

# Architectural Features of the Outstanding Course<sup>\*</sup>

By ROBERT BRUCE HARRIS

In analyzing what makes the golf course outstanding, I always consider the site first. Many years ago it was common to design and build golf courses on properties which had an acreage of only 110 to 120 acres. In most cases these were too small and resulted in layouts in which the holes were much too close together. They were parallel and often very dangerous. Besides this, because of the tightness of the design, they were dull and uninteresting. In order to have an outstanding golf course, it is generally necessary to have a minimum of 160 acres and if there are many features in the site such as a lake, deep ravines, stone outcroppings or heavily wooded areas it may require 200 acres. By having acreage of this size it is possible to work out the general design so that there are very few parallel holes, and these are far enough apart to be safe to play and the player is not aware of the adjoining hole.

Besides having the site large, the shape or outline of the property is very important. Generally, a perfectly square or rectangular site does not make as interesting a layout as one in which the boundaries of the property are irregular. It is desirable to have the long dimension of the site running in a north and south direction. By doing this, it is possible to have a layout in which there are a minimum of west sun shots.

In addition to the above qualifications, the site should be gently rolling and not too rugged as this limits the classes of players that may use the course. It will also be partially wooded and will have good soil. The property might have some ravines, a winding stream running through it or a small lake. These features tend to give interest to the layout.

Having enough acreage for the golf club is extremely important because it will provide room for the practice driving areas, the practice putting green, the practice pitching and chipping greens, the parking spaces, tennis courts, swimming pool, terraces and other recreational features. If the clubhouse can be located on a small broad hill it is desirable; but it is not desirable to have it at the top of a very steep hill as this is often very un-

pleasant for the tired player to climb at the end of his round.

## Variety in Course Length

Besides the above qualifications, the large site will permit having big tees or several tees for each hole. This is extremely important as it makes it possible to have a course with three different yardages. By having large tees or several tees and enough acreage, it is then possible to have a short course of approximately 6200 to 6300 yards and by moving the tee markers, to have a middle course of 6400 to 6500 yards and by placing the tee markers still farther back to have a championship layout of 6700 to 7000 yards.

The outstanding golf course will not have any blind shots to the green and all trouble around the green will be visible to the player. In most cases this will also be true from the tee.

On the heavily played course, such as the public or daily fee course, there will be no holes slicing out of bounds as this tends to delay and tie up play. On this type of course, provisions will also be made for routing the caddy carts from green to tee.

The pars of the various holes will be worked out so that there will be no two similar pars succeeding one another. The pars of the outstanding course might read as follows: 4, 5, 4, 3, 4, 5, 4, 3, 4. You will note that in this card there are two par 3's, two par 5's and five par 4's, making a total of 36; and there are three good long holes before you reach the number 4 hole which is a par 3. This gives the crowd ample time to get away without tying up the play at a short hole.

In considering what makes an outstanding golf course, one of the features most noticeable are the tees. The tees are often a barometer of what is going to follow on the rest of the golf course. Many years ago it was customary to build tees which were small, sharply elevated rectangular plateaus. These had steep slopes that had to be mowed by hand and invariably the golfers wore a hole in front of the tees making it extremely difficult to maintain and repair. The tees will, in square feet area, approach or equal the size of the greens. These tees will be large level areas with very gradual slopes

<sup>\*</sup>(NGSA convention paper)

to the fairways if they are elevated. This makes it possible to mow the tee with a fairway mower and does not require any hand cutting. By having large tees it is possible to change the tee markers often and allow newly repaired turf areas to knit thoroughly before they are used again. The tee need be only high enough for vision and drainage. It should also blend naturally into the landscape and should in no way look artificial.

#### Modern Trap Construction

After the tees, the next feature that is noticeable is the traps on the fairway. At one time it was customary to build sandtraps by scooping some of the soil in a trench-like manner out of the ground and building a high mound next to this trench with steep slopes. This mound was very difficult to maintain because it was so steep that it could only be cut with a hand mower and it was subject to sun scald during hot weather. Consequently, it was always an eye sore on the golf course and the sand was invisible to the golfer.

On the outstanding golf course the sandtraps are built above the surface of the existing ground. The portion which contains the sand is shaped in a slightly tilted dish-like manner. The soil or shoulder adjoining it is carried out in a long gentle slope which permits easy mowing. The outline of the trap will be such that it will follow the swing of a

fairway mower. Many little tongues of sod and curlicues and little islands of grass in the trap are very expensive to maintain and, unless expertly handled, will be unattractive on the golf course.

