

(No Model.)

H. W. SMITH.
ELECTRIC SWITCH.

No. 587,458.

Patented Aug. 3, 1897.

Fig. 1.

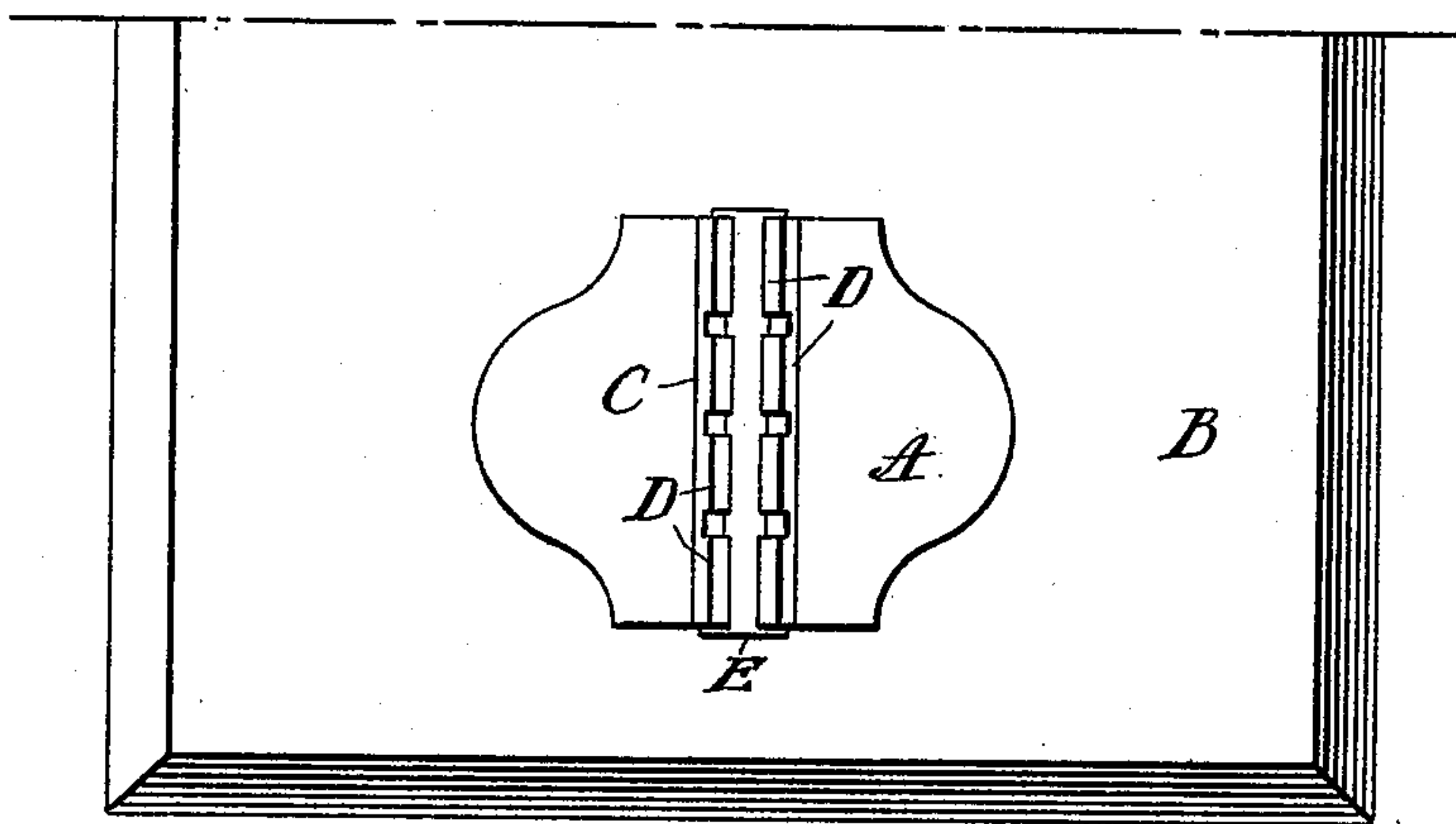


Fig. 3.

