

Aug. 26, 1924.

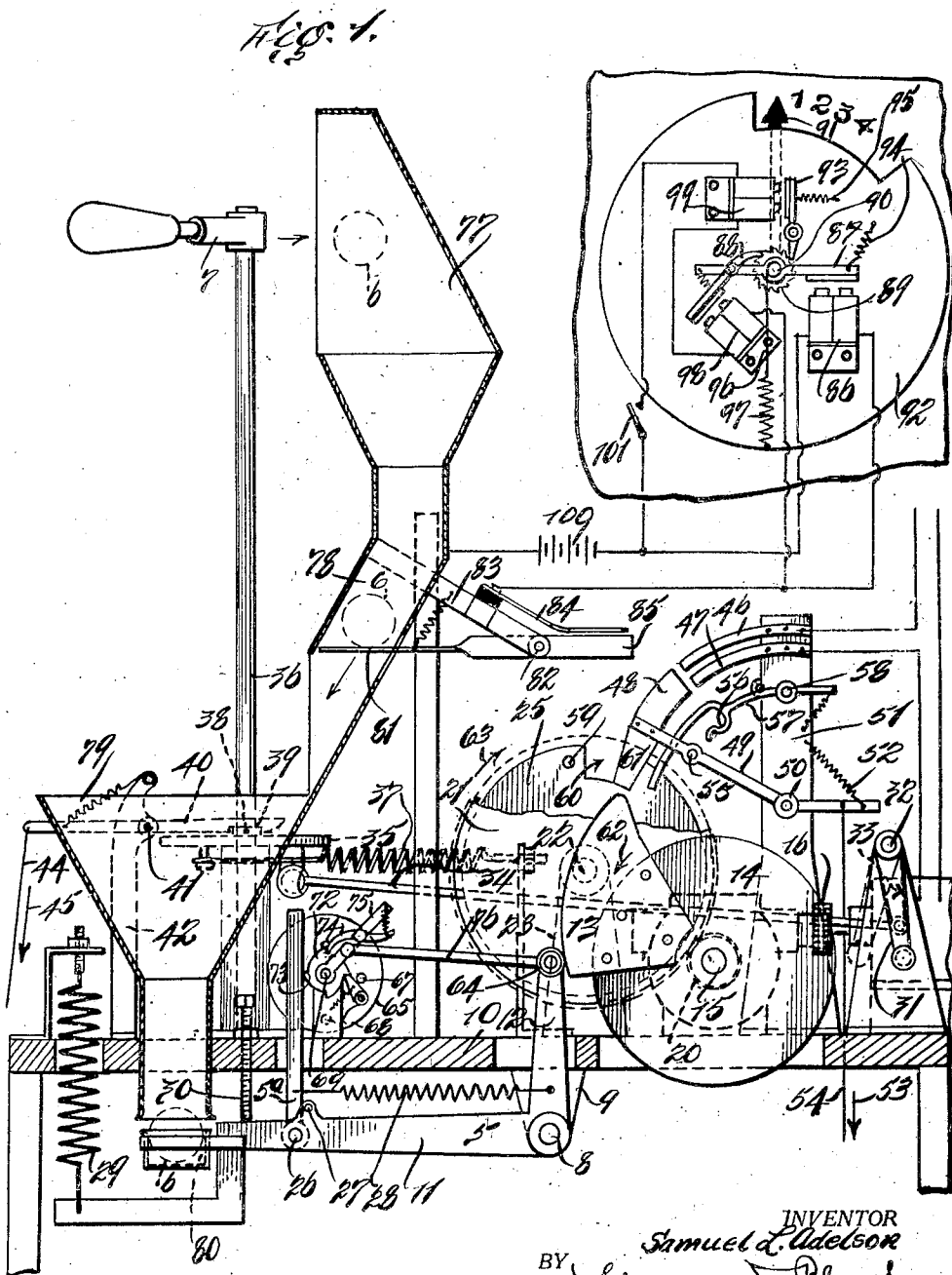
1,505,992

S. L. ADELSON

AMUSEMENT DEVICE

Filed Feb. 18, 1922

2 Sheets-Sheet 1



INVENTOR  
*Samuel L. Adelson*  
BY *Charles H. ...*  
his ATTORNEY

Aug. 26 . 1924.

