

(No Model.)

2 Sheets—Sheet 1.

M. W. TIEDEMANN.
ELECTRIC CLOCK ALARM.

No. 441,908.

Patented Dec. 2, 1890.

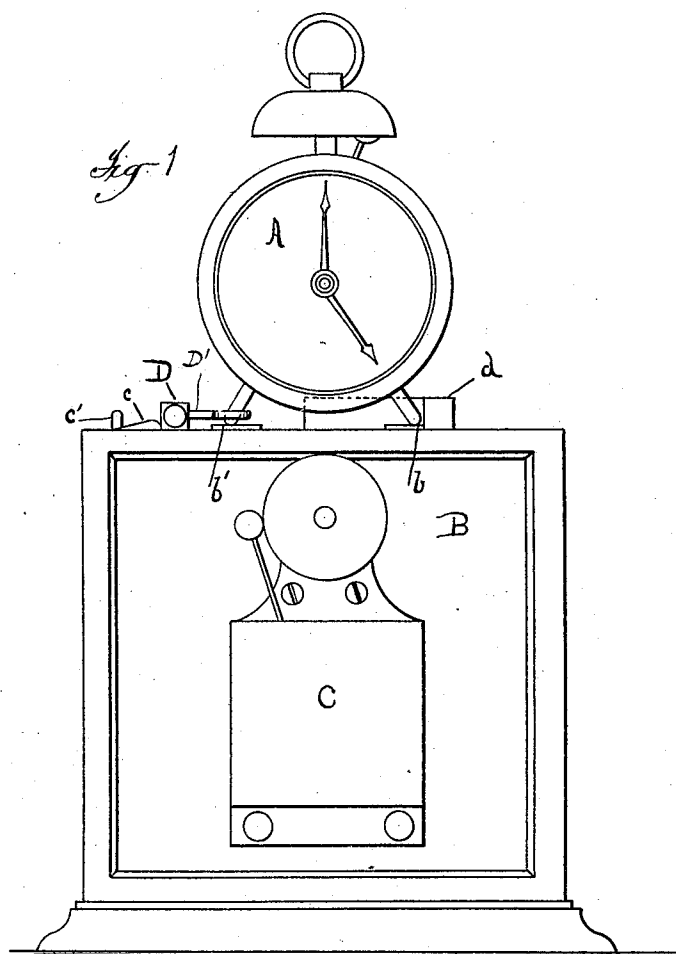
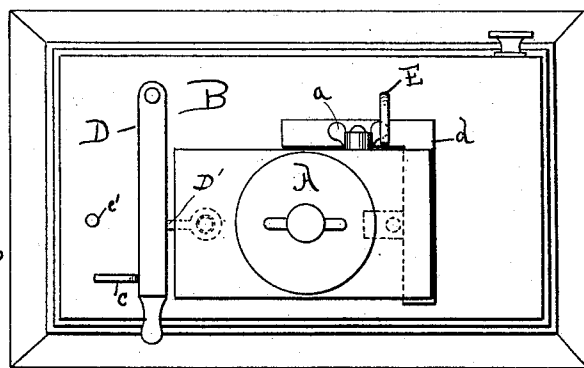


Fig 2.



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Frederic Canavan

Inventor
Matthias W. Tiedemann
by *Ernest C. Webb*
his *Att'y*

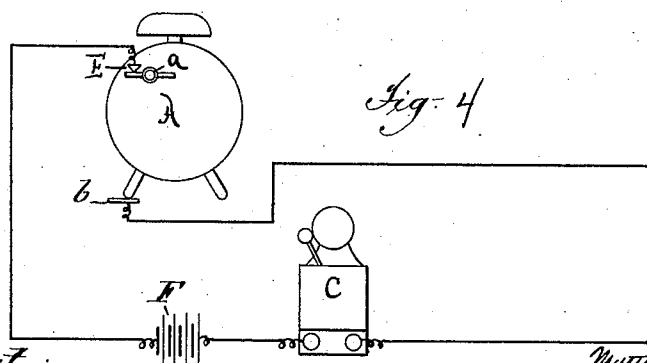
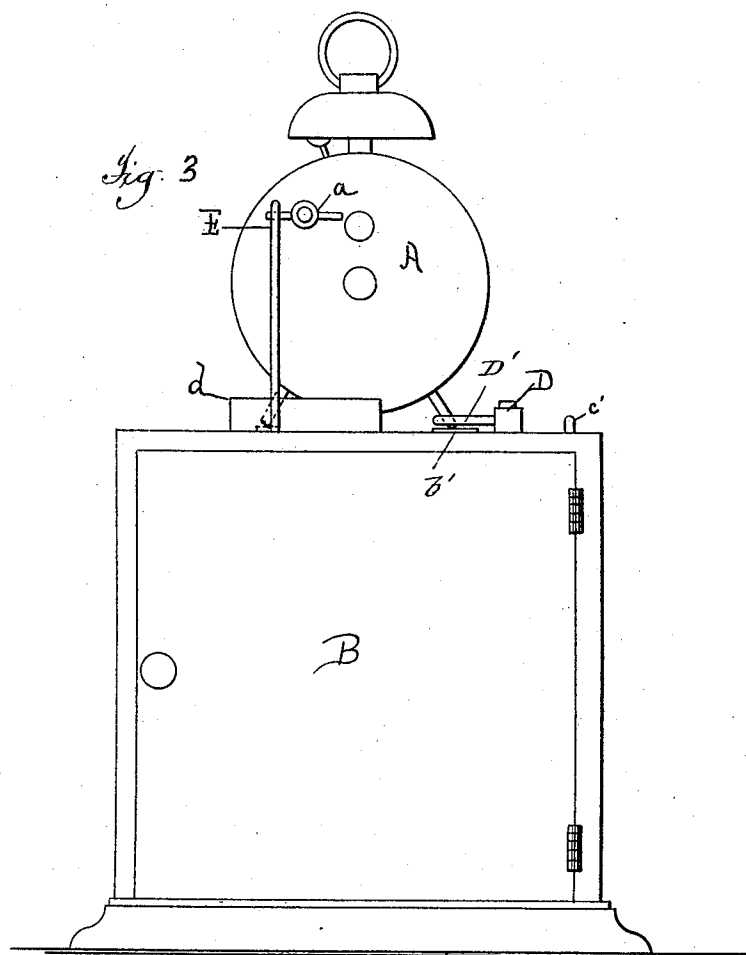
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Attest:
Geo. H. Bots
Notary Canaan

