

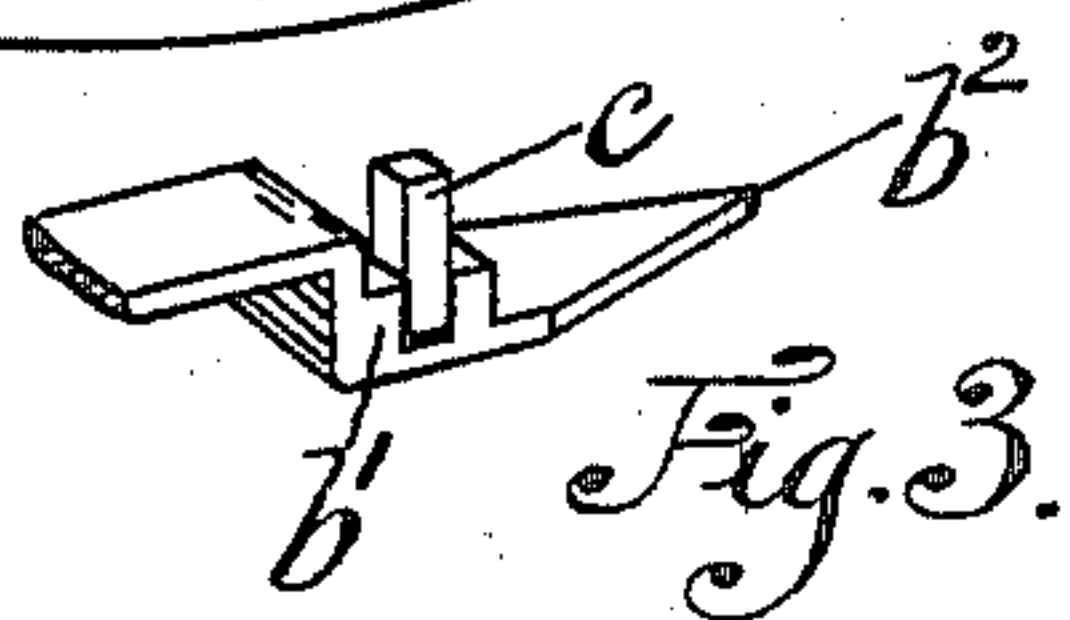
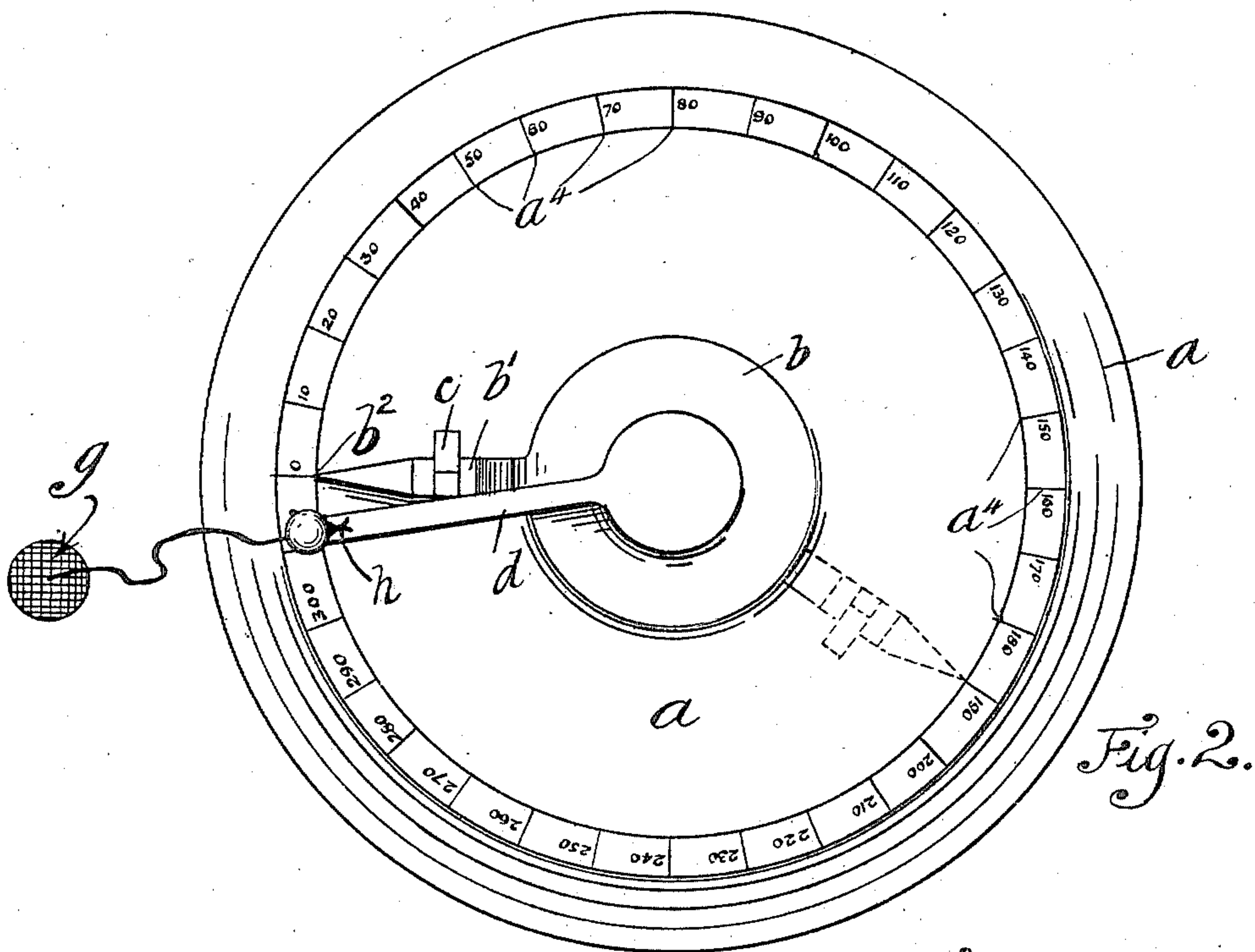
