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GOLF BALL PRACTICE DEVICE

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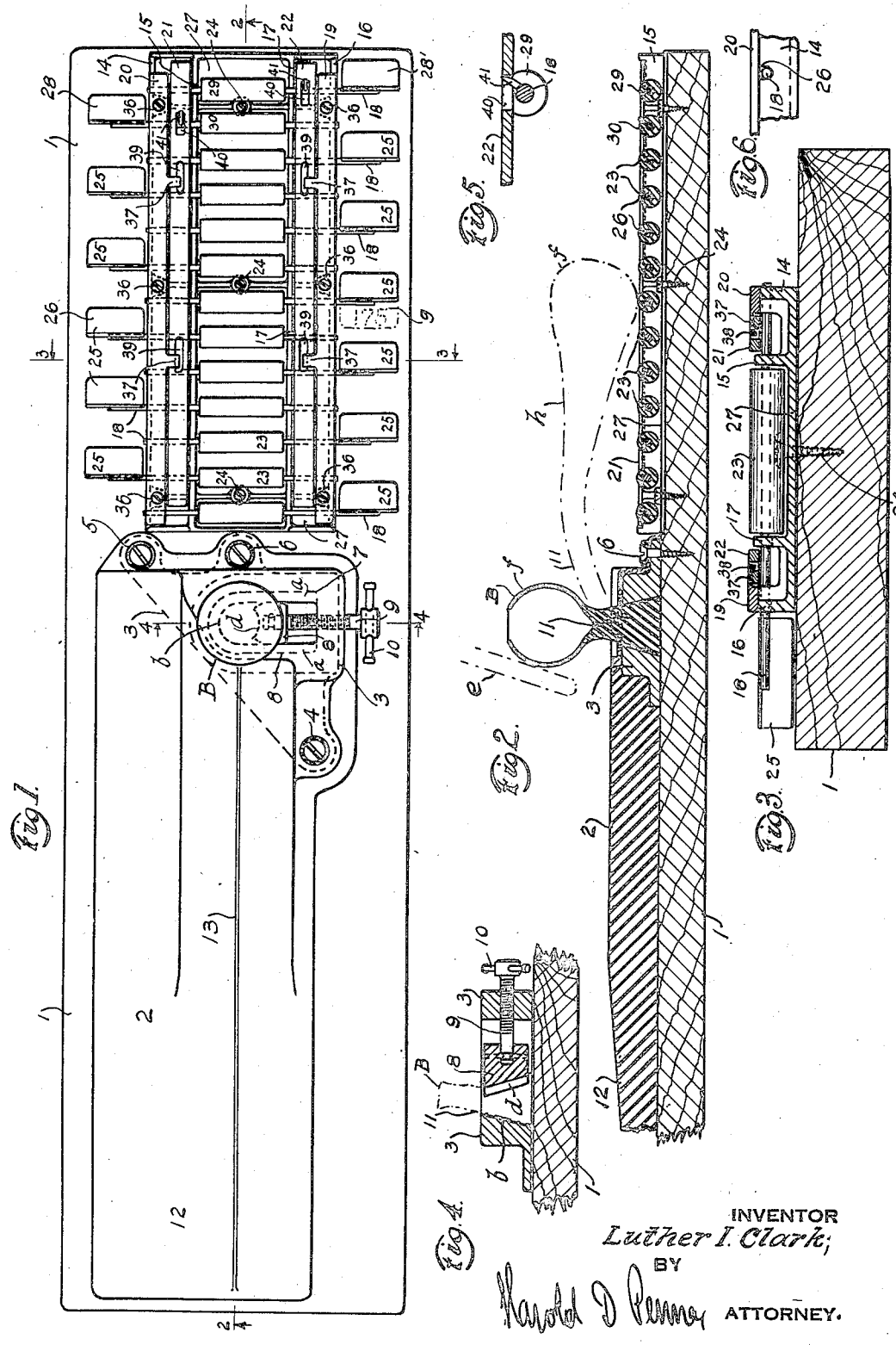


Fig. 1.

