May 12, 1925. 1,537,390

S. C. VINCENT

TOY ALARM CLOCK

Filed Jan. 23, 1923

Fig. 1.

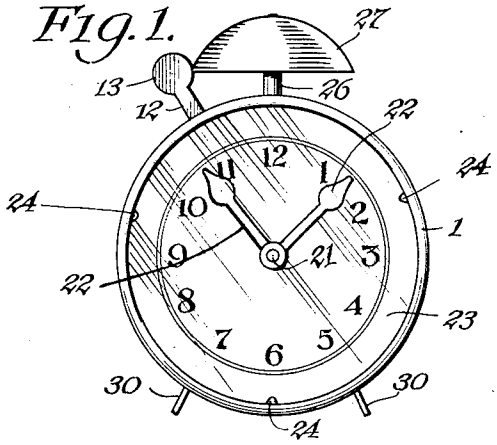


Fig. 2.

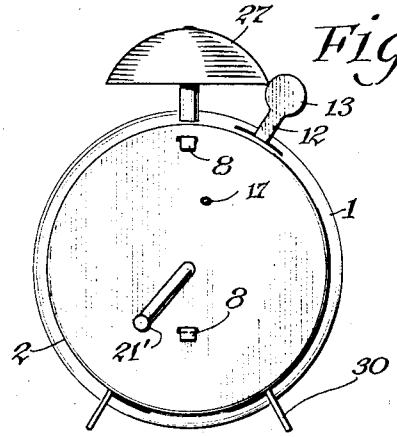


Fig. 3.

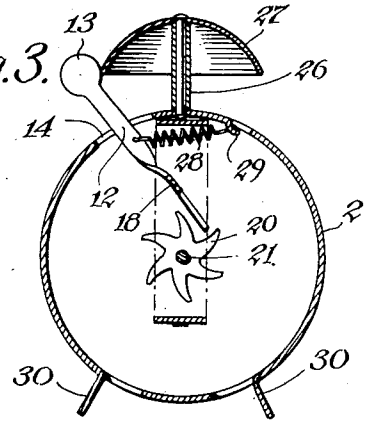
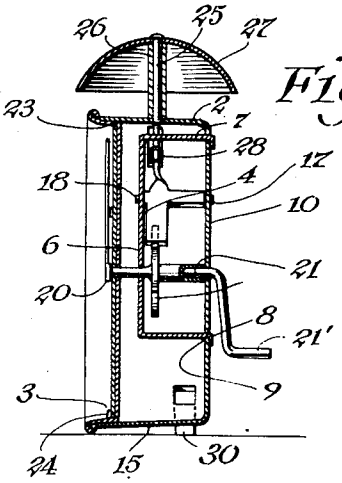


Fig. 4.



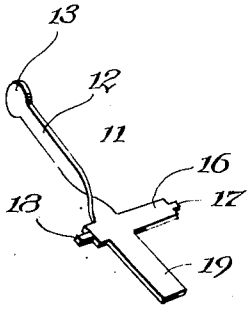


Fig. 5.

Inventor

Sidney C. Vincent.

Titus & Johnson.

Attorney

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UNITED STATES PATENT OFFICE.

SIDNEY C. VINCENT, OF BALTIMORE, MARYLAND.

TOY ALARM CLOCK.

Application filed January 23, 1923. Serial No. 614,409.

To all whom it may concern:

Be it known that SIDNEY C. VINCENT, citizen of United States, residing at Baltimore city, in the State of Maryland, has invented certain new and useful Improvements in Toy Alarm Clocks, of which the following is a specification.

This invention relates to improvements in toy alarm clocks.

The object of the invention is to provide a device of this character for the amusement of children, which, while having no time telling characteristics, will possess structural characteristics so simple that the whole device may be manufactured at a nominal cost to permit large production for distribution mainly through chain stores, commonly known as Ten Cent Stores.

The success commercially of a device of this character depends upon the cheapness of manufacture, and this necessarily depends upon the structural characteristics which will permit of such manufacture. At the same time an object of the invention is to produce a device of this character which, while cheap, will nevertheless possess durability, and reliability in operation so as to admirably serve the purpose for which it is intended.

In the drawings illustrating the invention:

Fig. 1 is a face view of the clock.

Fig. 2 is a rear view of the clock.

Fig. 3 is a vertical sectional view of the clock with the front of the bracket broken away.

Fig. 4 is a vertical transverse section, and

Fig. 5 is a perspective view of the bell clapper removed.

