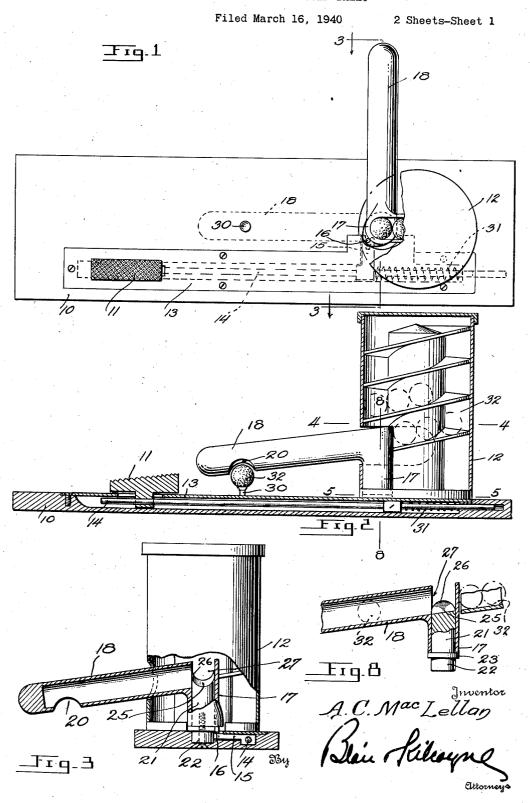
TEEING DEVICE FOR GOLF BALLS



June 2, 1942.

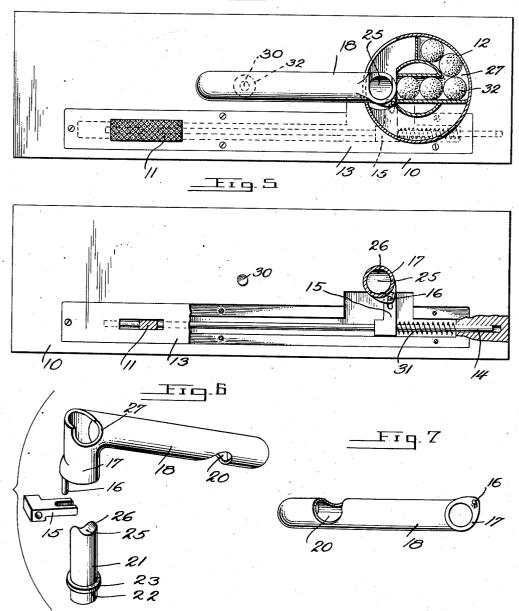
A. C. MacLELLAN

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A. C. Mac Lellan

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UNITED STATES PATENT OFFICE

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TEEING DEVICE FOR GOLF BALLS

Alexander C. MacLellan, Newport, R. I., assignor, by mesne assignments, to Hugo Key, Newport, R. I.

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7 Claims. (Cl. 273—33)

This invention relates to devices for teeing golf balls, and more particularly to a device for easily and quickly teeing a golf ball especially adapted for use in connection with practice courses although it is, of course, to be understood that one of these devices might be placed at the driving green adjacent each hole or possibly used in other games.

used in other games.

As is well known to golf players, practice courses are becoming more popular each year, 10 and the present device is designed primarily for the purpose of obviating the disagreeable necessity of teeing each golf ball manually before it is hit, thereby enabling one to drive thirty or forty golf balls rapidly one after the other almost without changing one's position, thus greatly speeding up the time one of the devices is in use by any one player.

An object of the present invention is to provide a device which may be easily and quickly operated to insure a speedy delivery of a golf ball into proper position on a tee simply by moving an operating part by one's foot.

A further object is to provide an inexpensive device of the above character adapted to hold a relatively large number of golf balls, positioned entirely above the surface of the ground and one which may be easily and quickly moved from one place to another or taken in at the end of the day.

A further object is to provide a simple and practical device of the above general character made from relatively few parts well adapted to withstand the hard use to which it is subjected, and also to be unaffected by atmospheric conditions

Other objects will be in part obvious from the annexed drawings and in part hereinafter indicated in connection therewith by the following analysis of this invention.

This invention accordingly consists in the features of construction, combination of parts, and in the unique relation of the members and in the relative proportioning and disposition thereof, all as more completely outlined herein.

To enable others skilled in the arts fully to comprehend the underlying features of this invention, that they may embody the same by the numerous modifications in structure and relation contemplated by the invention, drawings depicting a preferred embodiment of the invention from a part of this disclosure, and in such drawings like characters of reference denote corresponding parts throughout the several views, in which—

Fig. 1 is a plan view of the device showing in dotted lines the delivery arm in its normal delivery position;

Fig. 2 is an elevational view of the same parts partly in section showing the complete device in position to drop a golf ball on to the tee;

Fig. 3 is a detail of the hopper and feed arm partly in section, line 3—3 of Fig. 1;

Fig. 4 is a plan view partly in section to show the feed;

Fig. 5 shows the base plate partly in section; Fig. 6 is an exploded view of the feed arm;

Figs. 7, 8 are detail views of certain important parts;

Referring now to the drawings in detail, and more particularly to Fig. 1, 10 designates a relatively flat elongated, rectangular base member approximately one foot wide and six feet long, with a smooth upper surface except for an actuating pedal 11 at one end and a hopper 12 with removable corner at the other adapted to contain golf balls. These parts may be made of any desired material, but it has been found that a plastic composition is especially desirable by reason of its lightness, relative inexpensiveness, and durability under atmospheric condition.

