

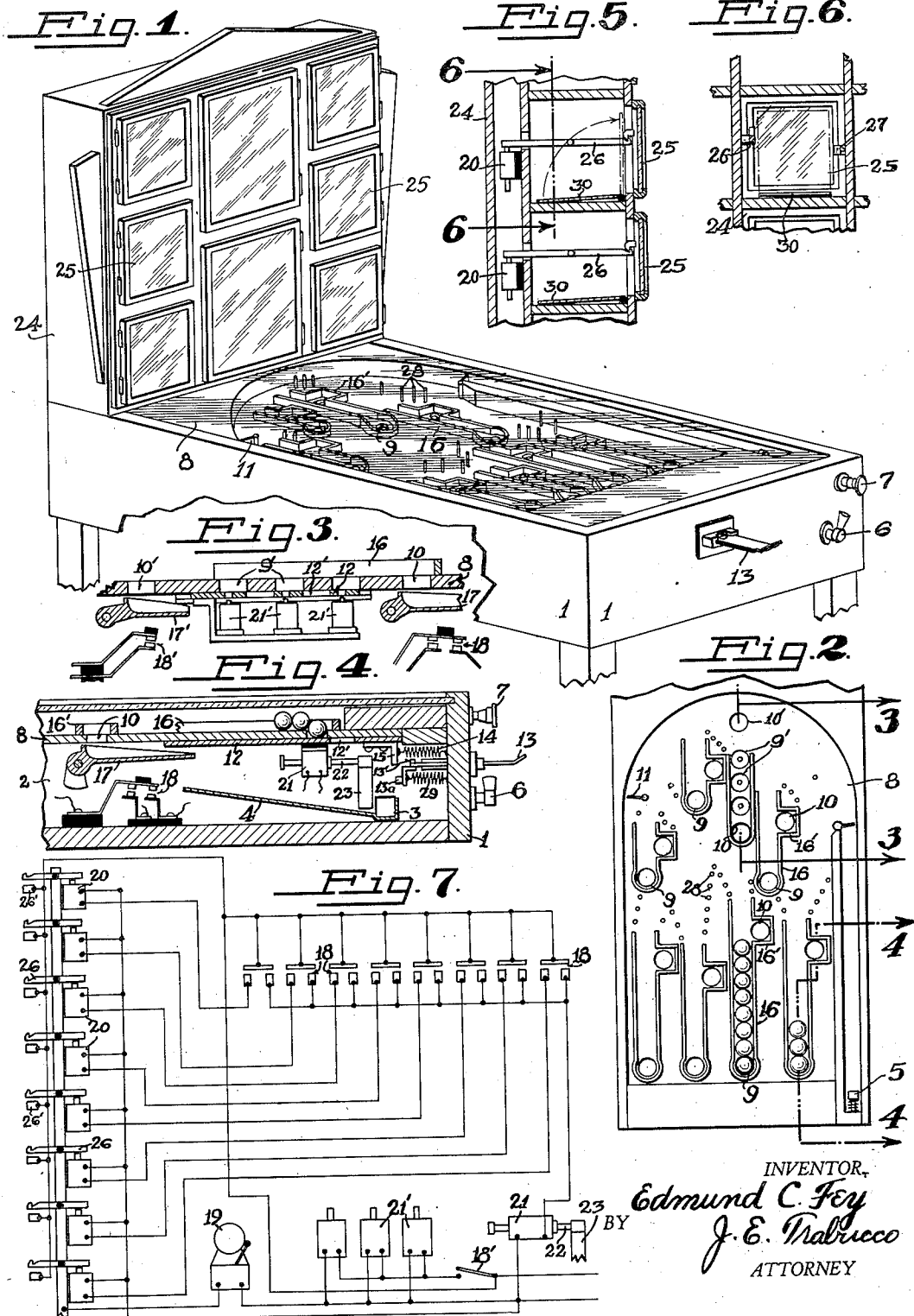
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E. C. FEY

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AMUSEMENT APPARATUS

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## UNITED STATES PATENT OFFICE

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## AMUSEMENT APPARATUS

Edmund C. Fey, San Francisco, Calif., assignor to  
Rock-Ola Manufacturing Corporation, Chi-  
cago, Ill., a corporation of Illinois

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This invention relates to improvements in amusement apparatus.

An object of my invention is to provide an improved amusement device of the type employing a tilted game board with holes or goals therein and a plurality of playing pieces which are capable of being directed in accordance with the skill of the player into the goals.

Another object of my invention is to provide an improved amusement device of the type characterized, having automatic means associated therewith for dispensing merchandise or the like when a player has successfully directed a number of playing pieces into a certain goal.

A further object of my invention is to provide an improved amusement device of the type characterized, embodying prize or merchandise dispensing mechanism which is automatically operated to reward a player's skill in directing a number of playing pieces into a goal.

