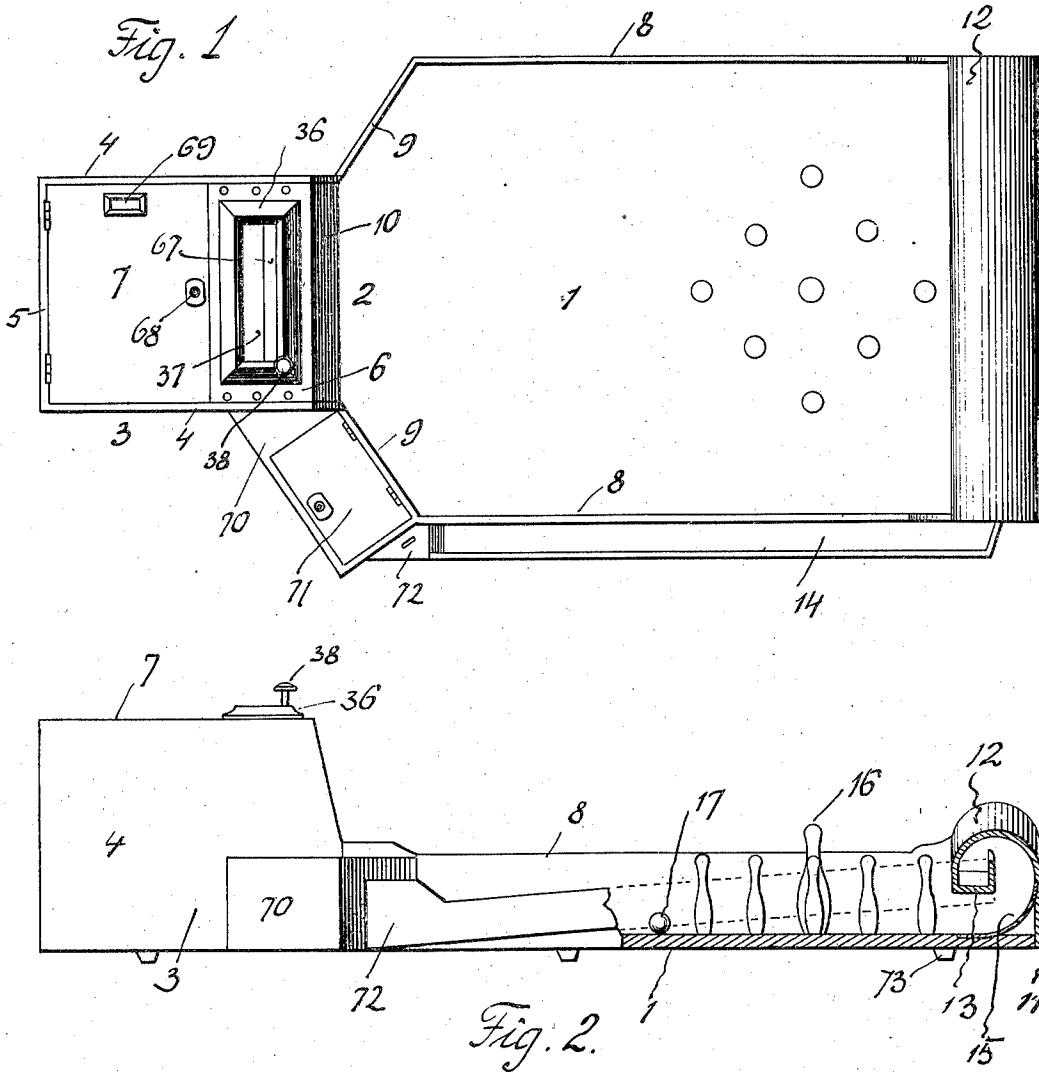


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 GAME APPARATUS.
 APPLICATION FILED FEB. 18, 1910.

965,591.

Patented July 26, 1910.

2 SHEETS—SHEET 1.



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2 SHEETS—SHEET 2.

