April 25, 1950 R. H. EDWARDS 2,505,389

MUSICAL BANK

Filed Aug. 13, 1948 2 Sheets-Sheet 1

Fig. 1.

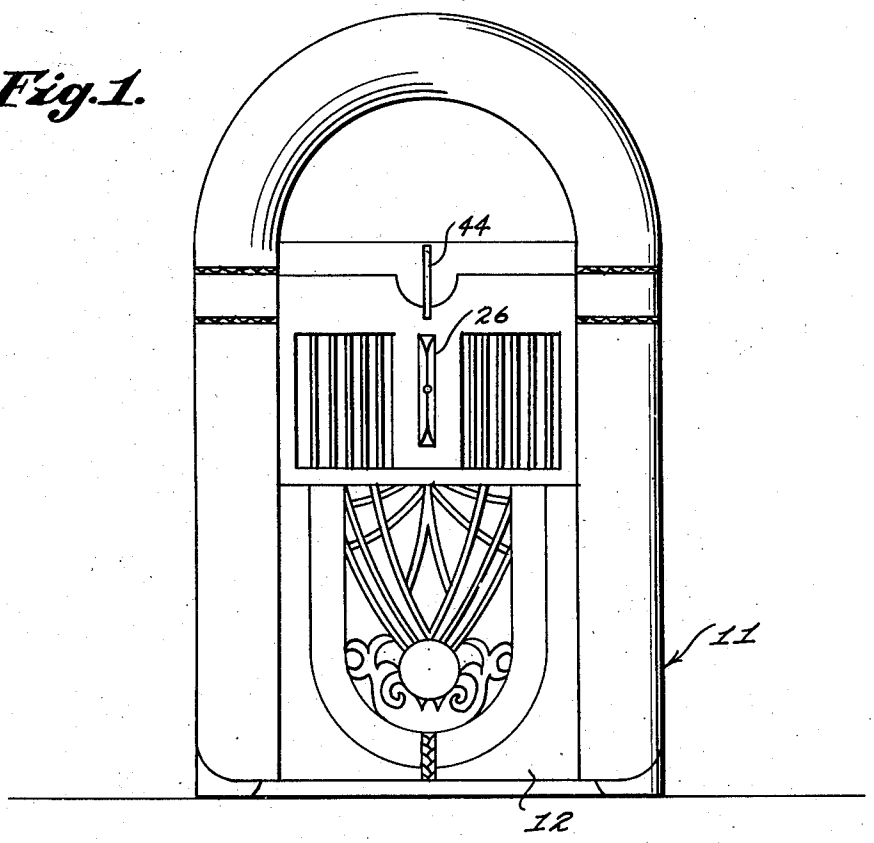


Fig. 5.

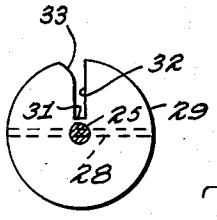
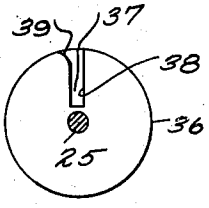


Fig. 6.



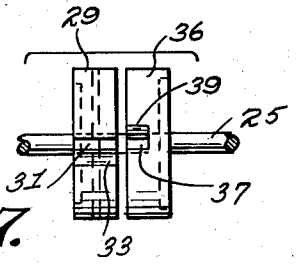


Fig. 7.

INVENTOR.
Russell H. Edwards
BY

McMorrow, Berman & Davidson
ATTORNEYS

April 25, 1950 R. H. EDWARDS 2,505,389

MUSICAL BANK

Filed Aug. 13, 1948 2 Sheets-Sheet 2

Fig. 2.

