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C. MALOUF ET AL  
COIN CONTROLLED CLOCK  
Filed Nov. 25, 1921

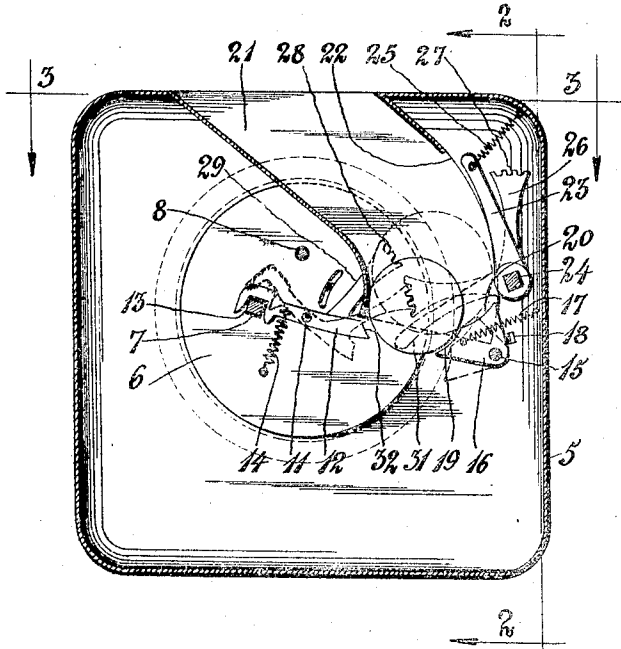


Fig. 1.

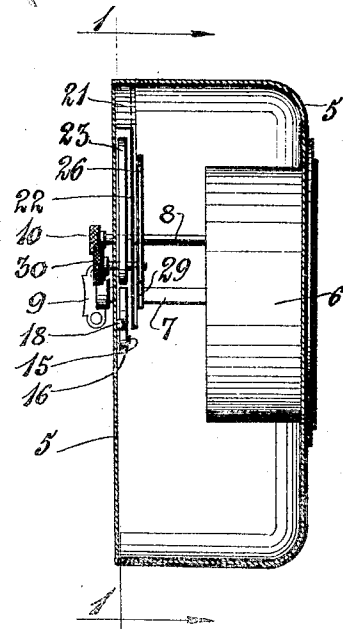


Fig. 2.

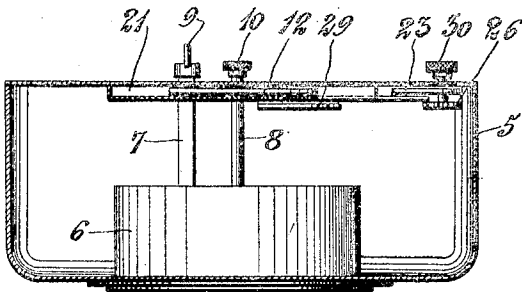


Fig. 3.

INVENTOR  
C. Malouf.  
N. Malouf.  
BY *Wm. H. Co.*  
ATTORNEYS

# UNITED STATES PATENT OFFICE.

CHARLES MALOUF AND NICHOLAS MALOUF, OF CHICAGO, ILLINOIS.

## COIN-CONTROLLED CLOCK.

Application filed November 25, 1921. Serial No. 517,576.

*To all whom it may concern:*

Be it known that we, CHARLES MALOUF and NICHOLAS MALOUF, both citizens of the United States, and residents of the city of Chicago, in the county of Cook and State of Illinois, have invented a new and useful Improvement in Coin-Controlled Clocks, of which the following is a full, clear, and exact description.

Our invention relates to improvements in coin controlled clocks, and it consists in the combinations, constructions and arrangements herein described and claimed.

The invention pertains to that class of clocks which are used by saving banks or similar institutions for the purpose of encouraging saving by their customers or employees. These clocks are arranged so that they cannot be wound, unless a coin is first inserted. The clocks are generally given away by the banks or by industrial concerns, and in order to keep them going, it is necessary to deposit coins periodically.

The primary object of the present invention is to provide a novel mechanism in which the winding mechanism of the clock is normally locked, and can only be released by inserting a coin, the mechanism herein-after disclosed being simple in construction and therefore not liable to easily get out of order.

A further object of our invention is to provide a device of the type described, having a single coin chute or slot which will accommodate coins of various sizes, any one of which will permit the releasing mechanism to be operated so that the clock may be wound.

A further object of our invention is to provide a device of the type described, in which coins of certain denominations, i. e., pennies, will be ineffectual in operating the releasing mechanism, thus compelling the insertion of coins of larger denomination, as for instance, dimes, nickels, and quarters.

A further object of our invention is to provide a device of the type described, which may be readily operated by any one, and which, when released, will return to its normal position.

Other objects and advantages will appear in the following specification, and the novel features of the invention will be particularly pointed out in the appended claims.

Our invention is illustrated in the accompanying drawings, forming part of this invention, in which—

Figure 1 is a section along the line 1—1 of Figure 2,

Figure 2 is a section along the line 2—2 of Figure 1, and

Figure 3 is a section along the line 3—3 of Figure 1.

In carrying out our invention, we provide a casing 5 which may be of any suitable shape or material. Within the casing is disposed a housing 6 for the clock-works. The latter may be of any suitable construction, and includes a winding shaft 7 preferably of rectangular cross section, and a spindle 8 for setting the hands. The shaft 7 and the spindle 8 project through the rear of the casing 5, the former having a thumb piece 9 by means of which the shaft 7 may be turned, and the shaft 8 being provided with a milled wheel 10.

