

(Model.)

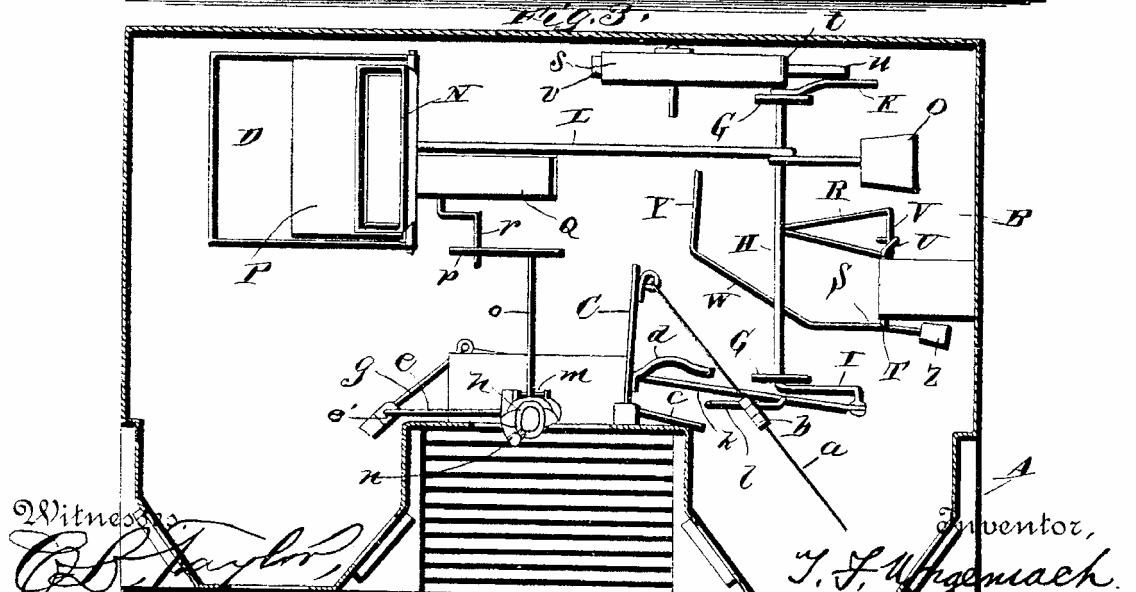
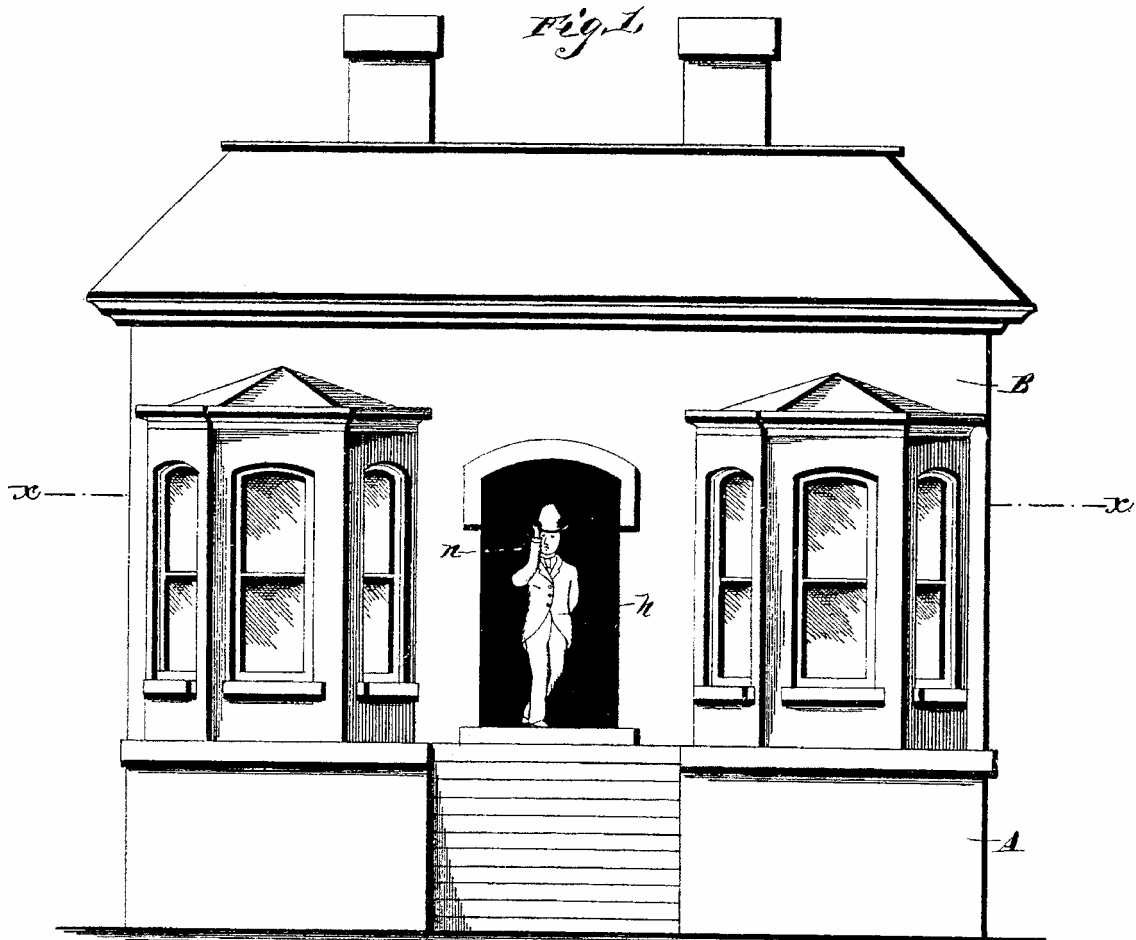
2 Sheets—Sheet 1.

