Oct. 18, 1932. T. H. DECKER 1,882,783

GOLF DRIVING INDICATOR

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Fig. 2

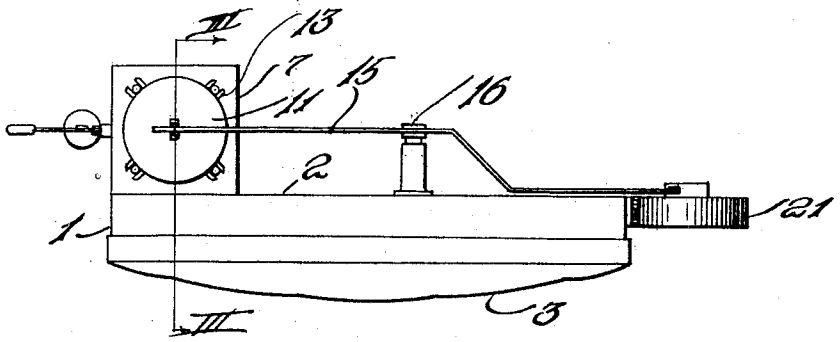
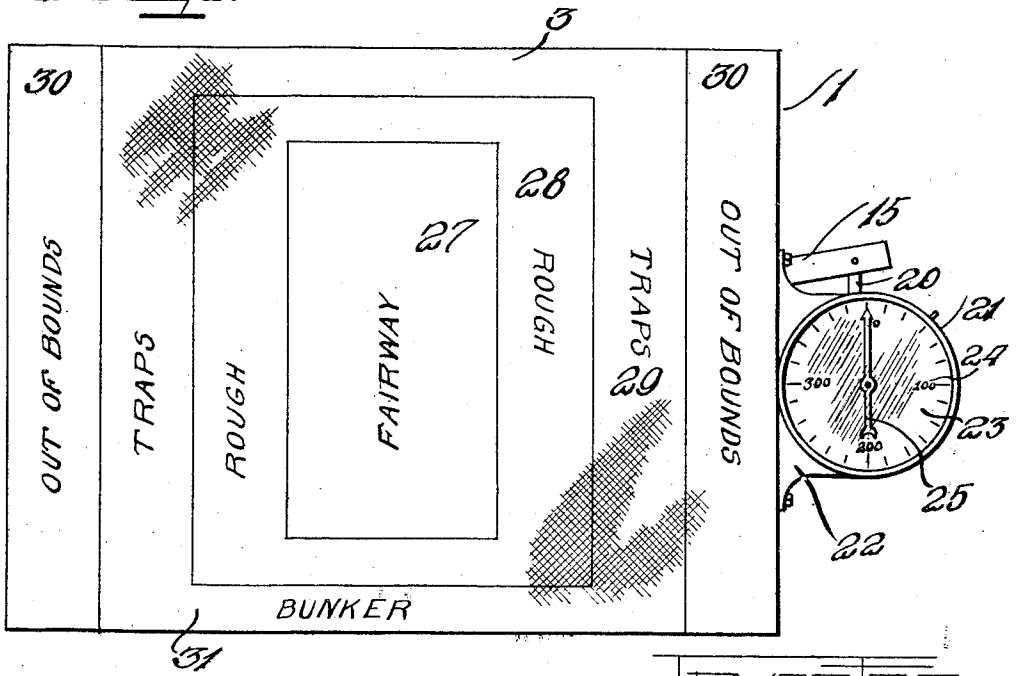