1,505,992

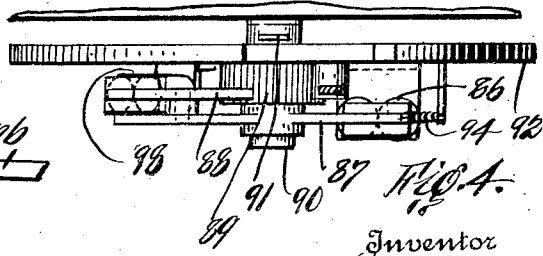
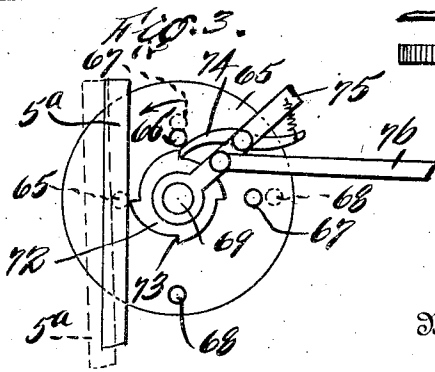
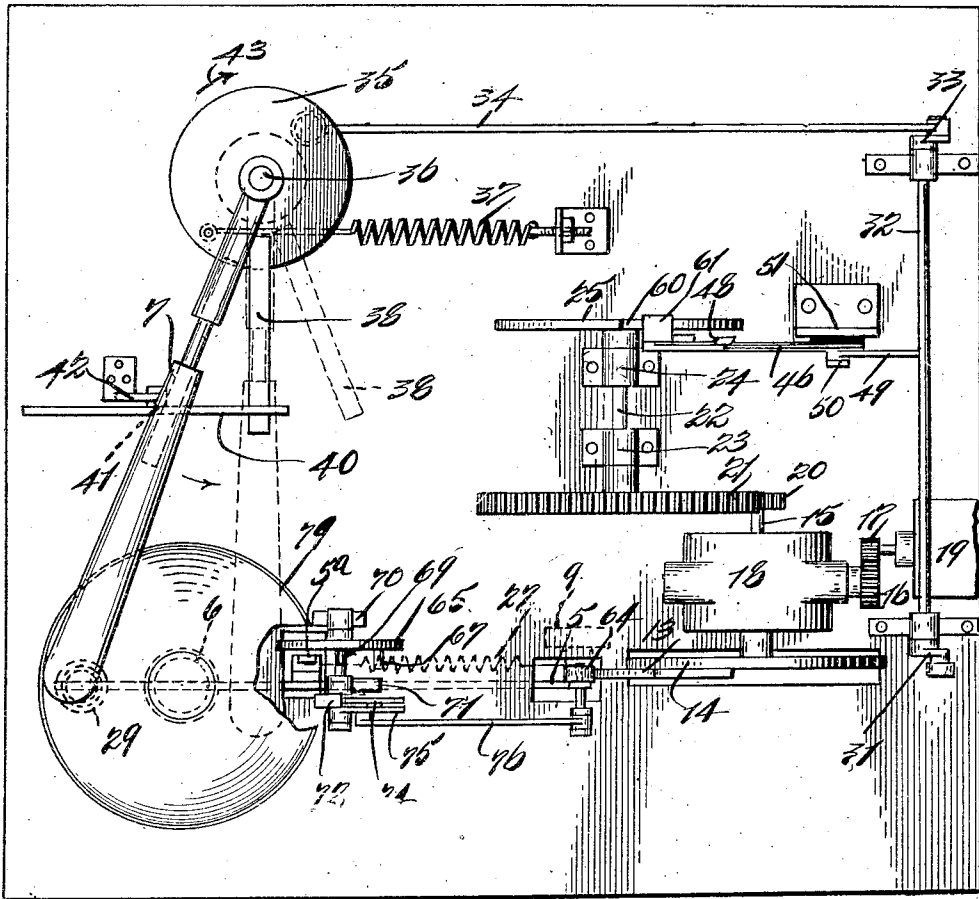
S. L. ADELSON

AMUSEMENT DEVICE

Filed Feb. 18, 1922

2 Sheets-Sheet 2

FIG. 2.



