

Oct. 16, 1956

S. M. KLEIN

2,766,935

GOLF YARDAGE COUNTER

Filed June 11, 1952

Fig. 1

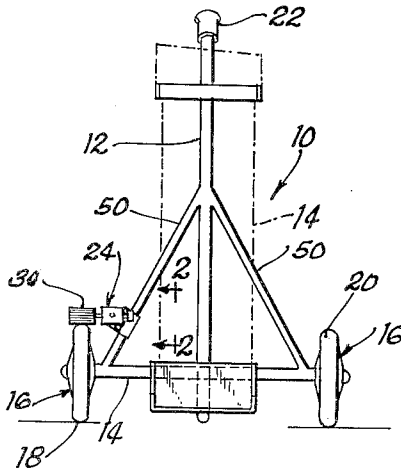


Fig. 2

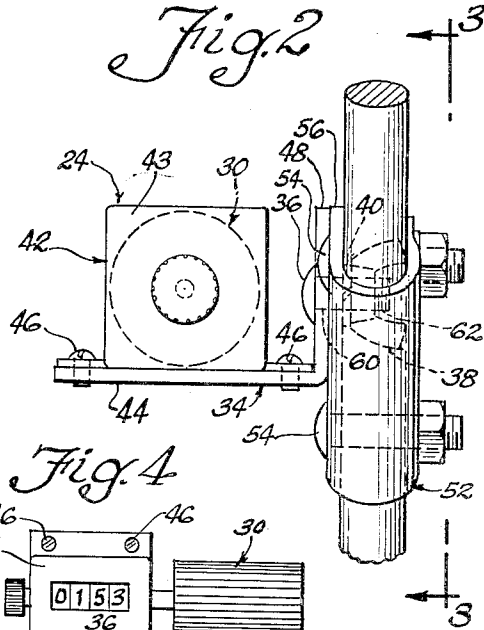


Fig. 4

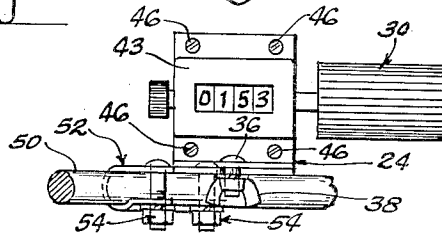
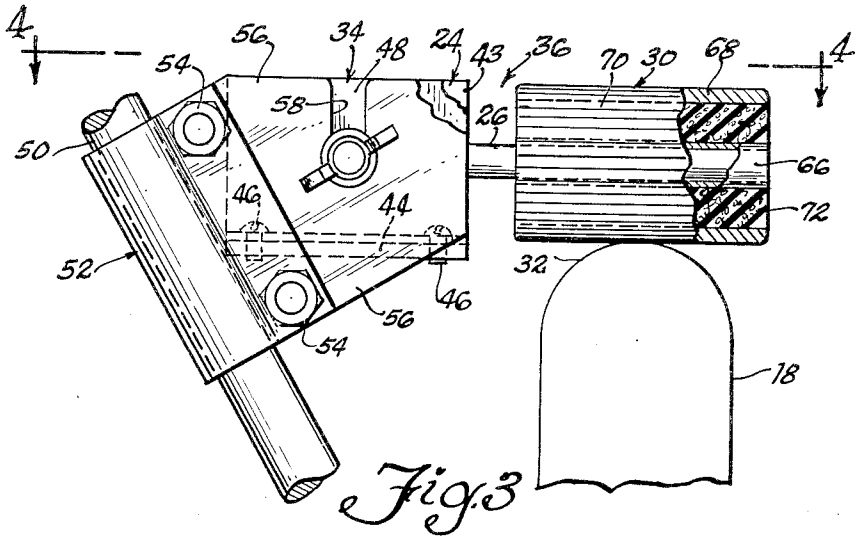


Fig. 3

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1

2,766,935

GOLF YARDAGE COUNTER

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Application June 11, 1952, Serial No. 292,912

1 Claim. (Cl. 235—95)

This invention relates to ground distance measuring devices.

