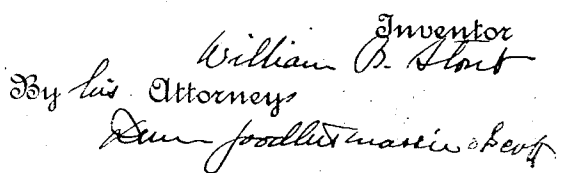


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4 SHEETS—SHEET 1.



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4 SHEETS—SHEET 2.

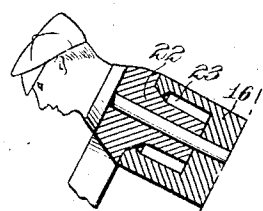


Fig. 5.

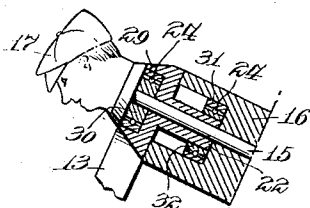


Fig. 6.

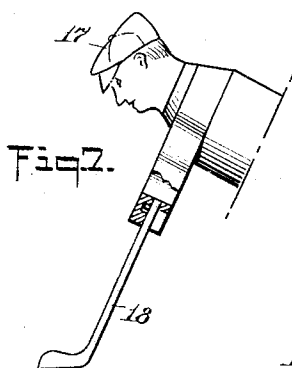


Fig 2.

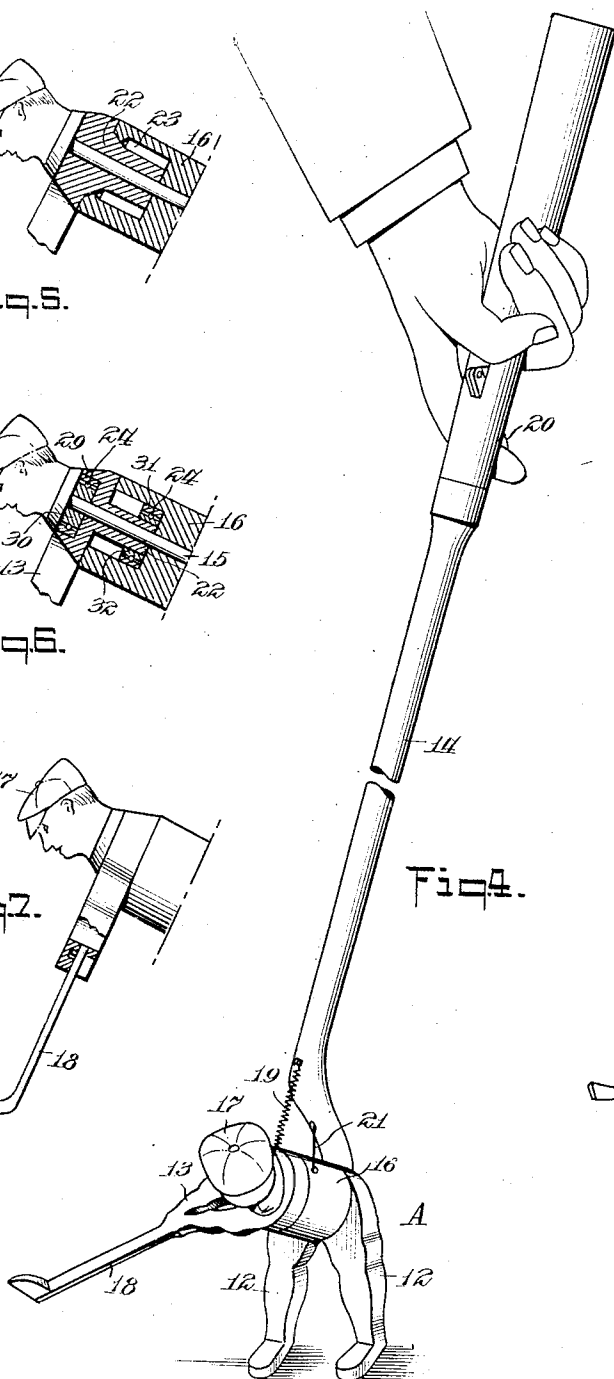


Fig 4.