Fig. 1




Inventor

Theodore H. Decker

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Fig. 3

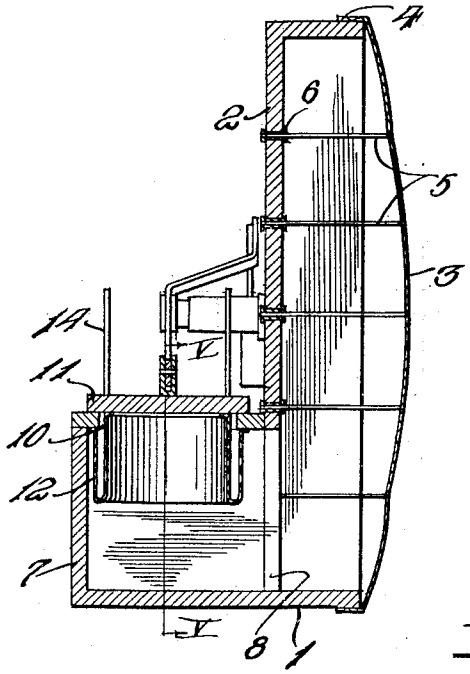



Fig. 5

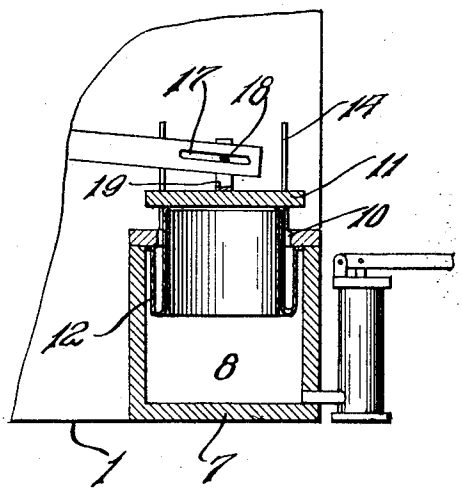
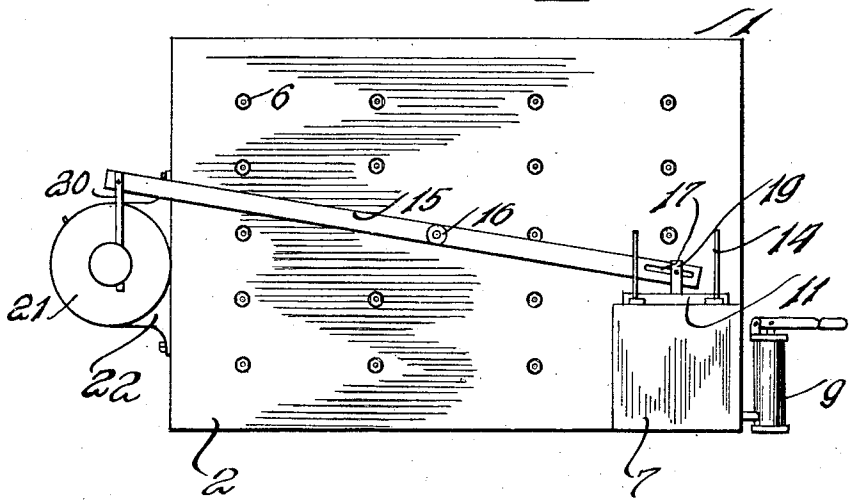



Fig. 4




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Patented Oct. 18, 1932 1,882,783

# UNITED STATES PATENT OFFICE

THEODORE H. DECKER, OF HIGHLAND PARK, ILLINOIS

## GOLF DRIVING INDICATOR

Application filed January 29, 1927. Serial No. 164,525.

This invention relates to a golf driving recorder of a type particularly adapted to be used indoors for affording practice in driving.

This invention embodies certain improvements over the device disclosed in my copending application for "golf driving recorder", Serial No. 151,295, filed November 29, 1926. These improvements include more accurate means for indicating the approximate length of the drive.

Other and further objects and improvements will become more apparent in the following description and the appended claims.

On the drawings:

Figure 1 is a front elevational view of a device embodying the principles of this invention.

Figure 2 is a reduced top plan view.

Figure 3 is an enlarged sectional view taken substantially on line III—III of Figure 2.

Figure 4 is a rear elevational view.

Figure 5 is a sectional view taken substantially on line V—V of Figure 3.

The reference numeral 1 indicates a hollow member, comprising a relatively shallow box having a rigid rear wall 2, and a flexible front wall 3, the wall 3 being preferably formed of rubberized tent canvas or other material relatively impenetrable to air. Said front wall 3 is joined to the side, top and bottom walls as at 4, in a loosely distended condition. A plurality of cords 5 are secured at spaced intervals to the rear of the flexible wall 3, and to the rear wall 2 by means of clamping sleeves 6. An extension 7 is provided in the rear of the hollow member 1 communicating with the interior thereof through an opening 8 in the rear wall 2. An air pump 9 is connected to said extension 7 for supplying air to the interior of the hollow member 1 to maintain the flexible wall 3 in distended position. An opening or vent 10 in the upper wall of the extension 7 is provided with a closure member 11 flexibly connected to said extension 7 by means of a bellows 12. Said bellows 12 may be formed of any flexible fabric or of rubber or the like. The cover 11 of the diaphragm thus formed is provided with a plurality of guiding lugs 13 adapted in connection with guiding rods 14 to allow the closure 11 freedom of vertical movement. A lever 15 pivoted intermediate its ends as at 16 to the rear wall 2 is adapted to be operatively associated with the closure 11. For this purpose said lever 15 is provided with an elongated slot 17 through which there extends a pin 18 secured in a bifurcated bracket 19 mounted on the closure 11. The other end of the lever 15 is pivotally connected to a ratchet arm 20, of a gauge 21. Said gauge 21 may be suitably mounted upon a bracket 22 secured to a side wall of the hollow member 1. The front face of said gauge 21 is provided with a dial 23 having indicia 24 thereon denoting distances in yards. A pointer 25 is adapted to be actuated by movement of said arm 20 in a well known manner.

