

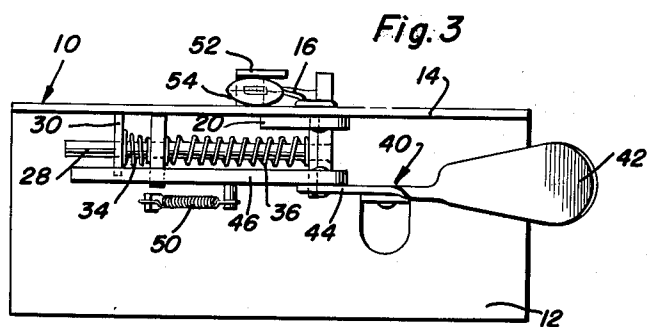
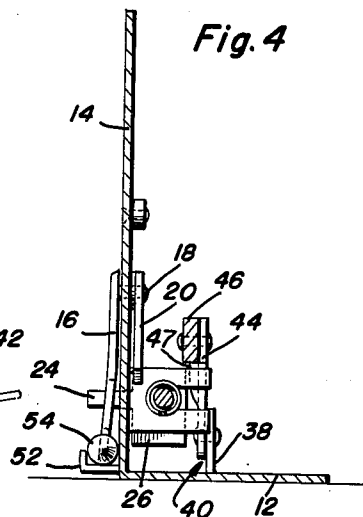
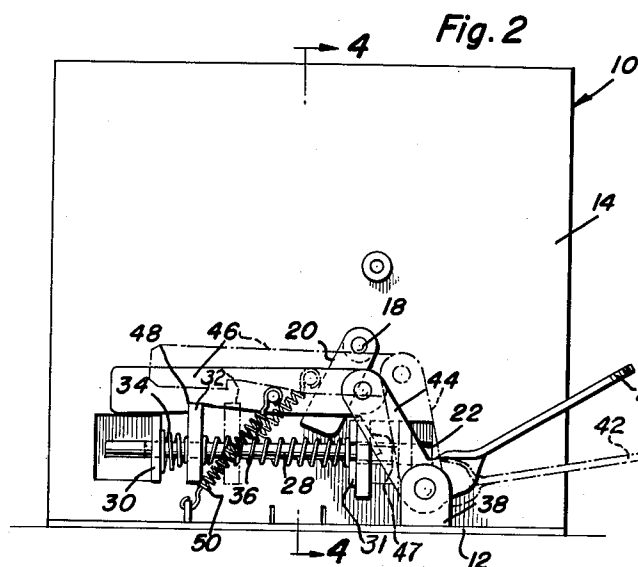
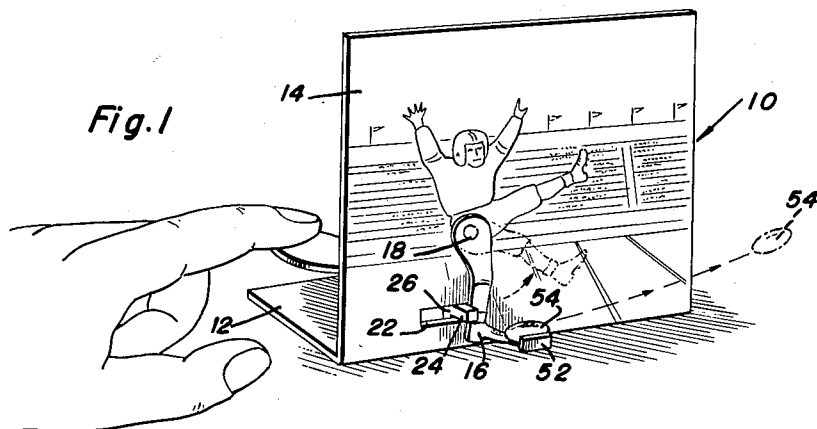
Nov. 1, 1955

