# United States Patent [19]

**Schwartz**

[11] **3,908,991**

[45] **Sept. 30, 1975**


[54] **PUTTING AID**


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[52] **U.S. Cl.** ..... **273/32 R;** 33/389; 33/275; 33/285; 33/289; 273/162 F

[51] **Int. Cl.²** ..... **A63B 57/00**

[58] **Field of Search** ..... 273/187 R, 32, 35, 183, 273/162; 33/285, 289, 275, 389



[56] **References Cited**

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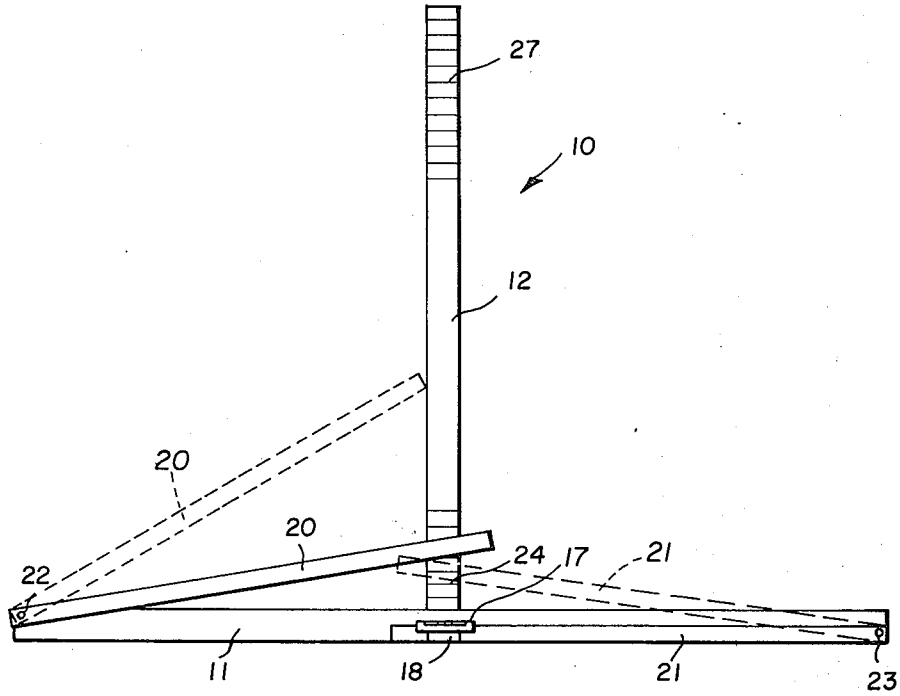
*Primary Examiner*—George J. Marlo
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[57] **ABSTRACT**

A putting aid includes a base bar and an upright bar pivotally connected to the center of the base bar to be foldable into alignment with the base bar for storage in a golf bag and to be held in a position perpendicular to the base bar for use. Clips support the upright bar on the shaft of a putter, and a bubble level is on the base bar for leveling the base bar accurately horizontally. A pair of sighting bars are pivotally mounted at opposite ends of the base bar and extend to the upright bar where a scale extends upward from the base bar so that elevated inclination of the sighting bars can be read on the scale. A table on the upright bar above the scale is then used for computing lateral distance from a hole for aiming a putt, with the lateral distance being a function of the putt distance and the green inclination as measured by one of the sighting bars and the scale.


