(No Model.)

G. T. EYANSON.

ELECTRIC SWITCH.

No. 581,706. Patented May 4, 1897.

Fig. 1.

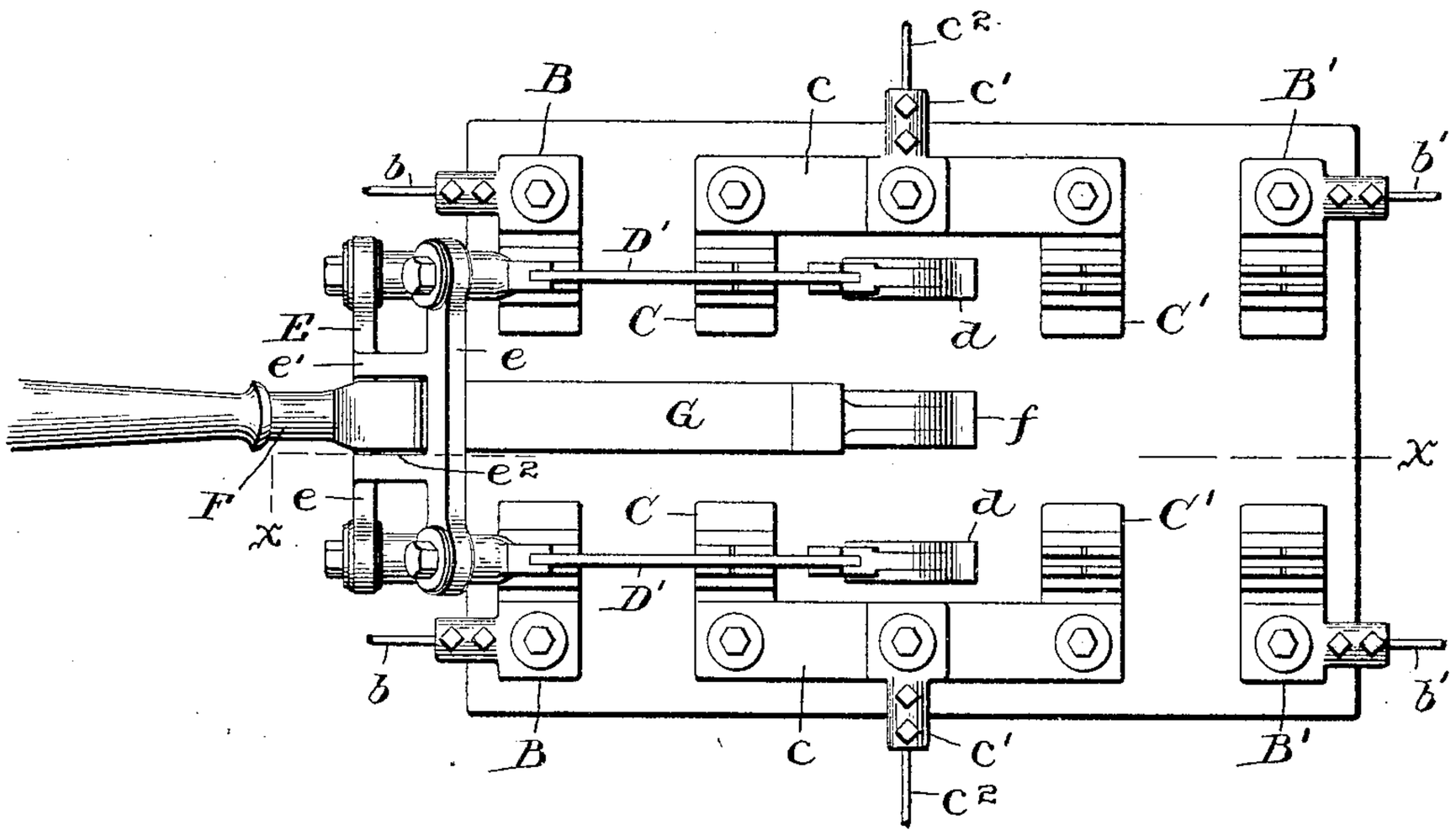
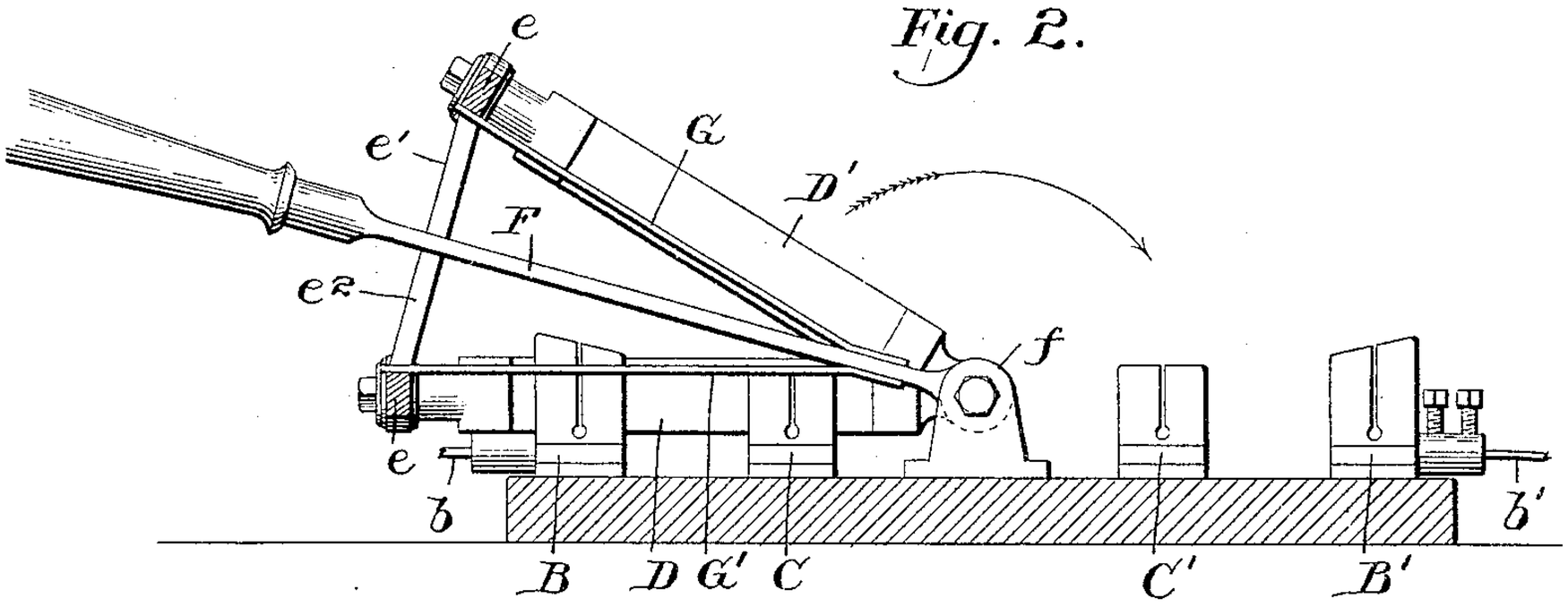