The practice among golfers of overestimating or underestimating the distance from the place at which the ball has come to rest, after it has been driven from the tee, to the hole, leading the golfer to select and use for the next stroke or shot a club which will give too much distance or a club which will give too little distance (generally known as overclubbing or underclubbing, as the case may be), is very prevalent, with the result that their scores are higher than they need be.

It is an object of the invention to provide means enabling the golfer to take the guess out of this phase of his game. To this end it is an object of my invention to provide means which accurately apprise the golfer of the yardage from the driven ball to the hole, whereby he is able to select and use the precisely appropriate club for his next stroke.

More particularly it is an object of the invention to provide a device showing the yardage of the driven ball from the tee, so that by subtracting said yardage from the known yardage from tee to hole he arrives at the substantially exact yardage to the green. The figure thus arrived at may be slightly inaccurate if the ball is out of line from tee to hole, but the golfer will make a mental note of that fact and govern himself accordingly.

Another object is to provide a device of the character referred to which includes a caddie cart or similar means adapted to be rolled along the ground by the golfer.

An additional object is to provide a device of the character referred to including a revolution counting unit which may be detachably mounted on a caddie cart or the like.

Further objects and advantages of the invention will appear as the description proceeds.

The invention will be better understood upon reference to the following description and accompanying drawing, in which:

Fig. 1 is a front elevational view of a caddie cart and a counting attachment cooperating therewith in accordance with the invention.

Fig. 2 is an enlarged inside elevational view taken as indicated by the line 2—2 in Fig. 1.

Fig. 3 is a rear elevational view taken as indicated by the line 3—3 in Fig. 2.

Fig. 4 is a top plan view taken as indicated by the line 4—4 in Fig. 3.

Referring now more particularly to the drawing, disclosing an illustrative embodiment of the invention, there is shown a caddie cart 10 including a frame 12 formed to support a golf bag (shown in dot-dash lines at 13) and having an axle 14 and wheels 16 thereon on which rubber or other suitable tires 18 and 20 may be mounted, and a handle 22 enabling the golfer to pull or push the cart.

The invention includes a revolution counting instrument or tachometer 24, which may be designed to measure

2

say up to 1000 units and, if desired, also tenths of units. The instrument 24 of itself may be of any conventional or other design, and accordingly its details of construction need not be elaborated here. The instrument includes a shaft 26 which preferably has an outboard extension 28 about which a roller 30 is affixed in any suitable manner so that the shaft and roller rotate in unison.

The instrument 24 and attached roller 30 are adapted to be mounted on the frame 12, as will appear, in a suitable position to locate the roller in friction-driven engagement with the tread portion 32 of one of the tires, for example the tire 18. For golf yardage counting purposes, the roller 30 preferably has a circumference of 3.6", so that, for each 3.6" travel of the tire 18 along the ground, the roller will turn once and consequently the instrument 24 will measure one tenth of a yard, and it follows that for each yard of travel of the tire 18 along the ground the instrument will measure one unit, i. e., one yard.

Thus, having set the instrument 24 at zero and having driven the ball, the golfer propels the cart to where the ball has come to rest and upon then observing the instrument he is apprised of the yardage of his drive. He then subtracts that yardage from the known tee-to-hole yardage, and the result guides him in the selection of the proper club to be used in the next stroke or shot.

