

RESERVE COPY PATENT SPECIFICATION

359,209

Application Date: Oct. 22, 1930. No. 31,679/30.

Complete Left: Nov. 17, 1930.

Complete Accepted: Oct. 22, 1931.



PROVISIONAL SPECIFICATION.

Improvements in Coin-freed Mystic Mirror and like Machines.

I, WILLIAM THOMAS THOMPSON, of 107, Irving Street, Birmingham, of British nationality, do hereby declare the nature of this invention to be as follows:—

5 This invention relates to mystic mirror and like machines which are operated by coin-freed mechanism and has for its object to exhibit a picture or other object by the insertion of a coin and which may also deliver at the same time a fortune card. The machine is simple in operation and extremely efficient.

10 In the present invention, the machine embodies a crystal or lustrous globe through which is a tubular eyehole which is directed to a mirror at the back of which is a transparent plate having thereupon the exhibit and at the rear of which is a screened illuminant. The person looking through the eyehole on to the mirror sees his own reflected image, but upon lighting up the illuminant, the mirror becomes transparent and discloses the picture or other exhibit.

15 In a convenient embodiment of the invention, the machine comprises a frame in which is journaled a vertical spindle. On the upper end of the spindle is a slide carrier which is rotatable about a vertical axis. This slide carrier may be formed of a centre plate from which are uprising obliquely disposed slide bars or holders outwardly projecting therefrom and spaced at suitable intervals apart. These slide bars or holders are of channel-section to hold glass slide plates on which are the exhibits. The slide carrier thus holds a plurality of slide plates and is rotated by suitable mechanism to be hereafter described.

20 Above the slide carrier is a fixed lustrous globe provided with a straight tubular eyehole which is open-ended and may be pitched downwardly from front to rear or otherwise disposed. The eyehole is directed to a single slide plate at any one instant, each slide plate being brought opposite the rear orifice of the eyehole in turn. In front of the slide plates and at the rear of the eyehole of the globe is a mirrored plate behind which each slide plate is adapted to be positioned. Still further to the rear of the eyehole and

beyond the rotational path of the slide plates is a stationary ground glass or translucent plate which serves as a screening medium for an electric lamp. When viewed through the eyehole of the globe and before the electric lamp is lighted, the mirrored plate reflects the image of the observer, but upon lighting up the electric lamp, the mirrored plate becomes transparent and discloses the exhibit.

The rotatable slide carrier is operated by an electric motor, or other motive power through suitable reduction gearing to a horizontal shaft on which is a radial trip arm adapted to engage a horizontal ratchet wheel on the vertical spindle once in every revolution of the shaft. A vertical upstanding coin chute has one end of a release lever projecting in its path, said release lever being notched or otherwise formed to engage with a fixed catch or the like on the machine standards. The release lever is pivotally jointed to an upstanding arm which has a contact piece for making or breaking contact of the electric circuit with a cam-like contact piece fixed upon the horizontal shaft.

Normally, the contact piece on the upstanding arm of the release lever is out of contact with the contact piece on the horizontal shaft, when the electric circuit is broken and only a reflection of the observer is obtained from the mirrored plate. When a coin is inserted in the coin chute, it falls upon the end of the release lever which under spring tension disconnects it from its catch and so causes the upper arm to make contact, whereupon the horizontal shaft is rotated and the trip arm swung over to hit the ratchet wheel, the slide carrier thus being intermittently rotated and presenting the slide plates individually in register with the tubular eyehole. The lamp is lighted and the mirrored plate thus becomes transparent and reveals the exhibit. Immediately thereafter, a fortune card is delivered. These cards are piled one above the other in a vertical canister so as to rest upon a horizontal table having a slidably thrust plate or member for pushing the lowermost card down a delivery chute. To this thrust plate is connected a bell-crank lever, hav-

55

60

65

70

75

80

85

90

95

100

105

ing in its remote arm a slot longitudinally set thereof. A cam fixed upon a horizontal shaft has a side pin engaging the slot, the pin being held in engaged position with the slotted arm by a coil spring anchored to the latter.

