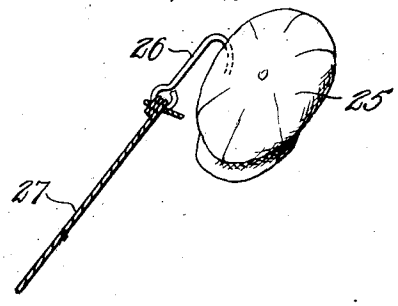
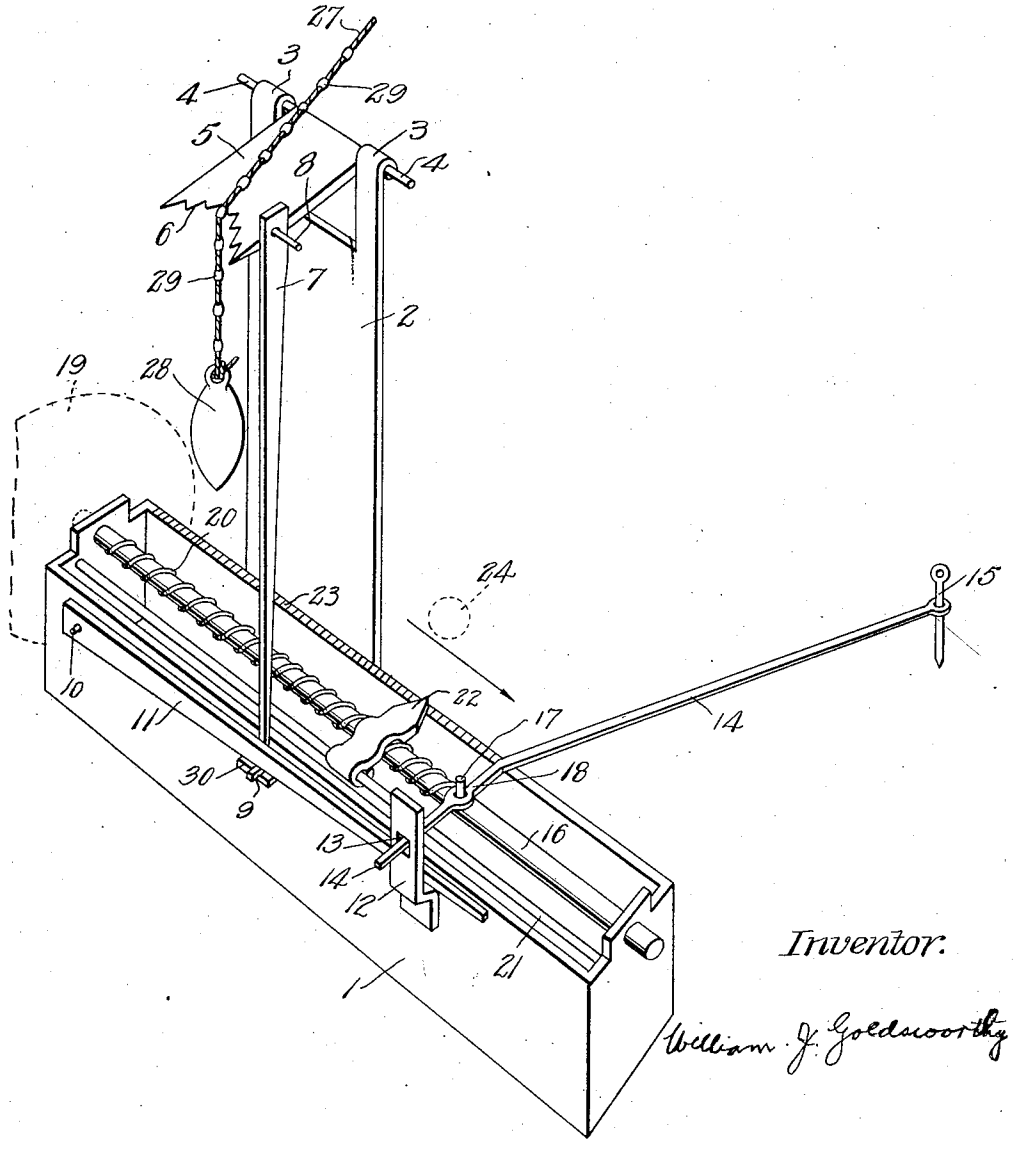
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W. J. GOLDSWORTHY

GOLF PRACTICING AND TRAINING DEVICE

Filed March 22, 1926





Inventor:

William J. Goldsworthy

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UNITED STATES PATENT OFFICE.

