Jan. 25, 1966 W. COLLINS 3,231,280

GOLF DRIVING STATION AND WHEELED PUTTING GREEN TARGET

Filed Oct. 19, 1962

2 Sheets-Sheet 1

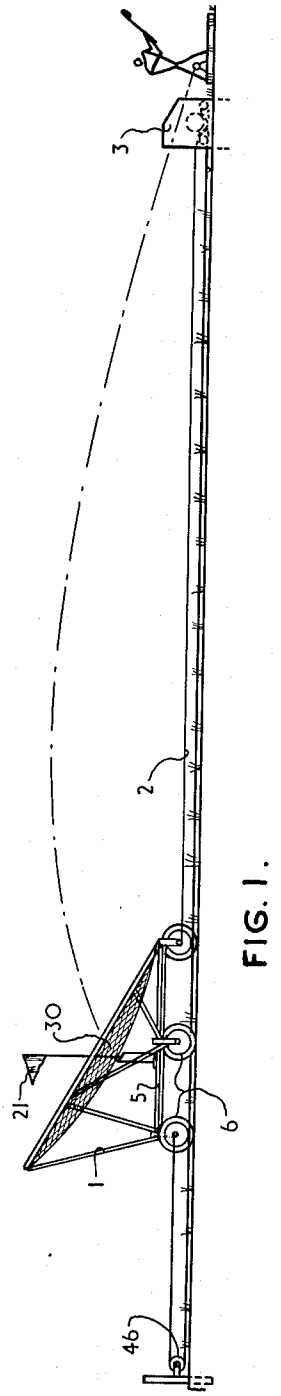


FIG. 1.

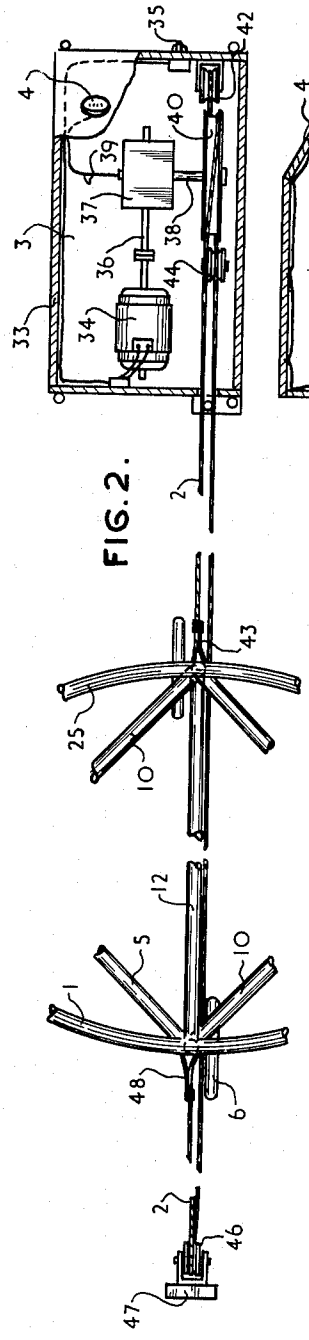


FIG. 2.

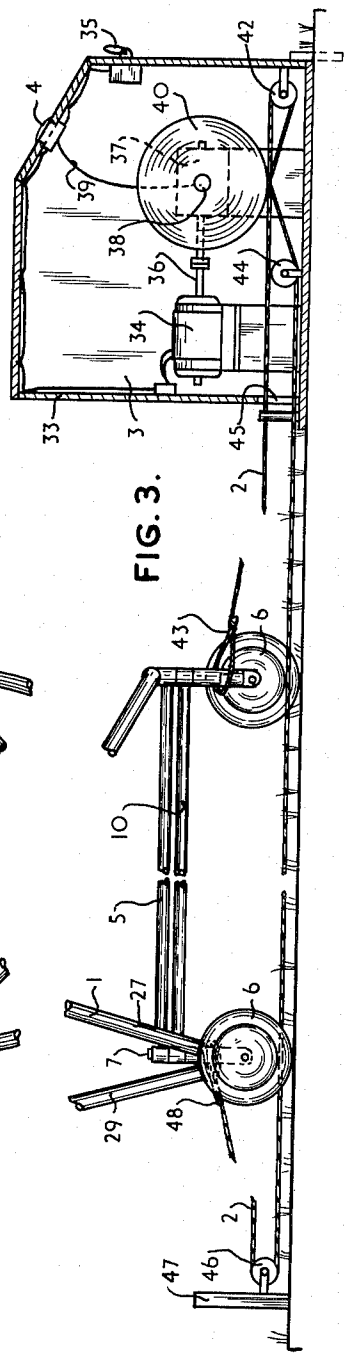


FIG. 3.

