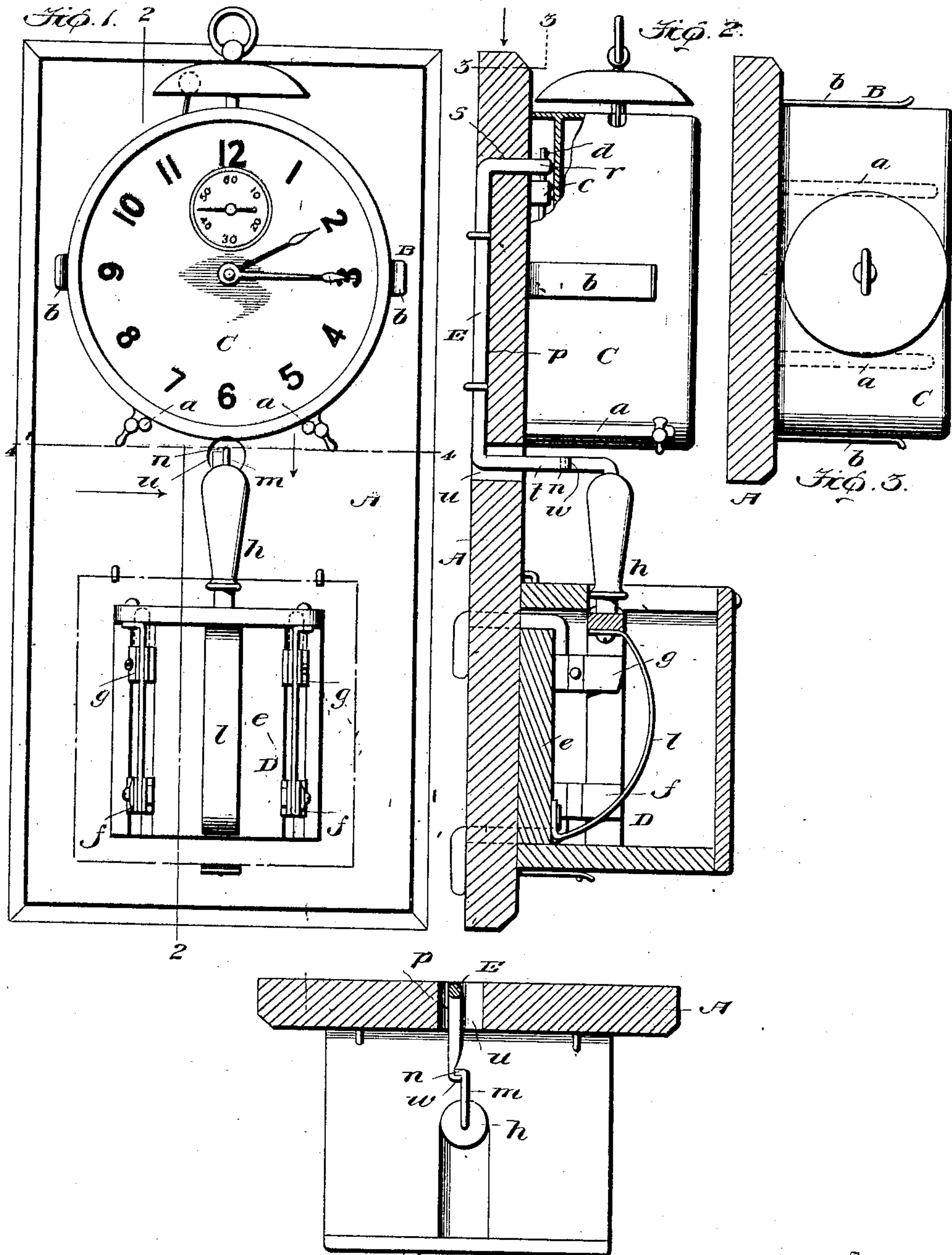


No. 817,392.

PATENTED APR. 10, 1906.

J. E. ROGERS.
ELECTRIC TIME SWITCH.
APPLICATION FILED JULY 10, 1905.



Witnesses

Wm. C. Dashiell.
W. C. Healy

Fig. 4.

By

John E. Rogers.
James Phuby Attorney

Inventor

UNITED STATES PATENT OFFICE.

JOHN E. ROGERS, OF ELKHART, INDIANA.

ELECTRIC TIME-SWITCH.

No. 817,392.

Specification of Letters Patent.

Patented April 10, 1906.

Application filed July 10, 1905. Serial No. 269,064.

To all whom it may concern:

Be it known that I, JOHN E. ROGERS, a citizen of the United States, residing at Elkhart, in the county of Elkhart and State of Indiana, have invented new and useful Improvements in Electric Time-Switches, of which the following is a specification.

My invention pertains to electric time-switches; and it consists in the peculiar and advantageous means, hereinafter described and claimed, whereby an electric circuit may be broken at a predetermined time for the purpose of putting out lights in said circuit or for any other purpose.