G. A. EISELE
MECHANICAL PROJECTORS

2,722,211

Filed Aug. 4, 1952

3 Sheets-Sheet 1



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Fig. 5

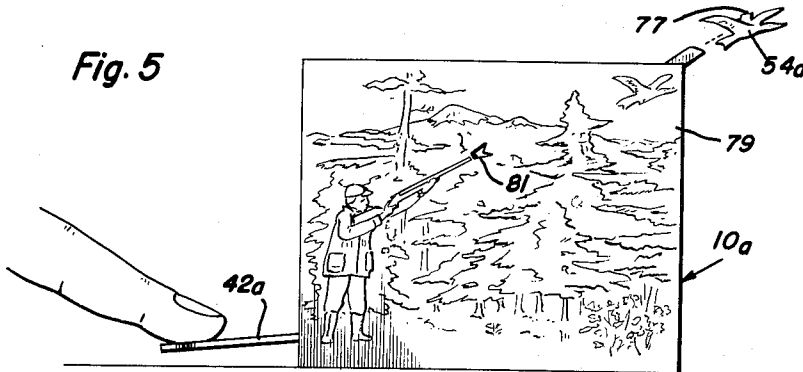


Fig. 6

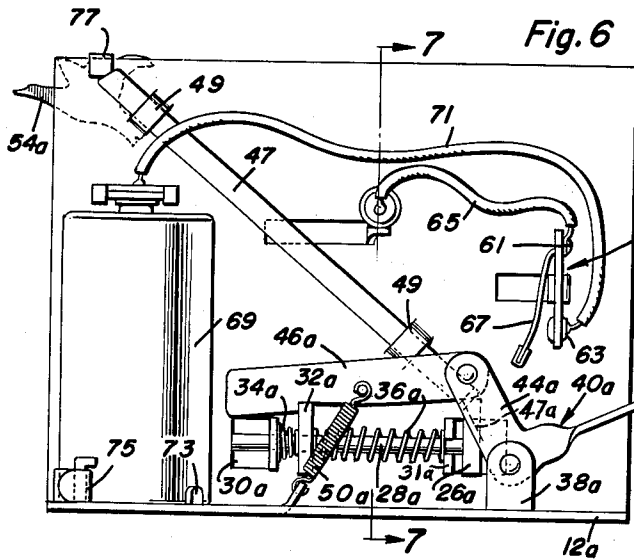


Fig. 7

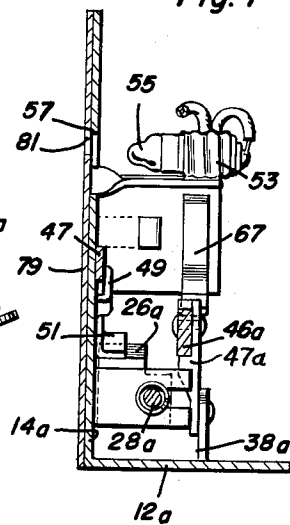


Fig. 8

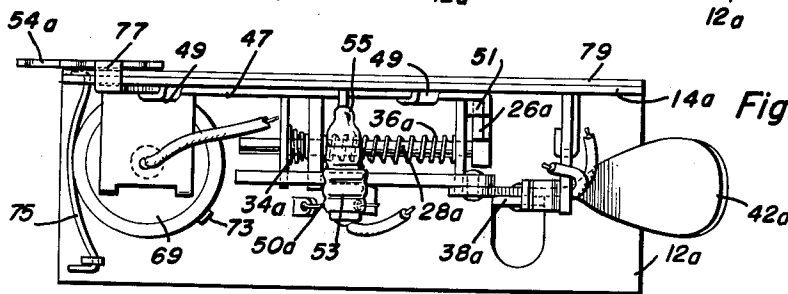
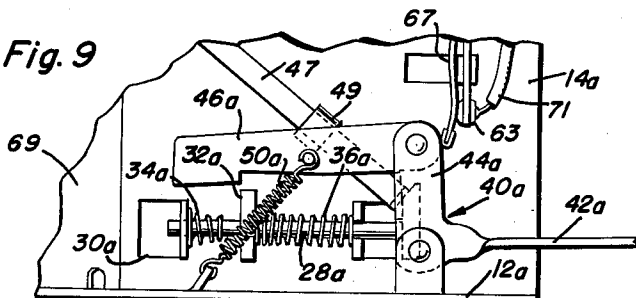