T. F. UNGEMACH.

TOY MONEY BANK.

No. 389,178.

Patented Sept. 4, 1888.



Witness  
*C. E. Noyle*

Inventor,  
*T. F. Ungemach.*  
 By his Attorneys  
*C. A. Snow & Co.*

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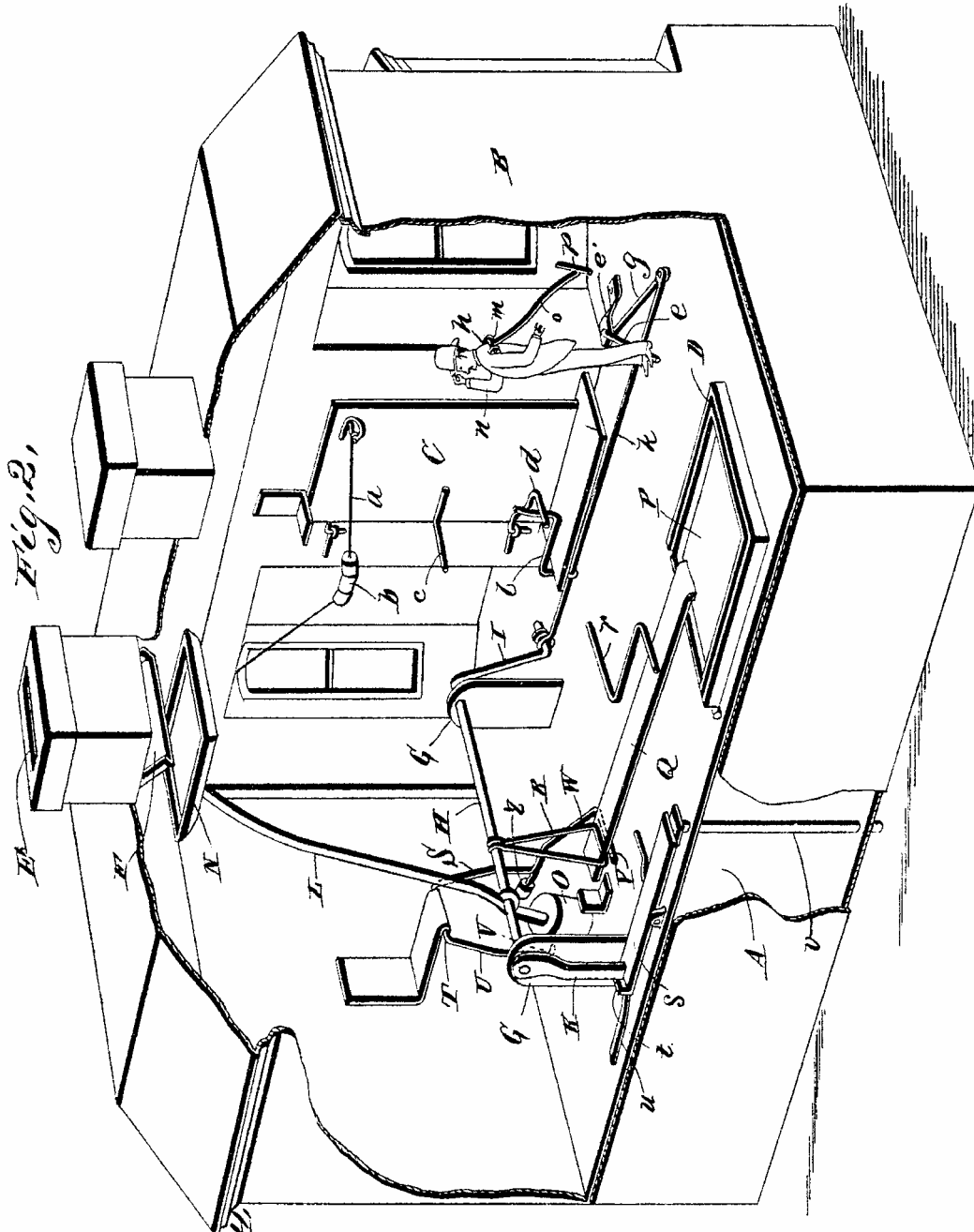
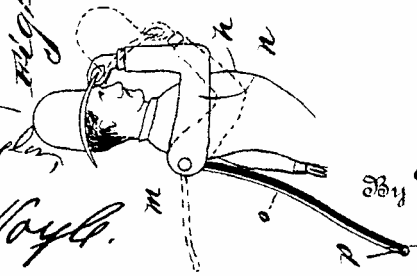


