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# A Compromise Among Design, Maintenance and Playing Values

By Charles N. Eckstein

Former president, Chicago District GA

**F**ifty-four strokes of every round of golf regardless of par are played to or on putting greens — 2 putts and 1 shot to the green. No wonder good design of greens encompasses golfing values and maintenance considerations. But there must be a compromise between these factors.

What are golfing values?

A shot to a green over a sandtrap with enough back spin to hold to a downhill slope away from the line of play?

A long downhill putt curling over a slight mound with a chance to take two more putts, or a chance for a short one footer?

A course that you have to think your way around, weigh birdies or pars against double bogies, triple bogies or worse?

A course you never get tired of playing because it plays differently every time you play due to wind, pin placements and trap carries?

All these conditions determine golfing values but here we are concerned with those 54 shots, the golfing values of the putting green.

## How Many Shots?

There being no ground rules for definitions of terms I must take the time to tell my approach to golfing values. I evaluate holes in terms of one shotters, two shotters or three-shot holes. Most people realize that the average player in this country plays to a handicap around 18 and that his greatest obstacle to improvement is lack of distance or inability to hit the ball far enough. Consequently, the values I use for greens is their number one characteristic — Size.

I believe that the largest target (green) on a one-shot hole should be on a hole 250 yards long. A short one-shot hole

should have a proportionately smaller green. A two-shot hole 450 yards long should have a large target and that the target should decrease in size as the hole approaches 475 yards (three shots) and then increase slightly as the hole lengthens until the green at 575 yards becomes quite large.

As a result of this approach I have spoken of the first characteristic of any green size — measured large or small, or in between.

Number 2 characteristic of a green is Shape and is described as:

- (a) Depth from front to back
- (b) Width from side to side
- (c) Shape from mowing or trapping

Number 3 characteristic is Location and is described as:

- (a) Elevation relative to fairway
- (b) Position relative to lines of flight
- (c) Location to natural objects such as trees, water, boundaries, etc.
- (d) Location as to other trouble, unplayable lies, etc.

Number 4 is Contour and is described as:

- (a) Tilted, sloped or pitched in any direction, or combination of directions
- (b) Terraced
- (c) Undulating
- (d) Mounds requiring carries that are not part of the greens but adjacent to them
- (e) Any combination of these

Number 5 is Trapping and is described as:

- (a) Setting up a target
- (b) Creating mental hazards as to position, distance and carry
- (c) Penalties for poor shots

I firmly believe that these characteris-

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tics of a putting green determine golfing values. The degree to which the designer of a course uses them certainly is modified by a study of maintenance and playing problems as outlined in the following.

With reference to our number one characteristic Size, we must abide by the following maintenance considerations:

- (a) Variable cup placement so as to add interest, spread traffic, prevent soil compaction and actual wearing out of the grass;
- (b) Consideration for the efficient use of fertilizer, labor in mowing, spraying, spiking, etc. and the cost of these things;
- (c) Certainly the cost of original construction;
- (d) Provide for at least 10 to 12-foot collar surfaces so that mowers can turn off the green; so that greens can be cut in every direction and to prevent soil erosion from traps onto the green;
- (e) The other factors or characteristics of greens such as shape, elevation, location, contour and trapping also determine the size of greens.

#### Shape of Greens

Shapes of greens are probably affected less by maintenance problems than any other factor. But there should be consideration of the cost of watering, mowing from every direction and traffic patterns to and from the green. How shape affects trapping or vice versa is an important factor in construction costs and costs of maintenance of traps thereafter. The approach areas must be considered in determining the shapes of greens.

Location of greens depends on:

- (a) Air circulation;
- (b) Effect of tree roots and shade;
- (c) Traffic pattern with reference to the next tee;
- (d) Maintenance of approaches to greens;
- (e) Cost of varying elevations and how this in turn affects the placing of traps.

The green characteristic that I call Contour affects maintenance so much that it undoubtedly is the basis of the entire subject. Let us consider that a good green must have:

- (a) Surface drainage for runoff;
- (b) Gentle grades so as to increase cupping area;
- (c) Grades to permit mowing in any direction, to prevent scalping and undue wear;
- (d) Consideration for collars and adjacent slopes;
- (e) Avoiding of erosion of adjacent traps;
- (f) Contour definitely affects the size or area of a green. The amount of actual surface used for slopes and irregularities in the surface cuts down the available cupping area.

