No. 823,895. PATENTED JUNE 19, 1906.

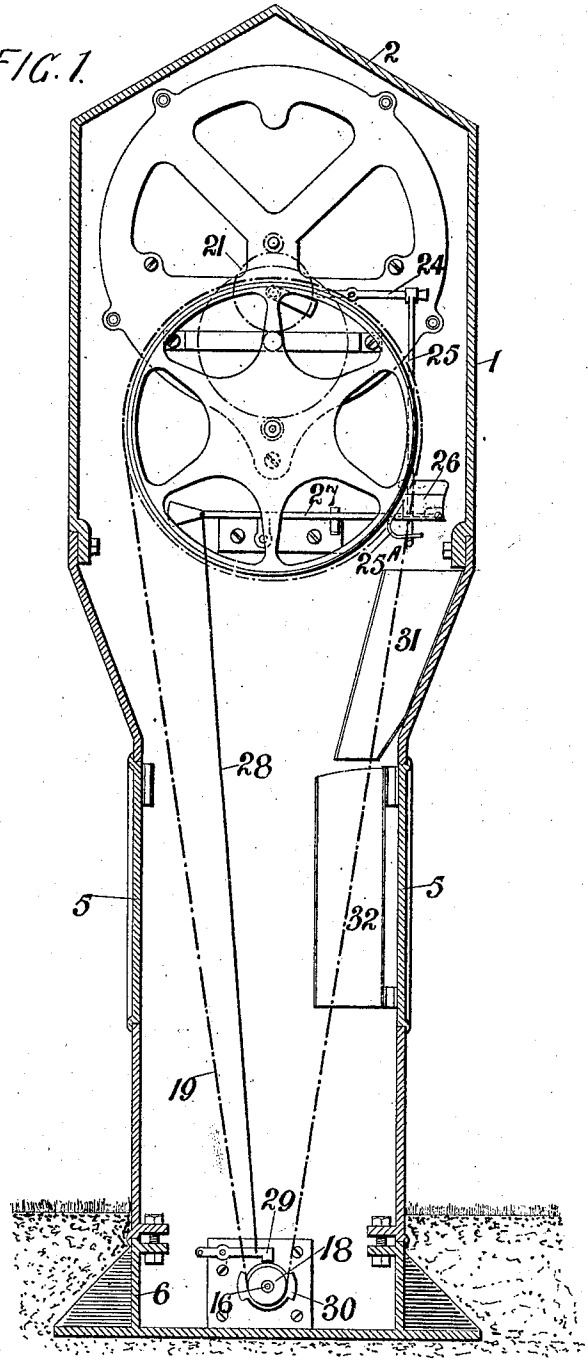
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DYNAMOMETER.

APPLICATION FILED SEPT. 2, 1905.

2 SHEETS—SHEET 1.

FIG. 1.



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2 SHEETS—SHEET 2.

FIG. 2.

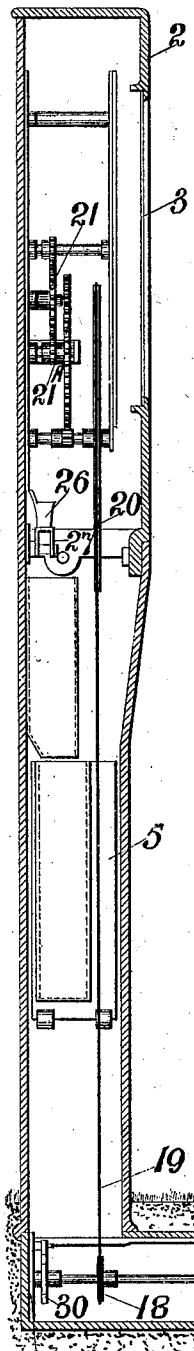


FIG. 3

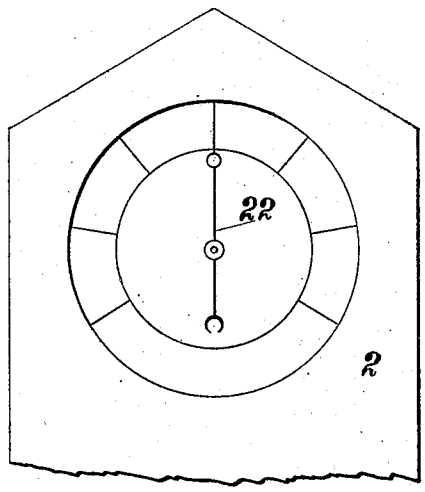


FIG. 4.