Fig. 2.

Witnesses.

*O. S. Taylor*

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Inventor.

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By *his* Attorneys

*C. Howland*

# UNITED STATES PATENT OFFICE.

THEOBALD FREDRICK UNGEMACH, OF ZANESVILLE, OHIO, ASSIGNOR OF ONE-HALF TO JOHN C. SULLIVAN, OF SAME PLACE.

## TOY MONEY-BANK.

SPECIFICATION forming part of Letters Patent No. 389,178, dated September 4, 1888.

Application filed February 24, 1888. Serial No. 265,994. (Model.)

To all whom it may concern:

Be it known that I, THEOBALD FREDRICK UNGEMACH, a citizen of the United States, residing at Zanesville, in the county of Muskingum and State of Ohio, have invented a new and useful improvement in Toy Money-Banks, of which the following is a specification.

My invention relates to improvements in toy money-banks; and it consists in a certain novel construction and combination of devices, whereby when a penny or other coin is inserted in a suitable opening provided therein a hinged door in the front of the device is opened, a figure advances to the door and doffs its hat, then retreats, and the door closes. This is accomplished while the coin passes from the upper chamber, into which it is inserted, to a lower chamber or vault, from which it cannot be removed except through a suitable locked door in the bottom or side of the bank similar to those ordinarily employed in corresponding situations. I also provide means whereby when the bank is raised from the table or other flat surface upon which it rests all the operating mechanism is locked, and will remain in this condition until the bank is returned to its upright position upon a fiat surface.

My invention consists, further, in certain details of construction, which are more fully set forth hereinafter in connection with the accompanying drawings, wherein—  
Figure 1 is a front view of the bank, showing the figure or automaton at the door in the act of saluting. Fig. 2 is a perspective view looking at the rear with the rear and one of the side walls of the bank broken away to show the operating mechanism. Fig. 3 is a horizontal sectional view on the line *x x* of Fig. 1, with the parts shown in the position indicated in the said figure. Fig. 4 is a detail view to show the operation of the movable arm on the automaton.

The interior of the bank is divided into two compartments, namely: the upper compartment, in which the operating mechanism and the figure or automaton are located, and the lower compartment or vault, into which the 50 coins are introduced for safe keeping. The

vault *A* is directly beneath the upper compartment *B*, and communicates with the same through the trap-opening *D*, which is formed in the floor of the said upper compartment. The front end of the upper compartment is provided with a door, *C*, which is hinged upon hinges at the side. This is more fully described hereinafter.

The bank shown in the drawings is constructed to represent a bank building, and is provided with chimneys, one of which is provided with a slit, *E*, adapted to receive the coins which are to be deposited in the bank. A curved or inclined chute, *F*, is connected to the said slit to direct the course of the coins, for a purpose to be hereinafter explained.

