March 4, 1930. T. H. DECKER 1,749,418

INDICATOR FOR GAMES

Filed April 1, 1929

Fig. 1

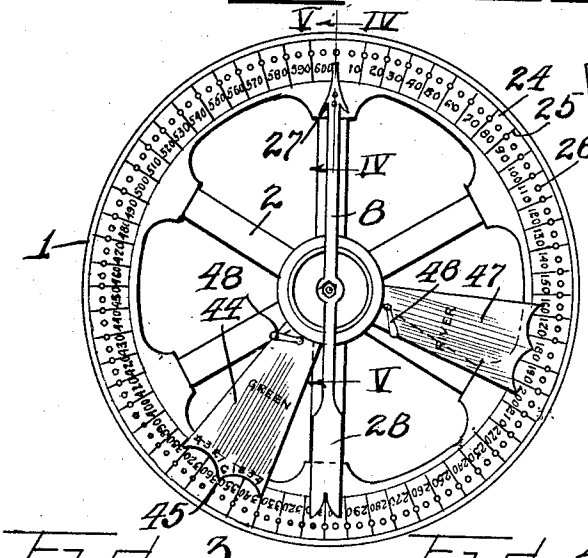


Fig. 2

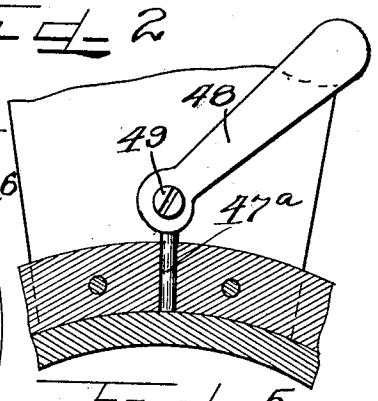


Fig. 5

Fig. 3

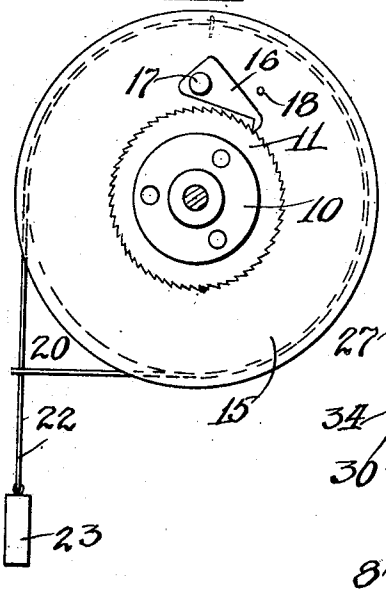
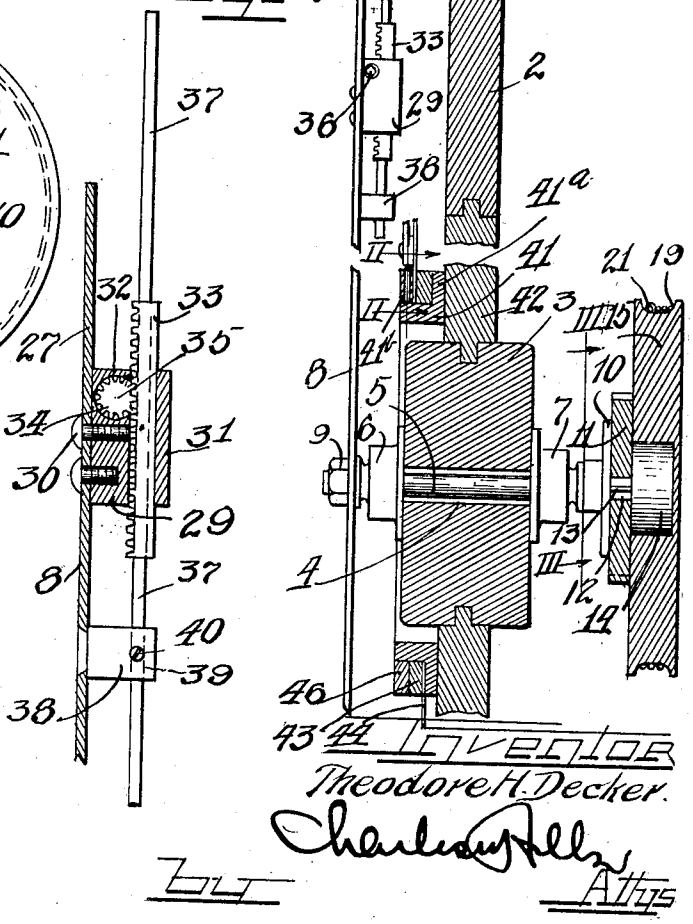