WILLIAM J. GOLDSWORTHY, OF SAN FRANCISCO, CALIFORNIA.

GOLF PRACTICING AND TRAINING DEVICE.

Application filed March 22, 1926. Serial No. 96,543.

The present invention relates generally to improvements in golf practicing and training devices wherewith a player may practice and train in parts of the game, away from the course, and thereby acquire greater proficiency for the playing of an actual game of golf upon the golf course.

The invention is directed in particular towards automatically securing to the practicing player the unmoved position of the head for and during that portion of the stroke when the head should be stationary.

Another object is to furnish to the practicing player information as to the force with which the strokes have been made.

Reference is made to my copending application Serial Number 25,349 filed April 23, 1925. The present application shows improvements on the device there shown and the present claims will be drawn outside thereof.

The accompanying drawing is a view of the device, with some features shown in rough proportions and relations only, as the cap of the player, the ball, the anchoring pin, etc.

In carrying out my invention in the manner shown 1 is an open top boxlike frame adapted to be immovably secured upon the surface played upon. An upright standard 2 is rigidly secured to the frame 1 with its upper end provided with two prongs 3 whose ends are turned to receive in turnable relation the pintle 4 of a plate 5 and allow the plate 5 to swing and turn in the manner of a hinge.

The free end of the plate 5 is recessed into an arcuate shape and also beveled to a relatively thin edge. Teeth 6 are cut in the thin arcuate shaped end of the plate 5. A downwardly extending rod 7 is loosely and turnably secured to the plate 5 by the pin 8 and pivots thereon. The rod 7 is shaped at its lower end into a laterally extending foot 9. 30 indicates a shelf like projection or lug, rigidly connected to the frame 1, upon which the foot 9 of the rod 7 rests and is prevented from further downward travel. A pin 10 is rigidly secured in the side of the frame 1. A latch like bar 11 is made to pivot on the pin 10 and to extend over and lie on the laterally extending foot 9 of the rod 7. The bar 11 extends to and seats in a catch or keeper 12, secured to the frame 1, fashioned to receive and release the bar 11 as it turns on the pin 10 in the manner of a catch of a latch. An eye 13 is cut in the catch or keeper 12, above where the turning bar 11 seats, through which eye 13 the free end of an elongated blow receiving member 14, in this case a pliable cord or strap, extends. By reason of the insertion of the free end of the cord or strap 14 in the eye 13, the bar 11 will be locked against any pivoting movement on the pin 10 and when the said inserted free end is withdrawn from the eye 13 the bar 11 will be unlocked and freed to pivot on the pin 10. Thus satisfying the definition of a detent, to-wit: that which locks and unlocks a movement. The opposite end of the cord or strap 14 is carried out to a distance from the frame 1 and is secured to the anchor 15 which in turn is rigidly set into the surface played upon. A shaft 16 is provided to protrude through the ends of the frame 1 and freely revolves in bearings there provided. A smooth sided offset pin 17 is rigidly secured to the revolving shaft 16. An opening or eye 18 is provided in the pliable cord or strap 14 through which eye 18 the offset pin 17 easily and readily inserts and retires. 19 indicates in dotted outline the presented face of a fly wheel rigidly fitted on the end of and revolving with the shaft 16. A continuous spiral or worm 20 is provided on the shaft 16. By experiment it has been found that one or more wires closely wrapt spirally and parallelly on the shaft 16 in open relation and then secured thereto will answer for the purposes of the device. In the drawing the worm or spiral thread is shown as if composed of wire forming the endless screw result desired. A guide rod 21, arranged parallel to the revolving shaft 16, is rigidly secured to the ends of the frame 1. A traveling pointer 22 is hinged to the guide rod 21 in a manner to turn on and slide freely to and fro along the guide rod 21. The traveling pointer 22 is made to extend over and contact with the revolving shaft 16 and at the point of contact is recessly curved, approximately less than one-half of a full turn, in order to fit closely to and upon the worm 20 of the revolving shaft 16. Such contacting recessed curved portion of the traveling pointer 22 is threaded or toothed on its contacting face to receive the worm 20 in meshed operative relation to the end that when the shaft 16 revolves the traveling pointer 22 will be moved along the shaft 16 and the guide bar