Referring to the drawings the numeral 1 designates the case, which is formed in the main of the cup-shaped part 2, and the front plate 3. Preferably stamped from a piece of heavy tin is a bracket 4, comprising a vertical piece 6 and horizontal pieces 7, the pieces 7 being reduced in width at their rear ends and provided with tabs 8, which are extended through apertures 9 in the back plate 10 of the part 2, and bent down on the outside of the plate thus securing the bracket firmly in place.

The numeral 11 designates what I term the bell clapper. This is formed with an upper portion 12 having an end 13 which extends through a slot 14 in the horizontal portion 15 of the casing part 2. This bell clapper is made with a horizontal part 16 having reduced ends 17 and 18 that seat in apertures made in the plate 10 and the vertical arm of the bracket 6, respectively, and below this cross arm 16 an arm 19 is provided which extends into the path of movement of a star wheel 20 which is mounted upon and adapted to turn with a short shaft 21 mounted in the part 10, and in the part 6 of the bracket, the shaft being provided with a crank 21′.

This shaft is extended through an aperture centrally made in the front plate 3 in which the shaft gets an additional bearing, and mounted on the front end of this shaft are the hands 22, which, since they do not have to travel independently are made in a single piece.

The numeral 23 designates a dial with appropriate markings thereon which may be made of paper or celluloid, or something of that sort, as may be desired. At intervals the flange of the front plate is punched or indented so as to provide short lugs 24 under which the periphery of the dial may be readily inserted, the lugs being for the purpose of keeping the dial in place. The front plate, as will be noted, is of shallow cup-shaped formation, and is adapted to be wedged or fitted tightly in the mouth of the larger part of the casing, as will be shown in Fig. 4.

Mounted upon the top of the part 2 is a spindle 25 surrounded by a sleeve 26, and mounted upon the spindle is a bell 27, the sleeve serving to space the bell from the casing. The bell is so located that it will be engaged by the end 13 of the bell clapper as the star wheel is revolved, bringing its points successively against the arm 9 of the bell clapper, there being provided a small spiral spring 28 connected with the bell clapper and with a lug 29 struck from the material of the main part of the casing, as shown best in Fig. 3.

The clock is supported in upright position by its front edge, and by legs 30, which are formed by pieces struck from the main body of the casing and bent downward, as shown best in Figures 3 and 4.

From the foregoing it will be seen that a clock of this character may be produced almost completely from tin or light sheet metal, and the formation of the various parts is such that they may be readily assembled by unskilled labor, and without

the use of tedious and expensive soldering operations, all of which considerations tend to the accomplishment of the objects of the invention stated at the outset.

In operation, it is obvious that when the crank 21′ is rotated in one direction, the pins of the star wheel will be successively and rapidly brought in contact with the lower end of the bell clapper, and the same rocking upon its pivots, restrained and restored by the spring 28, will cause a successive and rapid tapping of the bell.

Having thus described the invention, what is claimed as new, is:

1. A toy alarm clock comprising a cup-shaped casing, a bracket mounted in the casing, a bell clapper having a portion with a bearing in the casing and in the bracket, said bell clapper extending through the casing, a bell mounted upon the casing in position to be struck by the bell clapper, a manually operated wheel mounted in the casing and in the bracket, said wheel having points adapted to engage a portion of the bell clapper to rock the same upon its pivot, a spring normally holding the bell clapper in engagement with the bell, manually operated means for rotating the wheel carrying shaft, a cup-shaped front plate adapted to fit snugly in the open side of the casing, there being an aperture centrally located in said plate, an extension having connection with the wheel and extending through said plate, and hands mounted on said extension, whereby when the wheel is rotated, the hands will be rotated.

2. A toy alarm clock comprising a cup-shaped casing, a bracket secured to the back plate of said casing, a bell clapper pivotally mounted in said casing and extending through an aperture in the casing, a shaft also mounted in the back plate of the casing and the bracket, a manually operated wheel carried by and rotatable with said shaft, said wheel having points adapted to successively engage the bell clapper below its pivotal point, said shaft extending through the back plate of the casing and provided with crank for rotating the shaft, a shallow cup-shaped front plate adapted to fit snugly in the open side of the casing, said plate having a central aperture for the passage of an extension of the shaft, a dial seated in the front plate, and hands carried by said extension, a bell supported by the casing and in position to be engaged by the outer end of the bell clapper as the shaft is revolved.

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

SIDNEY C. VINCENT.

Witnesses:
L. N. GILLIS,
M. A. AHERN.