Oct. 22, 1929. E. R. KAPPELER 1,732,971

GOLF PRACTICING DEVICE

Filed July 1, 1927

Fig. 2.

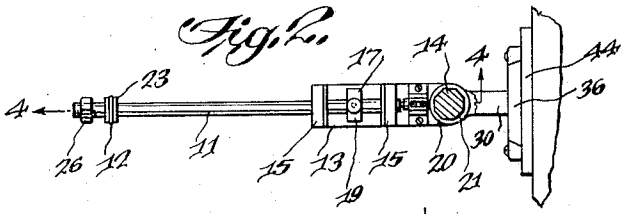


Fig. 1.

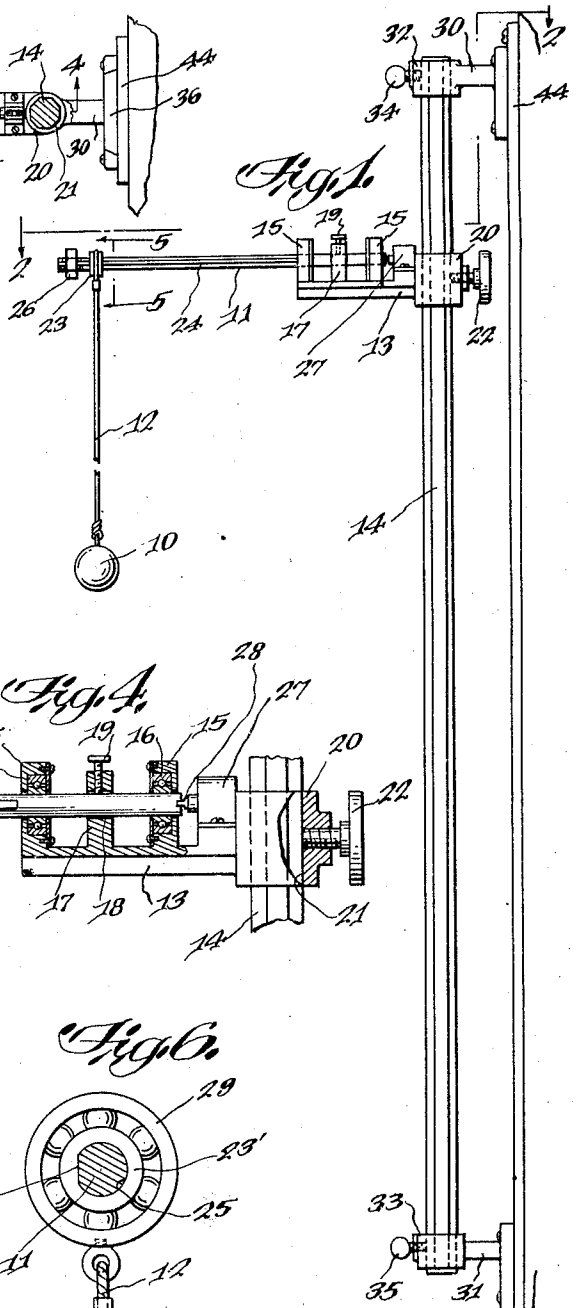


Fig. 3.

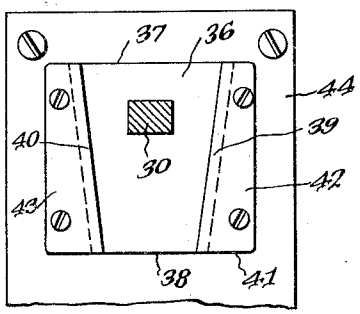


Fig. 4.

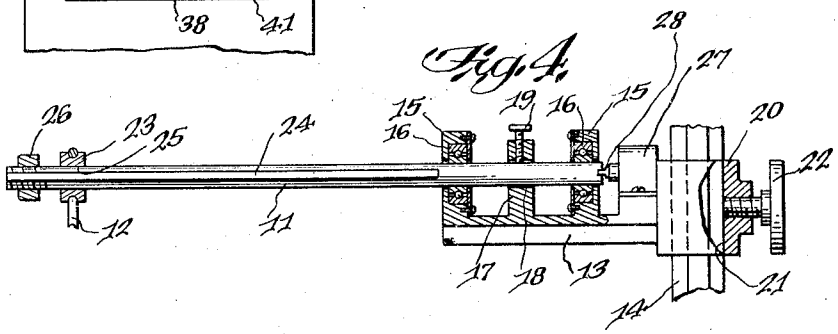


Fig. 5.

