

[54] **COIN-OPERATED TRAINED ANIMAL AMUSEMENT APPARATUS**

2,925,275 2/1960 Schlapa.....273/88
3,297,324 1/1967 Evans.....119/29 X

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[57] **ABSTRACT**

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A trained animal amusement apparatus in which a trained chicken or other animal in a containing compartment engages a person in a game of skill which takes place in a playing compartment. Electric circuitry is provided to enable a trained animal and a person to participate in a sequential game. Provision is expressly made to prevent both players from operating at the same time. A solenoid controlled impeller is provided to direct a ball towards a target. Alternative switching provides for separate turns for the trained animal and person. Scoring may be registered when the ball goes through a target in one embodiment. The trained animal is rewarded for successful completion of its specified routine of performance or game task.

[21] Appl. No.: **160,862**

[52] U.S. Cl.....194/12, 119/29

[51] Int. Cl.....A01k 15/00

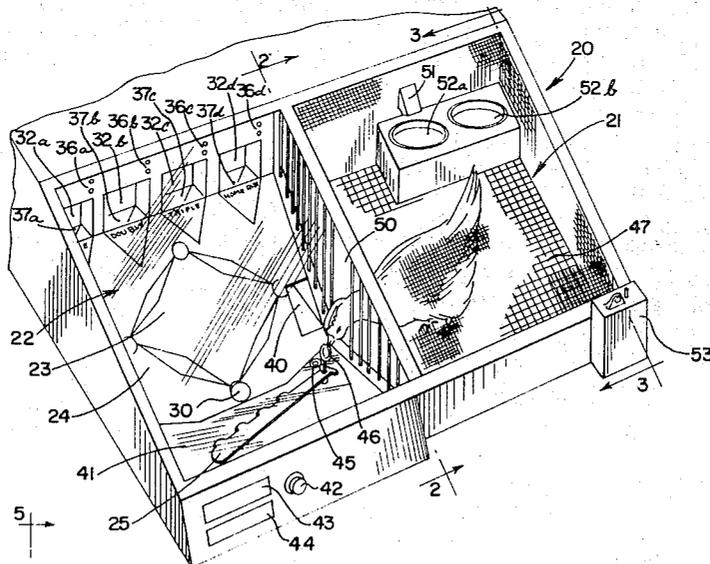
[58] Field of Search.....194/12, DIG. 11;
273/1 R, 89, 90, 87, 88, 118, 118 A, 119 A,
120 A; 119/29

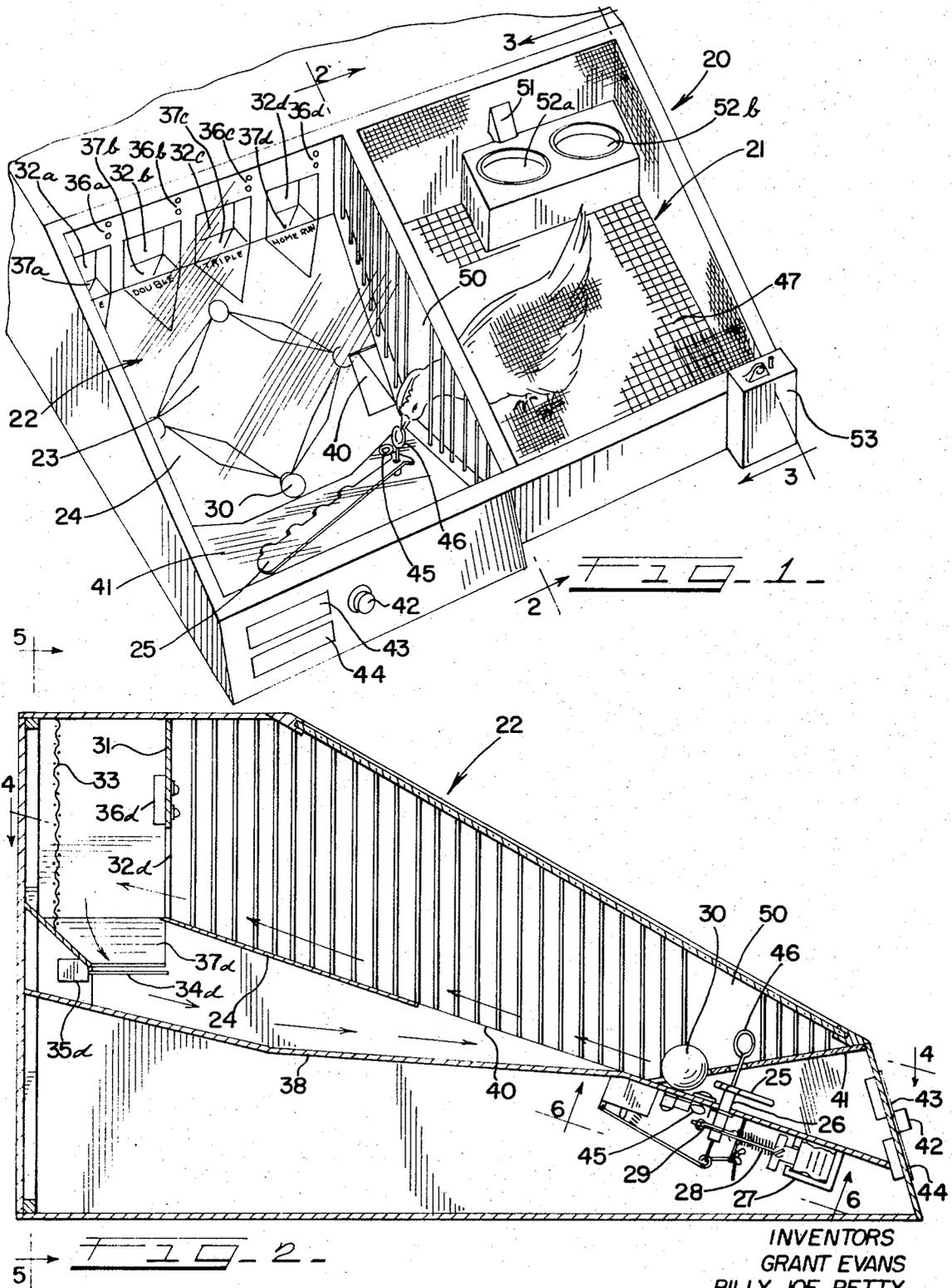
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16 Claims, 14 Drawing Figures





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FIG. 3.

