(No Model.)

B. F. ROUT.

ELECTRIC CUT-OUT.

No. 571,734. Patented Nov. 17, 1896.

Fig. 1.

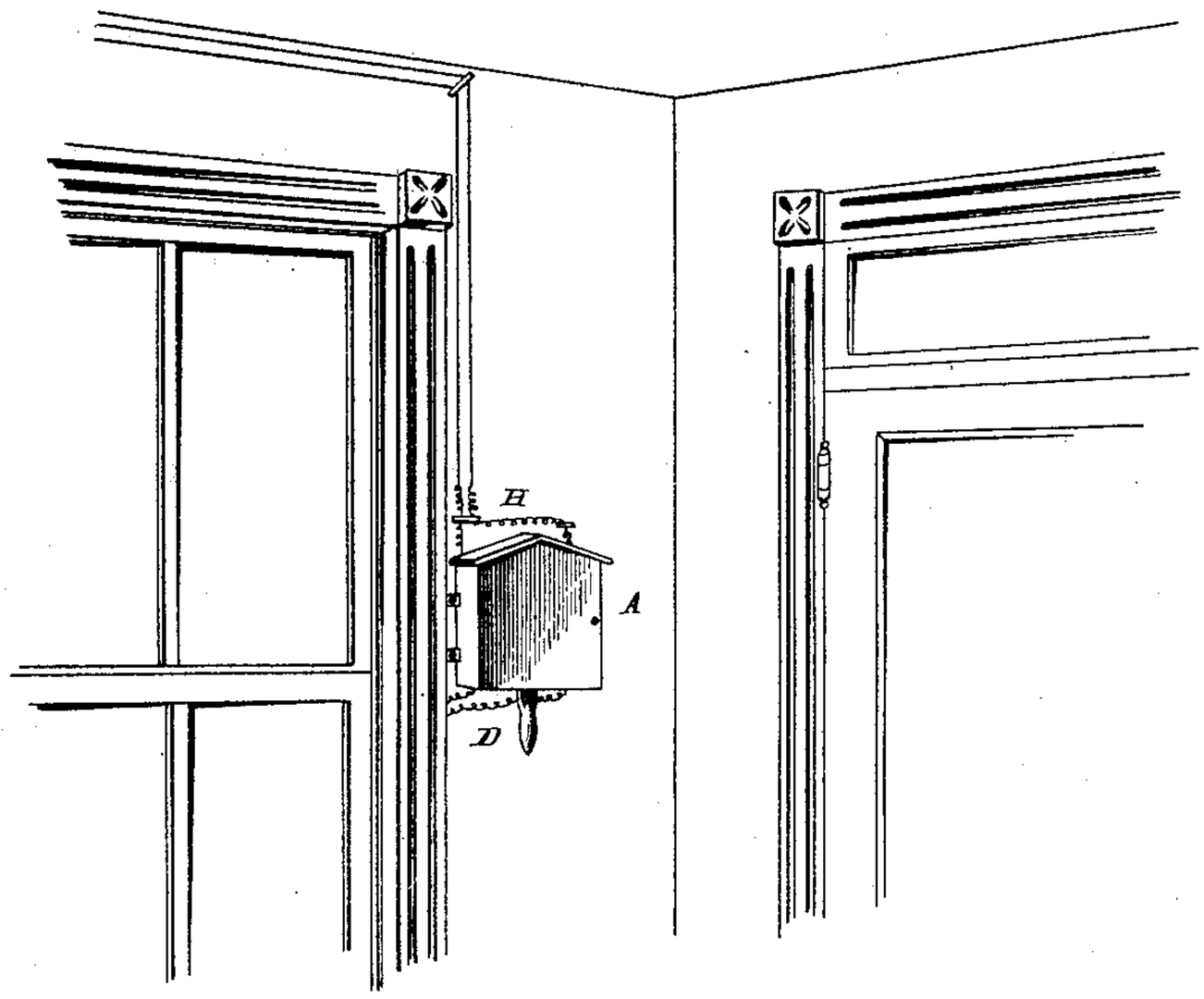

Fig. 2.

