

(No Model.)

2 Sheets—Sheet 1.

T. H. BRADY.
ELECTRIC SWITCH.

No. 544,781.

Patented Aug. 20, 1895.

Fig. 1

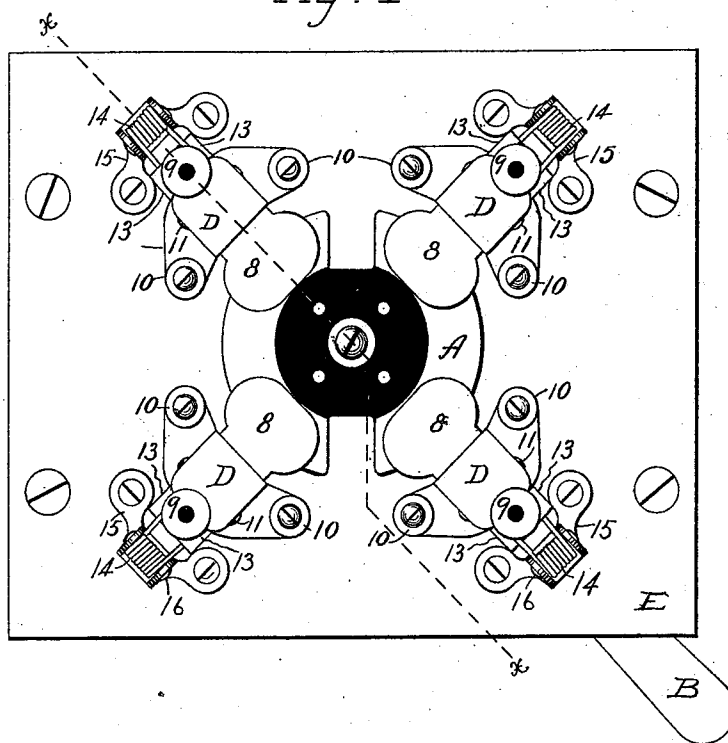
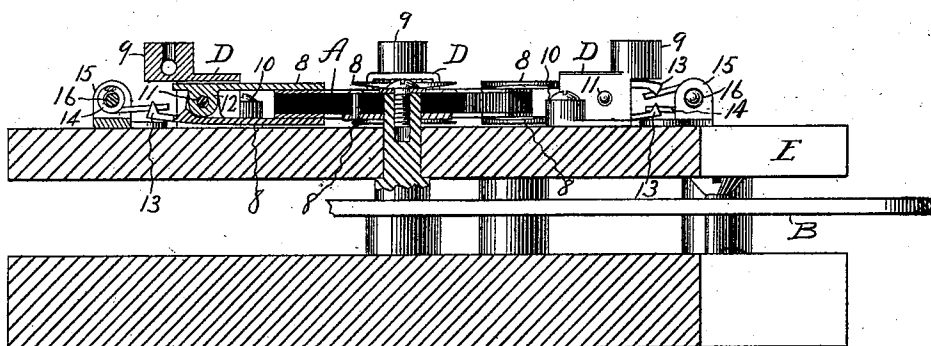


Fig. 2



WITNESSES

W. D. Taper
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INVENTOR

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By *James Shepard*
Att'y.

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2 Sheets—Sheet 2.

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Fig. 3.

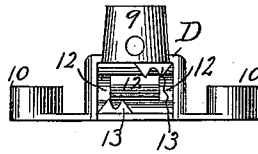
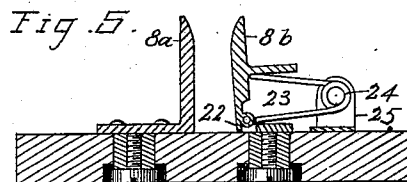
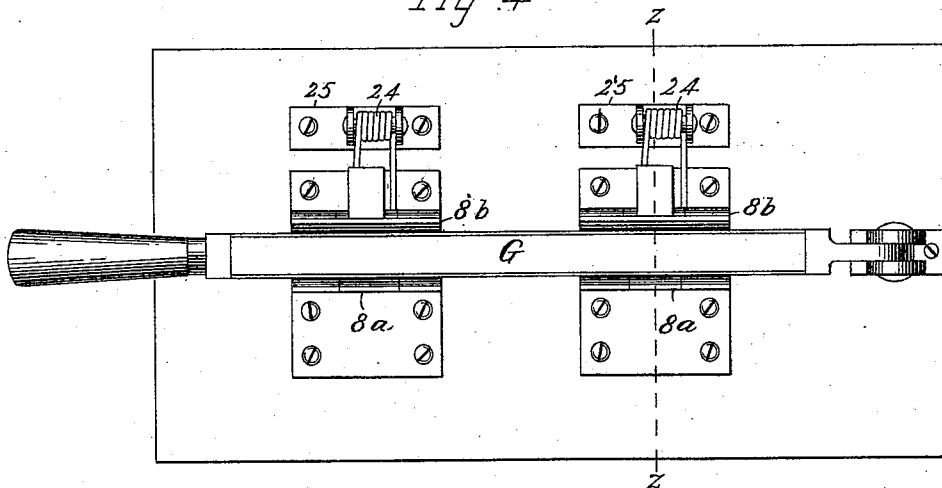


Fig. 4.