Fig. 4



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UNITED STATES PATENT OFFICE

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INDICATOR FOR GAMES

Application filed April 1, 1929. Serial No. 351,583.

This invention relates to an indicator for games and has to do with a tally device which will visibly indicate a series of plays together with adjustable means for representing hazards or other risks interposed at suitable intervals about the device and which may be utilized in such series of plays.

The invention is exemplified in the form of an indicator for golf games such as is set forth in my copending applications for Letters Patent Serial No. 164,525, filed January 29, 1927 and Serial No. 195,202 filed May 31, 1927.

The indicator or tally device of this invention contemplates a fixed wheel having indicia on its face representing distances or like matter; a plurality of pegs or pins arranged about the periphery of the wheel; a pivoted pointer or arm which is caused to rotate through suitable mechanism and which pointer has a spring finger for contacting said pegs as the arm is rotated which finger is provided with means for varying the flexibility of the same to secure proper adjustment between the rotation of the arm and the mechanism for rotating the same.

The invention further contemplates sectors arranged about the axis of the indicator which sectors represent hazards or other risks useful in playing the game and which sectors may be angularly adjusted and locked in adjusted position.

An object of the invention is to provide an indicator or tally whereby a series of plays may be visibly indicated whereby the total effect of the series of plays may be shown at any point in the game.

Another object of the invention is to provide an indicator having a pivoted arm which is movable in step by step movement over a dial having on its face indicia of distances moved or other characteristic marks of the game with which it is used whereby the arm may at any point in its movement indicate the summation of a series of plays made up to that point.

A further object of the invention is to provide a game indicator having sectors arranged for angular adjustment which sectors indicate hazards or risks experienced in the play of a game.

A still further object of the invention is to provide means for adjusting the movement of a pivoted arm whereby the rotation of the same may be properly coordinated with the impulse imparted to the same by suitable actuating mechanism.

Another and further object of the invention is to provide an indicator or tally for golf games having a pivoted arm which represents the summation of golf strokes played per hole together with indicia for indicating hazards or risks experienced in playing a hole.

The above, other, and further objects of the invention will be apparent from the following description, accompanying drawings, and appended claims.

The invention is exemplified as an indicator or tally for golf games although it is of course susceptible of arrangement for use with other games in which event the indicia and characteristic markings would be changed to conform to such other games.

The form of mechanism chosen to exemplify the invention is illustrated as before stated as an indicator for golf games and the figures of the accompanying drawings are therefore directed to an indicator for such golf game.

The views of the figures are as follows:

Figure 1 is a front view of an indicator embodying this invention arranged for a golf game.

Figure 2 is an enlarged fragmental view taken substantially on line II—II of Figure 5 partially in section of one means for securing the hazard indicators in adjusted position.

Figure 3 is a section taken on line III—III of Figure 5.

Figure 4 is an enlarged fragmental view taken substantially on line IV—IV of Figure 1 partially in section of one means for varying the flexibility of the spring finger carried by the pointer or arm.

Figure 5 is an enlarged fragmental sectional view taken on line V—V of Figure 1.

