

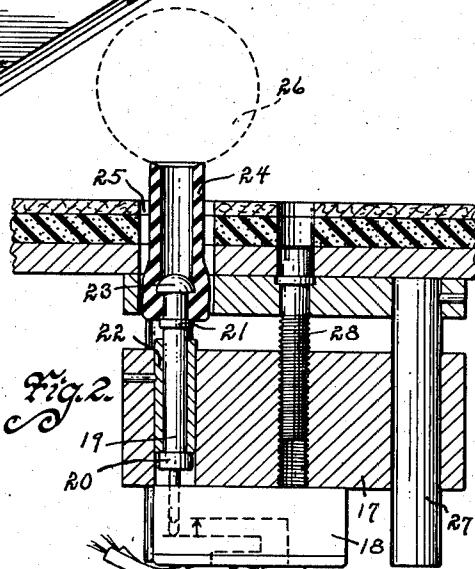
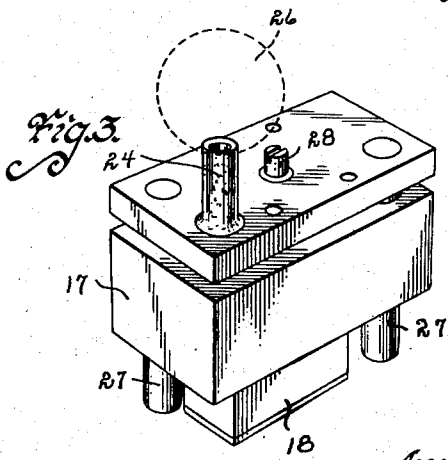
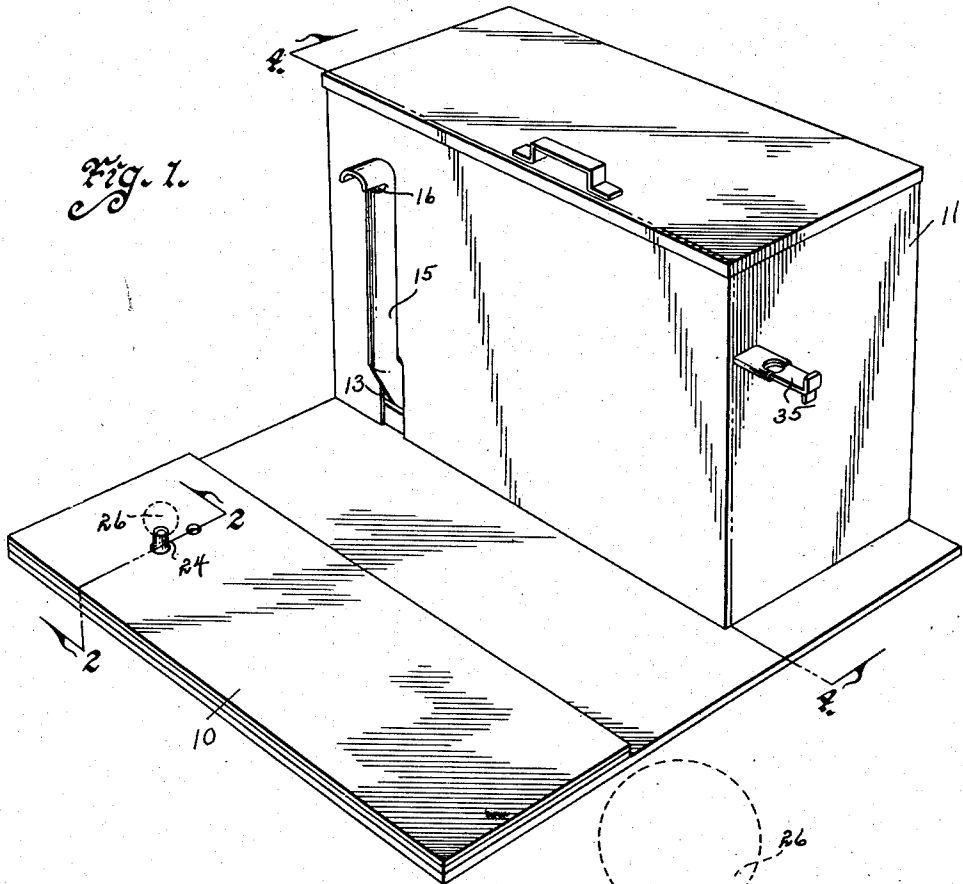
April 13, 1954

