

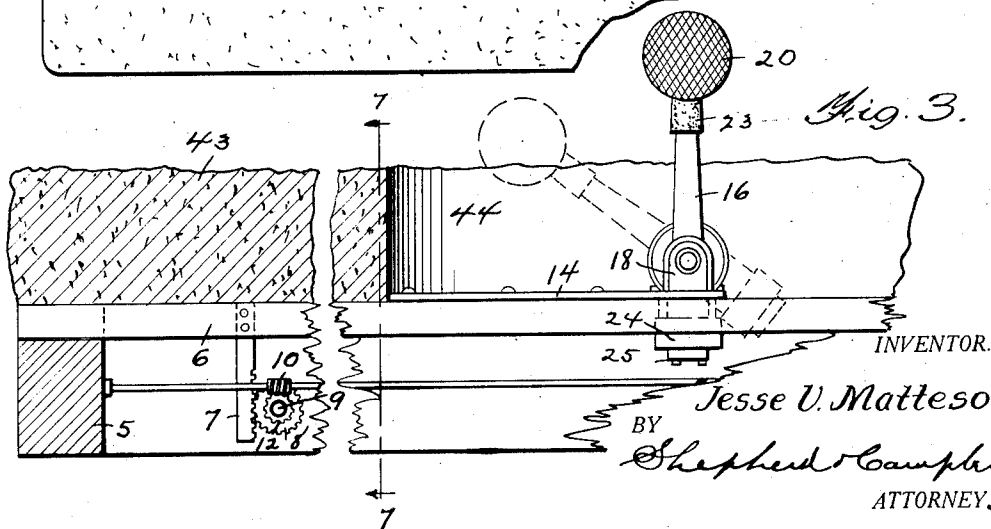
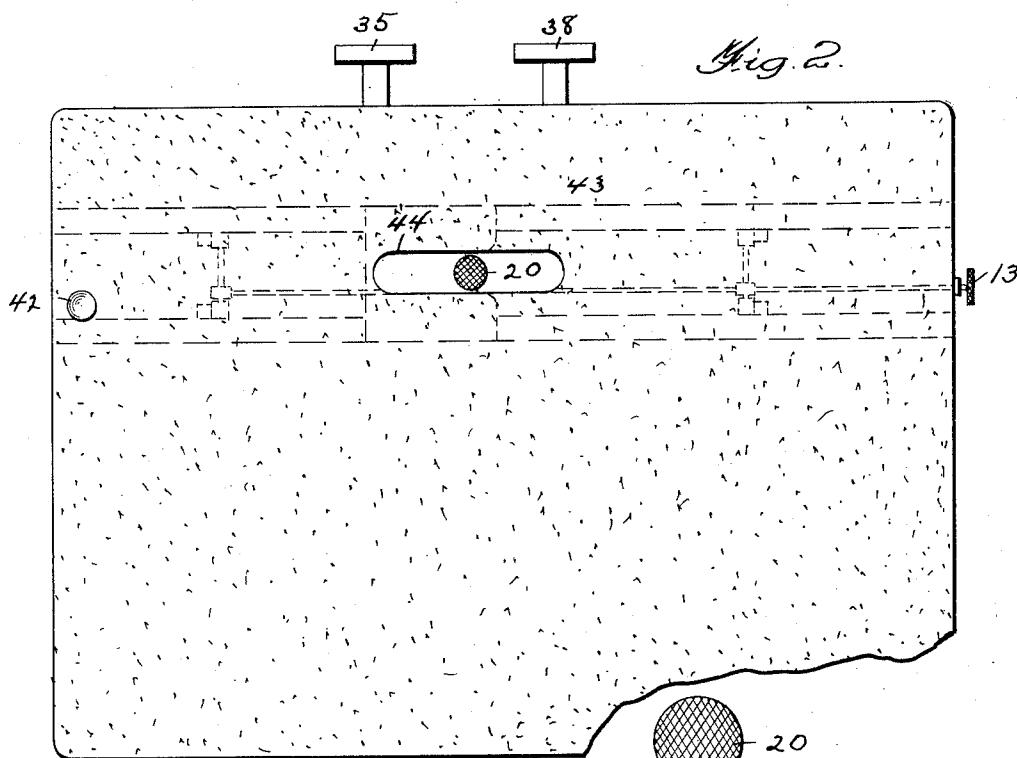
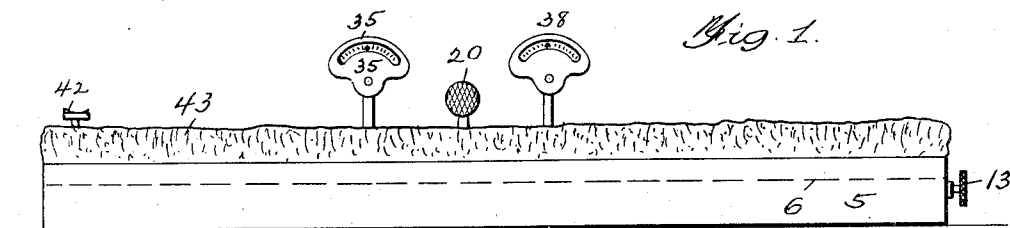
Aug. 14, 1928.