Inventor  
Samuel A. Adelson

By his Attorney  
Cecilia Block

# UNITED STATES PATENT OFFICE.

SAMUEL L. ADELSON, OF NEW YORK, N. Y., ASSIGNOR OF ONE-HALF TO PHIL ADDISON, OF ROCKAWAY BEACH, NEW YORK.

## AMUSEMENT DEVICE.

Application filed February 18, 1922. Serial No. 537,410.

*To all whom it may concern:*

Be it known that I, SAMUEL L. ADELSON, a resident of New York city, county and State of New York, and a citizen of the United States of America, have invented certain new and useful Improvements in Amusement Devices, of which the following is a specification.

This invention relates to improvements in game apparatus, one of the objects being to embody the game of base-ball in the form of a mechanical device arranged to cast or throw a ball, in combination with a mechanically operated bat to strike the ball if the judgment of the player is accurate enough to cause the bat to operate when the ball reaches a position opposite thereto. I have arranged the device so that the ball is cast automatically after an operator starts the device, the releasing of the bat being controlled by a player. Whether the ball is struck or not by the bat is dependent upon the judgment of the player.

I will now proceed to describe my invention in detail, the novel features of which I will point out in the appended claims, reference being had to the accompanying drawings, wherein:—

Fig. 1 is a side elevation of my improved game apparatus, partly in section;

Fig. 2 is a sectional top plan view, parts being omitted;

Fig. 3 is an enlarged fragmentary view of the element to vary the force of the ball casting device; and

Fig. 4 is an enlarged edge view, partly in section, looking from the top in Fig. 1.

As has been stated, my improved device is arranged to embody the game of base-ball, or at least part of it, in a mechanical device arranged to carry out or simulate the act of pitching a ball and also the act of batting a ball. To this end, I provide a bell-crank lever or carrier 5 arranged to cast a ball, indicated by dotted lines 6, upwardly in order that it can be struck, or struck at by a bat 7. The lever 5 is pivoted at 8 to a bracket 9 carried by a base-plate 10. As can be seen, the horizontal arm 11 retains the ball at its outer end, while the vertical arm 12 of said lever 5 is arranged to be actuated by a cam 13 carried by a disk 14. The disk 14 is carried by a shaft 15 operated through gears 16, 17 and suitable reducing gears (not shown) within a gear-box

18, by a motor 19. The shaft 15 carries also a gear 20 meshing with a gear 21 on a shaft 22 supported by bearings 23 and 24. The shaft 22 carries also a disk 25 to maintain the circuit for the motor closed during the operation of shaft 15, as will hereinafter be described. The arm 11 of lever 5 carries a vertically positioned rod 5<sup>a</sup> pivoted at 26 to said arm 11 which is held against a pin 27 by a spring 28 connecting said rod. The arm 11 of lever 5 is normally held up, or in horizontal position, by a spring 29 of greater strength than spring 28. An adjustable stop-post 30 is employed to contact, at its lower end, with arm 11 for a purpose to be described.

The cam 13 on disk 14 actuates an arm 31, as well as lever 5, to set the bat 7 for operation. The arm 31 actuates or oscillates a shaft 32 which also carries a shorter arm 33 connected by a link 34 to an oscillatable disk 35 carried by the vertical oscillatable shaft 36 which carries the bat 7. The disk 35 is operated against the tension of a spring 37.

To lock the bat in set position, I provide disk 35 with an arm 38 arranged to engage a notch 39 in a latch arm 40 pivoted at 41 to a support 42. Fig. 1 illustrates the bat as having been set; hence, the arm 38 is held by latch 40 and spring 37 is under increased tension, the disk 35 having been moved in the direction of the arrow 43, Fig. 2. To release the latch, to allow spring 37 to operate the bat, a lanyard 44 will be pulled by a player, in the direction of the arrow 45, Fig. 1. When the lanyard 44 is pulled, and latch 40 operated to release arm 38, spring 37 will move bat 7 to dotted line position, Fig. 2, in which event arm 31 will be moved to the dotted position, Fig. 1, or forward. The full line position will be the normal position of the bat, or its position before lanyard 44 has been pulled. Cam 13 will come to rest in the position indicated in Fig. 1. The circuit for motor 19 has included therein a switch mechanism comprised of the contacts or conductors 46 and 47 and a circuit-closer 48 carried by a lever 49 pivoted at 50 to the support 51, said lever being operated against the tension of a spring 52 in the direction of the arrow 53 by a lanyard 54. When lanyard 54 is operated, arm 49 will be actuated to cause the circuit-closer 48 to bridge the contacts or conductors 46 and 47, after which motor 49

