March 22, 1949. S. QUATTRIN 2,465,124

CLUB

Filed May 26, 1947

Fig. 1.

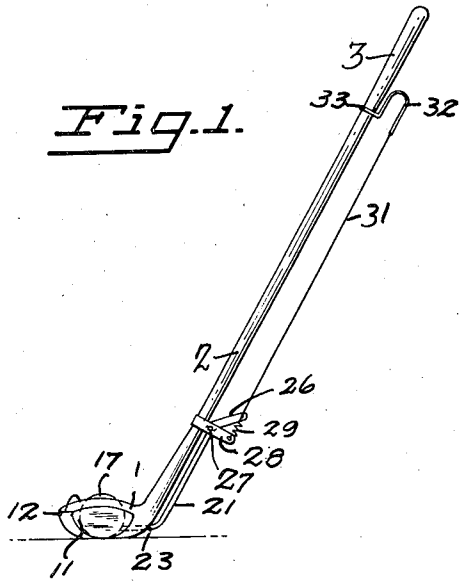


Fig. 2.

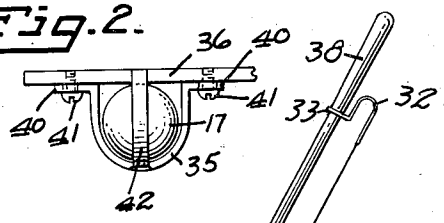


Fig. 3.

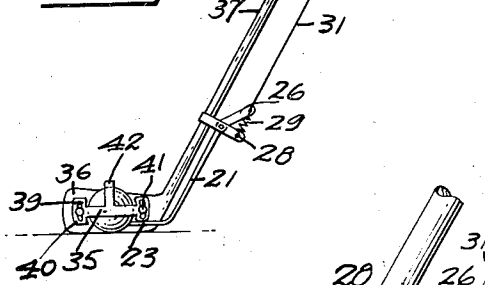


Fig. 4.

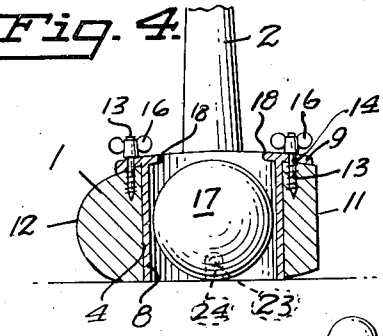


Fig. 5.

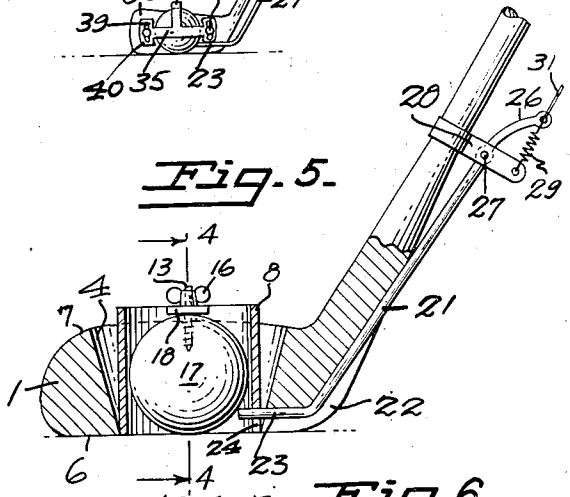


Fig. 6.

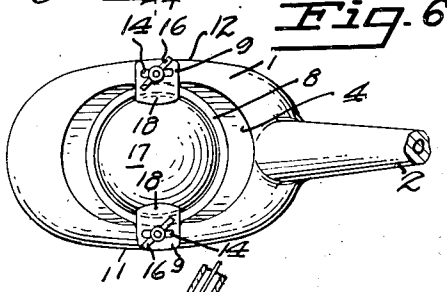


Fig. 7.

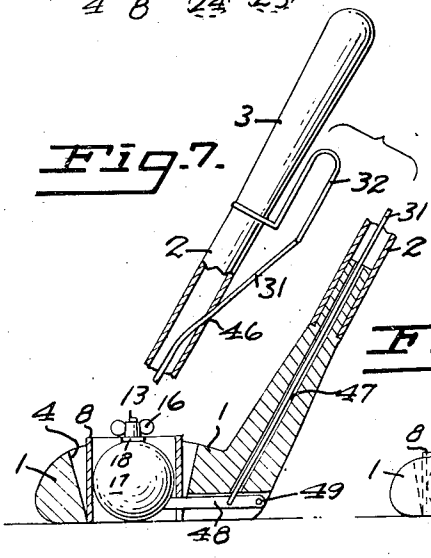
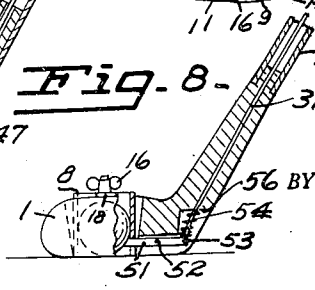


Fig. 8.



