

Jan. 18, 1966

L. E. WALTENBAUGH
ROTATABLY TETHERED PRACTICE GOLF BALL CONSTRUCTION
INCLUDING BALL POSITIONING MEANS
Filed Oct. 25, 1963

3,229,982

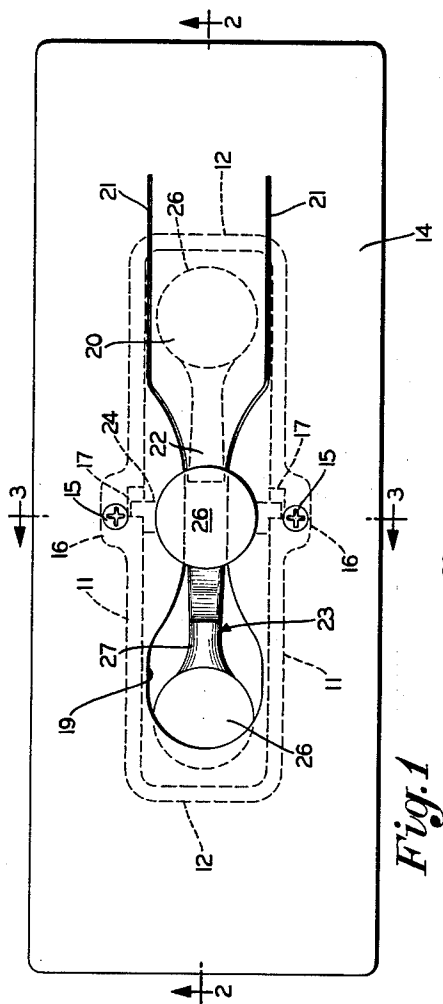


Fig. 1

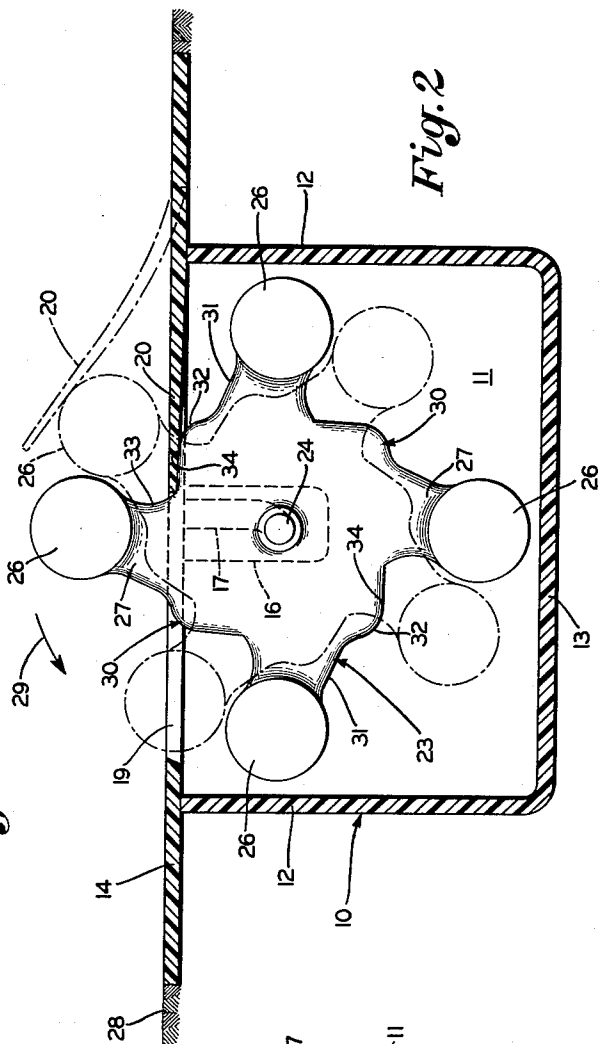


Fig. 2

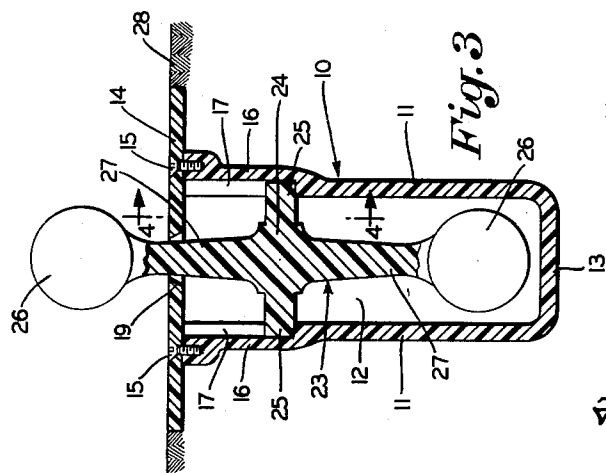


Fig. 3

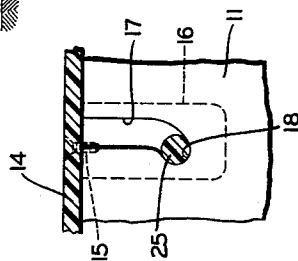


Fig. 4

INVENTOR
Louis Earl Waltenbaugh
BY
Freese, Bishop, Johns & Schick
ATTORNEYS

1

3,229,982

ROTATABLY TETHERED PRACTICE GOLF BALL CONSTRUCTION INCLUDING BALL POSITIONING MEANS

Louis Earl Waltenbaugh, 222 Taft Ave.,
North Canton, Ohio

Filed Oct. 25, 1963, Ser. No. 319,039

7 Claims. (Cl. 273-197)

My invention relates to improvements in golf practice tee construction, and more specifically to a rotatable golf practice tee having simulated golf balls formed thereon, whereby, striking one of the ball-like members causes the construction to rotate. Even more specifically, my invention relates to a golf practice tee construction which may be mounted on a platform for indoor and outdoor use, or may be permanently mounted in the ground for outdoor use.

Various prior forms of golf practice tee constructions have been provided in which a series of ball-like members are mounted rotatable about a common axis. In this form of golf practice tee construction, one of the ball-like members is positioned extending vertically above a particular surface simulating the ground surface and is positioned at a height corresponding to a normal golf tee. Thus, by striking the particular ball-like member positioned in this manner with a conventional golf club, the proper stroke for driving the ball from a golf tee may be practiced and perfected.

One of the major problems with these prior golf practice tee constructions is that it is desirable to provide means for always locating one of the ball-like members in proper position to simulate a properly teed ball, in view of the fact that these ball-like members, when one is struck, will rotate at high rate of speed about the axis of the construction. Various attempts have been made in the prior constructions to solve this problem but none have been completely satisfactory and have usually resulted in the necessity of the person using the device to manually locate one of the ball-like members in proper position prior to each practice stroke.