Inventor
M. W. Tiedemann
by Ernest Curble
his Atty.

UNITED STATES PATENT OFFICE.

MATTHIAS W. TIEDEMANN, OF BROOKLYN, NEW YORK.

ELECTRIC CLOCK-ALARM.

SPECIFICATION forming part of Letters Patent No. 441,908, dated December 2, 1890.

Application filed June 27, 1889. Serial No. 315,777. (No model.)

To all whom it may concern:

Be it known that I, MATTHIAS W. TIEDEMANN, a citizen of the United States, residing at Brooklyn, in the county of Kings and State of New York, have invented certain new and useful Improvements in Electric Alarms for Clocks, of which the following is a description.

My invention relates to an electric alarm for clocks, the object being to provide a simple and inexpensive apparatus which will work efficiently with an alarm-clock of ordinary construction.

In the accompanying drawings, illustrating my invention, in the several figures of which like parts are similarly designated, Figure 1 is a front elevation of my invention, showing the clock in position to operate the alarm. Fig. 2 is a top plan view of the same. Fig. 3 is a rear elevation, and Fig. 4 is a diagrammatic view of the electrical connections.

A is an alarm-clock of ordinary construction, in which the alarm is wound from the back by a key *a*, which, when the alarm sounds, revolves as the spring actuating the alarm mechanism unwinds.

B is the inclosing-case for the battery, having the clock A removably mounted upon it, and having fastened to it the electric bell C. *b b'* are plates, of copper, brass, or other good conducting material, secured to the top of the case B, on which the legs of the clock rest.

D is a lever pivoted at the rear end and provided with a projecting hook or ring *D'*, in which one of the legs of the clock sets, and whereby, when it is desired to stop the ringing of the alarm, the clock may be moved sufficiently to break the circuit.

c is a catch for holding the lever and clock in position, and *c'* is a stop to limit the backward movement of the lever.

d is an L-shaped piece, within which the clock sets, thus preventing its slipping or moving and breaking the electric connections.

E is a wire, of conducting material, with which the rotating key of the clock-alarm makes contact when the alarm mechanism of the clock operates, thereby making connec-

tion from the battery F, through the wire E and clock A, through either of the plates *b b'*, to the electric bell C.

In operation my invention is as follows: The alarm of the clock being wound and set to operate at a certain hour, the clock A is placed within the L-shaped piece *d*. One leg of the said clock is inserted in the hook or ring in the lever D, which is moved over and is caught by the catch *c*. The legs of the clock will then rest on the plates *b b'*. When the hour for which the alarm has been set is reached, the alarm mechanism of the clock operates and the rotating key *a* turns until it strikes the wire E, thereby completing the circuit from the battery F through wire E, key *a*, clock A, and either of the plates *b b'* to the electric bell C, and thence back to the battery, as before described. When it is desired to stop the ringing of the alarm, the lever D, carrying the hook or ring within which one leg of the clock sets, is moved up and over the catch *c*, thus separating the key *a* from the wire E, and thereby breaking the circuit.

What I claim as my invention, and desire to secure by Letters Patent, is—

1. In an electric-alarm apparatus, an alarm-clock having one of its legs removably arranged in an open circuit and a key or projection rotating with the clock-alarm mechanism, in combination with an electric connection with which the rotating key or projection makes contact, thereby closing the circuit and operating the electric alarm, substantially as described.

2. In an electric-alarm apparatus, an electric circuit, and an alarm-clock having a key to wind said alarm mounted upon a box or inclosing-case having a plate or plates of conducting material upon which the clock-legs rest, one of said plates and the legs resting thereon being in said circuit, in combination with an electric connection with which the rotating key or projection makes contact, thereby closing the circuit and operating the electric alarm, and means for breaking the circuit, substantially as described.

3. In an electric-alarm apparatus, an alarm-clock having a permanent key to wind said

alarm, a lever pivoted at one end and provided near its other extremity with a hook or ring, within which one leg of the clock sets, a catch for holding said lever and clock in position, and a stop for limiting the backward movement of the lever, in combination with a box or inclosing-case, a battery, an electric bell, and electrical connections, sub-

stantially as described, for the purpose set forth.

In testimony whereof I have hereunto set my hand this 21st day of June, A. D. 1889.

MATTHIAS W. TIEDEMANN.

Witnesses:

THORNE S. WALLING,
FREDERIC CARRAGAN.