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CLUB

Sante Quattrin, San Francisco, Calif.

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15 Claims. (Cl. 273—77)

1

This invention relates to a club for slinging or hurling a ball.

An object of the invention is to provide a club similar to a golf club, the head of which is adapted to hold therein a ball, such as a golf ball, and to release the ball at a certain point of the stroke in swinging the club so that the ball is catapulted or hurled from the club head in a direction and to a distance according to the swing of the club.

There is no game at the present time the rules of which would provide for the slinging or hurling of a ball of the golf ball type in this manner, but for the present, the device is useful in practicing a golf stroke so as to ascertain that the stroke of the golf club is such as to project the ball in a straight line.

An object of the invention is to provide a club of the golf club type, with a receptacle in which a ball is held, and releasable means to hold the ball in place until the releasable means are actuated to liberate the ball from its holder or socket in the head of the golf club.

I am aware that some changes may be made in the general arrangements and combinations of the several devices and parts, as well as in the details of the construction thereof without departing from the scope of the present invention as set forth in the following specification, and as defined in the following claims; hence I do not limit my invention to the exact arrangements and combinations of the said device and parts as described in the said specification, nor do I confine myself to the exact details of the construction of the said parts as illustrated in the accompanying drawings.

With the foregoing and other objects in view, which will be made manifest in the following detailed description, reference is had to the accompanying drawings for the illustrative embodiment of the invention, wherein:

Fig. 1 is a side view of a golf club of the so-called "wood" type with my invention applied thereto.

Fig. 2 is a top plan view of a golf club of the so-called "iron" type showing the ball mounted on its holder thereon.

Fig. 3 is a side view of said iron with the device for holding the ball in place thereon.

Fig. 4 is a sectional view of the wood club head showing the ball holder therein, the section being taken on lines 4—4 of Fig. 5.

Fig. 5 is a sectional side view of the wood club head showing the holding and releasing mechanism for the golf ball therein.

2

Fig. 6 is a top plan view of a wood golf club head constructed in accordance with my invention.

Fig. 7 is a broken view of a wood golf club with a modified form of holding and releasing mechanism for the golf ball therein.

Fig. 8 is a partly sectional fragmental view of a wood golf club showing another modified form of releasing and holding mechanism for the golf ball therein.

In the form shown in Figs. 1, 4, 5 and 6 my invention is embodied in a "wood" golf club which consists of a head 1 on a shaft 2 and a grip 3 on the free end of the shaft. In the head 1 is provided a socket 4 in the form of a hole which tapers from the bottom 6 toward the top 7 of the club head 1. In this tapered hole is supported a sleeve 8, substantially cylindrical in its axial cross section. On diametrically opposite points of the top edge of the sleeve 8 are provided outwardly extended flanges 9 to engage the top 7 of said head 1. The mounting is preferably such that the flanges 9 are diametrically opposite on a diameter between the face 11 and the back 12 of the club head. The sleeve 8 is secured in place by means of suitable screws 13 screwed into the club head and extended through transverse slots 14 in the respective flanges 9. The sleeve is tightened in an adjusted position by a suitable wing nut 16. In this manner the sleeve 8 can be adjusted, within the limits of the length of the slots 14, from a position perpendicular to the bottom 6 of the head 1, as shown in Fig. 5, to a position at an angle to said perpendicular position in either direction, thereby to compensate for the relative angle of the bottom 6 of the club head 1 with respect to the ground as held by the particular player. Thus directional adjustment is provided to accommodate the manner in which any player usually holds the club with respect to the ground.

The sleeve 8 is of such dimensions and diameter as to hold a golf ball 17 therein completely concealed. From the flanges 9 extend inwardly retaining projections 18 for preventing the ball 17 from falling out of the sleeve 8 through the top of the club head.