In the event of the cards fouling the thrust plate or member, so that the latter fails to function, with its bell-crank lever remaining stationary, the cam by its pin traverses along the slot against the action of the spring and no interference is caused to the horizontal shaft which rotates as usual. By this means, no injury is likely to be caused to the electric motor or other parts of the mechanism which would be liable if the horizontal shaft was prevented from rotating.

The ratchet wheel may be engaged by locking pawls to hold the slide carrier in position for viewing the exhibit.

In order to prevent a second coin being inserted in the coin chute before a preceding one has got clear and so fouling the mechanism, a pivoted bell-crank trigger is mounted on the machine frame, said trigger having a vertical arm with a horizontal projecting wire keeper bar extending in the upper path of the coin chute, and the other horizontal arm of the trigger is hit by a radially projecting trip arm on the horizontal shaft, so that said trigger is hit once in every revolution of the horizontal shaft to free the path in the coin chute.

Dated the 21st day of October, 1930.

GEORGE T. MILLARD,
Warwick Chambers, Corporation Street,
Birmingham.
Agent for the Applicant.

COMPLETE SPECIFICATION.

Improvements in Coin-freed Mystic Mirror and like Machines.

I, WILLIAM THOMAS THOMPSON, of 107, Irving Street, Birmingham, of British nationality, do hereby declare the nature of this invention and in what manner the same is to be performed, to be particularly described and ascertained in and by the following statement:—

This invention relates to mystic mirror and like machines which are operated by coin-freed mechanism and has for its object to exhibit a picture or other object by the insertion of a coin and also may be arranged to deliver at the same time a fortune card. The machine is simple in operation and extremely efficient.

According to the present invention, the machine comprises a globe or casing simulating a crystal gazer, having a view tube therethrough provided with a mirror transparent upon illumination, transparent exhibits exteriorly of the globe or casing, and movable into register with the view tube and a screened illuminating agent, at the rear of the exhibits, operating in such manner that the mirror normally reflects an observer's image which dissolves or fades away upon illumination and displays the exhibit.

The invention is described with reference to the accompanying drawings illustrating a preferred embodiment of the invention.

Fig. 1 is a side elevation of the apparatus in part section with one of the side standards removed.

Fig. 2 is a front elevation.

Fig. 3 is a plan on the line *x,x*. of Fig. 1, and

Fig. 4 is a side elevation in part section of the card delivery mechanism.

The machine comprises a frame 1 in which is journaled a vertical spindle 2 on which is mounted a slide carrier 3. The latter may be formed of a centre plate 4 from which are uprising obliquely disposed slide bars or holders 5 outwardly projecting therefrom and spaced at suitable intervals apart. These slide bars or holders are of channel section to hold glass slide plates 6 on which are the exhibits. The slide carrier 3 thus holds a plurality of slide plates 6 and is rotated about a vertical axis from the spindle 2 by mechanism to be subsequently described.

Above the slide carrier 3 is a fixed metallic globe 7 of lustrous appearance provided with a view tube 8 obliquely disposed from front to rear, or otherwise disposed, as circumstances require. The view tube 8 is directed to the slide plates 6, of which each one is brought opposite the rear orifice of the said view tube 8 individually. At the rear end of the view tube 8 and in front of the slides 6 is a mirror 9 while behind the slides is a fixed opal glass or other translucent plate 10 which serves as a screening medium for an electric lamp 11. When viewed through the view tube 8 of the globe 7 and before the electric lamp 11 is lighted, the mirror 9 reflects the image of the observer, but upon illumination by the lamp 11, the mirror 9 becomes transparent and displays the exhibit.

