

June 19, 1934.

W. OLSEN

1,963,311

TETHERED PROJECTILE DEVICE

Filed April 4, 1933

2 Sheets-Sheet 1

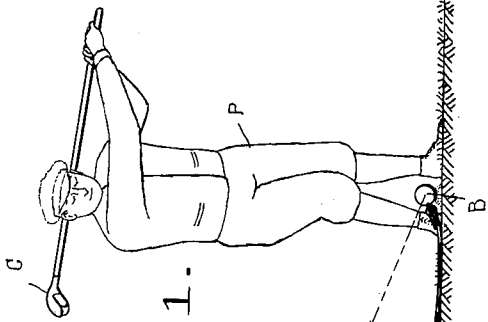


FIG. 1.

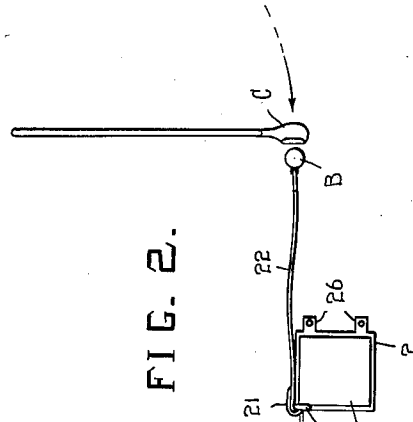


FIG. 2.

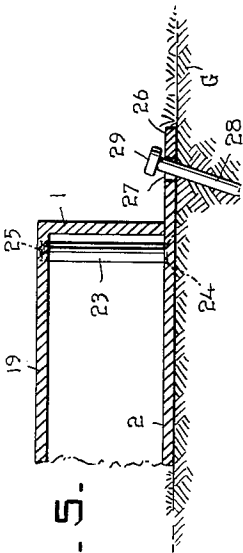


FIG. 5.

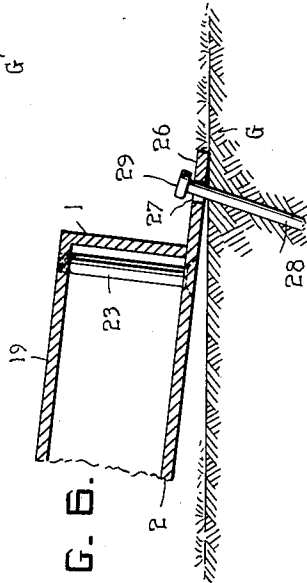
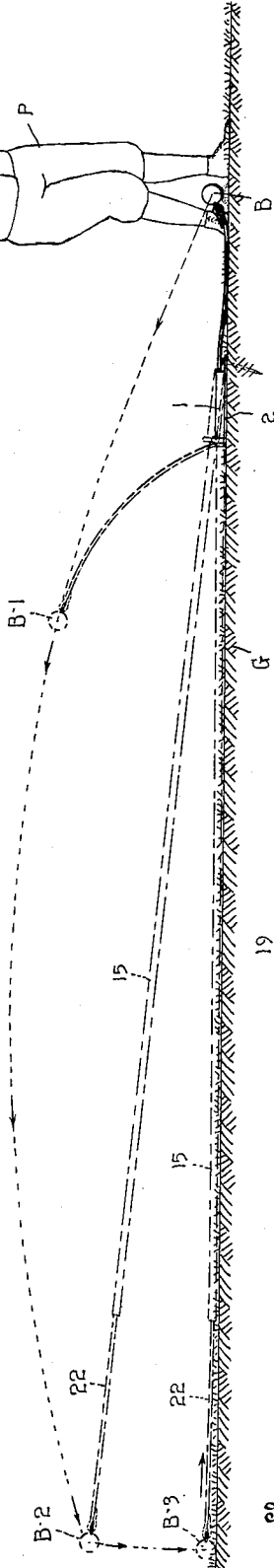


FIG. 6.



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FIG. 3.