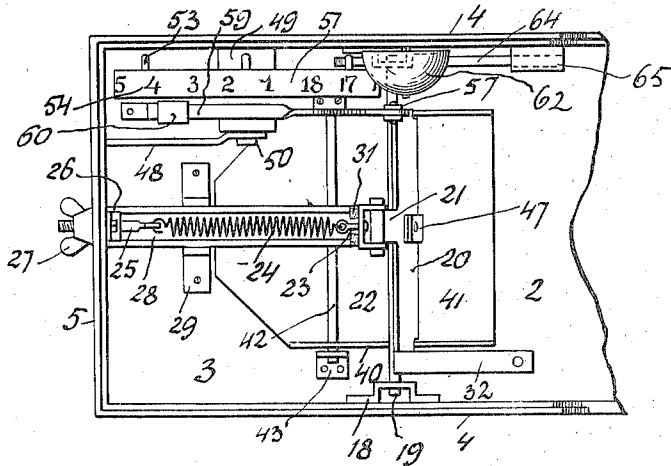


Fig. 3.

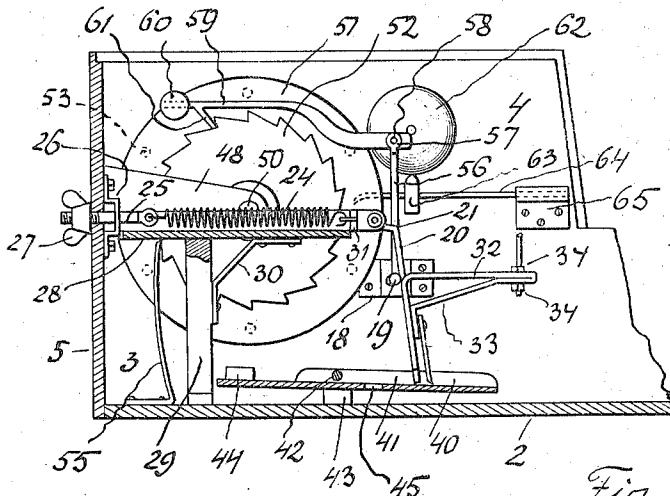


Fig. 4.

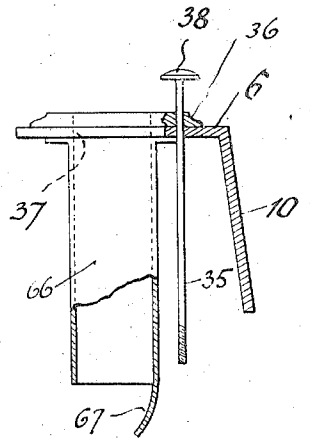


Fig. 5.

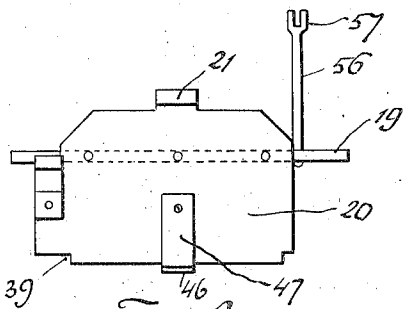


Fig. 6.

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UNITED STATES PATENT OFFICE.

PAUL MAKRAY, OF McKEES ROCKS, PENNSYLVANIA.

GAME APPARATUS.

965,591.

Specification of Letters Patent. Patented July 26, 1910.

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To all whom it may concern:

Be it known that I, PAUL MAKRAY, a subject of the King of Hungary, residing at McKees Rocks, in the county of Allegheny and State of Pennsylvania, have invented certain new and useful Improvements in Game Apparatus, of which the following is a specification, reference being had therein to the accompanying drawing.

This invention relates to a game apparatus, and the primary object of my invention is to provide a novel apparatus adapted to represent a bowling alley, and in connection with the apparatus a plurality of pins are set at one end of the apparatus and a ball projected from the opposite end of the apparatus to knock down said pins.

Another object of this invention is to provide an apparatus of the above type wherein simple and effective means are employed for projecting a ball from one end of the apparatus to the opposite end, said means including a mechanism that is adapted to be manually set and automatically released by a ball contacting with a portion of the mechanism.

A further object of this invention is to provide a game in which one or more persons can participate, the game apparatus being equipped with a novel counting device adapted to be actuated by the mechanism of the apparatus to sound an audible signal after a predetermined number of plays have been made by one player.

A still further object of this invention is to accomplish the above results by an apparatus that is simple in construction, inexpensive to manufacture, easy to manipulate and highly efficient for affording amusement to juveniles as well as adults.

