



USGA JOURNAL

AND
TURF MANAGEMENT

CHAMPION AND RUNNER-UP



Duluth Herald & News Tribune photo

A happy Mrs. Kathy McKinnon Cornelius, left, 1956 USGA Women's Open Champion, poses with Miss Barbara McIntire, runner-up, at the trophy presentation ceremony at Northland Country Club, Duluth, Minn. Miss McIntire came from behind to tie Mrs. Cornelius at the end of 72 holes, but lost in the play-off.

AUGUST 1956



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AND
TURF MANAGEMENT

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USGA COMPETITIONS FOR 1956

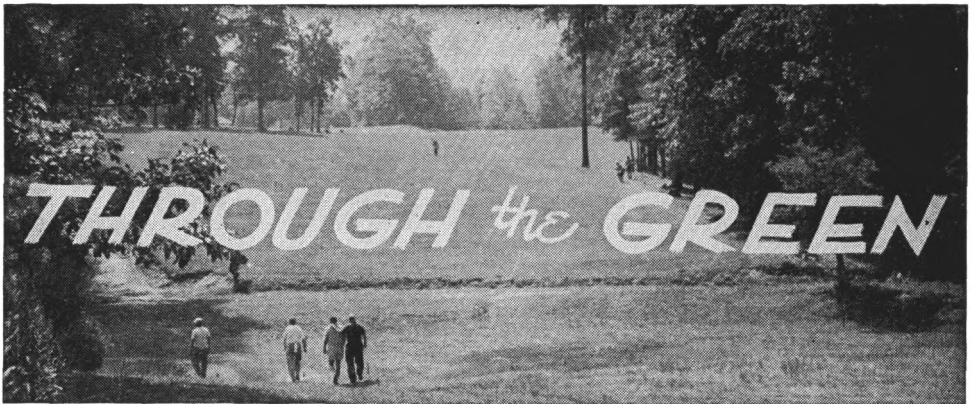
International Match

AMERICAS CUP—October 27 and 28 at Club Campestre de la Ciudad de Mexico, D.F.
Men's amateur teams. Canada vs. Mexico vs. United States.

Championships

<u>Championship</u>	<u>Entries Close</u>	<u>Sectional Qualifying Rounds</u>	<u>Championship Dates</u>	<u>Location</u>
Senior Amateur	Closed	Completed	Aug. 20-25	Somerset C. C., St. Paul, Minn.
Girls' Junior	Closed	None	Aug. 27-31	Heather Downs C. C., Toledo, Ohio
Amateur	Closed	Aug. 28	Sept. 10-15	Knollwood C. Lake Forest, Ill.
Women's Amateur	Aug. 31	None	Sept. 17-22	Meridian Hills C. C., Indianapolis, Ind.

Dates entries close mean last dates for applications to reach USGA office. For possible exceptions in dates of Sectional Qualifying Rounds, see entry forms.



Knowing Your Rights Under the Rules

The Rules of Golf contain many rights for the player; they are not just a code of prohibitions. It is important to know your rights, as was shown in several circumstances during the USGA Women's Open Championship last month at the Northland Country Club, Duluth, Minn.

Early on the first day of play a storm broke. Rain pelted down, thunder rolled, and lightning flashed across the sky. Although the USGA authorized discontinuance of play for about 20 minutes, it was impossible to get the word throughout the course at one time.

Before the word reached them, several experienced players came dashing in off the course, discontinuing play on their own volition—among them, Misses Fay Crocker, Beverly Hanson and Mary Lena Faulk. They thought they were endangered by lightning, and thus had a right to discontinue play of their will. Rule 37-6 provides in part:

"Players shall not discontinue play on account of bad weather or for any other reason, unless:—

"a. They consider that there be danger from lightning,

or

"b. There be some other reason, such as sudden illness, which the Committee considers satisfactory.

"If a player discontinue play without specific permission from the Committee,

he shall report to the Committee as soon as possible."

Two incidents on the same hole pointed up the wisdom of knowing the course intimately and the folly of playing a provisional ball if there is a possibility that your first ball may be in a water hazard or a lateral water hazard. Northland's 15th hole is a 400-yarder downhill, with thick woods on the left. On the edge of the woods is a lateral water hazard; unless you had occasion to hook rather badly, you might not know it existed.

Two players hooked their tee shots badly toward the woods. Each immediately announced to her marker her intention of playing a provisional ball, under Rule 30-1.

Each player did not state that the provisional ball would not apply if her first ball were in the lateral water hazard. Such a statement is permitted by Rule 30-1a, and if the players had done this they might have saved themselves a stroke each.

Each found her first ball in the lateral water hazard, unplayable. Each wanted to drop a ball within two club-lengths of the lateral water hazard, under penalty of one stroke, as provided for in Rule 33-3b. But, on asking for a ruling, each was told she had no right to do so. The provisional ball she played was provisional for *all* possibilities, since she had not said in advance that it would not apply if the first ball were in the hazard.

Thus, Rule 30-3 prevailed, as follows:

"If a player has played a provisional

ball under this Rule and the original ball be in a water hazard or lateral water hazard, he may play the original ball as it lies or continue the provisional ball in play; but he may not drop a ball to obtain relief in the manner provided for in Rule 33 or in any Local Rule.

"Exception:—Application of a provisional ball to a ball in a water hazard waived in advance under Rule 30-1a."

If this Rule did not exist, the player might be able to choose which of three balls to play—the original, the provisional, or one dropped within two club-lengths of the hazard margin. Three choices are too many.

Thus, each player's provisional ball became the ball in play, and her approach shot to the green was her fourth. Had she put herself in position to drop a ball alongside the lateral water hazard under Rule 33-3b, she would have been playing 3 on her approach shot.

Know the Rules, and know your rights.

Caddie Scholarships

The Western Golf Association recently announced the awarding of 46 additional scholarships in the Evans Scholars Program. The figure is expected to be increased by the announcement of 60 or 70 more scholarship awards in the near future. Coupled with the 197 young men now studying under the program, the total number of Evans Scholars is expected to reach 300 this year. Last year 259 former caddies attended 28 universities and colleges as Evans Scholars.

Out of the Cellar

An eager young player approached the starters, Harry Packham and Alfred W. Wareham, at the first tee for the second qualifying round in the recent Amateur Public Links Championship.

"Do we play 'honors'?" he asked expectantly.

Mr. Packham puzzled over the term for a moment and then explained:

"No, I'll call you as you're listed on the starter's list. You're third in your group so you'll be the last to tee off."



A friend in need is a friend indeed! And all agree it's part of the game as these junior ladies pit their ingenuity, a little daring, a nine iron and a fishing pole in the battle to save an errant ball. They were participating in a Junior Tournament at Buffalo, N. Y., when this opportunity to extend sympathy and assistance occurred. From top to bottom are: Miss Debbie Means, of Cherry Hill Country Club; Miss Claire B. Tindle, of the Country Club of Buffalo; Miss Carolyn Ploysa, of Lancaster Country Club; and Miss Sheila O'Grady, of Niagara Frontier Golf Club.