**7 Claims, 6 Drawing Figures**



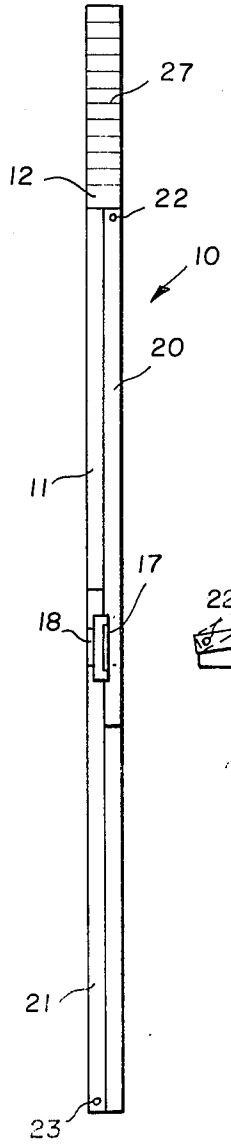



FIG. 1

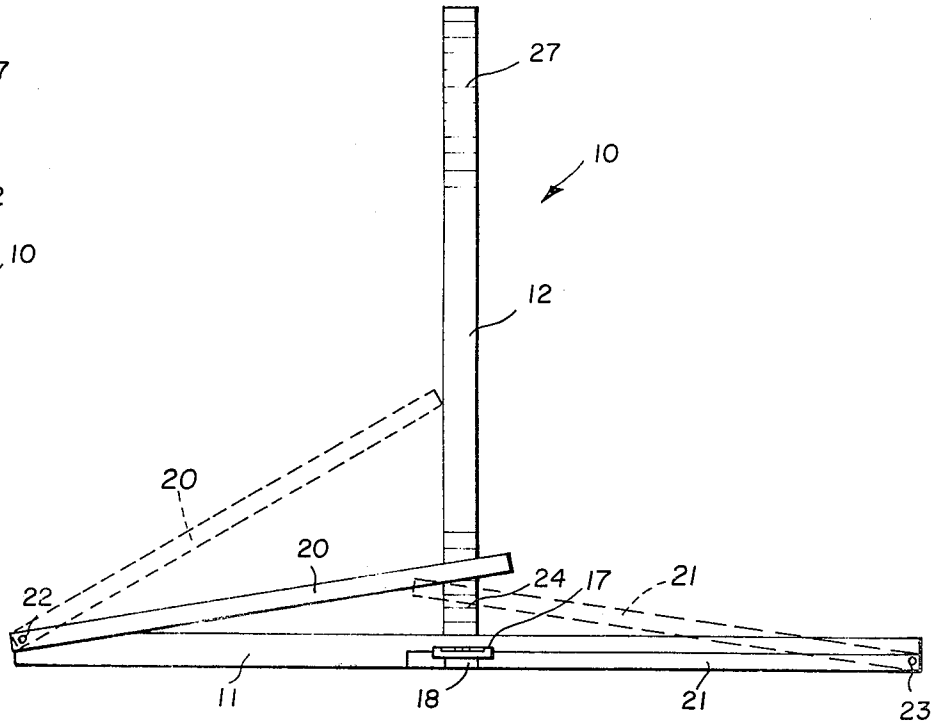



FIG. 2

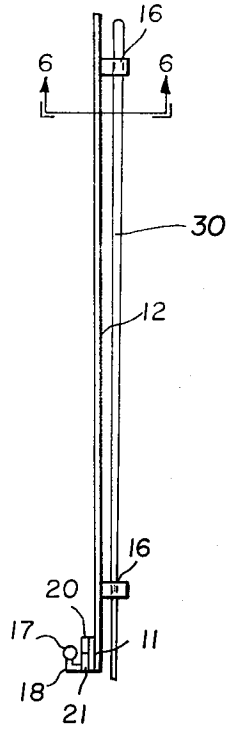



FIG. 3

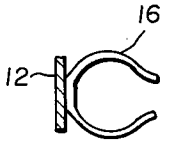



FIG. 6

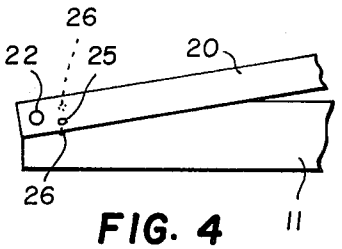



FIG. 4

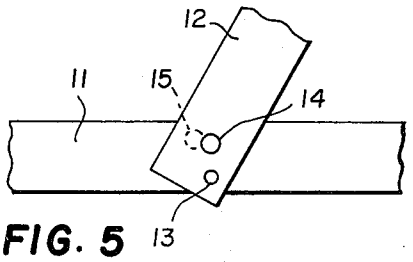



FIG. 5

# PUTTING AID

## THE INVENTIVE IMPROVEMENT:

One of most substantial problems in putting is determining the amount of uphill distance for aiming a putt above the hole when the green has an incline across the direction of the putt. Various devices have been suggested for aiding in this, but they are either cumbersome, complex, or insufficiently helpful. The invention aims at a putting aid that is simple, compact, economical, foldable, durable, quick and easy to operate, and accurate and reliable in determining the slope of a green and in aiding the player to compensate properly for the green slope.

