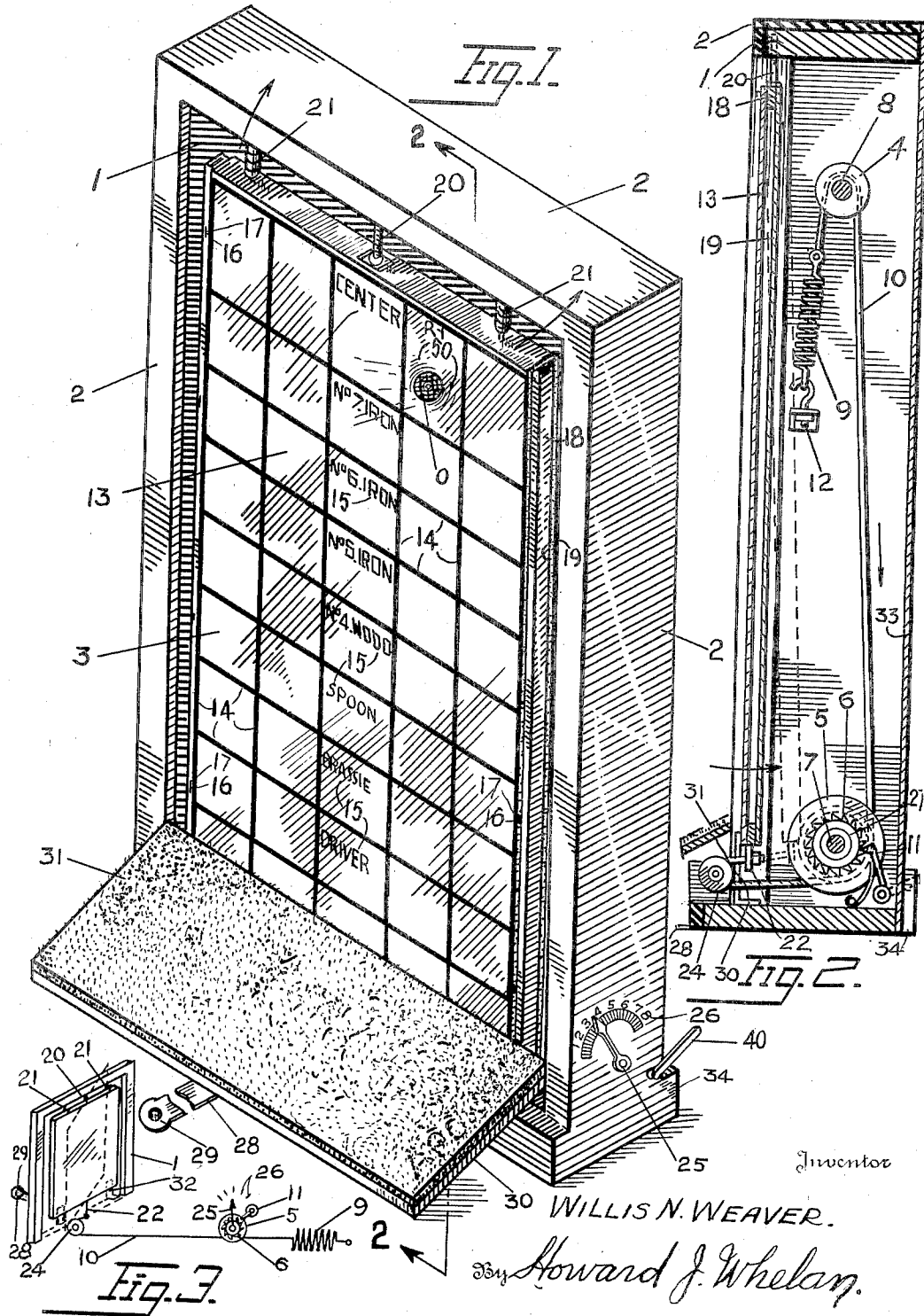


March 11, 1941.