"I understand that", the player replied. "But out on the course—do we play 'honors'?"

"Oh, yes, yes. After you leave the first tee, the honor goes with the low score", Mr. Packham explained.

The No. 3 man on the list whirled around to his two playing companions:

"See. I told you so," he exulted. "Today we play 'honors'".

NEW MEMBERS OF THE USGA

REGULAR

Aliquippa Golf Club, Pa.
Bloomsburg Country Club, Pa.
Chestnut Ridge Country Club, Md.
Columbian Club of Dallas, Texas
Diablo Country Club, Cal.
Hamilton Elks #93 Country Club, Ohio
Hill Crest Country Club, Pa.
Indiana Country Club, Pa.
Lacon Country Club, Ill.
Oak Ridge Golf Club, Texas
Oregon Golf Club, Ill.
Ridgewood Golf Club, Ohio
St. Cloud Country Club, Minn.
Tenison Golf Association, Texas
Tracy Golf & Country Club, Cal.

ASSOCIATE

Coquille Valley Country Club, Ore.
Fort Polk Golf Course, La.
Galloway Golf Course, Tenn.

A Host of Birdies

Charles Berggren and Dick Calvelli, Metropolitan New York golfers, recently highlighted relentless attacks on par by scoring six consecutive birdies in a single round. Their achievement fell two short of the eight straight birdies in a single round recorded by Jack Hesler, of Crawfordsville, Ind., in August, 1949.

Berggren, a member of the South Shore Golfer's Club, Staten Island, N. Y., scored birdies on holes 4 through 9 as he played for a qualifying berth in the Metropolitan district's annual Ike Tournament. He finished with a score of 72.

A few days later, Calvelli, playing in a four-ball tournament at North Hempstead Country Club, Port Washington, N. Y., duplicated the feat. He scored birdies on holes 13 through 18 for an 18-hole score of 67.

Beware the Contest

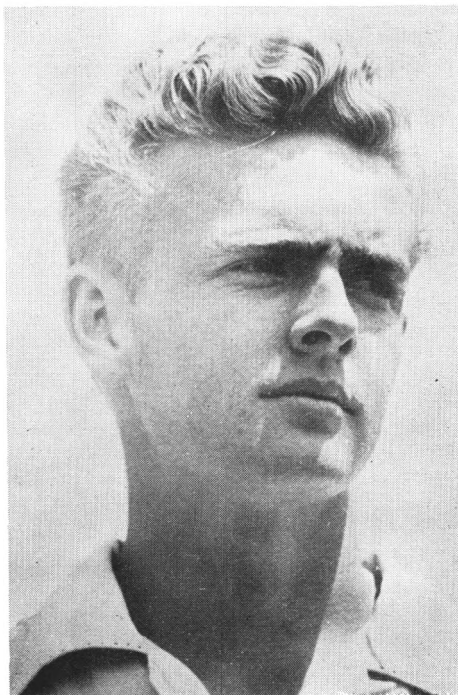
A manufacturer of golf equipment is again promoting sales by means of a hole-in-one contest for which the grand prize is a Cadillac automobile.

Acceptance of a prize of this nature (of retail value exceeding \$150) is, of course, a violation of Rule 1-5a of the USGA Rules of Amateur Status.

SPORTSMAN'S CORNER

The scene was the third round of the Pacific Coast Conference Championship. Stanford and the University of Southern California were deadlocked for first place, well ahead of the other contenders.

Foster (Bud) Bradley, 1954 USGA Junior Amateur Champion, and Frank Stubbs, both sophomores at Southern California, were playing in the same group. On the first hole Bradley was about to play an iron shot when he stopped short, examined his ball and beckoned to his team-mate.



FOSTER (BUD) BRADLEY

Stubbs looked at the ball and agreed that somehow each had played the other's ball. This meant a two-stroke penalty for each under Rule 21-3—a four-stroke penalty for the team. Only Bradley and Stubbs were aware of the error, but they immediately reported the incident to the Stanford coach.

When play was completed, Stanford had won the title by three strokes and Bradley had failed to win the individual championship by two strokes. The self-imposed penalty strokes had made the difference in each case.

Stan Wood, Southern California coach, commended them for their honesty.

"There's only one way to play this game, isn't there?," said Bradley.

Hole-in-One Expert

Coming from behind to win is often said to be the mark of a true champion. Mr. Allen R. Rankin, of Scioto Country Club, Columbus, Ohio, a member of the USGA Senior Championship Committee, is one champion with a unique method of fulfilling the above requirement. He finds the hole-in-one a very effective manner of picking up lost ground.

Recently crowned Ohio Senior Champion for the ninth time, Mr Rankin accomplished the feat by scoring an ace on the 17th hole of his home course, site of the championship. He finished with a 69 for a winning total of 144, one stroke ahead of Jack Klinker, also of Scioto Country Club.

"It was my greatest golf thrill ever," said Mr. Rankin. A noteworthy statement inasmuch as it marked the fourteenth time he has scored a hole-in-one.

The details of his first hole-in-one have been forgotten, but most of them have occurred at Scioto Country Club. Two other occasions when Mr. Rankin found it helpful to resort to an ace are cherished memories. Playing in a club tournament a few years ago, he and his partner, Mr. John W. Roberts, 1955 U.S. Senior G.A. Champion, were trailing by two strokes at the 17th hole of the final round. At this point Mr. Rankin negotiated the distance from tee to hole in one shot, alleviating the scoring situation. The team went on to win the event.

On another occasion Mr. Rankin was asked to participate in a hole-in-one contest sponsored by a local newspaper. He agreed and wasted no time in holing his first shot.

THE SPIRIT OF GOLF

The spirit of golf is not found in a low score. Instead, it is found in honorably striving for it. It is found in meeting the challenge of an opponent, of the course and of par. It is found in the sportsmanship, honor and fair play traditionally associated with the game. It is also found in the Rules of Golf.

—Ralph Miller, Los Angeles, Cal.

Necrology

It is with deep regret that we record the passing of:

MR. ROBERT P. JONES, father of Robert T. Jones, Jr., in Atlanta, Ga.

The elder Mr. Jones was instrumental in starting his son in the game of golf. In subsequent years, when Bobby Jones was on his way to becoming one of golf's all-time greats, his father accompanied him on many of his golfing triumphs.

MR. HARRY A. ROWBOTHAM, of Llanerch, Pa., a former President of the Philadelphia Golf Association. Mr. Rowbotham was an active senior golfer in recent years. He teamed with his son, George, to win the annual Father and Son Golf Tournament of Philadelphia on several occasions.

MR. GEORGE A. DIXON, Treasurer of the United States Seniors' Golf Association, in New York City. Mr. Dixon was a competitor in many golf tournaments, including the 1933 French Amateur Championship when he was a finalist. He was a founder-member of the National Golf Links of America, Southampton, N. Y., and a member of the Garden City Golf Club, Garden City, N. Y.

