March 24, 1925. 1,530,847

A. H. MOLLIK

ROTARY ELECTRICAL HAND SWITCH

Filed May 16, 1922

Fig. 1

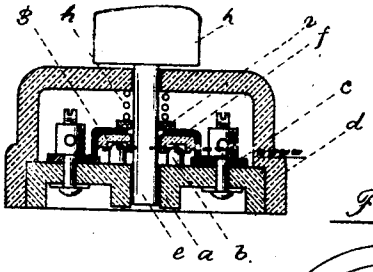


Fig. 2

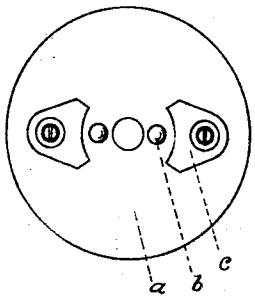


Fig. 3

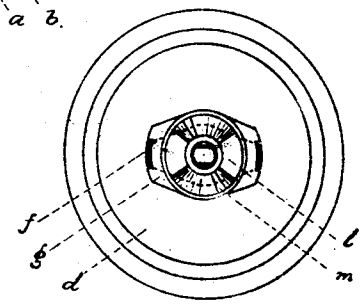


Fig. 4

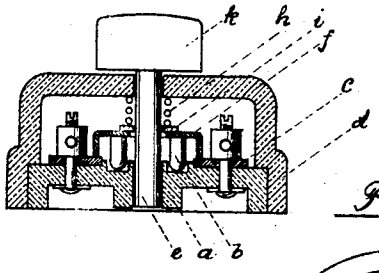


Fig. 5

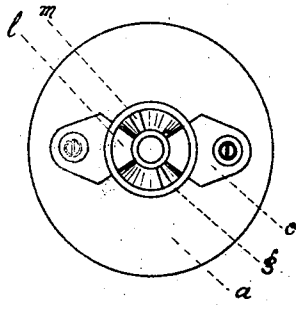


Fig. 6

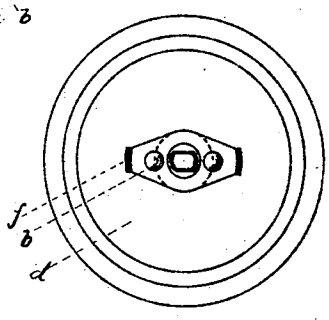
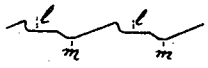


Fig. 7



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Patented Mar. 24, 1925. 1,530,847

UNITED STATES PATENT OFFICE.

ALWIN HUGO MOLLIK, OF FRANKFORT-ON-THE-MAIN, GERMANY.

ROTARY ELECTRICAL HAND SWITCH.

Application filed May 16, 1922. Serial No. 561,505.

To all whom it may concern:

Be it known that I, ALWIN HUGO MOLLIK, a citizen of the Czechoslovakian Republic, and residing at Frankfort-on-the-Main, Germany, have invented certain new and useful Improvements in Rotary Electrical Hand Switches, of which the following is a specification.

The present invention relates to rotary electrical hand switches.

The object of the invention is an essential simplification in the construction of switches, which affords an almost unlimited life of the working parts owing to the practical manner in which the switching members are constructed.

An essential characteristic of the construction of the switch of the present invention is that contact springs which generally either break or lose their resiliency by heating after a comparatively few switching operations and thereby make the apparatus useless, are dispensed with.

In order to understand the invention more clearly, reference is made to the accompanying drawings, wherein:

Fig. 1 is a sectional view of the switch according to the invention,

Fig. 2 a top view of the base and

Fig. 3 an interior view of the cover.

Figs. 4 to 6 are corresponding views of a modified form of the switch and

Fig. 7 is a plane projection of the guidance line.

In Figs. 1 to 3, *a* is the switch base upon which the guide pins *b* and the fixed contact pieces *c* are arranged.

The switch cover *d* contains the switch shaft *e* on which are arranged the contact bridge *f* with the guide groove *g* and the driver *i* movable in an axial direction, also the spiral spring *h* and the handle *k*.

The action of the switch can be easily understood by reference to said drawings. In the position of the individual parts shown in Fig. 1, the contact bridge *f* is pressed against the contact pieces *c* under the action of the spring *h*, and thus the circuit is closed. If the circuit is to be opened, the handle *k* is turned and with it the shaft *e* of the switch. Following the movement of the driver *i* the contact bridge first slides upon the surfaces of the contact pieces *c* until the rotation of the guide groove *g* causes the pins *b* to snap from the notches *l* into the notches *m*. At this moment the contact surfaces of the bridge rest on the surface of the base. On the switch shaft being turned still further, the surfaces of the bridge slide over the base, are released as the inclined surfaces slide over the pins and again fall onto the contact surfaces when the pins snap into the notches *l*.

The sliding of the contact bridge over the base has the purpose and the effect of keeping the heat-tarnished parts of the contact surfaces bright.

Figs. 4 to 6 show a modification of the rotary switch in which the guide pins instead of being mounted upon the base, are arranged within the contact bridge itself, and in which the guide groove is arranged in the base, the action being the same as in the previously described embodiment.

Fig. 7 shows a plane projection of the guidance line.

What I claim and desire to secure by Letters Patent is:—

A rotary switch device of the class described, including a base having a central opening, a cover for the base, a spindle journaled in the cover and the opening in the base, combined binding and switch terminals secured to said base, fixed pins carried by the base at each side of the opening, a metallic contact bridge mounted on the spindle, a spring interposed between the cover and said contact bridge, for pressing the same toward the base, and an insulated cam member carried by the contact bridge and provided with a guide-way having cam projections for engaging with the said pins on the base.

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

DR. ALWIN HUGO MOLLIK.

Witnesses:

THOS. H. ANDERSON,

BASIL E. SAWARD.