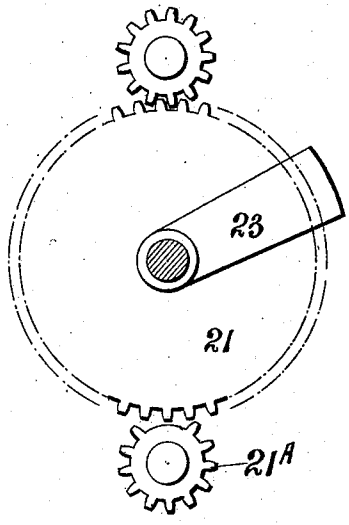
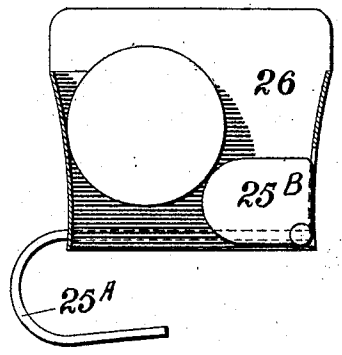
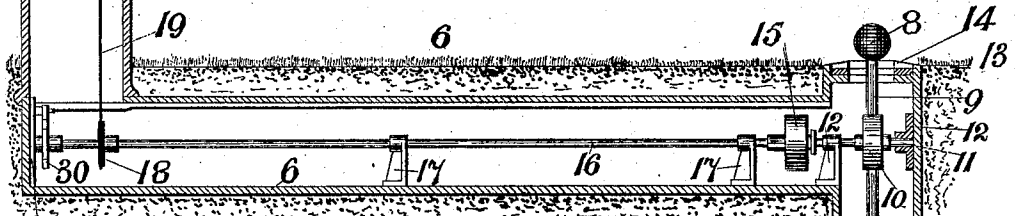


FIG. 5.





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UNITED STATES PATENT OFFICE.

HUME PURDIE, OF EDINBURGH, SCOTLAND.

DYNAMOMETER.

No. 823,895. Specification of Letters Patent. Patented June 19, 1906.

Application filed September 2, 1905. Serial No. 276,868.

To all whom it may concern:

Be it known that I, HUME PURDIE, dental surgeon, a subject of the King of Great Britain and Ireland, and a resident of 9 Gilmore Place, Edinburgh, Scotland, have invented certain new and useful Improvements in dynamometers, of which the following is a specification.

This invention relates to improvements in machines or apparatus designed for automatically recording and registering the power of a stroke delivered to a golf-ball by a driver, putter, or other club, the object being to construct an apparatus which will be put into an active or operative state on inserting a coin therein in a manner similar to a "penny-in-the-slot" machine.

The machine is so constructed that when liberated by inserting a coin the golf-ball used in combination therewith will on being struck register and record on a dial the distance the ball would have traveled on receiving the stroke. The machine is specially adapted for testing the driving and putting abilities of the player.

Referring to the drawings which form a part of this specification, Figure 1 is a sectional elevation looking in at the front of the improved machine. Fig. 2 is a sectional elevation looking in at the side of the machine. Fig. 3 is a front elevation of part of a machine, showing a dial for indicating the distance struck. Fig. 4 is a detached view of the turning-back mechanism. Fig. 5 is an enlarged sectional elevation of the bucket or coin-holding device.