MR. WILLIAM B. TORRANCE, of Edinburgh, Scotland, a member of the first British Walker Cup Team in 1922. Mr. Torrance, a retired insurance manager, was a member of the team that lost to the United States 8 to 4 at the National Golf Links of America, Southampton, N. Y. As a competitor he lost to Robert A. Gardner in singles 7 and 5. He and C. V. L. Hooman lost 3 and 2 to Bobby Jones and Jess Sweetser in foursomes.

MR. JOHN J. KINDER, of South Plainfield, N. J., golf professional at the Plainfield Country Club, Plainfield, N. J. Mr. Kinder was President of the New Jersey Professional Golfers' Association at the time of his death. He was New Jersey State Open Champion three times and won the state P.G.A. title on four occasions.

A GIRLS' REUNION AT WOMEN'S OPEN

by

JOSEPH C. DEY, JR.

USGA Executive Director

TAKE a look, please, at the photograph below. Turn back the calendar six years. These 17 young ladies were the total field (minus one) in the USGA's second Girls' Junior Championship at Wanakah, in Buffalo.

Third from the left is Katherine McKinnon, then aged 17. She had come up from West Palm Beach and was a semi-finalist. On the extreme right is Barbara McIntire, aged 15, of Toledo.

Today Katherine McKinnon is Mrs. Kathy Cornelius, the new USGA Women's Open Champion. Barbara McIntire tied her for the Championship last month and lost in the play-off.

From that little group of girls, all under 18, who convened at Wanakah six years ago have emerged some of the fine golfers

of the day. Have another look at the picture. Third from the right, wearing a cap, is Patricia Lesser, of Seattle. She is the present USGA Women's Amateur Champion. In the front row near the center, with a broad stripe across her sweater, you may recognize Barbara Romack, of Sacramento, Women's Amateur Champion of 1954. Also in the picture are Mickey Wright, now a leading professional, and Virginia Dennehy, of Chicago, a promising amateur. Six of the 17 young ladies participated in the Women's Open Championship last month at the Northland Country Club, Duluth, Minn.

Golfing Background

Perhaps you had heard little about Kathy Cornelius and Barbara McIntire before the tournament at Northland. You couldn't



The success of Mrs. Katherine McKinnon Cornelius, the Champion, and Miss Barbara McIntire, the runner-up, in last month's Women's Open Championship brought to mind this scene of six years ago. Pictured above are the contestants in the 1950 Girls' Junior Championship held at the Wanakah Country Club, in Buffalo, N. Y. Six of the young ladies pictured above were reunited in the Women's Open, still adding to their golfing laurels. From left to right: Esther Reid, Suzanne Nagell, Katherine McKinnon, Patricia Buell, Janet Mack, Alice Emhardt, Leila Fisher, Patricia Bright, Barbara Romack, Marlene Gesell, Virginia Dennehy, Mary Kathryn Wright, Anne McAvoy, Barbara Blakely, Patricia Lesser, Ann Harvey and Barbara McIntire.



Duluth Herald & News Tribune photos

The intense concentration of tournament play often focuses complete attention on the ball rather than the player. In such moments it is for the camera to record the mobility of expression as the player delivers each crucial shot. Top: Unable to resist a little peek at the ball, Mrs. Kathy Cornelius accomplishes the feat without forgetting to keep her head down as she successfully blasts from a trap. Mrs. Cornelius went on to win the 1956 Women's Open Championship at Northland Country Club, Duluth, Minn. Bottom: Mrs. Cornelius tries to "dance it home" as the gallery watches intently. An impish grin—half delight and half-torture—enlivens the Champion's face as she watches her ball glide across the green.

have been expected to recall that Kathy, for example, was twice runner-up in the National Collegiate Championship. Barbara had won the Western Junior, was twice runner-up in the USGA Girls' Junior and once medalist, and last year was a quarter-finalist in the national Women's Amateur. We draw attention to the 1950 photograph not merely to illustrate how nice girls grow into fine young ladies but also to point out that there is a solid golfing background behind nearly every player who comes to national prominence. No one is really "unknown."

Six years have brought some tremendously important changes to Kathy McKinnon Cornelius. She married a professional golfer, they have a baby daughter, and Kathy became a professional golfer about two years ago.

Barbara McIntire, now a 21-year-old college student, has come closer than any other amateur to winning a national open championship since Johnny Goodman took the USGA Open in 1933.

At Northland Miss McIntire was eight strokes behind with 18 holes to play. She closed the gap completely with a 71, three under par, playing the last three holes in birdie 3, par 3 and eagle 3.

That set up Barbara's 72-hole score of 302 as the figure for the field to shoot at. Kathy Cornelius and Mrs. Marlene Bauer Hagge, the Ladies' PGA Champion, were playing together not far behind Miss McIntire, and early in the game it looked like a personal contest between them for the Championship. They had tied for the 54-hole lead at 223, and their closest pursuers were six strokes away.

Near the end of the fourth round, Mrs. Hagge's touch deserted her long enough for Mrs. Cornelius to shoot ahead by two strokes, with the home hole to play. The 18th is a par 5 for ladies, 410 yards long. If the drive is big enough, they play across a wide, deep valley in front of the green with a brook at the bottom, and they can get home. If the drive is not quite right, it is risky for a woman golfer to attempt the carry over the brook.

An Unplayable Lie

Mrs. Cornelius, leading Mrs. Hagge by two strokes, partly topped her tee shot and elected to play a pitching iron short of the brook. But she hit it too well, and it caught a slope that carried it down into the water hazard among some rocks, completely unplayable. Thereupon, Mrs. Hagge reached the green with two thumping shots. After a penalty stroke for dropping from the water hazard, Mrs. Cornelius was on the green in 4, and they were all square.

Mrs. Cornelius went down in two putts for a 6 and a 79, whereas Mrs. Hagge took three putts from a difficult position for a 5 and an 80. That tied Mrs. Cornelius with Miss McIntire for the lead at 302, with Mrs. Hagge next at 303. Miss Patty Berg had a chance to enter the tie but missed by a stroke after closing with a fine 74.

Mrs. Cornelius' four rounds were 73-77-73-79; Miss McIntire, 75-79-77-71. Par was 74 for all except the first round, when it was 73; the 72 hole par was 295.

The 18-hole play-off the next afternoon was all square after seven holes. Mrs. Cornelius played the last 11 holes in two under par, and finished with a 75, to Miss McIntire's 82. Mrs. Cornelius' cash prize was \$1,500; total prize money was \$6,000.

The defending Champion, Miss Fay Crocker, had a slow start but finished with a 71 for 309. The 71s by Miss Crocker and Miss McIntire were the best of the tournament.

A number of young professionals played in the Championship for the first time. The original entry of 48 was divided evenly between amateurs and pros. Second amateur was Miss Ruth Jessen, of Seattle, with 317; third amateur was Miss Patricia Lesser, of Seattle, with 319.

The Northland course, wooded with evergreens and overlooking Lake Superior from an eminence, is beautiful for its scenery and a fine test of golf. The club's members were most hospitable and efficient in their vast work on the tournament. Great credit is due the club's committees under the Chairmanship of John Bero, with Mrs. Bernard H. Ridder, Jr., as Co-Chairman.