The ball holding and releasing mechanism in this form includes a bar 21 which extends into a cutaway heel 22 of the golf club head and alongside the shank of the head 1 and the lower portion of the shaft 2, as shown in Fig. 5. The cut away heel 22 of the head 1 adjacent the shaft 2 is preferably cut through the bottom. An abutment finger 23 forms the lower end of the bar 21 and extends at an angle to the bar 21, through

the heel 22 and through a slot 24 in the lower portion of the sleeve 8. The finger 23 projects into the sleeve 8 and against the golf ball 17 so as to prevent the escape of the ball from the sleeve 8. The upper end of the bar 21 is formed into an arm 26 bent away from the shaft 2. The bar 21 is fulcrumed on a pivot 27 in a bracket 28 suitably secured on the shaft 2 and extending to one side of the shaft as shown. A coil spring 29 has on one end thereof anchored in the bracket 28 and the other end thereof in the end of the arm 26. The spring 29 normally pulls the end of the arm 26 toward the bracket 28 and thereby holds the bar 21 and the finger 22 in a ball holding position as shown in Fig. 5. A line 31, made of light wire or the like, is connected at one end to the end of the lever arm 26 and at its other end to a flexible finger loop 32, which latter is preferably made of leather or other flexible material. The free end of this loop 32 is fixed at 33 to the shaft 2 approximately under the grip 3 so as to be easily engaged by a finger of the player.

In practice or playing the player grips the grip 3 in the usual manner of gripping golf clubs and then swings the golf club in the usual manner of a golf swing. The ball 17 is retained in the head 1 throughout the swing. At a certain point of the down swing, about past the lowest point of the swing where a golf ball would be usually hit, the player pulls upon his loop engaging finger and thereby pulls through the line 31, and against the action of the spring 29, the lever 26 upwardly and toward the shaft 2. This action turns the bar 21 around its fulcrum pivot 27 and pulls the finger 23 away from the ball 17, allowing the escape of the ball through the bottom opening of the sleeve 8.

By the momentum of the swing the ball is catapulted or projected into the air at a speed and height and in the direction determined by the swing. If the player is in the habit of holding the club in such a way that the heel of the club is raised above the ground and thereby the bottom 6 of the club head 1 is at an angle to the ground, then the wing nuts 16 are loosened and the entire sleeve 8 is adjusted on the screws 13, so that the top of the sleeve 8 is shifted toward the shaft 2 corresponding substantially to the angle of the position of the bottom 6 of the club head with respect to the ground, so that the sleeve 8 is perpendicular to the ground as held by such player. If the player is in the habit of holding the club so that the heel of the club head touches the ground but the tip of the club head 1 is raised in addressing the initial club position, then the sleeve 8 is adjusted in the aforesaid manner away from the shaft 2 at the top suitably to the player, so that the sleeve 8 is always perpendicular to the ground under the bottom 6 of the club head in the initial addressing position. Thus when the club is swung in the usual manner the ball 17 is always projected forwardly instead of to one side. In this manner a golf player, for instance, can correct his swing and develop control for a "straight" ball. The ball 17 is projected by considerable force because of the momentum built up by the swinging of the club and the centrifugal force upon the ball 17 caused by the swinging of the club.

In the iron club, the holder for the ball is mounted on one face of the iron head 3 of the club. The shaft 3 and grip 3 of this club may be also conventional. On one face of the club head 36 is a cage which has a generally horizontal loop 35 terminating in outwardly extending flanges

40 at each end thereof. Arcuate slots 39 are provided in the flanges substantially at right angles to the plane of the loop 35. Screws 41 extend through the slots 39 and are threaded into the club head 36 to hold the cage in angularly adjusted position. A top bar 42 extends from about the middle of the horizontal loop 35 upwardly and to the top edge of the club head 36. This top bar 42 is arcuate so as to accommodate the ball thereunder. The golf ball 17 fits into this cage and is held therein by the finger 23 of the releasing mechanism heretofore described. This releasing mechanism is the same as the releasing mechanism on the wooden club except that the bar 21 extends generally parallel with the shaft 2 and the heel of the club head 36 does not have to be cut away because the finger 23 extends alongside the leading face of the club head 36 to the ball 17. In operation this form is the same as heretofore described. The adjustment for the various habitual addressing attitude of the club head may be made at selected angles with respect to the club head by loosening the screws 41 and turning the cage on the arcuate slot 49 to the desired angle, so that the loop 35 is substantially parallel with the ground when the player in his customary addressing position holds the club head 36, whether the player customarily lifts the heel or the tip of the club head in addressing a golf ball.

In the modified form of the invention shown in Fig. 7 advantage is taken of the fact that the shaft 2 is usually hollow. The modification consists in the arrangement of the holding of the releasing mechanism interiorly of the shaft 2. In this form the line 31 is extended through an opening 46 on the side of the shaft 2 near the grip 3 and then through the shaft 2 down through a hole 47 through the shank of the club head 1 as shown in Fig. 7. This line 31 is connected at its lower end to a holding finger 48. This finger 48 is pivoted at the end outside of the line 31 on a pivot 49 in the heel of the club head 1 and in a substantially horizontal cut away portion. The finger 48 extends into the sleeve 8 in the manner heretofore described in connection with the first form and holds the ball 17 in place until released. In this form the ball is held in position by the player constantly exerting a pull upon the loop 32 during the back swing and part of down swing, and is released by the relaxing of the pull at a certain point of the forward stroke so that the force of the ball pushes the finger 48 out of the way.