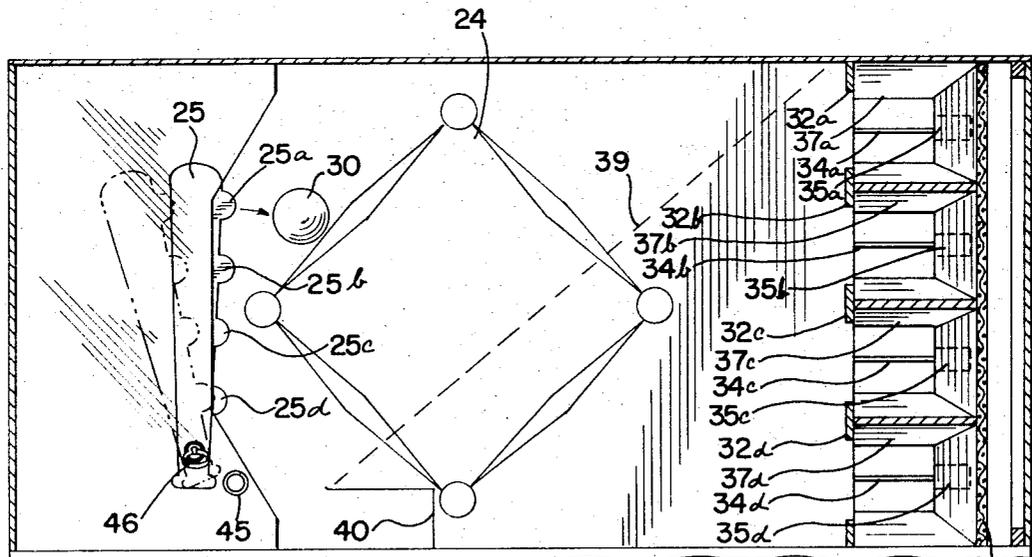
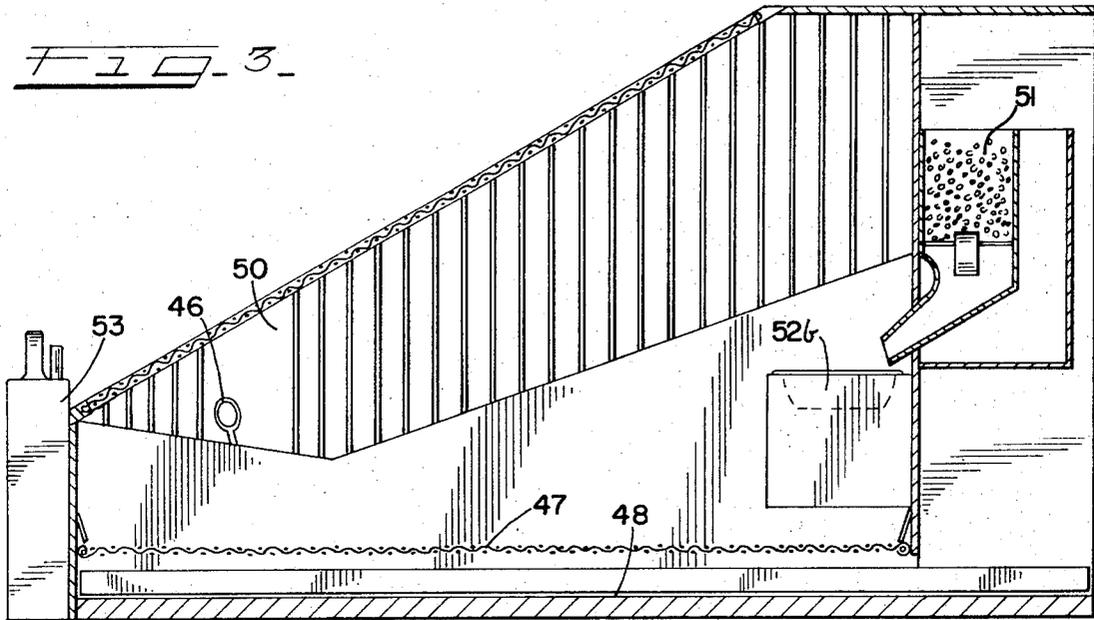


FIG. 4.

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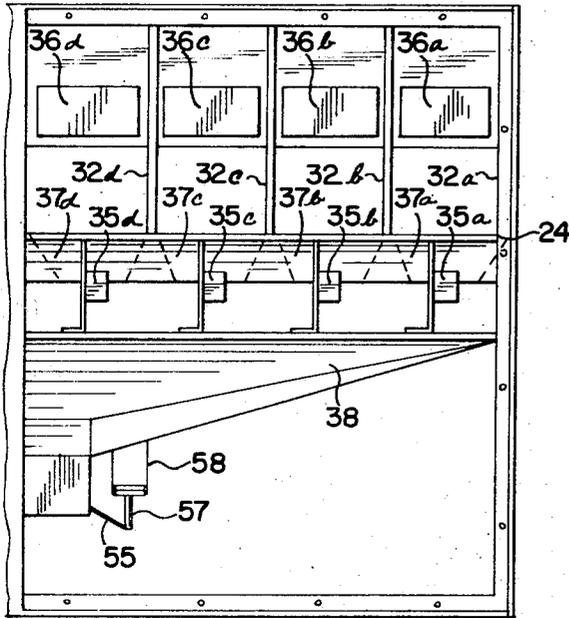


FIG. 5.

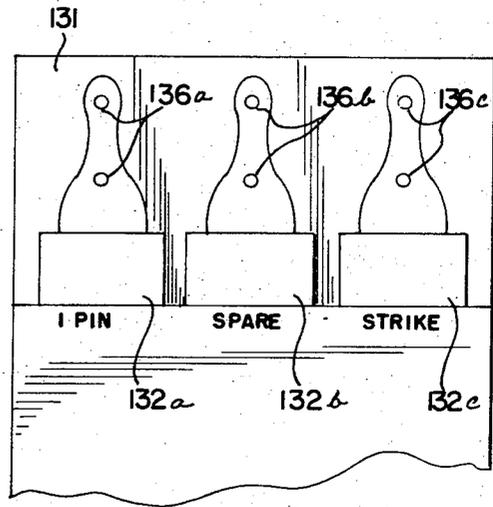


FIG. 7.