According to this invention the improved machine is preferably inclosed in a cast-iron casing 1, covered on the top by a removable hood 2, which is provided with a glass face 3 for a dial 4, the lower part of the casing being provided with doors 5. The casing 1 is bolted or otherwise secured to a horizontal casing 6, which lies below the level of the ground and extends a suitable distance away from the casing 1. The end of the casing 6 is enlarged or made deeper, as at 7, to allow of the free rotation of the golf-balls 8. These latter may consist of compressed felt, gutta-percha, or other suitable material and are mounted on two or more arms 9, radiating from a boss 10, fixed on a shaft 11, free to turn in the bearings 12. The balls 8 are slightly raised above the level of the ground, and the top of the casing 7 is recessed, as at 13, to enable a rubber pad 14 to be secured thereon. The pad 14 is preferably convex or cone shaped and serves to prevent the bottom or sole of a golf-club from coming into contact with any of the ironwork.

The shaft 11 is connected by means of a spring-coupling 15 to a shaft 16, extending along the casing 6 and supported by bearings 17 therein. Fixed on the shaft 16 is a pinion 18, connected by a chain 19 to the chain-wheel 20, which drives a chain of wheels for moving the pointer 22 over the dial 4, which is preferably divided into feet and yards.

Fixed on the wheel 21 or to the axle of same is a weight 23, and the lower pinion 21^A is formed with a blank space or has a number of teeth missing, as shown in Fig. 4. Working in combination with the aforesaid weight is a lever 24, from which hangs a rod 25, the lower end of which is cranked to engage with the hooked projection 25^A, which is connected to a block 25^B, pivoted in the bucket 26. The latter is mounted on one end of a pivoted lever 27, the other end of which is connected by the rod 28 to a clutch-lever 29, which gears with and controls the clutch 30, fixed on the shaft 16. Situated below the bucket 26 is a chute 31 for directing the coins into the compartment 32, which is accessible by means of the doors 5.

The action is as follows: A coin is first inserted through an opening in the casing into the bucket 26, and the weight of the coin causes the lever 27 to turn on its pivot and to lift the clutch-lever 29 out of connection with the clutch 30. The shaft 16 is now free to revolve and the balls 8 are in a playable condition. When the pointer indicates the number of yards marked on the dial, the blank space on the wheel 21^A comes opposite to the wheel 21, as shown in Fig. 4. The wheel 21 is consequently released and the weight 23 operates same to return the pointer to zero. In traveling back the weight comes into contact with the pivoted lever 24 and turns the latter, so that the rod 25 is raised, thereby lifting the block 25^B and allowing the coin or token to fall through the bucket 26 and into the compartment 32. The weighted lever 27 now returns to its original position, and the clutch-lever 29 is lowered into gear with the clutch 30, and the shaft 16 is locked and the balls rendered unplayable.

Having now described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. The combination, with a revoluble sup-

porting-shaft, and a captive golf-ball connected to the said shaft; of an operating-shaft, a spring-coupling between the two said shafts, and distance-indicating mechanism driven by the said operating-shaft.

2. The combination, with a revoluble supporting-shaft, and a captive golf-ball connected to the said shaft; of an operating-shaft, a spring-coupling between the said shafts, distance-indicating mechanism driven by the said operating-shaft, a locking-clutch controlling the said operating-shaft, and means for operating the said clutch at will to release the said operating-shaft.

3. The combination, with a casing having an opening in its upper side, of a revoluble shaft arranged inside the said casing and provided with an arm which projects through its said opening, a dummy golf-ball carried by the said arm, an operating-shaft also arranged inside the said casing, a spring-coupling between the two said shafts, and distance-indicating mechanism driven by the said operating-shaft.

4. The combination, with a casing having an opening in its upper side, of a revoluble shaft arranged inside the said casing and provided with an arm which projects through its said opening, a dummy golf-ball carried by the said arm, an operating-shaft also arranged inside the said casing, a spring-coupling between the two said shafts, a locking-clutch controlling the said operating-shaft, means for operating the said clutch at will and thereby releasing the said operating-shaft, and distance-indicating mechanism driven by the said operating-shaft.

In testimony whereof I affix my signature in presence of two witnesses.

HUME PURDIE.

Witnesses:
R. F. CALDER
R. B. L. CALDER