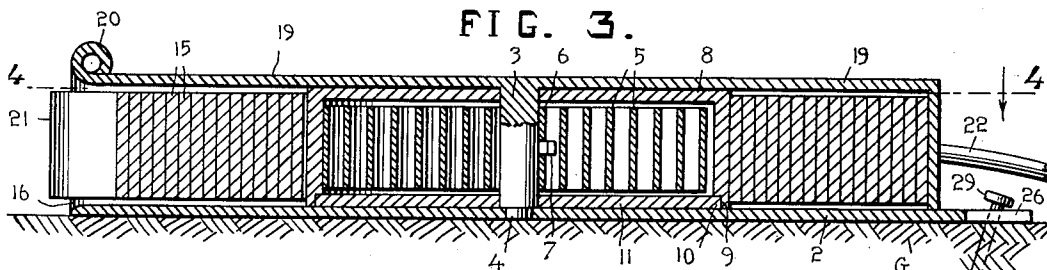
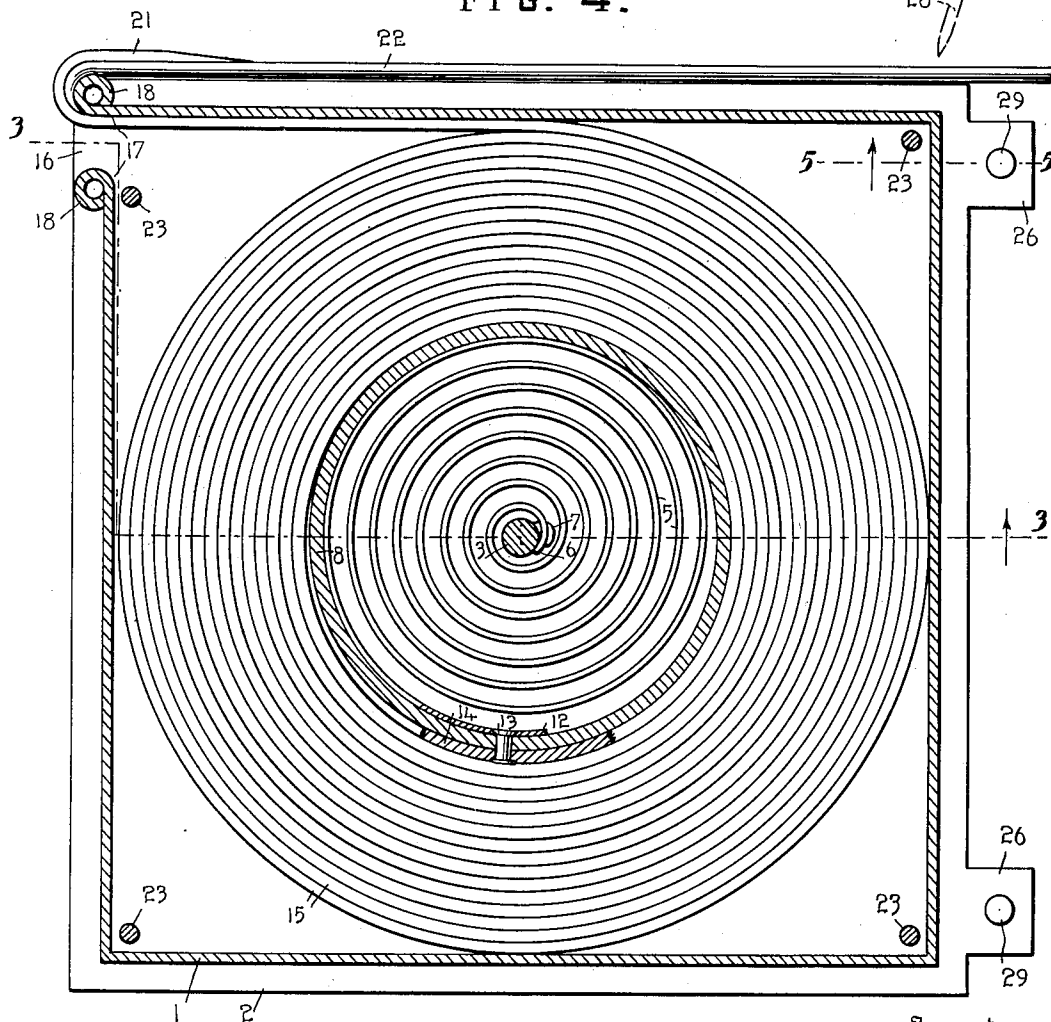


FIG. 4.



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UNITED STATES PATENT OFFICE

1,963,311

TETHERED PROJECTILE DEVICE

William Olsen, Norfolk, Va.

Application April 4, 1933, Serial No. 664,411

1 Claim. (Cl. 273—35)

My invention consists in a new and useful improvement in tethered projectile devices, and is designed more particularly to provide a captive golf ball, for use in practice driving. The especially valuable features of my improved device are the means which I provide to permit the ball to have a period of free flight, to restrain the further flight of the ball, and to return the ball to the vicinity of the player, so as to make it easily accessible for use in the next drive. My device is extremely simple and durable in construction, can be economically manufactured, and is reliable and entirely safe in its operation.

I have found, by extensive investigation of similar devices, that the common faults of these practice devices are, first, that the device does not allow the ball to be "teed up" in the usual and proper form, second, that there is the likelihood of the ball being snapped back through the air, with consequent danger to the player or bystanders, and, third, that the returning mechanism is damaged or rendered inoperative by any unusual force of a drive.

By thorough tests, in which my device has been used constantly and frequently by a large number of professional golfers, I have satisfactorily demonstrated that my device is free from all of these faults.

When using my device, the player places the ball upon a regulation tee in the usual and proper manner. When the ball is driven from the tee, it is permitted a period of unrestrained flight before the returning mechanism becomes operative. Following this period, the ball is restrained by the returning mechanism for a further period of its flight. When the force of the drive and the force exerted by the returning mechanism are in equilibrium, the ball falls to the ground, and it is then returned, along the ground and not through the air, to the immediate vicinity of the player, to be accessible for the next drive.

