

(No Model.)

J. C. FAGAN.  
ELECTRIC SWITCH.

No. 553,730.

Patented Jan. 28, 1896.

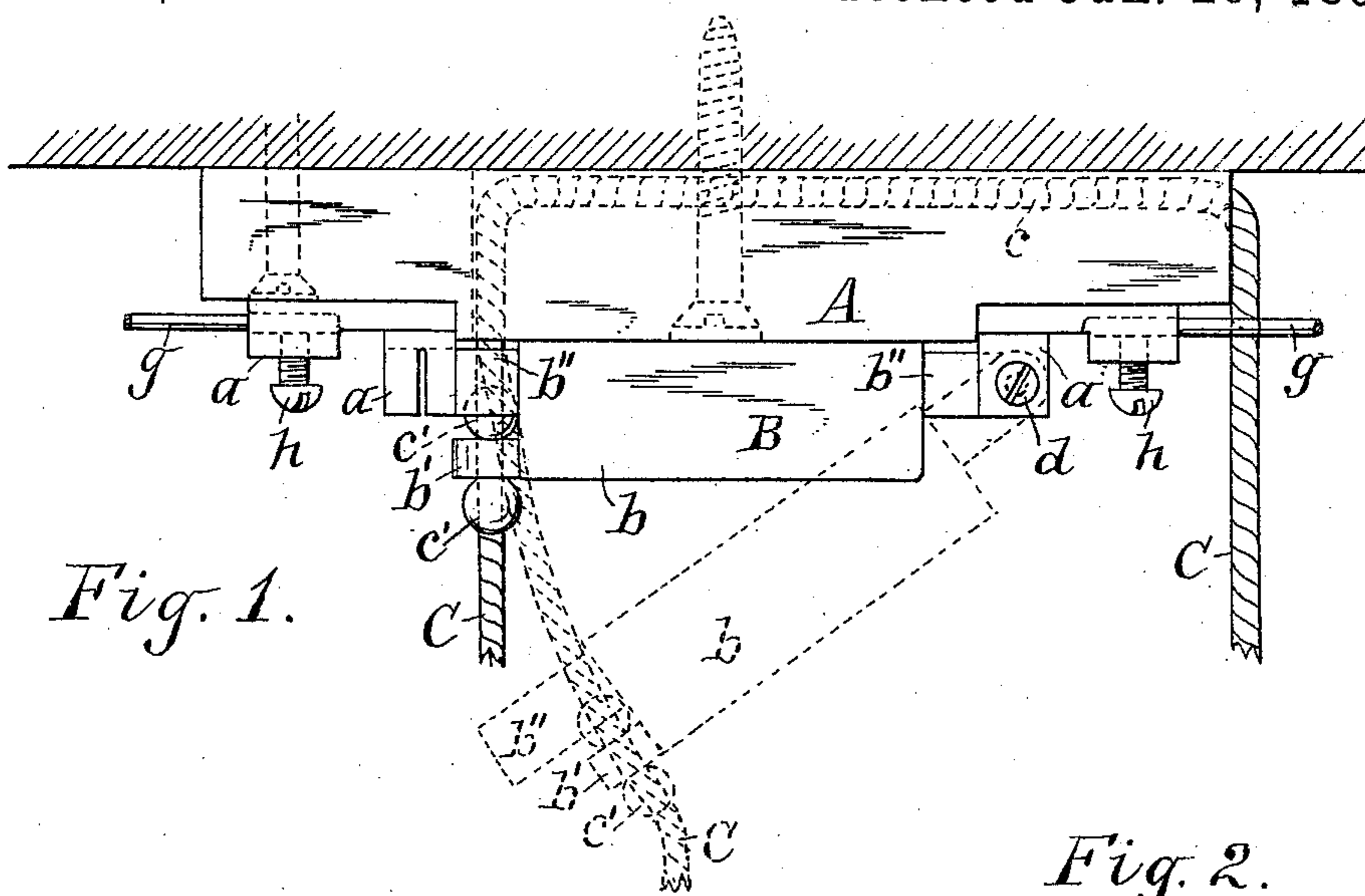


Fig. 1.