A further problem with the prior constructions is that it is virtually impossible to form the ball-like members being struck with the conventional golf club of a material which will withstand the severe impacts over a longer period of time, and with the prior constructions, after the ball-like members are destroyed beyond use, it has been impossible to replace any of the parts thereof, thereby making the entire construction of no use. This has resulted in these prior constructions being of relatively short life and, therefore, not economically feasible for the average everyday golfer.

It is, therefore, a general object of the present invention to provide a golf practice tee construction which eliminates the difficulties and disadvantages of the prior constructions as discussed in the foregoing.

It is a primary object of the present invention to provide a golf practice tee construction having improved and positive means formed thereon for insuring that one of the ball-like members simulating a properly teed golf ball will automatically be properly located at a generally vertically extending position after the impact of one practice stroke has been absorbed, ready for the next practice stroke.

It is a further object of the present invention to provide a golf practice tee construction in which the rotatable member having the ball-like members formed thereon and simulating the golf balls is conveniently replaceable after a period of use while the remaining portion of the construction continues reusable virtually indefinitely.

It is still a further object of the present invention to provide a golf practice tee construction in which the

2

rotatable member supporting the ball-like members simulating golf balls is pivotally mounted on a stationary frame in such a manner so as to be positively rotatably and properly positioned at all times, yet in which this rotatable member may be readily and conveniently removed from the stationary frame for replacement from time to time.