Fig. 9



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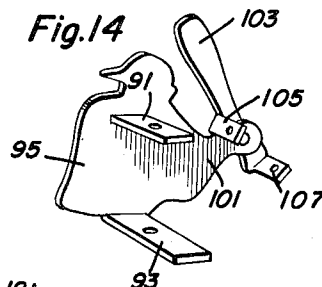
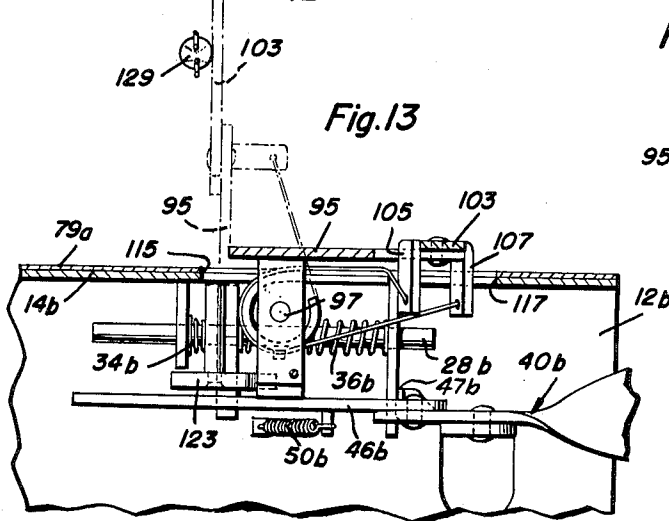
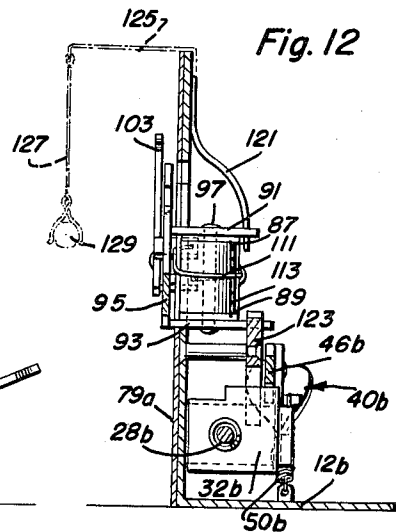
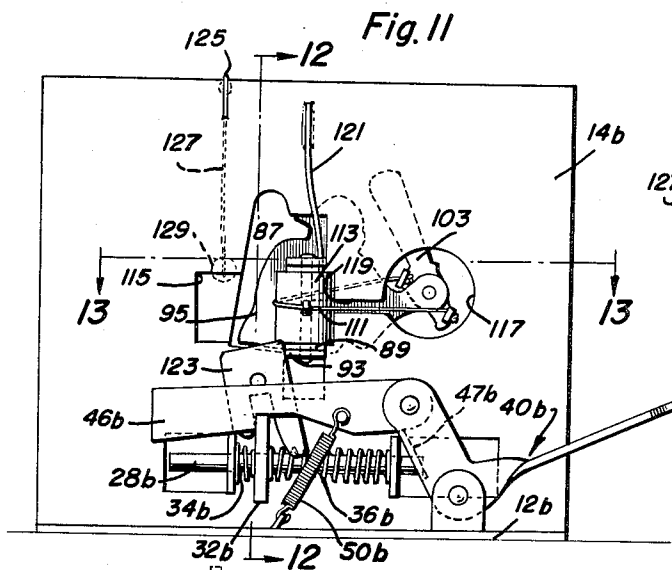
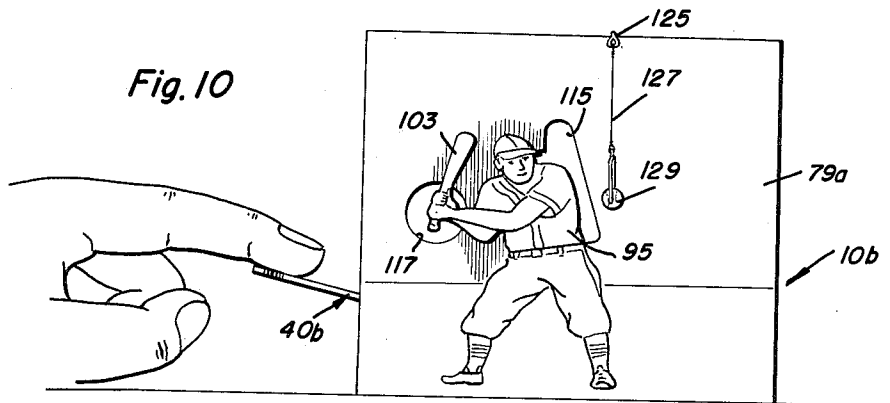
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3 Sheets-Sheet 3