The greens on the outstanding course may have an approximate size running from 4000 to 10,000 square feet each and the average may be as much as 7,000 square feet. These greens will vary in size, shape and contour depending on the length and how difficult the approach shot to the green may be. The modern green will be built with gentle undulations and will not have severe bumps or knolls. The slope will be such that when the player is making a downhill putt the ball will not gain considerable momentum.

These greens will not have steep, abrupt shoulders but will carry out with long gentle slopes which will permit mowing with a fairway mower. Where the shot requirements permit on par 4 and par 5 holes the sandtraps will be far enough away from the putting green to permit a fairway mower to cut between the putting surface and the sandtrap. This will reduce maintenance expense.

#### Plenty of Cup Area

The greens will have many places to put the cup and at least 75% of the surface will be useable for this purpose. This will mean that on a course that is heavily

*(Continued on page 99)*

---

## INCREASES FEE COURSE PLAY



This green on Cherry Hills daily fee course in Chicago district shows how an interesting green and trapping can be constructed on flat ground. In many other respects Cherry Hills shows how privately owned pay-as-you-play courses are meeting public demand for good golf facilities. Under management of Walter and Genevra Wallace, Cherry Hills started on course and clubhouse rehabilitation in 1945. Response to improvements resulted in building additional 18 holes with Ed Sickman and Supt. Matt Bezick supervising course construction. New 18 put in play in 1949.

and the week-ends, but all other days we try to encourage the students to come out."

Daily greens fee for students is only 75c, except on Wednesday afternoon and the week-ends, when it goes to \$1.50. . . . If he wishes, the student may take a quarterly playing membership for \$25.00. To further interest young golfers in the game, the Country club permits high school students to play without charge in the mornings during the summer and every Saturday morning of the year. The crack University golf team, undefeated in every regular season match last year and looking forward to another good year this spring, does all of its practicing and plays all of its home matches at the Country club.

So all's well down Florida way between the Country club and the University. . . . GOLFDOM just got a bum steer. And we gladly set things straight again.

### ARCHITECTURAL FEATURES

*(Continued from page 60)*

played the cup can be changed often and prevent the upper surface of the green from tightening up.

The ideal greens will also have good natural surface drainage and there will be no spots that will retain water after a rain. Besides this, the greens will be



## GOLF HEADQUARTERS IN NEW YORK

Neal Lang, your host, invites you to enjoy television in your Park Sheraton room at no extra charge.



A Sheraton Hotel

**SHERATON HOTEL**

202 WEST 56th STREET, NEW YORK

March, 1950

# FIRST

with the

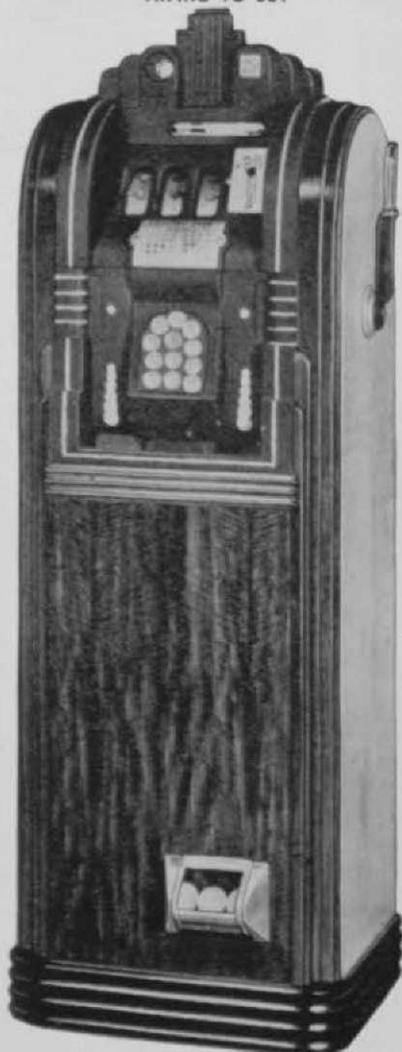
# LATEST

NOW AVAILABLE - THE

## "COUNTRY CLUB"

GOLF BALL MACHINE

THE BELL TYPE CONSOLE YOU HAVE BEEN TRYING TO BUY



Deliveries Being Made in  
Rotation Orders are Received  
Don't delay—write—phone or wire for  
price and literature with full details.

**CLUB EQUIPMENT & SUPPLY CO.**

29 W. Kinzie St.  
CHICAGO 10, ILLINOIS  
Phone — Superior 7-6900

# Pro-Grip

NON SLIP GRIP RESIN

## GIVES YOU

Confidence — Controllability in each stroke.