*G G* represent standards in the upper compartment, having bearings in their upper ends, and in the same are mounted the ends of the horizontal rock-shaft *H*, which is provided on one end with a crank, *I*, and on the other end with the catch-arm *K*.

*L* represents a yielding arm, which is rigidly attached to the rock-shaft *H*, and it is provided at its upper end with the coin-receiving plate *N* and at its lower end with the counterbalancing-weight *O*. This weight normally maintains the yielding arm in an approximately vertical position, with the receiving-plate *N* in a horizontal position directly under the lower end of the chute *F*, whereby when a coin is inserted into the bank through the slit *E* it will be conveyed to and dropped on the plate *N*. The upper arm of the lever, which comprises the yielding arm, is much longer than the lower or weighted arm, and therefore when even a small weight, as a penny, is dropped on the receiving-plate, the yielding arm is depressed and the plate discharges its load into the vault through the trap-opening *D*. As soon as relieved from its load the yielding arm returns to its upright position. It will be seen, however, that if the opening *D* were allowed to be open the coins deposited in the vault could be shaken out through the same and removed from the bank through the door in the front of the upper compartment; and therefore to prevent this I arrange a trap, *P*, in the opening *D*, hinging it to one side, and arrange it so that the weight of a coin will

depress it. I provide the trap with an arm, *Q*, which (when the trap is in its normal or horizontal position) rests on the floor of the compartment, and, as the arm is heavier than the trap, it overbalances the same and holds it in the said position, as shown in Fig. 2.

Represents a depending locking-arm, which is attached rigidly to the rock-shaft *H*, and when the trap and yielding arm are both in their normal positions the said arm bears at its lower end on the end of the arm *Q* and thus holds the trap from being depressed. As soon as a coin is placed on the yielding arm, however, the locking-arm is removed from its engagement with the arm *Q* and the trap is free to be depressed by the coin.

*S* represents a catch and tripping device, which consists of a rock-shaft, *T*, mounted in a suitable bearing at the side of the upper compartment, the depending latch-arm *U* having a detent or hook, *V*, on its lower end and the pressure-arm *W* having a lower horizontal portion, *X*, which extends under the extremity of the trap-arm *Q*. A weight, *Z*, is attached to the arm *W*, and it normally holds the arm *U* swung inward at its lower end, and also holds the inner end of the horizontal portion of the arm *W* raised slightly from the floor of the compartment.

When the trap is in its normal or horizontal position, it bears upon the inner end of the arm *W*, and consequently holds the latch-arm *U* pressed outward; but the moment that the trap is depressed by the coin dropped thereon by the yielding arm the said latch-arm swings inward. Therefore when a coin is placed on the yielding arm the latter is depressed, and when it reaches the position shown in Fig. 3 the coin slips from the plate *N* and strikes the trap. The trap is depressed immediately, thus liberating the latch-arm *U* and enabling it to swing inward and engage the end of the locking-arm *R*, which is now adjacent thereto, not having yet had time to

return to its normal or upright position. Thus the yielding arm is held in its lowered position until the trap (having deposited its load in the vault) swings up into the horizontal position and allows the arm *Q* to fall on the tripping arm *W* and disengage the latch-arm from the locking-arm. Thus the trap-arm *Q* is allowed to first assume its normal position, after which the locking-arm swings down and engages over it, as above described.

As above mentioned, the door *C* is hinged at one side to an opening in the front of the bank, and a cord, *a*, having a weight, *b*, at an intermediate point, is attached at one end to the free edge of the door and at the other end to the side of the bank or any other stationary point in such a position that the tendency of the weight will be to open the door. (A spring may be arranged to accomplish the same purpose.) A stop, *c*, is attached to the inner side of the door to prevent it from opening beyond a position at right angles to the front of the

bank, and *d* represents a curved guide-arm, which is also attached to the inner side of the door, for a purpose to be explained.

The figure or automaton *h* is attached in an upright position to the end of a swinging arm, *e*, which is pivoted to a bracket, *e'*, in the upper compartment in such a position as to enable the said figure or automaton to be swung around in front of the door-opening. The said swinging arm is provided with an operating-arm, *g*, which is connected to the lower end of the crank *I* by the rod *k*. It will be readily seen that when the rock-shaft is rotated by the motion of the yielding arm the connecting-rod *k* will move the swinging arm *e*, and the parts are so connected and arranged that when the yielding arm is depressed the figure or automaton is swung into the door-opening. The connecting-rod *k* is provided with an arm, *l*, which bears against the curved guide-arm on the inside of the door, so that when the yielding arm is depressed the arm *l* is drawn back, thus allowing the door to be opened by the action of the weight, and as the yielding arm swings back to its normal position the arm *l* bears against the said guide-arm and closes the door.