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GOLF PRACTICE TARGET
Filed Sept. 6, 1939

2,234,814



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2,234,814

GOLF PRACTICE TARGET

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Application September 6, 1939, Serial No. 293,535

1 Claim. (Cl. 273—35)

This invention refers to the game of golf and more particularly to a device for promoting the practice of same within a limited and accessible area, and for purposes of this specification will be termed a golf target.

It is an object of this invention to provide a golf target capable of being used for receiving balls struck in the conventional manner with golf clubs from a relatively short distance from it. Another object is to provide for visible indications of the position or location at which the balls strike the target. A further object is to arrange the target with a recording or indicating meter that will show the force of the blow that is struck by the ball on the target, and register pitch, slice and hook. Another object is to arrange the target that it will deaden the balls and prevent them bouncing back dangerously, and to have its extraneous parts adapted to take up the force sufficiently to eliminate forcible returns of the balls to the player. Still another object is to provide an attachment to the target that will enable the player to definitely set his stance to the best and most accurate position possible in relation to the target, and to have such attachment of a convenient and unobstructive form.

Other objects will become apparent as the invention is more fully set forth.

In this invention, the device is made with a frame on which double target canvas or cloths are used. The front canvas or cloth is marked with lines and wording, or symbols to indicate various details of interest to golfers, showing the force and angle of the balls hit by them with their clubs. This cloth is also made relatively loose to allow it to hold the impression of the ball where it strikes the target, and at the same time deaden it. The deadening of the ball prevents the ball from bouncing back or hitting the player sufficiently to hurt or injure him. The target is placed about ten feet distant from the stance or tee-off location. The second and rear cloth is placed on tightly to take up the force of the blow and prevent the ball passing through the first cloth. The frame itself is covered with rubber or some resilient or soft material, that will deaden the balls that erratically hit against it, and prevent them bouncing back to the player. The bottom of the frame is provided with a cocoa-mat buttress to protect the frame and slow up the balls that strike it. This frame is suspended from a central single support, and with top spring suspensions to keep it steady and resist sidewise movements. The amount of

swing of the frame against the tension of the springs is utilized in determining the force of the blow of the ball shot against the target. The frame is suspended to an external frame, also protected with rubber or the like, and operates within it. The lower portion of the target frame is provided with a link to which a rope is attached for keeping the target frame taut. The rope runs across a pulley to the pulley of an indicating device, and terminates with a coiled spring secured to the external frame. The arrangement of the rope and spring is such as to keep the inner frame tight against brackets on a front portion of the external frame, and ready to be hit by balls from the players.

The friction of the rope on the indicator causes the hands of the latter to rotate and show the force of the blow, and a ratchet arrangement keeps the indicator in the proper spot until released by the player. Thus, when the player's ball strikes the target, he can determine whether the play followed the proper direction; whether it was hard enough, and whether his characteristics or idiosyncrasies of judgment require correction or change. The facts are presented usually to him in detail, and in a convenient and desirable arrangement. In order to position his stance accurately with relation to the target, a flexible narrow ribbon, preferably of metal, is unrolled from the target structure and laid down on the ground at the proper distance from it, and the golf ball is set on the end portion designed to locate it. A hole may be provided in this ribbon to allow it to be fastened to the ground that the golf tee used, may be driven through it.

In the drawing, which illustrates an example of this invention—

Figure 1 is a view in perspective of a golf target embodying this invention,

Figure 2 is a sectional elevation on the line 2—2 of Figure 1,

Figure 3 is a diagrammatic view of the device to indicate its general mechanism and operation.

Similar reference characters refer to similar parts throughout the drawing.