While I have illustrated in the drawings filed herewith and have hereinafter fully described one specific embodiment of my invention, it is to be distinctly understood that I do not consider my invention limited to said specific embodiment, but refer for its scope to the claim appended hereto.

In the drawings:

Fig. 1 is a side elevation of my device in use.
Fig. 2 is a plan view.

Fig. 3 is a vertical section on line 3—3 of Fig. 4.

Fig. 4 is a horizontal section on line 4—4 of Fig. 3.

Fig. 5 is a vertical section on line 5—5 of Fig. 4.

Fig. 6 is a view similar to Fig. 5 when my device is moved by the flight of the ball.

As illustrated in the drawings, my device has a housing 1 and base plate 2 therefor. Formed integral with the housing 1 is the centrally disposed post 3 having the reduced portion 4 received in the plate 2. Coiled about the post 3 is the spring 5 having its inner end 6 fastened to the post 3 by the hook 7. Loosely mounted on the post 3 and enclosing the spring 5 is the cup 8 having the inner peripheral recess 9 in which is received the periphery 10 of the disc 11 loosely mounted on the post 3. The outer end 12 of the spring 5 is fastened to the cup 8 by the rivet 13 which passes through the wall of the cup 8 and the end 14 of the line 15, thus attaching to the cup 8 the line 15 which is coiled thereabout.

The housing 1 is provided at one corner with the opening 16. The ends 17 of the housing walls adjacent the opening 16 are formed with rolls 18 to provide an outwardly flared throat, and the portion of the edge of the cover 19 of the housing 1 over the opening 16 is also formed in a roll 20 to provide an upward flare. The outer end 21 of the line 15 passes out of the housing 1 through the opening 16 and has attached thereto the extension line 22 to which the ball B is attached by any suitable means.

The housing 1 is attached to the base plate 2 by bolts 23 having countersunk heads 24 in the plate 2 and ends 25 threaded into the cover 19 of the housing 1. The base plate 2 has extending ears 26, each with an orifice 27 through which loosely pass pins 28 with heads 29 for affixing my device to the ground G.

It is to be noted that the housing 1 is so mounted upon the plate 2 that the opening 16 is positioned upon the side of the plate 2 opposite that of the ears 26.

From the foregoing description of the details of construction of my device, its operation and use will be obvious. As illustrated in Fig. 1, my device is suitably positioned a few feet from the point selected by the player P from which the ball B is to be driven. The device is secured in such position by driving the pins 28 into the ground G, after they have been passed through the orifices 27 of the ears 26 on the plate 2. It is to be noted that the device is so positioned that the ears 26 are toward the player P, the opening 16 of the housing 1 being in the direction of the drive (Fig. 2). The pins 28 are slanted downwardly toward the device to afford better anchorage (Fig. 3) and it is to be particularly noted that

the heads 29 are spaced from the ears 26 to permit play of the ears 26 on the pins 28 (Fig. 6).

It is to be noted that the parts are so designed and related that when the spring 5 is fully expanded and in normal position, the line 15 is coiled within the housing 1, only the end 21 thereof extending through the opening 16, the extension line 22 reaching from the device to the ball B when "teed up".

As indicated in Fig. 1, when the ball B is driven from the tee, it is permitted unrestrained flight until it reaches the point approximately indicated by the ball B—1, since the extension line 22 is moved by the ball B from its position indicated in full lines to its position indicated in dotted lines between the device and ball B—1 in Fig. 1. During this period, the returning mechanism is inoperative, since no force of the drive has been exerted upon the line 15.

As the force of the drive projects the ball beyond the point indicated by the ball B—1, the line 15 is drawn from the housing 1 against the tension of the spring 5, and the ball is thereby restrained in its further flight. It is to be noted that the loose connection between the pins 28 and the ears 26, permits the device to rise under the impulse of the flight of the ball, when the

line 15 starts from the housing 1. When the ball has reached the point approximately indicated by the ball B—2, the force of the drive and the force exerted by the spring 5 are in substantial equilibrium, and the ball is brought to the ground G by gravity its position being indicated by the ball B—3 in Fig. 1. The spring 5 being under compression then exerts its force upon the ball causing the ball to travel along the ground G to the vicinity of the device, the line 15 being coiled in the housing 1. The player P can then reach the bight of the extension line 22, with his club C, and rake the ball to him for the next drive.

Having described my invention, what I claim is:

In a device for golf-driving practice, the combination of a ground plate having apertured ears with ground-engaging pins therefor; a rectangular case bolted to said plate and having a post integral therewith received in said plate, and having also an opening upon one of its sides; a spring-driven drum rotatably mounted upon said post; a line reeled upon said drum, and passed out of said case through said opening; and a golf ball attached to the end of said line.

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