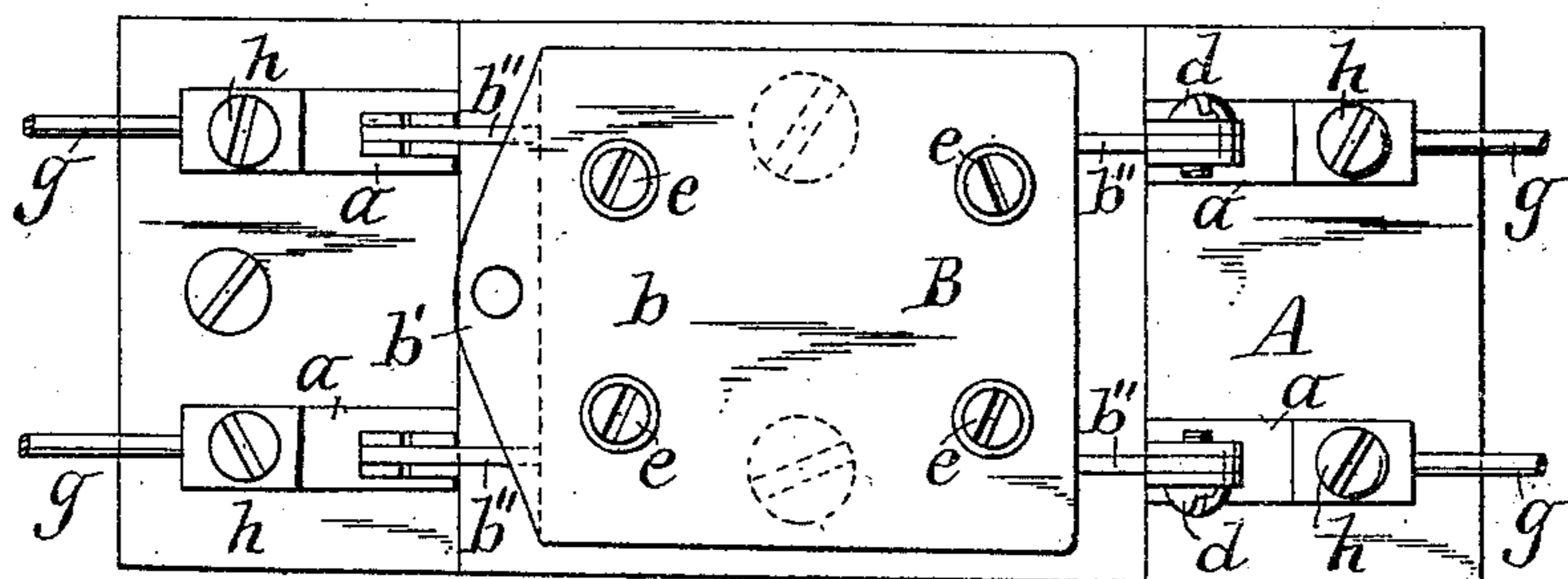


Fig. 2.

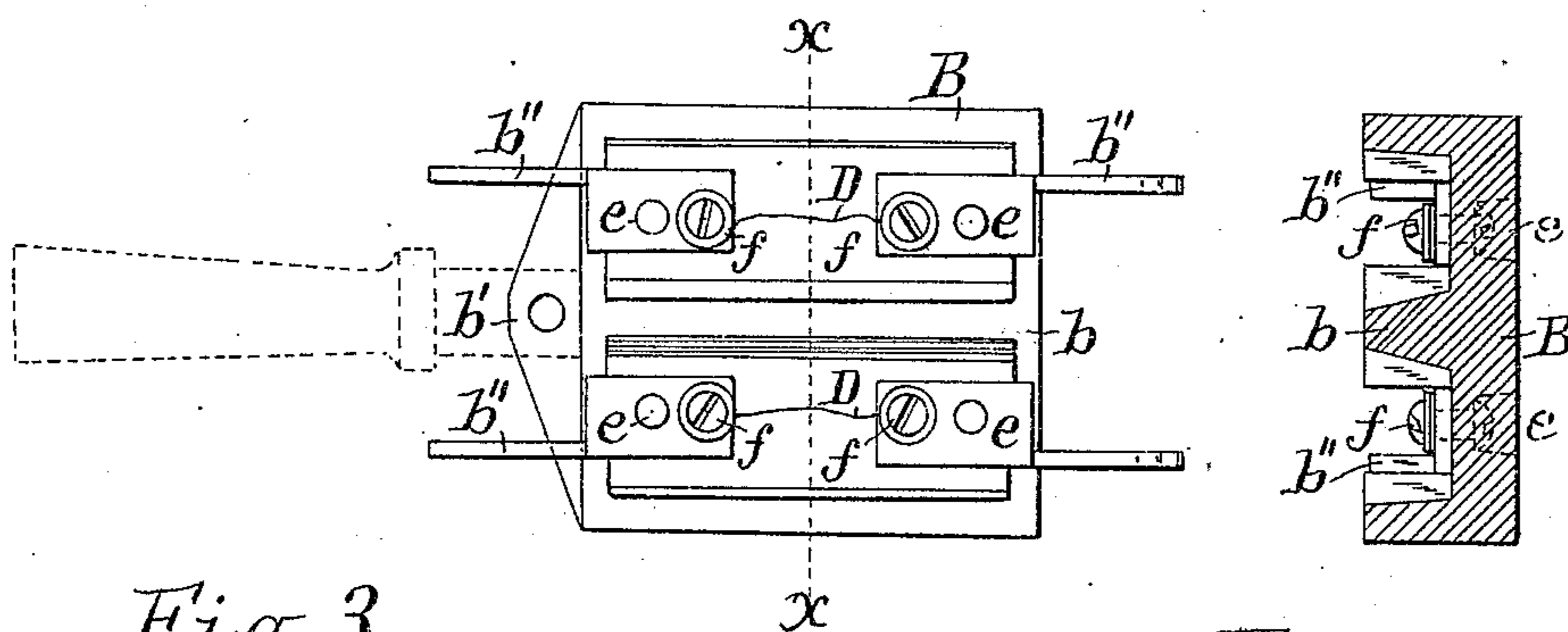


Fig. 3.