Fig. 2.

Fig. 3.

Fig. 4.

Fig. 5.

Fig. 6.

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GOLF BALL PRACTICE DEVICE

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14 Claims. (Cl. 273—35)

The present invention relates to a practice game device, and, more especially to a golf game practice device.

One of the principal features of the present improvement is in the provision of a readily collapsible and stretchable practice ball of a hollow, breather type, which is firmly anchored to a cushioned base, thereby to receive awkward shots or drives without injury to the club, and to resist divotting action.

Another important feature is in the manner in which the elastic practice ball is mounted to the cushioned driving base, whereby it may be firmly locked in operative, teed position for practice, or may be readily removed, for replacement.

A further feature lies in the provision of a resettable ball stroke indicator, in which means are provided to show, after each practice play of the ball, a distance indication of the shot.

Another feature of the present device is in the manner in which the device operates, it being constructed to indicate driving distances upon indirect or receding action of the elastic practice ball. After it is struck and reaches the maximum stretched position and then starts on its return to its normal tee position, the ball reacts upon the indicators at the instant of return, such reaction being in the form of a draw stroke upon the slice, hook or distance indicators thus to operate to set them in visible index positions. The harder the stroke, the greater distance the practice ball stretches, and the increasingly greater distance indicating means are thus reached and set to indicate, by the return stroke of the practice ball.

The practice ball herein shown, is fully described in my United States Letters Patent #1,979,795, issued Nov. 6th, 1934.

The foregoing and other features will be noted as the herein description proceeds, and it is obvious that modifications may be made in the device herein disclosed, without departing from the spirit hereof or the scope of the appended claims.

In the drawing,

Fig. 1 is a plan view of the device;

Fig. 2 is a sectional view taken on line 2—2, Fig. 1, looking in the direction of the arrows;

Fig. 3 is a sectional view taken on the line 3—3, Fig. 1, looking in the direction of the arrows;

Fig. 4 is a sectional view taken on line 4—4, Fig. 1, looking in the direction of the arrows;

Fig. 5 is an enlarged sectional and fragmentary view of one of the "slice" or "pull" indicator means; and

Fig. 6 is an enlarged fragmentary view showing the manner of mounting the rotatable indicator rods.

The device comprises a plate or base 1, preferably of wood, upon which is mounted a resilient rubber shock pad 2, having a sloping end 12, as in Fig. 2, said pad being provided with a ball sighting groove 13, thereon, which is alined with and enables the player to sight the ball B centrally thereof in play.

The end of the pad 2 opposite to the sloping end 12, has moulded therein a metallic frame, generally denoted by 3, and which frame is flanged at its bottom and which flange is provided with screw hole bores in which to receive three pad holding screws 4, 5, and 6, Fig. 1, to hold the frame 3, and its surrounding pad 2, to the base 1. The frame 3, has in its central portion a gib-way, generally denoted by 7, Fig. 1, said gib-way being shown dotted in part, in Fig. 1, and having its side walls *a*—*a* and one circular or semi-cylindrical end wall *b* inclined outwardly from top to bottom, and in the gib-way is slidably mounted a taper face clamp block 8, the forward tapered face of which is semi-cylindrical, and as in Fig. 4, when the clamp-block is moved inwardly by screwing it with its attached threaded stem 9, which in turn, is threadedly mounted in a wall of the frame 3, this causing faces *b* and *d* to firmly clamp the integral, cylindrical, tapered stem 11 of the resilient, collapsible ball head *f* firmly in the plate 3, and thereby hold it in teed position, for stroking with a golf club *e*, Fig. 2. The threaded stem 9, on its outer end has a head and a manipulable, double-headed finger stem 10 slidably mounted in the head, so that manipulation thereof will move the gib-block 8 to clamp or non-clamping position.

