June 21, 1960 J. M. DOUBLEDAY 2,941,536

TIME CLOCK COIN-DISPENSING TOY BANK

Filed Dec. 2, 1958

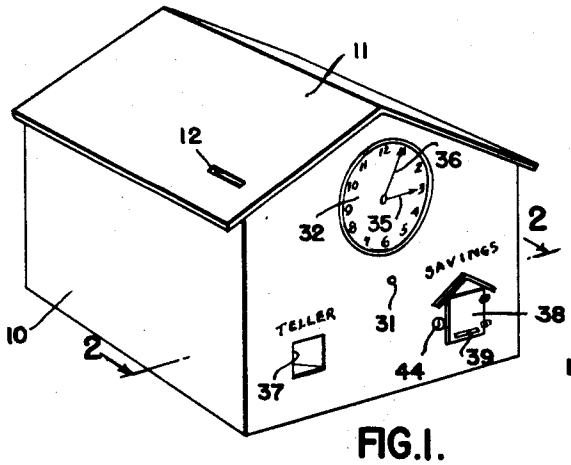


FIG.1.

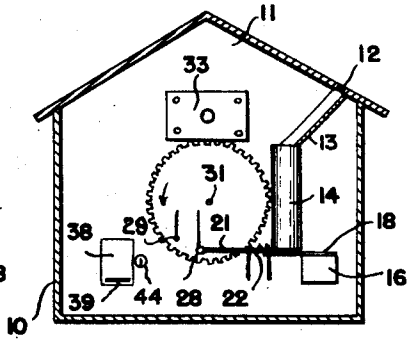


FIG.2.

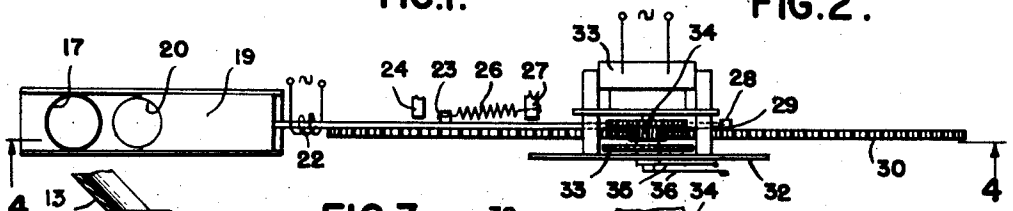


FIG.3.

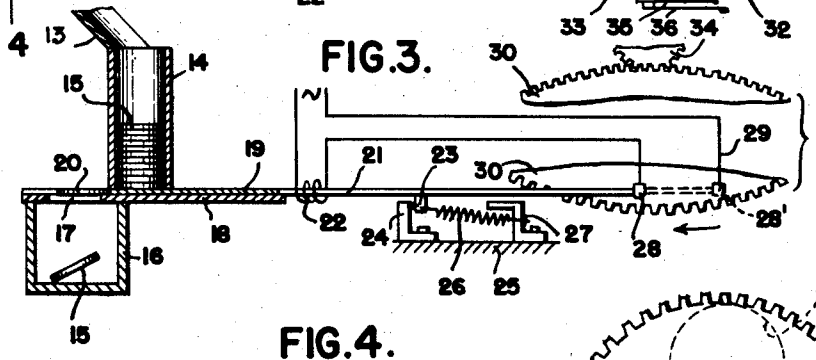


FIG.4.

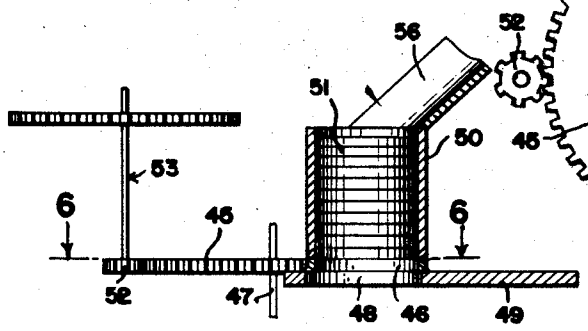


FIG.5.

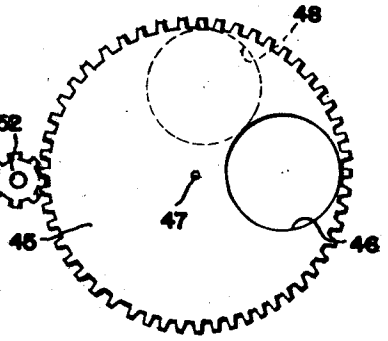


FIG.6.

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TIME CLOCK COIN-DISPENSING TOY BANK

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1 Claim. (Cl. 133—5)

This invention relates to a time clock coin-dispensing toy bank.

It is the principal object of the present invention to provide a toy bank which will automatically-periodically dispense or pay out coins.

It is another object to provide a toy bank by which the children's allowance will be paid even when the parents are away so that periodically each day or each week the stipulated allowance which they have for the child in coins of any denomination is dispensed.

It is still another object of the invention to provide a time clock coin-dispensing toy bank having a large gear wheel that makes one revolution for the period of time to either close contacts to cause a slide to be operated to dispense a coin or to dispense the coin by itself from an opening therein.

Other objects of the invention are to provide a time clock coin-dispensing toy bank, having the above objects in mind, which is of simple construction, inexpensive to manufacture, has a minimum number of parts, compact, of pleasing appearance, efficient and effective in use.