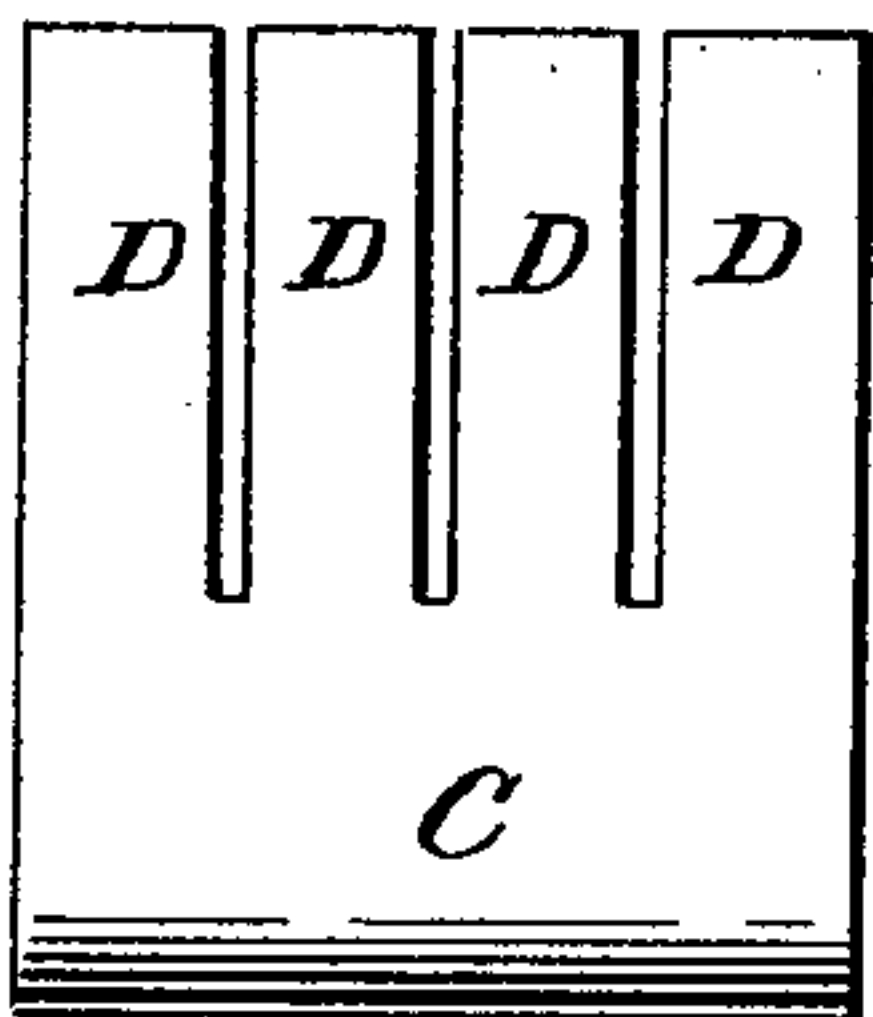


Fig. 2.