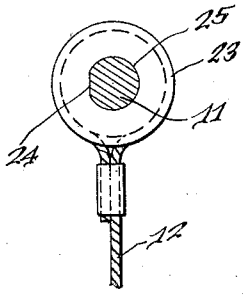


Fig. 6.

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Patented Oct. 22, 1929

1,732,971

UNITED STATES PATENT OFFICE

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GOLF PRACTICING DEVICE

Application filed July 1, 1927. Serial No. 202,936.

This invention relates to certain novel improvements in golf practicing devices.

The salient object of my invention is to provide a golf practicing device which will embody a horizontally disposed portion adapted to support a ball in position to be struck by an ordinary golf stick in a manner similar to the usual usage of said stick.

An ancillary object of the invention is to arrange the horizontally disposed portion for vertical adjustment.

A further object of the invention is to provide such a device which may be expeditiously moved from one place to another when so desired.

A still further object of the invention is to provide a device of the aforementioned type which will be simple in construction and economical to manufacture.

Other objects will appear hereinafter.

The invention consists in the novel combination and arrangement of parts to be hereinafter described and claimed.

The invention will be best understood by reference to the accompanying drawings, showing the preferred form of construction and in which:

Fig. 1 is a side elevational view of a preferred embodiment of my invention;

Fig. 2 is a detail view taken substantially in the plane of the line 2—2 on Fig. 1;

Fig. 3 is a detail view of a supporting bracket employed in the device;

Fig. 4 is a detail view taken substantially in the plane of the line 4—4 on Fig. 2;

Fig. 5 is a detail view taken substantially in the plane of the line 5—5 on Fig. 1; and

Fig. 6 is a view of a modified form of the device shown in Fig. 5.

Referring to the drawing wherein the preferred embodiment of my invention is illustrated, it may be seen that I provide a ball 10 as adapted to be supported from the horizontally disposed rod 11 by a suitable flexible cord 12 which may be either of wire, cord, or analogous material. The rod 11 is supported by a bracket 13 which in the present instance is carried by a vertically disposed rod 14. Referring to Fig. 4, it may be seen that the bracket 13 embodies upwardly protruding bosses 15 in which the anti-friction bearings 16 are carried. The rod 11 is adapted to be journaled in the bearings 16 in order that it shall be freely rotatable. An upwardly protruding boss 17 is provided on the bracket 13 that is positioned between the bosses 15. The shaft 11 extends through an opening 18 in the boss 17 and a set screw 19 is provided in this boss that is adapted to engage the rod 11 and lock said rod against rotation when so desired. However, it is to be understood that when the screw 19 is out of engagement with rod 11, said rod will be freely rotatable in the bearings 16.

In the present instance, in order to prevent movement of the bracket 13 about the support, I have shown the vertical support 14 as being in the form of a polyhedron but it is to be understood that this member might be formed in any desired manner; for example, a circular keyway might be provided therein and a suitable key adapted to ride in this keyway would be provided on the bracket 13. In the structure depicted, the portion 20 of the bracket 13 has an opening 21 therein which embodies a configuration on the surface thereof similar to the shape of the vertically extending member 14 and this arrangement prevents rotation of the bracket 13, and therefore the rod 11, about the vertically extending member 14. It is apparent that the keyway construction, heretofore referred to, would also accomplish this purpose. Further, if so desired, two vertically extending rods might be provided and a bracket member might be disposed therebetween which would be adapted to support the bracket 13 and this would also accomplish the heretofore referred to feature of preventing movement of the rod 11. A set screw 22 is provided in the portion 20 of the bracket 13 and is adapted to engage the vertically extending member 14 and by loosening this screw the bracket 13 and therefore the rod 11 may be moved along the vertically extending column 14 to any desired horizontal level and by tightening said screw, the rod 11 may be fixed in this position.