A mounting bracket 34 with an attaching bolt 36 and thumb nut 38 and associated lock washer 40 thereon preferably forms with the instrument 24 and roller 30 a unit indicated generally at 42, adapted to be readily attached to and removed from the cart 10. The bracket 34 may be suitably L-shaped, and the instrument housing 43 attached to the leg 44 of the bracket as at 46. The other leg 48 of the bracket 34 is adapted to be removably though tightly secured directly or indirectly to an appropriately located part of the cart frame. The frame 12 is illustrative only, and includes inclined bars 50 extending inward from opposite end portions of the axle 14. With such a frame, I may provide an adapter 52 which may be in the form of a U-shaped clamp adjustable along one of the bars 50, for example the bar adjacent the tire 18, and securely held in adjusted position as by bolt and nut means 54. The adapter 52 preferably has a plate-like extension 56 formed with a slot 58. The leg 48 of the bracket 34 has a hole 60 through which the bolt 36 extends, and, when the shank 62 of said bolt is disposed at the entrance of the slot 58, the bracket 34 may be lowered as the shank moves deeper into the slot. With the roller 30 resting on preferably the portion of greatest diameter of the tire tread 32, the thumb nut 38 is tightened and the device is ready for operation. In the event of wear of the tire tread 32, the thumb nut may be loosened and the unit 42 lowered to the desired extent to locate the roller as noted above and then tightened. Should the thumb nut be tightened when the axis of the roller is slightly inclined to the axis of the wheels 16, the accuracy of the instrument in measuring the golf yardage will not be seriously impaired.

The roller 30 is preferably constructed to enable the same to pass over stones and other obstructions which may adhere to the tire tread, and to that end the roller is formed to yield under such circumstances. For this purpose the roller 30 may have a metal or other suitable hub sleeve 66 which telescopes about the shaft extension 28, a metal or other suitable tread sleeve or rim 68 preferably milled as at 70 for traction, and an intervening filler sleeve 72 of sponge rubber or other suitable readily yieldable elastic material, bonded or otherwise suitably fixed to the hub and rim. As an alternative an elastic rubber ball or otherwise shaped roller could be employed.

3

The tendency of the yieldable roller to resume its round shape will operate to exert pressure to dislodge such obstructions. The presence of such obstructions, however, will not impair the accuracy of measurement.

It is apparent from the foregoing that I have provided a distance measuring device which may be readily applied, adjusted, secured and removed, is adaptable to and independent of the size of tire with which it is to cooperate, has few parts and may be produced at low cost, and may be made compact and light in weight for convenient carrying in a pocket of the golfer or golf bag, and for shipment.

The roller 30, when 3.6" in circumference, has a diameter slightly over one inch, which is a convenient size. This size of roller is further particularly desirable since it lends itself readily to use with conventional revolution counters. However, if desired the roller circumference may be made greater or less than 3.6", in which event the revolution counter used in connection therewith should be of correspondingly altered design.

Various modifications may suggest themselves to those skilled in the art without departing from the spirit of my invention. Hence, I do not wish to be restricted to the specific forms shown or uses mentioned, except to the extent indicated in the appended claim, which is to be interpreted as broadly as the state of the art will permit.

I claim:

A golf yardage measuring device for a golf cart including an axle, a ground wheel about the axle, and a frame member connected to the axle at the inner side of the wheel and diverging from the wheel away from the wheel axis, said device comprising a support having means for attaching the same to a selected part of the frame member, said support having a slot extending normal to the wheel axis when said support is so attached,

4

a bracket, an attaching bolt passing through said bracket and a selected part of said slot, a thumb nut cooperating with said bolt to clamp said bracket to said support, said bracket being freely separable from said support pursuant to loosening of said thumb nut, and a revolution counter fixed to said bracket, said counter including a shaft, a rigid wear-resistant sleeve circumferentially roughened substantially throughout its length and arranged to be friction-driven by the wheel tread, and elastic means between and coupling together said sleeve and shaft, the elasticity and yieldability of said coupling means enabling said sleeve to continue in driving contact with the tread notwithstanding substantial wear of the tread, and to enable said sleeve to roll over and exert pressure tending to dislodge obstructions adhering to the tread, without shifting said shaft, said sleeve being operatively engageable with tire treads of different initial diameters.

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