# United States Patent

**Reitz**

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[54] **METHOD OF AND MEANS FOR INDICATING THE POSITION OF A CUP IN A GOLF COURSE GREEN**


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[52] **U.S. Cl.** .....**35/7 A,** 35/40, 273/32 R

[51] **Int. Cl.**.....**G09b 29/10**

[58] **Field of Search**.....35/7, 29 A, 41, 40; 40/1; 273/87.32, 87.2, 87.4



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[57] **ABSTRACT**

An indicating method and device located at the tee of a hole of a golf course for indicating to a player the location of the cup in the green of the hole.

The device is a relief model of the green, including the surrounding environment, having markings providing coordinates for locating a marker on the model green corresponding to the location of the cup on the actual green as determined by measurements of the location of the cup relative to a reference point.


**3 Claims, 3 Drawing Figures**

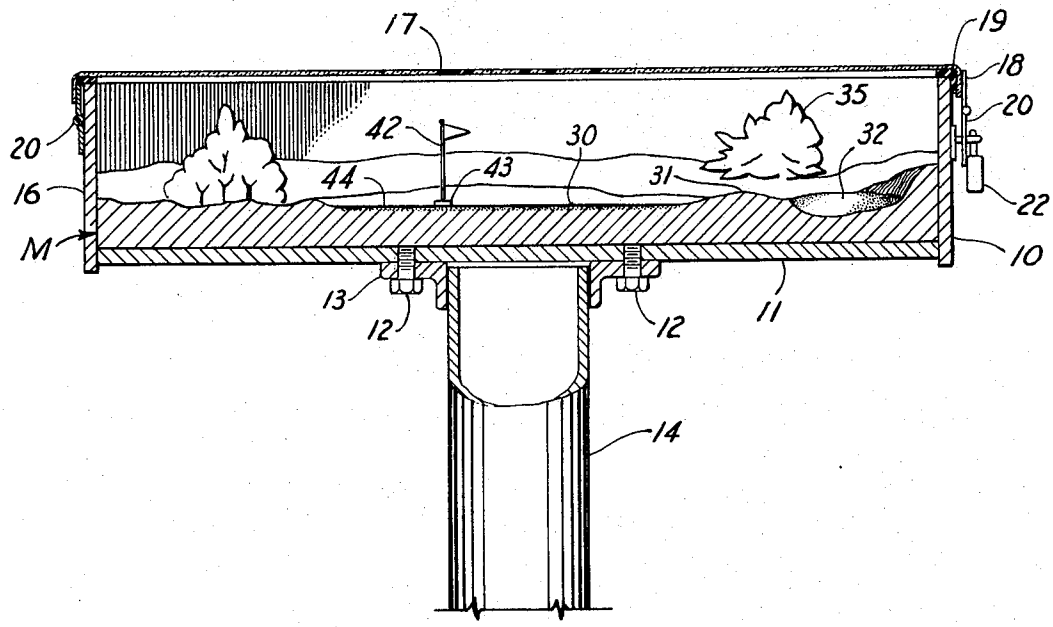
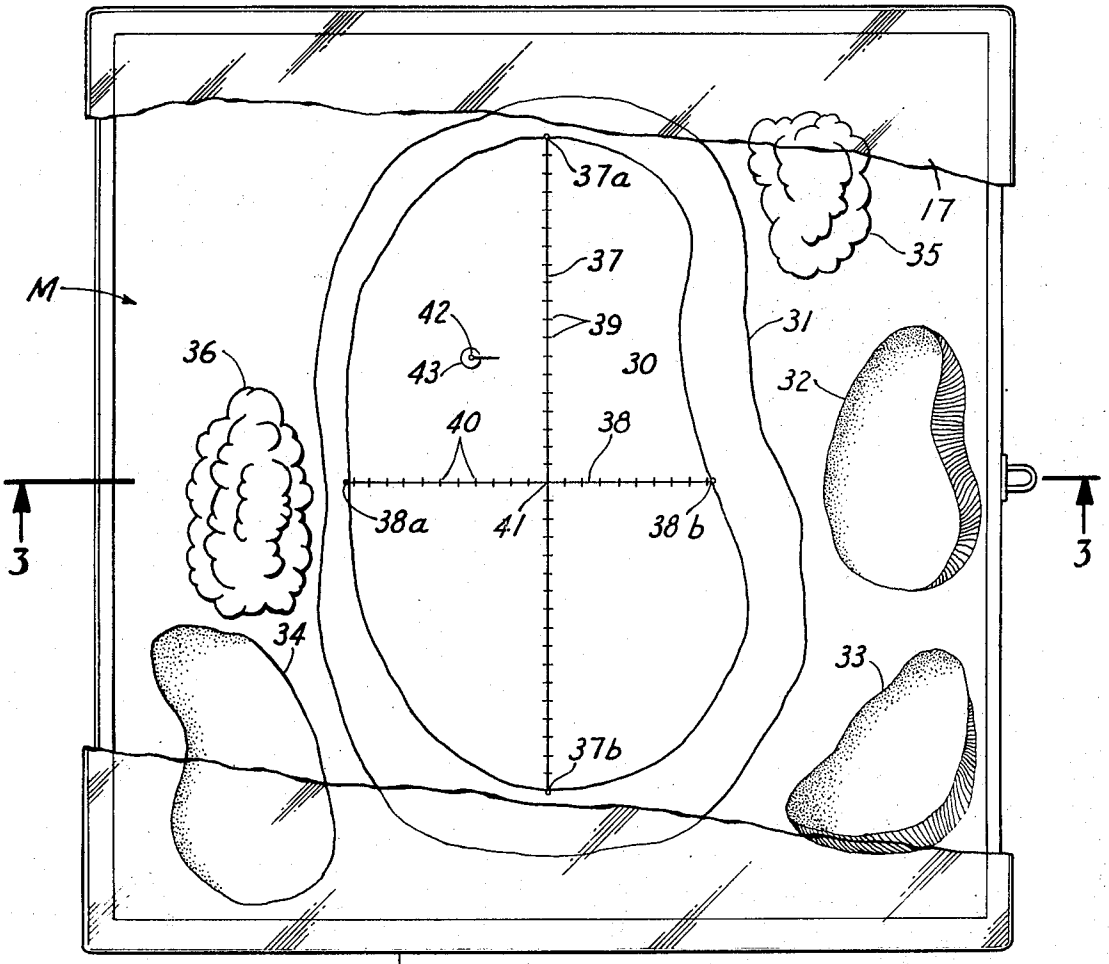