The upper surface of the member 10 is recessed throughout the major part of its length (Figs. 2 and 5) to about half its thickness and contains a part of the feed actuating mechanism.

This recess is covered by a plate 13. Within the recess is positioned a rod 14 to which is attached the pedal II at one end and is provided with an L-shaped part 15 near its other end adapted to coact with a pin 16 at the lower end of a part 17 of the feed arm shown in detail in Fig. 6. The feed device comprises the cylindrical part 17 preferably open at both ends and com-40 municating with a laterally extending tubular arm 18 closed at the extreme end but having an outlet opening 20 on its lower side near the outer end. This feed arm rotates about a fixed pin or stud 21 Fig. 6. The lower end 22 which fits in a suitable recess in the base plate is supported by an integrally formed collar 23. The upper end of this stud is of concave formation in that it has a diagonally disposed transverse curved recess or slot 25. The upwardly extending lip 26 at one side of this pin is parallel with the end of a spiral feed path 27 formed in the hopper 12 and slightly to one side thereof. Thus, as the golf balls roll down the spiral path in the hopper, the bottom ball will, when the arm is in 55 the position shown in Fig. 1 roll parallel to this lip 26 and be arrested on top of the stud by the surrounding sleeve 17. When, however, the feed arm 18 is swung to the dotted line position, Fig. 1 the opening 27 is then at right angles to its former position at the end of the spiral whereby the balls in the hopper 25 will be prevented from rolling down on to the diagonal surface of the stud by reason of the surrounding sleeve 17.

There is indicated at **30** a tee preferably made of rubber or similar material which will yield 10 under impact of the driving club if the club fails to connect properly with the ball, thus eliminating breakage of the club and damage to the device.

In operation, the parts are normally as shown 15 in Fig. 1, and the player merely straddles the relatively narrow base support 10 or may stand at one end thereof. The player then puts his foot upon the pedal II and moves the same towards the hopper 12 against the action of return spring 31 positioned about the actuating rod 14. Such movement causes the angular part 15 on the rod to coact with the pin 16 of the feed arm and rotate the feed arm 90° towards the player or into the position shown in full lines in Fig. 2. It is of course to be assumed that the hopper 12 has been filled with a plurality of golf balls and that one is resting on the diagonally disposed curved upper end of the pin 21. Fig. 8. This ball then freely rolls 30 from the pin and down the inclined feed arm 18 until it reaches the bottom, whereupon it gently rolls out through the opening 20 on to the rubber tee 30, which is preferably concaved at its upper part thereby to receive and retain the ball. In 35 the meantime any other balls in the hopper are prevented from rolling down the arm 18 by reason of the sleeve 17 surrounding the pivot pin 21 which closes the lower end of the spiral as shown in Fig. 4.

On release of the pedal !! the spring 3! expands and returns the part to normal position simultaneously swinging the arm !8 backwardly away from the player into the full line position shown in Fig. 1, whereupon the ball 32 upon the tee 30 is ready to be hit. Also, the next ball at the bottom of the spiral path in the hopper rolls through the then registering opening 27 on to the curved top of the stud 2! and is held against rolling down the inclined feed tube !8 by reason of the upwardly extending lip 26 which blocks the entrance to the tube, Fig. 3.

It will thus be seen that the feed of the balls is almost automatic, requiring merely a forward movement of the pedal II by the operator, substantially without changing his position. All of the parts are returned automatically to normal position and the ball is ready to be hit. The whole operation requires not more than two or three seconds, and the balls can be driven almost as rapidly as one can properly swing a golf club. thus reducing to a minimum the time of occupancy of any teeing green by a player. The device is particularly advantageously used in the practice courses one sees so frequently along the roadside. A player can stop and drive fifty or a hundred balls in ten minutes and be on his way allowing the next player to start.

It will thus be seen that the present invention is well adapted to accomplish, among others, all of the objects and advantages herein set forth. The parts are so positioned, arranged, and proportioned as to eliminate half holding and release mechanism heretofore required while the ball was actually being teed.

Without further analysis the foregoing will so fully reveal the gist of this invention that others can, by applying current knowledge, readily adapt it for various applications without omitting certain features that, from the standpoint of the prior art, fairly constitute essential characteristics of the generic or specific aspects of the invention, and therefore such adaptations should and are intended to be comprehended within the meaning and range of equivalency of the following claims.