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PRACTICE DEVICE FOR GOLFERS

Filed Aug. 22, 1927

2 Sheets-Sheet 1



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2 Sheets-Sheet 2

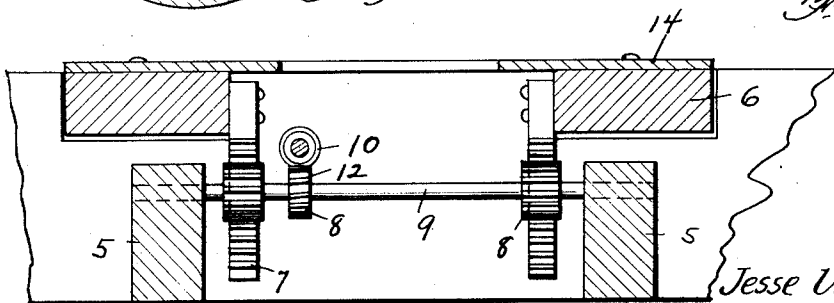
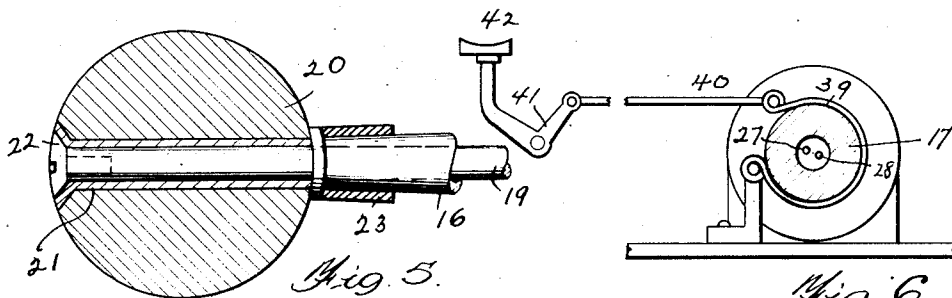
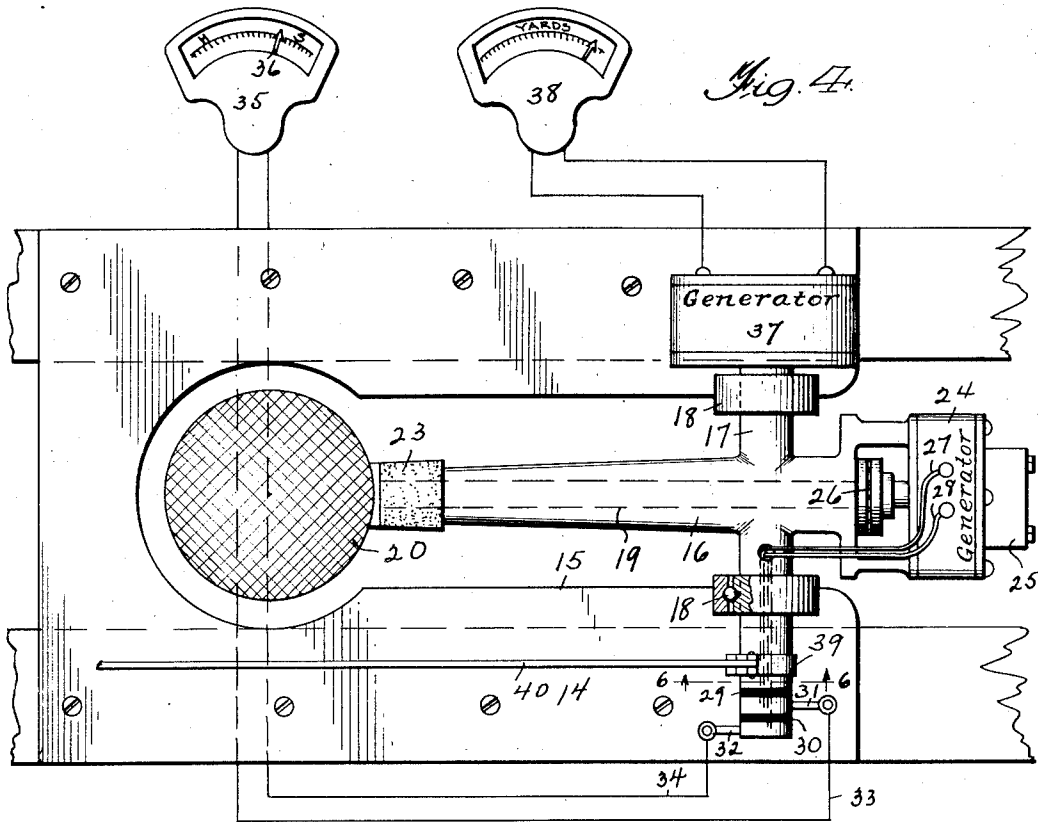