With these and such other objects as may hereinafter appear, the invention consists of the novel construction, combination and arrangement of parts to be hereinafter specifically described and then claimed.

Reference will now be had to the drawings forming part of this specification, wherein:—

Figure 1 is plan of a game apparatus constructed in accordance with my invention, Fig. 2 is a side elevation of the same, partly broken away and partly in section, Fig. 3 is an enlarged plan of a portion of the apparatus with the cover thereof removed, Fig. 4 is a longitudinal sectional view of the same, Fig. 5 is a side elevation of a detached

cover, partly broken away and partly in section, and Fig. 6 is a front elevation of a ball projecting member.

In the accompanying drawings the reference numeral 1 denotes a base plate having the forward end thereof reduced, as at 2 and provided with a casing 3 having side walls 4, an end wall 5 and a detachable lid, comprising a fixed section 6 and a hinged section 7.

The base plate 1 is provided with longitudinal side walls 8 and angularly disposed walls 9, these angularly disposed walls connecting the forward ends of the walls 8 and the rear ends of the walls 4. The walls 8 and 9 are approximately one-half the depth of the walls 4, and the fixed section 6 of the casing lid is provided with a depending portion 10 adapted to close a portion of said casing and provide an opening between the base plate 1 and said depending portion 10.

The base plate 1 at the rear end thereof is provided with a wall 11 and this wall has the upper edge thereof shaped to form a curved deflector 12 for deflecting balls into an inclined trough 13 carried by the inner edge of the deflector 12 directly above the base plate 1. The inclined trough 13 corresponds in length to the deflector 12 and is adapted to convey balls to the one end of the deflector, where the balls are deposited in an inclined trough 14 extending from the rear end of one of the walls 8 to the forward end thereof, said trough being inclined to convey the balls to the forward end of the game apparatus.

To deflect a ball upwardly into the deflector 12 and the trough 13, the base plate 1 and the rear wall 11 support a curved deflector plate 15, corresponding in length to the deflector 12.

Upon the base plate 1 at the rear end thereof are adapted to be set a plurality of pins 16, similar to "bowling pins," and these pins are adapted to be knocked down by a ball 17 projected from the casing 3, the mechanism employed for this purpose being located within said casing, as will hereinafter be described.

The inner sides of the walls 4 are provided with bearings 18 for the ends of a rock shaft 19, and secured to said shaft intermediate the ends thereof is a ball projecting member 20. This member has the upper edge thereof bent forwardly, as at 21 and provided with a yoke 22. Connected to the

yoke 22 by a pin 23 is a retractile spring 24 having the opposite end thereof connected to an eye-bolt 25 extending through a guide bracket 26 and the wall 5, said guide bracket being supported by the inner side of said wall. The bolt 25 is held by a winged nut 27, whereby the tension of the spring 24 can be regulated. The movement of the spring 24 is confined by a channel shaped housing 28 supported by a standard 29 carried by the reduced end 2 of the base plate 1, said housing being braced by a bracket 30 connected to the standard 29. The rear end of the housing 28 is provided with buffers 31 preferably made of rubber, while the rear end of the housing is cut away to provide clearance for the bracket 26.

One end of the ball projecting member 20 is bent forwardly to provide an arm 32 and then downwardly to form a bracket 33 adapted to support said arm. Attached to the rear end of the arm 32 by nuts 34 is a re-setting rod 35, said rod extending upwardly through the fixed section 6 of the lid and through a frame 36, carried by the fixed section 6 and surrounding a slot 37 formed in said lid section. The upper end of the rod 35 is provided with a head or knob 38 adapted to be depressed to rock the shaft 19 and swing the lower edge of the ball projecting member 20 rearwardly.

The lower edge of the ball projecting member 20 is cut away, as at 39 to provide clearance for the longitudinal flanges 40 of a plate 41 mounted upon a rod 42 fulcrumed in bearings 43, carried by the base plate 1, said fulcrumed rod having the forward end thereof provided with a weight 44 adapted to normally retain the rear end of the plate 41 in an elevated position. The plate 41 in the rear of the shaft 42 is provided with an opening 45 and adapted to engage in said opening is the central depending lug 46 carried by the lower edge of the member 20. In front of this lug the member 20 is provided with a flat spring 47 adapted to add impetus to the ball 17 when projected toward the pins 16 by the lower edge of the member 20, it being understood that the ball is deposited in the casing 3 whereby it will be engaged by said spring, but it is not actually necessary for the ball to be projected toward the pins 16, as it remains with the players and depends upon the skill of a player in dropping the ball whereby it will be struck by the spring 47.