L. J. WILLCOX
GOLF BALL TEE

2,675,237

Filed Nov. 19, 1949

4 Sheets-Sheet 1



Witness
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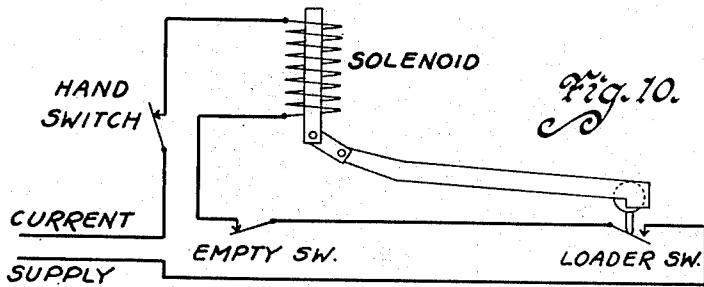
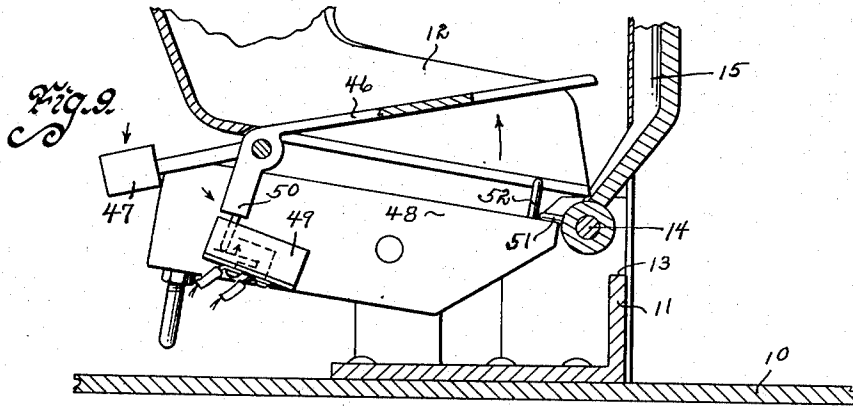
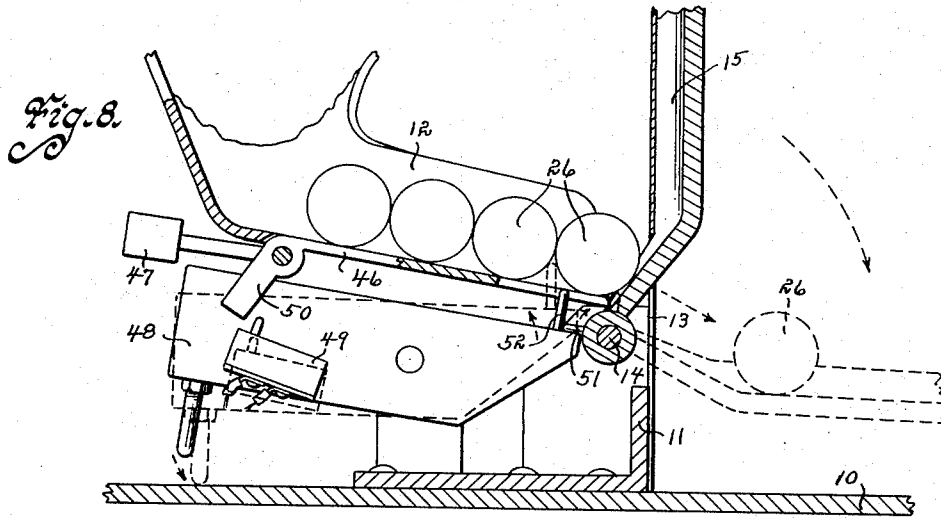
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UNITED STATES PATENT OFFICE

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GOLF BALL TEE

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2 Claims. (Cl. 273-33)

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An object of this invention is to provide a simple replaceable tee that is efficient and of long life.

This and other objects will be apparent to those skilled in the art.

My invention consists in the construction, arrangement, and combination of the various parts of the device, whereby the objects contemplated are attained as hereinafter more fully set forth, pointed out in my claims, and illustrated in the accompanying drawings, in which:

Fig. 1 is a perspective view of my device ready for use and with dotted line showing the position of a teed golf ball.

Fig. 2 is a longitudinal sectional view of the tee portion of the device taken on line 2-2 of Fig. 1 and more fully illustrates its construction.