As has been stated, the rod 11 is adapted to support the ball 10, a suitable cord 12 be-

ing provided to accomplish this purpose. The upper end of the cord 12 is adapted to be secured around a suitable bearing such as that indicated by 23 (Fig. 5). The rod 11 embodies a flattened portion 24 on the periphery of the portion thereof disposed beyond the outer boss 15. The bearing 23 embodies an opening 25 therein which is adapted to be formed similar to the periphery of the rod 11 in order that the bearing 23 will be fixedly secured to the rod 11 so as to be rotatable therewith. The outer end of the rod 11 is screw threaded and a nut 26 is secured on these screw threads so as to prevent end-wise displacement of the bearing 23.

The cord 12 may be of any desired length and if so desired, this cord may be arranged so that the length thereof may be varied. The bracket 13 is adapted to be slid along the vertically extending column 14 until the ball 10 is positioned in juxtaposition to the floor. The user of the device will then use an ordinary golf stick and will strike the ball in a manner similar to that of striking an ordinary golf ball. When the ball 10 is struck it will be caused to revolve about the rod 11 and inasmuch as the bearing 23 is fixed so as to cause rotation of the rod 11 the rod will revolve with the ball and this rotation will be materially aided by the anti-friction bearing 16. If the ball is struck squarely it will revolve at right angles to the rod 11 and it will therefore rotate for a longer time than it will if it is not struck squarely for it will then rotate in an arc which will not be disposed at right angles with respect to the rod 11.

Mounted on the bracket 13 between the portion 20 and the boss 15 is a counting device 27 that embodies an outwardly protruding portion 28 that is adapted to have suitable connection with the inner end of the rod 11. As the rod 11 rotates the number of revolutions will be recorded on the counting device 27 and by calibration the distance the ball would have been propelled may be determined.

By tightening down the set screw 19 the rod 11 may be held against rotation as has been stated. When the device is arranged in this manner and the ball 10 is struck the cord 12 will wind about the rod 11. If the ball is struck squarely the cord 12 will wind about the rod 11 in closely disposed convolutions. However, if the ball 10 is not struck squarely the cord 12 will wind about the rod 11, initially, in closely disposed convolutions which will gradually be spaced apart in greater amounts as the cord 12 winds thereabout and these convolutions will be disposed on either side of the bearing 23 dependent upon the side on which the ball 10 has been struck. In this manner the user of the device may determine whether he has "sliced" or "hooked" the ball, these terms being part of the nomenclature of the game of golf and being readily understood by those familiar with this game.

In Fig. 6 a modified form of the bearing 23 is shown. In this instance, a member 23′ is provided which embodies an opening formed similarly to the opening 25 in the member 23. The outer periphery of the member 23′ is arranged so as to provide a ball race and an annular ring 29 is disposed around the member 23′ and is spaced away from said member so as to provide a space therebetween in which balls may be mounted so as to provide an anti-friction bearing. It is to be understood that any form of anti-friction bearing might be substituted in place of the one described and still not depart from the purview of my invention. In this construction the cord 12 is adapted to be secured to the member 29 in any desired manner. This device is particularly adapted for usage when the rod 11 is locked against rotation inasmuch as it will permit freer rotation of the ball 10 about said rod as a center.

As has been stated the vertically disposed column 14 may be arranged in several different ways. However, for the purposes of discussion and explanation of the utility, the structure disclosed in the drawings will be described in detail. Brackets 30 and 31 are provided which embody portions 32 and 33 that have openings therein, the surface of which is arranged so as to embody a configuration similar to that on the member 14. Set screws 34 and 35 are provided in the portions 32 and 33 which serve to securely lock the member 14 to the brackets 30 and 31. The barckets 30 and 31 are adapted to be secured to a vertically extending wall or other similar support in any desired or approved manner such as by the usage of ordinary wood screws or bolts. However, I have found it advantageous to arrange this device so that it may be used in several different places and to accomplish this, I provide a portion 36 on the brackets which is particularly shown in Fig. 3. By referring to this figure, it may be seen that the portion 36 is arranged so as to be wedge-shaped in form, that is so that the upper edge 37 thereof is of greater width than the lower edge 38 thereof. On the edges 39 and 40 of the portion 36, I provide beveled surfaces, the utility of which will be made apparent presently. Adapted to receive the portions 36 are the blocks 41 which embody the outwardly protruding portions 42 and 43 that embody formations on the inner surfaces thereof that are adapted to co-operate with the edges 39 and 40 of the portions 36. The portions 42 and 43 are wider at their lower portions than at the upper portions so as to receive portions 36 and limit the downward movement thereof. These portions also embody beveled surfaces which are adapted to co-operate with the beveled surfaces on the edges 39 and 40 so as to prevent outward movement of the portions 36. In the present

instance, the members 41 are adapted to be mounted on a board 44 so as to assure proper alignment thereof, but it is to be understood that the members 41 might be secured directly to the wall or other supporting member. In the present instance, the board 44 is adapted to be secured to said wall. It is apparent that the blocks 41 removably support the vertically extending column 14 and by providing several of the blocks 41 at various desired places the column 41 together with the remainder of the device which is carried thereby may be moved to these various places when so desired.

