July 19, 1927. 1,636,117

T. R. ARDEN

MECHANICAL GOLF PLAYING TOY

Filed Sept. 27, 1926 2 Sheets-Sheet 1

Fig. 1.

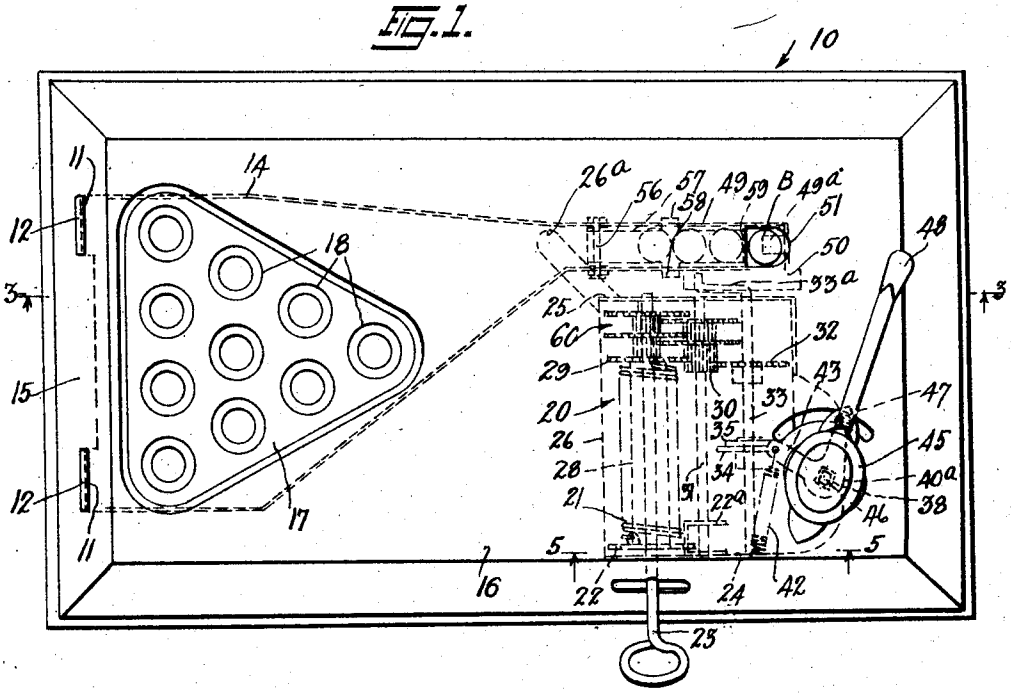
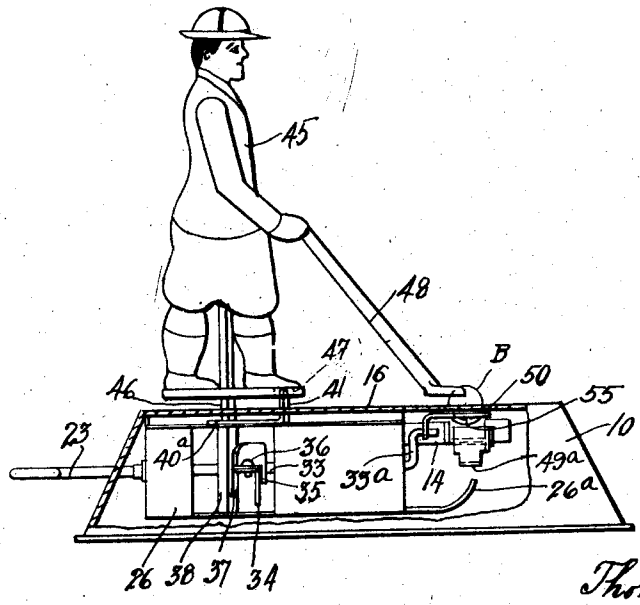


Fig. 2.



INVENTOR
Thomas R. Arden
BY
Maurice Block
ATTORNEY

July 19, 1927. 1,636,117

T. R. ARDEN

MECHANICAL GOLF PLAYING TOY

Filed Sept. 27, 1926 2 Sheets-Sheet 2

Fig. 3.

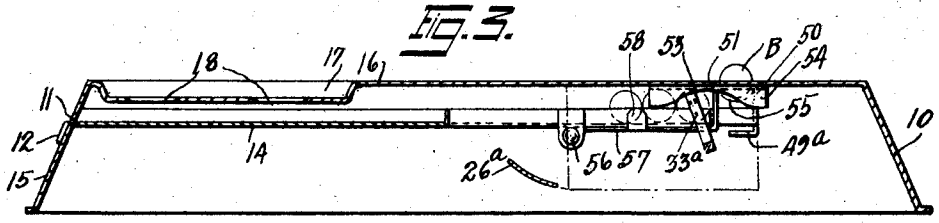


Fig. 4.