The exemplified form of the invention con-

sists of a wheel 1 which is supported by standards not shown or in any other suitable manner.

The wheel 1 is fixed in such standards or supports and is provided with a plurality of arms or spokes 2 which are connected at the inner ends to a hub 3.

The hub 3 has a central or axial aperture 4 therethrough in which is arranged a shaft 5 which shaft turns freely in the hub 3.

The shaft 5 is carried in ball bearings supported in cups 6 and 7 at each side of the hub 3.

The shaft 5 supports at its outer end an arm or pointer 8 which is secured to the shaft 5 by means of a nut 9.

The rear end of the shaft 5 has fastened to it a plate 10 which plate is bolted to a ratchet wheel 11. The ratchet wheel 11 is provided with a centrally disposed opening 12. A stub shaft 13 passes through the aperture 12 in the ratchet 11 and is securely fixed against rotation with respect to the shaft 5. This stub shaft 13 carries at its outer end a ball bearing not shown around which is arranged a cup 14.

A pulley wheel 15 is recessed to receive the cup 14 and has a tight fit with said cup so as to turn with said cup on the ball bearing supported by the stub shaft 13.

The pulley wheel 15 is provided with a detent 16 pivoted at 17 to the pulley wheel which detent engages the ratchet wheel 11. A pin 18 is provided in the pulley wheel to prevent undue movement of the pawl or detent 16 away from the ratchet wheel 11 when the pulley wheel is moved in the reverse direction as will be hereinafter explained.

The pulley 15 has a grooved periphery 19 about which are wound several turns of a rope or cable 20, one end of which is fastened by a staple or similar attaching means 21 to the pulley. The same cable 20 or another cable may be secured in the peripheral portion 19 of the pulley wheel 15 with a free end 22 to which is attached a counterweight 23, as shown in Figure 3.

The parts are arranged so that the pointer or arm 8 will move in clockwise direction as observed in the drawings when the cable 19 is subjected to pull.

The face of the wheel 1 is in the present instance divided into a plurality of spaces 24 which spaces are divided by radial lines 25 and all of the spaces bear numbers indicating distances by ten yards per space from the zero point of the dial which zero point is shown as at 12 o'clock on the dial.

Pegs or pins 26 are arranged about the margin of the dial with a pin on every one of the dividing lines 25 and another pin intermediate the dividing lines 25. It will be observed that the spaces 24 are marked to indicate spaces of ten yards per space in which event the intermediate pins 26 would then indicate five yards between the adjacent markings 25 of a space.

The pointer 8 has an arrow head 27 at its indicating end and a balanced opposite end 28.

A block 29 is fastened by means of screws 30 to the rear side of the arrow 27 of the pointer 8. The block 29 has a longitudinal slot through the same as well as a transverse opening 32 near one end. A rack bar 33 having an opening from end to end thereof is arranged within the longitudinal slot 31 while a pinion 34 is arranged within the transverse slot 32 on a shaft 35 which shaft may have a squared head 36 for rotation of the pinion 34.

A flat spring 37 is arranged within the opening through the rack bar 33 and extends beyond the end of said bar. A block 38 is secured to the pointer 8 below the arrow and said block has an opening 39 through the same for the spring 37. A set screw 40 is arranged within the block 38 for fastening the spring 37 in longitudinally adjusted position in the block 38. The spring 37 is flat arranged with its wider surfaces perpendicular to the plane of the pointer 8 with the outer end of the finger 37 arranged to extend slightly beyond the circular row of pegs 26 so as to have a wiping action against these pegs as the arm 8 is rotated.

The rack bar 33 may be moved upwardly or downwardly by the pinion 34 for varying the flexibility of the spring 37. Should it be desired to stiffen the spring then the rack bar would be moved upwardly a proper distance and on the other hand should it be desired to allow greater flexibility then the rack bar would be lowered by proper manipulation of the stud 35 carrying the pinion 34. This arrangement allows nice adjustment of the flexibility of the finger 37 so as to control proper rotation of the arm 8 responsive to power impulses imparted to the same through the cable 20 and the connected parts.

