

(No Model.)

D. R. REYNOLDS.
TOY BANK.

No. 519,643.

Patented May 8, 1894.

Fig. 1.

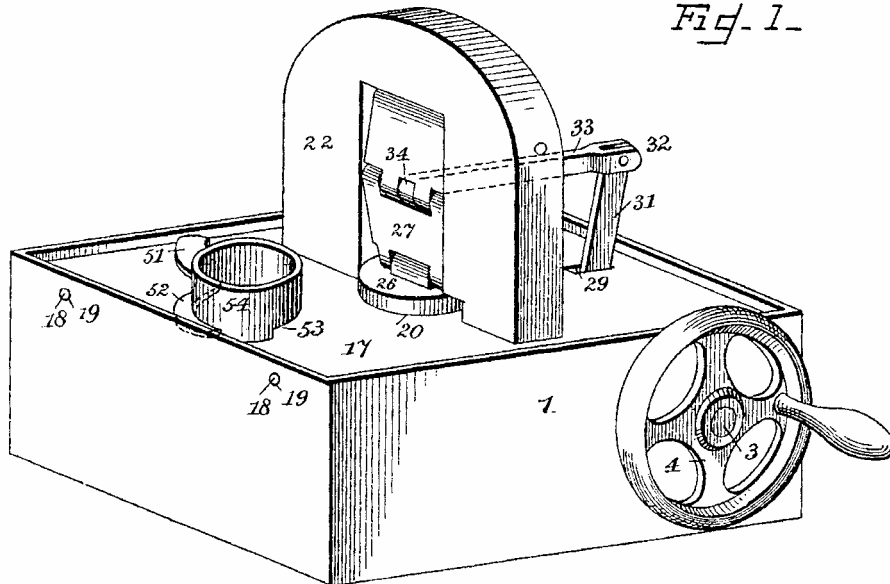


Fig. 2.

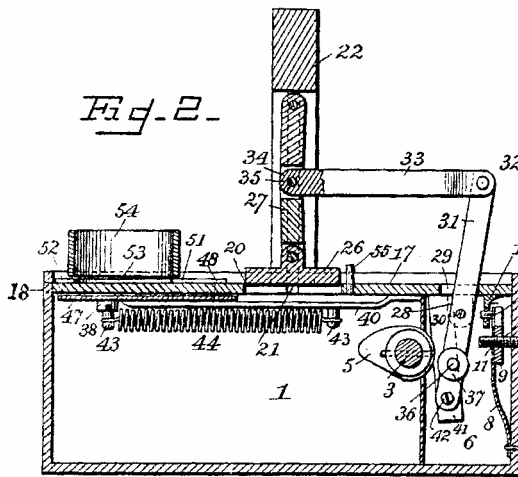


Fig. 3.

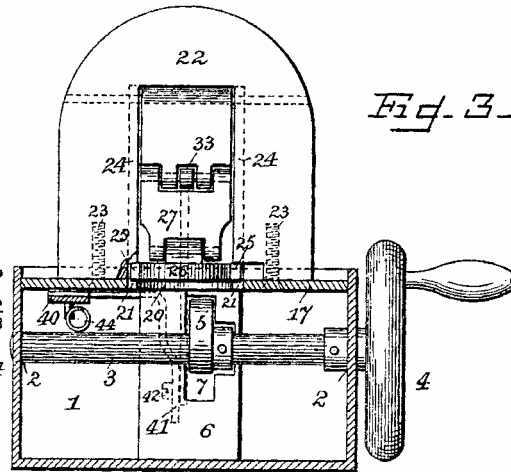
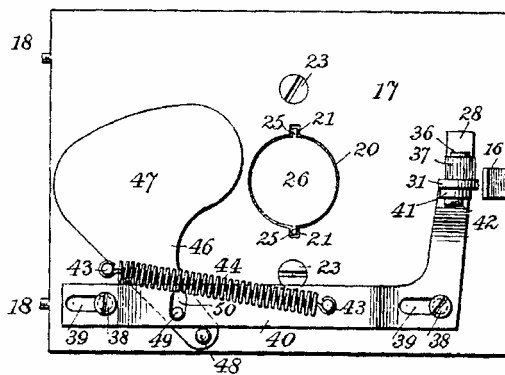


Fig. 4.



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DAVID RICKETTS REYNOLDS, OF PHILADELPHIA, PENNSYLVANIA.

TOY BANK.