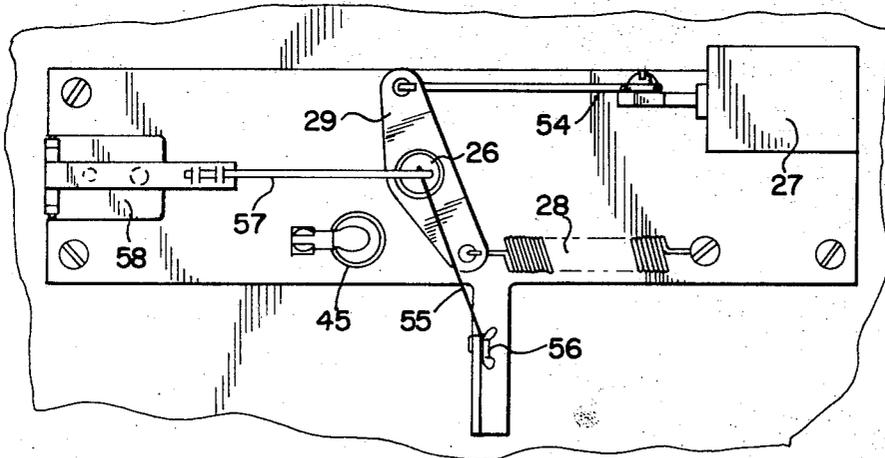
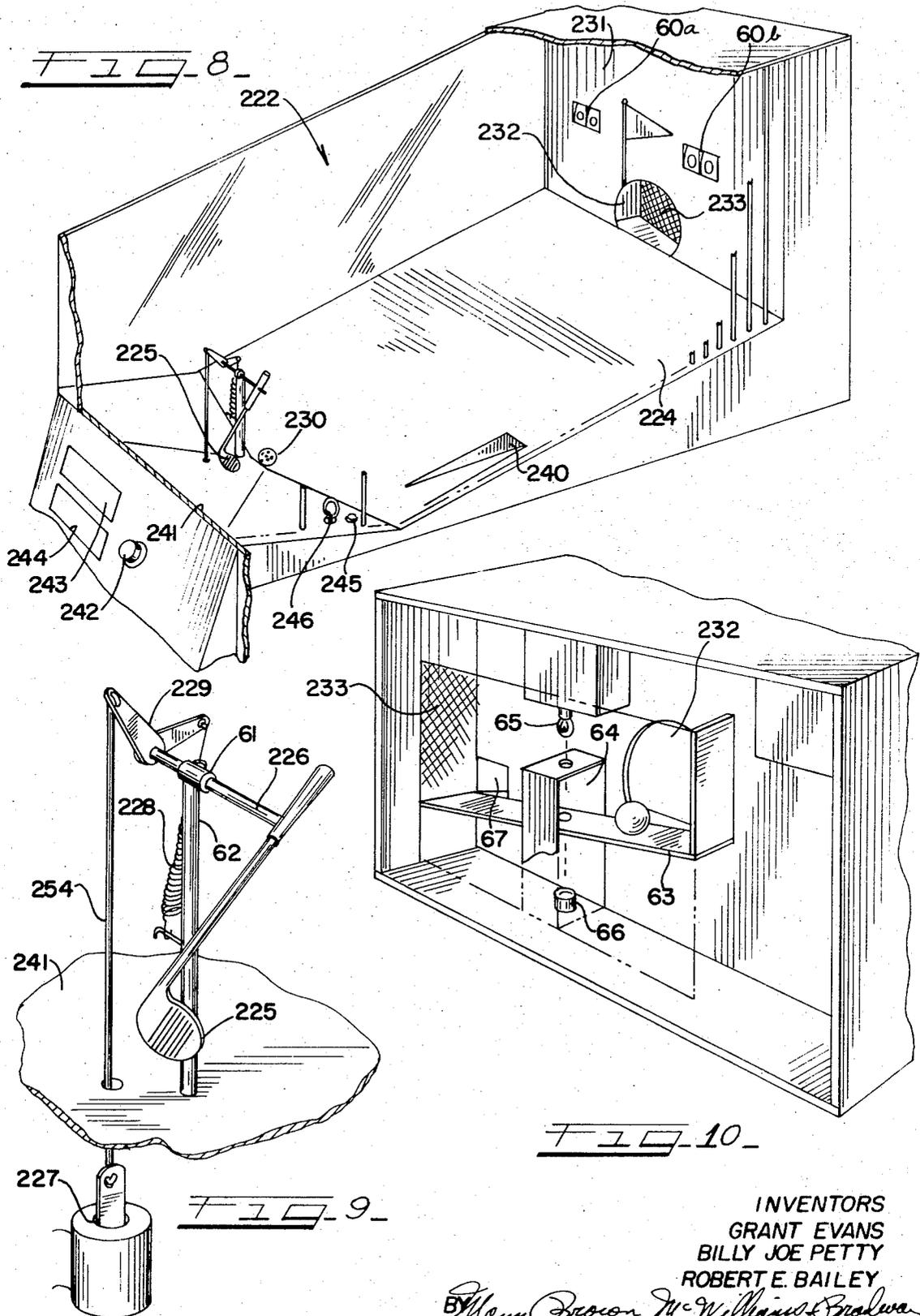


FIG. 6.