Fig. 3 is a perspective view of the tee portion of the device.

Fig. 4 is a cross-sectional view of my machine taken on line 4-4 of Fig. 1.

Fig. 5 is a longitudinal cross-sectional view of the invention and is taken on line 5-5 of Fig. 4.

Fig. 6 is a top plan sectional view taken on line 6-6 of Fig. 4.

Fig. 7 is a side view of the coin controlled mechanism for permitting the manual release of a given number of balls.

Fig. 8 is a sectional view of the device taken on line 8-8 of Fig. 4.

Fig. 9 is a sectional view of the feeder mechanism in elevated condition.

Fig. 10 is a diagrammatic view of the wiring diagram.

Referring to the drawings I have used the numeral 10 to designate the platform of the device having at its forward end a lidded housing 11. The numeral 12 designates a fixed funneled scoop inside the housing extending downwardly and to the left, as shown in Fig. 1. This scoop is of considerable width at its upper portion to hold a considerable number of golf balls, is narrow at its lower end to accommodate the passage of single balls, and is bent at its lower end portion to extend downwardly and rearwardly. The numeral 13 designates an opening in the lower rear side of the housing and which is adjacent the lower end of the scoop member. The numeral 14 designates a shaft on the housing positioned just below the forward end of the scoop. Rigidly secured on this shaft is the ball placement trough arm 15. This trough when in lowered position extends rearwardly and downwardly with its secured receiving end below the outlet end of the scoop. The free end of the trough is closed and a hole 16 is provided in the

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bottom free end of the trough through which a golf ball may pass. The numeral 17 designates a bearing member detachably secured by suitable means under the rear left front end portion of the platform 10. The numeral 18 designates an ordinary electric switch on the under side of the bearing member 17 having the usual two electric line connections and two contact points normally in closed condition. Slidably mounted in the bearing member is a pin 19. This pin is in capable contact with one of the spring contacts of the switch, as shown in Fig. 2 and when depressed by a force greater than its own weight will break the two switch contact points. The spring contact it engages, however, is of sufficient strength to hold it in elevated position under normal conditions. The vertical sliding movement of the pin is limited in both directions by the collars 20 and 21 spaced at each side of a sleeve 22. On the upper end of the pin and spaced from the collar 21 is a semi-spherical head 23. The numeral 24 designates a rubber or like resilient tube having its lower end wall portion thicker than its upper portion. The lower end portion of this tube is placed to embrace the head 23 and its upper end portion extends through a hole 25 in the platform for supporting a golf ball 26 at all times. When a golf ball is placed on the top of the tube tee 24, its weight will depress the pin and break the electric circuit. This particular structure of the tee is an important feature of this invention. It not only provides an excellent resilient tee, but is rotatably supported by virtue of the pin being rotatably mounted in the block 17. By permitting the rotation of the tee, it will in use, wear evenly from all directions. Due to the head on the pin, it will not accidentally become detached therefrom. It, however, can be replaced easily when worn out. By making the block 17 adjustably vertically slidable to the platform by guide shafts 27 and threaded bolt 28 (as shown in Fig. 2) the height of the tee may be adjusted relative to the top of the platform 10. The length of the trough 15, and position of the tee is such that when the trough is in lowered position the vertical plane of the tee will pass through the hole 16 of the trough, as shown in Fig. 6. The numeral 29 designates a vertical electromagnet or solenoid having the usual movable part 30. The movable part 30 is connected to the shaft 14 by a crank arm 31 so that when raised will lower the trough and when not actuated will permit the trough to elevate as shown in Fig. 5. A counterbalance weight 32 on the shaft 14, yieldingly holds the trough in an elevated position.

The numeral 33 designates a supply hopper

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rack mounted in the top of the housing and having its lower discharge end feeding into the upper end of the scoop 12. The numeral 34 designates an ordinary coin receiving and coin actuating box and mechanism on the inside of the housing having the usual manually operated coin lever 35 and the actuator 36. The numeral 37 designates a bearing having the push shaft 38 engageable by the actuator 36. The numeral 39 designates a pivotally mounted trigger in the housing and engageable by the push shaft 38. The numeral 40 designates a bar hinged at one side to the inside of the housing and having a row of teeth 41 and an arm 42. The free side edge of the bar is connected to the trigger 39 by a link 43. The arrangement of all these parts is shown in Figs. 1, 5, 6 and 7. The numeral 44 designates a rotatably mounted gate in the scoop 12, operatively connected to the arm 42 by the spring loaded shaft rod 45. When the row of teeth 41 is elevated to permit the passage of balls the gate will be in closed condition.