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2,722,211

MECHANICAL PROJECTORS

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Application August 4, 1952, Serial No. 302,565

14 Claims. (Cl. 124—16)

This invention relates to new and useful improvements in game apparatus and the primary object of the present invention is to provide a game device including a finger-actuated projector mechanism that will engage and move an object, such as a miniature baseball, football, sports bird or the like.

Another important object of the present invention is to provide a game device that is extremely small and compact in structure and which includes a spring driven plunger for moving the ejector or striker, together with a novel finger actuated mechanism that will engage the plunger as the same is retracted and which will release the plunger after the same has been retracted.

A further object of the present invention is to provide a game apparatus for sports enthusiasts involving an object to be struck that may be placed at various positions to require accurate placing thereof by the operator in order that the object will be engaged by a striker.

A still further aim of the present invention is to provide a game device of the aforementioned character that is simple and practical in construction, strong and reliable in use, neat and attractive in appearance, inexpensive to manufacture, and otherwise well adapted for the purposes for which the same is intended.

Other objects and advantages reside in the details of construction and operation as more fully hereinafter described and claimed, reference being had to the accompanying drawings forming part hereof, wherein like numerals refer to like parts throughout, in which:

Figure 1 is a perspective view of one form of the invention in use;

Figure 2 is a rear elevational view of Figure 1;

Figure 3 is a plan view of Figure 2;

Figure 4 is a vertical sectional view taken substantially on the plane of section line 4—4 of Figure 2;

Figure 5 is a front elevational view of the invention in modified form;

Figure 6 is a rear elevational view of Figure 5;

Figure 7 is a vertical sectional view taken substantially on the plane of section line 7—7 of Figure 6;

Figure 8 is a plan view of Figure 6;

Figure 9 is a fragmentary view of Figure 6 but showing the bell crank lowered and the latch element releasing the spring-urged plunger;

Figure 10 is a front elevational view of the invention in further modified form;

Figure 11 is a rear elevational view of Figure 10;

Figure 12 is a vertical sectional view taken substantially on the plane of section line 12—12 of Figure 11;

Figure 13 is a horizontal sectional view taken substantially on the plane of section line 13—13 of Figure 11; and,

Figure 14 is a perspective view of the striker forming part of the device shown in Figures 10—13 inclusive.

Referring now to the drawings in detail, and more particularly to Figures 1—4 inclusive, wherein for the purpose of illustration, there is disclosed one embodiment of the

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present invention, the numeral 10 represents an angle member or base having a horizontal wall 12 and a vertical wall 14.

A vertically swingable ejector or striker arm 16 is pivotally secured to the wall 14 by a horizontal pivot 18 that also supports a rear arm 20. Striker arm 16 is disposed in front of the wall 14 and arm 20 is disposed behind the wall 14. Arm 20 adds weight to and assumes some of the wear of arm 16 and limits the swinging movement of 16 as 20 will engage the stop in Figures 2 and 4.