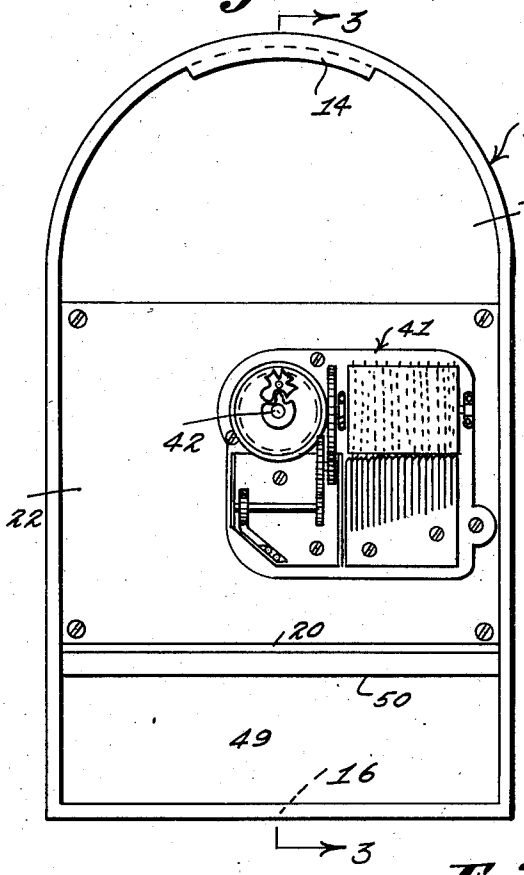


Fig. 3.

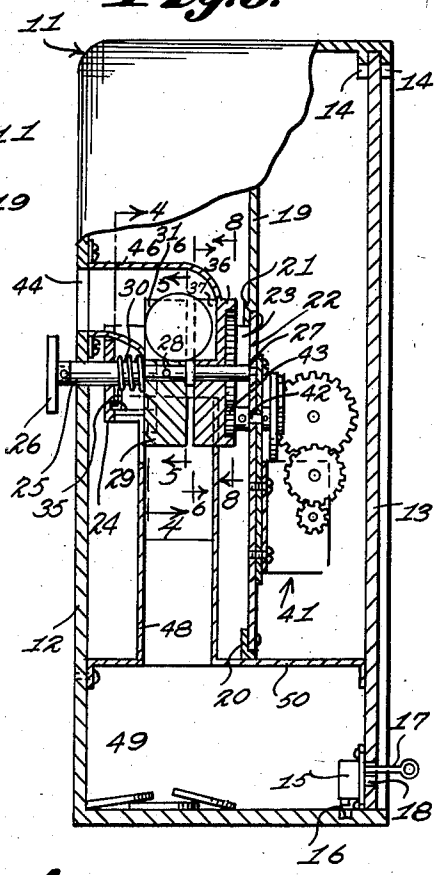


Fig. 4.

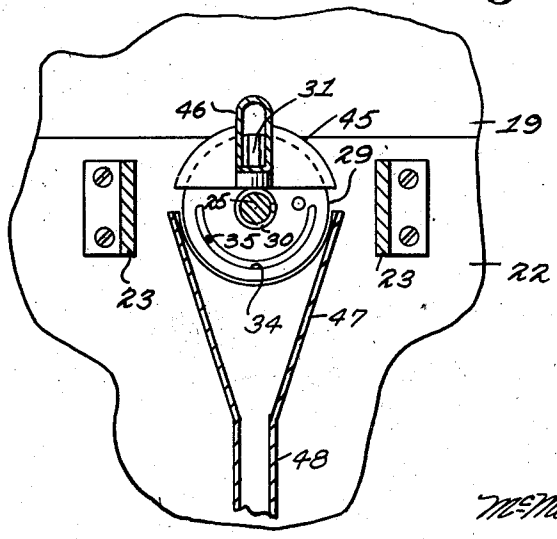
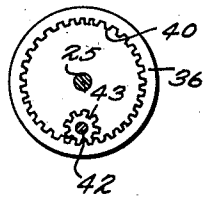


Fig. 8.



INVENTOR.
Russell H. Edwards
BY

McMorrow, Berman & Davidson
ATTORNEYS

Patented Apr. 25, 1950 2,505,389

UNITED STATES PATENT OFFICE

2,505,389

MUSICAL BANK

Russell Harry Edwards, Wenatchee, Wash.

Application August 13, 1948, Serial No. 44,071

2 Claims. (Cl. 194—84)

1

This invention relates to musical toys, and more particularly to a toy savings bank which provides a musical performance each time a coin is placed in the bank.

The main object of the invention is to provide a novel and improved musical bank device which is very simple in construction, easy to operate, highly entertaining to children, and providing an incentive for children to save.

A further object of the invention is to provide an improved musical toy bank which resembles in appearance and generally in external mode of operation the well known coin-operated "juke box," said bank being inexpensive to manufacture, rugged in construction, and which accommodates coins of various denominations.