An angular ring 41 has its flange 41^a secured to the inner ends of the spokes 2 by screws 42 and with its flange 41^b extending axially. The ring 41 is in section a right angled ring.

Another ring 43 is arranged on the ring 41 so as to turn freely on the same. A sector 44 is fastened to this ring 43 and extends radially from the hub 3. The outer end of the sector 44 overlies the indicia on the wheel 1 and itself carries indicia constituting in the present instance the letter C at the middle point of the end of the sector and the numerals 1 to 4 inclusive arranged chronologically at each side of the letter C. The sector 44 is made with a point 45 which is the mid point of its free end and in which is the letter C.

Another ring 46 is placed against the ring

43 within the axial flange 41[b] of the ring 41 and this ring 46 in turn carries a similar sector 47 having indicia thereon comprising in the present instance the word River.

Each of the rings 43 and 46 is provided with a radially arranged pin 47[a] which is connected at its outer end to a handle 48 eccentrically mounted by means of a screw or pivot 49 on the sector. Figure 2 shows the arrangement of such parts on the sector 47. The pin 47[a] and handle 48 move the pin 47[a] inwardly and outwardly a slight distance so as to press the pin 47[a] against the outstanding flange 41[b] of the ring 41 for locking the associated sector in angularly adjusted position.

The operation of the illustrated form of the invention is as follows:

Indicia on the wheel 1 represents spaces 24 marked to illustrate 600 yards from the point zero around to the point zero with one rotation of the pointer 8. The sector 47 has been arranged to indicate that at 180 yards from the zero point that is from the tee there is a river, whereas the sector 44 has been adjusted to indicate the green at 350 yards from the zero point or tee.

The indicator of this invention may be associated with a golf driving recorder such as that set forth in my copending application Serial No. 164,525, filed January 29, 1927, wherein a box is provided with a flexible wall, air pressure being maintained within the box so that the flexible wall is struck by a golf ball the air within the box will be displaced in accordance with the force of the ball, operating an arm which may be connected to the cable 20. Such displacement of the air would impart movement to the cable 20 to the left as viewed in Figure 3 imparting rotation in clockwise direction to the pulley 15. Such rotation would drive the ratchet wheel 11 in clockwise direction by reason of the engagement of the pawl 16 with the ratchet wheel. This in turn would impart rotation to the pointer 8. Suppose for instance that in the starting of the game with the sectors 47 and 44 arranged as shown the first player makes a drive of 150 yards, in such event the pointer would move and rest on the pin 25 indicating such distance. The next drive is dubbed and the ball goes into the river as indicated by the sector 47. This would necessitate moving the pointer back to the first pin beyond the sector 47 in counter-clockwise direction and then the player would take another stroke landing on the green say at 340 yards. The pointer would then come to rest at the 340 yard pin near the number 4 on the sector 44 indicating that the player will then place his ball at point number 4 on the putting green device which is used with a golf game such as that set forth in my copending application above mentioned.

When the first player reaches the green that is sector 44 the pointer is moved back to the zero point so that the second player may play the same hole.

When all of the players have played the first hole, then the sectors 47 and 44 are adjusted to represent the conditions existing in the second hole which might be a long hole with the putting green say at 500 yards from the tee or zero point in which event the sector 44 would be moved so that the pointer 45 thereof is opposite the pin indicating 500 yards from the zero. Should it so happen that there is no river or other hazard on the second hole then the sector 47 would be disregarded in playing this hole.

The game is continued in the manner just described setting the sectors 44 and 47 to correspond with the conditions existing on the various holes which conditions may be such as exemplified in my copending application for "golf game board", Serial No. 195,202, filed May 31, 1927 which depicts a nine hole course with hazards and with the holes arranged at various distances from the several tees.

