATION forming part of Letters Patent No. 518,133, dated April 10, 1894.

Application filed January 25, 1894. Serial No. 497,973. (No model.)

To all whom it may concern:

Be it known that I, JOHN FEGGETTER BLAKE, a citizen of the United States, residing at New Haven, in the county of New Haven and State of Connecticut, have invented new and useful Improvements in Electrical Contact Mechanism, of which the following is a specification.

The object of this invention is to provide a contact mechanism which will operate rapidly so as to avoid arcs and which at the same time is simple and cheap of construction as set forth in the following specification and claims and illustrated in the annexed drawings in which—

Figure 1 is a side elevation of the mechanism. Fig. 2 is a section along *xx* Fig. 1. Fig. 3 is a section along *yy* Fig. 1.

In the drawings the letter A indicates a base or support the standard B of which carries a joint or fulcrum C for the lever or swinging arm D E. The lever D E is formed of insulating or non conducting material, or its portion E is formed as a non conductor. At the lever portion D are secured metallic or conducting strips F forming terminals for the electric conductors G. The strips F are separated some distance and on or between said strips is shown a ball H of metal or conducting material forming a rolling contact and of a diameter or size sufficient to fill the space between the oppositely arranged conducting strips F. The ball H when on or between the strips F closes the contact as seen from the full lines in Fig. 1.

When the lever D E moves to the position shown in Fig. 1 by broken lines the contact H rolls or travels away from the terminals F to the insulating lever portion E. The contact is now broken. On the return of the ball H to the lever portion D the contact is restored. As the ball is adapted to roll speedily from and to the terminals F the formation of arcs is avoided.

The lever D E can be actuated by suitable mechanism.

By employing an elastic flattened tube I bent to circular form, generally known as a

Bourdon spring, and connecting one end thereof by links or connections K L M to an arm or end of lever D E, the spring can be made to actuate the lever. By connecting a tube or hose N to the spring I said hose connecting with a tank or reservoir (not shown) in which a certain pressure is to be maintained, and employing the electric current of conductor G to drive a pump for securing said pressure, such pressure can be maintained at a certain degree. If for example the pressure falls below the required degree the spring I will move lever D E to the position shown in Fig. 1 in full lines, to close the contact and start the motor or pump. If the pressure rises above the required degree the parts will move to the position shown in Fig. 1 in dotted lines to break the contact and stop the motor.

A spring O can be employed to aid in actuating lever D E.

What I claim as new, and desire to secure by Letters Patent, is—

1. An electrical contact mechanism, consisting of a pivoted lever or arm provided with an insulating portion and separated conducting strips, electrical terminals connected to said conducting strips, a rolling contact adapted to travel on the pivoted lever or arm and electrically connect the said conducting strips, and a spring having a jointed connection with the lever or arm for operating the latter, substantially as described.

2. An electrical contact mechanism comprising a lever or swinging arm provided with electrical terminals and with an insulating portion, a rolling contact adapted to travel between the terminals and the insulating portion, and a hollow spring connected to said lever and adapted to receive pressure for actuating the lever substantially as described.

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

JOHN FEGGETTER BLAKE.

Witnesses:

WILLIAM E. HIGGINS,
JOHN J. HOWARD.