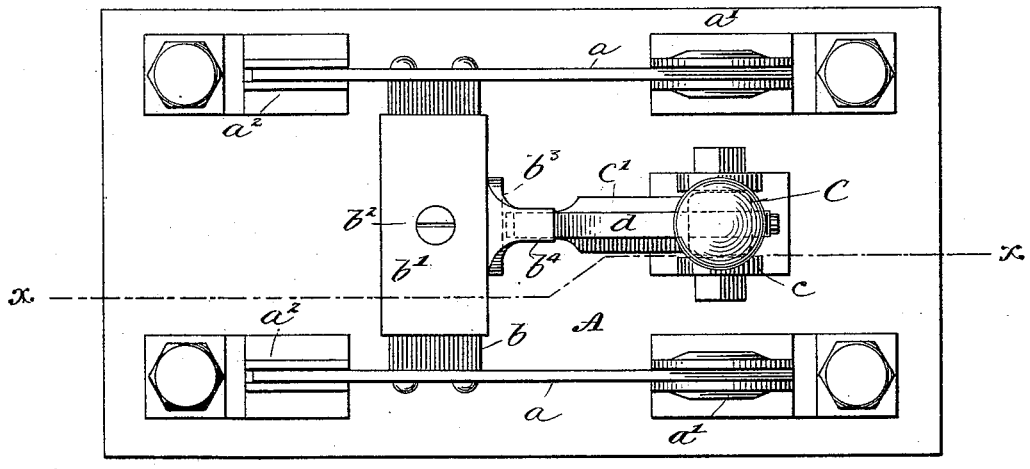
(No Model.)

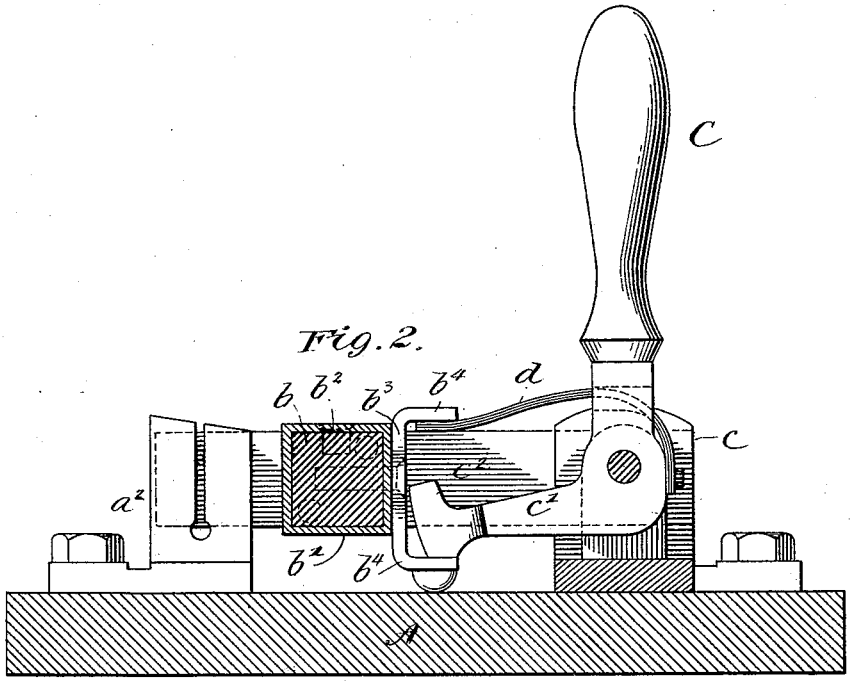
G. BAEHR.

ELECTRIC SWITCH.

No. 525,936. Patented Sept. 11, 1894.

Fig. 1.





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ELECTRIC SWITCH.

SPECIFICATION forming part of Letters Patent No. 525,936, dated September 11, 1894.

Application filed January 9, 1894. Serial No. 496,258. (No model.)