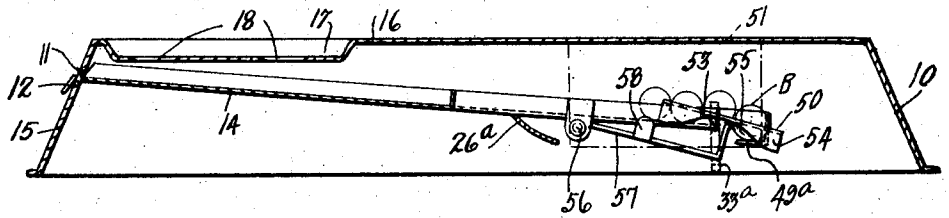


Fig. 5.

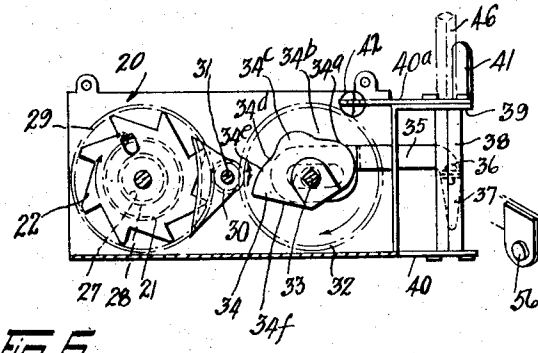


Fig. 7.

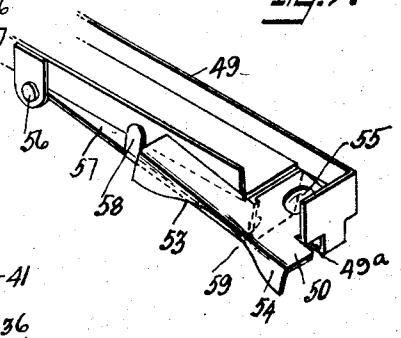
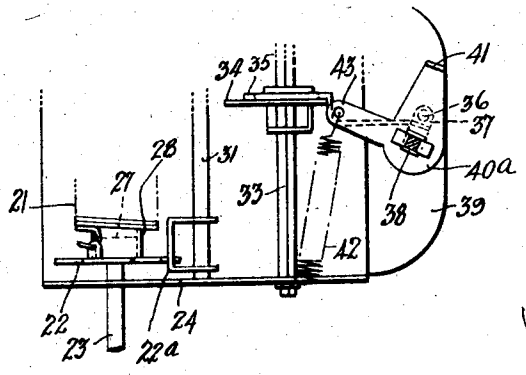


Fig. 6.



INVENTOR
Thomas R. Arden
BY
Clarence Blood
ATTORNEY

Patented July 19, 1927. 1,636,117

UNITED STATES PATENT OFFICE.

THOMAS R. ARDEN, OF FOREST HILLS, NEW YORK, ASSIGNOR TO THE FERDINAND STRAUSS CORPORATION, OF NEW YORK, N. Y., A CORPORATION OF NEW YORK.

MECHANICAL GOLF PLAYING TOY.

Application filed September 27, 1926. Serial No. 137,864.

This invention relates to mechanical toys and has for one of its important objects the provision of a toy that will simulate a golf player in the act of putting.

Another object of the invention is to provide a toy of this nature having a figure rotatably mounted thereon, and means for giving to the figure an initial ball gaging movement and a final striking movement.

A further object of the invention is to provide a toy of this nature with means for returning the ball to a predetermined position from whence it is struck by the player.

A still further object of the invention is to provide a toy of this nature, simple and inexpensive in construction, and one that will give amusement to the operator of the toy.

Other objects and novel features of construction of the toy will become apparent as the specification proceeds.

Referring to the drawings forming a part of this specification:

Figure 1 is a top plan view of my improved toy.

Figure 2 is an end view looking from the right of Figure 1 with the front wall of the base partly broken away.

Figure 3 is a sectional view on line 3—3, Fig. 1 with the ball in position ready to be struck.

Figure 4 is a similar view to Figure 3, but with the ball chute in the lowered position.

Figure 5 is a sectional view taken on line 5—5 Fig. 1 with some of the parts omitted therefrom.