A transverse horizontal shaft, *m*, is mounted in suitable bearings on the back of the figure or automaton, and to one end of the same is attached the end of the movable arm *n* of the said figure or automaton, bearing in its hand *o*, a rearward-extending operating-lever, *o*, is attached to the shaft *m*, and it is provided on the end with a cross bar, *p*. The combined weights of the lever and the cross-bar are sufficient to normally hold the arm *n* of the figure or automaton in the raised position with the hat over the head as when worn; but it will be evident that if the rear end of the operating-lever is raised the arm *n* will be swung down and the figure or automaton will appear to be saluting.

*r* represents a short lateral arm, which is attached to the trap-arm *Q*, and as the latter is raised by the depression of the trap the said lateral arm engages under the cross bar on the end of the operating-lever that raises the latter. Therefore when a coin is inserted in the slot in the chimney the relative movements of the parts are as follows: The yielding arm is depressed and drops its load on the trap, at the same time opening the door *C* and swinging the figure or automaton into the door-way. The trap, being depressed by the said coin, releases the latch-arm, which engages the locking-arm, and thus holds the yielding arm depressed and also holds the door open and the figure or automaton in its advanced position. The trap-arm *Q*, in ascending, raises the operating-lever *o* by means of its arm *r* and causes the figure or automaton to salute. As the trap-arm descends, the figure or automaton replaces its hat, the latch-arm is disengaged from the locking-arm, the yielding arm returns to its upright position, and the crank

returns to its upright position, and the crank

I swings the figure or automaton back and closes the door. There is no conflict or interference of the parts, for the reason that they are so combined and connected as to operate successively, one part remaining stationary until the other parts are out of the way.

In order to prevent the parts of the operating mechanism from shaking and perhaps becoming displaced, I provide a locking device, which, when the bank is raised from the table, holds all the parts immovable. When the bank is again placed upon a flat surface, the parts are liberated and will operate as before. I represent a pivoted latch, which is arranged close to the floor of the upper compartment, and it extends under the end of the catch-arm K. This arm of the latch is provided with a detent, 4, which is adapted to engage the said catch-arm, and a spring, 4, is disposed under the end of the latch to automatically raise it into the engaging position. A vertical operating-rod, 7, is mounted in the case, and is connected at its upper end to the opposite end of the latch, (the free end,) and projects at its lower end slightly below the bottom of the bank. When the bank stands on the table or other flat surface, the rod is pressed upward and the engaging end of the latch 8 is drawn down out of engagement with the catch arm, and then the parts of the operating mechanism are free to operate. When the bank is raised from the table, however, the latch engages the catch-arm and the rock-shaft is prevented from turning, thus preventing the other parts of the mechanism from operating.

Changes in the form, proportion, and details of construction may be made without departing from the spirit or sacrificing the advantages of my invention.

Having thus described my invention, what I claim, and desire to secure by Letters Patent of the United States, is—

1. In a bank, the combination, with a yielding arm mounted on a suitable rock shaft and adapted to be depressed by a coin, of the swinging arm 6, having a figure or automaton attached thereto, the hinged or pivoted door, and the rod 4, attached at one end to the rock-shaft and connected to the door and the arm 6, substantially as and for the purpose specified.

2. In a bank, the combination, with the rock-shaft having a crank on one end and the yielding arm attached to the rock-shaft and adapted to be depressed by a coin, of the door having a guide-arm on its inner side, the weight attached to the door and adapted to automatically open the same, and the rod 4, attached at one end to the crank and having an operating-arm, 4, bearing against the said guide-arm, substantially as specified.

3. The combination, with the trap having an arm, Q, of the yielding counterbalanced arm adapted to be depressed by a coin, and the locking arm attached to the yielding arm

and operating therewith, and adapted when the latter is in its normal position to engage the end of the arm Q, substantially as specified.