Pivotally mounted on a pin or other suitable support 11 is a latch member 12, one end of which is provided with a U-shaped recess 13 arranged to engage the square shaft 7 to normally prevent the turning of the latter. The latch member is provided with a spring 14 which tends to hold the latch in the position shown in Figure 1, whereby the shaft 7 will be prevented from turning.

Pivotally mounted on a pin 15 is a stop member 16 which is normally held by a spring 17 against an abutment 18 secured to the casing. This pivoted stop is provided with curved portions 19 and 20 adapted to receive the edges of coins. In Figure 1 a smaller coin, such as a dime, is shown about to engage the curved portion 19, while in dotted lines a larger coin, such as a quarter, is shown in position to engage the other curved surface 20.

A single coin chute 21 is provided, which is adapted to receive coins of various denominations, such as dimes, nickels, and

quarters. The coin chute extends toward the pivoted stop member 16 and is provided with an opening 22 above and to the right of the stop member, as shown in Figure 1.

5 An arm 23 is secured to a shaft 24, and is normally held by a spring 25 in the position shown in Figure 1; that is to say, out of the coin chute. A second arm 26 is provided with teeth at its outer end. These teeth

10 27 are adapted to engage teeth 28 on an arm 29, which is secured to, but is offset from, the latch member 12. The arms 26 and 29, it will be observed, are outside of the coin chute 21, while the arm 23 is in alignment

15 with the coin chute and is adapted to enter when manipulated in the manner hereinafter described. Secured to the shaft 24 is a milled wheel 30 (see Figures 2 and 3).

From the foregoing description of the various parts of the device, the operation thereof may be readily understood. In order to keep the clock going, it must, of course, be wound periodically. The shaft 7, as stated, is normally prevented from turning

20 by the latch member 12. In order to release it, a coin 31, such as a dime, is deposited in the chute 21, and falls down into the full-line position, shown in Figure 1, where it rests on the curved portion 19 of the

30 pivoted stop member 16. The wheel 30 is now turned so as to move the arm 23 downwardly toward the coin. The movement of the arm 23 is followed by the arm 26. When the arm 23 engages the coin, it will push the coin downwardly, and will turn the stop

35 member 16 against the tension of the spring 17, until the coin is brought into engagement with the curved end 32 of the latch member 12. Further movement will cause the latch

40 member 12 to lift. At the same time, the arm 29 will be swung downwardly, so as to bring the teeth 28 into mesh with the teeth 27 on the arm 26. As soon as the teeth 27

45 and 28 engage, the coin will have reached the position to be dropped into the bottom of the casing, but the engagement of the teeth will cause the further movement of the latch member to the dotted line position, thus releasing the shaft 7. The clock may

50 now be wound by the turning of the thumb piece 9, the knob or wheel 30 being held so that the arm 23 and other releasing parts will be held in depressed position and upon the release of the wheel or knob 30 the springs

55 25, 17, and 14 will return all of the parts to their normal position, again locking the winding shaft and necessitating the deposit of another coin before the clock can be re-wound.

60 Should a larger coin, such as a nickel or a quarter, be placed in the chute, it will operate on the curved portion 20 of the stop member in the same manner as described, since these coins will be of sufficient diameter

to extend from the curved portion 20 of the stop member to the curved portion 32 of the latch member, to cause the movement of the latch member. If a penny should have been deposited, it will pass on into the bottom of the casing when the wheel 30 is manipulated, without permitting the winding

70 shaft 7 to be released, for the following reason. The diameter of the penny is such that it cannot engage the curved surface 19 of the stop member which is nearest to the curved

75 surface 31 of the latch, but it must engage the curved surface 20 of the stop member which is farther away. The diameter of the penny, however, being smaller than that of the nickel

80 or quarter, will not reach to the curved surface 32 of the latch member when the stop member 16 is swung downwardly by force applied to the penny through the movement

85 of the arm 23. It is true that the arm 26 will be swung downwardly, but the teeth on the arm 26 will clear the teeth on the arm 29, because the latch member has not been

90 moved by the penny, and hence, the latter will fall into the casing without having effected the release of the winding shaft. It is useless, therefore, to deposit pennies, and the user of the device is therefore compelled

95 to save coins of larger denominations. The device is simple in construction and positive in operation. It is not easily gotten out of order, and, as stated, can be manufactured at a relatively small cost.

We claim:

1. In a coin controlled clock, a casing, a winding shaft, a spring tensioned latch for normally preventing the turning of the winding shaft, a coin chute, a movable stop member disposed in alignment with said coin chute for receiving a coin, a pivoted arm arranged to forcibly engage the coin and to cause the movement of the stop member, whereby the coin is brought into engagement with the latch, and cooperating means connected with said arm and said latch for causing a further movement of the latch as said arm is moved.

2. The combination with a clock having a winding shaft, of a spring tensioned latch arranged to normally prevent the rotation of the winding shaft, a coin chute, a pivoted stop member disposed in alignment with the coin chute, said stop member having a curved surface normally spaced from the end of said latch member and adapted to receive a coin of relatively small diameter, and having another curved surface disposed farther away from the end of the latch member and adapted to receive a coin of larger diameter.

3. The combination with a clock having a winding shaft, of a spring tensioned latch arranged to normally prevent the rotation of the winding shaft, a coin chute, a pivoted

stop member disposed in alinement with the coin chute, said stop member having a curved surface normally spaced from the end of said latch member and adapted to receive a coin of relatively small diameter, and having another curved surface disposed farther away from the end of the latch member and adapted to receive a coin of larger diameter, and means for forcing the coin against the stop member to turn the latter, whereby the coin is brought into engagement with the latch member.

CHARLES MALOUF.  
NICHOLAS MALOUF.