The rotatable slide carrier 3 is operated by an electric motor or other motive power

connected through suitable reduction gearing to a horizontal driving shaft 12 on which is a radial trip arm 13 adapted to engage a horizontal ratchet wheel 14 on the vertical spindle 2 once in every revolution of said shaft. A vertical or upstanding coin chute 15 of the hinged flap type has one end of a release lever 16 projecting in its lower end, said release lever 16 being notched or provided with a suitable projection to engage with a fixed slotted catch 17 or the like on the machine standards 1. The release lever 16 is pivotally jointed to an upstanding angularly related arm 18 which has a contact piece 19 for making or breaking contact of the electric circuit with an insulated contact piece 20 having a cam portion 20a, said contact piece 20 being mounted upon the driving shaft 12. The lamp circuit has one lead running to the contact piece 20, and the other lead through a fuse box to an electric motor, or other source of power.

Normally, as shown in Fig. 1, the contact piece 19 on the upstanding arm 18 connected to the release lever 16 is out of contact with the contact piece 20 on the driving shaft 12 whereupon the electric circuit is broken and only a reflection of the observer is obtained from the mirror 9. When a coin is inserted in the coin chute 15, it drops upon the end of the release lever 16 which is depressed against the action of a spring 21 and has its notched part disengaged from the slotted catch 17 so that the lever 16 moves backwards, releases coin which falls into a receiver, and swings the upper arm 18 to bring the contact piece 19 into contact with the insulated contact piece 20 to complete the electric circuit, whereupon the horizontal driving shaft 12 is rotated and the trip arm 13 swung over to hit the ratchet wheel 14 which is partially rotated and so causes the slide carrier 3 to be intermittently rotated whereby upon insertion of each coin one of the slide plates 6 is presented in register with the view tube 8. At this instant, the lamp 11 is lighted and the mirror 9 being illuminated becomes transparent and displays the exhibit upon the rear slide plate 6. The release lever is returned to normal position for its end to project in the coin chute by the cam portion 20a of the contact piece 20 whereupon the electric circuit is broken. At the same time that the exhibit is displayed, a fortune card is delivered. These cards 22 are piled one above the other in a vertical canister so as to rest upon a horizontal table 23 having a slidable ejector plate or piece 24 for ejecting the lowermost card to a delivery chute 25. Engaging with this ejector

plate or piece 24 is an ejector lever 26 adapted to swing on a centre 26a on the bracket 26b, and to this lever an angularly related rod 27 is pivotally connected at 27a, said rod having a slot 28 longitudinally set thereof. A crank 29 fixed upon the driving shaft 12 has a lateral pin 30 or other projection engaging the slot 28, the pin 30 being held normally abutting against the end of the slot 28 by a coil spring 31 anchored to said rod. Upon rotation of the driving shaft 12, the crank 29 is rotated in the direction of the arrow, and eventually pulls rod 27 through the medium of the spring 31, ejector lever 26 thus being swung over in a direction to push the ejector plate or piece 24 which in turn ejects a card to the delivery chute.

In the event of the cards fouling the ejector plate or piece 24, so that the latter fails to function, with the lever 26 remaining stationary, and the reciprocal movement of the rod 27 stopped, the crank 29 by its pin 30 or other projection traverses along the slot 28, against the action of the spring 31, and merely imparts to the rod 27 a pivotal lift-and-fall action from its jointed end 27a with the ejector lever 26, so that the shaft 12 is free to continue its rotation without obstruction. By this means, no damage can be caused to the electric motor or other parts of the mechanism which would be likely to occur if the horizontal shaft 12 was prevented from rotating.

The ratchet wheel 14 may be engaged by detents 32 to momentarily lock the slide carrier 3 in position for viewing the exhibits.

In order to prevent a second coin being inserted in the coin chute 15 before one has got clear and so fouling the mechanism, a spring-controlled pivoted bell-crank trigger 33 is mounted on the machine frame 1, said trigger having an upstanding arm with a horizontally-projecting wire keeper bar 34 which projects into the upper end of the coin chute 15 upon disengagement from the lower arm of the trigger of a radially-projecting trip arm 35 on the driving shaft 12 when the latter is set in rotation by a coin falling on the release lever 16. The keeper bar 34 is withdrawn from the coin chute 15 by the trip arm engaging the lower arm of the trigger upon completion of the action.