Fig. 7.

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UNITED STATES PATENT OFFICE.

JESSE VANCE MATTESON, JR., OF SANTA ROSA, CALIFORNIA.

PRACTICE DEVICE FOR GOLFERS.

Application filed August 22, 1927. Serial No. 214,593.

This invention relates to a practice device for golfers, and it has for its object to provide a simple and efficient apparatus by means of which the effect of a stroke with a golf club may be registered both as to its force, expressed in terms of distance, and as to its torsional action upon the ball, expressed in terms of hook or slice, as the case may be.

Further objects and advantages of the invention will be set forth in the detailed description which follows:

In the accompanying drawings:

Figure 1 is a side view of the device.

Figure 2 a plan view thereof.

Figure 3 a partial vertical sectional view.

Figure 4 an enlarged plan view of a portion of the mechanism.

Figure 5 a detailed sectional view through the golf ball and associated parts.

Figure 6 is a vertical sectional view upon line 6—6 of Fig. 4, illustrating a brake, hereinafter described, and

Figure 7 is a transverse sectional view upon line 7—7 of Figure 3.

Like numerals designate corresponding parts in all of the figures of the drawing.

In the drawings 5 designates a fixed base frame, and 6 designates the side members of a vertically adjustable frame. It is apparent that many ways may be devised for vertically adjusting the frame 6 with respect to the frame 5. As one such means I have indicated rack bars 7, carried by frame 6 which project downwardly and are engaged with pinions 8 upon transverse shafts 9, disposed adjacent the opposite ends of the frame 5. Worms 10 upon a longitudinally extending shaft 11 meshes with worm wheels 12 upon the shafts 9. Turning movement may be imparted to the shaft 11, by a finger-piece 13, which is accessible from the exterior of the frame 5. It is clear that by turning shaft 11, rotation will be imparted to the shaft 9, and that the pinions 8 will act upon the rack bars 7 to elevate the frame 6.

The side members of the frame 6 are spanned and tied together by a plate 14, having an opening 15 formed therein. A shank 16 is supported upon laterally extending trunnions 17 which are mounted in ball bearings 18. A shaft 19 is mounted for rotation in the shank 16. At its outer end the shaft 19 carries a golf ball 20. This ball is provided with a sleeve 21 to adapt it to fit upon the shaft 19 and is held in its

place by a set screw 22. Thus the ball is rendered re-placeable when it becomes damaged under the practice of the users. A tough rubber sleeve 23 encircles the shank 16 to receive the impact of scoop strokes. The inner end of the shaft 19 enters and forms the rotary member of a generator 24. This generator and a counter-weight 25 constitute elements of such weight that when the device is at rest the shank 16 will stand vertically with the ball 20 at its top. An anti-friction thrust bearing 26 is employed upon the shaft 19. The current conducting wires 27 and 28 lead from generator 24 through one of the trunnions 17 to insulated distributor rings 29 and 30 upon said trunnion. Brushes 31 and 32 contact with said rings and are connected by wires 33 and 34 to a registering instrument 35 of the ammeter type, having a pointer 36, the movement of which indicates the degree of hook or slice imparted to the ball by the impact of a golf club thereon, the direction of movement of the needle being determined by the direction of rotation of the ball around the axis constituted by the shaft 19.

The opposite trunnion 17 enters and forms the rotative member of a generator 37. The rate of speed at which the ball is caused to travel around the axis constituted by the trunnions is indicated upon a suitable ammeter-like electrical recording instrument 38. The movement of the needle of this instrument indicates the distance in yards, representative of the force of the blow.