Witnesses

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UNITED STATES PATENT OFFICE.

THOMAS H. BRADY, OF NEW BRITAIN, CONNECTICUT.

ELECTRIC SWITCH.

SPECIFICATION forming part of Letters Patent No. 544,781, dated August 20, 1895.

Application filed May 3, 1895. Serial No. 547,989. (No model.)

To all whom it may concern.

Be it known that I, THOMAS H. BRADY, a citizen of the United States, residing at New Britain, in the county of Hartford and State of Connecticut, 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 particularly to the contact-jaws of said switches, and the main objects of my improvements are increased efficiency and durability of the jaws.

In the accompanying drawings, Figure 1 is a plan view of a switch with my improved contact-jaws. Fig. 2 is a sectional view of the same on the line *xx* of Fig. 1, some of the parts connected with the operating-lever being omitted. Fig. 3 is a detached rear or heel view of one pair of contact-jaws and their frame. Fig. 4 is a plan view of a different form of switch with a modified form of contact-jaws, and Fig. 5 is a sectional view of the same on the line *zz*, the lever-switch plate being omitted.

In Figs. 1 and 2, A designates the switch-plate, which is of an ordinary construction and which is given a partial rotary movement by means of the lever B, in connection with mechanism not shown, substantially as in switches generally.

D designates the frame for the rigid contact-jaws 8, said frame having a binding-post 9 or other provisions for connecting the proper wires, and also having ears or lugs 10, by means of which the frames may be fastened to the board E. Within each frame, and properly projecting therefrom, are the contact-jaws pivoted therein by means of a suitable pintle 11, the jaws being provided with hinge-lugs 12, as shown at the left-hand side of Fig. 2 and in the rear or heel view, Fig. 3. The inner faces of the jaws may be beveled or rounded off a little, as shown. The heels of the jaws are extended a little beyond the hinge-lugs and pintle, as at 13, to furnish bearings for the ends or arms of the springs 14. I prefer to employ coiled-wire springs with their arms projecting tangentially from the coils, and to mount said springs on separate frames 15, suitably fastened to the board E, with the spring-arms bearing upon the heels of the pivoted jaws with a constant

tendency to force said jaws toward each other and consequently against the switch-plate. The springs are secured to their frame by a pin 16, which passes through the lugs of the frame and through the coils of the spring. Although the jaws of themselves are practically rigid they are made to properly yield and return by being pivoted and acted upon by the springs.

In the construction shown in Figs. 4 and 5 I employ one fixed jaw 8^a and one pivoted jaw 8^b, and these jaws are of a form for use with a switch plate G in the form of a lever. The pivoted jaw is hinged by the pintle 22, Fig. 5, near its attaching plate or leaf 23, and it is pressed upon by the spring 24, mounted in a separate frame 25, substantially as before described.

In all of the jaws shown there is in each pair at least one pivoted jaw of a substantially rigid character, which is acted upon by a spring. In one form the rigid jaw is formed as an integral part of the frame; but I prefer to employ a separate frame having a binding-post and lugs for securing it in place, and a pair of rigid jaws acted upon by a spring, either on the same or an adjacent frame, both of the jaws being pivoted to said frame and separately pressed toward each other by the spring, whereby the general efficiency of the jaws is improved, especially with reference to keeping in working order for a longer time and with less liability to stick or bind in case the switch remains a long time without being operated. In two forms I have shown the springs mounted in separate frames, whereby they are less liable to be injured by heat than if they were on the jaw-frames, and less liable to such injury than are contact-jaws in which the spring resides in the jaw itself, or in one and the same piece of metal with the jaw.

I claim as my invention—

1. An electric switch having contact jaws of a rigid character, one of said rigid jaws in each pair being pivoted to its frame, and having also a separate spring frame and spring adjacent to the frame of said jaws with its spring bearing upon the pivoted jaw for forcing it to its work, substantially as described and for the purpose specified.

2. An electric switch having a contact jaw

frame, provided with devices for attaching a
wire and for securing said frame in place,
a pair of rigid contact jaws pivoted to said
frame on a common pintle, and a separate
5 spring with its ends pressing in opposite direc-
tions upon the two members of said pair of
jaws to move them separately on their frame,

substantially as described and for the pur-
pose specified.

THOMAS H. BRADY.

Witnesses:

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