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2 Sheets-Sheet 2

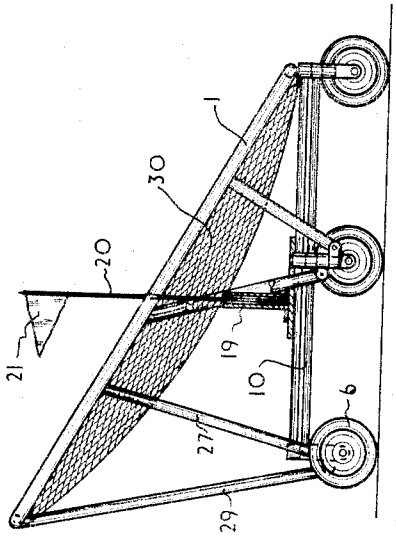


FIG. 4.

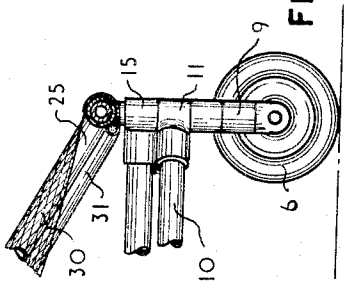


FIG. 7.

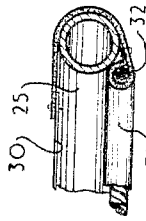


FIG. 6.

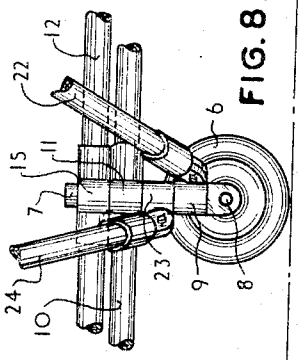


FIG. 8.

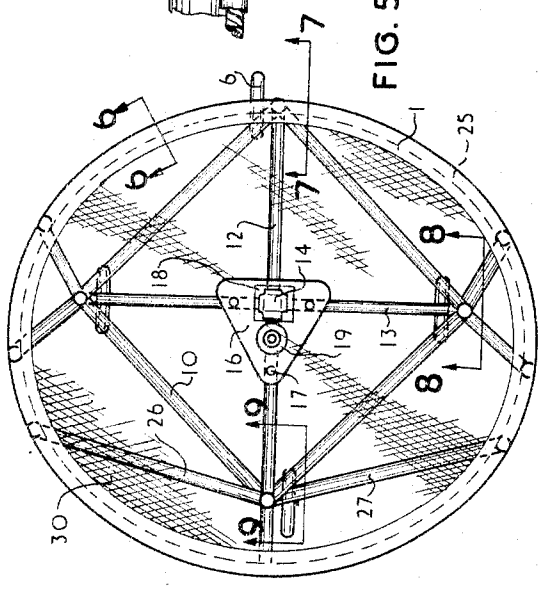


FIG. 5.

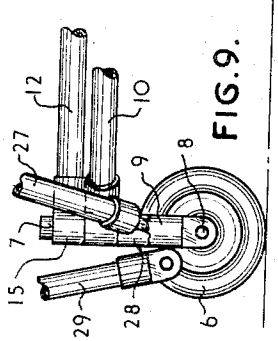


FIG. 9.

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3,231,280

GOLF DRIVING STATION AND WHEELED PUTTING GREEN TARGET

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Filed Oct. 19, 1962, Ser. No. 231,806
1 Claim. (Cl. 273—181)

This invention relates to improvements in a golf practice device and appertains particularly to one designed for the practice of iron shots.

The game of golf may be considered as dividing into three basic parts namely the drive from the tee, iron approach shots and putting on the green. Various and generally satisfactory mediums are widely available now for the practice of driving and putting and many golf courses provide such facilities but I feel that the need for a device for the practice of the many different iron shots has been thus far unsatisfied.

Of all the clubs in the bag the irons may be classified as the precision clubs and covering as they do the wide range from say the No. 9 to the No. 2, so different in performance one from the other, their proper and expert individual use is essential to developing a good game.

Accordingly, it is an object of the present invention to provide a device for practicing the various iron shots by the use of a target simulating a green that can be readily moved "in" or "out" to the desired distance from a tee or driving station for practicing approaches from varying distances with the appropriate irons.

A further object of the invention is to provide a golf practice device consisting of a target, closely simulating a green, movable at will by the user through the operation of a conveniently located power control unit.

A further object of the invention is to provide a golf practice device employing a target simulating a green that is movable by a suitable power-operated mechanism, under the control of the golfer, to the desired distance from the driving position, together with means indicating the yardage distance to the target from the tee or driving position.

