

R. P. BROWN.
ELECTRIC SWITCH.
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1,018,648.

Patented Feb. 27, 1912.

Fig. 1

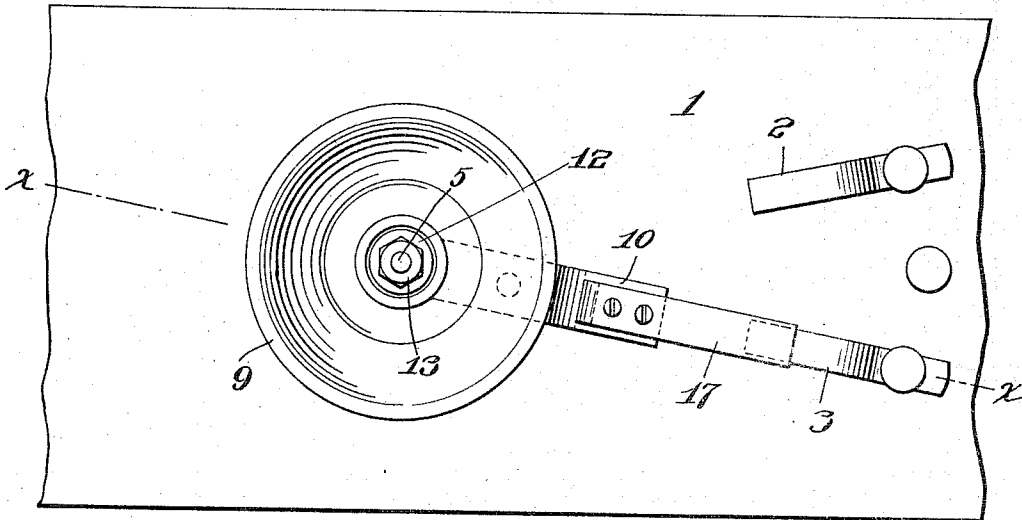
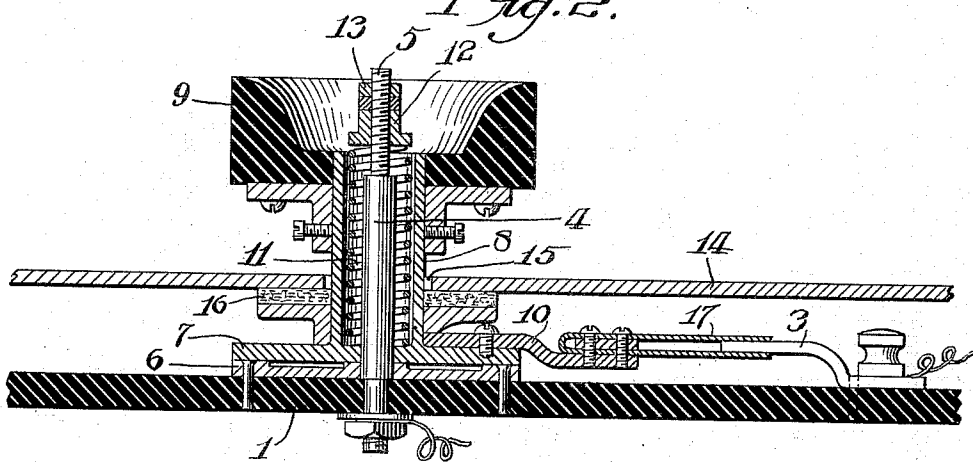


Fig. 2.



WITNESSES

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RICHARD P. BROWN, OF PHILADELPHIA, PENNSYLVANIA.

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To all whom it may concern:

Be it known that I, RICHARD P. BROWN, a citizen of the United States, and a resident of the city and county of Philadelphia, State of Pennsylvania, have invented certain new and useful Improvements in Electric Switches, of which the following is a specification.

My invention relates to improvements in electric switches and more particularly to improvements in that class of electric switch used in connection with very feeble currents, millivolts for example, the contacts of which are inclosed within a dust proof case and a portion of which passes through said case and is furnished with a grip or handle by means of which the operator can throw the switch as desired from without, and the object of my invention is to furnish a means whereby the contacts of said switch may be adjusted quickly and conveniently without it being necessary to open the case for this purpose.

My invention is illustrated in the accompanying drawings in which:

Figure 1, is a plan view of an electric switch embodying my improvements; Fig. 2, a section of Fig. 1 on line *x-x*.

1 is a plate of slate or some other non-conducting material which carries the contacts 2—3.

4 is a post carried by plate 1 the upper end 5 of which is threaded.

6 is a contact plate secured to plate 1 and surrounding post 4. 7 a contact plate resting upon plate 6. 8 a sleeve which surrounds post 4 and which carries an insulated operating piece or handle 9 and which is preferably but not necessarily integral with plate 7. Secured to the contact plate 7 is an arm 10 which is adapted when the plate 7 is turned about the post 4 to make an electrical contact with any one of the contacts 2—3, &c., carried by plate 1.

Surrounding the post 4 and bearing against the top of plate 7 is a spiral spring, 11 the upper end of which bears against a washer 12 which surrounds the threaded end of the post.

13 are nuts by means of which the washers 12 may be caused to force spring 11 against plate 7 with varying degrees of pressure.

14 is the top of the case which incloses the contact joints and parts of the mechanism connected with them. This top is frequently made of glass and is furnished with a perforation 15 for the passage of the sleeve 8—a felt washer 16, or other suitable means, is employed to make a dust tight joint at the perforation 15.

In switches for electrical currents of very low voltage it is essential that the contacts be always as near perfect as possible and to this end they need frequent adjusting. And when the working parts are inclosed in a dust-proof case this latter, unless some provision be made for making the adjustment from without, has to be frequently opened causing in many instances disarrangement of the connected mechanism. The connection between the contacts 2—3, &c., and the arm 10 is usually of the "knife switch" variety and is to a certain extent, self adjusting and self cleaning. The contact between the stationary plate 6 and the movable plate 7 is the one that requires most frequent adjustment and I can accomplish this from without the case by simply setting the nuts 13 up or down on the screw threaded end 5 of the post 4 thus decreasing or increasing the tension of the spring 11 and the frictional contact between plates 6 and 7 and at the same time causing less or more pressure of the arm 10, or the contact piece 17 carried by this arm against the contacts 2—3, &c.

Having thus described my invention I claim as new and desire to secure by Letters Patent:—

1. In an electrical switch, in combination, a stationary and a movable plate, a central post the upper end of which is threaded, a coil spring surrounding said post and bearing against the top of said movable plate, a nut carried by said post by means of which the tension of said spring may be regulated, a sleeve carried by said movable plate surrounding said spring, an operating piece carried by said sleeve, and a contact arm carried by said movable plate.

2. In an electric switch, in combination, a case one side of which is furnished with a perforation, a stationary contact plate and a movable contact plate and arm within

said case, a sleeve connected to the movable plate and passing through the perforation in said case, an operating piece carried by the outer end of said sleeve, a post in said sleeve the lower end of which is secured to the case and the upper end of which is threaded, a nut carried by said post, and a

coil spring surrounding said post one end of which bears against the top of said movable plate and the other against said nut.

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Witnesses:

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