In the construction shown in the drawing 1 represents an exterior frame or casing suitably protected and insulated with rubber or other similar resilient or deadening material 2. This covering of rubber is to take up the return bounce of a ball that erratically strikes the frame. It has been found that the use of ordinary rigid materials alone around the target 3, used for the balls 4 to shoot at, will cause the ball to bounce back and hit the player and severely hurt him

on occasions. This rubber covering arrangement causes the power in the flying ball to be absorbed and rendered safe to the player. The frame is preferably of box-like form in order to contain and protect the internal mechanism of the device, which consists of a pulley 4, another pulley 5, a ratchet mechanism 6, and pawl 11 connected with the pulley 5 and its shaft 6, the rope or chain 10, the coil spring 9 and the attaching hook 12. The pulley 4 is supported on a shaft 8 journaled on the walls of the frame. The pawl has an exterior handle 40 adapted to unloosen the pawl and allow its ratchet to return to normal position.

The target 3 consists of a loose canvas or cloth front chart 13, which is marked with cross lines 14 and suitable marking or symbols 15. The front is made loose by installing gromets 16, around its border and mounting same on suitable catch pins 17, attached to the internal frame 18. The space around the hole in the gromet allows sufficient movement in the front chart to give when hit with a golf ball, and absorb its power. At the same time the ball will leave an impression 50 in the front that indicates the exact location where the target was struck. This impression is quickly removed by tapping the cloth. A rear or secondary cloth 19 is mounted on the rear of the frame 18, but instead of being loose, it is brought up taut thereon. This secondary cloth is spaced away from but close to the front cloth, so as to act as reinforcement to the latter and prevent the ball from tearing through it. It absorbs the excess power of the stroke but does not prevent the front chart from being impressed by the ball as noted before. The target frame is suspended from a loose connection 20, centrally secured at the top of the exterior frame, which permits it to swivel rotatively and swing. The rotative action is controlled in a predetermined manner by small coil springs 21, connecting the internal frame with the exterior frame. The bottom portion of the internal frame has a projecting rod 22 at its middle portion which moves when the internal frame swings. The rope 10 is secured to the rod 22 and is pulled when the internal frame is swung inwardly on the connection 20 as a hinge and stretches the coil spring 9 which tensions it. The rope runs over the pulleys 24, 5 and 4, serving to guide it within the external frame 1. These pulleys, etc., are arranged to avoid interference with the movement of the frame.

When the pulley 5 is rotated either way by the rope 10, which is wound around it with one winding, it moves freely, but when moved in the direction of the arrow, it also rotates the ratchet mechanism 6 mounted on the common shaft, and its pointer 25 on the side of the frame. Indices 26 on the side wall serve to indicate predetermined factors that disclose the force of the blow of the ball against the target. These determinations are found empirically, and then placed definitely on the side wall for the pointer to read on intelligently. The movement of the pointer is controlled by the ratchet, and stays set at the maximum point which the blow of the ball moves the pointer to. After the player has read the pointer's position, he manipulates a handle 26 that releases the ratchet and allows it to return to normal position under the tension of an auxiliary spring 27.

When the blow strikes any portion of the target marked off in rectangles, the impression 50 left by the ball allows its value to be read easily

by the player. The rules and experimental data obtained for the target are preferably written in the proper space for the reader to observe, and thereby indicate to him visually, how his strokes react to his club or manner of shooting with the various types of golf clubs. These rules or data may be placed on a miniature target card available to the player conveniently, instead of on the front target chart. The hitting of the front chart tends to wear off any printing on it, and thus the miniature target may be used to represent it, and not be damaged by the ball strikes.