Figure 6 is a top plan view of some of the parts shown in Fig. 5 and

Figure 7 is a perspective view of the ball raising end of the ball return chute.

Referring now to the drawings in detail in which like numerals refer to the same parts throughout the several views, 10 indicates a base or platform provided at its rear end with openings 11 through which project ears 12 on a chute 14 swingingly mounted on the rear wall 15 and underneath the top wall or floor 16 of the base 10. The top wall 16 is provided with a depression 17 having a plurality of holes or openings 18 therein.

A motor mechanism 20 is suitably secured to the underside of the wall 16 and is provided with a power spring 21 one end of which is secured to a ratchet wheel 22 secured to a winding key shaft 23 rotatively mounted in walls 24 and 25 of a casing 26. The ratchet 22 is provided with a hub 27 upon which there is rotatively mounted a sleeve 28 provided with a drive gear 29 to which the opposite end of the spring 21 is secured. A pinion 30 in mesh with the drive gear 29 is rotatably mounted on a shaft 31 fixed in the end walls 24 and 25 of the casing 26. A gear 32 is driven by the pinion 30 and is secured to a shaft 33 rotatably journaled in the walls 24 and 25 of the casing 26. A pawl 22^a loosely mounted on the shaft 31 engages the ratchet 22 and maintains same in proper alignment.

The shaft 33 has secured thereto a cam 34 in contact with a slotted lever 35 slidingly supported on the shaft 33 at one end and at the opposite end thereof it is loosely secured by means of a stud 36 to a bracket 37 fixed to an upright sleeve or hollow square shaft 38 rotatably journaled in extensions 39 and 40 projecting from the casing 26. The shaft 38 has secured thereto at its upper end a lever 40^a provided with an upright projection 41. A spring 42 connected to an arm 43 of the lever 40^a and anchored to the wall 24 tends to maintain the lever 35 in constant engagement with the cam 34. A figure 45 in simulation of a golf player is provided with a square stem 46 adapted to be inserted into the hollow shaft 38. The figure is further provided in its base with an opening 47 adapted to receive the upright projection 41 of the lever 40^a. The figure 45 may also be provided with a golf stick of any description in this instance, with a putter 48.

The chute 14 is provided at its forward end with a U-shape trough 49 and has swingingly mounted thereon a ball lifting member 50 adapted to lift or raise the ball B to the required height through an opening 51 in the floor of the platform 10.

The operation of the toy is as follows: When the drive spring 21 is fully wound up, motion is imparted to shaft 33 through the medium of the train of gears 29, 30 and 32. The shaft 33 is provided at one end thereof with a crank arm 33^a which engages an arcuate surface 53 on a projecting ledge 54 of the ball lifting member 50 and raises the same as well as the chute 14 from its Fig. 4 position to the position shown in Fig. 3. The

chute 14 in its lowermost position shown in Fig. 4 rests against a stop 26[a] projecting from the casing 26 and the ball raising member rests against a stop 49[a] on the trough 49. With the chute 14 and the ball raising member 50 in the above mentioned Fig. 4 position, a ball B in the trough 49 will roll down by gravity into a depression 55 in the ball raising member 50. As the crank arm 33[a] is rotated it comes into contact with the surface 53 and raises the ball raising member about its pivot 56 until the base portion 57 comes in contact with the bottom wall of the trough 49 when the chute 14 will be raised from its stop 26[a] to the position shown in Fig. 3. Lugs 58 on each side of the base 57 guide the ball raising member in its up and down movements about the trough 49. A wall 59 on the member 50 will prevent more than one ball from getting on to the said member.

After the ball has been raised to the position indicated in Figs. 2 and 3, the cam 34 will first impart a series of movements to the figure 45 in simulation of a player aiming at or gaging the ball and then it will cause the putter to strike at and come in contact with the ball and cause same to roll along the floor surface of the base 10 into one of the openings 18 and roll into the chute 14 whence it will roll down into the trough 49 when the crank arm 33[a] is out of contact with the arcuate surface 53 on the ball lifting member 50. It may here be stated that due to the arcuate surface 53 the ball lifting member and the ball B will be kept in its uppermost position for a considerable length of time or long enough for the ball to be struck by the putter. This putting or gaging action is accomplished by the high and low portions 34[a], 34[b], 34[c], 34[d], 34[e] of the cam and the striking action, by the portion 34[f] thereof. The speed of the motor mechanism is regulated by means of a governor 60 comprising a series of gears and pinions in mesh with each other and loosely mounted on the shafts 23 and 31.

