

Feb. 15, 1944.

C. A. SOLINSKI

2,342,018

GAME APPARATUS

Filed Dec. 14, 1942

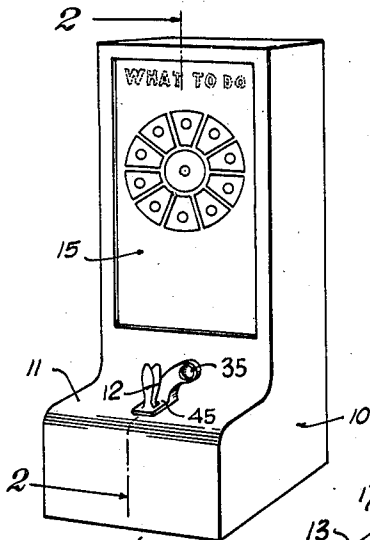


Fig. 1.

Fig. 2.

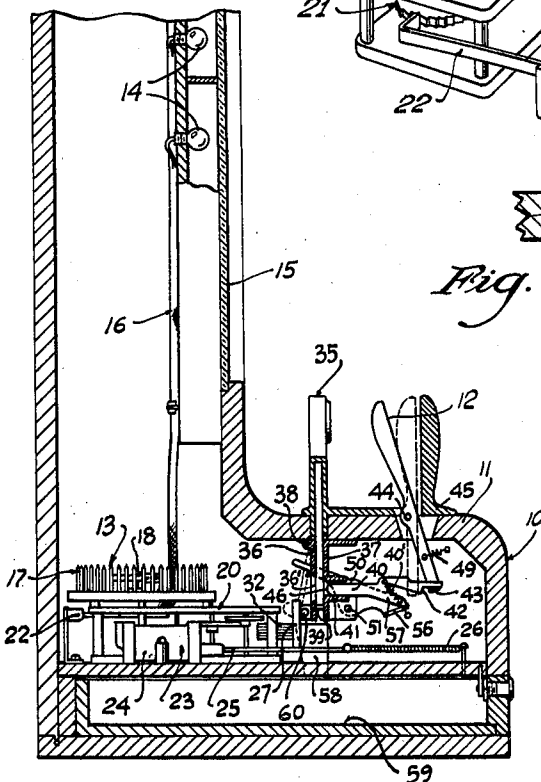


Fig. 3.

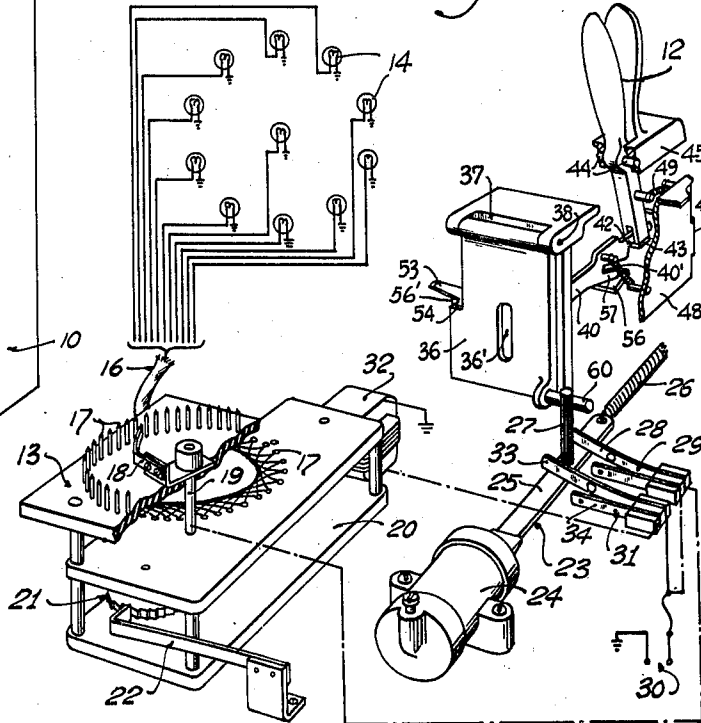


Fig. 4.