The other modified form shown in Fig. 8 is generally the same structure as shown in Fig. 7, excepting that the finger 51 is pivoted on the middle thereof on a pivot 52 in said cut away portion of the club, and the line 31 is connected to the outer end 53 of said finger 51. A spring 54 positioned around the line 31 and between the outer end 53 of the finger 51 and a top ledge 56 of said cut away portion normally urges the outer end 53 of the bar 51 downwardly and thereby holds the inner end against the ball 17. The ball is released in this instance by exerting a pull upon the loop 32 and pulling the line 31 upwardly against the action of the spring 54 and thereby moving the finger 51 out of the way of the ball 17. In other respects this device operates similarly to the forms heretofore described.

I claim:

1. A club of the character described, comprising a head, a shaft and a grip whereby the club may be swung, a holder device on the club adapt-

ed to hold a golf ball and having an opening facing toward the bottom of the club head, a releasable element to hold the ball in said holder, and a mechanism manipulatable by the player during the swinging of the club to release said releasable element and to permit the catapulting of said ball from said holder through said opening.

2. A club of the character described, comprising a head, a shaft and a grip whereby the club may be swung, a holder device on the club adapted to hold a golf ball and having an opening facing toward the bottom of the club head, a releasable element to hold the ball in said holder, and a mechanism manipulatable by the player during the swinging of the club to release said releasable element and to permit the catapulting of said ball from said holder through said opening, and adjusting means for adjusting the holder to a selected angle with respect to the bottom of said club head.

3. In a club of the character described including a club head, a shaft and a grip, a socket on the club head adapted to receive a ball therein having an opening facing toward the bottom of the club head, a retaining element to prevent the escape of the ball from said socket, and means to control the retaining element for holding the ball in said socket and for releasing the ball from said socket and through said opening at will.

4. In a club of the character described including a club head, a shaft and a grip, a socket on the club head adapted to receive a ball therein having an opening facing toward the bottom of the club head, a retaining element to prevent the escape of the ball from said socket, and means to control the retaining element for holding the ball in said socket and for releasing the ball from said socket through said opening at will, said socket comprising a cavity inside of said head, and means to prevent the escape of the ball from said cavity through the top of said club head, said cavity extending from said opening generally perpendicularly with respect to the bottom of said head.

5. In a club of the character described including a club head, a shaft and a grip, a socket on the club head adapted to receive a ball therein being open toward the bottom of the club head, a retaining element on the club head at said socket to prevent the escape of the ball from said socket, and means to control the retaining element for holding the ball in said socket and for releasing the ball from said socket at will, said socket comprising a cavity in the head extending from the bottom thereof generally perpendicularly, a holder in said socket and being open toward the bottom of said club, said socket being larger than the holder to permit adjustment of the holder in the socket, and means to adjustably secure said holder to the club at selected angles with respect to the bottom of said head.

6. In a club of the character described including a club head, a shaft and a grip, a socket on the club head adapted to receive a ball therein being open toward the bottom of the club head, a retaining element on the club head at said socket to prevent the escape of the ball from said socket, and means to control the retaining element for holding the ball in said socket and for releasing the ball from said socket at will, said socket comprising a hole extended through the club head generally perpendicularly with respect to the bottom of said club head, a holder in said hole, said holder movably fitting in said hole for selective angular positions with respect to the bottom of said club head, and securing elements on said holder secured to said club head to hold said holder in a selected angular position.

7. In a club of the character described including a club head, a shaft and a grip, a socket on the club head adapted to receive a ball therein being open toward the bottom of the club head, a retaining element on the club head at said socket to prevent the escape of the ball from said socket, and means to control the retaining element for holding the ball in said socket and for releasing the ball from said socket at will, said socket comprising a holder on one face of said club head adapted to allow the escape of the ball toward the bottom of said club head.

8. In a club of the character described including a club head, a shaft and a grip, a socket on the club head adapted to receive a ball therein being open toward the bottom of the club head, a retaining element on the club head at said socket to prevent the escape of the ball from said socket, and means to control the retaining element for holding the ball in said socket and for releasing the ball from said socket at will, said socket comprising a holder on one face of said club head adapted to allow the escape of the ball toward the bottom of said club head, and means to adjustably secure said holder onto said club head for selected angles between said holder and the bottom of said club head.