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FIG-11

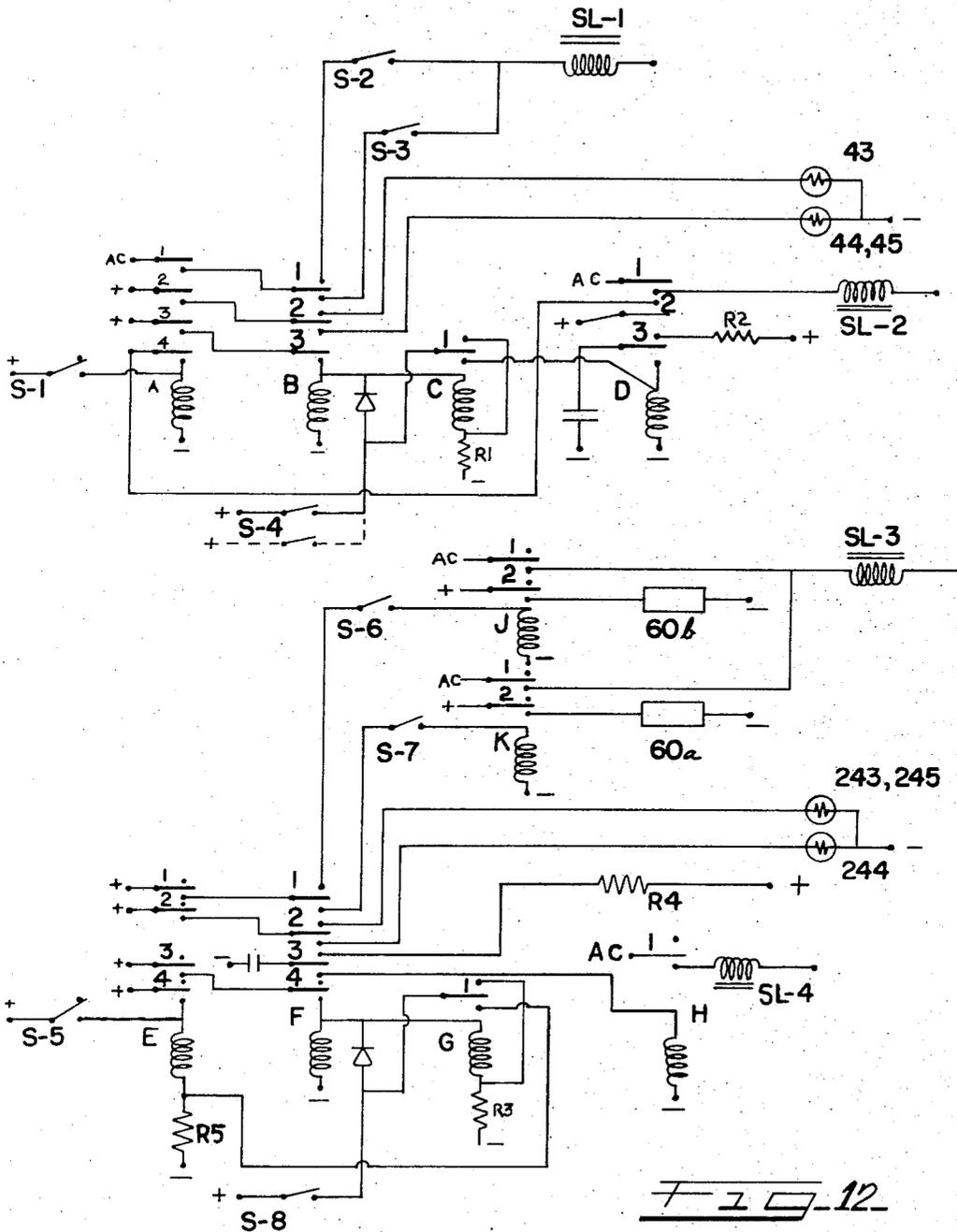


FIG-12

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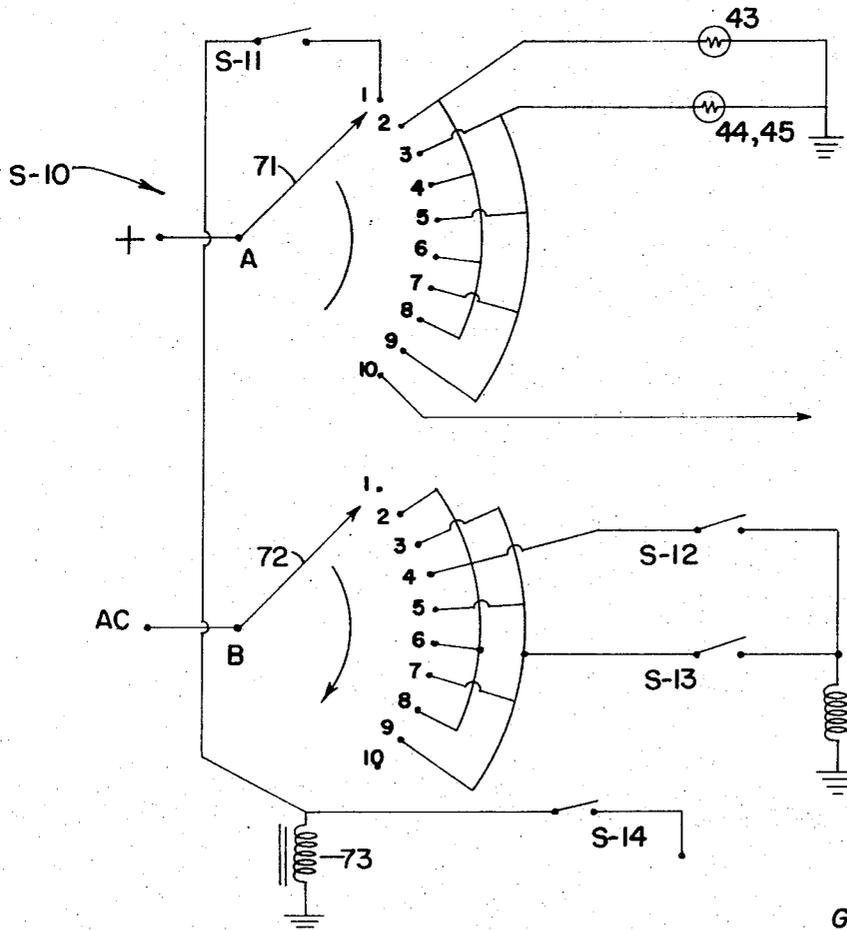
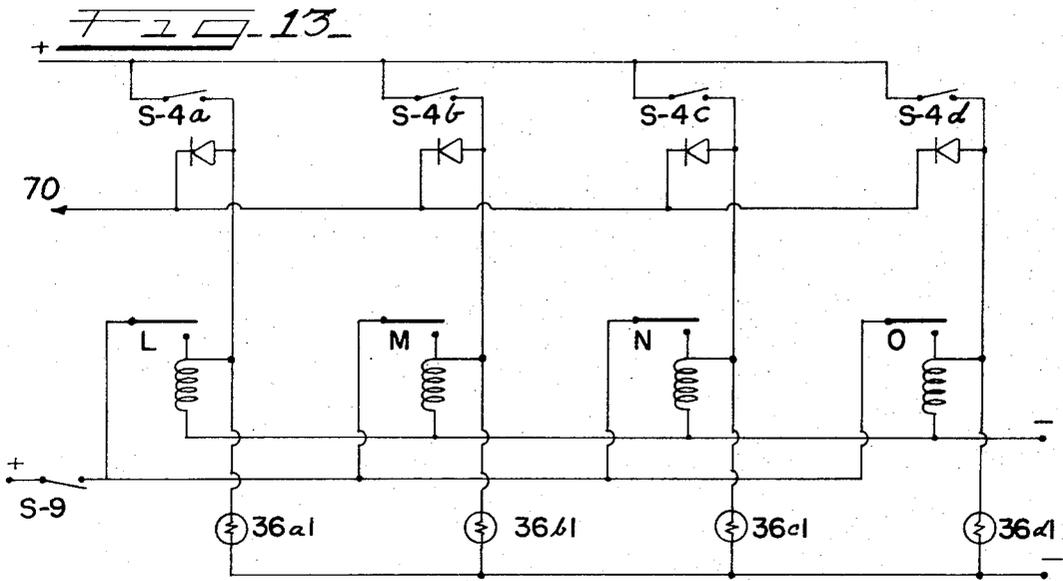