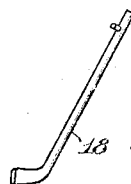


Fig. 8.

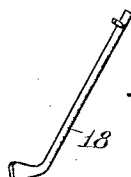


Fig 5.

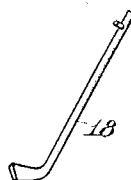


Fig.10.

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By *William B. Stout* Inventor
his Attorneys.
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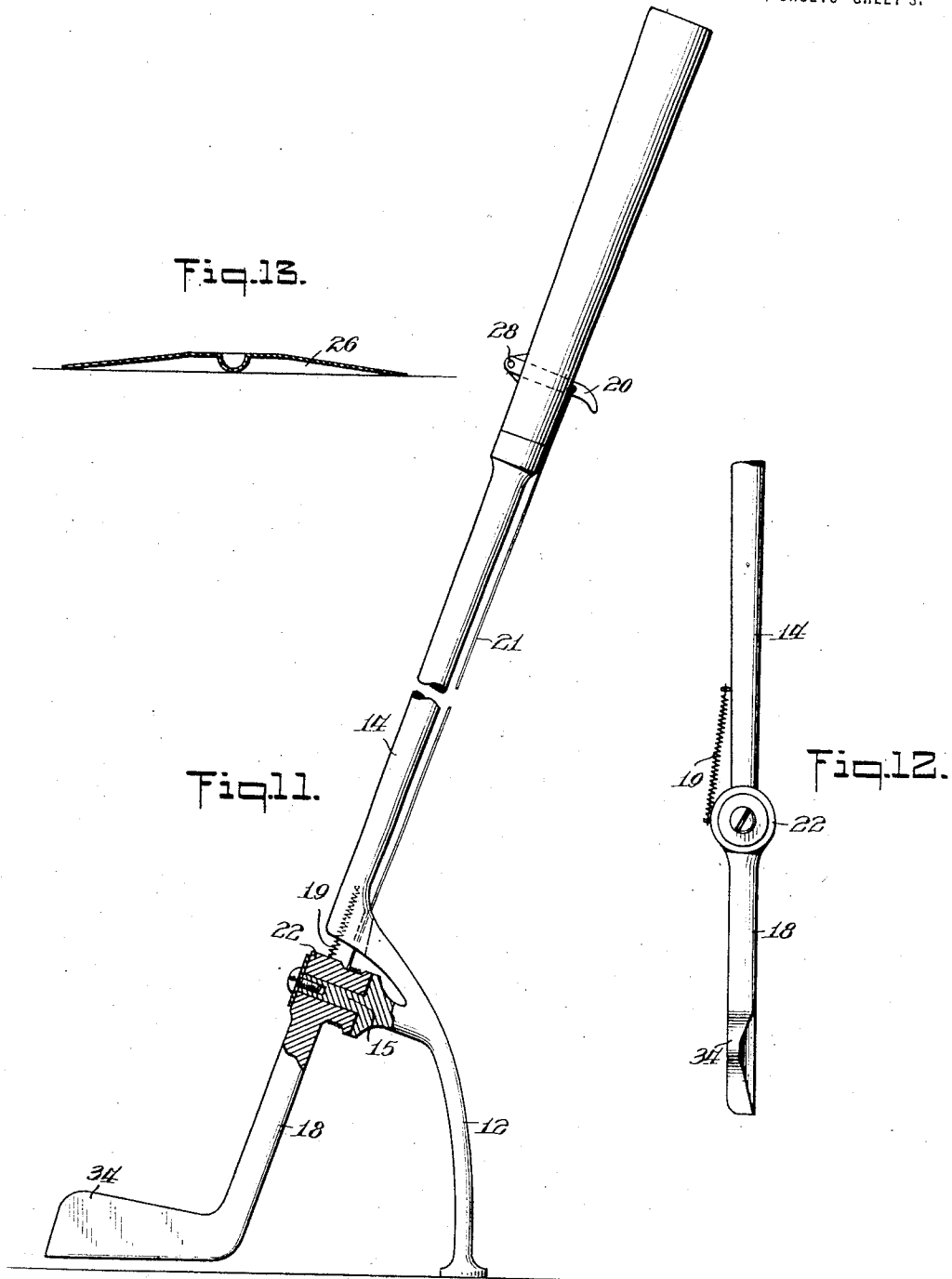
W. B. STOUT.
GOLF CLUB.