DRIVING TESTS AT THE OPEN

by

ROBERT TRENT JONES

Golf Course Architect

FOR the tenth time, driving tests were conducted during the USGA Open Championship, held this year at the Oak Hill Country Club, Rochester, N. Y.

These tests are made for several purposes: one—to check the liveliness of the ball and to determine if there is a measurable change over the previous years in the distance the ball is hit (this also acts as a double check on the work done by the United States Golf Association with its intricate mechanized equipment); two—to evaluate the effect of the fairway width in relation to play and to determine what width is fair and reasonable in its demand upon the players; three—to determine what effect height of the rough has on the recovery value of the shots played from it.

At Oak Hill all 51 qualifiers for the last 36 holes were measured in the third round, on the eighth hole. These players represented the cream of the crop.

Fairway Measured

The fairway was measured from the championship tee markers used on that particular round. Unobtrusive marks were placed every ten yards over the center of the fairway and on each side of the fairway with small dots of sand. In this manner, a true perspective could be obtained of each ball hitting the fairway and the distance it ran after hitting the fairway. These markers were placed from 200 to 300 yards.

A careful check was kept of the exact spot where each ball landed—in the center of the fairway, to the right or left of the fairway, in the rough on either side or in the traps on either side. The hole at the target area from 200 to 300 yards was level, the reason this hole was chosen for the test.

The tee was also approximately level with the target area, although there was a slight dip between the tee and the target area. The fairway was 35 yards wide, with a trap at the right extending from 210 to 230 yards and a trap at the left from 230 to 260 yards.

Of the 51 players in the final field, 33 hit the fairway. The longest drive of the day was 281 yards, hit by an amateur from Houston, Texas, John Garrett, whose ball at the very end of its run went into the rough at the left for a total of 281 yards.

The second longest drive of the day was made by Roberto de Vicenzo who hit his drive on the fairway at 280 yards. Tommy Bolt's drive stopped at 279 yards.

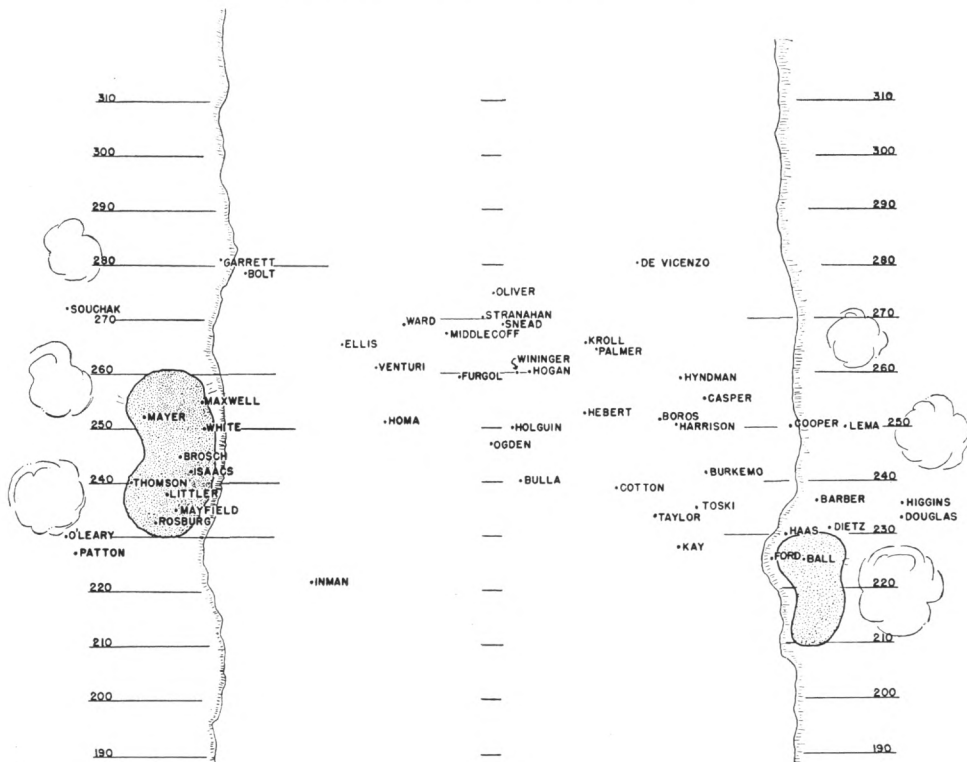
Three of the drives were relatively wild and went out outside the protective gallery ropes on the left side of the fairway. Of these, two were big names—Billy Joe Patton and Mike Souchak. Seven balls went into the rough at the right. Nine balls went into the trap at the left and only one ball went into the trap at the right.

Shallow Traps

It is interesting to note that of the ten players hitting into the traps from the tee, only three failed to reach the green with their second shots, even though the green was approximately 170 yards from the traps. This is primarily due to the fact that there was no mound blocking the shot to the hole. The traps were shallow and there was little trajectory required to get the flight of the ball in the air.

The average carry of the 33 players who drove into the fairway was 239.63 yards. This is almost an exact duplicate of the carries measured in the previous tests made in Open Championships. However, the

MEASUREMENT OF DRIVES — 56TH OPEN CHAMPIONSHIP AT OAK HILL COUNTRY CLUB — ROCHESTER, N. Y. Compiled by: Robert Trent Jones



The above diagram, prepared annually after tests held at each Open Championship, is designed to measure the drives of leading golfers. Drives of the 51 qualifiers for the final 36 holes of play in the 1956 Open were measured from the eighth tee of the third round, on the morning of June 16. One of the significant results of the test is that there is no discernible increase in driving distance attained by leading players, when compared with results of similar tests held in the past few years.

average of the total drives, including the fairway roll of the 33 players, was 253.39 yards, as against an overall average of 260 yards ascertained in the previous tests.

There were several reasons for the shortness of the roll. One was the heavy, humid, morning air; and another was the fact that the target area had been heavily watered and then had had a heavy rain the night before. This made the early morning conditions somewhat heavy.

The wind in the early morning was very slight. About 10:00 A.M. a breeze came

up and steadily increased during the forenoon when the drives were measured.

It is interesting to note that nine balls were caught in the fairway trap at the left. It is also interesting to note in the pattern of play that more shots were hit to the left than to the right. It is a well known fact that, because of the swing of the better players, their tendency is to hook rather than to push the ball. Hence, the development of the pattern indicated above, which was probably also partly due to the fact that the fairway trap at the left at

USGA FILM LIBRARY

Latest addition to USGA's Film Library is "Inside Golf House," a guided tour through the shrine of golf in America. The viewer is given an opportunity to see the many interesting exhibits in "Golf House," USGA headquarters in New York, and to re-live golf triumphs of the past with many of the game's immortals. Lindsey Nelson, Assistant Sports Director of the National Broadcasting Company, is the narrator. The film is a 16 mm. black and white production with a running time of 28 minutes.

Thus far, more than 616 bookings have been made for USGA's motion picture, "The Rules of Golf—Etiquette." The film stresses the importance of etiquette by portrayal of various violations of the code in the course of a family four-ball match. Ben Hogan appears in several scenes, and Robert T. Jones, Jr., makes the introductory statement. A 16 mm. Kodachrome production, the film has a running time of 17½ minutes.

