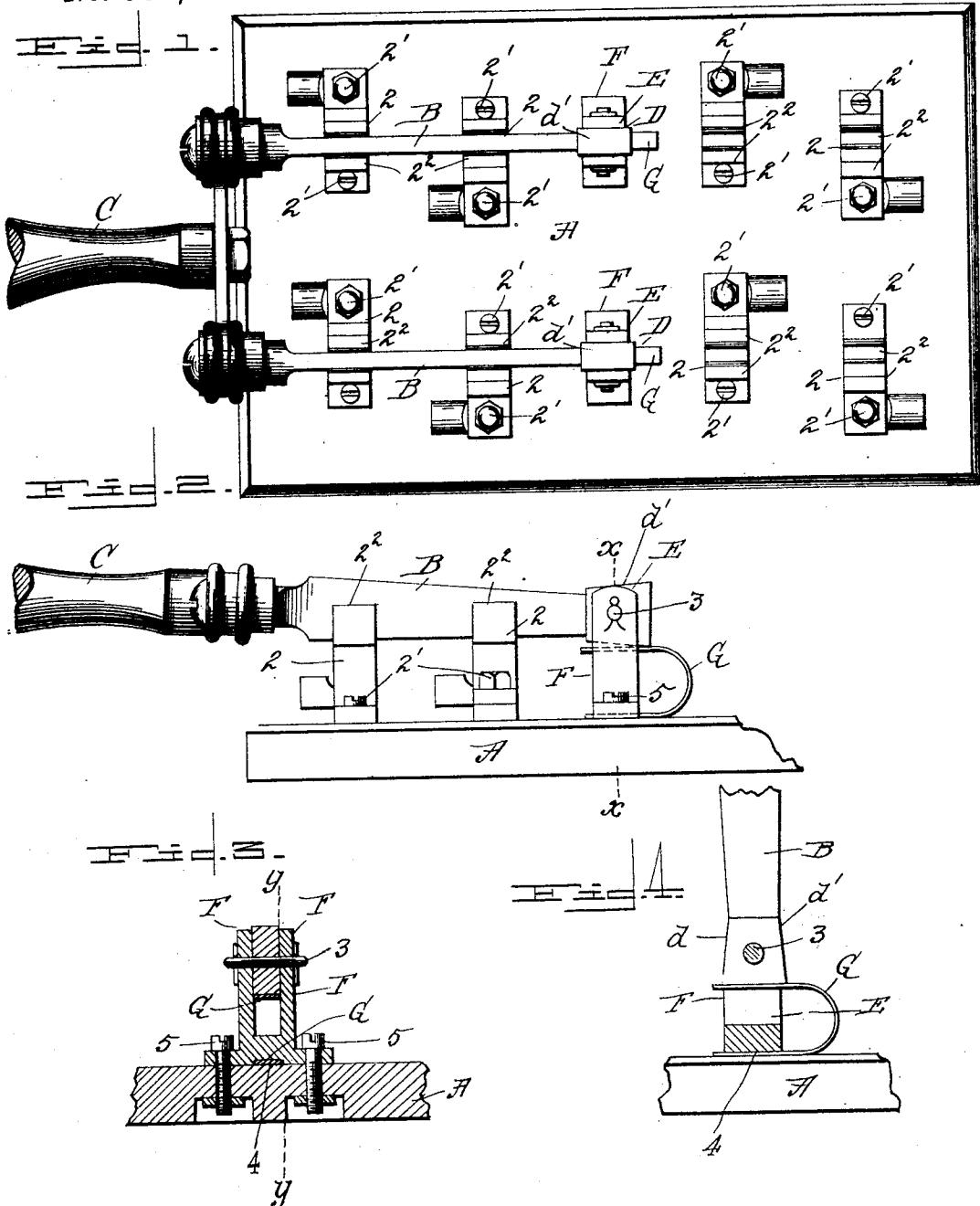


(No Model.)

G. E. LINTON.
ELECTRIC SWITCH.

No. 500,918.

Patented July 4, 1893.



WITNESSES:

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UNITED STATES PATENT OFFICE.

GEORGE EDGAR LINTON, OF WORCESTER, MASSACHUSETTS.