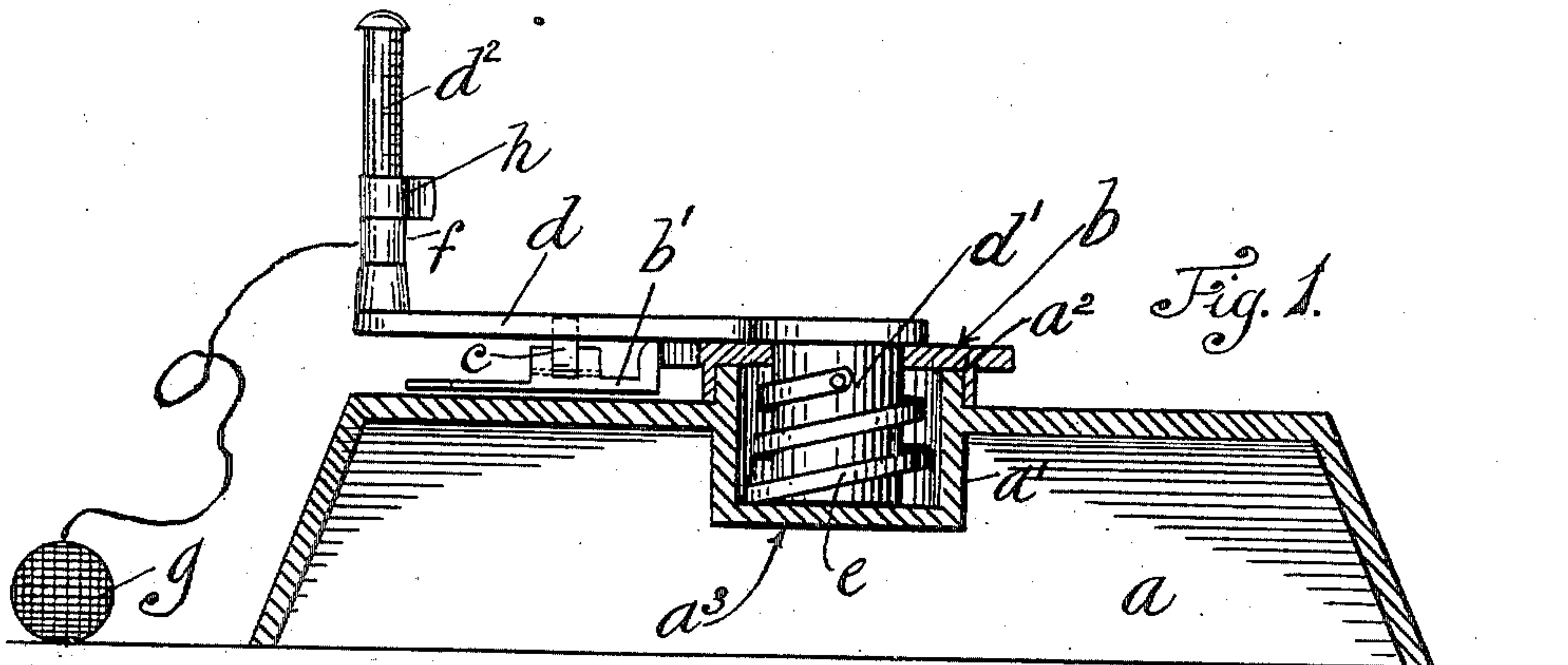
No. 661,381.