The distribution of both prints is handled by National Educational Films, Inc., 165 West 46th Street, New York 36, N. Y., which produced the films in cooperation with the USGA. The rental is \$15 per film or \$25 in combination at the same time, including the cost of shipping prints to the renter.

230 to 260 yards is better located for a modern tournament player than the one at the right.

Hooked Ball Goes Farther

The average in the rough at the right was 232 yards, while the average in the rough at the left, including trap locations, was 237 yards. This served to indicate that a hooked ball, because of the pattern of the swing, normally goes farther than a pushed or faded ball. Also of interest was the fact that Mike Souchak's ball went outside the protective gallery ropes 15 yards off the fairway and wound up 273 yards from the tee.

These tests indicated that the ball is flying just about as it has been over the last few years. It also proved that shallow traps are no particular menace to the modern tournament player, nor is shallow or light rough, as all those balls hit out of the rough landed either on or in the area of the green.

Robert Harris' Opinion

Those who believe the Rules of Golf should be eased might profit by listening to Robert Harris, of London, England, who feels the game has lost too much already. Mr. Harris, who won the British Amateur in 1925 and captained three British Walker Cup Teams, wrote a book titled "Sixty Years of Golf" in which he says, among other interesting things:

"The traditional Rules and directions for play are obvious and simple. A small ball has to be hit by a variety of clubs over grass country of uneven contour into a small hole in the ground. Difficulties in the shape of sand holes, ditches, streams, bushes and other natural objects are met in the journey from starting point to hole. These are surmounted by skillful shots or by-passed by maneuver. The endeavor of the player is to beat his opponent by counting a lower score for each hole. There are certain penalties and forfeits for inefficient play or an unlucky lie of the ball. These penalties have been exacted for centuries and found to operate with all fairness.

"Nowadays the capricious and faint-hearted ask for milder penalties and easier rules. From time to time benevolent authority has granted reliefs, and it is even ordained at the present time that that part of the game which is played near the hole may be conducted under benign option of either the player or the opponent. It is now permitted to play either with the customary clubs or with the hands when the ball lies near the hole.

"Add moving or lifting the ball by hand to a matched set of fourteen steel-shafted clubs and a powerful long-traveling ball, and the soul of golf comes down with a crash. A great game, a fine art, a noble sport becomes engulfed in the turmoil of the machine shop and the merchants' counting house.

"A renaissance will arrive when a different ball is introduced for play, when the numbers are obliterated from the soles of the clubs and when the option to handle the ball when near the hole is withdrawn."

TRIBULATIONS OF IRON CURTAIN GOLF

A "monument to nose-thumbing," as its founder describes it, stands on the hills of Old Buda, overlooking the Danube River and Pest on the other side. It's a four-hole golf course, known as the "Air Free Golf Club", for reasons having to do with its location deep behind the Iron Curtain.

The founder is Christian M. Ravndal, former U. S. Minister to Hungary and the kind of golf enthusiast who isn't to be deterred by a Communist government's dislike for the game. The club has been in operation since 1952 and among its members is President Eisenhower. The President acknowledged the gift of life membership in a letter that has been framed and now hangs in the clubhouse. Expressing his warm thanks, he commented that, unfortunately, he didn't think he would be able to get around to playing the course.

When Ravndal arrived at his post in Budapest, in December, 1951, there were eight holes left of what had been the Hungarian Golf Club's magnificent eighteen-hole course. By Easter, 1952, there were only five holes. The government had taken the land of the other three for military buildings.

Five Hours To Leave

"One day I was playing with Joe Stammel, the pro, when the Hungarian War Minister and a Russian general came along and gave us five hours to clear out everything," Ravndal recalls.

He immediately decided to see whether something could be done with some near-by property bought by the United States Government in 1947. It was to have been the site of residences for the Legation staff; the Congress of the United States had, however, halted all government building in Iron Curtain countries.

The Germans and Russians had fought

over the property in 1914, during the battle for Budapest. Where there wasn't a jungle of bushes and trees, there were huge bomb craters, smashed-up stables and various other hindrances to building a golf course.

Paying for everything out of their own pockets, the Minister, his counsel, Sidney Lafoon, and other members of the Legation hired Stammel as their pro and told him to see what he could do. Joe and some Hungarians cleared the jungle by hand. They filled in bomb craters. They got rid of dozens of hand grenades, one of which exploded just after Joe threw it away. And they had four holes ready for play by July, 1952.

Par Is 48

Hole number one is a 90-yard shot, slightly uphill, with a small, bunkered green and trees on right and left. Number two is 120 yards, number three a hefty 170 yards, and number four another 120 yarder. The score cards are made out for sixteen holes to a round. Par is 48 and Stammel holds the course record of 45.

The course is amazingly well kept, thanks to Joe, who supervises all the details and gives lessons besides. Grateful members are continually improving the club. Lafoon donated the men's locker room and the Legation's Marine guards contributed the money to wire the clubhouse for electricity. The club has become self-supporting and now sports a swimming pool and a tennis court.

Practice Shooting—For Skeet!

Ravndal has some amusing recollections about getting the court built. "Joe needed some sod for the greens," he said. "So I asked the Hungarians if we could buy the sod from the greens of the old golf course. They told us the greens were needed for their own people practicing for the Olympics. I was curious to see and went out to take a look. They were practicing all right—skeet shooting!"

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HONORS TO MEMPHIS IN PUBLIC LINKS

by

JOHN P. ENGLISH

*USGA Assistant
Executive Director*

THE Harding Park Golf Course, built in 1924 under the guidance of the late Dr. Alister Mackenzie and dedicated to the memory of President Harding, is a San Francisco institution.

Now one of the busiest golf courses in the world, it serves, on the average, 350 players a day every day of the year, and they say it has been played every day since it was built thirty-two years ago.

Two aspects make Harding Park memorable.

One is the excellence of the 6,683-yard course which winds through groves of cypress and pines and along the precipitous banks of the Lakes Merced to beautifully contoured and bunkered greens. Blessed by San Francisco's cool, moist climate, the stand of turf is rich and healthy on tees, fairways and greens in spite of the traffic they bear.

The other is the gang that plays it. They rate their course over all and not only do they play it like mad but they team together to provide unparalleled facilities for a Championship.

One of the beneficiaries of the combination is the USGA's Amateur Public Links Championship, which was played there in 1937 and again last month. Harding Park pulled all stops to surpass the facilities and hospitality of previous Championships, and in flattering words the departing players said they succeeded.

It was fitting and inevitable that a fine Champion should emerge.

Buxbaum Had Edge

James H. (Junie) Buxbaum, of Memphis, Tenn., a most accomplished shot-maker and in streaks a brilliant putter, always had the necessary edge. Although he won three matches by only a hole and two others by only two holes, he defeated

William C. Scarbrough, Jr., of Jacksonville, Fla., by 3 and 2 in the 36-hole final, with two-over-par golf.

The final proved the ability of the man, for Scarbrough had indicated by going to the semi-finals in 1954 and to the quarter-finals in 1955 that he is one of the fine players in public links golf.