Having now particularly described and ascertained the nature of my said invention and in what manner the same is to be performed, I declare that what I claim is:—

1. A coin-freed mystic mirror and like machine consisting of a globe or casing simulating a crystal gazer having a view tube therethrough provided with a mirror

70

75

80

85

90

95

100

105

110

115

120

125

130

- transparent upon illumination, transparent exhibits exteriorly of the globe or casing and movable into register with the view tube, and a screened illuminating agent at the rear of the exhibits operating in such manner that the mirror normally reflects an observer's image which dissolves or fades away upon illumination and displays the exhibit.
2. A coin-freed mystic mirror and like machine consisting of a globe or casing simulating a crystal gazer having a view tube therethrough with a mirror transparent upon illumination at the rear of the tube, an exhibit carrier below or at the rear of the globe or casing with transparent exhibits adapted to be brought opposite and to the rear of the mirror, and in register with the view tube, and a screened rear illuminant for illuminating the exhibits and the mirror.
3. A coin-freed mystic mirror and like machine according to Claim 2, wherein the exhibit carrier is provided with a series of slide bars or holders for receiving slide plates containing the exhibits, said carrier being rotatable to bring the exhibits individually opposite the mirror.
4. A coin-freed mystic mirror and like machine according to Claim 1 or 2 wherein slide plates are brought opposite the mirror by an intermittent rotation of the exhibit carrier derived from a ratchet wheel on a vertical spindle being hit by a trip arm when an electric circuit is "made" on the insertion of a coin.
5. A coin-freed mystic mirror and like machine, according to Claim 1 or 2 consisting of a coin chute having a release lever projecting therein which is pivotally connected to an angularly related arm carrying a contact piece adapted to make contact with an insulated contact piece on a driving shaft upon depression of the release lever by a coin, said insulated contact piece returning the release lever to the projected position in the coin chute.
6. A coin-freed mystic mirror and like machine according to Claim 1 or 2 having the feature of a bell-crank trigger to one arm of which is connected a horizontally projecting keeper bar having one end adapted to project in a coin chute, and a trip arm on a driving shaft adapted to hit the other arm of the trigger so as to withdraw the keeper bar from the coin chute.
7. A coin-freed mystic mirror and like machine, according to Claim 1 or 2 consisting of an ejector plate or piece operating below a pile of cards having an ejector lever pivotally connected with an angularly related rod and a crank upon a horizontal driving shaft, so that upon rotation of the shaft, a rocking action is imparted to the rod and ejector lever and the ejector plate or piece is thrust forward to push a card to a delivery chute.
8. A coin-freed mystic mirror and like machine according to Claim 7 wherein the rod has a longitudinally disposed slot and the crank has a side pin or other projection engaging the slot and adapted to traverse along the same, whereby if the ejector lever remains stationary, the driving shaft is free to rotate.
9. A coin-freed mystic mirror and like machine according to Claim 8, wherein the crank is connected by a spring element with the slotted rod whereby a retractive pull is exerted upon the latter and the acting arm of the ejector lever caused to press forward the card ejector plate or piece.
10. A coin-freed mystic mirror and like machine substantially as described with reference to the accompanying drawings.

Dated the 14th day of November, 1930.

GEORGE T. MILLARD,
Warwick Chambers, Corporation Street,
Birmingham,
Agent for the Applicant.

FIG. 1.