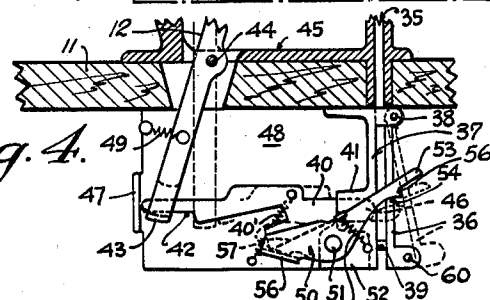
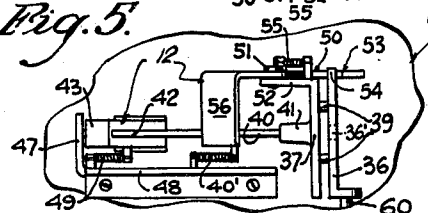


Fig. 5.



Charles A. Solinski
INVENTOR.

BY *Clarence E. Threedy*
HIS ATTORNEY.

UNITED STATES PATENT OFFICE

2,342,018

GAME APPARATUS

Charles A. Solinski, Chicago, Ill., assignor to The Exhibit Supply Company, Chicago, Ill., a corporation of Illinois

Application December 14, 1942, Serial No. 469,003

3 Claims. (Cl. 194—76)

This invention relates to amusement apparatus and more particularly to coin control mechanism therefor having as its principal object the provision of such device which will be simple in construction, economical in manufacture and highly efficient in use.

Another object of this invention is to provide a coin operated device for setting into operation a device arbitrarily indicating a certain objective to the amusement of the user.

Still another object of this invention is to provide an indicia changer to simulate a spinning disc for arbitrarily indicating one indicia means.

It is a further object of this invention to provide a hand controlled coin coupler for initially setting the amusement apparatus for operation.

Other objects will appear more fully hereinafter.

The invention consists in the novel combination and arrangement of parts to be hereinafter described and claimed.

The invention will be best understood by reference to the accompanying drawing showing the preferred form of construction, and in which:

Fig. 1 is a perspective view of a cabinet for an amusement apparatus embodying my invention;

Fig. 2 is a vertical sectional detail view of the same as seen along line 2—2 in Fig. 1;

Fig. 3 is a schematic diagram illustrating the working mechanism of my invention arranged in an electrical circuit forming a part thereof;

Fig. 4 is a fragmentary side elevational view of the hand operated coin control; and

Fig. 5 is a fragmentary bottom plan view of the same as seen from below in Fig. 4.

Referring to the drawing, Fig. 1 shows a cabinet 10 having a horizontal shelf 11 which supports a hand operated lever 12 for manual operation to initially operate a commutator switch 13 to successively illuminate a plurality of lamps 14 arranged behind a translucent panel 15.

The amusement apparatus illustrated in the drawing is intended to have certain indicia such as traits of character imprinted upon the panel 15 so that when the lamp 14 behind a particular indicia is illuminated the subject matter of the indicia opposite the lamp will be legible. Each of the lamps 14 is connected by a separate conductor 16 to a particular set of contact points 17 on the commutator 13. The contact points 17 are preferably, though not necessarily connected in circuits so as to cause a successive illumination of the lamps 14 as shown in Fig. 5.

The commutator has the usual rotor member 18 which is disposed on a central shaft 19 and

adapted to sweepingly engage the contact points 17 in succession. The shaft 19 is driven by an electric motor 20 through a train of gears 21 having a brake 22 in engagement therewith to frictionally engage the gear train and hold the latter in a fixed position after the momentum of the motor armature has been spent.

A time delay switch means 23 is arranged in the cabinet 10 and comprises a dash pot structure 24 like unto that shown in Patent No. 2,101,194, issued to Bruno Radtke on December 7, 1937.

The piston rod 25 of the dash pot 24 is normally extended by a spring 26 having its opposite end anchored in the cabinet. This rod 25 carries a projecting pin 27 which normally engages one contact element 28 of a switch 29 to dispose the latter in open circuit condition. Through this switch 29 the source of electric energy 30 is connected to the shaft 19 to supply current to the rotor member 18 whereby to complete circuit to the electric lamps 14 by way of conductor cable 16, each lamp being connected back to the ground connection of the source of electric energy 30.

