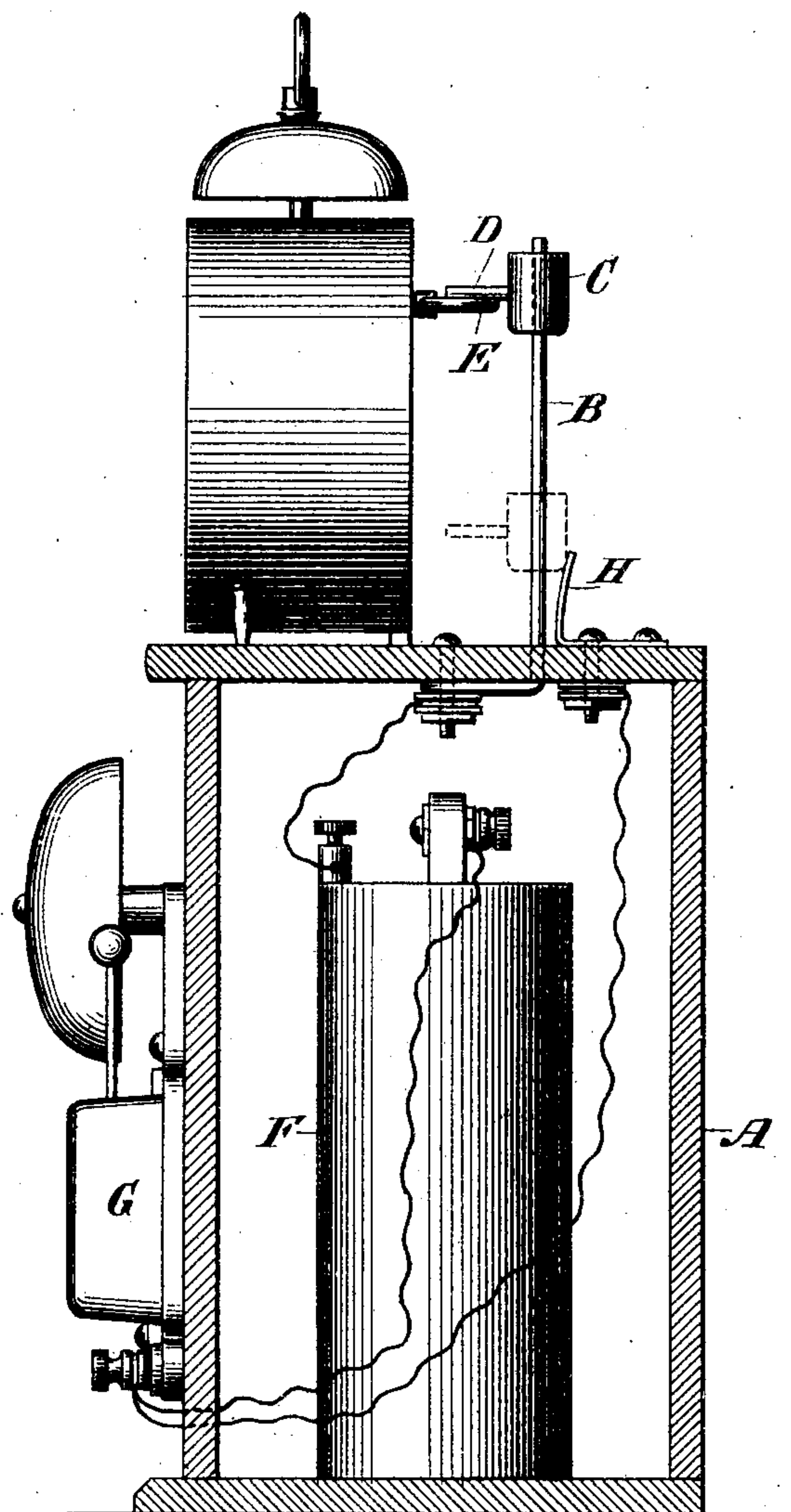


(No Model.)

W. H. DEANE.  
ELECTRIC ALARM CLOCK.

No. 502,811.