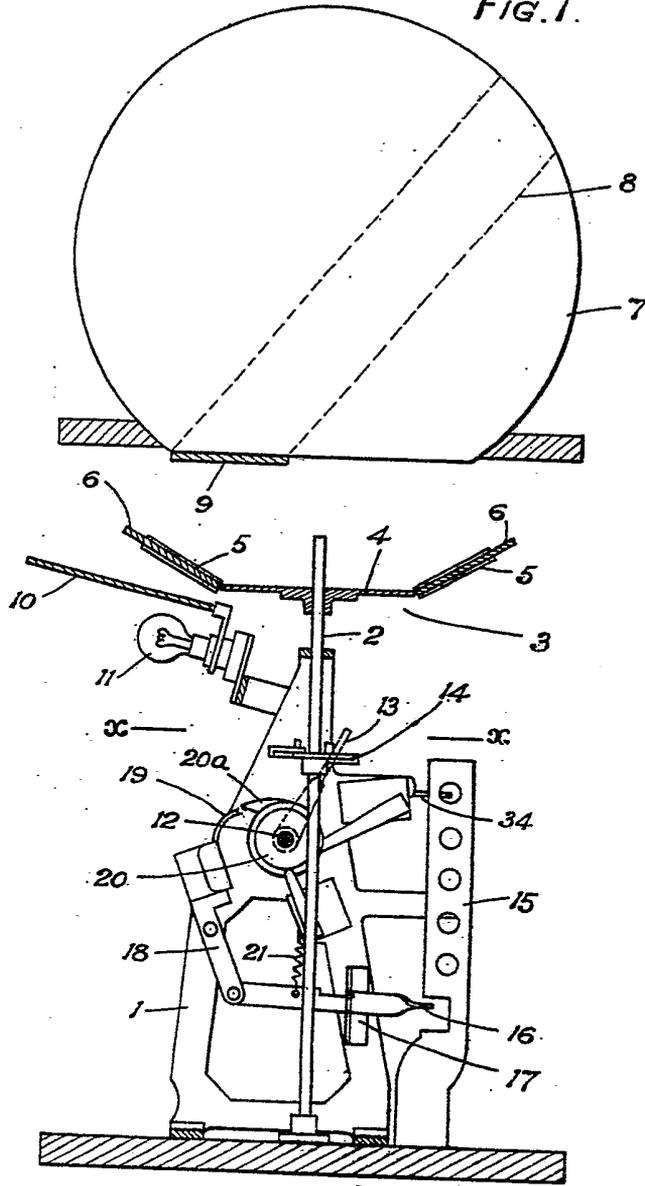
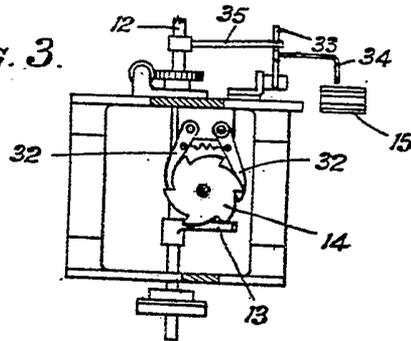


FIG. 3.



[This Drawing is a reproduction of the Original on a reduced scale.]

26
265

FIG. 2.