In the accompanying drawings, forming part of this specification, Figure 1 is a front elevation of my novel apparatus with the switch-casing in dotted lines. Fig. 2 is a vertical section taken in the plane indicated by the line 2 2 of Fig. 1. Fig. 3 is a horizontal section taken in the plane indicated by the line 3 3 of Fig. 2 looking downwardly; and Fig. 4 is a horizontal section taken in the plane of the line 4 4 of Fig. 1, also looking downwardly.

Similar letters designate corresponding parts in all of the views of the drawings, referring to which—

A is the body of the apparatus, which is preferably a board of wood, and B is a bracket carried by the upper portion of the body. The said bracket comprises rods *a*, arranged in the same horizontal plane and reaching forwardly from the body at opposite sides of the vertical center thereof, and resilient arms *b*, attached to and extending forwardly from the body A in a plane above that of the rods *a* and arranged a greater distance apart than said arms.

C is a clock removably arranged in the bracket B after the manner illustrated. The said clock is preferably an ordinary alarm-clock—i. e., comprises a shaft *c*, which is rotated at the predetermined time for which the clock is set and is provided with a tappet *d* for a purpose presently set forth. In virtue of the clock being removably arranged in the bracket B, as stated, the said clock is adapted to be wound and set with the facility common to alarm-clocks.

D is an electric switch located on the body A at a point below the said bracket B. This switch may be of any construction compatible with the purpose of my invention, al-

though I prefer that it be of the ordinary knife construction—that is to say, made up of a base *e*, of insulating material, a pair of terminals *f*, another pair of terminals *g*, disposed above the terminals *f*, and a lever *h*, having the usual conductive pieces hinged to the terminals *f* and arranged to be swung into and out of engagement with the terminals *g*, and also having a handle, as shown. To the base *e* and lever *h* is connected a spring *l*, which tends to throw the said lever away from the terminals *g*, while on the handle of the lever is carried an arm *m*, which terminates at its free end in a lateral toe *n*, Fig. 4, designed to serve a purpose presently set forth.

E is a vertically-arranged rock-shaft journaled in suitable bearings on the body A and located, by preference, in a recess *p* at the back of said body. This rock-shaft is provided at its upper end with an arm *r*, which reaches forwardly through an opening *s* in the body A and is arranged to be engaged by the tappet *d* of the clock C when the said tappet is moved by the rotation of the clock-shaft *c*. At its lower end the shaft E is provided with an arm *t*, which extends forwardly through an opening *u* in the body and terminates in a lateral toe *w*, arranged to engage the toe *n* of the arm *m* on the switch-lever *h*.

It will be apparent from the foregoing that when the toe *w* of the rock-shaft E is in engagement with the toe *n* of the arm *m* on the switch-lever *h* the switch-lever will be retained in the position illustrated, with its conductive pieces in engagement with the terminals *g*. It will also be apparent that when the rock-shaft E is turned on its axis to swing the arm *t* toward the left said arm *t* will be disengaged from the arm *m* of the switch-lever, when the spring *l* will be free to throw the switch-lever forwardly, so as to carry its conductive pieces out of engagement with the terminals *g*. To thus release the lever *h* and break the electric circuit at a predetermined time, it is simply necessary for the user of my apparatus to wind and set the clock C for such time and then place the clock in the bracket B in the position illustrated. With this done the shaft *c* of the clock will be rotated at such predetermined time, and its tappet *d* will strike the arm *r* of the shaft E, with the result that said shaft

will be rocked to disengage its arm *t* from the arm on the switch-lever, so as to enable the spring *l* to throw the switch-lever out of engagement with the terminals *g*. In this way
5 the electric circuit in which the switch-lever and the terminals *f* and *g* are arranged will be broken, and if lights be in said circuit the said lights will be put out automatically at the predetermined time before mentioned.

10 I prefer to arrange the switch *D* in an electric-light circuit; but it is obvious that the said switch may be arranged in any other electric circuit that it is desirable to break automatically at a certain time without in-
15 volving a departure from the scope of my invention.

It will be gathered from the foregoing that my novel apparatus is susceptible of being quickly and easily set, that it is reliable in
20 operation, and that it embodies no delicate parts such as are likely to get out of order after a short period of use.

The casing, which is shown by dotted lines as inclosing the switch *D*, may be of the con-

ventional or any other construction compatible with the purpose of my invention. 25

I claim—

A device for the purpose described comprising a body, a switch-lever supported on the front of the body and provided with a
30 toe, a spring for pressing said lever forwardly, a rock-shaft journaled in a suitable bearing at the back of the body and having arms extending forwardly through openings in the body and also having a toe on one of
35 the arms arranged to engage that of the switch-lever, and a clock supported on the body and having a shaft and a short tappet on said shaft arranged to engage the other arm of the rock-shaft at predetermined
40 times.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

JOHN E. ROGERS.

Witnesses:

L. BURR WHIPPY,
B. F. DEAHL.