will operate. When lever 49 is operated, as described, a pin 55 carried thereby will engage a notch 56 in a retaining arm 57 pivoted at 58 to the support 51. The outer end of arm 57 is disposed in the path of rotation of a pin 59 carried by disk 25. The pin 59 is located adjacent a notch 60 in disk 14. When the nose-piece 61 of the circuit closer 48 is located in notch 60, the circuit for the motor will be open.

When lever 49 is operated to move circuit closer 48 upwardly to bridge the contacts 46 and 47, pin 55 on lever 49 will engage the notch 56 in the retaining arm 57 and be held up. As soon as the motor starts, disks 14 and 25 will rotate disk 14 in the direction of arrow 62 and disk 25 in the direction of arrow 63. After disk 25 has rotated sufficiently to cause notch 60 to pass out of line with nose-piece 61, pin 59 will strike the end of lever 57 and carry the lever away from pin 58 on arm 49, thereby allowing the nose-piece 61 to drop upon the periphery of disk 25, thereby maintaining the motor circuit closed. Arm 57 acts merely to hold lever 49 up until notch 60 passes out of register with nose-piece 61. After the nose-piece 61 has contacted with the periphery of disk 25, the motor will continue to operate until notch 60 again aligns with the nose-piece 61, at which time the lever 49 will drop, thereby causing the circuit-closer 48 to leave contacts 46 and 47, after which the circuit for the motor will open and the device will stop, the cam 13 being positioned, as indicated by full lines in Fig. 1, or in position to operate lever 5 the next time the device is started for another operation. When cam 13 crosses its rear center, previous to the last half revolution of disk 14, arm 31 will be actuated to set the bat for operation; hence, when the device is started, the ball will be cast upwardly as soon as cam 13 clears the roller 64 on arm 12 of lever 5 when the device is started.

To vary the height to which the ball will be cast, I provide means to check the action of spring 29. When the arm 11 of lever 5 is pulled up by spring 29, the said movement being rapid, it will strike pin 30. The sudden stoppage of arm 11 will project the ball upwardly past the bat 7. The ball will be cast to the maximum height when spring 29 is allowed to exert its full force, but if the full force of the spring is impaired, the ball will not be cast so high. To accomplish this result, I provide a disk 65 having in this instance three pins 66, 67 and 68 (Fig. 3), located at different distances from the center of shaft 69 for the disk which is rotatably supported by bearings 70 and 71. The shaft 69 also carries a ratchet wheel 72 having four notches 73, in this instance engaged by a pawl 74 on an oscillatable arm 75 carried by shaft 69,

