

G. SWEETSER.
ELECTRIC SWITCH.
APPLICATION FILED NOV. 30, 1909.

979,354.

Patented Dec. 20, 1910.

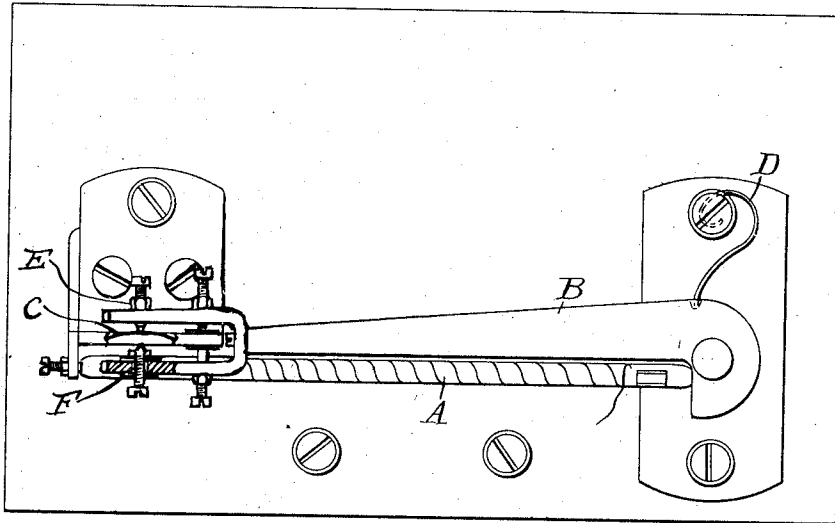


Fig. 1.

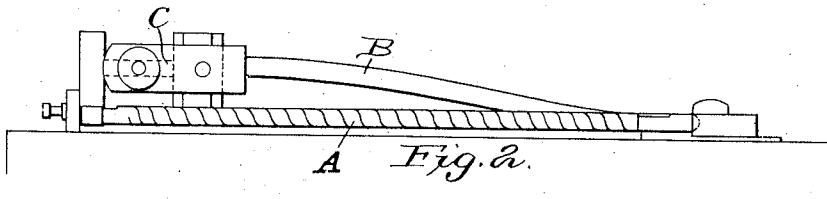


Fig. 2.

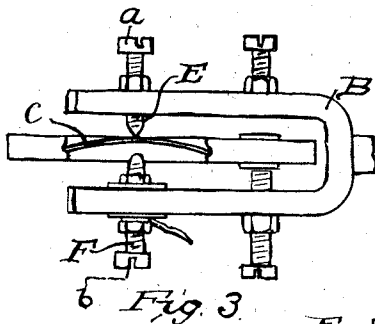


Fig. 3.

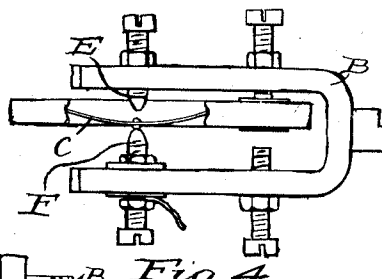


Fig. 4.

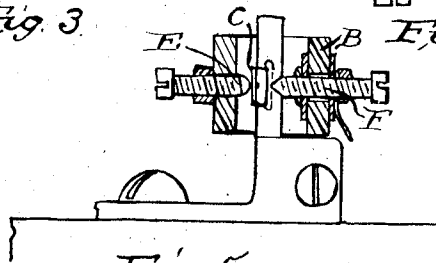


Fig. 5.

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UNITED STATES PATENT OFFICE.

GEORGE SWEETSER, OF LONDON, ENGLAND.

ELECTRIC SWITCH.

979,354.

Specification of Letters Patent.

Patented Dec. 20, 1910.

Application filed November 30, 1909. Serial No. 530,682.

To all whom it may concern:

Be it known that I, GEORGE SWEETSER, who am not a citizen of the United States, residing at Eastgate, Ledrington Road, Upper Norwood, in the county of London, England, have invented certain new and useful Improvements in Electric Switches, of which the following is a specification.

The main object of this invention is the production of quick-make and quick-break electric thermal switches that shall be more simple and efficient than heretofore.

A thermal switch, for automatically opening and closing an electric circuit, made according to this invention is provided with a bracket or standard having an internally grooved opening; in this opening is sprung a thin metal plate or spring contact, buckled or bowed out on one side so as to be capable of being snapped back or forth across its central position. This buckled or bowed plate may be actuated, by suitable connections to any of the expansion rods, strips, or bi-metallic strips now in use, but preferably by the device shown in the accompanying drawings of which—

Figures 1 and 2 are front and side elevations of a multiplying lever motion device; Figs. 3 and 4 are enlargements and Fig. 5 a section showing the buckled or bowed plate in each position.

A, Fig. 1 is the thermal expansion rod or tube wound with wire carrying a current, and engaging the short end of the lever B, the long end of the lever being forked, one

prong of which extends on each side of the buckled plate C which in its normal or closed position is in electrical contact with one prong of the forked lever by the contact E. Upon the current expanding the rod A, the forked end of the lever pushes the buckled plate over until it is past its central position, when the plate snaps freely over on to an insulator on the other prong, the heating coil, lever, and buckled plate being electrically connected in series, the circuit is thus opened; and upon the cooling of the expansion rod, the spring D snaps the buckled plate back to its first position. By substituting an insulated contact F for the insulator on the forked end of the lever, another circuit can be controlled.

Having now particularly described and ascertained the nature of my said invention, and in what manner the same is to be performed, I declare that what I claim is—

An electric thermal switch comprising an electric thermal expansion device, a bowed contact plate and a forked lever oscillated by said expansion device having its forked end straddling the plate so as to snap the same, and contacts carried by said forked lever.

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

GEORGE SWEETSER.

Witnesses:

R. WESTACOTT,
H. D. JAMESON.