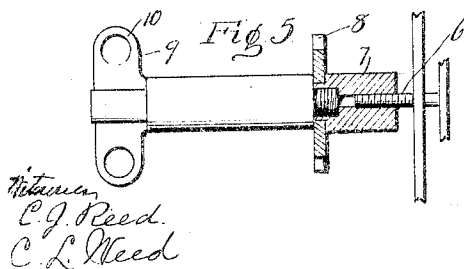
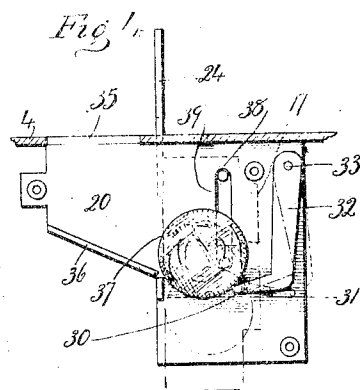
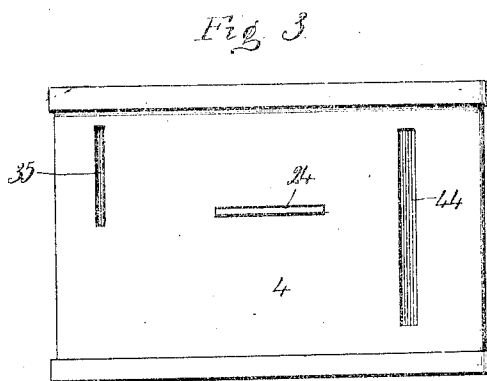
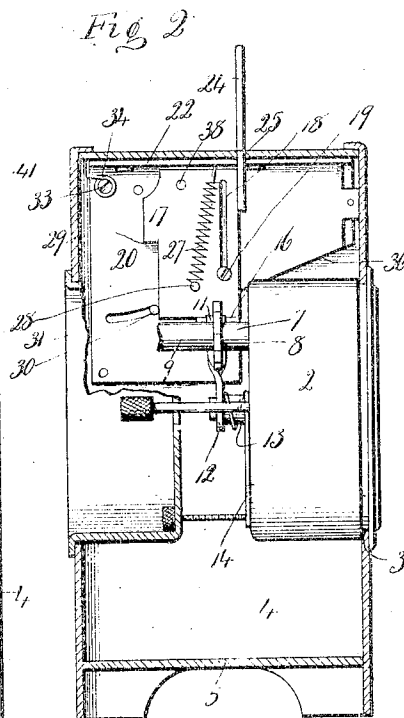
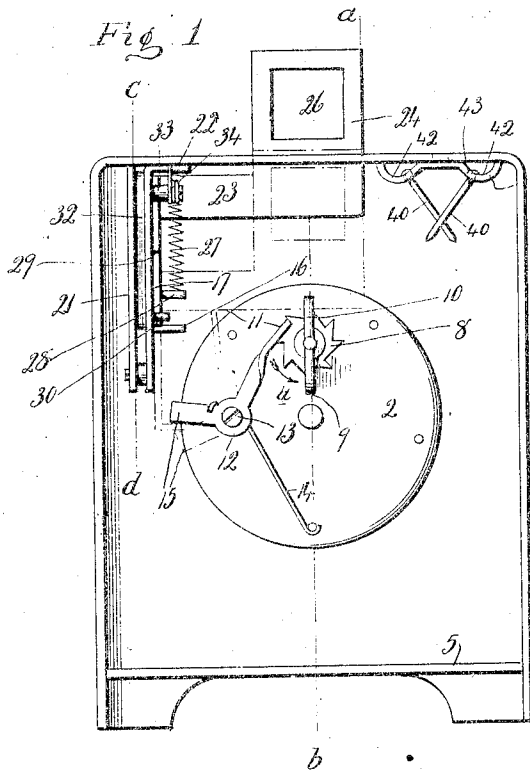


W. E. PORTER.
CLOCK BANK.
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977,126.

Patented Nov. 29, 1910.



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UNITED STATES PATENT OFFICE.

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CLOCK-BANK.

977,126.

Specification of Letters Patent.

Patented Nov. 29, 1910.