A motor control switch generally indicated as 31 is also connected to the source of electric energy 30 to complete circuit to the coil 32 of the motor 20. This switch 31 is normally disposed in opened circuit condition and has one contact element 33 thereof disposed in the path of movement of the projecting pin 27 for deflection into closed circuit condition with its companion contact element 34.

The piston rod 25 of the dash pot 24 is moved inwardly by manual operation of the hand operated lever 12 when a coin of proper denomination is deposited through a gravity chute 35 arranged on the horizontal shelf 11. A coin so deposited is utilized to form a coupling between the handle 12 and an oscillatory plate 36. To accomplish this result a guide chute 37 is suspended from the underside of the shelf 11 in alignment with the gravity chute 35. The plate 36 is pivotally mounted as at 38 on the guide chute 37 in spaced relation with respect thereto, which spacing is affected by the position of the pivot support 38 and a pair of pins 39 extending laterally from the guide chute 37, the plate 36 being normally urged into normal spaced relation with respect to the guide chute 37 by the force of gravity. The plate 36 has a slot or aperture 36' formed therein, in alignment with a push rod 40, such push rod being normally effective to move the plate 36 when the coin has been deposited.

The push rod 40 is arranged for sliding horizontal movement in a sleeve 41 formed on the guide chute 37 and has its free end 42 notched and supported by a cross bar 43 formed on the under side of the hand operated lever 12 which in turn is pivotally mounted as at 44 on a mounting plate 45 arranged on the shelf 11. The push rod 40 is normally urged in a direction away from and downwardly with respect to the axis of the sleeve 41 by a spring 40', the coin abutting nose 46 of the push rod 40, however, being at all times in alignment with the sleeve 41 while the free end 42 of the push rod abuts a stop 47 on a depending plate 48. The hand operated lever 12 is normally urged into withdrawn position by a spring 49 where the cross bar 43 can engage the notched free end 42 of the push rod. As heretofore explained the push rod 40 will pass through the guide chute 37 and the slot 36' in the plate 36. However, when a coin is deposited in the gravity chute 35 it drops down into the guide chute 37 and is supported by the pins 39 to block passage of the push rod 40 through the plate 36. Now, when a person grasps the hand operated lever 12 and pivots the latter against the action of the spring 49, the cross bar 43 engages the notch at the end 42 of the push rod and shifts the latter (to the right Fig. 4) thus pivoting the plate 36 away from the guide chute 37.

A trip lever 50 is pivotally mounted as at 51 on a side wall 52 of the guide chute 37 and has a trigger finger 53 with a shoulder portion normally disposed on a ledge 54 on the plate 36 by the action of a spring 55 connected to the lever 50 and anchored to the side wall 52. The opposite end of the trip lever 50 has an inwardly projecting trip ledge 56 disposed in engagement with a depending finger 57 on the push rod 40. The arrangement is such that when the plate 36 is swung away from the guide chute 37 as aforesaid (see Fig. 4), the ledge 54 thereof will be moved from under the shoulder on the trigger finger 53 so that the latter may drop onto the ledge 54 by action of spring 55. The trip lever 50 then rocks (clockwise Fig. 4) to elevate its opposite end and trip ledge 56 to push upwardly the depending finger 57 to tilt the bar 43 upwardly and disengage the bar 43 from the cross-bar 43 to permit the rod to be withdrawn by the spring 40' to release the coin deposited which is free to drop into a hopper 53 for guidance into a cash drawer 59. Upon the return movement of the push rod 40 in the manner stated the finger 57 bears against the trip ledge 56 rocking the lever 50 in an anti-clockwise direction to disengage the shoulder 56' near the end of the finger 53, from the plate 36 permitting the plate 36 to return to its normal position shown in full lines (Fig. 4).