APPLICATION FILED JUNE 12, 1920.

1,409,612.

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4 SHEETS—SHEET 3.



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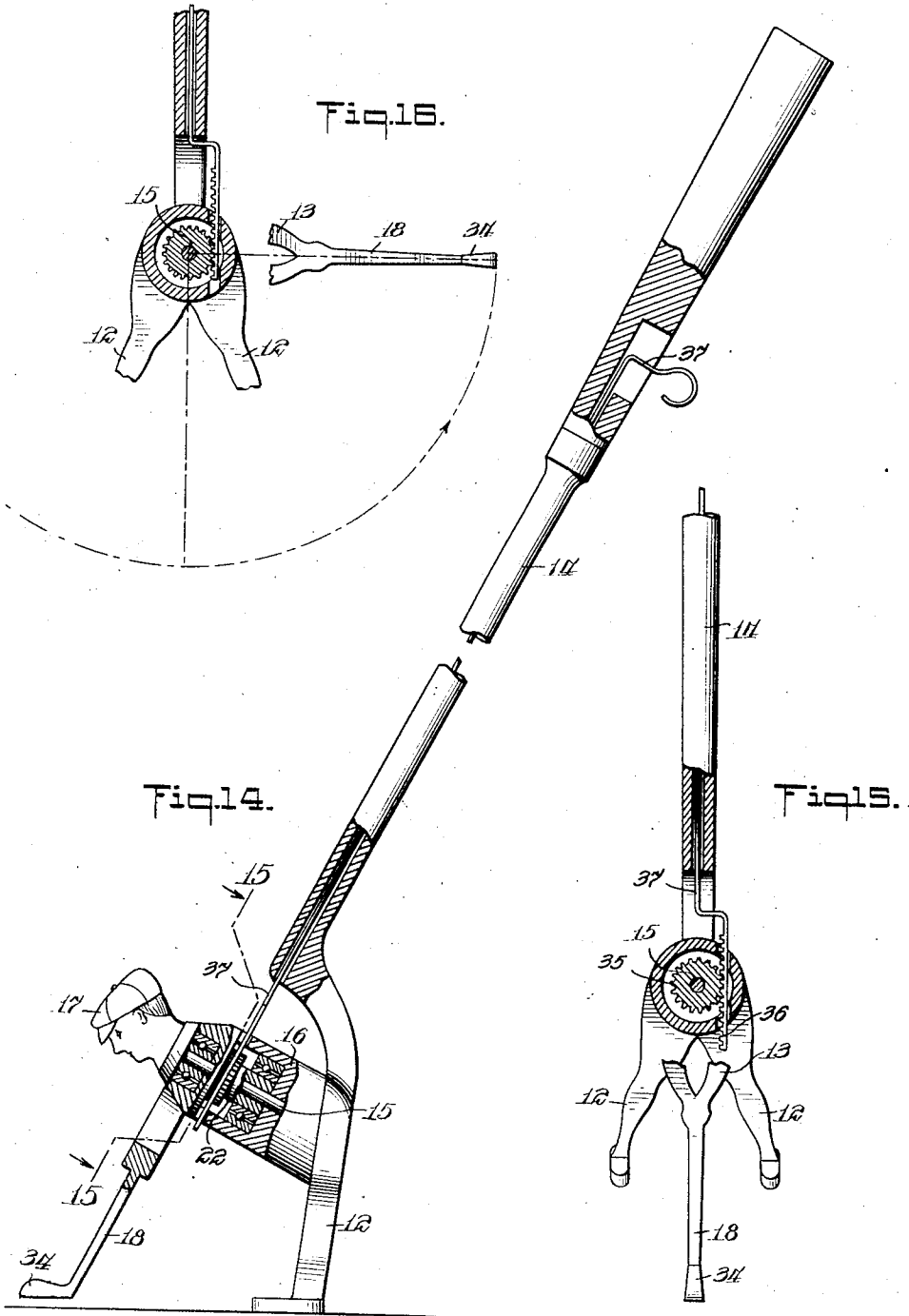
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4 SHEETS—SHEET 4.