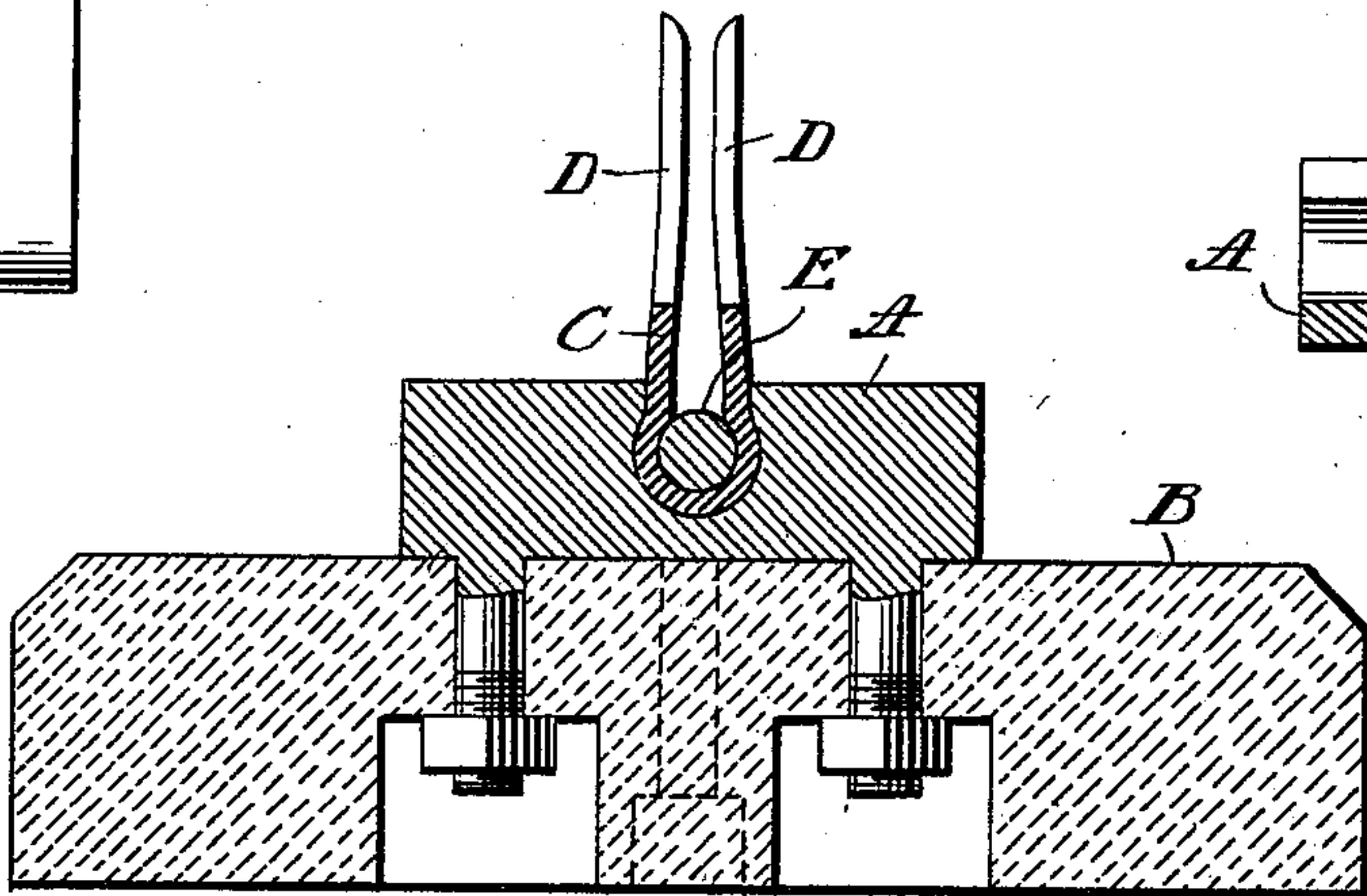


Fig. 4.

