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SWINGABLE PRACTICE GAME IMPLEMENT WITH SLIDABLE WEIGHT

Filed Aug. 25, 1961

2 Sheets-Sheet 1

Fig. 1

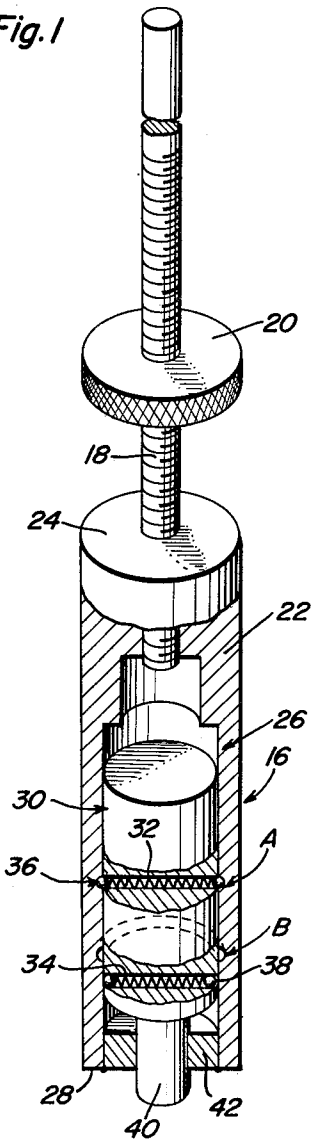


Fig. 2

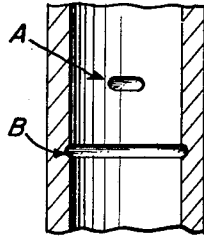


Fig. 4

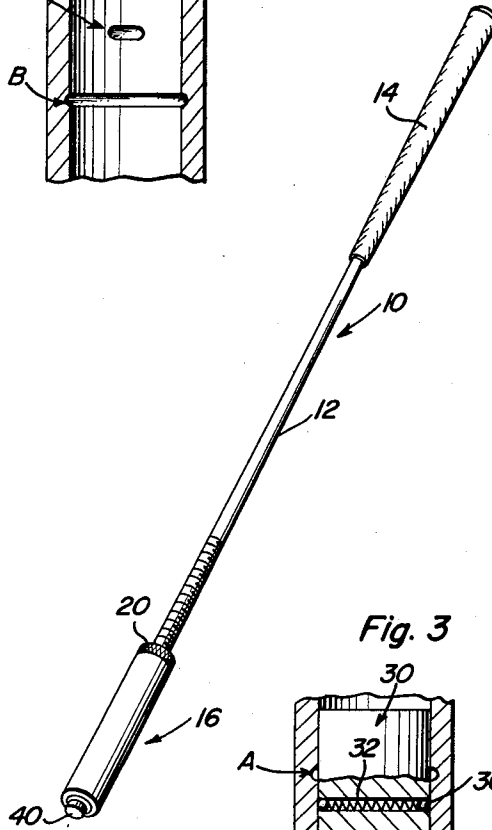


Fig. 3

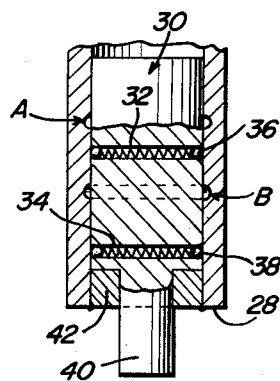
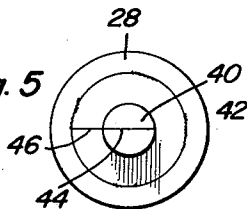