The moment that the pointer 8 is moved to its maximum position of angular movement under impulse imparted thereto through the pulley wheel 15 the pulley wheel is returned to normal position by the counterweight 23 during which movement the pawl 16 rides over the ratchet wheel 11 without imparting rotation to the same.

The point zero on the wheel 1 indicates the tee from which the players tee off in the golf game and as before stated the sector 44 representing the green is adjusted in angular position to correctly represent the distance of the green from the tee and in like manner the sector 47 is adjusted to represent the existence of any hazard such as a river, bunker or similar hazard well known on golf courses.

The spring finger 37 as before described wipes the pins 26 as the arm 8 is rotated and the degree of flexibility of said finger may be adjusted so that the movement of the pointer 8 will correspond correctly to the distance represented by every stroke played.

The arrangement of the parts is such that when the pointer 7 has been moved to rest by the pulley wheel and ratchet wheel that it remains in such position until manually returned to the zero point so that the pointer at all times indicates visibly a play or a series of plays as registered on the indicator.

It is of course within the scope of this invention to substitute some other arrangement carrying the pawl 16 than the pulley wheel 15 and the invention is to be construed accordingly.

The invention has been described herein more or less precisely, yet it is to be understood that changes may be made in the arrangement and proportions of parts and that equivalents may be substituted without de-

parting from the spirit and scope of the invention.

The invention is claimed as follows:

1. An indicator including a fixed wheel-like dial having indicia thereon, a ring of spaced pegs on said dial, a rotatable pointer movable over said dial, a ratchet wheel connected to said pointer for moving it in one direction, a spring finger carried by said pointer for contacting said pegs, a movable member carrying a pawl for engaging said ratchet wheel, and means for moving said member.

2. An indicator including a fixed wheel-like dial having indicia thereon, a ring of spaced pegs on said dial, a rotatable pointer movable over said dial, a ratchet wheel connected to said pointer for moving it in one direction, a spring finger carried by said pointer for contacting said pegs, a movable member carrying a pawl for engaging said ratchet wheel, and means for moving said member, and means for varying the flexibility of said finger.

3. An indicator including a fixed wheel-like dial having indicia thereon, a ring of spaced pegs on said dial, a rotatable pointer movable over said dial, a ratchet wheel connected to said pointer for moving it in one direction, a spring finger carried by said pointer for contacting said pegs, a movable member carrying a pawl for engaging said ratchet wheel, and means for moving said member, said pointer carrying a rack bar movable longitudinally of the pointer, said spring finger passing through said bar, and means for moving said rack bar along said finger to vary the flexibility of the same.

4. An indicator including a fixed wheel-like dial having indicia thereon, a rotatable pointer movable over said dial, a ratchet wheel connected to said pointer for moving it in one direction, a movable member carrying a pawl for engaging said ratchet wheel, and means for moving said member, a sector angularly adjustable over said dial, said sector bearing indicia representing additional data over that on said dial.

5. An indicator including a fixed wheel-like dial having indicia thereon, a rotatable pointer movable over said dial, a ratchet wheel connected to said pointer for moving it in one direction, a movable member carrying a pawl for engaging said ratchet wheel, and means for moving said member, a plurality of sectors angularly adjustable about the axis of said dial, said sectors bearing indicia representing additional data over that appearing on said dial, said sectors being adjustable at different points in the dial for varying the conditions of play as represented by said dial.

6. An indicator including a fixed wheel-like dial having indicia thereon, said wheel including spokes and a hub, a shaft passing through said hub and carrying a pointer, said pointer being movable over said dial, a ring supported on the spokes for angular movement about the shaft, a sector carried by said ring, and a cam member on said sector for locking the same in angularly adjusted position, said sector bearing indicia in addition to that on the dial.

In testimony whereof I have hereunto subscribed my name at Chicago, Cook County, Illinois.

THEODORE H. DECKER.