said arm being connected by a link 76 to arm 12 of lever 5; hence, each time arm 5 is operated, disk 65 will be advanced one step, causing the pins thereon to change places. Should the disk 65 be positioned, as indicated in Fig. 1, spring 29 will exert its full force. When lever arm 11 moves upwardly, after being depressed by cam 13, the next time that lever 5 is operated, pin 66 will be moved to cause rod 5<sup>a</sup> to bear against same, thereby placing spring 28 under an increased tension and pulling rod 5<sup>a</sup> against pin 66 with sufficient force to check the operation of spring 29 or decrease its force, whereby the ball will not be cast as high as if said spring 29 could exert its full force. The next time that lever 5 is operated, pin 67 will be moved into contact with rod 5<sup>a</sup>, thereby placing spring 28 under greater tension, which will check the force of spring 29 still more; pin 68 will check the force of spring 29 still more than pin 67. By this means, the height to which the ball will be cast will be varied, thereby causing a player to exert better judgement as to when he shall release the bat. The force of the ball will, of course, vary; hence, it might be cast up at high speed or at low speed. In line with the bat, I place a receiver or back stop 77, which is in the form of a box, having in communication therewith a duct 78 leading to a funnel 79 located over the pocket 80 in lever arm 11, which holds the ball 6. The ball will be cast upwardly through said funnel. In the duct 78, I place a gate 81 pivoted at 82 to a bracket 83. The bracket 83 carries a contact 84, but insulated therefrom. Should a player strike a ball, it will go into the box 77 and fall onto the gate 81, which will be moved downwardly, causing the arm 85 of said gate to strike the contact 84, thereby closing the circuit for magnets 86 which will operate an arm 87 carrying a pawl 88 which in turn will actuate a ratchet wheel 89 carried by a shaft 90, which in turn carries a pointer 91 to point to a number on adjacent plate 92. The movement of the pointer will indicate that the player had made a strike. To hold the pointer at the number to which it has been moved, I provide a retaining pawl 93. The pawl 88 and retaining pawl 93 are held in engagement with ratchet 89 by springs 94 and 95, respectively. The shaft 90 has wound thereupon a cable 96 having connected thereto a spring 97. To release pawls 88 and 93 from the ratchet when it becomes desirable to return the pointer to zero, I provide magnets 98 adjacent pawl 88 and magnets 99 adjacent pawl 93, said magnets being connected in series and with the battery 100 which also supplies current for magnets 86. The circuit for the magnets 98 and 99 is controlled by a therein included

switch 101. When pointer 91 is operated, spring 97 will be placed under tension; hence, when switch 101 is closed, the magnets 98 and 99 will draw their pawls away from the ratchet wheel 89, after which spring 97 will return the pointer to zero. The magnets 86, 98 and 99, as well as pawl 93, are carried by the plate 92. The plate 92 will be mounted upon any suitable support adjacent the mechanism for casting and batting a ball.

What I desire to secure by Letters Patent is:—

1. In a game apparatus, a movable device to retain a ball, mechanical means to actuate the ball retaining device to cast the ball, a batting device, means to manually control the operation of the batting device to strike at a cast ball, and means automatically operable by the actuating means for the ball retaining means to vary the speed at which the ball is cast, after each casting movement of the retaining means.

2. In a game apparatus, a movable device to retain a ball, mechanical means to actuate the ball retaining device to cast the ball, a batting device, means to manually control the operation of the batting device to strike at a cast ball, means controlled by the actuating means for the ball retaining device to prepare the batting device for operation, and means to automatically vary the speed at which the ball is cast.

3. In a game apparatus, a movable device to retain a ball, mechanical means to actuate the ball retaining device to cast the ball, a batting device, means to manually control the operation of the batting device to strike at a cast ball, means controlled by the actuating means for the ball retaining device to prepare the batting device for operation, and means controlled by the actuating means for the ball retaining means to automatically and successively vary the speed at which the ball is cast.

4. In a game apparatus, a movable ball retaining device, mechanical means to operate same to cast a ball upwardly, a variable distance each succeeding time, a batting device, a spring to actuate same to strike at a cast ball, means operable by the actuating means for the ball retaining device to place said spring under tension, means to hold the spring under tension, and means controlled by a player to release the spring to cause the batting device to strike at a cast ball.

5. In a game apparatus, a movable ball retaining device, mechanical means to operate same to cast a ball vertically, with a different speed each succeeding time, a batting device, a spring to actuate same to strike at a cast ball, means operable by the actuating means for the ball retaining device to place said spring under tension, a latch to hold the spring under tension, and

means controlled by a player to release the latch to cause the batting device to strike at a cast ball.

6. In a game apparatus, a pivoted carrier, means at one end thereof to retain a ball, a rotatable cam, means to operate same, to automatically depress said carrier a variable distance each succeeding time, a spring to raise said carrier to cast the ball therefrom, a pivoted bat, a spring to operate same to strike at a ball, means actuated by said cam to place said spring under tension, a latch to retain said spring under tension, and means controlled by a player to release the latch.

7. In a game apparatus, a pivoted carrier, an electric motor to operate same, means carried by the carrier to retain a ball, means actuated by the motor to actuate said carrier to cast the ball therefrom upwardly, and means to vary the operating force of said carrier.