## SUMMARY OF THE INVENTION:

The invention putting aid includes a base bar and an upright bar pivotally connected to a central region of the base bar to be foldable into parallel relation with the base bar. The upright bar is held in a position perpendicular with the base bar during use of the device, and clips on the upright bar allow the upright bar to be attached to the shaft of a putter. A bubble level is on the base bar for leveling the base bar accurately horizontally, and a pair of sighting bars are pivotally mounted on respective opposite ends of the base bar. Each of the sighting bars extends from the end of the base bar to the region of the upright bar where a scale extends upward from the base bar on the upright bar so that elevated inclination of the sighting bars are readable on the scale. A table is arranged on the upright bar above the scale for computing lateral distance from a hole for aiming a putt, with the lateral distance being a function of the putt distance and the green inclination as measured by one of the sighting bars and the scale.

## DRAWINGS:

FIG. 1 is a front elevational view of the inventive device in folded condition;

FIG. 2 is a front elevational view of the inventive device opened up for use; FIG. 3 is a side elevational view of the device of FIG. 2;

FIG. 4 is an enlarged, fragmentary elevational view of the left end of the base bar of the device of FIG. 2;

FIG. 5 is an enlarged, fragmentary, rear elevational view of the base bar and upright bar of the inventive device; and

FIG. 6 is an enlarged, cross-sectional view of the device of FIG. 3 taken along the line 6—6 thereof.

## DETAILED DESCRIPTION:

The inventive putting aid **10** is formed of several bars pivotally joined together so that it can be folded up to the enlongated position of FIG. **1** and carried conveniently in a golf bag, and can be opened up to the use position of FIGS. **2** and **3**. It includes a base bar **11** and an upright bar **12** connected together with a pivot pin **13** as best shown in FIG. **5**. An indentation **14** in upright bar **12** forms a projection extending toward a corresponding indentation **15** in base bar **11**, and indentations **14** and **15** are arranged for detenting or latching bars **11** and **12** in the respectively perpendicular position shown in FIG. **2**. A pair of spring clips **16** as best shown in FIGS. **3** and **6** are secured to upright bar **12** by rivets or other fasteners so that spring clips **16** can be attached to the shaft **30** of a putter to support upright bar **12** parallel with and adjacent to the putter shaft **30**. Then if the putter is held by the handle and allowed to hang freely downward, upright bar **12** is generally upright, and base bar **11** is generally horizontal.



A bubble level **17** is mounted on a bracket **18** secured to base bar **11** and extending forward from base bar **11** in the front elevational view of FIG. **2**, and bubble level **17** is used for accurately holding base bar **11** horizontal.

A pair of sighting bars **20** and **21** are pivotally mounted on respective ends of base bar **11** by respective pivot pins **22** and **23**. Sightly bar **21** is connected to the lower region of base bar **11** by pivot pin **23**, and sighting bar **20** is connected to the upper region of base bar **11** by pivot pin **22** so that sighting bar **21** can be folded down into engagement with bracket **18** and sighting bar **20** can then be folded down to engage sighting bar **21** in the folded-up position of FIG. **1**. Bracket **18** then supports and establishes the lowermost position for sighting bars **20** and **21**.

A scale **24** extends upward from base bar **11** on upright bar **12** and preferably sets out degrees of elevational inclination of sighting bars **20** and **21**. Bars **20** and **21** preferably overlap sufficiently to cross scale **24** at any expected slope angle of a green. Then with device **10** held with base bar **11** accurately level as shown by bubble level **17**, and with the player about 10 to 15 feet behind the ball and lined up with the hole, sighting bar **20** is raised to match or conform to any downward incline of the green from right to left across the line of the putt as viewed by the player. If the green slopes downward from left to right across the line of the putt, sighting bar **20** is raised to the broken-line position to allow clearance for raising sighting bar **21** to the broken-line position to be set at the angle of the left-to-right downward slope. In setting sighting bars **20** and **21**, the player preferably considers the green slope in the region of the hole as having most influence on the path of travel of the ball.

To aid in setting sighting bars **20** or **21** to the transverse slope of the green, each of the bars **20** and **21** has an indentation **25** forming a projection that detents in corresponding indentations **26** in base bar **11** as shown in FIG. **4** for sighting bar **20**. Indentations **26** preferably allow detenting of sighting bars **20** and **21** at successive 1° increments of elevation above base bar **11** as indicated on scale **24**.