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To all whom it may concern:

Be it known that I, WILSON E. PORTER, a citizen of the United States, residing at New Haven, in the county of New Haven and State of Connecticut, have invented a new and useful Improvement in Clock-Banks; and I do hereby declare the following, when taken in connection with the accompanying drawings and the letters of reference marked thereon, to be a full, clear, and exact description of the same, and which said drawings constitute part of this specification, and represent, in—

Figure 1 a view in rear elevation of a clock-bank constructed in accordance with my invention with the back of the case removed and showing the locking of the winding-arbor of the clock by the coin-mechanism of the bank, the locking-pawl being shown in its retired position by broken lines as well as the operating-handle. Fig. 2 a view thereof in vertical central section on the line *a-b* of Fig. 1. Fig. 3 a plan view of the clock. Fig. 4 a broken view in vertical section on the line *c-d* of Fig. 1 showing a coin resting upon the toe of the releasing-lever in position to be crowded downward by the depression of the operating-handle, whereby the releasing-lever is swung forward for permitting the operating-handle to move to the limit of its downward excursion for swinging the pawl away from the ratchet controlling the winding-arbor. Fig. 5 a detached view partly in elevation and partly in section of the key and its hub and locking-ratchet.

My invention relates to an improvement in that class of "clock banks", so called, in which the clock is made to illustrate the old adage, "Time is money" by being constructed so that it cannot be re-wound except by the introduction of a coin, the object of my present invention being to produce a clock of the character described in which the coin-mechanism is constructed with particular reference to simplicity, reliability of performance, and non-liability to derangement.

With these ends in view my invention consists in a clock-bank having certain details of construction and combinations of

parts as will be hereinafter described and pointed out in the claims.

In carrying out my invention as herein shown, I employ a small circular clock-movement 2 of the marine type. This movement, which may be of any approved construction and which needs no detailed description, is mounted in a circular opening 3 in the front of a sheet-metal case 4 which is rectangular in general form and furnished with a removable bottom 5 secured in place by a lock (not shown) the key of which is required to get the money out of the bank. The winding-arbor 6 of the clock-movement 2 has screwed upon it the hub 7 of a locking-ratchet 8 which is counterbored and threaded for the reception of the threaded inner end of a key 9 furnished at its outer end with an ordinary bow or thumb-piece 10 which projects through the back of the case 4 in position for the winding of the clock by turning the key from right to left in the direction of the arrow *a* in Fig. 1. Normally, however, the key cannot be turned on account of the engagement of a tooth of the locking-ratchet 8 by a locking-pawl 11 forming one arm of a lever 12 hung upon a stud 13 projecting from the clock-movement 2.

A spring 14 engaged with the lever 12 exerts a constant effort to keep the pawl 11 in engagement with a stop-tooth of the locking-ratchet 8. The said lever 12 is formed with an unlocking arm 15 located in the path of a finger 16 extending inwardly at a right angle from the lower end of a vertically movable operating-plate 17 formed with a vertical slot 18 receiving a headed rivet 19 by which the plate is movably secured to the inner plate 20 of a coin-chute also comprising an outer plate 21, the said chute being suspended by a flange 22 upon the upper edge of the plate 20, from the top of the clock-case 4. The operating-plate 17 extends rearward at a right angle and also downward from a horizontal bar 23 offsetting from the lower end of an operating-handle 24 projecting upward through a slot 25 in the top of the clock-case 4 of which it forms the handle. As shown the said handle 24 which is formed

with a rectangular opening 26, is made integral with the said bar 23 and plate 17. A helical spring 27 connected at its upper end with the top of the clock-case is attached at its lower end to a pin 28 in the plate 17 and exerts a constant effort to hold the said plate 17 in its elevated position in which the operating-handle 24 is maintained in its projected position as shown in Figs. 1 and 2. In the absence of a coin, the handle 24 may be pushed inward against the tension of the spring 27, until it is stopped by the engagement of a stop-shoulder 29 on the plate 17 with a stop-pin 30 projecting inward through a slot 31 in the inner plate 20 of the coin-chute, from the toe of a releasing-lever 32 hung between the plates 20 and 21 of the coin-chute on a pivot 33. A coiled spring 34 on the pivot 33 exerts a constant effort to swing the lever 32 forward and thus hold the stop-pin 30 in position to be engaged by the stop-shoulder 29 when the operating-handle 24 is depressed without the introduction of a coin into the coin-chute.