To bring the rotating ball quickly to rest so that no time may be lost in making another stroke a band brake 39 is provided upon one of the trunnions. A link 40 is connected at one end to the band of said brake, and at its other end to a bell crank lever 41, having a head 42. By pressing upon said head with the golf club the brake will be applied and the structure will be instantly brought to rest.

In use the frame is covered by a matting 43 which has an opening 44 therein, of such size as to permit of the free movement of the ball and associated parts.

While, for convenience of illustration, I have shown the registering and recording instruments as being mounted close to the frame, it is clear that the wires leading thereto may be conducted to any suitable point, and if the practice device is disposed

in a room these instruments may be placed on the wall of the room. Since recording ammeters are well known in the art, it is sufficient to say that I contemplate using
 5 any suitable type of ammeter, either one which will merely register the stroke, or one which will actually record the stroke so that a permanent record may be made.

The device of the present invention, which
 10 I term a technic tee is of great value to golfers in practice work, because it eliminates all of the uncertainty of ordinary practice drives, and accurately registers both the yardage of the drive and whether the drive
 15 had any hook or slice in it, and if so the degree of the twist. The ball being self-teeing relieves the user of the necessity of stooping to replace an element in position after each drive.

20 Devices of this sort will be found of great advantage to country clubs, and will prove very popular upon ocean vessels. It will be noted that there are no gears or parts to get out of order, because the recording is
 25 done magnetically, and these generators will require practically no attention.

It is to be understood that the invention is not limited to the precise construction set forth but that it includes within its purview
 30 whatever changes fairly come within either the terms or the spirit of the appended claims.

Having described my invention, what I claim is:

35 1. A device of the character described, comprising a golf ball mounted for rotation about its own axis, and for bodily travel about an axis at right angles to its own axis, meters for registering the movement of said
 40 ball with respect to each of said axes and means operatively connecting said ball with said meters.

2. A device of the character described, comprising a golf ball mounted for rotation
 45 about its own axis, and mounted for bodily travel about an axis at right angles to its own axis, an electric generator travelling with the ball about the last named axis, and connected to the ball to indicate the move-
 50 ment of the ball about its own axis, a second electric generator, the movement of the movable element of which is in accordance with the bodily travel of the ball, and an electrical registering instrument connected to
 55 each of said generators.

3. A device of the character described, comprising a shank carried by laterally extending trunnions, bearings in which said
 60 trunnions are mounted, a generator connected to one of said trunnions, a shaft extending longitudinally through the shank, a ball at the outer end of said shaft, a generator at the inner end of said shaft, carried by and movable bodily with the shank, and

electrical registering instruments for indi- 65
 cating the current generated by said generators.

4. A structure, as recited in claim 3, in combination with a brake upon one of said trunnions. 70

5. A structure, as recited in claim 3, in combination with a brake for retarding the movement of the shank.

6. A structure, as recited in claim 3, in combination with means for counterweight- 75
 ing the shank to such an extent as to cause the shank to stand erect with the ball at the top when the structure is at rest.

7. A structure, as recited in claim 3, in combination with means for bodily elevating 80
 the structure named.

8. A device of the character described, comprising a supporting frame, anti-fric-
 tion bearings thereon, trunnions mounted in said bearings, a shank extending at right 85
 angles to said trunnions and carried thereby, a shaft mounted for rotation in said shank, a golf ball removably mounted upon the outer end of the shaft, an electrical generator carried by and bodily movable with the
 90 inner portion of the shank, a generator supported upon the frame, the movable element of which is connected with one of said trunnions, a brake upon one of said trunnions, and an electrical recording instrument for
 95 registering current generated by said generators.

9. A structure, as recited in claim 8, wherein conductors leading from the first named generator are conducted through one 100
 of said trunnions to distributing rings, and wherein the conductors to one of said recording instruments are connected to brushes which bear upon said rings.

10. A device of the character described, 105
 comprising a shank, lateral trunnions upon which said shank is mounted for rotation, a golf ball at the outer end of the shank, an electric generator associated with one of said trunnions, a movable element of which turns 110
 with said trunnions, and a meter connected to said generator for indicating the current generated under the rotative action of said movable element of the generator.

11. A device of the character described, 115
 comprising a shank, trunnions for mounting the same for rotation, a golf ball at the outer end of the shank, a shaft mounted for rotation in the shank, by which said golf ball is carried, an electric generator at the 120
 inner end of the shank, the movable element of which is actuated by said shaft, an electric meter, and connections between said generator and meter through which the current generated by the rotation of said shaft 125
 will be indicated upon said meter.

In testimony whereof I affix my signature.
 JESSE VANCE MATTESON, JR.