However, Buxbaum, a small man of only 128 pounds, has taken the measure of both Cary Middlecoff and Hillman Robbins in Memphis and Tennessee Amateur Championships, and he played as a professional from late 1947 into 1951. But, after three-putting a dozen greens in one round of the 1951 Open Championship, he decided golf as a business was not for him and he was reinstated as an amateur in 1953. This was his first Amateur Public Links Championship.

Second Oldest Winner

At 40, Buxbaum is the second oldest winner. Gene Andrews was also 40 when he won in 1954, but he was within a couple of weeks of being 41, which Buxbaum will not be until the day after Christmas.

Both players were outstanding sportsmen, and it was gratifying to observe their mutual consideration and the camaraderie in which they played. Buxbaum represents a trucking and storage company in sales, and Scarbrough is a Chief Aviation Ordnanceman in the Regular Navy.

Until the final, Scarbrough had pulled his clubs on a cart, and he particularly had attracted attention for the selfless diligence with which he replaced every divot, even during the semi-final when he had to battle the tide of the gallery to do it.

While San Francisco was providing course and courtesies, Memphis actually took substantially all the prizes. Not only



The first step toward a clean sweep of Public Links honors by Memphis, Tenn., golfers is completed as Richard S. Tufts, USGA President, right, awards the Warren G. Harding Trophy to the victorious team champions. From left to right are Gene Frase, Eddie Langert and James H. (Junie) Buxbaum. Buxbaum completed the sweep by subsequently winning the individual championship.

did Buxbaum win the individual Championship for the James D. Standish, Jr., Trophy, but he also contributed to Memphis' victory in the team Championship for the Warren G. Harding Cup. Also, Scarborough, the runner-up, only represents Jacksonville, Fla., by reason of his assignment to the Naval Air Station there. He, too, is a native of Memphis.

However, San Francisco did get two good men into the semi-finals, Ovid Seyler and James R. Wilbert.

There were only seven scores under Harding Park's par of 72 during the 36 holes of qualifying, a procedure which was reinstituted in the Championship for the first time since 1947 and which met with general approval.

D. M. (Scotty) McBeath, of Palo Alto, Cal., a salesman of sports equipment who formerly played out of Tacoma, Wash., won the medal with a score of 69-72—141 and thus accounted for one of the sub-par rounds. He was one stroke ahead of Verne Callison, of Sacramento, Cal., a 37-

year-old tavern keeper. Callison was under par in both rounds with matching scores of 71 for 142. Third was Joe Gallardo, Jr., of Los Angeles, a 19 year old who had graduated from high school a month earlier. Gallardo started with a 75 and then played the lowest single round, a 68, for 143.

Fifteen players tied at 155 for the last fourteen of the sixty-four qualifying places. However, only thirteen of them answered the call for the play-off. Billy Joe Lauer, of Spokane, Wash., and Edward Briegel, of Ann Arbor, Mich., had left the course. As a result, there was no play-off. Lauer was drawn into match play by lot.

Course Toughened

Strangely, the scores tended to be high in comparison with previous Amateur Public Links Championships. When the event was previously held at Harding Park, in 1937, Don Erickson, of Alhambra, Cal., won the medal with 139 and there was a play-off at 152 for the last of the sixty-four qualifying places. While only the

eleventh hole has been changed materially since then—that has been shortened into an excellent one-shotter—nature has toughened the course during the nineteen intervening years. The cypress and pine trees which were only saplings in 1937 are now long-armed giants which ably defend dog-leg bends and snare wild shots.

Sam D. Kocsis, of Detroit, the defender, had to withdraw after the first round of qualifying, when he was informed of the death of his father-in-law. Kocsis had scored 77 in the first round.

The Memphis, Tenn., Section's victory in the Team Championship was its first, and it was done with a three-man score of 445 for 36 holes. The competition was combined with the qualifying play. Members of the winning team were Buxbaum, Eddie Langert, a 20-year-old junior at Lamar Tech, in Beaumont, Texas, who made 72-74—146, and Gene Frase, a 29-year-old salesman of building materials, who did 73-80—153.

It was a decisive victory, although fourteen strokes over the old record. Memphis led by six strokes after the first round and won by eight strokes. The next teams represented Dallas, Texas, and Portland, Ore., which tied at 453. San Francisco scored 454, Los Angeles and Phoenix 456, Indianapolis 457 and Jacksonville 458.

North Attracts Fans

A prime attraction for the galleries in the early rounds was the gigantic Jim North, of the Foster Golf Club, in Seattle, Wash., who appears to be one of the real long hitters. Jim averaged about 280 yards from the tees onto the heavy Harding Park fairways and played all holes up to approximately 400 yards with a drive and #9 iron. On the 166-yard third, the 183-yard eleventh and the 177-yard seventeenth, he used #7 and #8 irons. On the 207-yard eighth, he used a #4 iron. On the 510-yard ninth and the 500-yard twelfth, he reached with #2 and #3 irons respectively. And, again, these strokes were without benefit of roll, after the dripping morning fogs of July, and without appreciable assistance or interference from wind.

North is 36 years old, stands 6 feet, 2½ inches and weighs 265 pounds. He played tackle in 1943 and 1944 for the Washington Redskins in the National Professional Football League. Now he is a teacher of history and physical education (including football) at Mount Si High School in Snoqualmie, Wash., 35 miles east of Seattle.

Friends matched him with George Bayer in an exhibition at the Foster Golf Club last summer, and the consensus was that they were about equal in long hitting. Although he has been trying to qualify sectionally for fifteen years, this is the first time he has made the grade. He qualified again with 80-74—154, and went to the third round before losing to Emil Esposito, of Franklin Park, Ill., at the nineteenth hole.

Roach Impressive

Another who attracted galleries was Joe Roach, of Los Angeles, who had won the Negro amateur championship for the last three years and also was making his first appearance in this event. Roach, who is 37 and owns two confectionery shops, qualified with 79-75—154 and went to the quarter-finals before losing to Scarbrough. He was impressive in both skill and deportment and may well be heard from again.

Dick Hermann, of La Canada, Cal., had a frustrating experience in the first round. He holed out from the tee of the 166-yard third hole with a No. 6 iron in his first-round match and still lost, 1 down, to Bob Patterson, of Portland, Ore. Hermann indicated he was satisfied, on balance, however. Charles DeVos, of Lynwood, Wash., also scored a hole in one on the 183-yard eleventh during a practice round before the Championship.

The loyal members of the USGA Public Links Committee turned out to the number of nineteen and conducted the play with their customary efficiency. Joseph S. Dickson, of Louisville, Ky., was attending his twenty-third Championship, Alfred W. Wareham, of Minneapolis, his nineteenth, and Harry Packham, of Los Angeles, his seventeenth in succession.

AN INQUIRING EYE ON GOLF SCHOLARSHIPS

by

JOHN W. FISCHER

*Chairman, USGA Amateur
Status and Conduct
Committee*

IN recent months newspapers throughout the country have given considerable space on the sports pages to the problems which have arisen with regard to the granting of scholarships and other aid to college athletes.