4. The combination, with the trap having the arm Q, and the yielding arm having the locking-arm K, of the latch-arm U, adapted to engage the locking-arm when the yielding arm is depressed, and the pressure-arm connected to the latch-arm and adapted to be operated by the arm Q to release the locking-arm, substantially as and for the purpose specified.

5. The combination, with the trap having the arm Q, and the yielding arm having the locking-arm K, adapted to engage the arm Q when in its normal position, of the latch-arm U, adapted to engage the locking-arm when the yielding arm is depressed, and the pressure-arm having a weight thereon to normally hold the latch-arm in the engaging position, and a horizontal lower portion projecting under the arm Q and adapted to be depressed thereby to disengage the said latch-arm, substantially as specified.

6. The combination, with the rock-shaft having a yielding arm attached thereto and having a rigid catch-arm, K, of the spring-actuated latch adapted to engage the catch-arm 9, and having an operating-rod attached thereto, substantially as specified.

7. In a bank the combination with the yielding arm having a catch-arm, K, of the spring-actuated latch adapted when in its normal position to engage the said catch-arm, and the operating-rod attached to the latch and projecting at its lower end below the bottom of the bank, whereby when the latter rests on a flat surface the operating-rod is pressed up and the catch-arm is released from the latch, substantially as specified.

8. The combination of the figure or automaton having a movable arm, 2, provided with a rearwardly-extending operating-lever, with the trap having an arm, Q, adapted to operate the said lever, and the counterbalanced yielding arm arranged on a suitable rock-shaft, which is connected to the figure or automaton, substantially as and for the purpose specified.

9. The combination of the figure or automaton having a pivoted arm, 2, and the operating-lever attached to the said arm and having a cross-bar on its free end, with the trap having the arm Q, provided with a lateral arm to engage the said cross-bar, and the yielding arm arranged on a suitable rock-shaft which is connected to the figure or automaton, substantially as and for the purpose specified.

10. The combination, with the yielding arm adapted to be depressed by a coin, and the trap having an arm, Q, and adapted to receive the coin from the yielding arm, of the swinging arm connected to the yielding arm, the figure or automaton mounted on the swinging arm, the rock-shaft mounted on the back of the said figure or automaton, the arm or other

member attached to the rock-shaft, and the operating-lever connected to the same and adapted to be engaged by the arm Q, substantially as and for the purpose specified.

11. The combination, with the rock-shaft having a locking-arm and the crank I, the yielding arm attached to the rock-shaft, and the trap having an arm, Q, adapted to be engaged by the locking-arm, of the gravity latch-arm adapted to engage the locking-arm when the yielding arm is depressed, the pressure-arm attached to the latch-arm and adapted to be operated by the arm Q to disengage the latch-arm, the door C, connected by a suitable rod to the crank I, and the figure or automaton mounted on a swinging arm which is connected to the said crank, all constructed, arranged, and operated substantially as and for the purpose hereinbefore specified.

12. In a toy bank, the combination, with the coin-receiving plate, of the figure or automaton and the hinged door connected together, substantially as described, and a lock or latch to engage the operating devices for said parts, said lock or latch being held out of engagement when the bank is raised from the table, whereby the mechanism cannot be operated by the depositing of a coin when the bank is raised from the table.

13. In a toy money-bank, the figure or automaton provided with a movable hat-bearing arm, in combination with the lever 6, connected to the said arm, and the trap P, adapted

to be depressed by a coin and provided with a lateral arm, 7, adapted to engage the lever 35 or hat-bearing arm is operated, substantially as specified.

14. In a toy money-bank, the movable figure or automaton mounted on a swinging arm, 6, 40 and provided with a movable hat-bearing arm, 7, having an operating-lever, 6, in combination with the yielding coin receiving arm arranged on a rock shaft, which is connected to the swinging arm 6, and the trap adapted to be depressed by coin received from the yielding arm and provided with an arm, 7, adapted to engage the lever 6, substantially as specified.

15. The toy money-bank provided with a movable door, and the movable figure or automaton provided with a movable hat-bearing arm and mounted on a swinging arm, 6, in combination with a rock shaft bearing a coin-receiving arm, the rod 4, connecting a crank on the rock-shaft to the door and the arm 6, 55 and the trap adapted to receive the coins from the yielding arm and provided with an arm, 7, adapted to engage a lever connected to the hat-bearing arm 7, substantially as specified.

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

THEOBALD FREDRICK UNGEMACH.

Witnesses:  
H. T. UNGEMACH,  
CHAS. L. GRIMM.