Patented Aug. 8, 1893.



Witnesses  
*C. E. Ashley*  
*John P. Houlstrom*

Inventor  
*William H. Deane*  
By his Attorneys *Reed & Pinci*

# UNITED STATES PATENT OFFICE.

WILLIAM HENRY DEANE, OF BROOKLYN, NEW YORK.

## ELECTRIC ALARM-CLOCK.

SPECIFICATION forming part of Letters Patent No. 502,811, dated August 8, 1893.

Application filed December 15, 1892. Serial No. 455,214. (No model.)

*To all whom it may concern:*

Be it known that I, WILLIAM HENRY DEANE, 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 and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to electric alarms for clocks, and is designed for use in connection with a clock having a time alarm. A difficulty with mechanical alarms arises from the fact that when used for arousing people from sleep the alarm lasting only for a short period of time fails to do its work, people becoming accustomed to the short operation of the alarm mechanism. In carrying out my invention I provide a circuit-controller which will be released when the mechanical alarm is set free, and by varying an electric circuit will insure the ringing for a long period of time, or until the apparatus is reset. I provide a sliding circuit-controller adapted to fall by gravity when released, and place in operative relation to this circuit-controller two electrodes of a circuit, including a battery and an alarm bell, which electrodes will be bridged by the circuit-controller when released.

The several features of novelty of the invention will be more particularly hereinafter described and will be definitely indicated in the claims appended to this specification.

In the accompanying drawing which illustrates the invention is shown a sectional view of an apparatus embodying my invention.

Upon a box A formed of wood or any other suitable material is mounted a vertical rod B, upon which is a weighted sleeve C, the perforation in said sleeve being of such a size that it will permit it to slide freely upon the rod B. A pin or other projection D is provided by which the sleeve may be supported upon an extension of an arbor of the alarm mechanism of a clock.

The clock shown in the drawing is a familiar form of cheap alarm clocks, the alarm mechanism of such clocks being provided with a winding key or stem, indicated at E, projecting from the back. When used in connection

with a clock of another type, however, a key or other projection should be connected to the winding arbor of the alarm mechanism upon which the projection D may rest. The rod B if of metal may form one terminal of an electric circuit, including a cell of dry battery F mounted within the box and fixed in any suitable way from displacement, and in the same circuit is placed an electric bell G mounted on the side of the box which incloses the battery. The other terminal of the circuit may comprise an electrode H, the extremity of which is in such relation to the rod B that when the weight or sleeve C descends the two electrodes will be bridged and the circuit will be closed. After the alarm mechanism has been wound and the alarm set for the desired time, the sleeve C is turned so that it can be raised on the rod B above the extension of the winding arbor, and is then permitted to rest upon such extension. When the alarm mechanism is released at the desired time the turning of the winding arbor releases the weight and permits it to descend and close the circuit. The sleeve C and rod B are preferably formed of metal, though they might be made of other material provided metallic connections were so placed that when the weighted sleeve C descends the two electrodes of the circuit will be bridged.

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

1. The combination with an alarm clock of a rod, a weight adapted to slide over said rod, a projection upon said weight adapted to be supported by an extension of the winding arbor of the alarm mechanism, and an electric circuit including an electric generator and bell adapted to be closed by the weight when it descends.

2. The combination with an alarm clock of a vertical rod, a weighted circuit-closer adapted to slide freely upon said rod, an extension of an arbor of the alarm mechanism adapted to normally support said circuit-closer and to release the same when the alarm mechanism is set free, and an electric circuit including a battery and electric bell, the terminals of which are closed by the weight when it descends.

3. The combination with an alarm clock of



a vertical rod, a weight adapted to slide freely upon the rod, an extension of an arbor of the alarm mechanism adapted to normally support said weight and to release the same  
5 when the alarm mechanism is set free, and an electric circuit including a battery and electric bell controlled by the weight when it falls.

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

WILLIAM HENRY DEANE.

Witnesses:

JNO. H. MAHER,

JOHN R. McMULLEN.