The top of the case 4 is formed with a coin-slot 35 opening into the upper end of the coin-chute which is formed with an incline 36 down which the coin 37 gravitates so as to take a position under an operating-pin 38 carried by the said plate 17 and extending inward into the chute through a vertical clearance-slot 39 in the inner plate 20 of the chute. As soon as a coin is introduced into the slot 35 it immediately gravitates into a position in which its lower edge engages with the forwardly bent toe of the releasing-lever 32 by which the coin will be supported at a point directly below the operating-pin 38. Now when the operating-handle 24 is pressed downward the pin 38 will be engaged with the upper edge of the coin which will be crowded downward with the effect of swinging the releasing-lever 32 rearward against the tension of the spring 33, whereby the stop-pin 30 carried by the lever 12 will be swung rearward out of the path of the stop-shoulder and thus permit the downward movement of the plate 17 for a sufficient distance to permit its inwardly turned fingers 18 to engage with the unlocking arm 15 of the lever 13 and rock the same on its pivot 12 against the tension of the spring 14, whereby the pawl 11 will be clamped from the locking-ratchet 8 mounted upon the winding-arbor 6 which may now be turned from right to left by the key 9 as required for winding the clock-movement. It will thus be seen that "Time is money" in so far as the clock cannot be wound without the use of a coin to throw the pawl 11 out of engagement with the locking-ratchet 8 on the winding-arbor 6

and that the clock can only be wound during the time that downward pressure is applied to the operating handle 24 which will be immediately returned by the spring 27 to its normal position when downward pressure on it is removed. The coins used for releasing the winding-arbor 6 to the action of the winding key 9 fall upon the bottom 5 of the clock-case in which they are retained until the same is opened by the bank key. To enable larger coins to be put into the bank, I form a large slot 44 in the top of the case and guard the same with a fender of wire nails 40 suspended by their heads in parallel rows from a plate 41 secured to the inner face of the top of the clock-case and having two grooves 42, 42, the inner walls of which are pierced with nail-holes 43 arranged so that the ends of the nails will cross each other as shown in Figs. 1 and 2 and form a fender against the passage of the coins outward through the slot 44. However the nails are given sufficient freedom of movement to permit the passage of a coin downward between them.

I claim:—

1. In a clock-bank, the combination with a clock-movement, of locking means normally preventing the winding thereof, and coin-operated mechanism coacting with the said locking means to temporarily retire the same to permit the clock-movement to be wound, the said coin-operated mechanism including a vertically movable manually operated lever projecting through the top of the clock-case and forming a handle for the clock.

2. In a bank-clock, the combination with a clock-movement, of a locking-ratchet mounted upon the winding-arbor of the said movement, a pawl normally engaged with the said ratchet to prevent the rotation thereof, and a coin-operated mechanism for temporarily disengaging the said pawl from the said ratchet, the said mechanism comprising a coin-chute, a manually operated operating-lever, and an independent, pivotal releasing-lever located within the coin-chute and operated by a coin under the control of the said operating-lever which projects through the clock-case and forms a handle therefor.

3. In a bank clock, the combination with the movement thereof, of a locking-ratchet mounted upon the winding-arbor of the said movement, a pawl normally engaging with the said ratchet, a releasing-arm connected with the said pawl, an operating-lever adapted to engage with the said releasing-arm when sufficiently depressed, a coin-chute an operating-pin extending into the coin-chute from the said operating-lever, a releasing-lever located within the coin-chute,

and a stop-pin carried by the releasing-lever and normally limiting the downward movement of the operating-lever, the said releasing-lever being swung out of its normal position by the introduction of a coin, so as to clear its stop-pin from the operating-lever and permit a sufficient movement thereof to disengage the pawl from the locking-ratchet.

In testimony whereof, I have signed this specification in the presence of two subscribing witnesses.

WILSON E. PORTER.

Witnesses:

CLARA L. WEED,

CLIFFORD J. REED.