Fig. 2.



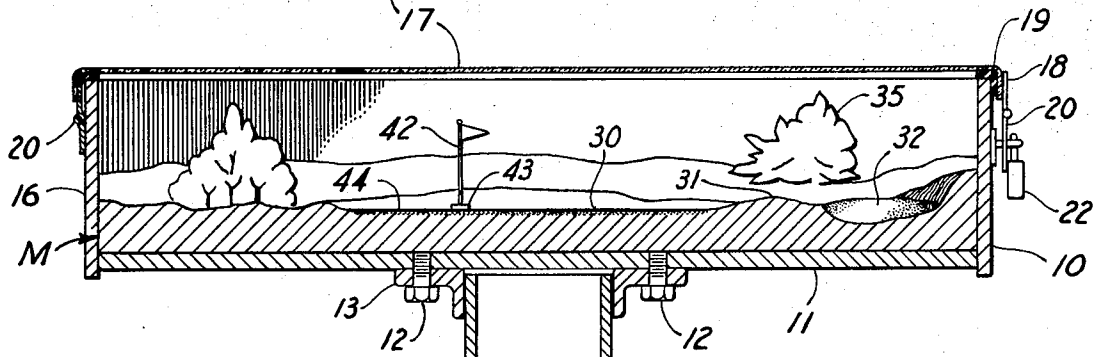




Fig. 3.

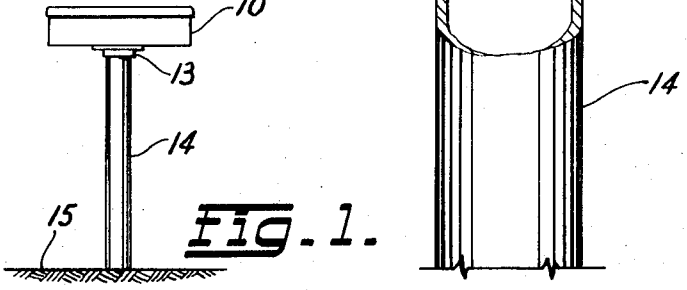



Fig. 1.

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# METHOD OF AND MEANS FOR INDICATING THE POSITION OF A CUP IN A GOLF COURSE GREEN

## BACKGROUND OF THE INVENTION

It is customary in the maintenance of golf courses that the cup in the green of each hole is periodically removed to preserve the area of the green adjacent the cup which would experience severe wear from continued activity if the cup remained in the same location. Thus, the green is protected against the need for substantial, time consuming and expensive repairs.