After the effective transverse inclination of the green is determined by setting a sighting bar **20** or **21** as described above, scale **24** is read by the player to determine the green inclination angle. Then a table **27** on the upper part of upright bar **12** above scale **24** is used to compute the lateral distance from a hole for aiming a putt. The lateral distance of putt aim is laid out mentally by the putter uphill from the hole and is a function of the putt distance and the green inclination as measured by one of the sighting bars **20** or **21**. With the green inclination and the putt distance in mind, table **27** shows the player how to compute the uphill lateral distance of putt aim from the hole. An example of a table **27** suitable for display on upright bar **12** is shown below.

| Putt Distance | Multiply Green Angle By |
|---|---|
| 10′ | 7″ |

-Continued

| Putt Distance | Multiply Green Angle By |
|---|---|
| 15′ | 10″ |
| 20′ | 12″ |
| 25′ | 14″ |
| 30′ | 16″ |
| 35′ | 18″ |
| 40′ | 20″ |
| 45′ | 22″ |
| 50′ | 24″ |

For an example of use of device **10,** if the putter finds the green has a right-to-left inclination of 3° as set by sighting bar **20** and read on scale **24,** and if the putt to be made is about 20 feet long, the putter sees from table **27** that he should multiply 12 inches by 3 to reach a value of 36 inches, or 3 feet. He then aims his putting stroke to direct the ball 3 feet to the right of the hole on the uphill side, and if he strokes the ball with the proper force, the ball should curve leftward as it approaches the hole and roll accurately into or close to the hole.

Practice with the inventive device tends to improve a player's skill so that eventually the device is used only for difficult or puzzling greens. Also, after substantial use, the players begins to memorize lateral uphill distances of aim for various lengths to putts so that specific recourse to table **27** is not always necessary. Even after a player has developed considerable skill from experience with putting aid **10,** he will still want to carry it with him in the convenient folded condition of FIG. **1** to be used whenever a putt appears doubtful. This he can do quickly by unfolding device **10** to the position of FIG. **2,** clipping it to his putter shaft, or manually holding it upright to level base bar **11,** checking the green inclination with sighting bars **20** or **21,** and quickly calculating his putt.

Device **10** can be simply and cheaply made of metallic or plastics materials, and it can be durably fabricated to last for years and to withstand transport in a golf bag. It can be shaped, sized, and configured in many different ways, and table **27** can be varied or expanded. For example, table **27** can include additional values for wet greens or long and short greens, and experience with the invention may suggest different values for table **27.**

I claim:

**1.** A putting aid comprising:

a. a base bar;

b. an upright bar pivotally connected to a central region of said base bar to be foldable into parallel relation with said base bar;

c. means for holding said upright bar in a position perpendicular with said base bar during use of said aid;

d. clip means on said upright bar for attaching said upright bar to the shaft of a putter;

e. a bubble level on said base bar for leveling said base bar accurately horizontally;

f. a pair of sighting bars;

g. means for pivotally mounting each of said sighting bars on respective opposite ends of said base bar;

h. each of said sighting bars extending from said respective opposite ends of said base bar to the region of said upright bar;

i. a scale extending upward from said base bar on said upright bar so that elevated inclinations of said sighting bars are readable on said scale; and

j. a table arranged on said upright bar above said scale for computing lateral distance from a hole for aiming a putt, said lateral distance being a function of putt distance and green inclination as measured by one of said sighting bars and said scale.

**2.** The putting aid of claim **1** including means for detenting said sighting bars in 1° increments of angular elevation above said base bar.

**3.** The putting aid of claim **1** wherein said means for holding said upright bar perpendicular to said base bar includes detent means between said upright bar and said base bar.

**4.** The putting aid of claim **1** including a bracket supporting said bubble level on said base bar, and wherein at least one of said sighting bars rests on said bracket in a lowermost position.

**5.** The putting aid of claim **4** wherein one of said sighting bars is pivotally mounted in a lower region of said base bar and the other of said sighting bars is pivotally mounted in an upper region of said base bar.

**6.** The putting aid of claim **5** including means for detenting said sighting bars in 1° increments of angular elevation above said base bar.

**7.** The putting aid of claim **6** wherein said means for holding said upright bar perpendicular to said base bar includes detent means between said upright bar and said base bar.

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