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UNITED STATES PATENT OFFICE.

WILLIAM B. STOUT, OF DETROIT, MICHIGAN.

GOLF CLUB.

1,409,612.

Specification of Letters Patent.

Patented Mar. 14, 1922.

Application filed June 12, 1920. Serial No. 388,410.

To all whom it may concern:

Be it known that I, WILLIAM B. STOUT, a citizen of the United States, residing at Detroit, in the county of Wayne and State of Michigan, have invented a new and useful Golf Club, of which the following is a specification.

This invention relates to games of golf, more particularly to miniature games of golf and to clubs for use in playing such games.

Miniature golf courses may be laid out indoors or out and may include all the features of a full sized course such as driving-tees, fair greens, putting greens, holes and such hazards as bunkers, pits, water hazards and the like.

Since these elements of the game are all of reduced size, it is desirable that the implements used in driving the golf balls, also of reduced size, about the course be of a size proportionate with the balls used and the course upon which the game is played. On the other hand the implement is to be used by human players and therefore should be of a size proportionate with such players.

The principal object of this invention is to provide a club for playing golf, comprising means to be held by a human player while taking his stance in the position naturally assumed by a human player in addressing a full sized golf ball, and relatively movable means carried by said first mentioned means for driving a golf ball of whatever size.

A further object of the invention is to provide means operable from the player-held means for controlling the relative movement of the ball-driving means.

A feature of the invention is the provision of a club for playing miniature golf comprising a shaft to be held by a human player and a mechanical golf-player carried by said shaft and controlled therefrom.

Another feature of the invention is a mechanical golf-player for driving miniature golf balls under the control of a human player and for simulating in its movements those of a human golf-player.

A further feature of the invention is the provision in a golf club of a shaft and a head movable relatively thereto.

The invention broadly stated consists in the provision at the lower end of a shaft or handle, of a mechanical golf-player comprising a mechanical golf-player comprising

means such as a manikin made of wood or other suitable material supported by a suitable base, such as legs and feet, and provided with a movable shank or with movable arms arranged to hold a miniature or toy golf-club; and in the provision of means operable by the human player from the upper portion of the shaft for controlling the swing of the toy club. The shaft is preferably of a size approximating that of a full sized golf club and is substantially in alignment with the toy club held by the mechanical golf-player, at the time when said toy club is in position to strike the miniature ball. Thus a player in using a golf club designed in accordance with this invention takes the position naturally assumed in addressing a golf ball and thereby is enabled to apply to the miniature game such skill in directing his shots as he has acquired in the full sized game.

The invention is susceptible of various embodiments one of which for the sake of clearness is described in detail below, but it is to be understood that the following description is not to define the scope of the invention, reference being had to the appended claims for this purpose.

The preferred embodiment of the invention is illustrated in the accompanying drawings, in which—

Figure 1 is a view in side elevation partly in section of a golf club comprising a shaft and a mechanical golf-player carried thereby.

