

(No Model.)

D. J. WILLIS.
DESK SWITCH.

No. 499,770.

Patented June 20, 1893.

Fig. 1.

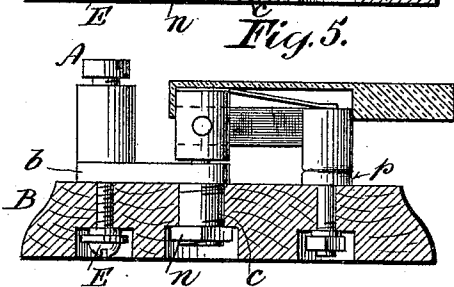
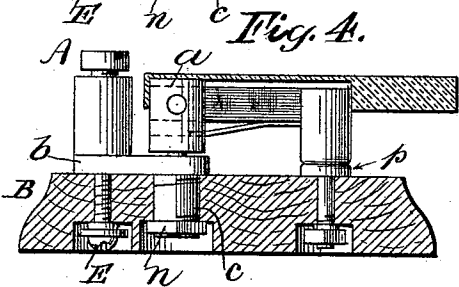
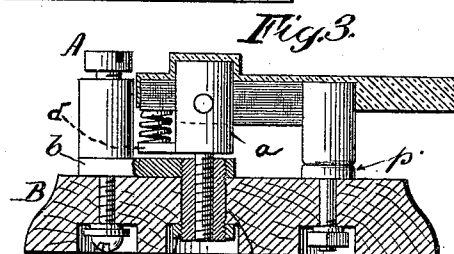
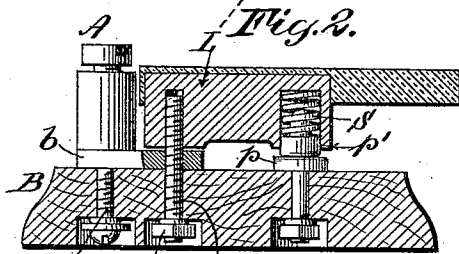
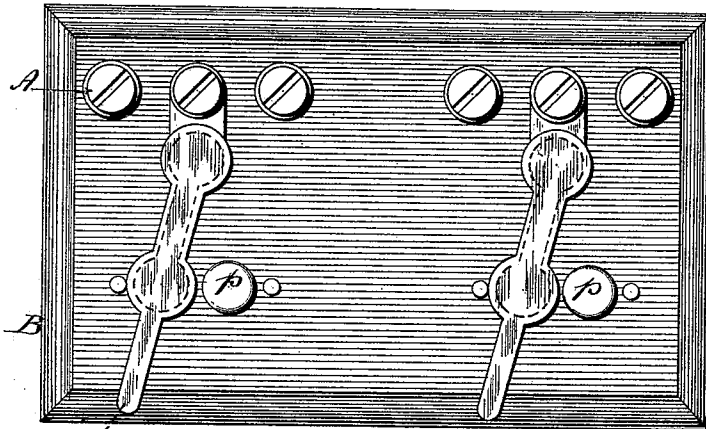


Fig. 6.

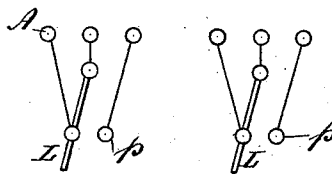
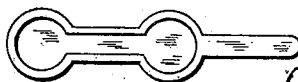


Fig. 7.

Witnesses:

D. W. Gardner.

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UNITED STATES PATENT OFFICE.

DAVID J. WILLIS, OF NEW YORK, N. Y.

DESK-SWITCH.

SPECIFICATION forming part of Letters Patent No. 499,770, dated June 20, 1893.

Application filed November 30, 1892. Serial No. 453,621. (No model.)

To all whom it may concern:

Be it known that I, DAVID J. WILLIS, a citizen of the United States, and a resident of New York, in the county of New York and State of New York, have invented certain new and useful Improvements in Desk-Switches, of which the following is a specification.

The object of my invention is to provide an improved desk switch; for the purpose of obtaining better control over electric circuits.

I attain the object of my invention by means of the switch shown in the accompanying drawings, which are made a part of this specification, and in which—

Figure 1, gives a top view of my switch, showing two controlling levers with the necessary number of contact buttons and binding posts to control two circuits; the number of levers, contact points, &c., depending on the number of wires or circuits desired to be controlled by one switch. Figs. 2, 3, 4, and 5, give a side view of my switch showing different ways of combining the lever and spring in order to obtain a flexible but perfect connection between the lever and the contact buttons, and thereby between the different parts of the circuit or circuits. Fig. 6 shows the connections, underneath the base, between the binding posts and the contact buttons. Fig. 7 represents a hard rubber cover arranged to fit on top of lever L, in order to prevent the hand coming in contact with the bare metal.

Again referring to Fig. 2, A, indicates a binding post, fastened to the metal strip *b*, and base B, by screw E. Lever L is attached to strip *b*, by means of bolt *c*, which first screws into strip *b*, and not only fastens said strip *b* to base B, but is itself held from turning by being bound to base B, by strip *b*, and nut *n*, lever L, thus being free to turn side-wise without moving bolt *c*. The front end

of lever L, is shown broken away, showing the opening in which spring S, and contact point *p'*, are placed; spring S, presses contact point *p'* against point *p*, and thus always insures perfect contact and electrical connection between the moving and stationary points.

Fig. 3 shows lever L pinioned to trunnion post *a*, which in turn screws into enlarged bolt or tube *c*, said bolt or tube having a thread cut both outside and inside, and is held from turning as before by strip *b*, and nut *n*; in this figure spring S, is shown at the back end of lever L, resting on shoulder *d*, of post *a*, and controlling the whole lever instead of a contact point as shown in Fig. 1.

Figs. 4 and 5, differ from Fig. 3 in the shape and position of the spring S, used to control lever L, and from each other in the position of said spring, but this makes very little difference as there are a number of ways of combining lever L and spring S, without departing from the spirit of my invention.

Fig. 6, is intended to represent the connections underneath the base, but I do not limit myself to any particular form of connection, as different combinations of wires would demand different connections.

Now, having described my invention, what I claim as new, and desire to secure by Letters Patent, is—

A desk switch composed of the spring controlled lever L, and spring S, in combination with contact point *p*, trunnion post *a*, bolt *c*, metal strip *b*, binding post A and base B, all substantially as described.

Signed at New York, in the county of New York and State of New York, this 26th day of November, A. D. 1892.

DAVID J. WILLIS.

Witnesses:

ALBERT SCHIFFERS,
WALTER I. TAYLOR.