Fig. 2.



Witnesses.

A. V. Groupe

A. V. Blackwood.

Inventor.

George T. Eyanson,

per John R. Nolan

Attorney.

UNITED STATES PATENT OFFICE.

GEORGE T. EYANSON, OF PHILADELPHIA, PENNSYLVANIA.

ELECTRIC SWITCH.

SPECIFICATION forming part of Letters Patent No. 581,706, dated May 4, 1897.

Application filed March 21, 1896. Serial No. 584,270. (No model.)

To all whom it may concern:

Be it known that I, GEORGE T. EYANSON, a citizen of the United States, residing in the city and county of Philadelphia and State of Pennsylvania, have invented certain new and useful Improvements in Electric Switches, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming a part of this specification.

This invention relates to electric switches, having reference more especially to improvements in the switch set out in my Letters Patent of the United States No. 542,848, dated July 16, 1895, to which reference may be had, my object herein being to provide a simple and efficient double-terminal construction possessing the "quick-break" feature of my patented switch, as will be hereinafter particularly described and claimed.

In the drawings, Figure 1 is a side elevation of a switch embodying my invention. Fig. 2 is a longitudinal section thereof as on the line x x of Fig. 1.

A represents a base; B B′, spring-clips arranged thereon in pairs to constitute the terminals for the wires b b', respectively, of two branch circuits, and C C′ similarly-arranged clips electrically connected by means of strips c, to which are attached the terminals c' for the main-circuit wires c^2.

D D′ represent pivoted blades adapted to be engaged with and disengaged from the clips B C and B′ C′, respectively, for the purpose of making and breaking the circuits as desired. These blades are connected in V form and are pivoted at their apexes to brackets or lugs d, mounted on the base intermediate the clips C C′, the free ends of said blades being connected by means of a yoke E, whereby the two sets of blades may be operated simultaneously. This yoke, in its preferred form, comprises two transverse bars e, connected by a middle portion e', in which is formed an elongated slot or opening e^2.

Mounted on the base intermediate the bracket d is a bracket f, to which is pivoted one end of an arm F, the other or free end of which extends through the slot or opening in the yoke and terminates in a handle. Hence by the act of swinging the arm on its pivot there will be effected the operation of the connected blades in reference to their respective clips. Secured to this arm near its pivot are two diverging flat springs G G′, the outer or free ends of which extend through the slot in the yoke, so as to bear normally against the upper and lower edges, respectively, of the slot, and thus maintain the arm midway between said edges.

Assuming the blades D to be engaged with the clips B C to complete the circuit b c^2, if the handle be grasped and forcibly raised the spring G will be pressed under considerable tension while the arm is moving to the top of the slot, and in the continued upward stroke of the arm the yoke and therewith the blades will be bodily raised. When the blades D approach the mouths of the clips, the tension of the compressed spring, overcoming the grasp of the clips upon the blades, will suddenly project the yoke and blades upward, and thereby effect a quick breaking of the circuit. By swinging the arm farther to the right, as indicated by the arrow in Fig. 2, the blades D will be engaged with the clips C′ B′ in a manner to complete the circuit b' c^2, whereupon if the arm be forcibly raised the spring G′ will be compressed and a quick breaking of the circuit will be effected, similarly to the operation above described.

I claim as my invention—

1. In an electric switch, the combination of double circuit-terminals, pivoted blades for the respective sets of terminals, an open frame or yoke connecting said blades, an operating-arm extending through said frame or yoke so as to have vertical play therein, and oppositely-acting springs, coacting with said arm and the respective blades, substantially as described.

2. In an electric switch, the combination of double circuit-terminals, pivoted blades therefor arranged in V form, a slotted frame or yoke connecting the outer ends of said blades, a pivoted operating-arm extending freely through said frame or yoke so as to have vertical play therein, and oppositely-acting springs coacting with said arm and the respective blades, substantially as described.

3. In an electric switch, the combination of double circuit-terminals arranged in pairs, as

described, pivoted connecting-blades for the respective terminals, an open or slotted yoke-frame connecting the blades, an operating-arm extending through said yoke-frame, and two oppositely-acting flat springs connected with the arm and engaged with the yoke-frame, substantially as described.

In testimony whereof I have hereunto affixed my signature in the presence of two subscribing witnesses.

GEORGE T. EYANSON.

Witnesses:
JOHN R. NOLAN,
ANDREW V. GROUPE.