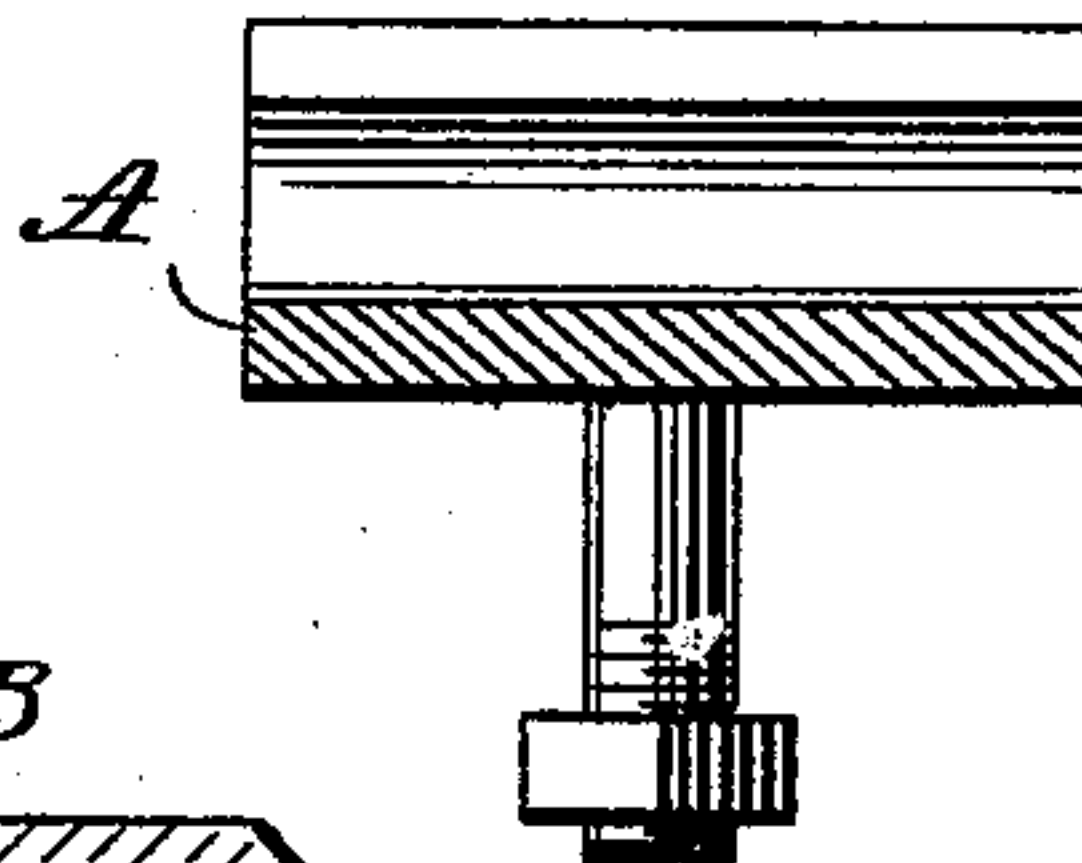