I claim:

1. In a device of the character described, in combination, a relatively flat rectangular base plate having a hopper at one end with a spiral support therein, an actuating pedal near the opposite end, a feed arm associated with the hopper comprising a stud, a cylindrical portion of the feed arm surrounding the stud, and a downwardly extending lateral projection for transferring the balls from the hopper to the tee, said cylindrical portion of the feed arm having an opening communicating with the end of the spiral path and adapted to block said spiral path when said feed arm is turned to a position to deliver a ball to the tee, and means associated with said stud adapted to prevent more than one ball being fed to the feed arm when said feed arm is in delivering position.

2. A device according to claim 1, in which said last means includes a lip at the top of said stud effectively closing the outlet passage of the feed arm when the arm is in normal position.

3. In a device of the character described in combination, a base-board having a hopper near one end with a feed outlet means near the other end of the base-board, a movable feed arm including a fixed support relative to which the said feed arm moves, the top of said support being adjacent the feed arm and having a protective lip at one side parallel to the line of roll of the golf balls, said feed arm having a tubular cylindrical portion rotatable about the support and an inlet opening to said cylindrical portion in registry with the outlet of the hopper, a delivery tube between said cylindrical portion and an outlet at its other end adapted to be positioned above a tee when the feed arm is moved from normal position, with the feed passage in said arm in line substantially with the lip at the top of the support whereby a golf ball is free to roll from the top of said support down through the delivery passage to the opening at its outer end on to the tee.

4. In a device of the character described, in combination, a base-board adapted to rest on the surface of the ground having a hopper near one end with means to feed a plurality of golf balls, actuating means near the other end of the baseboard, a pivotally mounted feed arm including a fixed pivot about which the said feed arm rotates, the top of said pivot being adjacent the hopper outlet and having a protective lip at one side parallel to the line of roll of golf balls, said feed arm having a tubular part rotatable about the stud with an inlet opening to said cylindrical portion in registry with the outlet of the hopper, a delivery tube between said cylindrical portion with an outlet near its other end adapted to be positioned above a tee when the feed arm is swung from normal position, with the feed passage in said arm in line substantially with the lip at the top of the pivot whereby a golf ball is free to roll from the top of said pivot down 75 through the delivery passage to the opening at

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its outer end on to the tee, and means associated with the feed arm for returning the same to normal position when the pedal is released.

5. In a device of the character described, in combination, a base-board adapted to rest on the surface of the ground having a hopper near one end with a spiral support adapted to feed a plurality of golf balls, an actuating pedal near the other end of the base-board, a pivotally which the said feed arm rotates, the top of said pivot being adjacent to said spiral feed path and having a protective lip at one side parallel to the line of roll of the golf balls, said feed arm having a tubular cylindrical portion rotatable about the 15 stud and an inlet opening to said cylindrical portion in registry with the outlet of the spiral of the hopper, a delivery tube connected with said cylindrical portion having an outlet at its outer end adapted to be positioned above a tee when 20 the feed arm is swung from normal position, with the feed passage in said arm in line substantially with the lip at the top of the pivot whereby a golf ball is free to roll from the top of said pivot down through the delivery passage to the opening 25 at its outer end on to the tee, and spring means associated with the feed arm for returning the same to normal position when the pedal is released, the inlet and outlet to and from the tube being alternately opened and closed by oscilla- 30 tions of said feed arm.

6. In a device of the character described, in combination, a base plate adapted to rest upon the ground having a hopper near one end and actuating pedal near the other, a movable feed 35 arm associated with said hopper and having a vertical axis at one end about which the arm

pivots, a tee centrally located in said base plate over which said feed arm is swung on movement of the pedal to deposit a golf ball on said tee. and means between the hopper and arm effectively to prevent the passage of a ball from one to the other and to assure the feeding of only one ball at each actuation of said pedal, said vertical axis comprising a stud on said plate about which the feed arm is adapted to swing, mounted feed arm including a fixed pivot about 10 said stud being provided with means for temporarily supporting a ball when the feed arm is in normal position and allowing said ball to roll off said stud to the tee when said feed arm is in delivery position.

7. In a device of the character described, in combination, a base plate adapted to rest upon the ground having a hopper near one end and actuating pedal near the other, a movable feed arm associated with said hopper and having a vertical axis at one end about which the arm pivots, a tee centrally located in said base plate over which said feed arm is swung on movement of the pedal to deposit a golf ball on said tee, and means between the hopper and arm effectively to prevent the passage of a ball from one to the other and to assure the feeding of only one ball at each actuation of said pedal, said vertical axis for said feed arm including a stud about which the feed arm swings, a tubular cylindrical portion on the arm closely fitting about said stud and having an inlet opening, and an outlet through the arm communicating with said cylindrical portion at one end and having a delivery opening at its other end, and means whereby one of the said openings is effectively closed when the other is open.

ALEXANDER C. MACLELLAN.