Finally, it is an object of the present invention to provide a golf practice tee construction which satisfies all of the foregoing objects in a relatively simple and efficient manner and may be provided at a minimum of manufacturing cost.

These and other objects are accomplished by the parts, constructions, arrangements, combinations and subcombinations comprising the present invention, a preferred embodiment of which—illustrative of the best mode in which applicant has contemplated applying the principles—is set forth in the following description and illustrated in the accompanying drawings, and which is particularly and distinctly pointed out and set forth in the appended claims forming a part hereof.

In general terms, the golf practice tee construction comprising the present invention may be stated as including a base member preferably formed generally box-like in configuration and having spaced side walls rotatably mounting a ball mounting member with the ball mounting member preferably being rotatable about a generally horizontally extending axis. This base member may be installed in a usual form of platform for both indoor and outdoor use or may be permanently installed in the ground for outdoor use.

Furthermore, the ball mounting member is formed with a series of ball-like members at circumferentially spaced points around the periphery thereof, with these ball-like members being secured on generally radially extending mounting arms. The rotatable mounting of the ball mounting member in the base member is constructed such that during rotation, these ball-like members will move from within the base member upwardly through a top wall of the base member into a position in which the particular mounting arm extends generally vertically upwardly through the base member top wall with the particular ball-like member positioned spaced above this base member top wall. Also, rotation of the ball mounting member from this position in which a particular mounting arm extends radially upwardly positioning one of the ball-like members above the base member top wall, moves this particular mounting arm and ball-like member again downwardly into the base member.

More particularly according to the principles of the present invention, cam means is formed on the ball mounting member between each of the ball-like members engageable by a cantilever-type tongue resiliently mounted on the base member, constructed and positioned such that the base member tongue will cause the ball mounting member to always come to rest with this base member tongue engaged with one of the cam means and one of the ball-like members positioned generally vertically upwardly of the base member top wall in proper teed position. These cam means on the ball mounting member are each preferably provided by surfaces of radially inwardly extending depressions formed by and between the mounting arms, and the base member tongue is preferably formed as a part of the base member top wall resiliently mounted extending generally horizontally from the top wall and having an end portion engageable with the cam means of the ball mounting member.

Finally, it is preferred to rotatably mount the ball mounting member on the base member between the base member side walls by means of a generally horizontally extending shaft of the ball mounting member having ends

3

received in generally vertically extending fully aligned slots in the base member side walls, with these slots being upwardly open at the base member top wall so that the ball mounting member can be conveniently removed and replaced in the base member. Also, these slots in the base member side walls are preferably generally horizontally offset at the lower ends thereof in the direction that the ball-like members will be struck for rotation of the ball mounting member, so that the ball mounting member shaft will be engaged in these slot offset portions preventing this shaft from riding upwardly in the slots during rotation.

By way of example, an embodiment of the golf practice tee construction of the present invention is illustrated in the accompanying drawings forming a part hereof, wherein like numerals indicate similar parts throughout the several views, and in which:

FIG. 1 is a top plan view of a golf practice tee construction incorporating the principles of the present invention;

FIG. 2, a vertical sectional view, part in elevation, looking in the direction of the arrows 2—2 in FIG. 1;

FIG. 3, a vertical sectional view, part in elevation, looking in the direction of the arrows 3—3 in FIG. 1; and

FIG. 4, a fragmentary sectional view, part in elevation, looking in the direction of the arrows 4—4 in FIG. 3.

Referring to the drawings, the particular embodiment of the golf practice tee construction of the present invention is shown in a form for being mounted outside in the ground as a permanent installation. It is apparent, however, that such mounting could be in any usual form of platform means (not shown) for either indoor or outdoor use.

As shown, a three-dimensional box-like base member, generally indicated at 10, is formed with generally vertical and parallel side walls 11 joined by generally vertical end walls 12, a generally horizontal bottom wall 13, and a generally horizontal top wall 14. It is preferred to form the base member 10 with the side walls 11, end walls 12 and bottom wall 13 integral, and with the top wall 14 preferably being a separate member and removably secured to the side walls 11 by the screws 15 received in the side wall bosses 16.