In alinement with the pad 2 and its firmly teed ball is mounted an elongate frame, comprising a base plate 27, Fig. 3, which along its longitudinal sides, two integral upstanding outer flanges 14 and 16, adjacent to and parallel with said outer flanges are arranged two inner upstanding flanges 15 and 17. These fixed, integral flanges are transversely notched, as at 26, Fig. 6, at spaced intervals, to rotatably receive and hold in said notches, for loose rotation, a plurality of alined cylindrical shafts 18, which are moulded into and form fixed shafts for a plurality of molded on rubber friction rolls 23—23, 29 and 30, Figs. 1 and 2.

As in Fig. 1, each shaft 18 of each friction roll 23, 29 and 30 are so molded into the friction rolls that the shafts, which are all of one length, are alternately extended on opposite sides of the

frame, and each shaft is provided, on its alternate long end, as in Fig. 1, with a shutter or index carrying blade **25**, **28**, and **28'**. Thus each index blade is provided with space on both sides of its axis of rotation in order to permit it to lie in either position of rest on opposite sides of said axis without interference with any of the other index blades. Thus, all of the rotatably mounted friction rolls carries an index blade free of interference from each other, and in plain sight of the player for instant reading and are in direct alinement with the ball.

With the index blades all lying in the positions shown in Fig. 1, the under side of each blade carries a numeral, which is thereby hidden from view, and these numerals may be arranged in progression from the first blade, commencing on the left hand of the frame in Fig. 1 to the right hand of the frame the last two blades **28** and **28'**, however being connected to be operated by unalined slidable strips **22** and **21** and being indirectly and directly rotated, are provided with words to indicate a "slice" or a "hook" in accord with which one is operated to expose its index by rotation, in play.

The mode of indirect operation of the rolls **29** and **30** is as follows; as the shafts **18** of all of the rolls merely rest in notches **26**, it becomes necessary to provide a cap bearing for each shaft end, on each side of the frame, and this is accomplished by placing bearing cap strips **19** and **20**, Figs. 1 and 3, and affixing them in operative position by means of plural screws **36**, to the base **27**. These caps are each provided at two points with channeled ears **37**, which are recessed on their under faces, thereby to form edge ledges **38**. These latter ledges enter into elongate notches **39**, Figs. 1 and 3, which are arranged in the body of two slidable strips **21** and **22**, which rest and slide upon the exposed ends of shafts **18**. The ears **37** being fixed, act as stops in the elongate notches **39**, when the strips **21** and **22** are moved longitudinally, in play.

The strips **21** and **22** are further provided with means, whereby, when they are operated in play, they will operate, each its own appurtenant index to visualize the play.

A description for one of these operative connections will suffice for both strips, as the details and operation are alike.

As in Figs. 1 and 5, strip **22** is provided with an elongate slot **40**, into which projects, from its under side, a latch pin **41**, which is radially affixed in shaft **18**. If, with the index blade **28'** of roll **29** in the position of rest with its hidden index, as in Fig. 1, the strip **22** is moved or slid to the left, to the limit of its stop notches **39**, then the latch pin **41** will cause shaft **18** to rotate backwardly and throw index blade **27** completely over one half revolution, where it rests on base **1**, with its index "slice" exposed to vision.

The mode of play and restoration of the indexes after play exposure will now be explained. With the device on the ground and with the resilient, collapsible, vented ball in mechanically and firmly teed position as in Fig. 2, the ball is struck with a golf club *e* shown dotted, with the full force of a long drive from left to right. This causes the ball to become deformed and elongated, as it moves to the right, as in Fig. 2, and as indicated by the dotted outline *h*. In moving to the right the soft and now deformed and deflated ball-head B strikes the rollers **23** in a zone at a distance from the mechanical tee commensurate with the force of the blow. Upon impact of the ball head with the friction surfaces of the index rolls, the ball instantly commences to recover its natural form, and in so doing sharply draws backwardly upon friction rolls **23** and causes them to turn over backwardly one half revolution, thus exposing the heretofore unexposed index on the index blade, as for instance, at *g*, Fig. 1, shown dotted. The thus exposed index arbitrarily indicate a stroke equivalent to 175 yards.