Normally, the target is placed ten feet from the stance or tee-off, from which the player tries his shots. The target is built up on this basis, as some definite location must be selected to calibrate the target. If the player plays straight, he will strike the middle rectangles, and the impression will indicate that he is on the course. If the ball hits to the left or right of the target's middle rectangles, it indicates from the position of its impression, above the bottom marking line and from the middle axis, the effective results of the "shot." These results are read on the target or card representing same, and give the player the "pitch," "slice," or "hook" as the case may be. The "pitch" is the reading of the position of the ball impression vertically above normal ground line. The "slice" is the position of the impression read to the right of the player and from the middle line of the target. The "hook" is the position of the impression on the front target left by the golf ball striking it, to the left of the player and from the middle line of the target. The stance position is stationary and set definitely by means of a narrow ribbon 28 and tee-off mark 29, when unwound from the target to which it is attached, aligned with the middle axis line of the same. Its length is usually set at ten feet. This enables the player to position himself correctly and uniformly every time he plays or practices with the machine, without trouble or inconvenience. To give an example of the use of the target, it will be assumed that the player sends the golf ball into the rectangle R-1, at a point 2 inches off the middle line to the right. If ten feet from the stance, then the ball would be off in proportion two hundred inches in one thousand feet. The use of iron clubs have certain effects and wood clubs another, and are well known to golfers and therefore, do not need further explanation in this specification, but to meet the conditions and "expectation of play" the target chart is developed accordingly, and any explanations suitable for the use of the players is provided with it.

The effect of the golf ball striking the target chart is threefold. It makes an impression in the loose cloth; it rotates the target on its vertical middle axis; and it swings the target on its upper swivel, as if hinged thereon. The springs give the necessary resistance to these motions and act in cooperation with the indicator pointer to provide a calibrated action thereon, and make a proper reading.

The provision of a deadening covering on the frames has already been explained, and there is in addition an under board 30 having a cocoa fibre mat 31 on its upper surface, to deaden balls that approach the target too low for practical shots. The boards and mat are arranged at a rising angle of about one-in-four and covers the lower portion of the exterior frame. It not only deadens the shot but has a tendency to direct it

away from the target chart and make it a foul shot physically as well as technically. The target fits and hinges within the frame as indicated and may be closed within its sides when packed up 5 for shipment. The target frame is under the tension of the rope 10 and spring 9 at all times, and brackets 32 are provided in front of the exterior frame to form stops for it to be braced against and definitely set in its normal position 10 for playing against, and to keep it vertical.

The pulleys 4 and 5 and incidental parts are installed so as to be out of the field of movement of the target during its swinging and rotative reactions. The dotted outlines show the general 15 movement of same, and should be understood that the movement becomes composite when the ball hits the target chart "off course."

In such a case, the target swings on its horizontal upper frame and turns vertically on the 20 swivel rod. The frame 1 is preferably closed in with a back wall 33 to protect the internal mechanism, and the base 34 is enlarged sufficiently to keep the device upright during play, or in the last case, any other well known means can be 25 provided to keep the target stable under all conditions of general use.

While but one form of the invention is shown in the drawing and described in the specification, it is not desired to limit this application to the 30 form indicated, or in any other way, otherwise than limited by the prior art, as it is appreciated that other forms could be made that would use the same principles and come within the scope of the appended claim.

35 Having thus described the invention, what is claimed is:

In a golf target, the combination of an en-

closed frame, fabric front means having grommets incorporated adjacent the edges thereof, pin means adapted to hold the said front means taut to the frame in cooperation with the said 5 grommets, said front means being of relatively impressionable material adapted to temporarily retain the impression mark made by the impact of a golf ball but removable by slightly beating the surface of the material sufficiently to permit the superficial readjustment of the surface to its 10 normal flatness, a secondary cloth attached to the frame in rear of the front and sufficiently adjacent thereto to receive and deaden a portion of the impact when in excess of a predetermined amount and reinforce the front means without 15 materially affecting its impressionability, an external casing encompassing the said frame and forming a ground support therefor, a suspension member for supporting the frame above its central axis to the casing and permitting it to swivel 20 and rotatably swing thereon under the impact of the golf ball, relatively weak springs connecting the frame to the casing to control the swing of the frame to a predetermined extent, a projecting rod extending from the lower portion of 25 the frame adjacent the vertical axis thereof, a cord attached to the rod, a spring attached to the casing and the cord to provide tension for the latter, the frame with front and secondary cloth thereon, a pulley mounted on the casing 30 having the cord wound around same to actuate it, a ratchet and pawl mechanism connected with the pulley and casing to control the movement thereof in predetermined positions and indicating means mounted on the side of the casing and 35 operated through the pulley.

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