For a better understanding of the invention, reference may be had to the following detailed description taken in connection with the accompanying drawing, in which:

Figure 1 is a perspective view of a toy bank embodying the features of the present invention according to one form thereof;

Fig. 2 is a vertical sectional view of the toy bank as viewed on line 2—2 of Fig. 1,

Fig. 3 is an enlarged top plan view of the clock, the large gear and the dispensing mechanism,

Fig. 4 is an enlarged transverse sectional view of the dispensing mechanism as viewed generally on line 4—4 of Fig. 3,

Fig. 5 is a longitudinal sectional view of a modified form of the clock dispensing mechanism in which the large gear dispenses the coin, and

Fig. 6 is a transverse sectional view taken in plan upon the large dispensing gear as viewed on line 6—6 of Fig. 5.

Referring now to the figures, 10 represents a casing conforming generally to the shape of a building that has a roof 11 with a slot 12 at one side thereof through which coins of any denomination can be inserted to charge the bank therewith. Coins 15 upon being inserted through the slot 12 down a chute 13 and into a cylindrical vertically-extending chamber 14 in which they will be vertically-aligned as best shown in Fig. 4.

Under the cylinder 14 is a box 16 into which the coins will be dispensed from an opening 17 of a horizontally-extending plate 18 over which a slide 19 is operated to push the bottom coin 15 from the cylinder 14 to the plate opening 17. The slide is recessed at 20 to receive the coin.

The slide 19 has a stem 21 that extends laterally therefrom and about which is a solenoid 22 that is operable in a direction to move the slide 19 in the direction to dispense the coin. The slide 19 is limited in its

movement to dispense the coin by engagement of a stop lug 23 on the stem with a stop 24 fixed to a support 25. The slide 19 is returned to allow the next coin 15 to drop into the recess 20 by a return spring 26 connected between the lug 23 and a bracket 27 that serves as a stop for the return of the plate 19.

Upon the end of the stem 21 is a contact 28 which will normally be located when the lug 23 is against the stop 27 in a dotted line position as shown at 28, Figs. 3 and 4, and adapted to be engaged by a contact 29 on a large gear wheel 30 on each revolution of this gear wheel. Only instantaneous contact can be had as this gear wheel 30 turns very slow the contact possibility on the return stroke of the plate 19 may be taken care of in any known and suitable manner. The gear 30 may be formed of a large transparent sheet of plastic. The gear wheel 30 lies in a vertical plane as best viewed in Fig. 2 and is fixed to a longitudinally-extending shaft 31 that turns in the front of the casing 10.

In the front wall is a clock face 32 which is driven by an alternating current motor 33 or electric clock mechanism having reduction gearing 33 including a pinion gear 34 that drives the large gear 30. The gearing can be such that the large gear 30 makes one revolution a day or one revolution a week so that one of the coins 15 will be periodically dispensed upon one revolution. Dial hands 35 and 36 extend over the clock face 32 so that the time of day can at any time be read. The clock hands can be set in the usual manner, the same being frictionally held on the clock shaft. Access can be had to the coin 15 that drops into the receiver 16 through the front of the casing as at a teller's window 37. At the right of the casing as viewed in Figure 1, there is a deposit box 38 having a slot 39 therein so that coins can be returned through the casing 10 and deposited on the floor thereof as savings. Access to these coins can be had by a key inserted in a lock 44 that can be turned to release the door 38.

Referring now particularly to Figs. 5 and 6, there is shown a modified form of construction in which a large plate gear 45 has a dispensing hole 46 therein. As this plate gear 45 pivots on its pivot pin 47 this hole comes into registry with a hole 48 in a discharge plate 49. This gear 45 is swept under a cylinder 50 having a stack of coins 51 therein. The lowermost coin 51 is swept from under the cylinder and taken to the opening 48 in the discharge plate 49.

This large gear is driven by a pinion gear 52 extending from a clock-driven shaft 53. The gear ratio is such that the gear 45 will make one turn each day or each week. The coin will be dropped into the opening 46 as it registers with the bottom of the cylinder 50 and when moved through an angle into registration with the opening 48, is readily dropped therethrough.

It should now be apparent that there has been provided a simple time clock coin-dispensing toy bank which once put into operation will continue to be operated as long as the clock mechanism continues to run and will automatically and periodically dispense a coin.

While various changes may be made in the detail construction, it shall be understood that such changes shall be within the spirit and scope of the present invention as defined by the appended claim.

What is claimed is:

A time clock periodic coin dispensing toy bank comprising a casing, a horizontally-extending plate in the casing, a coin storage cylinder in the casing overlying the plate, said plate having an opening therein through which a coin may be dropped, a box in the casing under the plate opening, said casing having an opening providing access to the box from the outside thereof from which the coins dispensed into the box may be removed,

said casing having a coin slot above coin storage cylinder, a coin chute leading from the coin slot to the storage cylinder for the delivery of coins thereto, a slide operable over the horizontal-extending plate and recessed at its end for receiving a coin from under the cylinder and for moving the coin along the plate to dispense the same through the opening thereof, said slide plate having a stem, solenoid means associated with the slide plate stem to upon being energized move the stem and the slide to dispense a coin, a contact member on said stem, a time clock mechanism comprising a large continuously turning gear having a contact member thereon engageable with the contact on the stem each time it makes one turn, electric circuit means including said members, an electric source and said solenoid means, longitudinally-spaced stops in said casing adjacent to said stem, a stop lug extending from said slide stem and adapted to engage said stops to limit the dispensing movement of

the slide and the return movement of the contact member thereon to position the latter in the path of movement of the contact on the large gear, and a return spring anchored to the casing and extending to the stop lug on the stem to return the slide to the return stop for the next periodic engagement of the contacts and dispensing of the coin.

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