FIG. 14

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COIN-OPERATED TRAINED ANIMAL AMUSEMENT APPARATUS

BACKGROUND OF INVENTION

This invention pertains to trained animal amusement devices wherein a trained animal performs a game task to provide competition for a person in an alternating turn game, such as baseball, bowling or the like. Chickens, cats, rabbits and other small animals have been trained to do simple tasks or tricks, the conditioning resulting from providing a reward stimulus for completing the activity in a predetermined manner. Thus, such animals, after successfully performing, have been manually rewarded by a trainer or other attendant who observed the performance. Devices which measure the performance of the trained animal, such as described in U. S. Pat. No. 3,297,324, have been used to automatically provide a reward to the successfully performing animal.

The present invention provides a relatively equal contest involving a predetermined sequence of operations between a person and a trained animal. A signal is given to a player to commence play. The player performs a game task such as closing a switch to key an impeller solenoid to drive a ball towards a target. Successful play cycles the device to operation by the other player. Scores may be registered to compare the difference in performance by the trained animal and person, and a reward is provided to the trained animal for completing a scoring cycle.

SUMMARY OF THE INVENTION

In an exemplary form, this invention pertains to a trained animal amusement device comprising a two compartment cabinet, one compartment of which is designed to contain a trained animal, such as a chicken, so that it may be viewed by the public and may operate a playing mechanism. The second compartment displays a playing field which may be decorated to suggest a miniature baseball diamond or the like. A means for a person to operate the playing mechanism is located outside the cabinet, as is the switch, often coin-operated to turn on the device, which provides for play by the initiation of a predetermined series of operations. In one simple form, the events might be programmed as follows: operation of the coin switch by insertion of a coin cues the person to use his impelling device by closing a switch repeatedly until he registers a score with the ball, scoring by the person activates a lockout and cycling circuit which prevents further play by the person and provides a trained chicken with a cuing signal indicating that it should operate its switch until it can register a score, and upon scoring the trained chicken will be rewarded with a predetermined amount of feed from an electrically activated feeder. Score may be displayed on small lights in the vicinity of the target area.

BRIEF DESCRIPTION OF THE DRAWINGS

FIG. 1 is a general perspective view of the device of the invention as might be used in a baseball-type game;

FIG. 2 is a vertical sectional view of the playing area thereof, taken along line 2—2 of FIG. 1;

FIG. 3 is a vertical sectional view of the animal containing compartment thereof, taken along line 3—3 of FIG. 1;

FIG. 4 is a sectional plan view taken along line 4—4 of FIG. 2 illustrating the playing area;

FIG. 5 is a rear elevation of the device along line 5—5 of FIG. 2 with the back removed;

FIG. 6 is a detailed view of the impeller mechanism along line 6—6 of FIG. 2;

FIG. 7 is a detailed front elevational view of the rear bulkhead of the playing area in a bowling embodiment of the device;

FIG. 8 is a perspective view with parts broken away to show the playing area where the game is one of low scoring, such as golf;

FIG. 9 is a detailed perspective view of the impelling apparatus of the device of FIG. 8;

FIG. 10 is a perspective view of the scoring switch showing the device of FIG. 8 with the back removed;

FIG. 11 is a basic circuit diagram of the FIG. 1 embodiment of the invention;

FIG. 12 is a basic circuit diagram for the FIG. 8 embodiment of the invention;

FIG. 13 is a circuit diagram showing switches and lights to be used with multiple targets; and

FIG. 14 is a circuit diagram of a stepping switch used to provide several cycles of play.

DESCRIPTION OF THE PREFERRED EMBODIMENTS

Referring now to the drawings wherein like numbers of reference will be used to refer to like elements throughout, FIG. 1 is an illustration of a two compartment trained animal amusement device contained in a glass fronted cabinet, generally designated 20, wherein one compartment, designated 21, is provided to contain and display a trained chicken or other animal. The second compartment, designated 22, clearly displays a sloping playing field which may be decorated to show a miniature baseball diamond 23 or the like.

In the playing compartment 22, as illustrated in FIG. 2, at the lower end of the sloping playing field 24 a miniature baseball bat 25 is located. This bat is part of the impeller mechanism of the device. The bat is pivoted on a hollow shaft 26 extending through and below the playing field 24. A lever 29 is attached to the bottom end of pivot shaft 26. Linkages to solenoid 27 and return spring 28 are attached to opposite ends of lever 29. When the solenoid 27 is energized, the bat 25 will swing to strike a ball 30. This ball is preferably of light weight, such as a table tennis ball.

At the upper end of the play field 24 is bulkhead 31 in which target openings 32a, 32b, 32c and 32d are provided through which the ball 30 may pass. If the ball is driven through an opening, it may hit an aluminum screen 33 which is loosely suspended to absorb the momentum of the ball and to prevent it from rebounding back onto the playing field. Assuming, for example, that the ball were to pass through the target opening farthest to the right, i.e., target opening 32d, its course can be followed in FIG. 2. The ball hits aluminum anti-bounce screen 33 and is deadened. The "dead" ball drops through the narrowing opening 37d and strikes an arm of wire 34d, or other material, to activate the electric switch 35d associated with the target. Alternatively, mechanically operated switches may be replaced with photoelectric cells which sense the interruption of a beam of light by the ball in the target area. If four openings are used, they might be labelled "single," "

double," "triple," and "home run," or otherwise be identified as having score value. As a result of closing the switch 35d, or being sensed by a photocell, the ball activates a small light in light set 36d associated with target 32d and operates a cycling mechanism (not illustrated) to end the scoring player's turn. The ball drops through the opening 37d and past the switch arm 34d upon a surface 38 which is sloped from back to front and, here illustrated, from left to right. This surface converges with the underside of sloped playing field 24 at joint 39 (the dashed line in FIG. 4). The surface narrows to direct the returning ball down and to the right until it exits at opening 40 back onto the playing field 24.