A still further object of the invention is the provision of a golf practice device in which the target moving mechanism may be actuated by a control unit embodying a power source, a three-way switch therefor having "IN," "OFF" and "OUT" positions and a clearly visible yardage indicator, all conveniently located relative to the tee or driving position.

To the accomplishment of these and related objects as shall become apparent as the description proceeds, the invention resides in the construction, combination and arrangement of parts as shall be hereinafter more fully described, illustrated in the accompanying drawings, and pointed out in the claim thereunto appended.

The invention will be best understood and can be more clearly described when reference is had to the drawings forming a part of this disclosure wherein like characters indicate like parts throughout the several views.

In the drawings:

FIGURE 1 is a side elevation of my golf practice device showing the movable target mechanism for moving the same toward or away from the tee;

FIGURE 2 is an enlarged fragmentary plan view of the target with parts removed and also showing the movement-controlling device partly in section;

FIGURE 3 is a corresponding enlarged fragmentary side elevation with parts broken away and parts shown in section;

FIGURES 4 and 5 are side elevation and plan view respectively of the target;

FIGURE 6 is an enlarged transverse section of the

rim of the target or green taken on the line 6—6 of FIGURE 5; and

FIGURES 7, 8 and 9 are enlarged transverse sections on the lines 7—7, 8—8 and 9—9 respectively of FIGURE 5.

Because of the need of most golfers to improve their iron shots, I have carefully considered the problems of providing the kind practice required, having particular regard to the variety of play involving the whole set of irons. The driver or wood club is used from almost every tee and the putter is likewise employed on every green so that a player has continuous practice with each of these clubs and competence in their use is more quickly acquired. Furthermore, the manner of using each is not greatly varied, that is, the stance and swing and the object of driving straight down an open fairway with the wood is fairly constant and so too is the putting to the cup at relatively short distances but with the irons, one may play several holes or a whole game without once using some of the clubs and great importance lies both in straight shots, directionwise, and also in accurately judging the distance to the green and imparting the proper swing with just the right amount of force to get the proper pitch and distance.

For these reasons I concluded that it was necessary to provide the player with a practice device with a target closely simulating a green and also indicating the distance from the driving position thereto so that he may learn to accurately estimate the distance he is from the green in regular play, get to know the length of drive he gets from the various irons and so ascertain which club he requires to achieve that distance.

Referring to the drawings, my golf practice device will be seen to consist of a movable target 1 simulating a golf green which is operatively connected by a clothes line type cable 2 to a reversible power unit 3 by means of which the target is reciprocable and may be moved toward or away from the tee or driving station conveniently positioned adjacent the power unit, with which latter is associated a yardage distance indicator 4. The target or green 1 is shown as comprising a skeleton frame 5 fabricated from tubular material such as an extruded alloy of aluminum or other suitable light metal alloy supported by a plurality of ground wheels 6.

The ground wheels or casters 6 are carried by vertically disposed spindles 7, the lower ends of which are flattened and formed with horizontally disposed stub axles 8 on which the ground wheels 6 are journalled. Each spindle 7 is formed adjacent its lower flattened end with an enlargement 9 which constitutes an abutment shoulder.

The skeleton frame 5 includes an undercarriage that is substantially square being formed of four tubular side members 10, each of which connects at its ends with vertically disposed sleeves 11 one of which is mounted on each of the vertically disposed spindles 7.

The square skeleton frame so formed by the side members 10 is rendered firm and stable by tubular diagonals 12 and 13 of suitable material, the diagonal 12 being formed with a central tubular coupling or connector 14 through which the diagonal 13 passes.

The ends of the diagonals are formed with vertically disposed sleeves 15 which engage the spindles 7 carrying the corner or ground wheels 6, and at the intersection of the diagonals 12 and 13 a triangular plate 16 is provided which may be secured to the diagonals as by pins or other suitable means 17.

The triangular plate 16 has a square opening 18 to accommodate the tubular coupling 14, and the cup in the form of an upwardly disposed socket 19 is mounted on

the plate to carry the usual pin or staff 20 of the target flag 21.

The enlargement 9 on each side wheel spindle 7 carries an upwardly and angularly disposed strut 22, and the sleeves 23 thereabove also carry upwardly disposed struts 24, the struts 22 and 24 flaring upwardly with their upper ends connected to the annular rim 25 of the target or green 1.

The rim may be of tubular metal or other suitable material and of elliptical, circular or other plane geometric shape as found expedient, lying preferbaly in an angularly disposed plane sloping rearwardly and upwardly from the front of the rear of the green or target, and the front of the rim may rest on or be otherwise supported by the front ground wheel spindle 7, since the square under-carrige as will be seen in FIGURE 4, has one wheel at the front, one at the back and one on each side. The arc of the rear portion of the rim 25 is supported by upwardly flaring struts 26 and 27 supported by a sleeve 28 on the spindle 7 of the rear ground wheel and another rearwardly inclined strut 29 rising from the spindle enlargement 9 of the same rear wheel. It will thus be apparent that the annular rim 25 of the target or green is rigid and stable.