Patented Nov. 6, 1900.

J. McHARDY.
GOLF PRACTICE APPARATUS.

(Application filed June 11, 1900.)

(No Model.)



Witnesses
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UNITED STATES PATENT OFFICE.

JAMES MCHARDY, OF LONDON, ENGLAND.

GOLF-PRACTICE APPARATUS.

SPECIFICATION forming part of Letters Patent No. 661,381, dated November 6, 1900.

Application filed June 11, 1900. Serial No. 19,982. (No model.)

To all whom it may concern:

Be it known that I, JAMES MCHARDY, a subject of the Queen of Great Britain, residing at London, England, have invented a new and useful Improvement in Golf-Practice Appliances, (for which I have applied for a patent in Great Britain, No. 22,417, bearing date November 9, 1899,) of which the following is a specification.

This invention relates to improvements in golf-practice appliances, and has for its object to provide a device of this class which will accurately record the effect of a stroke made upon a captive golf-ball, and thereby enable a person using the appliance to judge as to the exact distance such ball (had it been free) would have traveled after being struck with the club.

In order that this my said invention may be the more readily understood and carried into practical effect, reference is hereby made to the accompanying sheet of illustrative drawings, wherein—

Figure 1 is an elevational view, partly in section, of my improved golf-practice appliance, Fig. 2 being a plan view thereof, while Fig. 3 is a perspective view of an essential detail of the invention.

Referring to the drawings, in which like letters of reference indicate corresponding parts throughout, a represents a circular cast-iron or other base having a centrally-situated well or recess a' , the upper part a^2 of which projects slightly above the top of the base proper, as at a^2 . Loosely mounted upon this upper projecting portion a^2 of the well or recess a' I provide an indicator comprising a flanged boss b , surrounding the aforesaid projecting portion a^2 of the well or recess a' . From this boss b an indicator-arm b' extends and terminates in a point b^2 , such arm being bent to conform to the shape of the raised portion a' of the base a , so that the said indicator-arm b' will lie slightly above the base a and be adapted to move freely around same. Mounted in the indicator-arm b' I provide a toggle or catch c , which will remain rigid on pressure being applied in a forward direction, but will turn upon its pivot if pressure be brought to bear upon it in a reverse direction, as will hereinafter be more fully explained. Passing through an opening in the boss b of the indi-

cator and having its bearing thereon is one end d' of a revolving arm d , the other end of which arm is provided with a vertical pillar d^2 . The depending end d' of this arm is disposed within the well or recess a' of the base a and is of such diameter as to leave an annular space between it and the wall of the said well or recess. Attached to the upper part of this depending portion d' of the arm d is one end of a suitable spring e , coiled around the said portion d' , the other end of which spring e is attached to a projection on the bottom a^3 of the well or recess a' , or it may, if desirable, be attached to the base proper, a . It will thus be seen that by means of this spring e the arm d will be controlled.

Attached by means of a cord or other flexible connection to a sleeve f , arranged to slide along the upright pillar d^2 of the arm d , I provide a golf-ball g of the usual pattern, while above the said sleeve f I arrange a spring-clip h , designed to offer a resistance to the upward movement of the said sleeve along the pillar d^2 .

In operation and when it is desired to make use of the appliance, which may be attached to the floor or ground in any suitable manner, the spring-controlled arm will in its normal position assume such a position that when the indicator-arm b' is moved around to nearly coincide with same, so that the aforementioned toggle or catch c bears against it, the indicator-point b^2 will be at zero or "0" on the graduations a^3 , provided on the base a , which graduations may represent yards or such other distance measurements as may be found desirable. The ball g is then placed in a line with the spring-controlled arm d , and the stroke is made in the usual manner, when the momentum of the ball will carry the arm d around in opposition to the resistance offered by the spring e , and the said arm bearing against the toggle c will carry the indicator-arm a' with it, and when by the action of the spring e the arm d returns to its normal position the indicator-point will be left at the maximum distance from zero that the said indicator-point has been propelled around the graduated base, and by the reading of the said graduations the distance the ball would have traveled had it been free may be readily determined at a glance. Should the

spring-controlled arm d by reason of its rebound come in contact with the back of the toggle or catch c , it will be seen that it will merely turn same on its pivot and pass on
5 without shifting the indicator. As it may be found desirable to also determine the angle of elevation at which the ball had it been free would have traveled, I have, as aforesaid, provided a spring-clip h above the sliding sleeve f on the pillar d^2 of the arm d to
10 offer a resistance to the upward movement of the said sleeve, and by suitable graduations on the said pillar d^2 the said angle of elevation may be calculated by the position attained by the spring-clip h through the force
15 of the stroke. It will thus be understood that I have by my invention provided an appliance by which the value of a golfer's stroke may be accurately determined.

20 What I claim as my invention, and desire to secure by Letters Patent, is—

In a golf-practice appliance, the base hav-

ing a circular recess therein and provided with a circular top, the surface of which is divided into graduations; in combination 25 with a spring-controlled arm having its rear downwardly-turned end revolubly mounted in said recess and in a revolving boss mounted around the raised track surrounding said central recess; and a forward struck-up end of 30 said arm carrying a loose sleeve to which a captive ball is flexibly connected, said struck-up part having a graduated surface and a spring-clip mounted upon it; and an indicating-arm on the periphery of the said revolving boss, 35 said indicating-arm being dropped below the said spring-controlled arm and having a pivoted toggle arranged to offer a resistance to the movement of the spring-controlled arm in one direction, substantially as specified. 40

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Witnesses:

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