As the player may be either left or ring handed, he can take the proper stance on either side of the device.

If the ball is struck in true stroke alinement with the sighting line **13** on the pad **2**, any true "fairway" stroke on the ball gives a "distance" index exposure. But if the ball is struck improperly and tends to land on either side of the true axis, it can do either one of two things, or both, i. e., if the ball is struck over too far to one or the other side as to miss the rolls **23** entirely, it will contact with either strip **21** or **22**, and upon recovery pull the strip backward, and expose either the "slice" or "hook" index, thus indicating an error, without a show of distance. If, on the other hand the ball is so driven either to the right or left as to contact with either strip and an index roll, simultaneously, then the fault of stroke is shown, with a "distance" indication. Thus the player receives, after each stroke a visual indication of distance and trueness of stroke or distance and fault or fault only, and can thus correct the error by further practice strokes.

To reset the indexes back to concealed position the player merely draws the head of his club across the friction rolls **23** from left to right, as viewed in Fig. 1, and the traction thus afforded, will reset all the index blades in non-index exposing position.

If the player has a tendency to divot on his stroke the soft resilient pad **2** will absorb the shock of the blow, and the reaction of the player will indicate the fault.

If it is desired to replace a ball, the screw **9** is unscrewed, withdrawing the clamp block **8** to its full opening, after which the old ball may be replaced by a livelier one.

It will thus be seen that the device is light in weight, is simple to use, is compact and can be carried in a small space, is operated by the backward recovery action of the blow distorted flexible play ball and is extremely durable.

Having thus described the invention what is claimed is:

1. In a golf practice device, the combination of a base, a permanently teed, resilient practice ball thereon comprising a head having a resilient stem thereon, said stem being held in said base, normally unexposed, movable distance and direction indicating means rotatably located on said base within the path of movement of said head when the ball is struck and rolls connected to said indicating means adapted to move said indicating means to expose said unexposed indicating means upon impact of said ball.

2. In a golf practice device, the combination with a base of a resilient, deformable, fixedly mounted practice ball having a head and a stem and mounted on said base by said stem, of a plurality of rotatably mounted rolls on said base and in alined relation to said ball, means unaligned with said ball to operate some of said rolls indirectly when struck by the head to indicate a slice or hook stroke, said alined rolls being operated directly by said head, and in-

dicator means having play indexes affixed to the other rolls and being normally unexposed and being exposable upon impact and recovery action of the deformed head after being struck thereby.

3. A golf practice device including in combination with a ball comprising a head and having a resilient stem integral with said head, said stem including an expanded base; a yieldable tee; a metallic member molded in said tee and having therein a downwardly expanding opening wherein said base is fitted, and means movably mounted on said member and engaging said portion whereby to lock the latter in said opening.

4. A golf practice device including in combination with a ball having a hollow elastic head, and an extensible stem integral with said head, said head having a relatively large breather opening therein, and said stem having an expanded base; a metallic member having therein an elongate opening which is formed at one end to engage one side of said base; a yieldable tee disposed below the level of said head and having part thereof covering the top surface of said member; a movable block disposed in said opening and engaging the opposite side of said stem, and a threaded element threadedly mounted in said member and engaging said block whereby to urge the latter into holding relation with said base.

5. A golf practice device comprising in combination with a ball having a retractible head, said head being extensible on being hit with a club; indicating means including rearwardly turnable members, and means rigid with each of said members and engageable by said head on its extension, whereby on initial retraction of said head one of said members may be turned to indicate the length of the extension.

6. A golf practice device comprising in combination with a ball having a retractible head, said head being extensible on being hit with a club; forwardly turned members having on their lower faces distance indicating indicia, and rearwardly revolvable rollers rigid with said respective members and engageable by said head on its extension, whereby on initial retraction of said head one of said rollers may be revolved so as to turn the associated face into indicating position.