A pair of identical aligned slots 17 are formed in the side walls 11, preferably at the location of the bosses 16, with these slots extending generally vertically, opening vertically upwardly and also inwardly into the inner confines of the base member 10. Furthermore, slots 17 are formed with the aligned offset portions 18 forming the lower extremities thereof, for a purpose to be hereinafter described.

The top wall 14 of base member 10 is formed with a clearance opening 19 extending from inwardly adjacent one of the end walls 12, at the left as shown in FIGS. 1 and 2, to and past the upward opening of the side wall slots 17. At this point, a cantilever-type tongue 20 is formed on the top wall 14 extending horizontally to and over the other end wall 12, at the right as shown in FIGS. 1 and 2.

This tongue 20 is preferably formed from the clearance opening 19 tapering outwardly to an increased width, and then of uniform width over the end wall 12. Such formation is accomplished merely by providing the slits 21 through the top wall 14, thereby forming tongue 20 with a relatively narrow cam engaging end portion 22. Furthermore, by forming the top wall 14 of a resilient preferably rubber or plastic material, the tongue 20 will not only be resilient in and of itself, but will also be resiliently connected to the top wall 14 extending in this cantilever fashion.

A ball mounting member, generally indicated at 23, is generally vertically and rotatably mounted in the base member 10 extending for the main part vertically downwardly into the cavity formed by the side, end and bottom walls 11, 12 and 13. This ball mounting member 23 is

4

journaled on the base member 10 by means of a central generally horizontally extending shaft 24 having end portions 25 received in the side wall slots 17 and downwardly into the offset portions 18 of these slots.

The ball mounting member 23 is formed with a series of ball-like members 26, preferably four generally circumferentially equally spaced around the periphery thereof, with these ball-like members 26 being formed on the generally radially extending mounting arms 27. Furthermore, the ball-like members 26 are formed to simulate golf balls and at least these ball-like members, but preferably the entire ball mounting member, are formed of a high impact material such as a high impact plastic capable of withstanding being struck repeatedly by the usual golf club.

The rotatable mounting of the ball mounting member 23 in the base member 10 through the engagement of the ball mounting member shaft 24 in the offset portions 18 of the side wall slots 17 positions this ball mounting member 23 at a vertical height such that when one of the mounting arms 27 and its ball-like member 26 are extending substantially vertically upwardly, this mounting arm 27 will extend upwardly through the clearance opening 19 of the top wall 14 and will position the particular ball-like member 26 a proper teed distance above the top wall 14. Thus, with the base member 10 mounted in the ground, as indicated at 28, and the base member top wall 14 at ground level, the particular ball-like member 26 extending vertically upwardly above top wall 14 may be struck in usual manner with a golf club, thereby rotating the ball mounting member 23 in the direction indicated by the arrow 29 (counterclockwise as shown in FIG. 2) or downwardly toward and through the top wall clearance opening 19.

Due to the radial extension of the mounting arms 27 on the ball mounting member 23, generally radially inwardly extending depressions 30 are formed between each pair of consecutive ball-like members 26 by these mounting arms 27, with each of the depressions 30, in the direction of rotation as indicated by the arrow 29, forming a first depressed surface portion 31, a raised surface portion 32, and a second depressed surface portion 33. The first depressed surface portion 31 extends radially inwardly from one of the ball-like members 26 in the direction of rotation and blends smoothly arcuately into the radially outwardly extending raised surface portion 32, which in turn blends smoothly arcuately into the second depressed surface portion 33. This second depressed surface portion 33 extends radially inwardly a greater distance than the first depressed surface portion 31 and then blends smoothly arcuately outwardly into the next ball-like member 26.

The second depressed surface portion 33 at its side next adjacent the raised surface portion 32 is formed with a flat cam surface 34, as shown in FIG. 2, and with one of the ball-like members 26 in proper teed position above the base member top wall 14, this flat cam surface 34 in the depression 30 between this particular ball-like member and the next ball-like member to come up during rotation is generally horizontally aligned with the underside of the tongue 20 on the base member top wall 14. Furthermore, for optimum results, it is preferred to form this flat cam surface 34 angling very slightly downwardly in the direction opposite of the direction of rotation, and to also form the undersurface of the tongue 20 of matching slight angling, as shown in FIG. 2.