Wall 14 is provided with a horizontal slot 22 under the pivot 18 that slidably receives the forwardly projecting lug portion 24 of a slide 26. Slide 26 is fixed to one end of a plunger or rod 28 that is slidably guided by ears 30 and 31 fixed to the rear face of wall 14. A lug or abutment 32 is slidably received on and is suitably fixed to the plunger 28. A short cushioning coil spring 34 embraces the plunger 28 and is disposed between the abutment 32 and the ear 30. A coil spring 36 embraces rod 28 and is biased between the abutment 32 and ear 31 to form a projecting means for the plunger 28.

An ear 38 rises from the wall 12 behind the wall 14 and pivotally supports a vertically swingable bell crank 40 having one leg twisted to form a finger grip 42. The other leg 44 of the bell crank 40 is pivoted to a latch or dog 46 having a notched lower edge, forming a lip 48 that will engage the abutment 32. A coil spring 50 terminally attached to the dog 46 and wall 12 urges the dog 46 against the abutment.

A substantially L-shaped holder or object seat 52 is fixed to and projects forwardly from the wall 14 and removably holds an object, such as a miniature football 54, in the path of the striker arm 16.

In practical use of the invention thus described, the forward face of wall 14 is colored or painted to portray a football player with the arm 16 forming one leg of the player. Then the object 54 is placed in seat 52.

The operator will depress leg 42 of bell crank 40 and as the lip 48 is engaged with abutment 32, the abutment 32 will be pulled toward the bell crank and the plunger 28 will also be pulled toward the bell crank to compress spring 36.

After the abutment and slide have been moved to compress spring 36, a lug 47 on leg 44 engages the lower edge of latch 46 to move latch 46 upwardly and lip 48 will be disengaged with the abutment 32 to release the same and the abutment slide and plunger will be forced by spring 36 until slide portion 24 strikes the arm 16 to swing the latter against the object 54 and cause the object 54 to be projected.

Obviously, a suitable game board with different value zones may be placed adjacent the base 10 to receive the object 54.

Reference is now directed to Figures 5—9 inclusive, wherein there is illustrated the present invention in modified form. In this embodiment, the horizontal wall 12a of the base 10a is provided with an upstanding ear 38a that pivotally supports a bell crank 40a having one leg 42a twisted to form a finger grip and its other leg 44a pivoted to a latch or dog 46a.

A vertically inclined slidable striker or ejector bar 47 is slidably guided by guides 49 on the rear face of wall 14a. The lower angulated end 51 of the bar 47 is disposed in the path of a lug 26a fixed to a horizontally slidable rod 28a. The rod or plunger 28a is slidably supported by brackets 30a and 31a on the rear face of wall 14 and carries a short coil spring 34a and a long coil spring 36a. An abutment 32a slidable on and fixed to plunger 28a is disposed between and contacts the adjacent ends of the springs 34a and 36a.

Dog 46a is urged into engagement with the abutment

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32a by a coil spring 50a that is terminally fixed to the wall 12a and the dog 46a.

A socket 53 is fixed to the wall 14a and extends rearwardly therefrom to support a lamp bulb 55 that faces an aperture 57 in wall 14a. A switch 59 is supported on the rear face of wall 14a and includes a pair of spaced contacts 61 and 63. Contact 61 is connected to the socket 53 by a conductor 65 and is attached to a resilient conductor arm 67 that is adapted to be forced against contact 63 by the leg 44a of bell crank 40a as the latter is manually pivoted.

Contact 63 is connected to the terminal of a battery 69 by a conductor 71. The battery 69 is held on the wall 12a and against a lug 73 on wall 12a by a spring arm 75.