The USGA has also been concerned over a period of time with this problem as it relates to golfers. Effective in 1953, the Executive Committee authorized an exception for scholarships to golfers, if "approved by a regular authority of the institution awarding all scholarships." This exception, based primarily on rules and regulations of the National Collegiate Athletic Association and of various college conferences, now provides that a student may accept a scholarship "granted and approved by the institution's regular central authority awarding all scholarships."

While this provision is reasonable and fundamentally sound, since golf ability should not prevent acceptance of a scholarship to which a student would be ordinarily entitled, there is difficulty in the application and administration of the rule.

USGA Survey

Some ten months ago, the USGA undertook to survey scholarship policies by sending a questionnaire to colleges and universities throughout the country. The 97 responses were most gratifying and enlightening. The tabulation of the answers to the following general questions is based on the total number of answers:

Who controls the grant of scholarship to athletes?

With virtual unanimity, the responses indicated that the USGA rule was followed since it was patterned after NCAA and conference regulations. However, it was apparent that the influence of the athletic departments ranged, for all prac-



JOHN W. FISCHER

tical purposes, from little or none to the actual designation of recipients, particularly where a certain number of scholarships were to be allotted to athletes. Scholastic requirements among the colleges varied, too.

Is the grant of funds to athletes permitted, other than through an office of the university?

Except in the cases of the various cad-die scholarship programs, the answers were negative, although recent publicity has indicated otherwise, at least for some sports.

In the granting of scholarships to athletes, what items of expense are paid and in what amount?

Generally, scholarships at the maximum covered tuition, room, board, laundry, books, athletic equipment and pocket money. The cost of items granted averaged approximately \$795 per year to in-state students and \$875 to out-of-state students in state universities. The range was from minor tuition charges in some state universities to a maximum of \$1,600 for a full scholarship.

Should the USGA approve college scholarships to golfers?

Eighty-two percent of the answers were affirmative.

Has the college ever awarded scholarship to a golfer?

Forty-eight percent of the answers were affirmative, but it was apparent that in a number of the colleges and universities golf is not or has not yet become an important part of the athletic program.

In scholarships awarded to golfers, what items of expense were included?

Fifty-five per cent limited expenses to tuition and fees, 27 percent to all items ordinarily granted to athletes, while 9 percent indicated partial expense and 9 percent to "need," both of which classifications apparently included tuition.

What items of expense should the USGA approve?

Sixty-five percent indicated a desire for approval of all items of expense permitted under NCAA or conference rules for any athlete. The remaining opinions were divided almost equally between a limitation to tuition, partial expense or need.

On the whole, the survey unearthed no conditions considered to be definitely harmful or detrimental to the best interests of the game, although there appeared to be some instances where, under prevailing practices, golf skill or reputation could be the determining factor in gaining a scholarship award, and others where the amount of the scholarships would be quite liberal for golfers.

It should also be noted that in recent years some colleges and universities unable to field and maintain major sports teams have profitably switched athletic emphasis to other sports, including golf, and are concentrating on the development of outstanding teams in these areas only.

Although the USGA Executive Committee has determined to make no change at this time in the existing rule as a result of the survey, it will continue to scrutinize collegiate scholarship policies and practices involving amateur golfers.

The USGA also desires to express its appreciation to the officials of the various colleges and universities for their excellent cooperation, not only in responding so promptly and completely to the questionnaire, but also in helping over the years to maintain the spirit of amateurism in the game of golf.

USGA Publications of General Interest

THE RULES OF GOLF, as approved by the United States Golf Association and the Royal and Ancient Golf Club of St. Andrews, Scotland. Booklet, 25 cents (special rates for quantity orders).

THE RULES OF AMATEUR STATUS, a page. No charge.

USGA GOLF HANDICAP SYSTEM FOR MEN, containing recommendations for computing Basic and Current Handicaps and for rating courses. Booklet, 25 cents. Poster, 10 cents.

THE CONDUCT OF WOMEN'S GOLF, containing suggestions for guidance in the conduct of women's golf in clubs and associations, including tournament procedures, handicapping and course rating. 25 cents.

HANDICAPPING THE UNHANDICAPPED, a reprint of a USGA Journal article explaining the Callaway System of automatic handicapping for occasional players in a single tournament. No charge.

TOURNAMENTS FOR YOUR CLUB, a reprint of a USGA Journal article detailing various types of competitions. No charge.

PROTECTION OF PERSONS AGAINST LIGHTNING ON GOLF COURSES, a poster. No charge.

MOTION PICTURES:

"The Rules of Golf—Etiquette," an official USGA film (16 mm. color, with sound, runs 17½ min. Rental \$15). Descriptive folder—no charge.

"Inside 'Golf House'," an official USGA film (16 mm. black and white, with sound, runs 28 min. Rental \$15. In combination with "The Rules of Golf—Etiquette," \$25.) Descriptive folder—no charge.

List of films on golf available from other sources. No charge.

List of films on golf course maintenance available from other sources. No charge.

HOLE-IN-ONE AWARDS. No charge.

GAMBLING IN GOLF TOURNAMENTS, a reprint of a USGA Journal article by Richard S. Tufts. No charge.

MISTER CHAIRMAN, a reprint outlining the duties of the Chairman of the Green Committee. No charge.

TURF MANAGEMENT, by H. B. Musser (McGraw-Hill Book Co., Inc.), the authoritative book on greenkeeping. \$7.

USGA CHAMPIONSHIP RECORD BOOK. Detailed results of all USGA competitions since their start in 1895. \$2.

USGA JOURNAL AND TURF MANAGEMENT, a 33-page magazine published seven times a year. \$2 a year.

These publications are available on request to the United States Golf Association, 40 East 38th Street, New York 16, N. Y. Please send payment with your order.

COUNTRY CLUB OPERATIONS IN 1955

by

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*Member of the firm of
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COUNTRY clubs in 1955 did not fare so well as in 1954, according to our seventh annual study of country club operations. Greater sales volume and increases in dues were more than offset by the rising costs of operating the clubhouse and maintaining the golf course and other outside activities. Operating data for the clubs studied are presented in the following three groups:

18 small country clubs, each with membership dues income of under \$150,000 (including regular assessments in three clubs);

14 large country clubs, each with membership dues between \$150,000 and \$250,000 (including regular assessments in two clubs);

2 very large clubs, each with membership dues of over \$250,000 (including a regular assessment in one of the clubs).

In size and scope this study is similar to "Country Club Operations in 1954." All but two of the clubs in that study have been included again this year, but there has been some rearrangement according to total dues and assessments. Since dues are the principal source of club income, they are the most common, acceptable basis for comparing operating data. Income from regular, or recurring, assessments has been added to dues because it is similar in nature to dues. Only assessments which for practical purposes represent dues have been included. Because past studies have shown that country clubs with annual dues and assessments of \$50,000 have little in common with those having \$600,000 of such income, the clubs have been grouped on the basis of total dues income.