A still further object of my invention is to provide an amusement device of the type characterized, having individual automatic latch unlocking means associated with each of its various goals which is capable of being actuated upon the successful directing of a number of playing pieces into a goal, thereby opening a door to a receptacle or compartment where a prize or article of merchandise is located.

Other objects more or less apparent will present themselves or will be specifically pointed out as this description progresses.

In the accompanying drawing:

Fig. 1 is a perspective view of amusement apparatus embodying the preferred form of my invention;

Fig. 2 is a top plan view of an inclined game board constructed in accordance with my invention;

Fig. 3 is a sectional view taken on the line 3—3 of Fig. 2;

Fig. 4 is a sectional view taken on the line 4—4 of Fig. 2;

Fig. 5 is a vertical sectional view taken through a number of merchandise or prize containing compartments of an end cabinet;

Fig. 6 is a sectional view taken on the line 6—6 of Fig. 5; and

Fig. 7 is a wiring diagram forming a part of my invention.

Referring to the drawing the numerals 1—1 designate the sides of a suitably shaped casing having a longitudinally disposed vertical partition 2 therein which is provided with a suitable opening 3 at its lower edge for the passage there-

through of spherical balls or playing pieces rolling downwardly over an inclined chute or plate 4. Although not shown, suitable elevating mechanism of the type commonly employed in games of this type is used to raise the playing pieces passing through the opening 3 to positions where they may be struck by a spring pressed plunger 5. An operating handle 6 for actuating the elevating mechanism as well as a handle 7 carried by the spring pressed plunger 5 are located on the front side of the casing.

Extending from the rear wall of the casing to a point near its front side is a forwardly sloping game board 8 which is provided with a plurality of prearranged holes or goals 9 and 10. A spring buffer 11 is positioned to intercept playing pieces after they have been actuated by the plunger 5 around the top edge of the game board 8. Slidably supported at its opposite side edges by projections or grooves located at opposite sides of the casing is a panel 12 which underlies the game board 8 and normally supports the playing pieces entering the holes or goals 9. The panel 12 is provided with corresponding holes 12' which are capable of being brought into registry with the holes 9 when the said panel 12 is actuated by a coin slide member 13 in a rearward direction. A spring 14 attached to a projection 15 on the panel 12 and to the front side of the casing serves to normally maintain the said panel in a position wherein its holes 12' are not in registry with the holes 9 of the game board 8, thereby affording means for normally supporting those playing pieces falling into the holes 9. The coin slide member 13 is so associated with the mechanism for elevating the playing pieces that a coin placed on the said slide and moved inside the casing will permit the said mechanism to be operated by the handle 6 so as to successively elevate a certain number of playing pieces to a point where they may be struck by the plunger 5. The coin slide member 13 carries an upwardly disposed projection 13' which intercepts the projection 15 on the panel 12 when the said member is moved rearwardly, thereby affording means for moving the said panel in a rearward direction so as to bring its holes 12' into registry with the goals or holes 9 of the game board 8, thus permitting any previously supported playing pieces to drop onto the inclined chute 4 and become available for further play.

Suitably secured to the upper surface of the game board 8 are a number of barriers 16 each of which is preferably, though not necessarily, of a general hair pin shape with its centrally

bent portion extending around the lower edge of its associated goal 9 and its substantially parallel legs extending upwardly and separated at their ends so as to allow suitable space for the entry of playing pieces into its confines. One of the legs of each barrier 16 is bent outwardly, as at 16', around a hole 10 provided at a prearranged point in the game board 8 with reference to the goal 9 with which the particular barrier is associated. Some of the barriers are longer than others and are thereby capable of maintaining a greater number of playing pieces within their confines than those which are shorter. When a certain number of playing pieces have entered a certain barrier and have built or extended their line up to the outwardly bent part 16', the next playing piece entering that barrier will roll over to the hole 10 located within the confines of the said outwardly bent part, and will thereupon pass downwardly through said hole. Since the panel 12 does not extend in a supporting position beneath any hole except the particular goals 9 which are located just above the centrally curved part of the barriers 16, the playing pieces entering the holes 10 are free to drop therethrough. Underlying each of the holes 10 is a counter-balanced channel member 17 which is pivotally mounted at its rear end on any suitable pivot such as a shaft extending across the inside of the casing. A playing piece entering any of the holes 10 will drop upon a channel member 17, and by reason of its added weight will cause the said member to move downwardly about its pivot to a position whereby a resilient arm of a normally open switch 18 is encountered and closed. The switches 18 are each provided with double contact points, one of which is electrically connected to an individual electro-magnet 20, which is also connected in the circuit leading to the source of power. The other contact point of each switch 18 is connected in an electrical circuit leading from a source of electrical power to an electro-magnet 21, the armature 22 of which is provided with a gate 23 that is adapted to close the opening 3 in the partition 2. When any one of the switches 18 is closed the electro-magnet 21 is energized, thereby causing its armature 22 to move so as to carry the gate 23 into a position closing the opening 3, thus preventing any playing devices from passing into a position where they may become available for immediate play. In order to move the armature 22 and the gate 23 back into their normal positions, the coin slide 13 is provided with a downwardly disposed projection 13a that encounters the said gate when the coin slide is moved rearwardly.