21. The traveling pointer 22 is adapted to be lifted manually out of mesh with the worm 20 and slid along the guide rod 21. The free end of the traveling pointer 22 is pointed and lies over and moves along and over the edge of the frame 1 where a scale 23 is provided that will indicate the travel of the traveling pointer 22.

24 represents the dotted outlines of a golf ball approximately in the position from which it will be driven by a club in the hands of the player and the arrow indicates the direction of the travel of the ball 24 after being hit and also the direction of the travel of the club head after the hitting of the ball 24 by the player.

25 shows the cap of the player in inaccurate relation with the device. 26 shows a ringed end hook engaging the cap 25 of the player. 27 shows a pliable cord secured by one end to the ring of the hook 26 and carried forward and over the plate 5. For the purposes of the drawing the cord 27 is shown with a section removed. A weight 28 is secured to the opposite end of the cord 27 causing the cord 27 to be bent in the arcuate shaped end of the plate 5 and lie against the teeth 6. Irregularities 29, comprised either of knots formed by and in the cord 27 itself, or of material secured to the cord 27, are provided on the cord 27 preferably at regular spaced apart distances thereon.

The device being provided and assembled as described and the frame 1 and the anchor 15 being secured to the surface to be played upon, the player will see that the cord or strap 14 is secured to the anchor 15. The player will see that the traveling pointer 22 meshes with the worm 20 of the shaft 16 opposite the beginning of the scale 23. The player will see that the free end of the cord or strap 14 is properly inserted through the eye 13 of the catch or keeper 12, and that the pin 17 projects through the eye 18. The ball 24 being in place to be played, the player, with cap 25 on his head and with hook 26 securing the weighted cord 27 thereto, will hold his club in one hand and advance to a position close to the device, at the same time carrying in his other hand the cord 27 and weight 28 for the purpose of putting them into operative contact with the plate 5. He will then drop the weight 28 over the arcuate end of the plate 5 and allow the cord 27 to engage with the teeth 6 at a point just above the weight 28. The player will then back away from the device, and take his stance position for the making of the actual stroke, paying out the cord 27 as he retires and being careful the while to keep the weight 28 practically unmoved. Having reached his stance position, the player will assume an erect attitude and then entirely release his hold on the cord 27 when the weight 28 will pull the cord 27 and irregularities 29 down over the teeth 6 of the plate 5 making the cord 27 taut and the player will sense the pull on his cap 25 and head.

He will then address the ball and execute his waggle during which address he will naturally lean forward and as he leans forward the weight 28 will pull the cord 27 and irregularite 29 still further over the teeth 6. At the moment of taking the club back to make the actual stroke his head will have assumed its lowest forward and downward position and the irregularite 29 by engaging in the teeth 6, in any attempted upward movement of the head, will cause his head to be locked in that position until the plate 5 is allowed to swing. In the continuation of the stroke the player will hit the ball 24 and the club, in its forward carry after the ball 24 has been hit, will strike the cord or strap 14 and cause the free end thereof to be pulled from the eye 13 of the catch or keeper 12.

At that time, and not before, the head may be lifted or taken back through the bar 11 being free to turn on the pin 10 and in turn cease to hold the bar 7 through its foot 9 and bar 7 in turn being able to move will allow the plate 5 to be swung on its bearings and thereby remove the restraint against the head being lifted.