As an example, take an area of 5000 square feet, irregular in shape with 30 per cent of the area with slopes, hills, mounds, etc., that prevent a fair cupping area. I believe to be fair in pin placement that the cup should not be any closer to the outside perimeter in extreme cases than 10 feet. Using this case, you lose fair cupping area on 1500 square feet plus 2600 square feet around the perimeter or 4,100 sq. ft. leaving only 900 sq. ft. of cupping surface. Not very large for changing cups everyday and in some cases, twice a day. Observing grades of 1 per cent — 1 foot in 100 feet or 2 per cent with greens pitched in varying directions certainly avoids the contour problems that are related.

#### Trapping Characteristic

The last characteristic of greens that I have called Trapping certainly is compromised by the following considerations:

- (a) Cost of construction;
- (b) Cost of maintenance;
- (c) Drainage;
- (d) Traffic;
- (e) Mowing; and
- (f) Erosion.

I have played many courses in the Midwest, mostly around Chicago, almost 50 different courses during 1963, and because green design is so important I would like to give my impressions of some of the things I have seen.

Greens all pitched from back to front with from 2 to 3 per cent grades — drainage was the major consideration;

Greens all elevated and pitched so as to be targets requiring no skill to hit to; Greens with all plates upside down; Greens that were all flat.

These are the things that make golf  
(Continued on page 147)

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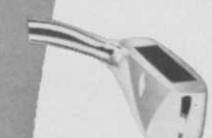
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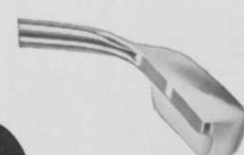
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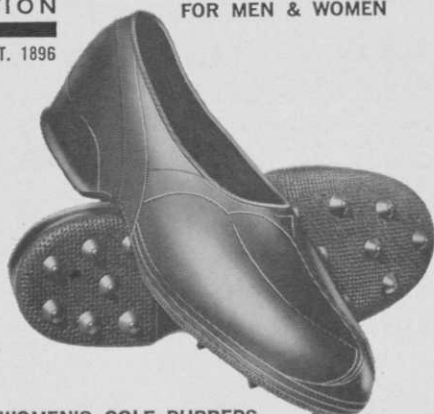
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## PGA Designates May 30 as National Golf Day

Saturday, May 30, has been designated as National Golf Day by the PGA. As in other years, contestants will match their scores against the figure established in the "Round of the Champion." All participants who beat the champion will receive a certificate from the PGA citing them for their performance.

The Round of the Champion, to be played June 1 at Columbus (O.) CC, will pit Jack Nicklaus, PGA titleholder, against Julius Boros, USGA Open winner in 1963. Columbus CC is the site of the 1964 PGA Championship which will be played July 16-19.

In the Golf Day competition at clubs and courses, men who have official handicaps will be allowed to use their full handicaps in posting their scores. Women are permitted to use their handicaps plus an additional seven strokes. The Calloway system may be used by those who have not established handicaps.

**No Limit on Rounds**

Altho May 30 is officially designated

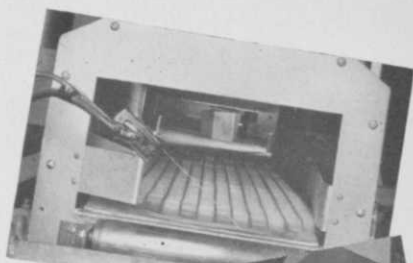
as National Golf Day, all participants may play as many rounds as they wish between May 30 and June 7 in establishing a score that will be submitted in the competition. The entry fee for each 18-hole round is \$1.

Preliminary Golf Day promotional material will be mailed to professionals at clubs and courses the week of April 3. Followup material will be sent out by the PGA around May 1.

Net proceeds of National Golf Day go to caddie scholarship funds, veterans rehabilitation, turf research and education, handicapped golfers associations and other golf charities and projects. The National Golf Fund handles distribution of the Golf Day funds. In the 12 years that Golf Day has been observed, about \$950,000 has been turned over to the various beneficiary organizations.

Complete information on National Golf Day can be obtained from the PGA, Box 670, Dunedin, Fla. 33528.