SPECIFICATION forming part of Letters Patent No. 519,643, dated May 8, 1894.

Application filed October 23, 1893. Serial No. 488,952. (No model.)

To all whom it may concern:

Be it known that I, DAVID RICKETTS REYNOLDS, a citizen of the United States, residing at Philadelphia, in the county of Philadelphia and State of Pennsylvania, have invented a new and useful Toy Bank, of which the following is a specification.

My invention relates to improvements in toy-banks; the objects in view being to provide a toy bank in imitation of a coin-press as employed by the United States mints in stamping coins, whereby during the introduction of the coin into the coin-box amusement is afforded to the young by the operation of the bank and they are instructed as to the mode of pressing coin; to provide for an operation of the bank in a convenient, easy manner; and finally a safe locking of the coin-box without the use of a key for operating the same.

With these and other objects in view the invention consists in certain features of construction hereinafter specified and particularly pointed out in the claims.

Referring to the drawings:—Figure 1 is a perspective view of a toy-bank embodying my invention. Fig. 2 is a vertical longitudinal sectional view of the same. Fig. 3 is a transverse sectional view. Fig. 4 is a bottom plan view of the cover.

Like numerals of reference indicate like parts in all the figures of the drawings.

The coin-box 1 may be made in any shape or design, and in the present instance is simply a rectangular metal box provided in its opposite side walls with bearings 2, which are arranged transversely opposite each other and receive a transverse shaft 3. One end of the shaft projects beyond its bearing, and said end carries a hand-wheel 4, through the medium of which the shaft may be rotated. Between its bearings a cam 5 is located upon the shaft, and being fixed thereon operates therewith. A rectangular sheet-metal box 6 is secured to the bottom of the coin-box adjacent to that end wall nearest which the shaft 3 is located, and the cam in its rotations moves through a slot 7 formed in the front wall of the sheet-metal box. Secured to this end wall of the coin-box adjacent to which the sheet-metal box is located, and housed by said latter box, is a flat spring 8,

which has a plate 9 secured to its outer side, from the upper end of which through the spring there extends a locking bolt or lug 10. The plate 9 is threaded as at 11, and through the same extends a screw 12, which is journaled in a perforation 13 in the end wall of the coin-box. The outer end of a screw has mounted thereon a key-guard 14, which normally covers a painted key-hole 15 upon the exterior of the coin-box, so that a person raising the guard would expose only the painted imitation key-hole and at once presume that there was no way of getting into the coin-box by this means. However, several rotations of this guard will cause the spring-arm to move in or out by reason of the threads of the screw, and thus the bolt carried by said spring-arm will move into or out of engagement with a perforated lug 16 formed on the under side at the end of the cover 17 and thus the latter locked at one end upon the coin-box. The opposite end of the cover is provided with a pair of lugs 18 which engage with perforations 19 in the opposite end walls formed in the coin-box. Thus it will be seen that I have provided a very deceptive means for locking and unlocking the cover 17, in that a person lifting the key-guard would see merely a painted or imitation key-hole, which of course it would be impossible to operate, and would naturally presume that the box could not be opened except by breakage or some other means unknown to the person. The center of the cover is provided with a circular opening 20, the same being of sufficient size to admit readily a quarter or other coin; and at diametrically opposite sides this opening 20 is provided with recesses 21. The opening has arranged thereover an inverted U-shaped arch or yoke 22, the terminals of which are secured to the cover at diametrically opposite sides of the opening by means of screws 23 which pass through the cover into the terminals of the yoke. The inner faces of the terminals of the yoke are provided with vertical grooves 24, and fitting in the same are diametrically opposite lugs 25, which are formed on the periphery of a disk 26. This disk 26 is connected by a toggle-joint lever 27 to the upper end of the yoke, the lower end of the lever being pivoted as at 27 to the disk, so that as the yoke breaks at its joint

the disk is elevated and uncovers the circular opening 20 in the cover, and when the lever is straight, the disks descends into and fills the opening 20.

5 In a bearing-bracket 28 located in the under side of the cover at one side of a slot 29 formed in the cover I pivot as at 30 a vibratory lever 31, the upper end of which is pivoted as at 32 to a connecting-rod 33 which
10 extends forward and has its forward end pivoted as at 34 to the pintle-rod 35 of the toggle-joint lever. This vibratory lever adjacent to its lower end is provided with a horizontal spindle 36 upon which is loosely mounted a
15 friction roller 37.