Further objects and advantages of the invention will become apparent from the following description and claims, and from the accompanying drawings, wherein:

Figure 1 is a front elevational view of a toy musical bank constructed in accordance with the present invention;

Figure 2 is a rear elevational view of the toy bank of Figure 1; with the rear cover plate removed;

Figure 3 is a cross-sectional view taken on line 3—3 of Figure 2;

Figure 4 is an enlarged fragmentary detail view taken on line 4—4 of Figure 3;

Figure 5 is a cross-sectional detail view taken on line 5—5 of Figure 3;

Figure 6 is a cross-sectional detail view taken on line 6—6 of Figure 3;

Figure 7 is a top plan detail view of the coin clutch discs of Figures 5 and 6, shown mounted on their supporting shaft;

Figure 8 is a cross-sectional detail view taken on line 8—8 of Figure 3.

Referring to the drawings, 11 designates a housing of plastic or similar material suitably ornamented on its front wall 12 to resemble in appearance a miniature conventional "juke-box." The rear wall of the housing shown at 13 is removably secured to the housing by means of spaced arcuate depending ribs 14, 14 formed at the rear margin of the top wall of the housing between which the top edge of rear wall 13 is received and a lock 15 carried at the lower inner marginal portion of said rear wall, the bolt of said lock being receivable in a recess 16 formed in the bottom wall of housing 11. The lock 15 is opened or closed by means of a suitable key 17 insertable into the keyhole of the lock through an opening 18 formed in rear wall 13.

2

Designated at 19 is a vertical partition wall secured in the upper portion of housing 11 parallel to front wall 12. Designated at 20 is a transverse angle bar member secured in the lower portion of housing 11 below the partition wall 19. The bottom margin of partition wall 19 is formed with an offset flange 21 and secured to bar 20 and said offset flange 21 is a vertical plate member 22.

Secured to the upper portion of plate member 22 are the ends of the legs 23, 23 of a forwardly-extending U-bracket 24. Rotatably mounted in front wall 12, the U-bracket 24 and plate member 22 is a shaft 25 provided at its forward end with a handle 26. The rear end portion of shaft 25 is shouldered, as shown at 27, to limit rearward axial movement of the shaft through plate member 22. Rigidly secured on shaft 25 by a transverse pin 28 is a disc member 29. Designated at 30 is a coil spring encircling shaft 25. Spring 30 is secured at one end to the U-bracket 24 and at its other end to disc member 29, exerting an axial and rotational biasing action on the shaft 25 and disc 29. As shown in Figure 5, disc 29 is formed with a radial notch 31 having a straight wall 32 and an opposing wall 33 which is arcuately flared at its outer end. Spring 30 biases the disc 29 to a position wherein notch 31 is directed vertically upwardly, as shown in Figures 3 and 4.

Disc 29 is formed on its forward face with a semi-circular groove 34 which slidably receives the end of a pin 35 projecting rearwardly from the U-bracket 24. Pin 35 cooperates with groove 34 to limit rotation of shaft 25 and disc 29 to one-half a revolution.

Rotatably mounted on shaft 25 adjacent disc 29 is a disc 36 formed with a radial recess 37 facing disc 29. Recess 37 has a straight wall 38 and an opposing wall 39 which is flared at its outer portion. When the recess 37 is in alignment with slot 31, a coin may be received therein to key the disc 29 to the disc 36. The straight wall 32 of slot 31 will be on one side of the coin and the straight wall 38 of recess 37 will be on the opposite side of the coin, whereby torque may be positively transmitted from disc 29 to disc 36 by rotating handle 26.

The rear portion of disc 36 is formed with internal gear teeth 40. Secured to plate member 22 is a conventional music box mechanism 41 having a wind-up shaft 42 extending rotatably through plate member 22 and carrying a gear 43 which is in mesh with the gear teeth 40. When disc 36 is rotated by handle 26, as above

described, the music box mechanism 41 is wound up. When disc 36 is released, the music box mechanism is allowed to unwind and produce a musical tune. In the normal unwound condition of the music box mechanism, recess 37 is positioned vertically upwardly and is in longitudinal registry with the slot 31.

Front wall 12 of the housing is formed above handle 26 with a vertical coin slot 44. Designated at 45 is a hood member overlying the disc members 29 and 36 and having a narrow, vertically-elongated tubular portion 46 secured to wall 12 around the slot 44. Tubular portion 46 is shaped to support a coin placed in slot 44 in a vertical position and is sloped at its bottom wall so as to allow the coin to roll downwardly into the slot 31 and the recess 37 in registry therewith. Secured in the housing below the discs 29 and 36 is a funnel member 47 merging into a vertical tubular passage 48. Passage 48 leads to a coin chamber 49 in the lower portion of housing 11.