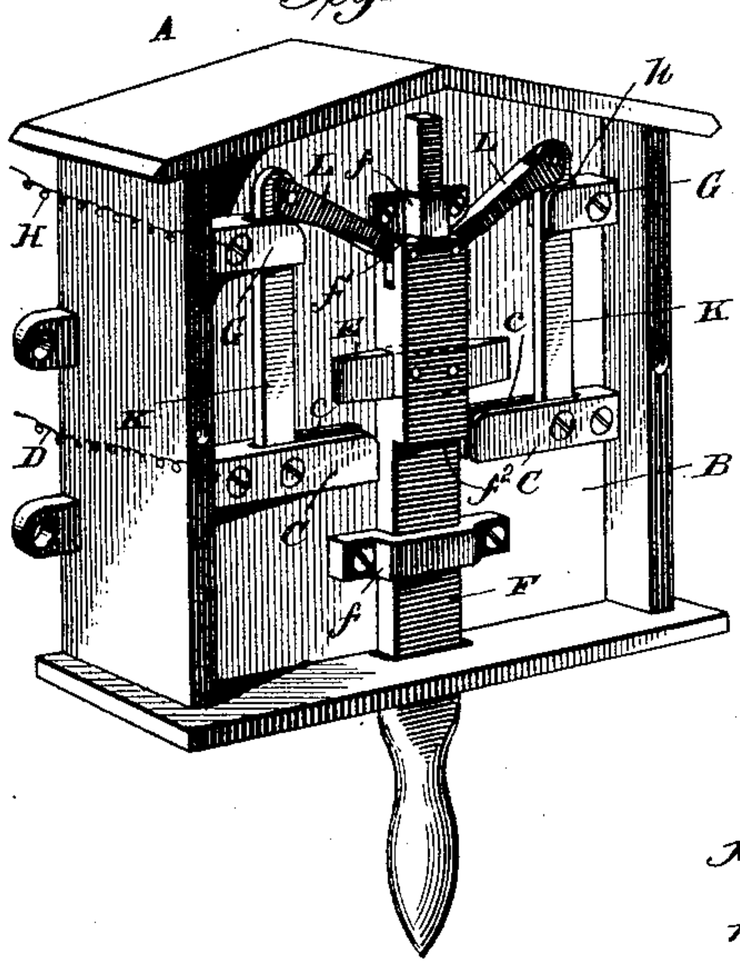

Fig. 3.