A pair of headed screws 38 is located upon the under side of the cover 17 adjacent to one edge and longitudinally opposite each other, and said headed screws pass loosely
20 through slots 39 which are formed in the slide-bar 40. This slide-bar 40 has its rear end laterally and downwardly extended to form an arm 41, and the same is pivotally connected, as at 42, to the lower end of the
25 vibratory lever. Stud 43 extend from the slide-bar and from the bottom of the cover 17 near the front end of the latter, and the two studs are connected by means of a coiled-spring 44. Between its slots the slide-bar is
30 depressed, and under the same takes a shank 46 of a cut-off plate 47 that is located upon the under side of the cover 17 in front of the circular opening 20. This shank is by means of a pivot 48 loosely connected with the cover,
35 and is capable of movement upon its pivot so as to pass under and cover the opening 20 in the cover. A lug 49 depends from the shank of the cut-off and through a transverse slot 50 formed in the depressed portion of the
40 slide-bar, so that a movement upon the part of the slide-bar causes a circular movement upon the part of the cut-off, inasmuch as the point of connection between the slide-bar and the cut-off is eccentric when considered with
45 relation to the point of pivot of the cut-off. The pivot 48 of the cut-off extends through and is journaled in the cover and at its upper end upon the upper side of the cover is secured rigidly to the throw-arm 51. This
50 throw-arm 51 has its outer free end provided with a curved portion 52, which takes into a slot 53 formed in a feed-cup or ring 54. This feed-cup or ring 54 is cylindrical and approximates in diameter that of the coin.

55 This completes the construction of the bank, which to all appearances, is a miniature of the coin-press employed in United States mints, and the operation thereof is as follows:—To insert a coin, the same is first
60 dropped into the feed-cup or cylinder and the shaft is given a rotation through the medium of the hand-wheel. The cam of the shaft operates upon the anti-friction roller at the lower end of the vibratory lever, and serves
65 to vibrate or oscillate the latter. Such vibration causes the connecting-bar between said vibratory lever and the toggle-joint lever to

thrust forward and thus break the toggle-joint, which causes the disk connected there-with to move upwardly in the yoke and un-
70 cover the opening in the cover. This movement upon the part of the vibratory lever causes the slide-bar to move backward against the tendency of its spring and to carry with
75 it the cut-off which closes the under side of the opening. It also causes the throw-arm to vibrate through the slot in the feed-cup and engage the coin to throw the same toward the opening in the cover, it being prevented
80 from passing beyond said opening by a stop-pin 55 which is located at the rear edge of the opening in the cover. Thus the coin drops upon the cut-off so that when the cam of the shaft passes beyond the anti-friction roller,
85 and thus releases the vibratory lever, the spring will return the parts to their normal positions, and by the withdrawal of the cut-off from under the opening the coin is permitted to drop into the coin-box.

It will be seen that the coin-opening is
90 never unclosed, inasmuch as when the disk is elevated from over the opening the cut-off immediately takes its place, and thus it is impossible to tamper with the bank and to re-
95 move coins through the openings 20, as is often the case with many of the toy banks now in use, and a person unfamiliar with the device will find the same completely inaccessible unless it be broken open.

From the foregoing description in connection with the accompanying drawings it will
100 be seen that I have provided a very simple, amusing, and safe bank or repository for coins and small savings, one in which there are but few parts, and none of them exposed
105 to excessive wear and therefore composing a durable structure not liable to become impaired or out of order from frequent use.

I do not limit my invention to the precise
110 details of construction herein shown and described, but hold that I may vary the same to any degree and extent within the knowledge of the skilled mechanic.

Having described my invention, what I
115 claim is—

1. In a toy bank, the combination with a
120 coin-box, a removable cover secured thereon and provided at one end with a depending perforated lug, of a locking-plate having a bolt or lug arranged thereon located at one end
of the coin-box, and a screw passing freely through the wall of the coin-box and engaging the lock-plate, substantially as specified.

2. In a toy bank, the combination with a
125 coin-box, a removable cover secured thereon and provided at one end with a depending perforated lug, of a lock-plate having a bolt or lug arranged thereon located at one end of the coin-box, a screw passing freely through the wall of the coin-box and engaging the
130 lock-plate, and a key-guard secured to the outer end of the screw and arranged over an imitation key-hole, substantially as specified.