At the time the cord or strap 14 is hit by the club, and by reason of one end of the cord or strap 14 being anchored, the free opposite end will be carried out and along the line of flight of the club head. Then the eye 18 of the cord or strap 14 will violently pull on the pin 17 and cause the shaft 16 and its fly wheel 19 to revolve and as the shaft 16 revolves the eye 18 will slide from the pin 17. The impulse given to the shaft 18 will cause it and its fly wheel 19 to continue to revolve for some time and by means of the worm or spiral thread 20 will cause the traveling pointer 22 to be moved along the scale 23 and thereby indicate, other things being equal, the force with which the cord or strap 14 was pulled from the pin 17.

It is obvious that pin 17 may be longer or shorter as desired or made to set at an angle other than upright to the shaft 16 and thereby vary the impulse given to the shaft 16 by the club-impelled flying cord or strap 14.

It is also obvious that, as the free end of the cord or strap 14, projecting through the eye 13 of the keeper 12, is made longer or shorter, the time of freeing the head from the restraint, imposed as described, may be accelerated or delayed. Thus, increasing the length of the free end of cord or strap 14 will increase the distance that the club, during the finish of the stroke, will have to carry forward the cord or strap 14 in order to release the head. This being done with-

out altering the position of the anchor 15, or varying the force with which the cord or strap 14 will be pulled from the pin 17.

While the reading scale 23, the traveler 22 and the worm 20 may be easily associated so as to correctly register the revolutions of the shaft 16, it may be remarked, should it be desirable to use some of the shaft operated recording registers now known and used, that such would be at the command of the device, where the revolving of the shaft 16 is obtained as described.

Having thus illustrated my invention and described the same in detail, what I claim as new and desire to secure by Letters Patent is:

1. In a golf practicing and training device in combination, a rigid support, a movable member carried by the support and freely operative thereon, an elongated member detachably secured to the head-wear of the player and conveying movements of his head to and actuating the supported freely moving member, an elongated blow receiving means secured by one end, a rigidly supported catch means adapted to hold and release the free opposite end of the elongated blow receiving means thereby constituting a detent, a means moving into and out of the catch means and controlled by the detent and connecting means between the head actuated freely moving member and the detent controlled means for actuating the same.

2. In a golf practicing and training device in combination, a rigid support, a movable member carried by the support and freely operative thereon, an elongated member detachably secured to the head-wear of the player and conveying movements of his head to and actuating the supported freely moving member, an elongated blow receiving means secured by one end, a rigidly supported catch means adapted to receive and release the free opposite end of the elongated blow receiving means thereby constituting a detent, a means moving into and out of the catch means and controlled by the detent, connecting means between the head actuated freely moving member and the detent controlled means for actuating the same, a spindle freely revolving in a support, an offset from the spindle in separable connection with the elongated blow receiving means and a register means operated by the spindle for recording the revolutions thereof.

3. In a golf practicing and training device in combination, a rigid support, a movable member carried by the support and freely operative thereon, an elongated member detachably secured to the head-wear of the player and conveying movements of his head to and actuating the supported freely moving member, an elongated blow receiving means secured by one end, a catch means adapted to receive and release the free opposite end of the elongated blow receiving means thereby constituting a detent, a means moving into and out of the catch and controlled by the detent, connecting means between the head actuated freely moving member and the detent controlled means for actuating the same, a spindle freely revolving in a support, an offset from the spindle in separate connection with the elongated blow receiving means, a worm on the spindle, a traveler actuated by the worm and a distance scale for the traveler.

4. In a golf practicing and training device in combination, an elongated blow receiving means secured by one end, a spindle freely revolving in a support, an offset from the spindle in separable connection with the elongated blow receiving means and a register means operated by the spindle for recording the revolutions thereof.

5. In a golf practicing and training device in combination, an elongated blow receiving means secured by one end, a spindle freely revolving in a support, an offset from the spindle in separable connection with the elongated blow receiving means, a worm on the spindle, a traveler actuated by the worm and a distance scale for the traveler.

Signed in the city and county of San Francisco, and State of California, this 12th day of March, 1926.

WILLIAM J. GOLDSWORTHY.