From the foregoing it will be seen that I have provided a mechanical golf playing toy which will, when operated, simulate the natural movements of a player when putting and will interest and amuse those watching the said operations.

Having described my invention what I claim as new is:

1. A golf playing toy, comprising a base, a depression on the top wall of the base provided with openings therein, a chute adapted to contain a plurality of balls and swingingly mounted on the base, a figure rotatably mounted on the base and provided with means to strike a ball, and send same into the chute through the said openings, means for lowering the chute, a ball raising member pivotally connected to and in communication with the chute, and means for preventing more than a single ball from being deposited on the ball raising member, and means for lifting the ball raising member.

2. A golf playing toy, comprising a base, a depression on the top wall of the base provided with openings therein, a chute adapted to contain a plurality of balls and swingingly mounted on the base, a figure rotatably mounted on the base and provided with means to strike a ball and send same into the chute through the said openings, means for lowering the chute, a ball raising member pivotally connected to and in communication with the chute, a crank shaft on the motor to first partially raise the ball raising member and then simultaneously raise the chute and the ball raising member to a predetermined height to position a ball to be struck by the figure and a cam on the crank shaft to give to the figure an initial gaging movement and a final striking movement.

3. A toy of the nature described, having a base, a motor mechanism associated therewith, a chute swingingly mounted on the base, a crank shaft on the motor to raise the chute to position a ball above the base, a sleeve rotatably journaled in the base, a lever secured to the sleeve, a figure mounted in the sleeve and provided with means to strike a ball when raised, a spring exerting a pull on the figure mounting and means on the crank shaft for actuating said lever to rotate said sleeve against the tension of the spring.

4. A toy of the nature described, having a base provided with an opening therein, a motor mechanism associated therewith, a ball containing chute swingingly mounted on the base, a figure rotatably mounted on the base provided with means for striking the ball when so rotated, and means on the motor to raise the chute to bring the ball through the opening in the base and rotate the figure to strike the ball.

5. A golf playing toy, comprising a base, a top wall on the base provided with openings therein, a figure rotatably mounted on the base and provided with means to strike a ball, a chute swingingly mounted on the base below the said openings adapted to contain a plurality of balls, a ball lifting member pivotally secured to and in communication with the chute, means for raising the chute and ball lifting member to a predetermined height, and means on the ball lifting member to insure the raising of but a single ball to striking position.

6. A golf playing toy, comprising a base, a top wall on the base provided with openings therein, a figure rotatably mounted on the base and provided with means to strike a ball, a chute swingingly mounted on the base below the said openings adapted to contain a plurality of balls, a ball lifting

member pivotally secured to and in communication with the chute, means for raising the chute and ball lifting member to a predetermined height, and means on the ball lifting member to insure the raising of but a single ball to striking position.

7. A toy of the nature described, having a base, a motor associated therewith, a chute swingingly mounted on the base, a crank shaft on the motor to raise the chute to position a ball above the base, a sleeve rotatably journaled in the base, a lever secured to the sleeve, a figure mounted in the sleeve and provided with means to strike a ball when raised, a spring exerting a pull on the figure mounting, a lever having a slotted end slidably mounted on the crank shaft and connected to the first lever at the opposite end, and a cam on the crank shaft to actuate the lever against the tension of the spring to rotate the figure to strike a ball.

8. A golf playing device, comprising a rotatable support, a figure mounted thereon to rotate therewith, a motor, a cam having a plurality of camming portions mounted on the motor, connecting means in operative engagement with the cam and the support to impart to the figure a series of initial ball gaging movements and a final striking movement, and spring means for maintaining said connecting means in operative engagement with said cam.

9. In a golf playing device, having a base, a sleeve rotatably journaled therein, a figure supported in the sleeve to rotate therewith, a motor, a cam having a plurality of camming portions mounted on the motor, an arm in operative engagement with the cam and sleeve to impart to the said sleeve and figure a series of golf playing movements and spring means for maintaining the arm and sleeve in operative engagement with the cam.

10. In a golf playing device, having a base, a sleeve rotatably journaled therein, a figure supported in the sleeve, a motor, ball raising means pivotally mounted on the base, means on the motor to lift the ball raising means with the ball therein to a predetermined height, a cam on the motor having a plurality of camming portions, an arm in operative engagement with the cam and sleeve to rotate the sleeve and impart to the figure an initial ball gaging movement and a final striking movement, and spring means for maintaining the arm and sleeve in operative engagement with the cam.

In testimony whereof I hereunto affix my signature.

THOMAS R. ARDEN.