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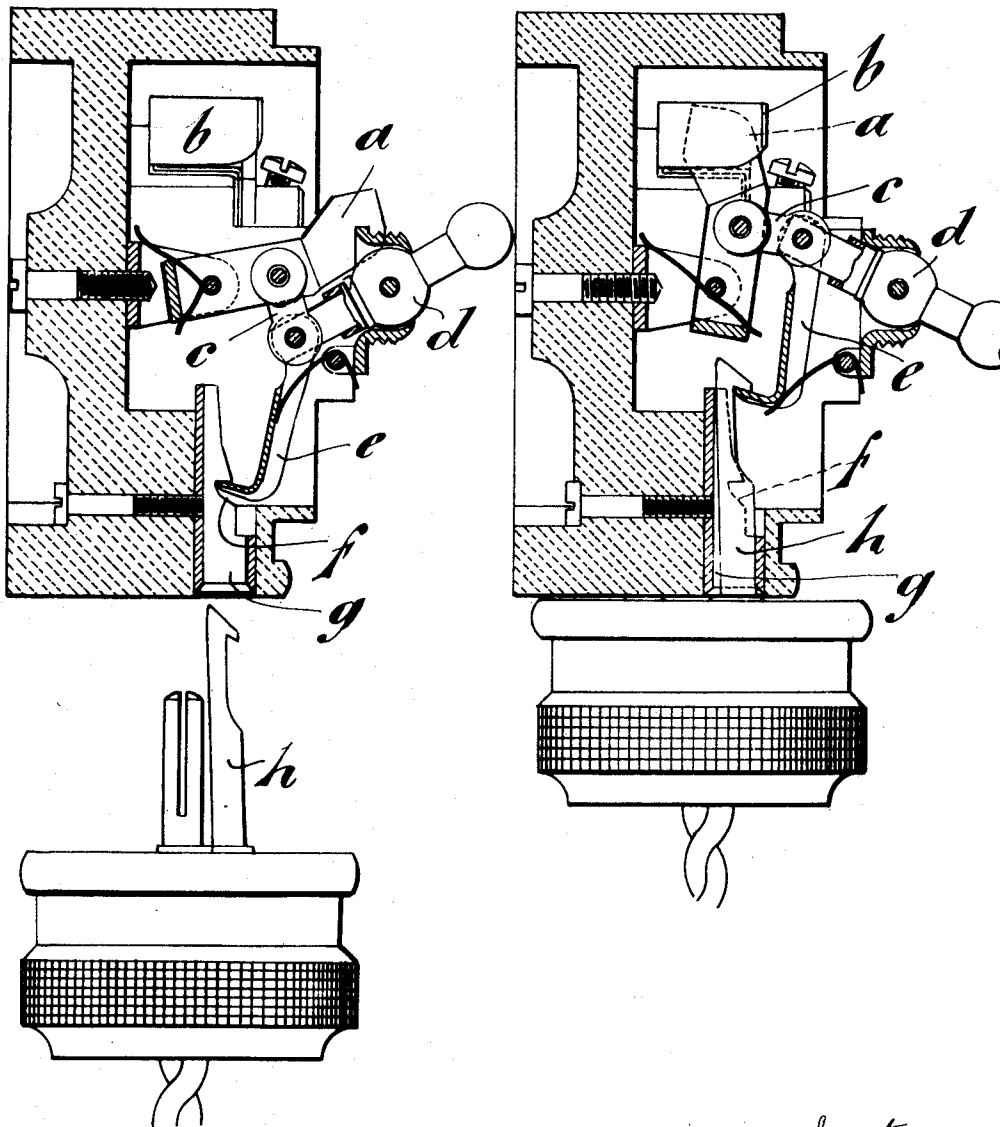
E. J. BROTHERS

INTERLOCKING DEVICE FOR ELECTRIC SWITCH AND PLUG

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Fig. 1.

Fig. 2.



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UNITED STATES PATENT OFFICE.

EDWIN JOHN BROTHERS, OF EAST DULWICH, LONDON, ENGLAND, ASSIGNOR OF ONE-HALF TO J. H. TUCKER & COMPANY LIMITED, OF BIRMINGHAM, ENGLAND.

INTERLOCKING DEVICE FOR ELECTRIC SWITCH AND PLUG.

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To all whom it may concern:

Be it known that I, EDWIN JOHN BROTHERS, a subject of the Kingdom of Great Britain, residing at 155 Friern Road, East Dulwich, London, S. E. 22, England, have invented certain new and useful Improvements for Interlocking Device for Electric Switch and Plug, of which the following is a specification.

This invention relates to interlocking devices for controlling or restricting the action of electric switches when used in combination with plugs, fuses, or other apparatus.

In this present invention an operating pin or projection is attached to the plug or fuse or other apparatus.

A catch or hooked lever is attached to a moving part of the switch, and may be held in position by a spring.

The free end of this catch or lever passes along the surface of a tube or channel cut or shaped in such a manner that its freedom is restricted, and may thereby hold the switch movement in any prearranged fixed position.

By the insertion of the pin or projection mentioned above into the tube or channel, the catch or lever is prevented from engaging with certain portions of the tube or channel, and is thereby given free action.

The pin may be so shaped that its withdrawal from the tube may be made to actuate the switch movement or cause it to remain in a desired position or it may be so shaped as to prevent its withdrawal until the switch movement has been placed in a desired position by hand or other means.

In order that this invention may be clearly understood and readily carried into practice, reference may be had to the appended explanatory sheet of drawings, upon which:—

Figure 1 illustrates the switch combined with a plug and socket coupling embodying the present invention, showing the plug removed and the switch thereby locked in open position.

Figure 2 illustrates the switch shown in Figure 1, with the plug assembled and the switch thereby adapted for operation.

In the drawings, *a* is a pivoted contact arm adapted to move into and out of engagement with stationary contacts *b* through the medium of a link *c* by an operating member *d*. Pivottally coupled to the operating member *d* is a spring controlled detent *e* which, when the plug is removed, is adapted to engage within a notch *f* in the socket *g*, and thereby avoid operation of the switch. When the plug is inserted, the projection *h* thereon assumes the position shown in Figure 2, rendering the notch *f* inoperative and so enabling the detent *e* to slide backwardly and forwardly to permit of the closing and opening of the switch.

If the plug is removed, when the parts are in the position shown in Figure 2, the switch is thereby displaced automatically into the open position.

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

1. An electric switch including a movable contact member, an operating member therefor, a detent connected to the operating member, fixed means for engagement by the detent when the operating member and movable contact member are in open position, to hold said members in such position, and a plug having means to disengage said detent from said fixed means, when the plug is inserted, and thereby permit operation of the switch, and to also coact with said detent to hold the plug in inserted position while the switch is closed.
2. An electric switch including a movable contact member, an operating member therefor, a detent connected to said operating member, fixed means for engagement by the detent when the said operating member and said contact member are in one position, and a plug having means, also engaged by the detent, when the plug is inserted, to hold said plug in inserted position.

In witness whereof I have hereunto set my hand.

EDWIN JOHN BROTHERS.