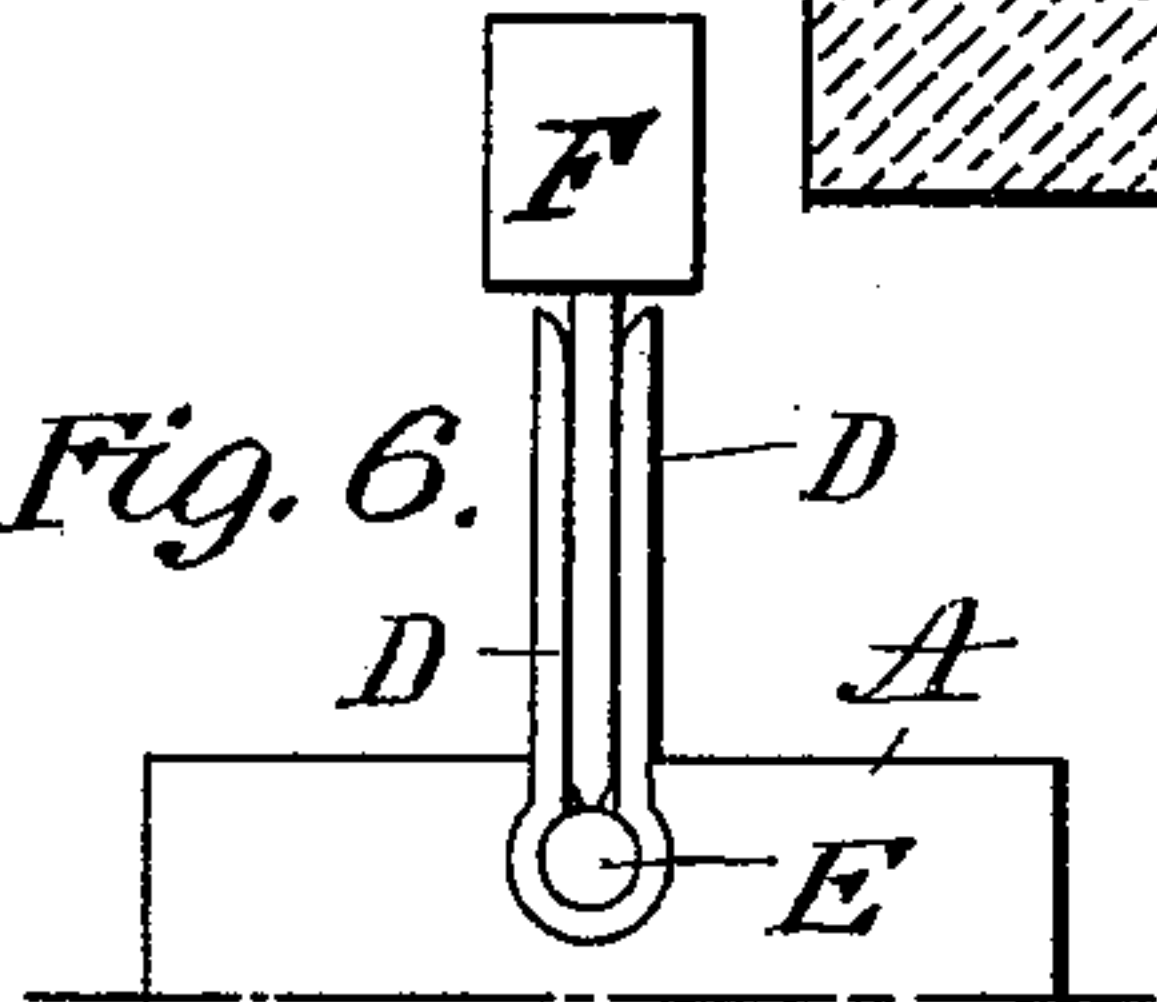