ELECTRIC SWITCH.

SPECIFICATION forming part of Letters Patent No. 500,918, dated July 4, 1893.

Application filed April 11, 1893. Serial No. 469,944. (No model.)

To all whom it may concern:

Be it known that I, GEORGE EDGAR LINTON, a citizen of the United States of America, residing at Worcester, in the county of Worcester and State of Massachusetts, have invented certain new and useful Improvements in an Electric Switch, of which the following is a specification.

My invention relates to electric switches, and the object of my invention is to provide improved means for applying the action of a spring to operate a switch lever, and for the adjustment of the spring, whereby the lever may be thrown in opposite directions by the action of the spring to make and break an electric circuit; and a further object is to provide an improvement in the shape of the end of the switch lever which contacts with the spring to insure more certainty of the lever remaining in an upright or horizontal position into which the lever may be thrown.

For a full and clear understanding of my invention, reference is to be had to the accompanying drawings, in which—

Figure 1, is a plan view of an electric switch-board and a switch embodying my improvements. Fig. 2, is a side elevation of the device, partly broken away. Fig. 3, is a view of a cross section, taken on line $x-x$, of Fig. 2. Fig. 4, is a view of a cross-section, taken on line $y-y$, of Fig. 3.

In the drawings, A is the base or switch board made of wood or other non-conducting material, upon which the switch devices are secured.

B are knife edged switch levers having a common handle C of non-conductible material secured to their outer ends. These levers are pivoted at their ends D, between upright arms E, of stands F, and the stands are secured, by means hereinafter described, to the base mid-way of its length and near the side edges thereof.

Binding posts 2, are fastened to the base by screws 2', for the connection, in any well known manner, with electric wires. The binding posts have upright and adjacent walls 2² inclined toward each other, from top to bottom, to form a tapering opening between them

to insure a certainty of contact with the op-

erating lever when the latter is in a horizontal position. These binding posts are arranged in sets of two, there being a set upon each side of a stand F, and in line therewith, in such order that lever B, when thrown in either direction into a horizontal position, will fall into the openings in a set of the binding posts.

3, are pivots passing through apertures in the upper ends of the arms E, of stands F, and apertures in the ends D, of the levers B. Said pivots are secured in place by spring keys passing through apertures in their outer ends, as shown. The ends D of levers B, are shaped like the frustum of a wedge, two of the sides, $d d'$, inclining slightly inwardly, as shown, to prevent accidents by insuring more certainty of the retention of the switch lever in an upright or horizontal position by the action of the spring thereon than is secured in spring devices where the end of the lever is rounded or has a bearing wheel, as will hereinafter appear.

G, is a spring consisting of a thin straight piece of steel or other flexible material, one end of which is securely fastened underneath stand F in a groove 4, by screw bolts 5, which pass through the base of stand F, and also serve to secure the stand to the base. Groove 4, extends the entire width of the stand and is in the same vertical plane with the opening between arms E, of the stand. The other end of the spring is bent forward and compressed between the arms E, of the stand F, to bear against the end D of the switch lever, as shown, to form a U shaped spring. By means of the nuts on screw bolts 5, the spring may be moved forward or backward thus increasing or diminishing the tension of the spring.

It will readily appear that the action of the spring upon the sharp edges of the base D, when the lever is thrown out of a vertical or horizontal position, will be quick and certain, and that when the spring is in contact with either of the surfaces of the end D, there will be little danger of the lever being thrown out of position accidentally by sudden jars or otherwise.

The operation of the device to close a circuit is by forcing the lever from the position

shown in Fig. 4, into a horizontal position, either to the right or to the left, see Fig. 1.
Having described my invention, what I claim is—

- 5 In an electric switch, the combination of a base, binding posts arranged in sets of two on the base, a lever having an end shaped like the frustum of a wedge pivoted between the arms of a stand, said stand being situated in
10 line with and mid-way between two sets of binding posts, and an adjustable flat blade

spring, having one end secured under said stand, and the other end in contact with the pivoted end, of the lever, substantially as described and set forth.

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

GEORGE EDGAR LINTON.

Witnesses:

G. H. ESTABROOK,
JOHN F. CROWELL.