Placement of the cup at different locations in the green poses a problem to players who are unaware of a change in location. The location of the cup is generally indicated to the golfer by a pin which is placed in the cup and carries a flag at its upper end. While such a flag is visible at some substantial distance, the golfer may not be able to determine at such distance the relationship of the flag to the green, including the traps surrounding the green. The green may be oddly shaped, contoured and trapped, so that the golfer will play his shot so as to place the ball in the most advantageous position on the green. If, however, the player is unable to visually determine whether the pin is in the right or left side or forward or rear portion of the green he may not play the hole to greatest advantage, notwithstanding the fact that the player may be experienced with the particular green. If the golfer is not familiar with the course, the problem is more aggravated, since the player is not only unable to visually determine the placement of the pin on the green, but, also, he may be unable to visualize the topography of the green, i.e., how it slopes, where the traps are, even though the player's score card may show the shape of the green.

## THE PRIOR ART

It is the practice in some golf courses to provide in the clubhouse a pictorial representation of the various greens and to place a marker roughly at the location of the cup at each green. While such devices have some value to experienced and inexperienced players, the devices do not satisfy the need for visually indicating to either class of player the topography of the green while the player is at the tee or at some other location remote from the green. Neither does such a device enable a player to visualize the best approach to the particular green as he is about to make a shot.

## SUMMARY OF THE INVENTION

The present invention enables a golf player to visually analyze the topography of a selected green in a golf course hole, and to play the hole to best advantage, as may be dictated by the placement of the cups at various locations on the green and by the hazards surrounding the green.

More particularly, the invention provides a model of the green which is constructed in accordance with the topography of the green, including traps, shrubs, and other hazards adjacent to the green, and which is located at the tee, to provide a visual indication to the player of the green form and arrangement, as well as to provide a visual indication of the location of the cup in the green. Thus, if the player is unfamiliar with the green, on the one hand, or while being familiar with the green, is unaware that the cup has been re-located, on the other hand, the player is better able to determine the proper or the preferred manner of playing the hole.



In accomplishing the foregoing, the green of the golf course is physically reproduced, including surrounding hazards, in the form of a relief, scale model, which according to typical practice in the production of models of the general type involved may be at one scale in a horizontal plane, but at a lesser scale in a vertical plane, to visually emphasize the depth of trap and variation in grade or slope of the green or the surrounding apron and adjacent region.

To obtain the desired degree of authenticity or accuracy in the model green, a selected green may be surveyed, including the surrounding area, or if the course was constructed according to architectural drawings which are current, such drawings may be employed as a guide to production of the model of the green. To practice the invention, however, a facility is provided for establishing a reference point on the green of the course from which measurements may be taken to determine the relative placement of the cup in the green. Such measurements are taken each time the cup is moved, and a cup marker on the model, say, a representation of a marker pin and flag, is placed in the same relative location on the model green.

The model is housed in a protective and supporting enclosure. The enclosure must be opened periodically to enable re-location of the cup marker on the model green, and accordingly, the top of the enclosure is transparent to expose the model green to view and openable to allow re-location of the cup marker.

This invention possesses many other advantages, and has other purposes which may be made more clearly apparent from a consideration of a manner of performing same. One manner of performing the invention is illustrated in the drawing accompanying and forming a part of the present specification. The method of use thereof will now be described in detail for the purpose of illustrating the principles of the invention; but it is to be understood that such detailed description is not to be taken in a limiting sense, since the scope of the invention is best defined by the appended claims.

## BRIEF DESCRIPTION OF THE DRAWINGS

FIG. **1** is a side elevation of means according to the invention for indicating the position of a cup in the golf course green;

FIG. **2** is an enlarged top plan, with a portion of the transparent cover broken away, to expose the model green; and

FIG. **3** is a section as taken on the line **3—3** of FIG. **2**.

## DESCRIPTION OF THE PREFERRED EMBODIMENT

As seen in the drawings, an enclosure **10** is provided, including a base wall **11** which is suitably attached as by fasteners **12** to a support flange **13** provided at the top of a post **14** adapted to be installed in a golf tee **15** in an upright position, preferably adjacent to the location at which the golfer addresses the ball for his tee shot.

The enclosure **10** may be of any desired configuration but is illustrated as being substantially square having upstanding sidewalls **16** at the top of which is a closure **17** of transparent material, such as a transparent acrylic, having a down-turned edge flange **18** which ex-

tends about the sidewalls **16**. Suitable sealing means, such as a gasket **19**, may be provided to prevent the entry of foreign matter into the enclosure. Illustratively, the closure **17** is provided at one side with a hinge **20** suitably affixed to the sidewall of the enclosure **10** and at the opposing side, the closure and the sidewalls **16** have means for locking the closure in a closed position, such as, for example, a hasp **21** adapted to be locked in place by a lock **22** to prevent unauthorized entry into the enclosure **10**.