9. In a club of the character described including a club head, a shaft and a grip, a socket on the club head adapted to receive a ball therein being open toward the bottom of the club head, a retaining element on the club head at said socket to prevent the escape of the ball from said socket, and means to control the retaining element for holding the ball in said socket and for releasing the ball from said socket at will, said socket comprising a holder on one face of said club head adapted to open toward the bottom of said club head, said holder comprising a cage, securing flanges extended from the flange, securing elements extended through said flanges and secured to the face of the club, said flanges having elongated slots therein for selective angular adjustment of said flanges relative to said securing elements for controlling the angle of said holder with respect to the bottom of said head.

10. In a club of the character described including a club head, a shaft and a grip, a socket on the club head adapted to receive a ball therein being open toward the bottom of the club head, a retaining element on the club head at said socket to prevent the escape of the ball from said socket, and means to control the retaining element for holding the ball in said socket and for releasing the ball from said socket at will, said releasing means comprising a lever to move said retaining element away from said ball to an out of way position with respect to the ball, yieldable means to normally urge said lever and said element to ball retaining position, and a manipulating device adjacent the grip of the club connected to said lever for moving said retaining element to an out of way position with respect to the ball.

11. In a club of the character described including a club head, a shaft and a grip, a socket on the club head adapted to receive a ball therein being open toward the bottom of the club head, a retaining element on the club head at said socket to prevent the escape of the ball from said socket, and means to control the retaining element for holding the ball in said socket and for

releasing the ball from said socket at will, said releasing means comprising a lever for moving said retaining element away from said ball to an out of retaining position, a line extended along the shaft to the grip of the club, and a manipulating element adjacent the grip of the club connected to said line and operable by the player for controlling said retaining element.

12. In a club of the character described including a club head, a shaft and a grip, a socket on the club head adapted to receive a ball therein being open toward the bottom of the club head, a retaining element on the club head at said socket to prevent the escape of the ball from said socket, and means to control the retaining element for holding the ball in said socket and for releasing the ball from said socket at will, said releasing means comprising a lever for moving said retaining element outwardly from the socket to an out of retaining position, a line extended along the shaft to the grip of the club, and a manipulating element adjacent the grip of the club connected to said line and operable by the player for controlling said retaining element, the shank of said club head and said shaft being hollow and said line being extended within said hollow shank and shaft.

13. In a club of the character described including a club head, a shaft and a grip, a socket on the club head adapted to receive a ball therein being open toward the bottom of the club head, a retaining element on the club head at said socket to prevent the escape of the ball from said socket, and means to control the retaining element for holding the ball in said socket and for releasing the ball from said socket at will, said releasing means including a lever arm pivoted on said shaft and extended from said retaining element, a resiliently yieldable member operatively associated with said lever arm and retaining element to normally urge said detaining element into ball retaining position, a line connected to the lever arm and extended along the shaft substantially to the grip of said club, and a manipulating member near said grip connected to said line for the manipulation of said lever arm and retaining element for moving said retaining element into and out of ball retaining position at will.

14. In a club of the character described including a club head, a shaft and a grip, a socket on the club head adapted to receive a ball therein being open toward the bottom of the club head, a retaining element on the club head at said socket to prevent the escape of the ball from said socket, and means to control the retaining element for holding the ball in said socket and for releasing the ball from said socket at will, said retaining element being pivoted on said club head so as normally to drop outwardly from the socket to an out of way position, a line extended from said retaining element along said shaft substantially to said grip, and a grip member connected to the line and engageable by the player to hold said retaining element in a ball retaining position.

15. In a club of the character described including a club head, a shaft and a grip, a socket on the club head adapted to receive a ball therein being open toward the bottom of the club head, a retaining element on the club head at said socket to prevent the escape of the ball from said socket, and means to control the retaining element for holding the ball in said socket and for releasing the ball from said socket at will, said releasing means comprising a lever to move said retaining element away from said ball to an out of way position with respect to the ball, yieldable means to normally urge said lever and said element to ball retaining position, and a manipulating device adjacent the grip of the club for operating said lever and moving said retaining element to an out of way position with respect to the ball, said manipulating device including a line to transmit movement to said retainer element and a loop engageable by a finger of the player secured at one end to the grip and at the other end to said line.

SANTE QUATTRIN.

REFERENCES CITED

The following references are of record in the file of this patent:

UNITED STATES PATENTS

Number	Name	Date
1,759,622	Kenney	May 20, 1930
1,994,207	Ahles	Mar. 12, 1935
2,157,415	Jones	May 9, 1939