An object 54a is provided with a clip 77 that will engage over the upper edge of the wall 14a to be disposed in the path of the bar 47. The clip 77 will also engage over the upper edge of a facing plate 79 that is secured in juxtaposition with the wall 14a. The forward face of plate 79 is painted or colored to portray a hunter and a wooded scene, and plate 79 is formed with an aperture 81 in registry with aperture 57 and located at the muzzle end of the hunters gun.

A target (not shown) having different value zones may be placed adjacent the base 10a to receive the object 54a as it is projected into the air by bar 47.

As the grip 42a is depressed to retract the plunger 28a and the abutment 32a, the spring 36a is compressed. The dog 46a releases the abutment 32a as the lug 47a on leg 44a rides upwardly against the dog during depressing of leg 42a and the lug 26a engages the end 51 of bar 47 to drive the latter against the objects. As the leg 44a is moved upwardly and rearwardly, arm 44a engages arm 67 and forces the same against contact 63, whereupon lamp 55 will be energized.

Reference is next directed to Figures 10-14, inclusive, wherein there is disclosed the invention in additionally modified form. In this embodiment, the vertical wall 14b of the base 10b is provided with upper and lower rearwardly projecting ears 87 and 89 that are pivoted to upper and lower ears 91 and 93 of a plate member 95 by a vertical pivot 97.

An arm 101 extends from the plate member 95 and supports a vertically swingable striker 103. Lugs 105 and 107 extend from the arm 101 and are connected to the ends of a string 111 that is engaged about and with a cylinder 113 on pin 97.

Wall 14b and the facing plate 79a are formed with openings 115 and 117 that are connected by a slot 119. Opening 115 will permit the member 95 to swing rearwardly through 14b and plate 79a and opening 117 will accommodate the lugs 105, 107. A leaf spring 121 on the rear face of wall 14b engages ear 91 to hold member 95 parallel to plate 79a.

A vertically swingable plate 123 is pivoted to and behind the wall 14b and engages the ear 93. The lower bifurcated end of plate 123 receives the abutment 32b on the horizontally slidable plunger 28b. The plunger 28b carries coil springs 34b and 36b which are on opposite sides of abutment 32b.

Bell crank 40b is pivoted to a dog 46b that engages the abutment 32b and which is urged into engagement with the abutment by a coil spring 50b.

A forwardly projecting arm 125 is secured to wall 14b and supports a hanger cord 127 whose lower end carries a ball 129 that is disposed to be engaged by arm 103.

In practical use of the invention thus disclosed in Figures 10-14, inclusive, as the bell crank 40b is depressed, lug 32b will be retracted to compress spring 36b until the dog 46b is engaged by a lug 47b on lever 40b to be urged upwardly where dog 46b releases the lug 32b whereupon spring 36b will drive the lug 32b against rocker plate 123 to swing member 95 forwardly and toward the

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ball 129. The lower end of string 111 attached to ear 107 will pull downwardly on bat 103 while the end of string 111 attached to ear 105 slacks, thereby moving bat 103 about its pivot to a horizontal position so that it will engage the ball 129 (Figure 13).

Having described my invention, what is claimed as new is:

1. A game device comprising a base having a vertical wall, a movable ejector mounted on the wall, said wall adapted to removably hold an object in the path of the ejector, a spring urged plunger behind the wall for engaging and imparting motion to the ejector, a vertically swingable bell crank pivotally mounted on the base behind the wall, a latch element pivotally attached to the bell crank and releasably engaging the plunger.

2. A game device comprising a base having a vertical wall, a horizontally swingable member supported on the wall, a vertically swingable striker carried by said member and adapted to strike an object supported by and in front of the wall, a vertically swingable plate engaging the member to impart rotation to the member as the plate is swung, means engaging the striker to swing the same vertically during rotation of said member, a spring urged plunger engaging the plate to swing the latter, and finger actuated means on the base releasably engaging the plunger to retract the latter.