Figure 2 is an elevation of the club as seen in the direction of the arrows in Figure 1, part being a section along the line 2—2 of said figure, the head of the club being in position to strike a ball.

Figure 3 is a view similar to Figure 2 showing the toy golf club in its normal position.

Figure 4 is a perspective view of the mechanical golf-player and supporting shaft.

Figure 5 is a side elevation of a portion of the golf-player partly in section showing the mounting of the arms.

Figure 6 shows a modification of the mounting shown in Figure 5.

Figure 7 is a view showing one method of holding the toy club in place.

Figure 8 shows a toy driving-iron for use by the mechanical player.

Figure 9 shows a toy mid-iron.

Figure 10 shows a toy mashie.

Figure 11 is a view in side elevation, partly in section showing the invention as applied to a golf-club for use with large
5 golf balls.

Figure 12 is a front elevation of a portion of the club shown in Figure 11.

Figure 13 is a sectional view of one of the holes used in the miniature game.

10 Figure 14 is a view similar to Fig. 1 showing modified means for controlling the movement of the mechanical golf-player.

Figure 15 is an elevation of the club as seen in the direction of the arrows in Fig. 14, part being a section along the line
15 15—15 of said figure, and

Figure 16 is a view similar to Fig. 15 showing the toy club in the position occupied just after a ball has been driven.

20 Referring now to Figure 4 there is shown a shaft 14 to be held by one playing, and carrying at its lower end a mechanical golf-player designated in general A. The golf-player has been shown as a manikin having
25 rigid legs 12, a trunk 16, head 17, and movable arms 13, arranged to carry a toy club 18, having a head 34, all of which parts may be of wood, metal or other suitable material. It is to be understood that the mechanical
30 player is shown as a manikin merely for the sake of appearance and that it might as well take any other conventional form, such, for example, as that shown in Fig. 11.

Referring now to Figure 1 it is seen that
35 the legs and feet provide a suitable base to support the club and that with the feet flat on the ground the head 34 of the club will be raised just the proper distance from the ground to give the best results in striking
40 the golf ball. Piercing the trunk 16 is a spindle 15 to the outer end of which the head 17 may be threaded or attached in any desired manner. The arms 13 may be integral with a drum member 22, which is ro-
45 tatably mounted on the spindle 15 and held in place thereon by suitable means such as the head 17, or the arms may be secured to said drum in any desired manner.

A retractile spring 19 normally holds the
50 arms 13 in the position shown in Figure 3. If desired a rubber band or other retracting means may be substituted for the spring 19. Any suitable means may be used for controlling the rotation of the arms 13 about
55 the spindle 15 such as a cord or wire 21 which is wound around the drum 22 and attached at one end to a pin 27 positioned on the surface of said drum. The cord 21 extends through an aperture in the trunk 22
60 and a slot in the lower end of the shaft 14 to the upper portion of the shaft where it is secured to a trigger 20. The trigger 20 is pivotally mounted at the point 28 and passes through a suitable aperture in the shaft 14
65 as is apparent in Figure 2. In Figures 14,

15 and 16 there is shown modified means for controlling the movement of the arms 13 and club 18. As shown the drum 22 is provided at its central portion with a pinion 35 which is in mesh with the teeth of a rack 36 carried at one end of a wire-rod 37. The rod 37 extends upward through the shaft 14, which may be of tubular construction when such a rod is used, to a suitable slot cut near the lower end of the handle portion of said
75 shaft. The upper end of the rod 37 is bent to project through the slot below the handle, and is looped to a size suitable to receive the forefinger of a player. Thus a player inserting his forefinger in the looped end of
80 the rod 37 may move the rod back and forth to swing the club 18 through an arcuate path as indicated in Figures 15 and 16, having at all times direct control over the movement of the club.