Fig. 6.



WITNESSES:

Frank S. Ober
James S. Oswald.

Fig. 7.

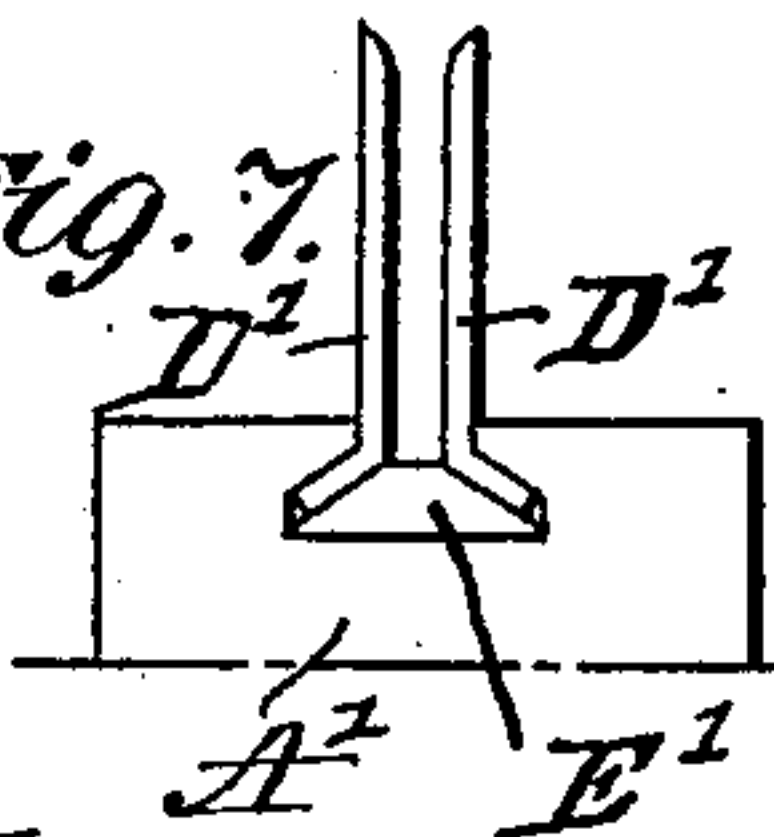
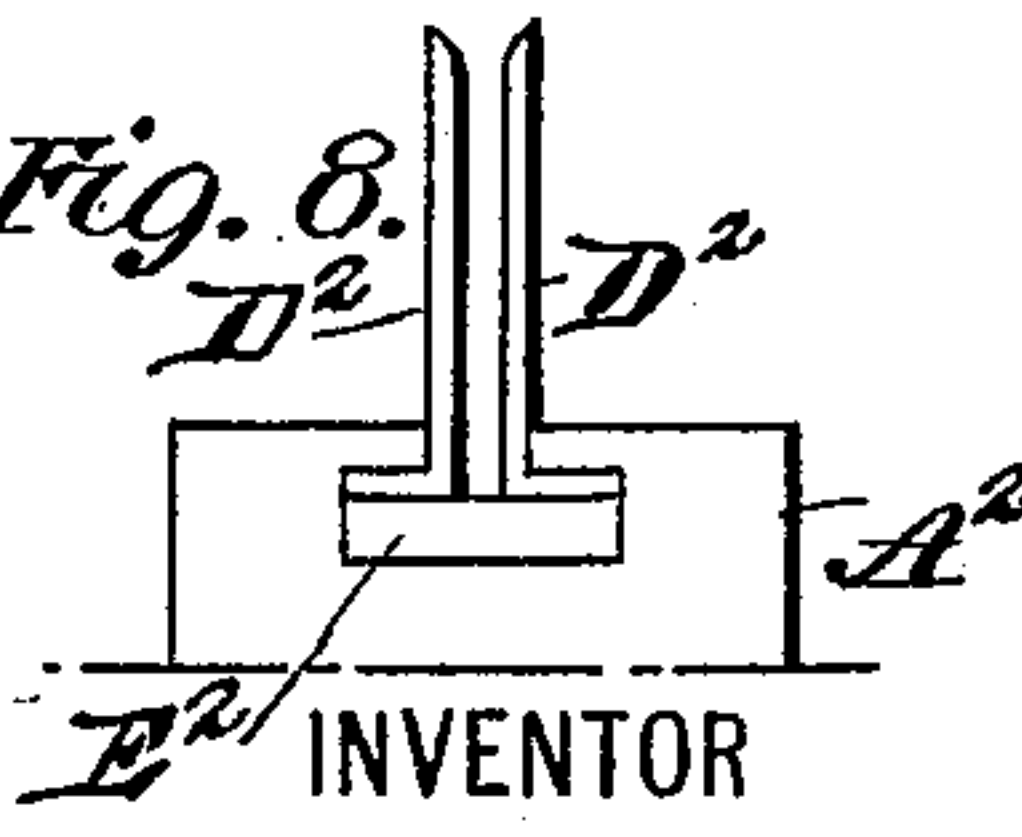


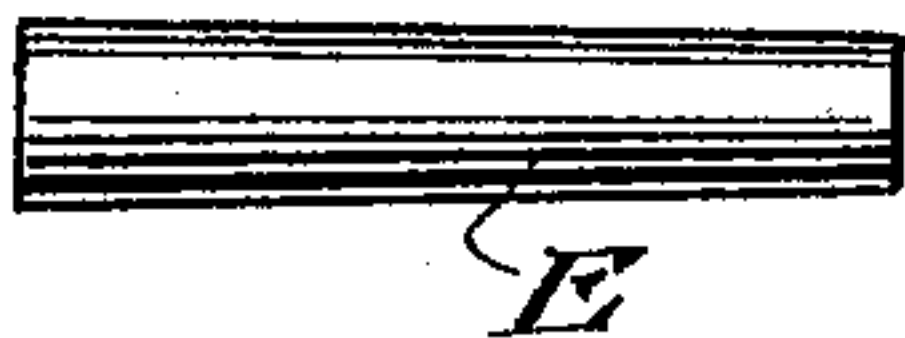
Fig. 8.



INVENTOR

Herbert W. Smith.

Fig. 5



BY
R. C. Mitchell,
ATTORNEY

UNITED STATES PATENT OFFICE.

HERBERT WILMONT SMITH, OF PITTSFIELD, MASSACHUSETTS, ASSIGNOR TO
THE STANLEY ELECTRIC MANUFACTURING COMPANY, OF SAME PLACE.

