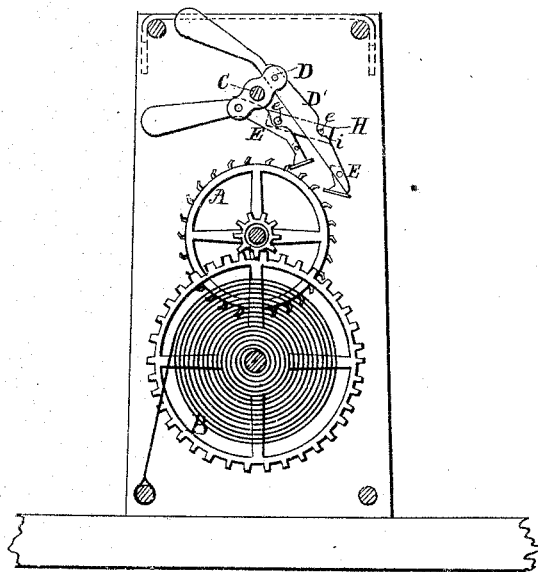


G. W. WHITE & W. I. LEARY.

Clock Escapement.

No. 163,125.

Patented May 11, 1875.



*Witnesses.*

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*by Cox and Cox Attys*

# UNITED STATES PATENT OFFICE.

GEORGE W. WHITE AND WALTER I. LEARY, OF EDENTON, NORTH CAROLINA.

## IMPROVEMENT IN CLOCK-ESCAPEMENTS.

Specification forming part of Letters Patent No. **163,125**, dated May 11, 1875; application filed July 17, 1874.

*To all whom it may concern:*

Be it known that we, GEORGE W. WHITE and WALTER I. LEARY, both of Edenton, Chowan county, North Carolina, have invented a new and useful Improvement in Clock-Escapements, of which the following is a specification:

The invention relates to clock-escapements; and consists in providing two escapement-hooks, which are pivoted to the ends of a plate or plates, which rock upon a horizontal bar above a ratchet-wheel, which is turned by the actuating mechanism. The ratchet-wheel is constructed with teeth that project downward, between which the hooks fit, relieving or disengaging themselves as the wheel turns. The shanks of the hooks are of different lengths, and are so constructed that when the wheel revolves it will depress the end of the plate to which the hook that is in gear is attached, thus elevating the other extremity sufficiently to disengage the other hook, which remains free until caught by the next tooth upon the wheel, when it depresses its end of the plate, thus freeing the hook first mentioned.

The construction of the hooks and other parts will appear with greater particularity in the detailed description hereinafter.

The object of the invention is to provide an effective clock-escapement of simple construction, especially adapted to the operation of an ordinary fan, the actuating of toy figures, and analogous purposes.

In the accompanying drawings, Figure 1 is a side elevation of a device embodying the invention.

A, in the accompanying drawings, is the ratchet-wheel, which is actuated by means of the coil B and connections in any convenient manner. It is constructed with teeth projecting downward in the line of its motion, and is of sufficient diameter to fulfill its offices. A suitable distance above it is the horizontal bar C, which moves in bearings in the frame or case, and which is parallel to the axle of the wheel A. To the bar C are rigidly attached the plates D, extending upon either side, and

having their extremities secured to the arms D', which extend downward and forward, having their lower ends vertically slotted to receive, and in which are pivoted, the shanks of the hooks E, the lower ends of which extend downward, so as to engage the wheel A, the hooks being conformed to receive the teeth thereof.

The hooks E are of different lengths, and are so arranged that when one of them is in gear the other will be free, and so that the rotation of the wheel A will cause them to be respectively elevated and depressed by the oscillation of the plates to which they are attached. Their upper ends are weighted to facilitate their action, and are curved upward and away from their pivots. H is a pallet-pin plate, which is fastened to the side of the case or frame directly above the shanks of the hooks E, and which is provided with the pins *e*, to prevent a dislocation of the hooks, which have the swells *i* to more fully effect this object; but it is apparent that the plate H may be dispensed with without affecting the operation of the parts; and it is also apparent that the use of the two plates D is not essential, as a single plate may be employed.

What we claim as our invention, and desire to secure by Letters Patent, is—

1. The plates D', provided at their ends with the hooks E, the shanks of which are pivoted to the plate, in combination with the wheel A, provided with the detents or teeth, shaped as shown, substantially as specified.
2. In a clock-escapement, a bar or arm, provided with a hinged engaging-tooth, substantially as specified.

In testimony that we claim the foregoing improvement in clock-escapements, as above described, we have hereunto set our hands and seals.

GEORGE WASHINGTON WHITE. [L. s.]

WALTER I. LEARY. [L. s.]

Witnesses:

WM. R. SKINNER,

WM. J. LEARY.