

(No Model.)

2 Sheets—Sheet 1.

A. T. MACCOY.
ELECTRIC SWITCH.

No. 517,957.

Patented Apr. 10, 1894.

FIG. 1.

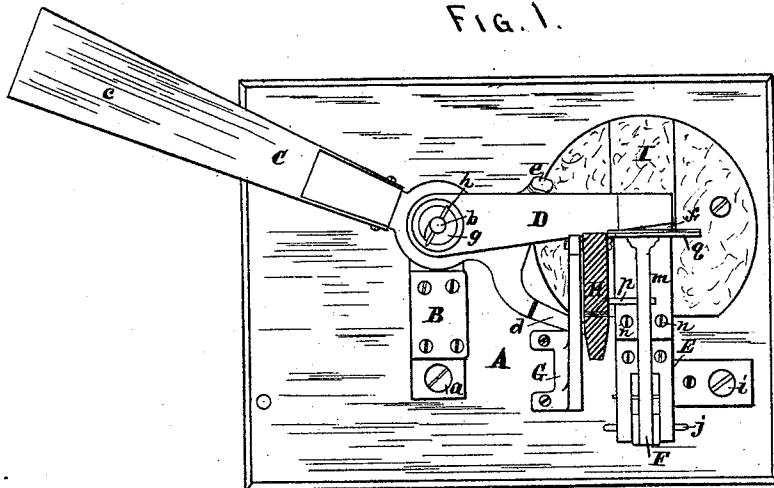


FIG. 2.

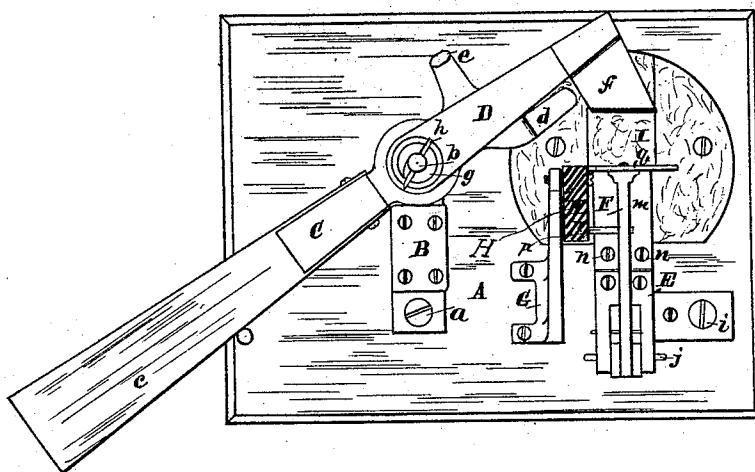


FIG. 3.

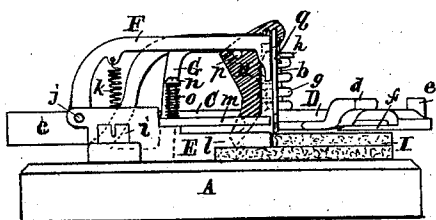
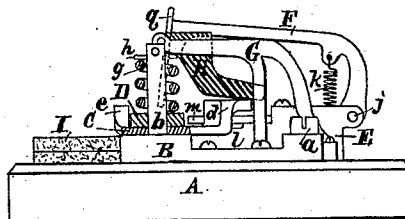


FIG. 4.



WITNESSES:
Richard T. Laffin
Amos W. Adams Jr.

INVENTOR:
Andrew T. McCoy,
per Edw. Drummer, Atty.

(No Model.)

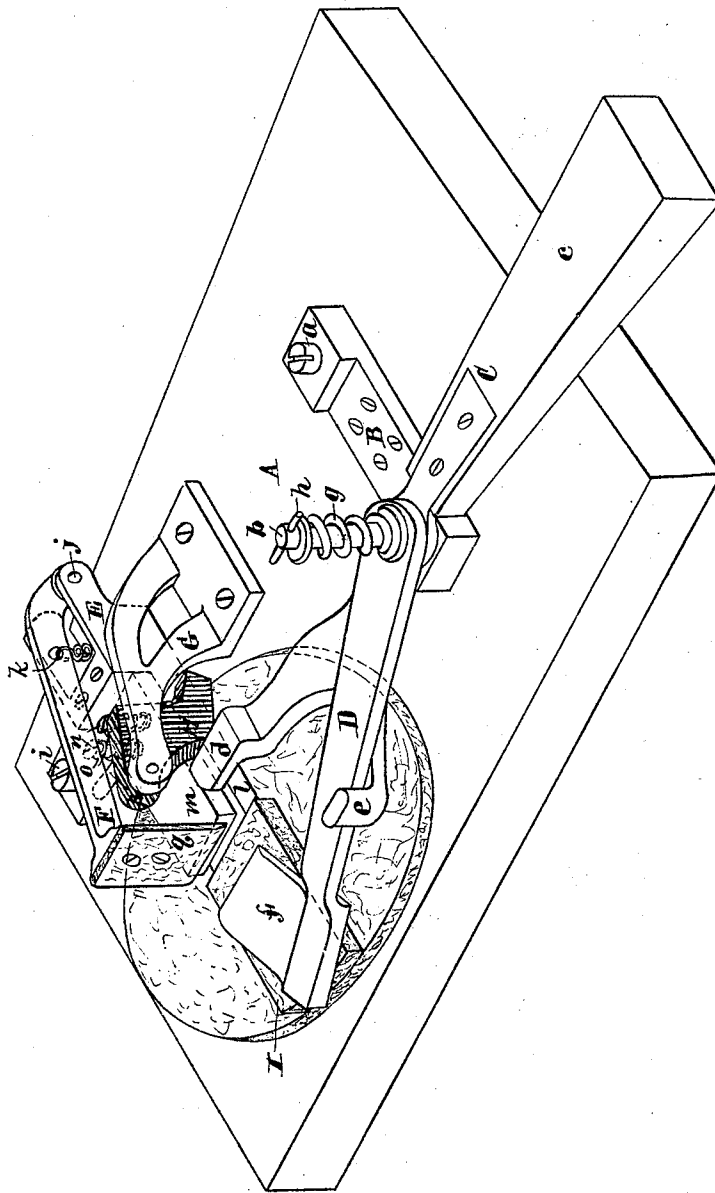
2 Sheets—Sheet 2.

