

(No Model.)

J. McMILLAN & G. H. TAYLOR.
ELECTRIC ALARM CLOCK.

No. 482,133.

Patented Sept. 6, 1892.

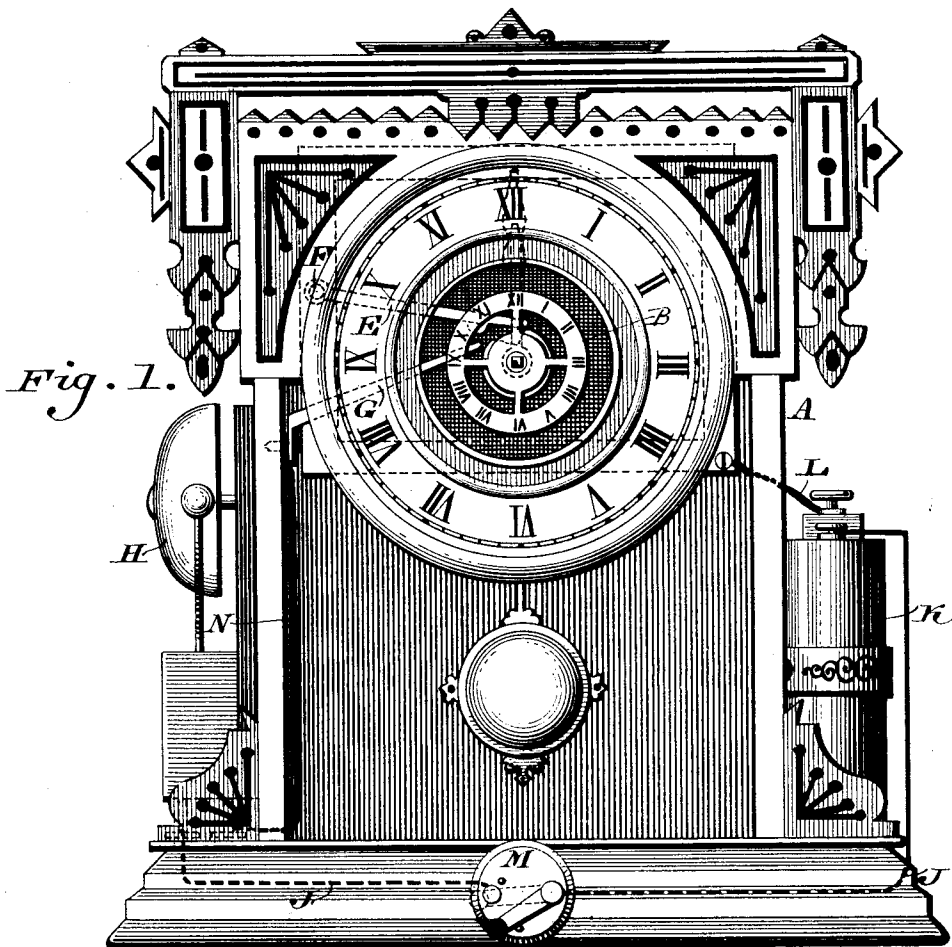


Fig. 3.

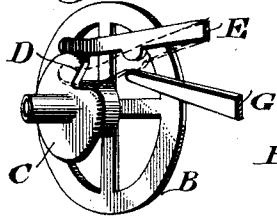


Fig. 2.

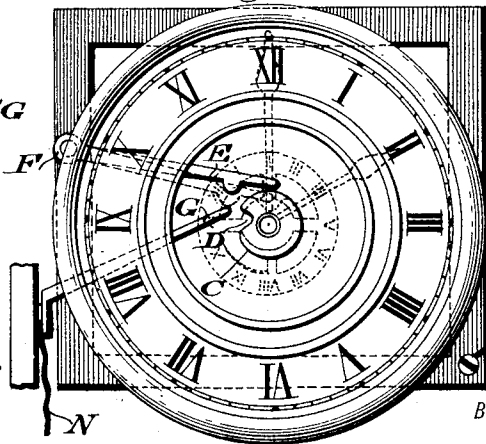
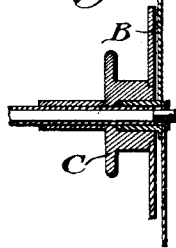


Fig. 4.