Mounted at the rear end of the casing is a cabinet 24 having its interior divided into a number of individual compartments which are normally closed by glass paneled doors 25. The compartments are each associated with a certain barrier 16 and goal 9, and if so desired a certain designating mark or numeral may be displayed on the game board near each goal and also on the corresponding door 25 having an association therewith. The compartments are for the purpose of holding prizes or articles of merchandise, and by skillfully directing such a number of the playing pieces into any one of the barriers that the last one played is finally caused to pass through its associated hole 10, the door 25 of the particular compartment associated with the barrier and hole 10 through which the playing piece has passed, is thereupon opened and the contents of this compartment made available to the

successful player. The doors are each normally maintained in a closed position by a centrally pivoted latch member 26, the forward end of which detachably engages with a catch on the door. The rear end of the latch members are each secured to the armature of the particular electro-magnet 20 which is associated therewith. When a certain switch 18 is closed by a playing piece passing through a hole 10 and actuating its associated channel member 17 in a downward direction, the particular electro-magnet connected to the switch is energized, thereby causing its armature to move the connected latch member to a position whereby its associated door is opened. Each door is preferably provided with a leaf spring 27 which throws the door open when the latter becomes unlatched. A separate electric contact point 26', connected in multiple with a signal giving device 19, such as a bell, is associated with each latch member 26, and when the said latch member is moved to an unlatching position it contacts with the contact point 26' and completes the circuit to the bell, which continues ringing until the door is closed.

A hinged panel 30 normally held by the weight of an article resting thereon is a horizontal position against the floor of each compartment is moved upwardly by a spring hinge to a position closing the door opening when the said door 25 is unlatched and the article removed.

Located near the top rear end of the playing board is a hole 10' which also has a channel member 17' and a single contact switch 18' associated therewith. Positioned directly in front of the hole 10' are a number of aligned holes or goals 9' each of which is normally closed by the slidable supporting panel 12. Mounted on the panel 12 and normally positioned directly beneath the goals 9', are a corresponding number of electro-magnets 21', which are connected in series with the switch 18'. The armatures of the magnets 21' are adapted to project upwardly through small openings provided in the panel 12, and are so actuated when the switch 18' is closed by a playing piece passing through the hole 10'. Should a playing piece be located in any one of the goals 9' when another playing piece passes through the hole 10', the armatures of the electro-magnets 21' will project upwardly and boost the said playing piece from the particular goal within which it was lodged, thereby allowing it to proceed down to the next goal directly in front. Thus by directing a certain number of playing pieces into the hole 10', another playing piece previously entering the rear goal 9' may be moved in successive stages downwardly from one goal to another and finally into the hole 10 which is last in line. A playing piece passing through this particular hole will close a switch 18 in the manner described and will thereby also bring about the opening of a door associated with a particular compartment.

Suitably positioned at points near the open ends of the barriers 16 are a number of upwardly disposed pins 28 which are commonly employed as hazards in games of this kind. A spiral spring 29 normally maintains the coin slide member 13 in an outward disposed position.

It is apparent to those skilled in the art that my invention is susceptible of numerous changes with respect to form, shape and minor details of construction. It is, therefore, to be understood that the appended claims shall determine the limits my invention may assume rather than the exact disclosures herein made.

Having described my invention what I claim is:

1. In an apparatus of the character described, the combination of: a cabinet including a member providing a ball-playing surface provided with a ball-seat or pocket; a housing extending above said playing surface at one end of the latter and including an article storage compartment having an open side; a closure member movably mounted upon the said housing and normally closing the said open side of said article storage compartment; means normally urging the said closure member into open position; means normally latching the said closure member in closed position against the action of said urging means; and means actuated by a ball entering said ball-seat or pocket for releasing said latching means from latching engagement with said closure member so as to permit the latter to move into open position under the action of said urging means.

2. In an apparatus of the character described, the combination of: a cabinet including a member providing a ball-playing surface provided with a ball-seat or pocket; a housing extending above said playing surface at one end of the latter and including an article storage compartment having an open side; a closure member movably mounted upon the said housing and normally closing the said open side of said article storage compartment; means normally urging the said closure member into open position; means normally latching the said closure member in closed position against the action of said urging means; and means including an electromagnetic device actuated by a ball entering said ball-seat or pocket for releasing said latching means from latching engagement with said closure member so as to permit the latter to move into open position under the action of said urging means.

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