3. In a toy bank, the combination with a

coin-box, a cover for the same, means for securing one end of the cover, and a perforated lug at the opposite end thereof, of a spring-arm secured to the end wall of the coin-box, 5 a metal plate arranged upon the spring-arm, a bolt carried by the metal plate, a threaded perforation formed in the plate, a screw journaled in the end wall of the box and engaging the threaded perforation in the plate, and 10 a key-guard secured to the outer end and arranged over an imitation key-hole, substantially as specified.

4. In a toy bank, the combination with the coin receptacle provided upon its upper side 15 with an opening, of a vertical movable closure arranged above said opening, a coin-discharging device arranged adjacent to the opening, and means for raising the closure, and for 20 subsequently operating the discharging device, substantially as specified.

5. In a toy bank, the combination with a coin-box, the top of which is provided with a coin-receiving opening, of a cut-off arranged 25 upon the under side of the cover, a disk arranged over the opening, and means for raising the disk and simultaneously moving the cut-off under the opening and for retracting the cut off and lowering the disk, substantially 30 as specified.

6. In a toy bank, the combination with a coin-box, the cover of which is provided with a coin-opening, a cut-off arranged under the 35 cover, a disk arranged over the cover, a coin-throwing device arranged in front of the opening, and means for simultaneously raising the disk, operating the coin-throwing disk, and 40 moving the cut-off under the opening, substantially as specified.

7. In a toy bank, the combination with a 40 coin-box, the cover of which is provided with an opening, a disk arranged over the opening, a pivoted cut-off arranged under the cover, a feed-cup arranged in advance of the opening 45 upon the cover and having a slot, a pivoted-arm arranged upon the cover and having its free end disposed in the slot of the cup, and means for raising the disk, operating the arm, 50 and moving the cut-off under the opening in the cover, substantially as specified.

8. In a toy bank, the combination with a 55 coin-box the cover of which is provided with an opening, a disk arranged over the opening, a pivoted cut-off arranged under the cover, a feed-cup arranged in advance of the opening 60 upon the cover and having a slot, a pivoted arm arranged upon the cover and having its free end disposed in the slot of the cup, a transverse shaft journaled in the walls of the

coin-box and provided at one end with a hand wheel, and devices between the shaft, the 60 disk, cut-off and arm for operating the same at each rotation of the shaft, substantially as specified.

9. In a toy bank, the combination with the coin-box having a coin passage, a stop arranged in rear thereof, a yoke arranged over 65 the passage and having guides, a disk arranged in the guides and adapted to cover the passage, a toggle-joint lever hinged at its upper end to the yoke and at its lower end 70 to the disk, a cut-off pivoted under the cover, a coin-throwing arm carried by the pivot of the cut-off and arranged above the cover, a feed-cup having a slot in which said arm operates, 75 a depending lug arranged on the cut-off, a slide-bar having a slot engaging the lug and arranged upon the under side of the cover, a spring for retracting the slide-bar, a vibratory lever pivoted in a slot in the cover and 80 at its lower end to the slide-bar, a connecting-bar between the lower end of the vibratory-lever and the joint of the toggle-lever, and means for operating the vibratory lever, substantially 85 as specified.

10. In a toy bank, the combination with the 85 coin-box having a coin passage, a stop arranged in rear thereof, a yoke arranged over the passage and having guides, a disk arranged in the guides and adapted to cover the 90 passage, a toggle-joint lever hinged at its upper end to the yoke and at its lower end to the disk; a cut-off pivoted under the cover, a coin-throwing arm carried by the pivot of the cut-off and arranged above the cover, a feed- 95 cup having a slot in which said arm operates, a depending lug arranged on the cut-off, a slide-bar having a slot engaging the lug and arranged upon the under side of the cover, a spring for retracting the slide-bar, a vibratory 100 lever pivoted in a slot in the cover and at its lower end to the slide-bar, a connecting-bar between the lower end of the vibratory-lever and the joint of the toggle-lever, a transverse shaft journaled in the walls of the coin-box, 105 a hand-wheel at one end of the shaft, a cam arranged upon the shaft, and a friction roller arranged upon a spindle upon the side of the vibratory lever in the path of the cam, substantially 110 as specified.

In testimony that I claim the foregoing as 110 my own I have hereto affixed my signature in the presence of two witnesses.

DAVID RICKETTS REYNOLDS.

Witnesses:

E. A. BONSALE,
WILLIAM L. UBER.