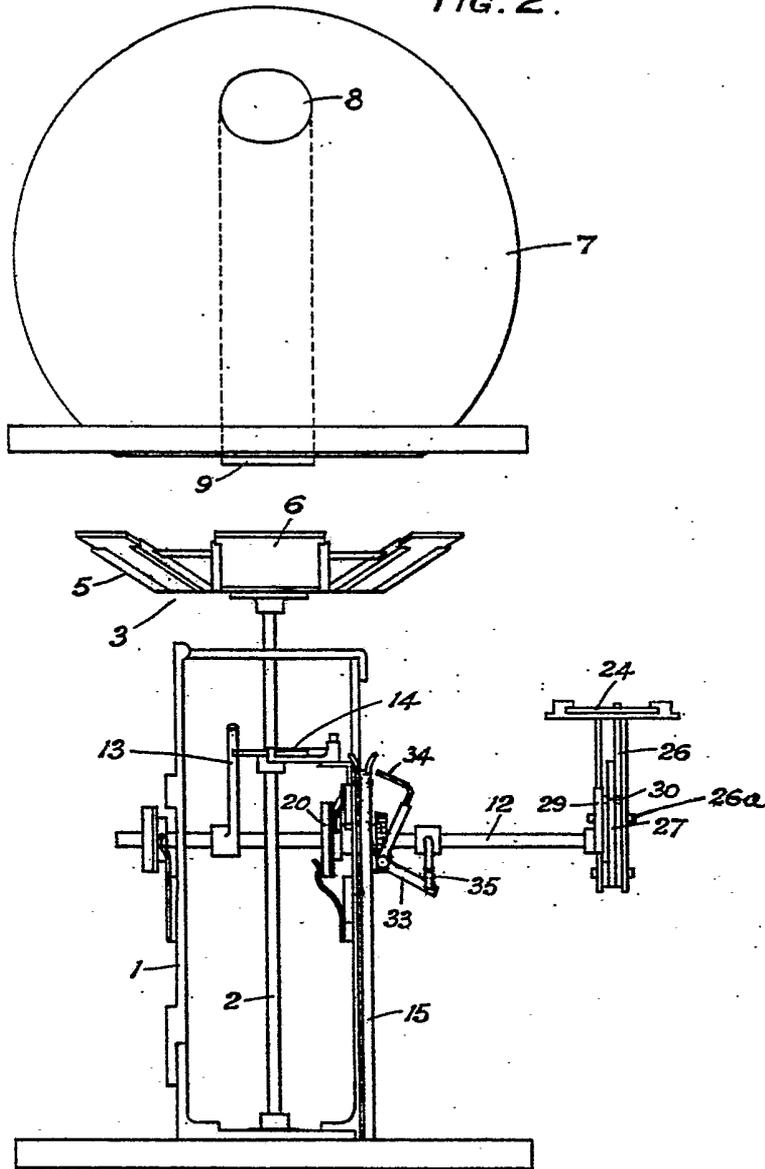
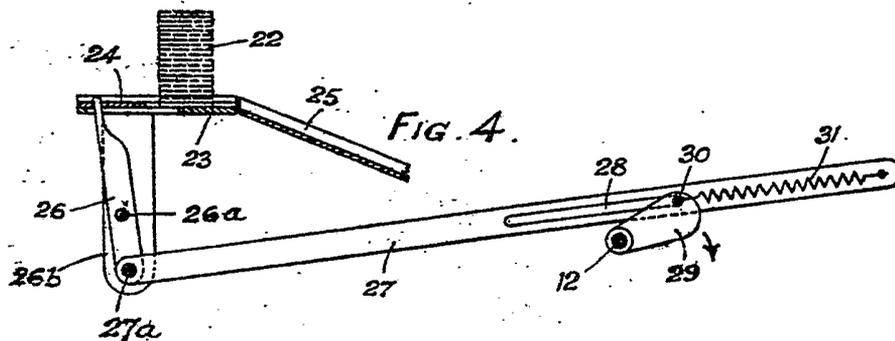


FIG. 4.



[This Drawing is a reproduction of the Original on a reduced scale.]

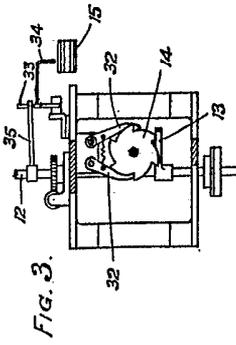
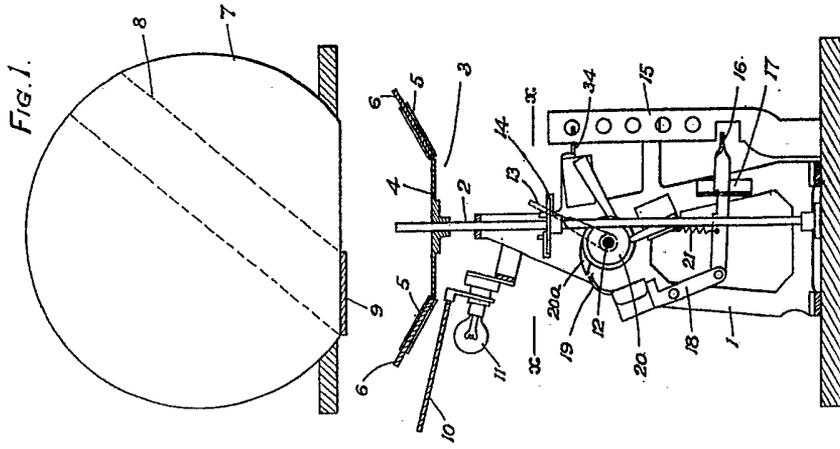


Fig. 2.