Now available in the New Display  
Carton of one dozen.

MANUFACTURER'S SPECIALTY COMPANY, INC.  
2736 Sidney St. ST. LOUIS 4, MO.

under-drained both by the use of a gravel layer and tiling.

On many of the holes there will be trees in back of the greens but they will be far enough away so that there will never be danger of any of the tree roots getting under the putting surface and sapping plant nutrient from the turf.

On the outstanding golf course the outline of the fairway or rough will be rigidly adhered to and will follow the architect's design in order that the strategy of the hole may be maintained. This is extremely important from a greenkeeping standpoint as many a good golf hole has been ruined by the careless cutting of the rough. In most cases, the architect who designs the golf course has a certain strategy in mind when he designs the shape or outline of the hole. If this is not kept the strategy is lost.

The golf course will be carefully planted with trees to enhance but not detract from the strategic design of the golf holes. The scale of a golf course is large and the scale of the planting must also be large.

Large masses of trees are much more effective than a single row of trees placed between fairways which look very artificial and have very little meaning as far as the design of the golf hole is concerned. On the whole, masses of shrubs

# Tiger Cushion

## ALL RUBBER "SPIKE TRAFFIC" FLOORING

- 1 — Will not buckle, shred, or blister.
- 2 — Available in long slabs up to 35 ft. and in widths up to 5 feet.
- 3 — Lays of own weight over any type of floor, without bonderizing.
- 4 — Durable, long in life — easily cleaned with soap and water mopping. No waxing required.

### 5 — SPECIFICATIONS:

Weight: 2 lbs. Sq. Ft. — 5/16" (Gauge)

" 2 1/2 lbs. Sq. Ft. — 3/8" (Gauge)

Colors: Grey, Green, Terra Cotta.

Cut to your specifications, bevelled or straight edges.

Freight prepaid (U.S.A.)

Write For Circular and Prices.

**INDUSTRIAL CELLULOSE PRODUCTS, INC.**  
TIGER CUSHION DIVISION

271 Madison Avenue

New York 16, N. Y.

should not be used on the golf course itself, except at the tees. It is also important to not use too many varieties of trees, but to have those that are very hardy and are native to the region in which the club is located.

The outstanding course will be completely streamlined as far as the designs of the tees, fairway sandtraps, putting greens and fairways are concerned and will be easy to maintain with power equipment. This will result in an economical, functional and more beautiful layout.

## BEHAVIOR OF BENTS

(Continued from page 70)

located as to cause a serious air drainage problem. Yet the turf has stood up remarkably well. Even during the last season an attack of pythium was the most serious trouble which developed and the recovery was complete in less than a week. There has been less dollarspot on this C-1 green than on any other pure strain green in spite of its location.

The planting of C-1 and C-27 combined has not been an outstanding piece of turf.

It has been satisfactory and can be compared favorably with C-1 alone. The addition of the C-27 helps the putting surface but I feel confident that if it were to be placed on the green just mentioned above that it would eventually go completely to C-1. The C-27 probably would not stand the location and adverse conditions encountered where the C-1 is now located.

C-27 by itself has been only an average green. It does not grow as vigorously as C-1 or C-19 and has to be watched a little more closely. I cannot condemn it because the green on which it is planted is one of the two where I lost out to the architect on surface drainage.

C-50 has proved to be the weakest of any of the selections used. In some manner a small amount of C-52 stolons were mixed in the original planting. It is now a motley green of mostly C-52 and is not pretty to look at. This planting has proved that these two grasses are not compatible because they separate into definite areas of each grass and do not produce a combination in which you can not detect one grass from the other. I could not recommend either grass be placed in combination with other grasses.

# NEW, IMPROVED TEE QUEEN

Ball arm now counter balanced . . . NO SPRINGS • NON-SPILL HOPPER

TEE QUEEN now widely used by many of the better ranges throughout the country.

Price \$18.75 FOB

Bob Hamilton says:



BOB HAMILTON  
EVANSVILLE, INDIANA

June 1, 1948

Mr. E. G. Lockie  
Lockie Products Co.  
1215 West Street  
Bettendorf, Iowa

Dear Mr. Lockie:

After trying all makes of automatic tees, I find your Tee-Queen does the best job. It is less expensive and more reliable. Your tees have proven very successful.

Sincerely yours,  
*Bob Hamilton*

Manufactured by  
**LOCKIE PRODUCTS CO.**  
1826 Grant St.  
BETTENDORF, IOWA

Order from  
**WITTEK GOLF RANGE SUPPLY CO.**  
Distributor

5128 W. North Ave., Chicago 39, Ill.