

No. 633,095.

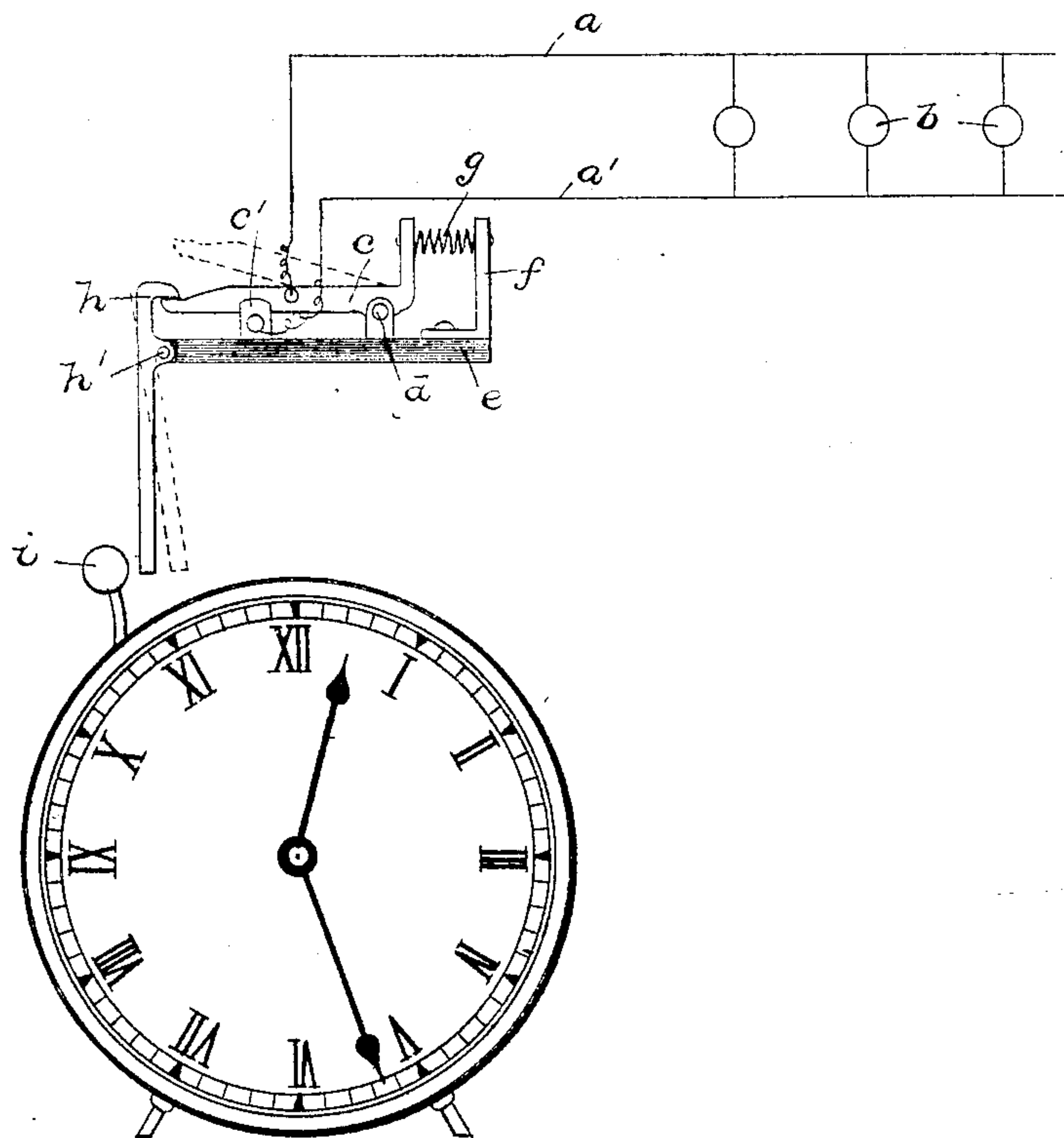
Patented Sept. 12, 1899.

I. DEUTSCH.

AUTOMATIC DEVICE FOR OPERATING ELECTRIC SWITCHES.

(Application filed Nov. 2, 1898.)

(No Model.)



WITNESSES -

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# UNITED STATES PATENT OFFICE.

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## AUTOMATIC DEVICE FOR OPERATING ELECTRIC SWITCHES.

SPECIFICATION forming part of Letters Patent No. 633,095, dated September 12, 1899.

Application filed November 2, 1898. Serial No. 695,261. (No model.)

*To all whom it may concern:*

Be it known that I, ISIDOR DEUTSCH, a citizen of the United States, residing at Baltimore, in the State of Maryland, have invented certain new and useful Improvements in Automatic Devices for Operating Electric Switches, of which the following is a specification.

This invention relates to an automatic device for operating electric switches at a predetermined time or given hour. The invention is here shown applied to a switch for extinguishing electric lights.

The object of the invention is to combine with an electric switch a catch-lever and the vibrating striker of an ordinary alarm-clock whose bell has been removed, so that the said striker will release the catch-lever and operate the switch to break the circuit.

The invention is illustrated in the accompanying drawings, which shows a circuit for operating electric lights, a switch to open and close the circuit, a catch-lever connected with the switch and retaining the latter in position to close the circuit, and an alarm-clock whose vibrating hammer is arranged to strike the catch-lever, and thereby break the circuit.

The main circuit *a a'* includes the lamps *b* and switch. The switch in this instance consists of a bar *c*, having one end projecting laterally, like a bell-crank lever, and pivoted at *d*, and a contact-piece *c'*, against which said switch-bar presses when the circuit is closed. One wire *a* of the main circuit connects with the switch-bar *c* and the other wire *a'* with the contact-piece *c'*. The contact-piece *c'* is on a base-plate *e*, as is also the pivot-bearing *d*. A stud *f* is also on the base-plate, and a spiral spring *g* connects between the said stud and the laterally-projecting end of the switch-bar, and the spring serves normally to tilt the switch-bar *c* from the contact-piece and break or open the circuit. A catch-lever *h* is secured by a pivot or hinge *h'* to the base-plate and has a prong or hook which engages the free end of the

switch-bar *c*. When thus engaged, the catch-lever retains the switch-bar against the contact-piece *c'*, and thereby holds the switch in the closed position. When this catch-lever is disengaged from the switch-bar, the latter will be tilted by the action of the spring *g*, and the circuit will be broken.

I employ the vibrating striker *i* of an ordinary alarm-clock as the medium to mechanically disengage the catch-lever from the switch-bar at a predetermined time. It will be understood, therefore, that the ordinary alarm-clock may be "set" to act or give its usual alarm at any desired hour and that the usual bell of such clocks employed for this purpose being removed from the top of the clock-case the striker instead of hammering the bell will strike the catch-lever *h*. One blow of the striker *i* on the free end of the catch-lever will disengage the latter from the switch-bar *c* and break the circuit. By thus utilizing an ordinary cheap alarm-clock having a vibrating hammer and dispensing with its bell I am able to produce an efficient apparatus comprising very few parts and at very slight cost.

The invention may be applied to operate a switch for other purposes than extinguishing electric lights.

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

The combination of an electric circuit; a switch included in the said circuit; a catch-lever connecting with the said switch which retains the latter in position to close the circuit; and an alarm-clock having a vibrating hammer which is arranged to strike the catch-lever and disengage it from the switch to break the circuit.

In testimony whereof I affix my signature in the presence of two witnesses.

ISIDOR DEUTSCH.

Witnesses:

CHAS. B. MANN, Jr.,  
LEE I. VAN HORN.