In operation, a coin is placed in slot 44 and allowed to roll into the slot 31 and recess 37, thereby keying disc 36 to disc 29. Handle 26 is then rotated through a half-revolution, as permitted by the engagement of pin 35 in groove 34. This winds up the music box mechanism 41. When the handle 26 is released, the coin drops into the funnel 47 and falls through passage 48 into the coin compartment 49. The release of disc 36 allows the music box mechanism 41 to unwind, whereby it plays its tune, finally returning to its normal unwound position. Spring 30 meanwhile returns the disc 29 to its normal position, so that the bank is then ready to receive another coin.

As shown in Figure 3, the coin compartment 49 is separated by its top wall 50 from the music box mechanism, so that the music box mechanism is protected from damage by the coins in the event that the bank is inverted.

While a specific embodiment of a toy musical savings bank has been disclosed in the foregoing description, it will be understood that various modifications within the spirit of the invention may occur to those skilled in the art. Therefore, it is intended that no limitations be placed on the invention except as defined by the scope of the appended claims.

What is claimed is:

1. In a toy musical bank, a housing having a vertically disposed slot in the wall thereof for the reception of a coin therethrough, a vertically disposed plate member fixedly positioned within said housing and spaced from said housing wall, a U-shaped bracket horizontally disposed between said plate member and said housing wall, said bracket having its legs facing said plate member and secured thereto with its bight adjacent to and spaced from said housing wall, a horizontally disposed shaft arranged within said housing below and adjacent to said slot and rotatably supported in said housing wall the bight of said bracket and said plate member, said shaft having one end extending through said wall and projecting beyond the latter, a first disc positioned on said shaft adjacent said bight and fixedly secured thereto, a second disc arranged in face to face relation with respect to said first disc and rotatably mounted on said shaft, the confronting faces of said discs being each provided with a transversely extending radial recess, said recesses when in registry with each other providing a coin embracing slot, means on the other face of said second disc for operatively connecting the latter to a wind up mechanism, a spring circumposed about said shaft intermediate the bight of said bracket and said first disc having one end secured to said bight and the other end secured to said first disc for biasing said first disc to the position wherein its recess is in normal position, conduit means positioned in said housing and having one end in communication with said vertically disposed slot in said housing wall and having the other end in communication with the coin supporting slot for feeding an edgewise supported coin to the latter named slot, and hand actuable means on the projecting end of said shaft for rotating the latter in one direction.

2. In a toy musical bank, a housing having a vertically disposed slot in a wall thereof for the reception of a coin therethrough, a vertically disposed plate member fixedly positioned within said housing and spaced from said housing wall, a U-shaped bracket horizontally disposed between said plate member and said housing wall, said bracket having its legs facing said plate member and secured thereto with its bight adjacent to and spaced from said housing wall, a horizontally disposed shaft arranged within said housing below and adjacent to said slot and rotatably supported in said housing wall the bight of said bracket and said plate member, said shaft having one end extending through said wall and projecting beyond the latter, a first disc positioned on said shaft adjacent said bight and fixedly secured thereto, a second disc arranged in face to face spaced relation with respect to said first disc and rotatably mounted on said shaft, the confronting faces of said discs being each provided with a transversely extending radial recess, said recesses when in registry with each other providing a coin embracing slot, means on the other face of said second disc for operatively connecting the latter to a wind up mechanism, a spring circumposed about said shaft intermediate the bight of said bracket and said first disc having one end secured to the bight and the other end secured to said first disc for biasing said first disc in a position wherein its recess is in normal position, conduit means positioned in said housing and having one end in communication with said vertically disposed slot in said housing wall and having the other end in communication with the coin supporting slot for feeding and edgewise supported coin to the latter named slot, hand actuable means on the projecting end of said shaft for rotating the latter in one direction, and means on the bight of said bracket and engageable with the other face of said first disc for limiting the rotation of said shaft, said last named means embodying a pin projecting from the bight of said bracket in engagement with an arcuate slot formed in the other face of said first disc.

RUSSELL HARRY EDWARDS.

REFERENCES CITED

The following references are of record in the file of this patent:

UNITED STATES PATENTS

Number	Name	Date
440,470	Cochran	Nov. 11, 1890
422,876	Bower	Mar. 4, 1890

FOREIGN PATENTS

Number	Country	Date
8,711	Great Britain	of 1904