The numeral 46 designates a tongue pivotally mounted in the lower bottom end of the scoop 12. When the weight of the balls is on the same it will be in lowered position, as shown in Fig. 8, but when no balls are present it will be yieldingly elevated by the counter weight 47, as shown in Fig. 9. The numeral 48 designates a bar rotatably mounted in the housing and below the lower end portion of the scoop 12. The numeral 49 designates an ordinary electric switch having the usual two contact points and secured on the bar 48. The numeral 50 designates a finger on the tongue capable of engaging the switch 49 and breaking the contact when the tongue and the forward end of the bar are in elevated positions.

The numeral 51 designates a projection on the secured end of the trough, that when the trough is elevated will engage the forward end of the bar 48 and elevate its rear end, as shown in Fig. 9. When the forward end of the bar 48 is in lowered position and which is yieldingly maintained by its own weight, the switch 49 will be out of effective range of the finger 50.

The numeral 52 designates a finger on the rear end of the bar 48 capable of entering the discharge end of the scoop, when the forward end of the bar 48 is lowered, and thereby prevent more than one ball at a time entering the lowering trough 15.

This operation is illustrated by dotted lines in Fig. 8. The solenoid, master switch 53, switch 18 and switch 49 are in a single electric circuit as shown in Fig. 10, and is designed to be in electrical communication with a source of electrical energy.

The practical operation of my device is as follows:

After the required coin has been placed in the coin mechanism the member 35 is manually forced forwardly. This actuates the members 38, 39 and 43, thereby raising the forward side of the bar 40 and its guard teeth 41, which in turn moves the rod 45 forwardly and closes the gate 44. A given number of golf balls will fill the upper portion of the scoop 12 above the gate. By pulling the member 35 rearwardly, the spring loaded rod 45 will lower the bar 40 thereby stopping any more balls entering the scoop and will open the gate 44. The balls will consecutively pass into the discharge end of the scoop, lowering the tongue 46 by their weight, and permitting the switch 49 to close. With no golf ball weight on

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the tee, the switch 18 will be closed, completing the electric circuit. With the circuit closed the solenoid will be energized, thereby lowering the trough 15. As the trough lowers, the ball to the rear of the pin 52 will roll down the trough, through the hole 13 and onto the tee thereby opening the switch 18.

With the circuit thus broken, the solenoid will be neutral and the trough will return to an upright position. As soon as the golf ball is driven from the tee, the switch 18 will close, completing the circuit again, and thereby making the dispensing of balls and their placement on the tee automatic. When the last ball has passed down the trough, the tongue 46 will move upwardly thereby opening the switch 49 and breaking the electric circuit until a coin is again placed in the coin mechanism and the same actuated to obtain another given supply of balls.

One of the advantages of my device is that all the mechanism thereof is accessible for inspection, adjustment or repair. It is self-serving and fully automatic for the convenience of the player.

Some changes may be made in the construction and arrangement of my automatic coin controlled golf ball dispenser and teeing device without departing from the real spirit and purpose of my invention, and it is my intention to cover by my claims, any modified forms of structure or use of mechanical equivalents which may be reasonably included within their scope.

I claim:

1. In a device of the class described, a platform having a hole, a shaft extending downwardly from said platform, a base member slidably mounted on said shaft, a screw means for moving and holding said base member in different positions relative to its sliding movement, a pin freely rotatably mounted on said base member, a head on the upper end of said pin and a flexible tubular member having its lower end portion frictionally embracing the upper portion of said pin and said head and extending through the hole in said platform for supporting a golf ball on its upper rim end in a plane above said platform; said head having its upper end rounded and its bottom flat for yieldingly resisting the accidental detachment of said flexible member from said pin but permitting the easy placement of the flexible member thereon.

2. In a device of the class described, a platform having a hole, a shaft extending downwardly from said platform, a base member slidably mounted on said shaft, a screw means for moving and holding said base member in different positions relative to its sliding movement, a pin freely rotatably mounted on said base member, a head on the upper end of said pin and a flexible tubular member having its lower end portion frictionally embracing the upper portion of said pin and said head and extending through the hole in said platform for supporting a golf ball on its upper rim and in a plane above said platform.

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