It is apparent that I have provided a golf practicing device which may be used to aid golfers in developing the proper swing in order to strike the ball squarely inasmuch as this device will quickly record any defect in the striking of the ball. It is apparent that by shortening the cord 12 that is positioning the rod 11 in close relation to the floor, the apparent accuracy of striking the ball will be increased since the cord 12 will be shorter and therefore will not as readily record inaccuracy in striking. As the user of the device increases his efficiency in hititng the ball, the length of the cord 12 may be increased and thus as he develops greater accuracy on the longer cord, he will in turn have improved his swing. This device may be used in a competitive game by the employment of the counting device 27 in a manner which will be readily apparent.

While I have illustrated and described the preferred form of construction for carrying my invention into effect, this is capable of variation and modification, without departing from the spirit of the invention. I, therefore, do not wish to be limited to the precise details of construction set forth, but desire to avail myself of such variations and modifications as come within the scope of the appended claims.

Having thus described my invention what I claim as new and desire to protect by Letters Patent is:

1. A device of the class described including a vertically disposed support, a bracket adjustably carried by said support having bearings thereon, a horizontally disposed rod rotatably journaled at one end in said bearings, and a ball suspended from the projecting end of said rod adapted for rotation therewith.

2. A device of the class described including a vertically disposed support, brackets for said support, means for removably supporting said brackets, a horizontally disposed rod, means including anti-friction bearings adapted to rotatably receive said rod adjustably carried by said support, and a ball suspended from said rod adapted for rotation therewith.

3. A device of the class described including a vertically disposed support, brackets for said support, means for removably supporting said brackets, a horizontally disposed rod, means adjustably carried by said support carrying said rod, a bearing on said rod, a cord secured to said bearing, a ball suspended on said cord adapted for rotation with said bearing about said rod.

4. A device of the class described including a vertically disposed support, a bracket carried by said support, a horizontally disposed rod carried by said bracket, said rod being adapted for rotation in said bracket, a ball suspended from said rod adapted for rotation therewith, and a counting device associated with said rod adapted to record the revolutions thereof.

5. In a device of the class described, a vertically disposed support, means for carrying said support, a bracket adjustably mounted on said support, bearings on said bracket, a horizontally disposed rod having one end journalled in said bearings, a bearing member mounted on the projecting end of said rod, a cord having a ball mounted at the free end thereof attached to said bearing member, and means for locking said rod against rotation in said bearings.

6. In a device of the class described, a vertically disposed support, means for carrying said support adapted to hold said support against rotating movement, a bracket adjustably mounted on said support, means for holding said bracket from rotatable movement about said support, bearings in said bracket, a horizontally disposed rod having one end rotatably journalled in said bearings, said rod having a formed surface on the periphery thereof on the portion projecting from said bearings, a bearing member having an opening adapted to embody a configuration substantially similar to the configuration of said rod and adapted to be mounted thereon, means for suspending a ball from said bearing member, and a counting device associated with said rod adapted to record the revolutions thereof.

7. In a device of the class described, a vertically disposed support, means for carrying said support adapted to hold said support against rotating movement, a bracket adjustably mounted on said support, means for holding said bracket from rotative movement about said support, bearings on said bracket, a horizontally disposed rod having one end rotatably journalled in said bearings, said rod having a formed surface on the periphery thereof on the portion projecting from said bearings, a bearing member having an opening adapted to embody a configuration substantially similar to the configuration of said rod and adapted to be mounted thereon, means for suspending a ball from said bearing member said bearing member including

portions adapted to be rotative relative to each other said ball carrying means being attached to the outer of said rotative portions, and means for locking said rod against rotation in said bearings.

In testimony whereof I affix my signature.

ERNEST R. KAPPELER.