Fig. 4.

Witnesses:

Mark W. Dewey  
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Inventor.

John C. Fagan  
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# UNITED STATES PATENT OFFICE.

JOHN C. FAGAN, OF WATERTOWN, NEW YORK.

## ELECTRIC SWITCH.

SPECIFICATION forming part of Letters Patent No. 553,730, dated January 28, 1896.

Application filed May 6, 1895. Serial No. 548,198. (No model.)

*To all whom it may concern:*

Be it known that I, JOHN C. FAGAN, of Watertown, in the county of Jefferson, in the State of New York, have invented new and useful Improvements in Electric Switches, of which the following, taken in connection with the accompanying drawings, is a full, clear, and exact description.

My invention relates to electric switches, and the object is to provide a simple combined switch and cut-out having the fuses separately covered or enveloped with refractory material; and the further object is to provide such switch with means whereby it may be easily operated when attached to the ceiling, thus saving the extra wire required when the switch is secured to a side wall.

To this end my invention consists in the combination with the base and the stationary contacts thereon, of a switch-lever provided with contacts and having a recessed or grooved piece of insulating material intermediate of its length and insulating the said contacts from each other, and a fuse connecting said contacts and lying in said recess; and my invention consists in certain other combinations of parts hereinafter described, and specifically set forth in the claims.

In the drawings hereto annexed and forming a part of this specification, Figure 1 is a side elevation of a switch secured to a ceiling and embodying my invention. Fig. 2 is a plan view of the lower side thereof. Fig. 3 is a top plan view of the switch-lever removed from the base of the switch, and Fig. 4 is a cross-sectional view of the switch-lever taken on line *xx* of Fig. 3. Fig. 5 shows an ordinary handle in broken lines attached to the lever instead of the chain or cord shown in Fig. 1. It will be obvious that either may be used for its operation, as desired, or even a rod.

Referring specifically to the drawings, A indicates a rectangular base of wood, porcelain or other suitable material, secured to a ceiling.

*a a a a* are four stationary contacts with their binding-posts mounted thereon, two at each end.

B indicates the switch-lever pivoted to two of the said stationary contacts at one end of the base.

*b* is the recessed or grooved central portion

of the switch-lever which is formed of insulating material, preferably porcelain or other suitable fireproof material, and C is a cord, cable or chain connected to the free end of the lever to operate the same. The cord C passes through an eye in the free end of the lever B, thence upward through an aperture in the base A, and then horizontally within a groove *c* extending longitudinally in the upper side of the base to the end.

Knots may be tied in the cord on each side of the projection *b'* having the eye, or, as shown in the drawings, beads *c' c'*, of hard rubber or metal, may be secured to the cord in place of the knots.

By pulling on the right-hand end of the cord C the lever B will be raised to close the switch, as shown in full lines in Fig. 1, and by pulling on the opposite end of the cord the switch is opened, as shown in the same figure in broken lines.

The central portion of the switch-lever B is preferably recessed or grooved, as shown in Figs. 3 and 4 of the drawings, so that there will be a groove for each of the fuses D D, or, in other words, so that each fuse will be provided with a separate compartment. The ends *b''* of the switch-lever are each formed out of sheet metal and have preferably an L shape. Two of them are pivoted by means of small screws *d d* to one pair of stationary contacts on the base A, and the other two are free to move in and out of contact with the other pair of stationary contacts *a a*.

The ends *b''* of the switch-lever extend within the grooves in the piece *b*, and are secured therein and to the piece by screws *e e e e*. The said ends are separated within the grooves, but are connected together by fuse-wires D D, secured at their ends by binding-screws *f f*.

*g g g g* indicate the leads connected to the stationary contacts *a a*, &c., on the base A, and *h h h h* are the binding-screws on said contacts to hold the leads.

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

1. The combination with the base and two pairs of stationary contacts thereon, of a switch-lever provided with corresponding contacts a pair of which are pivoted to one pair of contacts on the base and having a cen-

tral portion of insulating material insulating the said contacts from each other and having a pair of grooves in the side toward the base, and a fuse-wire in each groove connecting a pair of contacts together, substantially as and for the purpose described.

2. The combination with the base provided with a recess and the stationary contacts thereon, of a switch-lever provided with contacts and having a recessed or grooved piece of insulating material intermediate of its length and insulating the said contacts from each other, a fuse connecting said contacts and lying in said recess, and a cord connected to the switch and passing through the recess provided with means to move the switch-lever in either direction, substantially as described.

3. The combination with the base and two pairs of stationary contacts thereon, of a switch-lever provided with corresponding contacts and having a central portion of insulating material with a pair of grooves in the side toward the base, a fuse-wire in each groove connecting a pair of contacts together, a projection on the switch-lever, a groove in the base, and a cord secured to the said projection and passing through the groove and adapted to move longitudinally therein, substantially as described.

In testimony whereof I have hereunto signed my name.

JOHN C. FAGAN. [L. S.]

Witnesses:

D. C. MIDDLETON,  
GEO. F. CLARK.