It will be obvious that this arrangement renders unnecessary the employment of any spring means to control the movement of the club in either direction, such movement being responsive to the to-and-fro movement
85 of the rod 37.

Figure 5 shows a modification of the mounting for the arms 13 described in connection with Figure 1 in that roller bearings 23 are provided between the drum 22 and
95 the bearing surface of the trunk 16. Figure 6 shows still another modified mounting for the arms in which the drum 22 is loosely collared on the spindle 15 and is supported at either end by ball bearings 24 which run
100 in ball races formed by the rings 29 and 31, the disc 30 and the collar 32. As shown the ring 29 is set in a recessed portion of the drum 22, and cooperates with the disc 30 which is rigidly secured at the outer end of
105 the spindle 15 to form one ball race, while the ring 31 which is set at the bottom of the recessed portion of the trunk 16 cooperates with the collar 32 at the lower end of the drum 22 to form the other race for the ball
110 bearings 24.

A single club 18 may be provided for use by the mechanical player in which case it is preferably made of the same material
115 as, and integral with, the arms 13, as seen in Figure 4. The arms 13 and shaft of the club 18 may, when taken together, be considered as a shank to carry the head 34, which shank might be in the form of a single rod pivotally mounted on the spindle
120 15 when it is not sought to give the mechanical player a human appearance. When it is desired to provide clubs of various characters such as those shown in Figures 8, 9 and 10 they may be of wood or metal and
125 may be secured to the arms by a bayonet joint as shown in Figure 7 or in any other suitable manner.

The hole shown in Figure 13 consists of a depression, of diameter proportionate with
130

the balls used, in the upper plane of a frustum of which the surface is inclined at a small angle with the ground.

In playing the game of miniature golf a ball 25 of suitable size as shown in Figure 4 may be set on the ground or on a suitable tee and a player then taking his stance as in addressing a full sized golf ball manipulates the club so that the mechanical player 10 A will be in proper position to address the ball 25. This position is determined by pulling the trigger 20 or the rod 37 far enough to bring the club 18 into alinement with the shaft 14 at which time the toy club will be in position to strike the ball. The player 15 now taking his direction as in the full sized game, releases the tension on the trigger 20 allowing the spring 19 to draw the club 18 into the position shown in Figure 3. As 20 the trigger 20 is pulled the cord 21 in unwinding from the drum 22 rotates the drum and swings the club through its arc under the direct control of the trigger. Thus a player desiring to drive may insert a driving 25 iron or cleek as shown in Figure 8 in the arms 13 and by giving the trigger 20 a sharp pull drive the ball a considerable distance with a relatively flat trajectory. Following the ball as in the regular game 30 and selecting a club suitable to its lie he may again advance the ball towards the hole for which he is playing and may repeat this operation varying the clubs to suit the obstacles and hazards encountered until he 35 holes-out.

It will be seen that with the construction provided the mechanical player makes the same full free stroke as is used by a human player including as much follow through 40 as the human player cares to give the toy club. Where a single club integral with the arms is used its driving face may be progressively inclined toward the shank so that if the ball is hit near the toe of the club 45 it will have a flat trajectory while if hit nearer the shank it will be lofted.

It will be seen, therefore, that this invention provides a mechanical golf-player which is at all times under the control of 50 a human player who carries it about in the same manner that he would carry any other golf club and which may be used by a human player with as great facility as any other club.

While the preferred embodiment of the invention has been described with much particularity it will be understood that the invention is not limited to the precise form shown, since the details may be varied within the terms of the appended claims without 60 departing from the spirit of the invention.

For example, the arms 13 may be in the form of a shank, as shown in Fig. 11, and the head 34 of the club 18 may be of a 65 size suitable to drive golf balls of any de-

sired size ranging from the miniature to full-sized or larger. Thus the invention may be applied to a golf club of any size having a head movable relatively to the shaft. Such a club might be used in a full 70 sized game of golf for short shots, as in putting, or for other suitable purposes.