3. A game device comprising a base having a vertical wall, a horizontally swingable member supported on the wall, a vertically swingable striker carried by said member, and adapted to strike an object supported by and in front of the wall, a vertically swingable plate engaging the member to impart rotation to the member as the plate is swung, means engaging the striker to swing the same vertically during rotation of said member, a spring urged plunger engaging the plate to swing the latter, a vertically swingable bell crank on the base behind the wall, and a latch element pivoted to the bell crank and releasably engaging the plunger.

4. A game device comprising a base having a vertical wall with an opening therein, a horizontally swingable member carried by the wall and including a forward portion disposed in front of the wall and a rear portion extending rearwardly through said opening, a vertically swingable striker pivoted to the forward portion of said member and adapted to strike an object supported in front of said wall, means operatively engaged with said member to move the member horizontally and the forward portion forwardly of said wall, and means engaged with said striker for swinging the striker vertically as the member is moved horizontally to move the striker in the path of an object supported in front of said wall.

5. A game device comprising a base having a vertical wall with an opening therein, a horizontally swingable member carried by the wall and including a forward portion disposed in front of the wall and a rear portion extending rearwardly through said opening, a vertically swingable striker pivoted to the forward portion of said member and adapted to strike an object supported in front of said wall, means operatively engaged with said member to move the member horizontally and the forward portion forwardly of said wall, a vertically swingable plate pivoted to the wall and engaging said rear portion of said member to swing the member horizontally, and a spring urged plunger carried by the base for imparting swinging motion to said plate.

6. A game device comprising a base having a vertical wall with an opening therein, a horizontally swingable member in front of said wall, said member having a rear portion extending rearwardly through the opening, means pivoting the rear portion to the wall for horizontal swinging movement of the member, spring means engaging the rear portion to urge the member toward said wall, a vertically swingable striker pivoted to the member, means engaged with said striker to pivot the same vertically as the striker is swung away from said wall, and means on

the base operatively engaging said rear portion to swing the member away from the wall.

7. A game device comprising a base having a vertical wall with an opening therein, a horizontally swingable member in front of said wall, said member having a rear portion including upper and lower horizontal ears extending rearwardly through the opening, a cylinder supported by said wall between said ears, a vertical pivot extending through said cylinder and said ears, spring means engaging said rear portion of said member and urging the member toward said wall, a vertically swingable striker carried by said member in front of said wall for engaging an object supported in front of said wall, means connecting the striker to the cylinder to swing the striker to a substantially horizontal position as the member is swung away from said wall, and means carried by the base operatively engaging the rear portion of said member to swing the member away from said wall.

8. A game device comprising a base having a vertical wall with an opening therein, a horizontally swingable member in front of said wall, said member having a rear portion including upper and lower horizontal ears extending rearwardly through the opening, a cylinder supported by said wall between said ears, a vertical pivot extending through said cylinder and said ears, spring means engaging said rear portion of said member and urging the member toward said wall, a vertically swingable striker carried by said member in front of said wall for engaging an object supported in front of said wall, means connecting the striker to the cylinder to swing the striker to a substantially horizontal position as the member is swung away from said wall, a vertically swingable plate pivoted to the wall and having an upper portion engaging the lower ear, and a spring urged plunger carried by the base for engaging and imparting swinging motion to said plate.

9. A game device comprising a base having a vertical wall with an opening therein, a horizontally swingable member in front of said wall, said member having a rear portion including upper and lower horizontal ears extending rearwardly through the opening, a cylinder supported by said wall between said ears, a vertical pivot extending through said cylinder and said ears, spring means engaging said rear portion of said member and urging the member toward said wall, a vertically swingable striker carried by said member in front of said wall for engaging an object supported in front of said wall, means connecting the striker to the cylinder to swing the striker to a substantially horizontal position as the member is swung away from said wall, a vertically swingable plate pivoted to the wall and having an upper portion engaging the lower ear, said plate having a lower bifurcated end, and a spring urged plunger having an abutment engaged between the furcations of said bifurcated end for imparting swinging motion to said plate during movement of said plunger.