WITNESSES:

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JOHN McMILLAN AND GEORGE H. TAYLOR, OF PHILADELPHIA, PENNSYLVANIA; SAID TAYLOR ASSIGNOR TO SAID McMILLAN.

ELECTRIC ALARM-CLOCK.

SPECIFICATION forming part of Letters Patent No. 482,133, dated September 6, 1892.

Application filed March 26, 1891. Renewed February 15, 1892. Serial No. 421,835. (No model.)

To all whom it may concern:

Be it known that we, JOHN McMILLAN and GEORGE H. TAYLOR, citizens of the United States, residing in the city and county of Philadelphia, State of Pennsylvania, have invented a new and useful Improvement in Electrical Alarm Attachments to Clocks, which improvement is fully set forth in the following specification and accompanying drawings.

Our invention consists of an alarm attachment to a clock, the same being in an electric circuit which is closed by the mechanism when the set time arrives, as will be hereinafter described.

Figure 1 represents a front view of a clock having an electric alarm attachment embodying our invention. Fig. 2 represents a front view of a portion thereof. Fig. 3 represents a perspective view of a detached portion. Fig. 4 represents a section of a hand-post and adjacent portions.

Similar letters of reference indicate corresponding parts in the several figures.

Referring to the drawings, A designates a clock which, excepting the features of our invention applied thereto, is of usual construction.

B designates a setting-dial, which is placed on a post or arbor similar to alarm-clocks heretofore in use, said dial carrying a disk C, in the periphery of which is a notch or recess D. Resting freely upon said periphery is an arm E, which is pivoted, as at F, to the frame of the works of the clock.

G designates a finger, which is secured to the clock-casing and projects toward the inner end of the arm E, so that when the latter lowers, as will be hereinafter more fully explained, contact is formed with said finger G.

Supported upon the outside of the casing of the clock or other suitable part thereof is a bell or gong H of the order of an electric bell, the operating mechanism of which is connected by a suitable wire J with a battery K, the latter being also connected with the frame of the works of the clock by a wire L, so that said frame is in electrical communication with the battery.

M designates a switch whose posts are con-

nected with the ends of the wire J for purposes to be explained.

Connected with the finger G is a wire N, which is also connected with the mechanism of the bell H, it being seen that the bell is in an electric circuit.

The dial B is primarily set so that when the recess D arrives at a certain point the alarm will be sounded, it being noticed that when said recess reaches said point the lever or arm E being no longer controlled by the periphery of the disk C, drops into said recess, and thus forms a contact with the finger G, when as the switch M is "on" an alarm is sounded, and the bell will continue to ring until the arm E is again raised by the disk C as it rotates or the switch M is thrown off. It will be seen that the works of the clock are devoid of the alarm mechanism usual in alarm-clocks, excepting, however, the dial B and disk C, it being also evident that said dial and disk may be applied to ordinary clocks, as may also be the arm E, finger G, the battery and bell, the wires and switch, so that such ordinary clocks may be readily converted into alarm-clocks. It is also evident that the bell H, the battery, and switch may be located in an apartment removed from the clock, it only being necessary to support said parts where desired and provide wires of proper length for connection with the respective parts.

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

1. A clock provided with a setting-dial and a recessed disk carried by the same, a gravitating pivoted arm normally in contact with the periphery of said disk, and a stationary finger forming an electric terminal adapted to be contacted by said arm, said arm and finger being in an electric circuit which is closed when said arm and finger contact, substantially as described.

2. An electric alarm attachment to a clock, consisting of a setting-dial with a recessed disk on the hand post or arbor, a gravitating pivoted arm connected with the frame of the works of the clock, a stationary finger forming an electric terminal and supported adjacent to said arm and normally free of con-

tact of said arm, a battery, and a bell, said
frame, arm, finger, and bell being in an elec-
tric circuit which is closed by contact of said
arm with said finger, substantially as de-
5 scribed.

3. A clock provided with a setting-dial and
a recessed disk carried by and movable with
said dial, a gravitating pivoted arm normally
in contact with the periphery of said disk, a
10 stationary finger forming an electric terminal
adapted to be contacted by said arm, a bat-

tery, and a bell, said frame, arm, finger, bell,
and battery being in an electric circuit, and
a switch for opening and closing said circuit,
interposed in said circuit, substantially as de- 15
scribed.

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Witnesses:

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