The swinging movement of the plate 36 is transmitted to the projecting pin 27 on the time delay switch 23 through a lateral projecting pin 60 on the plate 36. By the movement of the plate 36 the piston rod 25 is moved inwardly with respect to the dash pot 25 and the projecting pin 27 moved away from the contact element 28 on the switch 29 to permit the latter to assume closed circuit condition to energize the commutator circuit. At the same time the projecting pin 27 engages the contact element 33 of the motor control switch 34 to dispose the latter in closed circuit condition for energizing the motor 20. The dash pot 24 is so constructed as to permit easy movement of the piston rod 27 as aforesaid,

but retards the return movement thereof, by action of the spring 26. In this manner even though the hand controlled lever is operated and tripped, the switches 29 and 31 are maintained in closed circuit condition for a predetermined lapse of time.

The motor 20 being energized, the commutator rotor 18 will revolve to cause successive illumination of the lamps 14 simulating a spinning light on the panel 15 the piston rod 27 in the meantime is gradually moved toward reset position by the spring 26, the projecting pin 27 first releasing the motor contact switch 31 to de-energize the motor 20 thus leaving but one of the lamps 14 illuminated to indicate or render legible one particular indicia member. The lamp 14 so illuminated remaining lit for a predetermined lapse of time until the projecting pin 27 engages the contact element 28 to break circuit through the switch 29. Having thus completed a cycle operation the apparatus is ready for another such operation upon the deposit of another coin.

While I have illustrated and described the preferred form of construction for carrying my invention into effect, this is capable of variation and modification without departing from the spirit of the invention. I, therefore, do not wish to be limited to the precise details of construction set forth, but desire to avail myself of such variations and modifications as come within the scope of the appended claims.

Having thus described my invention, what I claim as new and desire to protect by Letters Patent is:

1. In a device of the class described including a guide chute having an open side wall, an actuating plate pivotally mounted on said guide chute and normally closing said open side wall, means for maintaining said plate in spaced relation with respect to said guide chute and to detain a coin therebetween, aligned apertures formed in said guide chute and said plate in the region of detention of a coin therebetween, a reciprocable element arranged to move through said aligned apertures and transversely of said guide chute and said plate, manually operable means operatively engaging said reciprocable element to move the latter in a direction through said aligned apertures whereby to abut a detained coin and pivot said plate, and a trip lever pivotally mounted on said guide chute for disengaging the reciprocable element from said manually operable means when said plate is pivoted as aforesaid, and means for pivoting said trip lever upon said pivotal movement of said plate.

2. In a device of the class described including a guide chute having an open side wall, an actuating plate pivotally mounted on said guide chute and normally closing said open side wall, means for maintaining said plate in spaced relation with respect to said guide chute and to detain a coin therebetween, aligned apertures formed in said guide chute and said plate in the region of detention of a coin therebetween, a reciprocable element arranged to move through said aligned apertures and transversely of said guide chute and said plate, manually operable means operatively engaging said reciprocable element to move the latter in a direction through said aligned apertures whereby to abut a detained coin and pivot said plate, and trip means for releasing said reciprocable element from said manually operable means when said

plate is pivoted as aforesaid, said trip means comprising a lever pivotally mounted on said guide chute, a stepped trigger finger on one end of said lever and spring means normally urging said finger into engagement with said plate, and a trip ledge on the opposite end of said lever and engaging said reciprocable element whereby when said plate is pivoted said lever will pivot to urge said trip ledge toward said reciprocable element for the purpose aforesaid.

3. In a device of the class described including a guide chute having an open side wall, an actuating plate pivotally mounted on said guide chute and normally closing said open side wall, means for maintaining said plate in spaced relation with respect to said guide chute and to detain a coin therebetween, aligned apertures

5 formed in said guide chute and said plate within the area of the coin when such coin is detained in the guide chute, a reciprocable element arranged to move through said aligned apertures and transversely of said guide chute and said plate when there is no coin in the chute, manually operable means operatively engaging said reciprocable element to move the latter in a direction through said aligned apertures whereby to abut a detained coin and pivot
10 said plate, trip means for releasing said reciprocable element from said manually operable means when said plate is pivoted as aforesaid, and means to retract said reciprocable element
15 when the same is released from the manually operable means.

CHARLES A. SOLINSKI.