Within the enclosure **10** is a model M of the green of a particular hole of a golf course. The model M includes a representation of the green **30** as well as the surrounding green apron **31**. The model of the green also includes the various hazards which may exist, such as in the case of the illustrated green, a number of peripheral sand traps **32**, **33** and **34**, as well as peripheral shrubbery indicated at **35** and **36**. In its preferred form, the model M is constructed in relief, say, from papier mache, clay or other moldable material, so that not only is the general plan of the green represented for the player, but, also, as best seen in FIG. **3**, the player may visually determine the grade or slope of the green and its surrounding area.

Within the green proper, it is provided with crossed lines or markings **37** and **38** having graduations **39** and **40**, respectively, which are preferably numbered to designate the distance from the reference point **41** at which the markings **37** and **38** cross and the periphery of the green proper. In the construction of the model M, it will be apparent that the various surfaces and hazards may be appropriately colored to more or less realistically correspond to the actual green of the golf course.

A marker **42** is adapted to be placed on the green **30** to indicate the location of the cup in the green of the golf course. Since the usual marker for the cup in the green of the golf course is a pin having a flag, the market **42** is preferably of that same type, the pin being supported on a base **43** for supporting the marker in an upright position. Means are provided for retaining the marker **42** in a selected position. For example, such means may comprise providing iron filings as indicated at **44** in the surface of the green **30** and employing a magnet as the disc **43**, so that when the marker **42** is placed at a selected location on the green **30**, it cannot be displaced by shock forces applied to the structure.

In the practice of the invention, either when the green of the golf course is being surveyed or at any time that it is desired to install the device illustrated in FIGS. **1–3**, the green in the golf course is measured in crossed directions to establish a reference point on the golf course green. These measurements are taken on lines established for future reference, say, by the driving of markers into the green in opposed relation to establish the lines of future measurements to be made when the position of the cup is changed. These opposed points are represented at **37***a*, **37***b* and **38***a*, **38***b* on the model green **30**. It is immaterial whether these points be located on the golf course green with reference to the model green or located on the model green with reference to the golf course green. The significant point is that, for future reference, a greenkeeper who periodically changes the location of the cup is enabled to take measurements from a reference point on the golf course green corresponding to the reference point **41** on the model green **30** to provide coordinates enabling the placement of the marker **42** on the model green **30** in a location substantially representative of the location of the cup in the golf course green. These coordinates would be established by measurements of the golf course green each time the cup is moved, and therefore, the markers driven into the golf course green, at the points corresponding to the points **37***a*, **37***b* and **38***a*, **38***b* on the model green, may provide hooks or the like to enable connecting a surveyor's measuring tapes to the hooks, so that the reference point is provided at the intersection of two of the tapes stretched across the green of the golf course.

From the foregoing, it will be apparent that a golfer at the tee of the hole of the golf course provided with a model of the green as herein shown and described is readilly able to visualize not only the general layout of the green of the hole which he is about to play but also the player is certain of the relationship of the usual marker pin in the cup in the green of the golf course relative to the rest of the green including the surrounding hazards. Thus, the player is better able to endeavor to place his shot either at the desired location on the green or at the preferred approach to the green. It may be desired, moreover, in the case of a particular hole of a golf course where the green is not viewable from the tee, that adjacent to the model of the green there may be further representation of the entire hole, including, for example, a dog leg which prevents the green from being visible from the tee. Under these circumstances, the invention enables the player to better visualize the best manner of playing his shot out of the dog leg into alignment with the green.

I claim:

**1**. A miniature display for depicting a particular hole of an actual golf course comprising: a three dimensional model of the putting green and hazards which duplicate the actual golf course hole being depicted; supporting means for securing said model in proximate vicinity of the tee of said actual hole; said putting green portion of said model being subdivided by a grid coordinate system; a flag marker; said marker and said putting green portion having means for selectively and adjustably retaining said marker in a selected position on said putting green portion, so as to depict the exact location by coordinate identification of the variable placement of the actual cup in the putting green of the actual golf course hole, whereby changes in cup location on the actual putting green can be readily and accurately depicted in the display.

**2**. A miniature display as defined in claim **1**, wherein said means for selectively and adjustably retaining said marker in a selected position on said putting green portion, comprises magnetic means in said green portion and on said marker.

**3**. A miniature display as defined in claim **1**, wherein said supporting means comprises an enclosure having a transparent cover to enable viewing of said model.

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