The playing field 24 slopes so that the ball 30 is returned from the ball return opening 40 after scoring or by bouncing or rolling over the playing field after missing the targets to a position in front of the bat 25. At the low end of the playing field, a sloping sheet of clear plastic material 41, such as Plexiglas, covers the bat, but leaves space between it and the playing field for the bat to be swung. This transparent cover 41 slopes in a direction opposite to that of the playing field 24, so that, if the ball should bounce above or behind the bat, the sloping cover will cause it to roll to a position in front of the bat. The back or downhill edge of the cover serves as a stop to retain the ball in a proper position to be struck by the bat. This "stop" edge of the cover is of a length equal to much of the length of the bat, so that the ball, returning to its rest position, may, as a matter of chance, be struck by any exposed edge of the swinging bat.

Also seen in this FIG. 2 view are the person's switch 42, and lighted turn indicating and cue signs 43 and 44. The trained animal's cuing light 45, its switch operating loop 46, and the detail of the impelling mechanism are visible. These items will be discussed hereinafter in a description of the playing sequence and in reference to FIG. 6.

In the trained animal containing compartment 21, as illustrated in FIG. 3, is located a mesh screen floor 47 upon which the trained chicken or other animal waits. Below this screen floor is a droppings tray 48. When the trained animal is signalled to play by cuing light 45, it sticks its head through opening 50 and grabs the switch operating loop 46 and pulls it to activate the impelling mechanism to swing the bat. Upon scoring by the trained animal, a feeder 51 is operated and sends a reward amount of feed into feed cup 52a. Feed cup 52b is provided with water. The coin-operated switch 53 is visible in this view.

FIG. 4, a sectional plan view of the playing field 24, shows the relationship of many of the features described in FIG. 2. It is to be especially noted that the bat 25 has rounded protrusions 25a, 25b, 25c and 25d on its forward edge. These protrusions cause the ball to be struck in any of a number of directions which cannot readily be predicted. A single blow of the bat may drive the ball into any one of the target openings, or the ball may miss altogether. If the ball does not enter one of the openings, it rolls back down the surface of the playing field to be returned to the bat.

In FIG. 5, the rear of the playing compartment 22, with the aluminum anti-bounce screen 33 removed, is shown in an elevational view. Target openings 32a,

32b, 32c and 32d are visible. It is noted that below the playing field 24 openings 37a, 37b, 37c and 37d converge over the trip arms 34a, 34b, 34c and 34d, which are shown in FIG. 4, of switches 35a, 35b, 35c and 35d, respectively. A ball dropping through one of these openings will actuate the switch associated with it. The rear of the scoring lamp sets 36a, 36b, 36c and 36d can be seen above the target openings. One light of each set will indicate whether one of the players has scored in that target. The underside of the sloping surface 38, across which scoring balls pass to ball return opening 40, is visible, as is some of the apparatus of the impelling mechanism described hereinafter.

FIG. 6 is a detailed view of the impeller mechanism. Hollow bat pivot 26 is attached to lever 29. To one end of this lever, attached by means of linkage 54, is solenoid 27 which causes the baseball bat 25 to swing. To the other end of the lever, return spring 28 is attached, which serves to return the bat to its rest position. The solenoid 27 may be energized by pushing the player's switch 42, or by pulling the trained animal's switch operating loop 46. This switch operating loop is attached to cord 55, the tension of which is adjusted with wing nut 56. The cord is attached to trip arm 57 of switch 58 which actuates the solenoid 27. Cuing light 45 is also visible.

FIG. 7 shows an alternative rear bulkhead 131 which could be used in a simulated bowling game. Target openings 132a, 132b and 132c are provided, as are scoring lamp sets 136a, 136b and 136c. The value of the targets may be, as illustrated, "1 pin," "spare," or "strike," or some other way of indicating value. The only change from the apparatus previously described is number of targets.

In Fig. 8, the playing compartment 222 is designed to simulate a low scoring game, such as golf. At the lower end of the sloped playing field 224 is located a miniature golf club 225. At the upper end of the playing field is a target opening 232 suggesting the "hole" in golf. On the rear bulkhead 231 are stroke counters 60a and 60b. A cue light 245 is provided for the trained animal, as is a switch operating loop 246. A push button switch 242 and lighted turn indicating and cue signs 243 and 244 are provided for the person. At the bottom end of the playing field 224 is a sloping surface 241, sloping in the opposite direction to the playing field with the front downhill edges converging in a point in front of the golf club 225 to properly position the ball to be struck towards the target 232.

FIG. 9 shows in detail the ball driving mechanism of FIG. 8. It is an electromechanical mechanism similar to the impelling mechanism described above in relation to FIG. 6. However, it operates through a vertical rather than a horizontal plane. Club 225 is connected to a pivot shaft 226 which runs through a bearing 61 on top of post 62. At the opposite end of the pivot shaft bell crank 229 is attached. Return spring 228 is attached to one arm of the ball crank 229 and linkage 254 to solenoid 227 is attached to the other arm. When the person's switch 242 is depressed, or the trained animal's switch operating loop 246 is pulled, the solenoid 227 is energized causing club 225 to swing forward. When the solenoid is released, return spring 228 returns the club to its rest position.

FIG. 10 shows an alternative to the ball activated switches of the other versions of the device. Because only one target 232 is used, it becomes especially simple to replace a switch with a lamp and photocell. The aluminum anti-bounce screen 233 is cut away in this view. The ball 230 passes through the target opening 232, is "deadened" by screen 233, and rolls down ramp 63 which passes through enclosure 64. Passing through this enclosure, the ball interrupts a beam of light from lamp 65 to photoelectric cell 66. This activates a cycling mechanism to provide separate turns for the players, as hereinafter described. The ball continues down ramp 63 until it reaches ball return tunnel 67. The ball then goes forward down sloping ball return tunnel 67 until it exits at ball return opening 240. The enclosure for the photocell is so constructed as to shield the cell from unwanted effects of stray light which might otherwise bypass the ball.