Fig. 5



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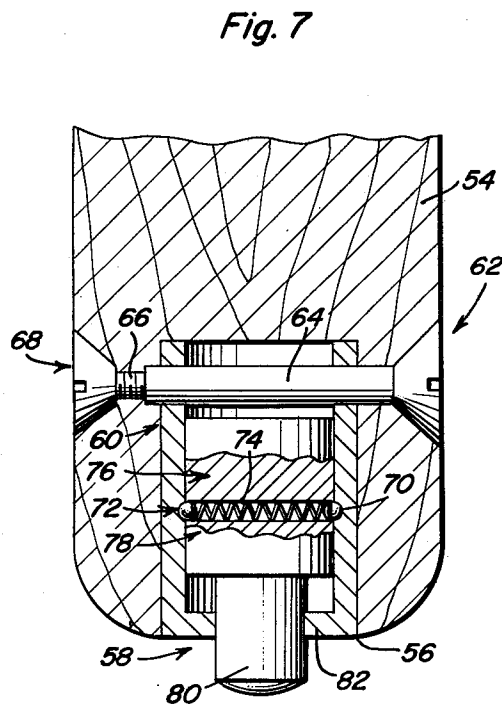
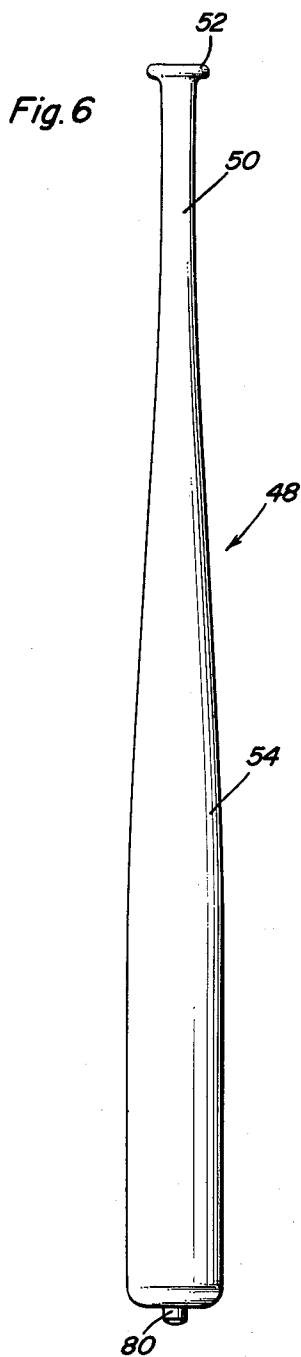
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SWINGABLE PRACTICE GAME IMPLEMENT WITH SLIDABLE WEIGHT

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2 Sheets-Sheet 2



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3,136,546 SWINGABLE PRACTICE GAME IMPLEMENT WITH SLIDABLE WEIGHT

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This invention relates to novel manually usable means through the medium of which a user thereof may effectually practice and, in due time, perfect a reliable correctly timed swing of an implement, and has to do, more particularly set forth, with a simple, practical and economical golf club or, alternatively, a baseball bat.

As is doubtless evident from the nature of the preceding general statement of the inventive concept, the unique implement herein disclosed is neither a golf club nor a baseball bat as such, but is a practice club or bat not actually used to strike a ball but used only when practicing with a view toward exploring, experimenting and ultimately working out the procedural steps and actions which are then established as necessary in developing and perfecting the desired action.

Stated with greater particularity the herein disclosed golf club or baseball bat, as the case may be, offers no assistance in hitting a ball but functions with surprising efficiency in enabling the user to learn to time his swing so that he will get the maximum club head speed at the intended point of ball impact and will thus condition himself in a manner to achieve better results when actually playing a game of golf or baseball.

It is generally well settled that in actual play (golf or baseball, for example) one's grip, stance, backswing, downswing and follow through, generally in that order, must be worked out and perfected and each stage of the swing coordinated before success as a player can be achieved.

It has been noted that many golfers hit from the top or apply the wrist and hand action too soon while others apply the intended power too late. It is submitted that by adopting and conscientiously using the practice golf club such faults and swing difficulties and errors will show up.

A user of the practicing implement, either golf club or bat, learns to "feel" the moment at which the head of the club or bat is supposed to contact the ball. In addition and by reason of the construction and arrangement of the component parts employed the aforementioned moment for action is further impressed upon the user because of the fact that an audible click or sound is simultaneously produced thus assisting the user in reaching his goal.

Generically speaking and briefly stated the concept comprehends the adoption and use of a suitably designed and constructed swing practicing implement which is characterized by a shaft having an inward or proximal end portion provided with an appropriate handle or handgrip. The shaft (shank or body) of the implement, whether designed to serve as a golf club or baseball bat, is provided at its outer end with a suitably shaped terminal or head. Force responsive means is wholly embodied within the confines of the head, that is actually within the cross-sectional dimension of the head and the means is such that it enables the user to time the swing with a view, of course, toward ascertaining and determining the maximum speed of travel of the distal end portion and to do this in a manner to either speed up or slow down the swing and to achieve the maximum power effort at the precise point where said distal end should strike the imaginary ball.

In carrying out a preferred embodiment of the invention the aforementioned means embodies an axially pro-

jectible and retractable weight which is axially slidable in a relatively fixed guide, there being a stationary limit stop at the outer end of the guide for cooperation therewith of the weight.

Construed otherwise and yet common to both embodiments of the invention, the invention is a practice-type club through the medium of which a user may perfect a properly timed swing comprising an elongated linearly straight shaft having a handle at its inner end and a head at its outer end, said head having a limit stop fixed therein and in axial alignment with the lengthwise axis of said shaft, handle and head, and a normally inert weight slidably mounted in the axial portion of said head and automatically shiftable toward and forcibly engageable with said stop when the club is swung in a customary manner and said weight, acted upon by the forces of centrifugal action, is dislodged from its initial inert position, whereby to report its activity to the "feel" of the user and also give him an audible signalling click.