What is claimed is:

1. A golf-club comprising a shaft arranged to be held by a human player while 75 taking the stance naturally assumed in addressing a full sized golf-ball, a ball-driving head movable relatively thereto, and means operable from the shaft for moving said head. 80

2. A golf-club comprising a shaft arranged to be held by a human player while taking the stance naturally assumed in addressing a full sized golf-ball, a ball-driving head variably movable relatively there- 85 to, and means controlled from said shaft for moving said head.

3. A golf-club comprising a shaft, a ball-driving head movable relatively thereto, and means controlled from said shaft for mov- 90 ing said head through an arcuate path in either of two directions.

4. A golf-club comprising a shaft, a ball-driving head movable relatively thereto, and means associated with said shaft and vari- 95 ably controllable therefrom for moving said head to strike a ball.

5. A golf-club comprising in combination a shaft, a supporting base therefor, a vari- 100 ably-operable shank comprising ball-driving means pivotally mounted on said base, and means controlled from said shaft for variably controlling the operation of the said shank.

6. A golf-club comprising in combination 105 a shaft, a supporting base therefor, a shank pivotally mounted on said base and movable through a position substantially in alignment with said shaft, a head on said shank, and means for moving said shank. 110

7. A golf-club comprising in combination a shaft having a supporting base, a drum rotatably mounted on said base, arms carried by said drum, and means controlled from 115 said shaft for rotating said drum in either of two directions.

8. A golf-club comprising in combination a shaft having a supporting base, a drum rotatably mounted on said base, a pinion 120 mounted on said drum, and a rack-member controlled from said shaft and cooperating with said pinion to positively rotate said drum in either of two directions.

9. A golf-club comprising in combination a tubular shaft having a supporting base, a 125 drum rotatably mounted on said base, a pinion mounted on said drum, a rod extending upward through said shaft, and a rack carried by said rod and in mesh with said pinion, reciprocation of said rod operating to 130

revolve said drum in either of two directions.

10. A club for playing miniature golf comprising a shaft arranged to be held by a human player in the manner normally employed in holding a golf-club, a mechanical golf-player carried thereby and means mounted on said shaft for controlling the operation of said player.
- 10 11. In a club for playing miniature golf, the combination with a shaft having a supporting base comprising legs and feet, a trunk mounted on said legs, a toy golf club, arms mounted on said trunk to carry said club and a head to hold said arms on said trunk.
- 15 12. In a club for playing miniature golf, the combination with a shaft, a supporting base therefor comprising legs, a trunk mounted on said legs, arms rotatably mounted on said trunk, a head associated with said trunk and a toy golf club carried by said arms, said shaft extending upwardly and rearwardly from said trunk while in playing position.
- 20 13. In a club for playing miniature golf, the combination with a shaft, a supporting base therefor comprising legs and feet, a trunk mounted on said legs, arms rotatably mounted on said trunk, a head to secure said
- 25 30

arms to said trunk, and a toy golf club carried by said arms.

14. In a club for playing miniature golf, the combination with a shaft, a supporting base therefor comprising legs and feet, a trunk mounted on said legs, arms rotatably mounted on said trunk, a head to secure said arms to said trunk, and a toy golf club detachably mounted on said arms.

15. In a club for playing miniature golf, the combination with a shaft, a supporting base therefor, relatively movable arms pivotally mounted on said base in the same plane with said shaft and means for moving said arms through an arcuate path in said plane.

16. In a club for playing miniature golf, the combination with a shaft having a supporting base comprising legs, a trunk mounted on said legs, a toy golf club, and arms movable relatively to said shaft to carry said toy club.

17. In a club for playing miniature golf, the combination with a shaft, a supporting base therefor comprising legs, a trunk mounted on said legs, a spindle, arms rotatably mounted on said spindle, a head secured to said spindle, and a toy golf club detachably mounted on said arms.

WILLIAM B. STOUT.