CIRCUIT DIAGRAMS

Several illustrative relay circuits have been included to facilitate the understanding of this invention. Many of the functions can be performed equally well by transistors and solid state electronics. Referring now to FIG. 11, there is shown a circuit diagram which is adapted for use in an embodiment where high score is the desired result, such as the device shown in FIG. 1. This diagram illustrates one method of programming a sequence of operations in which each player is given a single turn. Four relays of a conventional type are employed. The relays are identified A, B, C and D. The movable contact arms of each relay are numbered. The relays are energized by means of a direct current power source (not shown). Positive symbols (+) indicate points common to the positive side of the power source and negative symbols (-) indicate points common to the negative side. Two of the outputs for the ball driving solenoid and for the feeder activating solenoid are indicated as alternating current operated since it is practical to power these with ordinary house current.

Four switches are shown: a switch (S-1) operated to turn the device on, this may be a simple push button closure type, but more often is of a coin-operated type; a switch (S-2) to be operated by the person; a switch (S-3) to be operated by the trained animal; and one or more switches (S-4) which are operated by the ball when a score is made. The mechanical details of the device are such that each of these switches is closed only momentarily.

Momentary closure of the coin-operated switch S-1 energizes the coil of relay A, having four movable contact arms A-1, A-2, A-3 and A-4. Contact arm A-1 carries alternating current to operate the ball driving solenoid SL-1 when switches S-2 and S-3 are closed to swing the bat impeller. Contact arm A-2 carries direct current and provides power to the cuing lamp and informational signs 43, 44 and 45. Contact arm A-3 carries direct current and is used to energize relay B when the ball switch S-4 is momentarily closed. Contact arm A-4 is connected to rest contact D-2 of unenergized relay D to keep relay A energized during the entire cycle of operation by providing direct current to its coil.

The routine of play would be as follows: the person would insert a coin in coin-operated switch S-1, relay

A then energizes, over contact A-1, switch S-2 for the person to operate the ball impeller solenoid SL-1. In the meantime, information sign 43 is lighted by current passing over contact arm A-2 and tells the person to push his button. This is done repeatedly by pressing switch 42 until the ball passes through a target opening and activates a ball switch S-4. Momentary closure of the switch S-4 supplies current, through a diode, to the coils of relays B and C. A parallel connection to the movable contact arm C-1 of relay C short-circuits the coil of relay C during the time the ball switch S-4 is closed. A resistor R-1 protects the direct current power supply from the short circuit. The circuit, including contact arm A-3 of relay A and contact arm B-3 of relay B, maintains relay B in an energized state when the ball switch S-4 opens. The opening of the ball switch removes the short circuit from the coil of relay C, allowing it to be energized by its direct connection to relay B. The diode prevents current flow from the coil of relay B to the contact arm C-1 of relay C.

The energizing of relay B transfers current from the person's information sign 43 to information sign 44 (indicating the animal's turn) and to cue light 45 by contact arm B-2. Similarly, power is transferred from the person's switch S-2 to the trained animal's switch S-3. The animal, cued to respond, operates its switch (repeatedly if necessary) until the ball is driven through a target to actuate the ball switch S-4. The second closure of the ball switch completes a circuit, through contact C-1 of the energized relay C to the coil of relay D.

The energizing of relay D closes a circuit through contact arm D-1 of relay D to the solenoid SL-2 of the electric feeding device 51 thereby opening a gate to release a predetermined amount of feed. Contact arm D-3 of relay D connects a charged capacitor to the coil of relay D to ensure that relay D will remain energized for a period long enough to assure proper functioning of the feeding device 51.

The energizing of relay D also opens a circuit including rest contact D-2 of relay D. Current is thus removed from contact arm A-4 of relay A. As a result, relay A is deenergized, the current through movable contact arm A-3 of relay A is cut off, releasing relays B and C. The operating cycle is thus completed. Relay D is released when the capacitor is discharged. The capacitor is then recharged with direct current through contact arm D-3 of relay D and resistor R-2.

Referring now to FIG. 12, there is shown a circuit diagram which is adapted for use in an embodiment where low score is the desired result, such as the golf-type device shown in FIG. 8. This diagram illustrates one method of electrically programming a sequence of operations in which each player is permitted to score a single hole.

Momentary closure of the coin-operated switch S-5 energizes the coil of relay E having movable contact arms E-1, E-2, E-3 and E-4. Contact arm E-1 carries direct current to operate the trained animal's impeller switch S-6 and the person's impeller switch S-7. Contact arm E-2 carries direct current and provides power to the cuing arm lamp 245 and the informational signs 243 and 244. Contact arm E-3 carries direct current and is used to energize relay F when the ball switch S-8 is momentarily closed. Contact arm E-4 carries direct current to keep relay E energized during the entire cycle of operation.

The typical routine of play would be as follows: the person would insert a coin in the coin-operated switch S-5, relay E is energized permitting power to travel across contact arms E-1 and F-1 to activate switch S-6 for the trained animal to operate the ball impelling circuit. The trained animal closes impeller switch S-6 which keys relay J. Contact arm J-1 provides alternating current to the ball driving solenoid SL-3 while contact arm J-2 sends a counting signal to stroke counter 60b registering the number of switch closures by the trained animal. The switch is closed repeatedly until the ball passes through the target opening and closes ball-activated switch S-8. Momentary closure of switch S-8 supplies current, through a diode, to the coils of relays F and G. A parallel connection to the contact arm G-1 of relay G short-circuits the coil of relay G during the time the ball-activated switch is closed. A resistor R-3 protects the direct current supply from the short circuit. The circuit, including contact arm E-4 of relay E and contact arm F-4 of relay F, maintains relay F in an energized state when the ball-activated switch opens. The opening of the ball-activated switch removes the short circuit from the coil of relay G, allowing it to be energized by its direct connection with relay F. The diode prevents current flow from the coil of relay F to the contact arm G-1 of relay G. Contact arm F-3 connects a charged capacitor to the coil of relay H.

Contact arm H-1 of relay H provides alternating current to operate the feeder solenoid SL-4 opening a gate to release a predetermined amount of feed to reward the trained animal for scoring. The discharge of the capacitor through the coil of relay H ensures that relay H will remain energized for a period long enough to assure proper functioning of the feeding device 51.

The energizing of relay F transfers current from the trained animal cue lamp 245 and the lighted information sign 243 to the person's turn-indicating and information sign 244. Similarly, power is transferred from the trained animal's switch S-6 to the person's switch S-7. The person operates his switch until the ball is driven to actuate the ball-activated switch. His switch S-7 works in the same manner as the trained animal's switch S-6. Each activation keys relay K. Contact arm K-1 provides alternating current to operate ball-driving solenoid SL-3 while contact arm K-2 sends a counting signal to stroke counter 60a registering the number of switch closures by the person. The second closure of ball-activated switch S-8 completes a circuit, through contact arm G-1 of the energized relay G, to short-circuit relay E causing relay E to release. A resistor R-5 protects the direct current supply from the short circuit.