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FIG. 5.



WITNESSES:
R. F. Laffin,
Edward W. Ward

INVENTOR:
Andrew T. McCoy
per Edw. Summer-
City.

UNITED STATES PATENT OFFICE.

ANDREW T. MACCOY, OF BOSTON, MASSACHUSETTS.

ELECTRIC SWITCH.

SPECIFICATION forming part of Letters Patent No. 517,957, dated April 10, 1894.

Application filed April 13, 1893. Serial No. 470,236. (No model.)

To all whom it may concern:

Be it known that I, ANDREW T. MACCOY, a subject of the Queen of Great Britain, residing at Boston, in the county of Suffolk and State of Massachusetts, have invented a new and useful Improvement in Electric Switches, of which the following is a specification, reference being had to the accompanying drawings.

The object of my invention is to prevent or break the electric arc usually formed on the opening of an electric switch, the invention consisting in interposing material which is comparatively a non-conductor of electricity and non-combustible between the members or contact points of an electric switch, on opening the switch, as hereinafter set forth and specifically pointed out in the claims.

In the drawings, two sheets, Figure 1 is a plan of an electric switch embodying my invention, the switch being closed. Fig. 2 is a plan of the same, the switch being open. Fig. 3 is an elevation of one side of the device as shown in Fig. 2. Fig. 4 is an elevation of the other side as shown in Fig. 1, the levers, stud on which they are pivoted and spring thereon being shown in section. Fig. 5 is a perspective view of the device.

On a base A of insulating material is fastened a metallic piece B, to which are secured a binding post a and a vertical stud b. On this stud is pivoted a lever C having at one end a handle c of insulating material, and at the other end two prongs d and e. On this stud is also pivoted another lever D having at the outer end a plate f slightly beveled as shown. A spring g between an abutment or pin h, secured to the stud, and the levers, acts to press the levers one against the other, and both downward onto the base-piece B, thus serving to maintain the levers in true working position. On the base A is also fastened a metallic piece E provided with a binding post i, and a pivot j, on which is pivoted a lever F which is swung downward by means of a spring k. The piece E is extended to form a lower fixed plate l. Above this plate is another plate m, which is maintained in position by two screws n and springs o, so that it may be swung slightly in a vertical direction. On the base A is fastened a stand G to which is pivoted an arm H having a projection p which extends under the lever F. This arm or pro-

jection is of such shape as to be met by the prong d of the lever C and is made, as to a part or the whole, of insulating material. If the base A is of a material somewhat combustible, a piece I of comparatively incombustible material, as asbestos, is secured thereon in such position as to surround sufficiently the plate l, as shown. To the lever F is fastened a plate q which is also comparatively a non-conductor of electricity and non-combustible, and when down will meet the piece I very near the outer ends of the plates l and m.

In operation, to close the switch the lever C is swung by hand so as to first cause the prong d to come in contact with the arm H and swing the latter upward so as, by means of the projection p, to raise the lever F and the plate q fixed thereto. Further movement of the lever C causes the prong e to meet and swing the lever D so that the plate f will enter between the plates l and m thus completing the circuit. A reverse movement of the lever C removes the prong d out of contact with the arm H, thus allowing the lever F to fall and the plate q to drop onto the plate f, and thereafter when the prong d meets the lever D, the latter being swung thereby, the plate f is removed from between the plates l and m thus breaking the circuit, and allowing the lever F to fall still farther to carry the plate q downward sufficiently to intervene between the plates l m and the plate f, that is, between the members or contact points of the switch, thus cutting the arc or preventing the same from being prolonged.

I claim as my invention—

1. In an electric switch the combination of two levers, a pivot for the same, and a spring to maintain the levers one upon the other on the pivot, one of the levers being provided with prongs projecting at right angles to the same to meet the other lever and move the latter, substantially as set forth.

2. In an electric switch the combination with the two members thereof of a lever on one member, a contact piece on the other member, and a comparatively non-conducting and non-combustible piece moved by said lever from between the members or contact-points of the switch, substantially as set forth.

3. The combination of two levers, a pivot

for the levers, one of the levers being provided
with prongs by which the other lever is swung,
a plate attached to the latter lever, two plates
between which the former plate enters to com-
5 plete the circuit, and a lever provided with a
piece of comparatively non-conducting and
non-combustible material which lever is piv-
oted in suitable relation to one of said prongs

that said piece will be caused thereby to en-
ter between the contact points, substantially 10
as described.

ANDREW T. MACCOY.

Witnesses:

J. FRANK MIXER,
EDW. DUMMER.