

(No Model.)

C. BACH, Jr.
ELECTRIC SWITCH.

No. 565,662.

Patented Aug. 11, 1896.

Fig. 1.

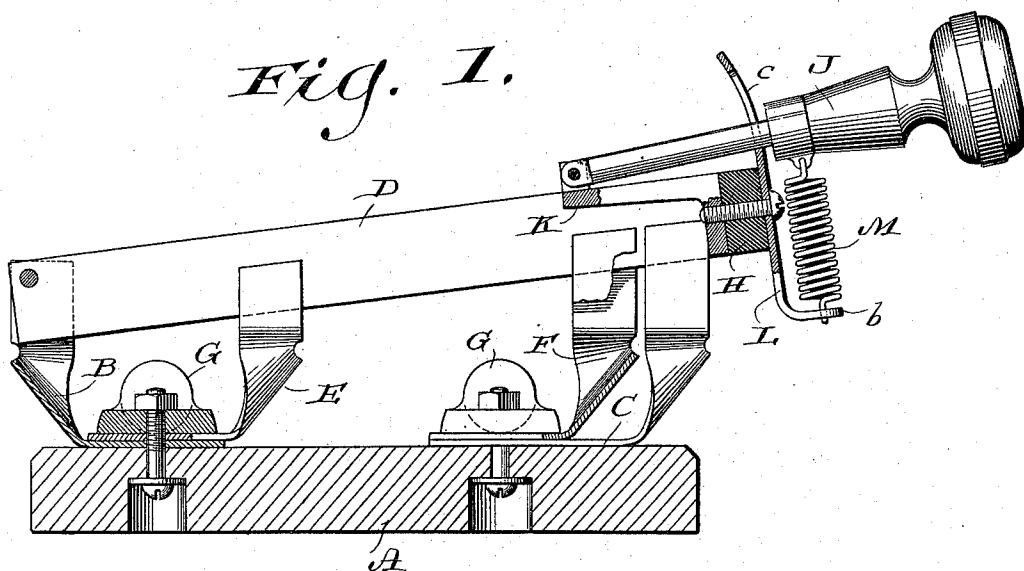
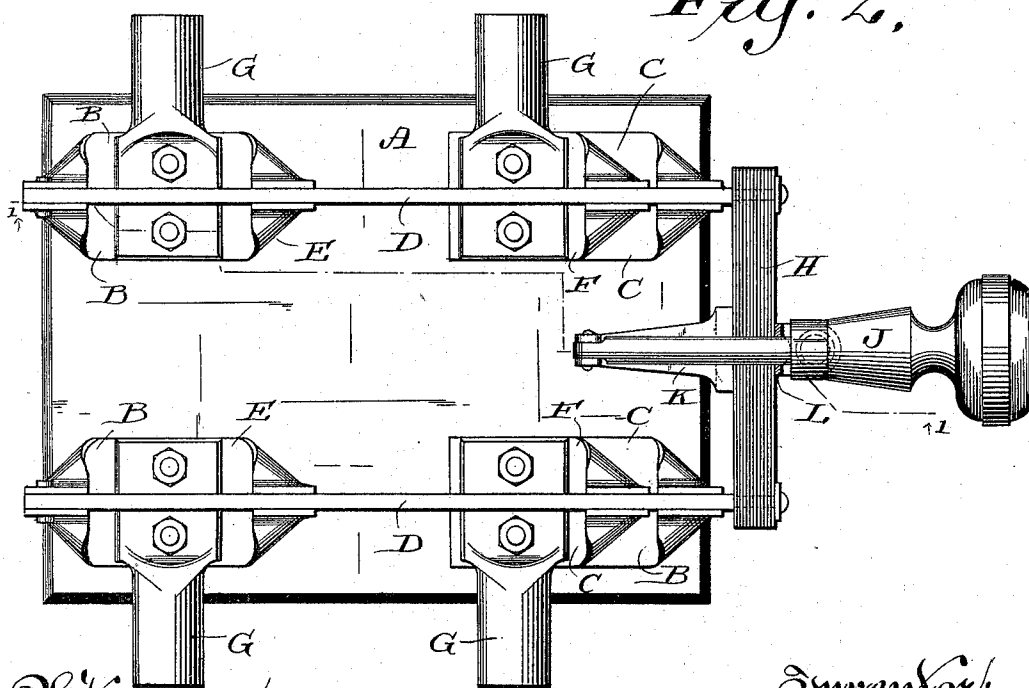


Fig. 2.



Witnesses:
Geo. W. Young,
R. C. Roloff.

Inventor:
Christopher Bach, Jr.
By H. G. Underwood
Attorney

UNITED STATES PATENT OFFICE.