In using the device in connection with practicing drives, the player stands a short distance in front of the apparatus and drives the ball against the flexible wall 3. For the purpose of making the practice more interesting, the wall 3 may be divided into various concentric areas such as 27 representing the fairway, 28 representing the rough, 29 representing the traps, and 30 representing out of bounds, a lower area 31 representing a bunker. The various areas allotted, while purely arbitrary, as to size and arrangement, do, in some measure, take into consideration the conditions under which an actual game of golf is played. When the golf ball strikes against the flexible wall 3, which is of course distended by reason of the air pressure within the hollow member 1, said wall 3 is locally displaced inwardly, the displacement being roughly proportional to the distance from the center of the wall 3, thus giving a certain amount of weight to the accuracy of direction in the drive. The displacement of the air within the hollow member 1 causes a resultant pressure against the closure 11 and an upward displacement thereof. The degree of the displacement will obviously depend not only upon the force of the golf ball but also, as pointed out, upon the point at which the golf ball strikes the wall. If the ball strikes in the area 27 rep-

resenting a fairway, the displacement of the wall 3 will be greater than if the ball strikes in the outer areas representing out of bounds and bunkers. The upward movement of the closure 11 forces the adjacent end of the lever 15 upwardly and the further end of said lever downwardly, carrying with it the arm 20. The pointer 25 is accordingly revolved through an arc proportional in length to the force of the impact of the golf ball against the wall 3. The length of the drive may thus be read off directly in yards upon the gauge dial, provided that the gauge has been previously properly calibrated.

It will be apparent that in place of the closure member 11 and bellows 12, any other form of diaphragm arrangement may be employed. In any event, the air pressure within the apparatus should be such as to delicately balance the closure member and lever when the pointer 25 stands at zero. The increased air pressure due to the impact of a golf ball against the wall 3 and consequent displacement of said wall will then result in a vertical displacement of the closure proportional to the intensity of the impact, and the gauge 21 will record the theoretical length of the drive with a fair degree of accuracy.

I am aware that many changes may be made, and numerous details of the construction may be varied through a wide range, without departing from the principles of this invention, and I therefore do not purpose limiting the patent granted hereon, otherwise than necessitated by the prior art.

I claim as my invention:

1. In a golf drive indicating device, a hollow member having a flexible wall and an opening in said member, a closure for said opening, bellows connecting said closure to said member, means for maintaining air under pressure within said member to hold said wall in distended condition, a gauge having indicia thereon representing distances, and a lever operatively connecting said closure and said gauge, whereby a displacement of a portion of said flexible wall by the impact of a golf ball driven thereagainst effects a registration on said gauge proportional to the force of the impact.

2. A golf drive indicating device comprising a hollow box having a rigid back wall and a flexible front wall, said front wall being attached to said box in a loosely distended condition, means for supplying air under pressure to said box for distending said front wall, registering mechanism communicating with the interior of said box for actuation by pressure changes within said box set up by impact of a golf ball against said front wall, said registering mechanism including a chamber communicating with the interior of said box and having an upper end opening outwardly of said box, a cover for said open end, a bellows connecting said chamber with said cover, a pivoted lever connected to said cover and rocked by the movement of the same, a dial, and a pointer, means connecting said pointer and said lever to move said pointer over said dial as said lever is rocked by said bellows.

3. A golf drive indicating device comprising a hollow box having a rigid back wall and a flexible front wall, said front wall being attached to said box in a loosely distended condition, means for supplying air under pressure to said box for distending said front wall, a chamber extending rearwardly of said back wall having an open upper end and communicating with the interior of said box, a cover for said open end, an airtight flexible member connecting said cover to said chamber, a lever pivoted to said back wall and connected to said cover, a gauge on said box, and connections between said lever and said gauge for actuating the latter as said lever is rocked.

In testimony whereof I have hereunto subscribed my name.

THEODORE H. DECKER.