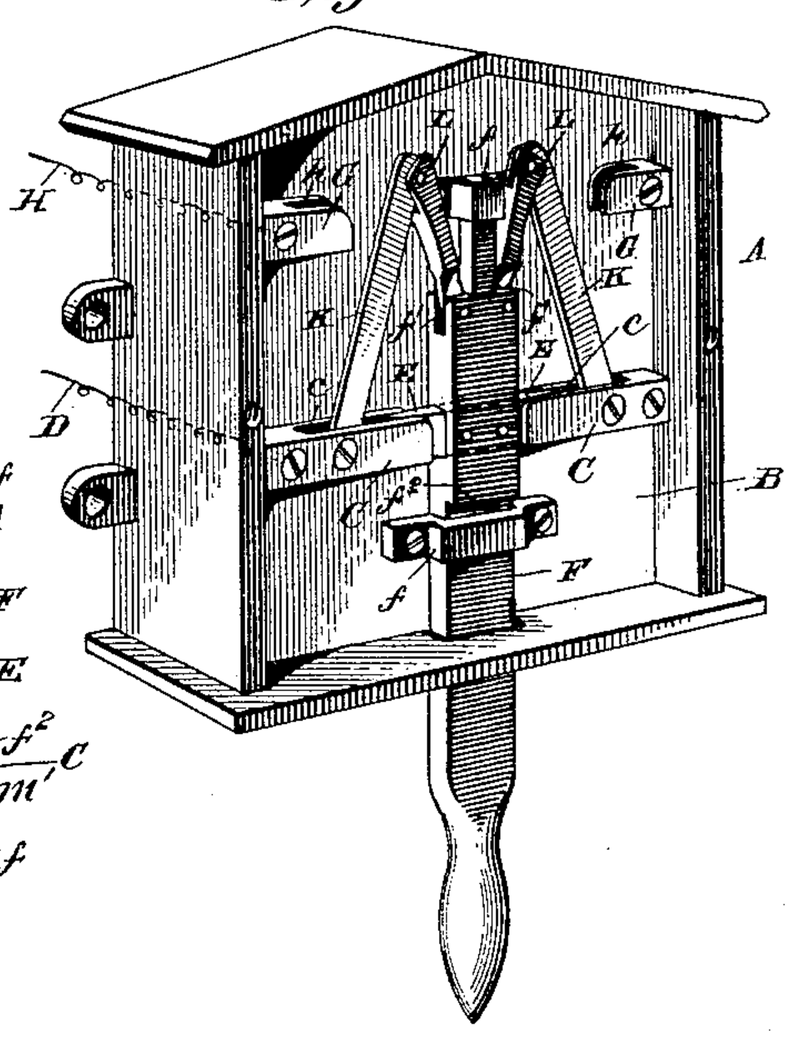

Fig. 4.

WITNESSES:

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UNITED STATES PATENT OFFICE.

BENJAMIN FRANKLIN ROUT, OF STANFORD, KENTUCKY, ASSIGNOR OF ONE-HALF TO G. L. PENNY, OF SAME PLACE.

ELECTRIC CUT-OUT.

SPECIFICATION forming part of Letters Patent No. 571,734, dated November 17, 1896.

Application filed March 27, 1896. Serial No. 585,123. (No model.)

To all whom it may concern:

Be it known that I, BENJAMIN FRANKLIN ROUT, residing at Stanford, in the county of Lincoln and State of Kentucky, have invented a new and Improved Electric Cut-Out, of which the following is a specification.

This invention is an improved electric circuit-closer or cut-out.

The invention is particularly adapted for use in house-circuits, and is employed to connect and disconnect the main line or street-circuit with the house-circuit.

One of the objects of this invention is to provide an exceedingly cheap and simple form of circuit-closer or cut-out device which can be easily set up and operated by any one without any possible danger.

Another object is to provide a circuit-closer or cut-out which shall consist of very few parts, easily arranged, and not liable to get out of order, there being but one spring in the entire device and no coil-springs whatever.

Another object is to provide a circuit-closer or cut-out device of such construction that when the house-circuit is cut off the line of passage in main line is direct; and a still further object is to provide a circuit-closer or cut-out device which shall be stronger, simpler, and more durable than the circuit-closer or cut-outs now in common use.

With these various objects in view my invention consists in the peculiar construction of the various parts and in their novel combination or arrangement, all of which will be fully described hereinafter, and pointed out in the claims.

In the drawings forming a part of this specification, Figure 1 is a view showing the invention in use. Fig. 2 is a view showing the front of case removed, the house-circuit closed. Fig. 3 is a view showing the circuit open or the house-lines cut out. Fig. 4 is a section on the line 4 4 of Fig. 2.

In carrying out my invention I employ a suitable box or case A, preferably constructed of cast-iron or other metal, and the front and bottom are made separate and detachable. A suitable base B, of slate, porcelain, or other non-conducting material, is rigidly connected with the bottom of the case and carries all the various parts of the appliance; and in constructing my improved cut-out I employ two metal contact-blocks C C, which are secured at opposite sides of the base B, near the bottom of same, said contact-blocks having suitable posts or other connections to receive and hold the main-line wires or conductors D, said wires being connected with the outer ends of the said blocks, the inner ends thereof being slotted or bifurcated, as shown at *c*, said slots being intended to receive a contact-plate E, carried by the movable rod F, said rod passing through an opening in the bottom of case and working through guides *f f*, attached to the base B, said plate E and slotted blocks C being so arranged that when the rod is pulled down the ends of plate E will pass between the members of the blocks C C and close the main line or street-circuit, inasmuch as each of said blocks are connected with the main-line conductors, as before described.