CHRISTOPH BACH, JR., OF MILWAUKEE, WISCONSIN.

ELECTRIC SWITCH.

SPECIFICATION forming part of Letters Patent No. 565,662, dated August 11, 1896.

Application filed November 11, 1895. Serial No. 568,532. (No model.)

To all whom it may concern:

Be it known that I, CHRISTOPH BACH, JR., a citizen of the United States, and a resident of Milwaukee, in the county of Milwaukee and State of Wisconsin, have invented certain new and useful Improvements in Electric Switches; and I do hereby declare that the following is a full, clear, and exact description thereof.

My invention has for its object to provide a simple, economical, and efficient quick-break non-arcing knife-switch.

The present switch is a direct improvement on what is disclosed in my Patent No. 550,577, issued December 3, 1895; and it consists in certain peculiarities of construction and combination of parts hereinafter set forth, with reference to the accompanying drawings, and subsequently claimed.

In the drawings, Figure 1 represents a side elevation, partly in section, on line 1 1 of Fig. 2, and illustrates a knife-switch embodying my improvements. Fig. 2 represents a plan view of the improved switch having a bracket thereon in horizontal section.

Referring by letter to the drawings, A represents a suitable base of non-conducting material, and B C designate spring-contacts, each of the latter being preferably a single piece of copper or other suitable conductive material longitudinally recessed at one end and so bent as to present vertically-disposed parallel jaws having inherent elasticity, this construction having been fully disclosed in the patent to which reference was had in the foregoing.

The switch-blades D are in pivot connection with the jaws of the rear contacts B and are brought into the jaws of the forward contacts C to complete the electric circuit embodying the switch.

To economically increase the amperage limits of the switch, I employ other contacts E F, similar to the ones B C aforesaid, the contacts B E and C F being paired and each pair made fast to the base A in conjunction with a terminal socket G, as herein shown, although the current-wires may be placed in circuit with the contacts in any of the various ways known to the art, and said contacts may be indefinitely multiplied.

The forward ends of the switch-blades are joined to the usual non-conductive bar H, of

vulcanized fiber or other suitable material, and whether the switch be single or plural blade I provide the same with a yielding handle J, limited in its play by a suitable stop and preferably spring-resisted.

As a matter of detail, in connection with the plural-blade switch herein shown I provide the insulating-bar H with a rearwardly-extending bracket K, to which the inner end of the handle J is pivotally connected, and another bracket L is attached to the front of said bar, this latter bracket being at a right angle to the one aforesaid and provided with a longitudinal slot. The bracket L has a right-angle foot b, and a stiff spiral spring M is shown connecting this foot and the handle J, the latter having limited play in the slot of said bracket. When it is desirable to break an electric circuit by a knife-switch having the yielding handle, the latter is operated, but the switch blade or blades do not begin to leave the contact-jaws until the swing of said handle is checked by the bracket L or other suitable stop. At this time the handle and blade or blades are practically rigid and remain so until as said blade or blades clear the contacts said handle becomes inert and the aforesaid blade or blades are carried on a limited distance by momentum. The action just described is made more certain and rapid by the employment of a spring arranged to expand by the initial movement of the handle and to increase momentum of the blade or blades by its automatic retraction at the time the contacts are cleared.

Having now fully described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. A knife-switch comprising a plurality of blades united by a non-conductive bar, a bracket extending rearward from the bar, a handle in pivotal connection with the bracket, and another bracket on said bar, at a right angle to the one aforesaid, provided with a longitudinal slot engaged by the handle.

2. A knife-switch comprising a plurality of blades united by a non-conductive bar, a bracket extending rearward from the bar, a handle in pivotal connection with the bracket, another bracket, on the bar at a right angle to the one aforesaid, provided with a longitudinal slot engaged by the handle, and a

spring connecting said handle with that end of the latter bracket farthest from the slot therein.

3. A knife-switch having the blade-connected insulator thereof provided with a rearwardly-extended bracket, a handle pivoted to this bracket, and another bracket on the insulator, at a right angle to the one aforesaid, provided with a longitudinal slot engaged by
10 the handle.

4. A knife-switch blade having a handle in pivotal connection therewith, a slotted han-

dle-engaging bracket provided with a forwardly-extended foot, and a spiral spring connecting the handle with the bracket-foot. 15

In testimony that I claim the foregoing I have hereunto set my hand, at Milwaukee, in the county of Milwaukee and State of Wisconsin, in the presence of two witnesses.

CHRISTOPH BACH, JR.

Witnesses:

N. E. OLIPHANT,

H. G. UNDERWOOD.