ELECTRIC SWITCH.

SPECIFICATION forming part of Letters Patent No. 587,458, dated August 3, 1897.

Application filed May 5, 1897. Serial No. 635,174. (No model.)

To all whom it may concern:

Be it known that I, HERBERT WILMONT SMITH, a citizen of the United States, residing at Pittsfield, in the county of Berkshire and State of Massachusetts, have invented certain new and useful Improvements in Electric Switches, of which the following is a full, clear, and exact description.

My invention relates to improvements in electric switches, particularly of the class in which a switch-lever is carried by one of the terminals, and blades or fingers are carried by the other terminal, the circuit being closed by swinging the switch-lever into contact between the fingers of the opposite terminal.

The object of my invention is to provide a simple, inexpensive, and effective means whereby the contact or finger pieces may be easily and quickly replaced, as desired, without interfering with the terminal connections or requiring the replacement of a complete terminal in the case of a "burn-out."

A further object of the invention is to increase the area of contact-surface and to provide a better and more elastic contact upon the switch-lever.

My invention is illustrated by the accompanying drawings, in which—

Figure 1 is a plan view of the lower end of a switchboard, showing one terminal. Fig. 2 is a section on the line $x x$, Fig. 1. Fig. 3 is a side elevation of the finger-plate, one of the details. Fig. 4 is a section on line $y y$, Fig. 2, of the finger-plate-supporting block. Fig. 5 is a side elevation of a pin, another detail of the invention. Fig. 6 illustrates the switch-contact closed. Figs. 7 and 8 are views of a modification.

A is a terminal block ordinarily carried by a suitable switchboard B.

C is a plate, two of its opposite edges being preferably sawed so as to produce two sets of fingers D D. This plate C is bent or doubled so that the fingers D are brought into substantially parallel planes, as indicated in Figs. 2 and 3. This plate C is by preference swelled adjacent to the bend, as indicated. In the block A is formed an undercut recess shaped substantially to the swelled lower portion of the finger-plate C. Into this undercut re-

cess the said finger-plate C may be readily inserted where, by means of a pin E, that portion of the plate within said recess may be forced tightly into contact therewith, thereby perfecting the electrical connection between said parts and preventing accidental detachment. The undercut portion of said recess is by preference tapered, as is also the pin E, for by this means a better and more readily detachable connection is provided. When by use the fingers D have been worn away so that it becomes desirable to replace the same, the pin E may be readily driven out, loosening the finger-plate E, which may readily be removed, the said removal being more easily effected when the parts referred to are tapered, as described.

In the ordinary construction now well known and in extensive use in order to afford elasticity the lower end of the contact-fingers (usually formed in separate plates secured in separate slots in the terminal block) are staggered, and when so formed the switch cannot operatively contact with the fingers at points closely adjacent to the base. In this improved construction, however, the switch F may be forced down into a position so that its lower edge will be below the upper surface of the terminal block A, (see Fig. 6,) and the sides of the switch-lever may contact throughout the entire length of said fingers D, which also, because of the novel means of attachment to the supporting-block A, afford a better and more elastic contact therewith.

The device of Fig. 7 shows the fingers D' D' formed in separate plates, the lower edges of the latter being detachably secured in an undercut recess in the block A' by a pin E' of modified shape.

The modification shown in Fig. 8 illustrates another form of undercut opening in the block A², in which a pin E² of modified shape is used.

What I claim is—

1. An electric-switch terminal, comprising a block, an undercut recess therein, a contact-plate bent to correspond substantially with said recess, and a pin adjacent the bend and within said recess to secure the plate in place in said recess.

2. An electric-switch terminal comprising

a block, an undercut recess therein, a contact-plate bent substantially midway in its length to correspond with the recess and a pin within the bend of said plate to secure
5 the same in place in said recess.

3. An electric-switch terminal, comprising a block, a tapering undercut recess therein,

a contact-plate bent to correspond substantially with said recess, and a pin within said recess to secure said plate in place.

HERBERT WILMONT SMITH.

Witnesses:

JOHN F. KELLY,

HERBERT M. SABIN.