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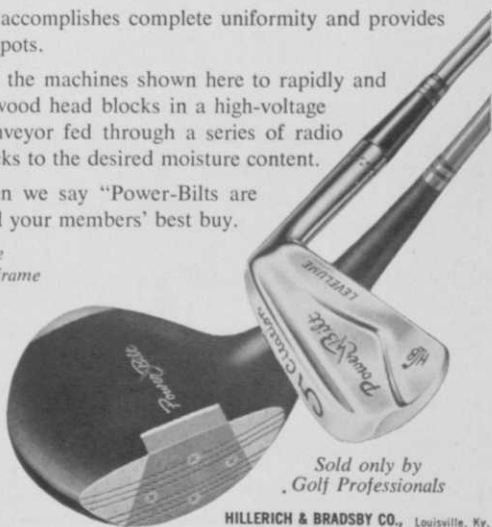
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## Develops Gage for Adjusting Irons

Development of a highly accurate gage for adjusting the lie and loft of golf irons has been completed by a Scottsdale, Ariz. mechanical engineer.



Karsten Solheim has developed a "Ping Gage" which scientifically checks lie and loft of the complete range of irons. It correlates the length of the shaft with the "lie" angle of the club face.

The Ping Gage is portable and can be carried in the trunk compartment of an automobile. It is constructed of steel and aluminum, is 36 inches long and weighs only 2.4 pounds.

Solheim developed the gage in response to problems encountered by touring professionals. He explains that various improvised devices are employed by the pros to keep their clubs in proper alignment.

### Check Them Daily

"Touring professionals like to check the lie and loft of their clubs at least weekly and some on a daily basis," Solheim says. "Some have been using home-made gages, but more often than not they have been sending their irons back to the factory for a periodic checkout."

The Ping Gage is the first, according to its designer, to take into account shaft length. Solheim points out that a half-inch extension in shaft length can cause the lie-angle to flatten by one degree.

Club adjustments are made with a vise and mallet-type hammer. Solheim said impact corrections are made by tapping the club face in the desired direction. A special vise will be made available soon.

In the photo, the club on the right illustrates the use of the "lie" feature, while the club on the left shows how the loft is checked.

National Golf Day • May 30



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#### **2 STOP SHOPPING**

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#### **4 STOP GUESSING**

Trade-in values suggested in the Pro-Guide to Trade-ins are taken from questionnaires sent to over 2,000 golf pros. Values are for clubs in resalable condition. If regripping or repairs are required, reasonable deductions should be made. The Guide covers 28 lines of golf equipment for a period of 7 years (with the exception of those manufacturers who have not had their lines on the market for 7 years and where records have not been available).

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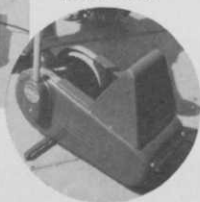
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### Cliff Roberts Wins Writers' Richardson Golf Trophy

The winner of the 1963 Golf Writers' William D. Richardson trophy for outstanding contribution to golf is Cliff Roberts, chairman of the Masters. He received 129 votes in the nationwide balloting among the writers, polling more than twice as many as either Gene Sarazen or Jimmy Demaret, who shared the runnerup spot with 62.

The Richardson award was instituted in 1947 as a memorial to the late golf editor of the New York Times.

Roberts, 70, is a New York investment banker. In 1930 he located for Bob Jones, the lovely property that now is the Augusta National site. Four years later, the first Masters tournament was played there. Roberts talked Jones, who had retired from competitive golf, into playing in the event.

Roberts gave the Masters its name. He also set up the rigid pattern of eligibility for invitations to play in it. His financial

acumen has built the tournament's purse from \$5,000 in the mid-'30s to the \$112,000 that was distributed in 1963.

Behind Roberts and Demaret and Sarazen in the Richardson voting was Mrs. Glenna Collett Vare, six time winner of the Women's Amateur. She received 46 votes. Others who received votes: Waco Turner (35); Thomas G. McMahon (35); Thomas W. Crane (29); James Standish (22); Maurie Luxford (12) and Julius Boros (11).

Sarazen and Demaret are former Masters winners and Bob Jones, who has been closely identified with Augusta National and the Masters since both were founded, won the 1957 Richardson award.

### Northern Cal Turf Council

Officers of the Northern Calif. Turf-grass Council are D. W. Galbraith, president; A. J. Brown, vp; and G. W. Bell, secretary-treasurer. Thirteen turf organizations are in the Council. Its headquarters are at 155 Industrial Street in San Francisco.