The releasing of relay E opens a circuit including contact arm E-3. As a result, relays F and G are released. The operating cycle is thus completed.

The releasing of relay F closes a circuit through contact arm F-3 and resistor R-4 to recharge the capacitor connected to arm F-3.

Referring now to FIG. 13, there is shown a simple means of employing four ball-activated switches S-4a, S-4b, S-4c and S-4d rather than the single ball-activated switch S-4 shown in FIG. 11. The lead 70 to relays B and C replaces the connection of switch S-4. In addition, FIG. 13 shows four relays L, M, N and O, any one of which will remember the particular switch

closed by the person or trained animal. A lamp 36a, 36b, 36c and 36d in parallel with each relay is activated to make the score visible to the person. A relay, once energized, holds itself energized by means of its own contact. The diodes block current that would otherwise flow from one relay to another. Opening the normally closed switch S-9 releases any energized relay to erase the score. In practice, the erase switch function may be performed by a control relay or by the coin switch (inserting a coin erases the score of a preceding game). Scores of both the person and trained animal may be registered by use of two sets of the relays of FIG. 13.

A means of permitting several cycles by the player might involve programming with the use of a conventional electro-mechanical stepping switch. Possible circuitry is shown in FIG. 14. A stepping switch S-10 having two levels or contact rows A and B is shown. The sequence commences with the stepping switch contact arms 71 and 72 at their home positions, i.e., at the contacts numbered 1. A momentary closure of the coin-operated switch S-11 completes the circuit through contact 1 of level A to the stepping magnet 73. The resulting step moves the arms together to the contacts numbered 2. Succeeding contacts of level A are alternately connected to the person's information and turn indicating sign 43 and the animal's cue lamp 45 and information sign 44, directing, alternately, the person and the animal to respond. Similarly, the alternate contacts of level B connect to ball impelling switch S-12 for the person, and switch S-13 for the trained animal, allowing either the person or the trained animal, synchronously with the appearance of cue signals, to operate the switches activating the ball driving solenoid. Each hit made by the person or the animal momentarily closes a ball activated switch S-14 to energize electromagnet 73 to advance the stepper.

The final successful response made, the electromagnet advances the stepping switch to a position (contact 10 of level A, as illustrated) applying current to a relay which actuates an electric feeder. The relay, while not shown, may have its associated circuitry essentially that of relay D in FIG. 11. The number of alternating cycles can be varied over a wide range, depending on the number of stepping switch contacts employed.

PLAYING SEQUENCE

The device in the baseball embodiment operates as follows:

A customer inserts a coin or coins in a coin slot. A miniature electric sign 43 lights up, displaying the words "Press the Button to Swing the Bat," or the like. The customer, in response, presses a button, repeatedly if necessary, to operate the game task means, a solenoid controlled impeller, until the ball is driven through one of the target openings. A lamp, associated with the particular opening, lights up to indicate the score. The "Press the Button" sign goes out and another sign 44 worded "The Bird's Turn," or the like, lights up. At the same time, a small signal light 45 near the trained chicken's switch (or this might be an audible signal) turns on to signal the chicken to perform. The chicken responds by operating the switch to key the solenoid to swing the bat, several times if necessary, until the ball is driven through any of the target openings. The score

made by the chicken is registered by the second of the lights of the set associated with the particular target. The scores of the person and the chicken may then be compared. The electrically actuated feeding device rewards the chicken for its effort. The operating cycle is now complete.

Many variations of the device will become apparent to those skilled in the art. For example, sensitive pressure plates, or the like, might substitute as targets, rather than the openings into which a ball passes. Transistors and solid state electronics may be used to supplement or replace the relays used. The sequence can be varied to have either player start first. The method of scoring and number of cycles can be adjusted to simulate many kinds of games. The device can be set up to permit as high a score as possible to be achieved over a given period of time. In this last variation, care must be exercised to provide the trained animal with an extra, non-scoring turn to drive the ball after the time is up, so that it will know that it will receive its reward with certainty. Otherwise, the animal will become confused in its conditioning and so sluggish in its behavior that it cannot satisfactorily participate and complete its game task.

These embodiments in which an exclusive property or privilege is claimed are as follows:

1. In a contest amusement game to be played between a trained animal player and a person, the combination of:

- a. game task means operable by either player,
- b. means for activating said game task means for sequential play by said players,
- c. lockout means for preventing simultaneous play by both players,
- d. means for operating a cue signal when it is time for the animal player to play,
- e. means for operating an animal feeding device when the animal player has successfully completed its use of the game task means, and
- f. means for operating said lockout means to transfer play from one player to the other when the first has completed its game task.

2. The apparatus of claim 1 wherein said game task means includes a solenoid actuated impeller.

3. The apparatus of claim 1 wherein said means for activating said game task means includes an electric

switch activated solenoid.

4. The apparatus of claim 3 wherein said switch is coin operated.

5. The apparatus of claim 1 wherein said lockout means includes an electric control device.

6. The apparatus of claim 5 wherein said control device is a relay circuit.

7. The apparatus of claim 1 wherein said means for operating the animal feeding device includes a solenoid.

8. The apparatus of claim 1 wherein the means for transferring play is an automatic relay circuit.

9. The apparatus of claim 1 wherein the means for transferring play is a solid state circuit.

10. A trained animal amusement device providing a game between two players, one being a person and one being a trained animal comprising means to establish an initial playing condition for the first player while locking out the playing means for the second player, playing means by which the initial player performs a game task and establishes a similar playing condition for the second player, playing means by which the second player performs the game task while locking out the playing means for the first player and completes the playing cycle, and means to reward the trained animal for successfully operating its playing means.

11. The trained animal amusement device of claim 10 which includes means upon completion of the second game task to reestablish the original conditions of the device.

12. The trained animal amusement device of claim 11 wherein the means to establish conditions for the first player to play includes a switch.

13. The trained animal amusement device of claim 12 wherein said switch is coin activated.

14. The trained animal amusement device of claim 11 wherein the playing means for each player includes a switch to activate an impeller solenoid to perform the game task.

15. The trained animal amusement device of claim 11 wherein the means for changing conditions of play upon completion of each player's game task includes a relay switching circuit.

16. The trained animal amusement device of claim 11 wherein the means to reward said trained animal includes an electrically activated feeder.

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