These together with other objects and advantages which will become subsequently apparent reside in the details of construction and operation as more fully hereinafter described and claimed, reference being had to the accompanying drawings forming a part hereof, wherein like numerals refer to like parts throughout, and in which:

FIGURE 1 is a view in perspective of the essential components embodied in a practice-type golf club constructed in accordance with the principles of the invention, portions being shown in section and also elevation;

FIGURE 2 is a fragmentary sectional view which serves to bring out certain of the details of construction;

FIGURE 3 is a fragmentary view in section and elevation which features components at the outer or terminal end of the head;

FIGURE 4 is a view in perspective showing, on a small scale, a ready-to-use swing practicing golf club;

FIGURE 5 is a bottom plan view showing certain of the components depicted in FIGURE 3;

FIGURE 6 is a view in elevation showing the invention embodied in a baseball bat; and

FIGURE 7 is an exaggerated fragmentary view of a terminal or outer end of the bat's head detailing the features of the invention and with parts in section and elevation.

Reference is made first to FIGURE 4 wherein it will be observed that the practice golf club is denoted generally by the numeral 10. This club comprises a linearly straight solid or equivalent shaft 12 provided at an inner or proximal end with an appropriate (conventionally made) handgrip 14. The composite timing and correct swing denoting head is denoted generally by the numeral 16.

With reference now to FIG. 1 the outer end portion of the shaft is provided with screwthreads 18 accommodating an appropriate lock nut 20. The head proper comprises an axially bored cylinder or barrel 22 having an axial screw-threaded bore 24 into which the threads 18 are adjustably screwed. The hollow portion defines a socket which opens through the outer end and the socket is denoted at 26 and the outer end portion at 28 as better illustrated in FIG. 3. The projectible and retractable means or member comprising a sliding weight 30 of requisite length, cross-section and mass, said weight having bores 32 and 34 passing therethrough, each having a coil spring therein and ball detents 36 and 38 at the ends adapted to releasably snap into either the diametrically opposite short keeper grooves A (FIG. 2) or the endless keeper groove B in the manner illustrated. The outer end of the weight is reduced in cross-section to provide an axial extension 40 which extends through and

beyond the hole in the limit stop collar 42 which is plugged into the socket in the manner shown.

With reference to FIG. 5 it will be seen that the face of the leading end of the projection or reset button 40 is provided with a central diametrically extending marker line 44 which is adapted to register with the index 46 on the end of the collar 42. With this arrangement the line 44 may be matched with the index 46 in order to properly register the ball detents 36 with the keeper grooves A. Then, by turning the line 44 at right angles to the index 46 the ball detents 38 may be lined up with the keeper groove B.

As for the action, when swung at a centrifugal force similar to the swinging of a conventional golf club or bat, the weight in the head of the club or bat is released.

The reaction is twofold, when the weight strikes the limit stop or plate in the club it is felt in the hands of the user. It also makes a snap or click which is heard. Using these guides the user of the timing device will either speed up or slow down his hand action to have the click or snapping sound occur at the exact spot where he would be hitting the ball with a conventional golf club or baseball bat.

The advantage in using the unique golf club (or practice bat) is that it may be used all year round indoors, and as the same has to be reset each time swung, the user has to check his grip, stance, backswing and follow through each time. Once the player has perfected each part of the swing and coordinated all of the parts of the swing into a smooth, rhythmic, powerful swing, and by repetition has made his swing mechanical, his game will improve, making for a lower golf score or an increased batting average which is the aim of every golfer and baseball player.

It will be necessary to make the club in different sizes for example, golf practice clubs for men and women. The bat will be made for use by boys, youths and men.

The threaded shaft is used so that the club will have the advantage of swinging light, medium or heavy as the user desires. The user may adjust the club to swing heavy during the off season to develop the hands and arms and to make his conventional clubs feel lighter when he uses them. Also, he can adjust the club to swing light after he starts to play golf so that he can develop a fast swing which will give him greater distance on his conventional golf shots.

The men's model is made with a light and heavy weight release so that a full swing may be taken when using the heavy action; or, the user may practice chip shots or half-swings using a lighter action, as he chooses.

With respect now to the modification in FIGS. 6 and 7 it will be evident that the principle of construction and operation is the same as that which is applicable to the "practice golf clubs" covered in FIGS. 1 to 5, inclusive. However and briefly the improved practice bat is denoted generally at 48 and comprises a shaft or shank portion 50 fashioned into an appropriate handgrip 52 at the inner or proximal end and with the outer end formed into a head or bat-shaped body 54. As shown in FIG. 7 the outer end terminates in an axial socket 56 having a cup-like fitting 58 fixed therein and defining a socket member 60 held in place by a headed fastener 62 with a socket 64 receiving the screw-threaded shank 66 of the other headed fastener 68. Here the wall of the cylinder is provided with an endless keeper groove 70 to accommodate the spring-loaded ball detents 72 in the ends of the bore 74 in the sliding weight 76, said bore provided with a coil spring 78 and said weight also having a reduced axial extension 80 constituting a reset button and which extends through the central hole in the limit stop 82 must be pushed in until the steel balls 72 snap into the groove 70 in the socket member 60.