7. A golf practice apparatus comprising in combination with a ball having an elastic stem, and a retractible head integral therewith, said head being extensible on being hit by a club, and said stem having an expanded base; rigid means embracing said base and holding the latter; rearwardly revolvable members disposed in the path of movement of said head and engageable thereby; and turnable distance indicators rigid with said respective members, whereby on initial retraction of said head one of said indicators may be turned to indicate the length of the extension.

8. A golf practice apparatus comprising in combination with a ball having an elastic stem, and a retractible head, said head being extensible on being hit by a club, and said stem including a base; rigid means holding said base; a yieldable pad covering the top of said means, said pad forming a tee, an elongate frame disposed forwardly of said head; laterally disposed distance indicators, and transverse spaced revolvable members mounted on said frame and being rigid with the respective indicators, said members being engageable by said head, whereby on initial retraction of said head one of said indicators may be turned to indicate the length of the extension.

9. A golf practice apparatus comprising in combination with a ball having an elastic stem, and a retractible head, said head being extensible on being hit by a club, and said stem including a base; means holding said base and including a rigid element; a yieldable pad having part thereof covering the top of said element, said pad forming a tee; an elongate frame disposed forwardly of said head; laterally disposed distance indicators, transverse revolvable shafts mounted on said frame and being rigid with the respective indicators, and rollers rigid with said shafts, said rollers being engageable by said head, whereby on initial retraction of said head one of said indicators may be turned to indicate the length of the extension.

10. A golf practice apparatus comprising in combination with a ball having an elastic stem and a retractible head, said stem including a base and said head being extensible on being hit by a club; means holding said base; a resilient pad having its top surface disposed above the top of said means and forming a tee; an elongate frame; transverse shafts journalled in said frame and each having one end projecting therebeyond, a distance indicator fixed to the forward side of each of said ends, which latter project from alternate shafts; and rollers rigid with said shafts, said rollers being disposed in the path of travel of said head and engageable thereby, whereby on initial retraction of said head one of said indicators may be turned rearwardly to indicate the length of the extension.

11. A golf practice apparatus including in combination with a ball having a lowermost stem, and a retractible head, said head being extensible on being hit by a club; an elongate base; means holding the lower end of said stem and including a frame; a yieldable pad, said pad having the forward end thereof covering said frame and forming a tee; an elongate frame disposed in front of the ball; means attaching said frames to the base; forwardly turned distance indicators disposed laterally of the elongate frame, and rotary members mounted on said elongate frame and engageable by said head, said members being rigid with the respective indicator, whereby on initial retraction of said head one of said indicators may be turned rearwardly to indicate the length of the extension.

12. A golf practice apparatus comprising in combination with a ball having an elastic stem, and a retractible head, said stem including a base and said head being extensible when hit by a club; means for holding said base; an elongate frame disposed forwardly of the ball; distance indicating means having elements disposed along the center of the frame and defining a direct course for said head; laterally disposed direction indicators; and elongate members slidably disposed on opposite sides of said course and having connections with said indicators, whereby when said head is driven off the direct course one member may be engaged thereby, so that on initial retraction of said head said member may be slid rearwardly so as to operate the associated indicator.

13. A golf practice apparatus comprising in combination with a ball having an elastic stem, and a retractible head, said stem including an extended base, and said head being extensible on being struck by a club; means for holding said base; an elongate frame disposed forwardly of the ball; distance indicating means having elements disposed along the center of the frame to define a direct course for said head; direc-

tion indicating means; said last means including laterally disposed rearwardly turnable indicators; and slidable members disposed on opposite sides of said course and having operative connections with said indicators, whereby when said head is driven off the direct course one of said members may be engaged thereby, so that on initial retraction of said head said member may be slid rearwardly so as to operate the associated indicator.

14. In a golf practice device, the combination with a base of a practice ball comprising a deformable head having a resilient stem thereon, said stem being affixed to said base, a plurality of rotatable shafts having fixed rolls mounted on said base adjacent said ball and distance indicator means affixed to said shafts, said indicator means having play indexes thereon, and being normally unexposed, but being exposable upon impact and recovery action of the deformed head after said shafts are struck by said head.

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