8. In a game apparatus, a pivoted carrier, an electric motor to operate same, means carried by the carrier to retain a ball, means actuated by the motor to actuate said carrier to cast the ball therefrom, means to automatically vary the operating force of said carrier in successive movements thereof, and means, associated with the carrier actuating means, to break the circuit for the motor after said carrier has operated a predetermined number of strokes.

9. In a game apparatus, a pivoted carrier, means at one end thereof to retain a ball, a rotatable cam, means to operate same, to depress said carrier, a spring to raise said carrier to cast the ball therefrom vertically, a pivoted bat, means to actuate the bat to strike at the ball cast by said carrier, and means to vary the operating force of said spring to vary the speed at which the ball will be cast.

10. In a game apparatus, a pivoted carrier, means at one end thereof to retain ball, a rotatable cam, means to operate same, to depress said carrier, a spring to raise said carrier to cast the ball therefrom, a pivoted bat, means to actuate the bat to strike at the ball cast by said carrier, an auxiliary spring carried by the carrier independent of the actuating spring for the carrier, a brake-arm pivoted to said carrier and connected to said auxiliary spring, and means actuated by the cam operating means to move said brake-arm to place the auxiliary spring under tension to impair the action of the operating spring for the carrier by reason of the contacting of the brake arm and moving means therefor.

11. In a game apparatus, a ball casting member, a receptacle in which said member is disposed, a batting device adapted to swing across the path of a cast ball, a

hopper into which a cast ball is driven when struck by the batting device, a passageway between said hopper and said receptacle, and means in said passageway adapted to be acted upon by a batted ball for recording a strike.

12. In a game apparatus, a movable carrier, ball retaining means carried thereby, means to actuate the carrier to cast the ball therefrom, a rotatable disk, stops carried thereby located at different distances from the center of the disk, a spring associated with the carrier, and means connected to said spring and cooperating with said stops, one at a time, to place said spring under tension to impair the action of said carrier to vary the speed at which the ball will be cast.

13. In a game apparatus, a movable carrier, ball retaining means carried thereby, means to actuate the carrier to cast the ball therefrom, a rotatable disk, stops carried thereby located at different distances from the center of the disk, a spring associated with the carrier, means connected to said spring and cooperating with said stops, one at a time, to place said spring under tension to impair the action of said carrier to vary the speed at which the ball will be cast, a movable bat, and means to actuate the bat to strike at a cast ball.

14. In a game apparatus, a movable carrier, ball retaining means carried thereby, means to actuate the carrier to cast the ball therefrom, a rotatable disk, stops carried thereby located at different distances from the center of the disk, a spring associated with the carrier, means connected to said spring and cooperating with said stops, one at a time, to place said spring under tension to impair the action of said carrier to vary the speed at which the ball will be cast, a movable bat, a spring to actuate same, means operable by the carrier actuating means to place said spring under tension to actuate the bat, a latch to retain the spring under tension, and means controlled by a player to release said latch.

15. In a game apparatus, a movable carrier, ball retaining means carried thereby, means to actuate the carrier, to cast the ball therefrom, a rotatable disk, stops carried thereby located at different distances from the center of the disk, a spring associated with the carrier, means connected to said spring and cooperating with said stops, one at a time, to place said spring under tension to impair the action of said carrier to vary the speed at which the ball will be cast, a movable bat, a spring to actuate same, means operable by the carrier actuating means to place said spring under tension to actuate the bat, a latch to retain the spring under tension, means controlled by a player to release said latch, and means to register a strike should the ball be struck by the bat.

16. In a game apparatus, a movable device to retain a ball, mechanical means to actuate the ball retaining device to cast the ball vertically variable distance each time, a batting device adapted to move horizontally and cross the path of movement of the cast ball, means to manually control the operation of the batting device to strike at a cast ball, means to return a cast ball that is not struck to the retaining means therefor, and a duct associated with the ball returning means to return a struck ball to the said retaining means.

17. In a game apparatus, a movable device to retain a ball, mechanical means to actuate the ball retaining device to cast the ball, a batting device adapted to swing across the path of movement of the cast ball, means to manually control the operation of the batting device to strike at a cast ball, means to return a cast ball that is not struck, to the retaining means therefor, a duct associated with the ball returning means to return a struck ball to the said retaining means, and means within said duct to register the passage of a ball there-through.

SAMUEL L. ADELSON.