It is believed that a careful consideration of the specification in conjunction with the figures of the drawings and also the claims will enable the reader to obtain a

clear and comprehensive understanding of the overall invention, the construction and arrangement of component parts, features and advantages and the mode of operation and use. Therefore, a more extended description is believed to be unnecessary.

The foregoing is considered as illustrative only of the principles of the invention. Further, since numerous modifications and changes will readily occur to those skilled in the art, it is not desired to limit the invention to the exact construction and operation shown and described, and accordingly, all suitable modifications and equivalents may be resorted to, falling within the scope of the invention as claimed.

What is claimed as new is as follows:

1. A practice-type club through the medium of which a user may perfect a properly timed swing comprising an elongated linearly straight shaft having a handle at its inner end and a head at its outer end, said head having an axial socket provided at an outer end thereof with a limit stop in axial alignment with the long axis of said socket, a weight slidably mounted in the bore of the socket and shiftable toward and from and engageable with said stop, said weight having spring-loaded detent means releasably engaging keeper means provided therefor in a wall surface of the socket member, the outer end of said weight being reduced in cross-section and providing an axially positioned manually usable reset button, said limit stop having an axial hole therein through and beyond which said button is projectably slidable for readily accessible use.

2. A baseball bat comprising a conventionally shaped body constituting a head and an axial handle, said head having axial socket means, said socket means having a fixed stop, and a force-responsive spring loaded latch-equipped weight slidably confined and concealed in the socket means and shiftable toward and from said stop, the outer end of said weight being reduced in cross-section to provide an axially positioned reset button, said limit stop having an axial hole therein through and beyond which said button is projectably slidable and constantly accessible for use.

3. A golf swing practicing club comprising a conventional shaft with a regular handgrip at the inward end of the shaft, an elongated head detachably and adjustably mounted on the outer end of said shaft and having an axial socket open at the outer end, said socket being circular in cross-section, a median portion of the interior wall of said socket having a keeper groove, at least one concealed weight slidably mounted in said socket and having a bore extending transversely therethrough and loaded with a coil spring, ball detents fitted in the respective ends of said bore and urged by said spring into said groove by the coaction of the intervening spring therewith, and a stop collar fixedly plugged and secured in the outer end of said socket, said collar providing a limit stop and also a sound producing anvil for the weight, the outer end of the weight having a reduced extension projecting through and beyond the center-hole in said collar.

4. A golf swing practicing club comprising a shaft having an inward proximal end provided with a handgrip and having an outer distal end which is screw threaded, an elongated head axially aligned with said shaft, said head comprising an axially bored barrel which is open at an outer end thereof to define a socket, said socket being closed at an inner end, the inner end portion of said barrel being adjustably mounted on the threads of said shaft, a collar fixedly mounted in the outer end of said socket, said collar providing a stop and also an anvil and having a central hole therein in line with the axis of the lengthwise dimension of the socket, interior surface portions of the wall of said socket intermediate the respective ends of the socket having a pair of diametrically opposite keeper grooves, a weight slidably mounted in said socket between the closed end and said collar, said weight having diametrically opposite spring-loaded ball detents, said

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detents being releasably engageable with their respectively usable keeper grooves, the forward end of said weight being provided with a reset button and said button being slidable in the hole provided therefor in said collar.

5. The structure as defined in claim 4 and wherein the interior wall surface of said socket is also provided with an endless keeper groove located between the collar and the already mentioned keeper grooves, and said weight being provided with an additional set of spring-loaded ball detents, the latter detents being releasably seatable in said endless keeper groove whenever necessary or desired.

6. A practice swing bat embodying a head portion at the outer distal end and a handle portion at the inner proximal end, said outer end being provided with an axial socket opening through the outer end, said socket provided with a fixedly mounted cup-like fitting, said fitting defining a socket member and having an axially apertured closed end constituting a limit stop and an anvil, the interior surface of the wall of said fitting having a keeper groove, a weight slidably mounted in said fitting, said weight corresponding in cross-section to

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the cross-section of the socket portion of the fitting, said weight having a bore extending transversely therethrough, said bore being provided with a coil spring and also provided at the outer respective ends thereof with ball detents, said spring being interposed between the ball detents and pressing the ball detents outwardly and seating the same releasably in said keeper groove, and the outer end of said weight being provided with a reduced axial extension constituting a reset button and extending through the central hole provided therefor in said limit stop.

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