The wall 5 adjacent to one of the walls 4 is provided with a bearing 48 and journaled in said bearing and a bearing 49 carried by the wall 4 is a shaft 50. Mounted upon this shaft is a pin wheel 51 and a ratchet wheel 52, the said wheel 51 having the side thereof confronting the wall 4 provided with equally spaced projecting pins 53, while the periphery of said wheel is provided with

consecutively arranged numerals 54, the object of which will presently appear.

The reduced end 2 of the base plate 1 adjacent to the wall 5 is provided with a resilient pawl 55 adapted to engage the teeth of the ratchet wheel 52 and prevent a rearward rotation of said wheel.

The rock shaft 19 adjacent to the ball projecting member 20 is provided with an upwardly extending arm 56 having the upper end thereof bifurcated, as at 57 and pivotally connected by a pin 58 to a gravity pawl 59, said pawl having the free end thereof provided with a weight 60 and a tooth 61, the former normally holding the latter in engagement with the teeth of the ratchet wheel 52.

Secured to the inner side of the wall 4 contiguous to the arm 56 is an audible signal, comprising a bell 62 adapted to be struck by a tapper 63, carried by a resilient arm 64 mounted in a bearing 65, carried by the wall 4. The outer end of the arm 64 extends into the path of the pins 53, and each and every time the member 20 is actuated to project a ball, the gravity pawl 59 is moved to rotate the wheel 51 and cause the pins 53 to engage the arm 64, and when said arm is released the tapper 63 will strike the bell 62.

The fixed section 6 of the lid is provided with a depending chute 66 adapted to register with the slot 37 and the lower end of the chute has the rear side thereof provided with a deflector 67 adapted to deflect the ball 17 to the end of the fulcrumed plate 41 and against the ball projecting member 20.

The hinged section 7 of the lid is provided with a keyhole 68 communicating with a conventional form of lock (not shown) employed for holding the hinged section in a closed position, and furthermore, with a sight-opening 69 adapted to expose the numerals, one at a time, of the wheel 51.

One of the angularly disposed walls preferably the one adjacent to the trough 14 has the outer side thereof provided with a box 70 having a hinged lid 71, and the space between the ends of the box and the trough 14 is occupied by a coin chute 72, said chute communicating with the box 70, whereby coins placed in said chute will be transferred to the box. This box besides holding the coins is adapted to hold the pins 16 and the ball 17 when the game apparatus is not in use.

To set the game apparatus whereby it can be operated, the re-setting rod 35 is depressed, whereby through the medium of the arm 32 and the bracket 33, the ball projecting member 20 will be swung rearwardly to allow the depending lug 46 thereof to engage in the opening 45 of the plate 41, thus placing the spring 24 under tension. In setting the ball projecting member 20, the

arm 56 thereof is adapted to move the gravity pawl 59 and through the medium of the ratchet wheel 52 the wheel 51 is shifted, whereby another number will be exposed through the opening 69.

Assuming that the pins 16 have been set in an order that will cause all of said pins to be knocked down when the central foremost pin is struck by the ball, the ball 17 is deposited in the slot 37 with sufficient force to engage the end of the plate 41 and lower said plate sufficiently to release the ball projecting member 20. The retraction of the spring 24 causes the member 20 to almost simultaneously strike the ball as the ball strikes the plate 41, consequently the ball will be projected over the base plate 1 to knock down the pins 16, providing the ball has been properly deposited within the slot 37. The ball 17 is adapted to enter the deflector 12 through the medium of the troughs 13 and 14 and be returned to the player adjacent to the box 70.

It is now necessary to re-set the ball projecting member by depressing the rod 35 and this movement of the rod moves the wheel 51 to expose another number through the opening 69.

The wheel 51 is arranged whereby the numbers thereof will indicate the number of plays or "shots" to which each player is entitled, as shown, the pins 53 are arranged whereby the bell 62 will be rung after each third play, the bell indicating the change of the players and constituting a device adapted to govern the play of the game.