10. A game device comprising a base having a vertical wall, a movable ejector mounted on the wall, said wall adapted to removably hold an object in the path of the ejector, a spring urged plunger behind the wall for engaging and imparting motion to the ejector, a vertically swingable bellcrank pivotally mounted on the base behind the wall, a latch element pivotally attached to the bellcrank and releasably engaging the plunger, said wall having a horizontal slot, said ejector including a vertically swingable member mounted forwardly of the wall, guide means on the rear of said wall for supporting said plunger, said plunger including an abutment having a portion projecting forwardly through the slot and engageable with the member, said bellcrank having a finger operated lever rigidly formed therewith for operation of the bellcrank, plunger and ejector.

11. A game device comprising a base having a vertical wall, a movable ejector mounted on the wall, said wall

adapted to removably hold an object in the path of the ejector, a spring urged plunger behind the wall for engaging and imparting motion to the ejector, a vertically swingable bellcrank pivotally mounted on the base behind the wall, a latch element pivotally attached to the bellcrank and releasably engaging the plunger, said wall having a horizontal slot, said ejector including a vertically swingable member mounted forwardly of the wall, guide means on the rear of said wall for supporting said plunger, said plunger including an abutment having a portion projecting forwardly through the slot and engageable with the member, said bellcrank having a finger operated lever rigidly formed therewith for operation of the bellcrank, plunger and ejector, said abutment having a lug fixed thereto for engagement by said latch element, said latch element engaging the lug for retracting the plunger and releasing the plunger after the plunger is retracted a predetermined distance.

12. A game device comprising a base having a vertical wall, a movable ejector mounted on the wall, said wall adapted to removably hold an object in the path of the ejector, a spring urged plunger behind the wall for engaging and imparting motion to the ejector, a vertically swingable bellcrank pivotally mounted on the base behind the wall, a latch element pivotally attached to the bellcrank and releasably engaging the plunger, said wall having a horizontal slot, said ejector including a vertically swingable member mounted forwardly of the wall, guide means on the rear of said wall for supporting said plunger, said plunger including an abutment having a portion projecting forwardly through the slot and engageable with the member, said bellcrank having a finger operated lever rigidly formed therewith for operation of the bellcrank, plunger and ejector, said wall having a projectile holder on the front surface for holding a projectile in position for engagement by said ejector.

13. A game device comprising a base having a vertical wall, a movable ejector mounted on the wall, said wall adapted to removably hold an object in the path of the ejector, a spring urged plunger behind the wall for engaging and imparting motion to the ejector, a vertically swingable bellcrank pivotally mounted on the base behind the wall, a latch element pivotally attached to the bellcrank and releasably engaging the plunger, said ejector including an arm pivotally supported on the rear of the wall and a swingable member disposed forwardly of the wall and rigid with said arm, said plunger having means for engaging said arm for actuating said ejector.

14. A game device comprising a base having a vertical wall, a movable ejector mounted on the wall, said wall adapted to removably hold an object in the path of the ejector, a spring urged plunger behind the wall for engaging and imparting motion to the ejector, a vertically swingable bellcrank pivotally mounted on the base behind the wall, a latch element pivotally attached to the bellcrank and releasably engaging the plunger and retracting the same, a lamp bulb supported on said wall, a battery carried by the base and electrically connected to the bulb, and a switch connected to the bulb and battery and actuated to a circuit closing position by said plunger retracting means.

References Cited in the file of this patent

UNITED STATES PATENTS

383,512	Barber	May 29, 1888
491,247	Meaher	Feb. 7, 1893
1,056,570	Montgomery	Mar. 18, 1913
1,249,114	Kempf	Dec. 4, 1917
1,469,605	Piercy	Oct. 2, 1923
2,001,449	Bergstrom	May 14, 1935
2,196,549	Colaluca	Apr. 9, 1940
2,482,437	Richards	Sept. 20, 1949
2,534,468	Mitchell	Dec. 19, 1950