Thus, the engagement of the tongue 20 of the base member 10 with the flat cam surface 34 of the ball mounting member 23 positions one of the mounting arms 27 extending vertically upwardly and the ball-like member 26 thereon in proper teed position above the base member top wall 14. When the particular ball-like member 26 is struck with a usual golf club, the ball mounting member 23 begins to rotate, and such rotation is permitted by the various mounting arms 27 and ball-like members 26 mov-

5

ing upwardly against the tongue 20 and the tongue 20 due to its resilient mounting being in turn forced upwardly permitting the ball-like member to pass, as indicated in broken lines in FIG. 2.

Still further, during this rotation, the various ball-like members 26 and their respective mounting arms 27 may rotate downwardly through the clearance opening 19 of the base member top wall 14, again as indicated by broken lines in FIG. 2. Finally, as the momentum of rotation of the ball mounting member 23 is lost, and particularly as caused by the resilient resistance of the tongue 20, this tongue 20 will ultimately stop the ball mounting member 23 with the tongue extending into one of the depressions 30 between one of the pairs of ball-like members 26.

At this time, due to the arcuate formation of all of the surfaces in the depressions 30 except the flat cam surface 34, and also due to the fact that the second depressed surface portion 33 within which this flat cam surface is formed extends radially inwardly a greater distance or to a greater depth than the first depressed surface portion 31, the resilient urging of the tongue 20 will always cause this tongue to slide over the arcuate surfaces by forcing the ball mounting member 23 to rotate in one direction or the other, so that this tongue 20 will always come to rest lying against the flat cam surface 34. This, therefore, always positions one of the ball-like members 26 in proper teed position above the base member top wall 14 and ready to be struck with the usual golf club.

Finally, as best seen in FIG. 2, it will be noted that the offset portions 18 of slots 17 in the base member side walls 11 are offset in the same direction as a particular ball-like member 26 will move when struck. Thus, with the shaft 24 of the ball mounting member 23 received and rotating within these offset portions 18, when a particular ball-like member 26 is struck causing the ball mounting member 23 to rotate, the shaft 24 will not tend to ride up the slots 17 and will thereby remain properly positioned at all times, unless and until the ball mounting member 23 is purposely removed from the base member 10.

According to the principles of the present invention, therefore, a golf practice tee construction is provided in which, due to the cooperation between the cantilever type resiliently mounted tongue 20 and the flat cam surfaces 34, one of the ball-like members 26 will always be positioned at a proper teed location for being struck every time the ball mounting member 23 comes to rest. Furthermore, due to the unique formation of the slots 17 in the base member side walls 11 with the slot offset portions 18 for rotatably mounting the shaft 24 of the ball mounting member 22, this ball mounting member is always properly held in rotatable position, yet this ball mounting member with its ball-like members 26 may be conveniently removed for replacement merely by the removal of the base member top wall 14.

In the foregoing description, certain terms have been used for brevity, clearness and understanding but no unnecessary limitations are to be implied therefrom, because such words are used for descriptive purposes herein and are intended to be broadly construed.

Moreover, the embodiment of the improved construction illustrated and described herein is by way of example and the scope of the present invention is not limited to the exact details of construction shown.

Having now described the invention, the construction, operation and use of the preferred embodiment thereof, and the advantageous new and useful results obtained thereby, the new and useful construction and reasonable mechanical equivalents thereof obvious to those skilled in the art are set forth in the appended claims.