The game apparatus can be used as a parlor amusement and supported upon a suitable table by small knobs or feet 73, these feet being prolonged to form a suitable support when it is desired to use the same in amusement arcades or parks, and it is in this connection that a small fee can be charged for each game, the coins being deposited in the coin chute 72.

The base plate 1 and the case 3 are preferably made of light and durable wood, while the mechanism contained within the casing is made of strong and durable metal.

Having now described my invention what I claim as new, is:—

1. A game apparatus embodying a base plate, pins positioned upon one end of said plate, a ball adapted to be projected toward said pins, a casing carried by the opposite end of said plate, and means arranged within said casing and adapted to project said ball toward said pins, said means including a spring actuated ball projecting member, a fulcrumed plate adapted to retain said member in a set position to be released by the ball impinging said plate, and a rod adapted to re-set said member.

2. The combination with a base plate adapted to support pins at one end thereof,

of a mechanism mounted upon the opposite end of said plate and adapted to project a ball toward said pins, said mechanism including a pivoted ball projecting member, a spring adapted to actuate said member, a fulcrumed gravity plate adapted to engage said member and retain said spring under tension, and a signal adapted to be actuated by said ball projecting member.

3. In a game apparatus, the combination with a base plate for supporting pins at one end thereof, of a mechanism mounted upon the opposite end of said plate and adapted to project a ball toward the pins for knocking down the latter, said mechanism including a spring actuated ball projecting member, a fulcrumed plate adapted to retain said member in a set position, means for directing a ball against said plate for shifting it thereby releasing the ball projecting member, and a rod for re-setting said member.

4. In a game apparatus, the combination with a base plate for supporting pins at one end thereof, of a mechanism mounted upon the opposite end of said plate and adapted to project a ball toward the pins for knocking down the latter, said mechanism including a spring actuated ball projecting member, a fulcrumed plate adapted to retain said member in a set position, means for directing a ball against said plate for shifting it thereby releasing the ball projecting member, a rod for re-setting said member, and a signal adapted to be actuated by said ball projecting member.

5. A game apparatus comprising a base plate for supporting pins at one end thereof, a mechanism mounted upon said plate and adapted to project the ball toward the pins for knocking down the latter, said mechanism including a spring actuated ball projecting member, and a fulcrumed plate normally retaining said member under tension and adapted to be shifted by the ball which is to be projected whereby said member is released and the ball projected thereby.

6. A game apparatus comprising a base plate for supporting pins at one end thereof, a mechanism mounted upon said plate and adapted to project the ball toward the pins for knocking down the latter, said mechanism including a spring actuated ball projecting member, a fulcrumed plate normally retaining said member under tension and adapted to be shifted by the ball which is to be projected whereby said member is released and the ball projected thereby, and means for directing the ball which is to be projected against said plate for shifting.

7. A game apparatus comprising a base plate for supporting pins at one end thereof, a mechanism mounted upon said plate and adapted to project the ball toward the pins for knocking down the latter, said

mechanism including a spring actuated ball projecting member, a fulcrumed plate normally retaining said member under tension and adapted to be shifted by the ball which
5 is to be projected whereby said member is released and the ball projected thereby, and a re-setting rod for said member.

8. A game apparatus comprising a base plate for supporting pins at one end thereof, a mechanism mounted upon said plate
10 and adapted to project the ball toward the pins for knocking down the latter, said mechanism including a spring actuated ball projecting member, a fulcrumed plate normally retaining said member under tension
15 and adapted to be shifted by the ball which is to be projected whereby said member is released and the ball projected thereby, means for directing the ball which is to be
20 projected against said plate for shifting, and a rod for re-setting said member.

9. A game apparatus comprising a base plate for supporting pins at one end thereof, a mechanism mounted upon said plate and adapted to project the ball toward the
25 pins for knocking down the latter, said mechanism including a spring actuated ball projecting member, a fulcrumed plate normally retaining said member under tension and adapted to be shifted by the ball which
30 is to be projected whereby said member is released and the ball projected thereby, means for directing the ball which is to be projected against said plate for shifting, a rod for re-setting said member, and a signal
35 actuated by said ball projecting member.

In testimony whereof I affix my signature in the presence of two witnesses.

PAUL MAKRAY.

Witnesses:

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K. H. BUTLER.