The surface 30 of the target or green may be fabricated from a web of plastic screen material formed of fibre glass, nylon or other suitable substance, and as shown in FIGURES 4 and 5, the peripheral or marginal portion of the web is provided with an embracing sleeve 31 which underlies the lower inner periphery of the metal rim 25, and a cord 32 is laced through the sleeve and tightly retains the web in position on the rim. This cord may be of resilient material and it may be endless, as may be found expedient in fabricating the target or green.

The target moving unit 3 is enclosed in a housing 33 suitably anchored and located conveniently adjacent to the tee or driving station. The power unit performs two functions in that it primarily moves the target toward or away from the tee to position the same at the desired distance and it also visually indicates the yardage distance from the tee to the target. The power unit 3 comprises a conventional prime mover such as a reversible electric motor 34 connected with a suitable source of electric energy, and a three-way switch 35 is provided having "IN," "OFF" and "OUT" positions to bring the power unit into operation to move the target out or to shut the motor off as desired.

The shaft 36 of the motor 34 is operatively connected in a reduction box 37 to a transverse shaft 98 off which a measuring device cable 39 runs to the yardage distance indicator 4 that clearly displays the actual distance in yards from the tee to the target. On one end of the shaft 38 a relatively large flange drive pulley 40 is mounted, around which the flexible haulage cable 2 is wound at least one complete coil.

This haulage cable passes under and around a guide pulley 42 suitably mounted in the housing 33, and thence one end 43 of this cable is connected to the front of the wheel carried target, as for instance to the spindle carrying the front ground wheel 6.

The other end of the haulage cable 2 passes under the guide pulley 44 mounted on the bottom of the housing 33, out through an opening 45 in the front of the housing, around a guide pulley 46 which is mounted on a ground anchor 47 located beyond the farthest distance it is desired to set the target and the second end 48 of the haulage cable is then attached to the wheeled frame of the target, as to the rear wheel support 6 whereby the target or green may be moved toward or away from the tee as desired, by this haulage cable, in the same manner as a clothes line is run in or out.

In using this practice device, the player simply actuates the electric switch 35 to move the target or green into position at the desired distance from the tee, and then shuts off the power so that the target or green is static. The player then proceeds to practice with the appropriate iron carefully observing the flight of the balls, whether they pitch on to the target or green with the proper loft, or whether the balls miss the target by being hooked or sliced or being over-driven or falling short, and he can then analyse the nature of his faults and practice to overcome them.

The player can thus assess his skill with the particular iron that he is using at that distance of flight, so he so practices, he also learns to assess his distance from the green and to gain assurance that he not only knows how to use a particular iron for a specified distance, but is satisfied that he has mastered that shot and could play it from a normal lie on the fairway that distance from the green. Then he may change the location of the target to increase or decrease its distance from the tee in order to practice with another iron and familiarize himself with recognizing and assessing another yardage distance.

This type of practice will impress on the player's mind the need to accurately assess the distance his lie from the green and enable him to choose the club which may be most effectively used.

When playing golf the player usually has the fairway markings and also the score card to guide him as to his length of drive, and as to the remaining distance to the green, thus he should be able to select the proper iron for each approach shot.

While I have shown a wheel mounted target and a motor operated, clothes line type of mechanism for moving it along the ground, it might be found desirable in some cases to run it on a track, to mount the track or clothes line cable in a trench, to suspend the target from an overhead cable or to operate a self-propelled target by any suitable remote control.

From the foregoing description taken in connection with the accompanying drawings, it will be manifest that a golf practice device is provided that will fulfill all the necessary requirements of such a device, but as many changes could be made in the above description and many apparently widely different embodiments of the invention may be constructed within the scope of the appended claims, without departing from the spirit or scope thereof, it is intended that all matters contained in the said accompanying specification and drawings shall be interpreted as illustrative and not in a limitative or restrictive sense.

What is claimed as new is:

In a golf practice device, the combination with a driving station of a target closely simulating a green movable toward or away from said driving station, said target comprising a wheeled frame of rectangular form with a caster wheel at each corner thereof and so arranged that one wheel is at the front of the target, one at the rear and one at each side thereof; a pair of reinforcing braces extending diagonally across the frame and intersecting at the center thereof; a plate secured on said braces where they intersect; a socket mounted on said plate with a target flag pin rising therefrom; spindles for said caster wheels; struts rising angularly from the spindles of said caster wheels; an annular rim carried by said struts and disposed in an angular plane; a net of substantial area supported by said rim; and user actuated means for moving the target toward and away from the driving station.

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