To all whom it may concern:

Be it known that I, GEORGE BAEHR, a citizen of the United States, residing at Jersey City, in the county of Hudson and State of New Jersey, have invented certain new and useful Improvements in Electric Switches, of which the following is a full, clear, and exact description.

My invention relates to electric switches, the object being to cheapen the cost of manufacturing the same, and also to produce an efficient apparatus.

The invention consists of the details of construction which will be hereinafter described and claimed.

In the accompanying drawings, Figure 1 represents a plan of my improved switch, and Fig. 2 represents a section of the same taken on line x—x of Fig. 1.

Referring to the drawings by letter, A represents the base upon which parts of the switch are mounted.

a, a, represent two movable blades of conducting material which make and break the circuit. These blades are pivoted respectively, to lugs or posts a', a', and are adapted to make contact respectively with two spring jaws a^2, a^2. These parts constitute what is well-known as the "knife" switch. The blades a, a, are mechanically connected together by a cross-bar b of non-conducting material, such as fiber, to which the blades are secured by screws in the manner shown. This fiber is quite frail and especially when screws are driven into it, it is liable to crack and split. I, therefore, surround its middle portion with a metallic tube b' which is forced thereon friction tight, but to prevent lateral movement, it is held by a short pin b^2. It has been proposed to use a strengthened plate on this cross-piece, but this has not prevented splitting; hence the tube or sleeve proposed by me. To one side of the cross-piece is secured a bracket b^3 which stands in a vertical position and extends slightly above and below the cross-bar and is provided with horizontal arms or lugs b^4 forming a pair of jaws. This bracket is secured to the cross-piece by means of a screw, or it may be formed integrally with the sleeve.

C represents the operating handle of the switch. It is pivoted to a post c and has an angular extension c' which projects into the space inclosed by the jaws b^3. The end of this angular extension may or may not be provided with an enlargement c^2.

d represents a leaf spring which is secured to the handle back of the pivot and extends forward through an opening in the handle with its free end resting against the under side of the upper jaw b^3.

The operation is as follows: The switch is shown in the drawings as closed and in this position the handle is vertical and the extension c' is resting upon the lower jaw b^3. To open the switch the handle is pulled backward until the extension c' strikes the upper jaw b^3, the spring being meanwhile put under tension. The movement is continued until the blades have been raised sufficiently to relieve them of the friction caused by the spring jaws a^2, a^2, when the spring d acts and quickly lifts the blades; this movement being entirely independent of the operator's hands. In closing the switch the blades are to be thrown down until the lower jaw b^3 strikes the base A in which position the blades will be held by friction and the handle will stand perpendicular to the base, which is a desirable feature.

Having described my invention, I claim—

1. In an electric switch, the combination of a pair of circuit controlling blades, a cross-bar of insulating material mechanically connecting them together, a pair of jaws carried by said cross-bar, a manually operated swinging lever provided with an extension which is loosely embraced by said jaws, and a spring bearing at one end against the lever and at the other end against the cross bar.

2. In an electric switch, the combination of a base upon which the parts are mounted, a pair of pivoted blades mechanically connected together by a cross-bar a pair of jaws secured to said crossbar, one of them projecting downward to serve as a stop against the base of the switch, and a swinging lever having an extension loosely embraced by said jaws, substantially as and for the purpose set forth.

3. In an electric switch, the combination of a pair of pivoted blades, a cross-bar of non-conducting material mechanically connecting them together, a pair of jaws connected to said cross-bar, a swinging lever arranged

to impinge against said jaws to operate the switch, and a spring connected at one end to said lever and at the other end bearing against one of the jaws on the cross-bar for the purpose set forth.

4. The combination of the pivoted blades *a*, *a*, the cross bar *b*, the reinforcing sleeve *b'*, the jaws b^3 connected to said cross-bar, the swinging lever C provided with an extension loosely embraced by said jaws and a leaf spring secured at one end to the lever passing through an opening therein and bearing at this free end against the cross-bar substantially as described.

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

GEORGE BAEHR.

Witnesses:
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