I claim:

1. In golf practice construction of the type in which a base member rotatably mounts a ball mounting member rotatable in a given direction of rotation about a generally horizontal axis, and in which the ball mounting member

6

has a series of ball members mounted circumferentially spaced around the periphery thereof positionable one at a time in generally vertically extending teed position for being struck by a usual golf club; the improvements including each ball member being secured on a generally radially extending mounting arm, the ball mounting member including generally radially inwardly and circumferentially extending depressions between the ball members, a cantilever-type tongue resiliently mounted on the base member positioned to be engageable in the ball mounting member depressions and resiliently resisting the rotation of the ball mounting member, and a plurality of substantially identical cam surface means formed on the ball mounting member engageable by and cooperating with the base member tongue for positively urging the ball mounting member to stop rotation with the tongue against one of the cam surface means and a ball mounting arm extending generally vertically upwardly positioning a ball member in the proper teed position.

2. Golf practice construction as defined in claim 1 in which the ball mounting member depressions extend from ball member to ball member in the direction of rotation of the ball mounting member and include a first arcuate generally radially inwardly extending depressed surface portion blending arcuately smoothly into a generally radially outwardly extending arcuate raised surface portion in turn blending arcuately smoothly into a second arcuate generally radially inwardly extending depressed surface portion which terminates generally radially outwardly at the next ball member, the second depressed surface portion extending generally radially inwardly a greater extent than the first depressed surface portion, and the second depressed surface portion forming the cam means.

3. Golf practice construction as defined in claim 1 in which the cam means is formed by a flat surface portion on the ball mounting member in certain of the ball mounting member depressions, and the remainder of the ball mounting member depressions extend to lesser radial depths than said certain depressions and are generally arcuate; and in which the base member tongue normally extends generally flat and has an end portion engaged with one of the depression flat surfaces when the ball mounting member is stationary and a ball member is in proper teed position.

4. Golf practice construction as defined in claim 1 in which the base member has spaced side walls; in which upwardly opening generally vertically extending aligned slots are formed in the base member side walls opening inwardly of the base member; in which the ball mounting member is formed with a generally horizontally extending centrally located shaft having cylindrical end portions; in which the cylindrical end portions of the ball mounting member shaft are received downwardly in the side wall slots of the base member rotatably mounting the ball mounting member in the base member; in which the side wall slots of the base member are formed with aligned offset bottom end portions offset in the general direction that a ball member would move from teed position when struck by a usual golf club; and in which the shaft end portions of the ball mounting member rotate in the slot offset portions.

5. Golf practice construction as defined in claim 1 in which the base member is formed with a generally horizontally extending top wall; in which a ball mounting arm extends generally vertically upwardly through the base member top wall with the ball member thereof spaced above said top wall when said ball member is in the proper teed position; and in which the cantilever-type tongue is resiliently mounted on the base member top wall automatically engageable with the cam surface means of the ball mounting member.

6. Golf practice construction as defined in claim 1 in which the base member is formed with a generally horizontally extending top wall; in which a ball mounting arm extends generally vertically upwardly through the base

7

member top wall with the ball member thereof spaced above said top wall when said ball member is in the proper teed position; in which the base member top wall is formed of a resilient material; and in which the cantilever-type tongue is integrally formed on the base member top wall extending in free cantilever fashion therefrom automatically engageable with the cam surface means of the ball mounting member.

7. Golf practice construction as defined in claim 1 in which the base member is formed with a generally horizontally extending top wall; in which a ball mounting arm extends generally vertically upwardly through the base member top wall with the ball member thereof spaced above said top wall when said ball member is in the proper teed position; in which the cantilever-type tongue is resiliently mounted on the base member top wall automatically engageable with the cam surface means of the mounting member, in which the cam means is formed by a flat surface portion on the ball mounting member in

8

certain of the ball mounting member depressions, and the remainder of the ball mounting member depressions extend to lesser radial depths than said certain depression and are generally arcuate; and in which the base member tongue normally extends generally flat and has an end portion engaged with one of the depression flat surfaces when the ball mounting member is stationary and a ball member is in proper teed position.

References Cited by the Examiner

UNITED STATES PATENTS

1,213,679	1/1917	Murphy	-----	273—197
1,798,983	3/1931	Parson	-----	273—197 X
2,202,556	5/1940	Jordan	-----	273—183 X

DELBERT B. LOWE, *Primary Examiner*.

GEORGE J. MARLO, *Examiner*.