At opposite sides of the base B near the top of same are arranged metal contact-blocks G G, which are provided with suitable connections to unite with the house-line circuit or conductors H H. The inner ends of the blocks G G are also slotted or bifurcated, as shown at *h*, the purpose of said slots being to receive the metal contact-arms K K, pivotally connected at their lower ends to the contact-blocks C C, and at their upper ends are pivotally connected to the non-metallic toggle-levers L L, the opposite ends of said levers being pivotally connected to the sliding rod F at a point above the metallic contact-plate E. The upper end of the rod F is reduced to provide shoulders *f' f'*, which act as stops against the upper guide *f* and limit the upward movement of the rod.

As the rod F is pushed upward the toggle-levers are spread and the contact-arms K K are forced into the slotted contact-blocks G G, and thereby close the connection between the main and house lines. When said rod is pulled down, however, the toggle-levers are drawn inward, and also the contact-arms K K, This draws the arms K out of blocks G and breaks the connection between the house and main line, but at the same time the contact-plate E is moved into contact with blocks C C.

It will thus be seen that the circuits are closed and opened by simply moving the rod up and down. The rod can also have shoulders f^2 f^2 near the lower ends to abut against the lower guide and serve to stop the downward movement of said rod. In order to hold the rod and attached parts in a raised position after they have been so adjusted, I employ a spring M, fastened upon the front face of the base B and bent back upon itself to provide a head m, which works in a groove m', made in the opposing face of the rod, so that when the rod is moved up to throw the arms in contact the head m will spring into the recess and hold the rod against downward movement. This spring-head, however, is not strong enough to hold the rod against a pull exerted by the hand, so that it is not necessary to release the spring by any auxiliary appliance, an extra pull at the start being sufficient to release the rod.

All the operative parts are first secured to the non-conducting base B and then inserted in the case, the binding posts or connections extending through the back of case, so that the house and main wires can be conveniently attached. The front is then screwed on, and inasmuch as there are no devices connected with said front it can be quickly and easily removed and replaced whenever desired.

It will thus be seen that I provide an exceedingly cheap and simple form of circuit-closer or cut-out device and one which can be operated without danger of accidents, and it will also be noted that when the house-lines are cut out the continuity of the main line or circuit is established.

By having the operating-rod between the contact blocks and arms a simpler and more effective operation is secured and the entire device can be made to occupy less space.

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

1. In a circuit-closer or cut-out device, the non-conducting base, the upper and lower blocks, the sliding rod carrying a contact-plate, the contact-arms pivotally connected to the lower contact-blocks, and means carried by the operating-rod to move said contact-arms into and out of contact with the upper contact-blocks, substantially as shown and described.

2. In a circuit-closer, the non-conducting base, the upper and lower contact-plates slotted at their inner ends, the contact-arms pivoted to the lower contact-blocks, the sliding rod carrying a contact-plate, and the arms or levers connecting the sliding rod and the contact-arms, substantially as shown and described.

3. In a circuit-closer, a non-conducting base, the upper and lower contact-blocks slotted at their inner ends, the contact-arms pivoted to the lower contact-blocks, the sliding rod, the contact-plate carried by said sliding rod, and the toggle arms or levers connecting said rod and contact-arms, the guides in which said rods slide, and the shoulders upon said rod adapted to act as stops, substantially as shown and described.

4. In a circuit-closer, the non-conducting base, the upper and lower blocks, slotted at their inner ends, the sliding rod having a groove upon the inner face, said groove having a depression at one end, the contact plate and arms, the toggle arms or levers and the spring adapted to rest in said groove in the rod, substantially as shown and described.

BENJAMIN FRANKLIN ROUT.

Witnesses:
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