Following the conclusion of this article

is a summary of operations of the two groups expressed in relation to dues and assessment income. Total amounts and percentages of increase or decrease from 1954 are also given. The two clubs with dues of over \$250,000 were not included because their operating figures are of such magnitude that they would disproportionately affect the group averages if included with the 14 large country clubs.

Principal Findings

Comments on some of the principal findings of our study of country club operations in 1955 follow:

Both the small and large country clubs had poorer results than in 1954. There were smaller amounts of dues available for depreciation because of substantial increases in undistributed operating expenses, in net cost of golf and grounds and in fixed charges, offset partly by improvements in departmental profits. After depreciation and rehabilitation expenses, both groups of clubs recorded deficiencies in dues available for members' equity, but in 1955 the small clubs lost less ground financially than the large clubs.

The average of 21.4¢ of each dues dollar expended by the small clubs and the 26.5¢ expended by the large clubs for depreciation and rehabilitation are distorted by heavy improvement and rehabilitation programs in several of the clubs. The funds for such heavy expenditures came from special gifts, assessments, initiation and transfer fees and other sources, all of which are excluded from income in our study as they do not pertain to regular club operations. The median averages for depreciation and rehabilitation are 18.0¢ for the small clubs and 13.0¢ for the large clubs. On the basis of the median averages which eliminate the afore-mentioned distortions,

there should be a deficiency of 5.2¢ in the dues dollar of the small clubs and one of 5.1¢ in the large clubs. Thus the dues income is not yet sufficient to cover cash operating expenses and depreciation and provide a reserve for emergencies or an increase in members' equity.

Where Dues Dollar Goes

Breaking down the dues dollar of the small clubs, we find that it was spent in the following ways: clubhouse operations: 30.7¢ in 1955, compared with 28.8¢ in 1954; golf and grounds: 36.8¢, compared with 34.4¢; other outside activities: 1.1¢, compared with 1.4¢; and fixed charges: 18.6¢, compared with 17.5¢. This left an average 12.8¢ of dues available for depreciation, in contrast to 17.9¢ in the preceding year.

A similar breakdown of the dues dollar of the large clubs is as follows: clubhouse operations: 42.5¢ in 1955, compared with 42.4¢ in 1954; golf and grounds: 31.0¢, compared with 29.2¢; other outside activities: 2.3¢, compared with 2.3¢; and fixed charges: 16.3¢, compared with 15.4¢. Thus, there remained 7.9¢ of dues available for depreciation, as against 10.7¢ for the preceding year.

Club Payroll Up Slightly

Total club payroll in ratio to total income, including dues and assessments, showed slight increases over 1954 in both groups of clubs. Payroll took 37.7% of total income in the large clubs, compared with 37.3%, and 41.1%, as against 40.8%, in the small clubs. Total restaurant payroll recorded even smaller increases and in ratio to total food and beverage sales actually showed decreases. Thus gains in food and beverage income more than offset the rises in payroll and, together with reductions in the food and beverage costs per dollar sale, resulted in higher departmental profits in both the small and large clubs. But the increases in food and beverage departmental profit, 2.6 points in ratio to dues and assessments in each group, were not sufficient to effect decreases in the net cost of clubhouse operations.

Average food checks were reported by 16 of the clubs:

\$4.03	\$3.01	\$2.86	\$2.42
3.70	2.92	2.84	2.23
3.22	2.89	2.69	2.06
3.08	2.89	2.53	1.72

Several clubs have special charges in effect to help defray the expenses connected with food and beverage departmental operations. Six clubs charge members a minimum of \$10.00 per month for food, one of them charging all other than regular members only \$5.00 per month. Five clubs have surcharges of 10% to 15%, used as income or to offset payroll. Two clubs collected 15% on food and beverage sales for distribution to employees, while a third club charged 12½% on food and 3% on beverage sales. Another club has a mixed service charge-surcharge which is divided, 11% to employees and 4% to income.

Dues and Entrance Fees

The annual dues and entrance fees charged by the 34 clubs participating in this study are summarized as follows:

SMALL CLUBS

Annual Dues Per Regular Member

Under \$100	1	Under \$300	2
\$110	1	\$300	2
\$165-\$200	5	\$301-\$350	4
\$225-\$290	5	\$360-\$400	5
\$300	5	\$500	1
\$350	1	\$600	2
Total	18	Total	16

LARGE CLUBS

*Entrance Fees
Per Regular Member*

Under \$200	4	\$400 and under	4
\$200-\$400, inc.	7	\$500	6
\$500	4	\$750	1
\$900	1	\$1,500	2
\$1,150	1	\$2,000	1
\$2,000	1	\$3,000	2
Total	18	Total	16

Dues, fees and assessments were increased during the year by several clubs. The annual dues per regular member were raised in five clubs by \$15, \$25, \$36, \$60 and \$180. Ten clubs increased their initiation

Summary of Operations, 1955 and 1954

18 Small Country Clubs

(Dues under \$150M)

	<i>Ratios to Dues and Assessments</i>		<i>Amounts 1955</i>	<i>Increase or Decrease from 1954</i>	
	1955	1954		<i>Amount</i>	<i>Percentage</i>
Membership dues	91.9%	91.1%	\$1,413,315	\$ 52,661	3.9%
Assessments	8.1	8.9	125,324	r7,306	r5.5
Total	100.0	100.0	1,538,639	45,355	3.0
Deduct net cost of operations					
Clubhouse (detail below)	30.7	28.8	473,271	42,708	9.9
Golf, grounds and outside activities	37.9	35.8	582,438	49,285	9.2
Total	68.6	64.6	1,055,709	91,993	9.5
Net before fixed charges	31.4	35.4	482,930	r46,638	r8.8
Rent, taxes and insurance, and interest ..	18.6	17.5	285,626	24,010	9.2
Dues* available for depreciation	12.8%	17.9%	\$ 197,304	\$ r70,648	r26.4%
Detail of clubhouse operation					
Food and beverage net departmental profit	35.8%	33.2%	\$ 550,436	\$ 54,161	10.9%
Rooms, locker rooms and other sources of income—net	9.4	8.1	144,992	24,263	20.1%
Total	45.2	41.3	695,428	78,424	12.7
Undistributed operating expenses					
Clubrooms	16.0	15.5	246,288	15,187	6.6
Entertainment	3.7	3.5	57,223	4,388	8.3
Administrative and general	34.9	32.7	537,013	48,562	9.9
Heat, light and power	10.6	9.9	163,189	14,688	9.9
Repairs and maintenance	10.7	8.5	164,986	38,307	30.2
Total	75.9	70.1	1,168,699	121,132	11.6
Net clubhouse cost—above	30.7%	28.8%	\$ 473,271	\$ 42,708	9.9%
Restaurant sales					
Food			\$1,732,704	\$ 125,061	7.8%
Beverages			1,168,212	74,606	6.8
Total			\$2,900,916	\$ 199,667	7.4%
Total sales and other income†			\$3,529,488	\$ 248,057	7.6%
Payroll					
Restaurant			\$ 823,794	\$ 46,154	6.0%
Total club			1,908,606	\$ 128,225	7.2

M—thousands.

* Dues plus assessments in five clubs.

r—red figure.

† Excluding income from dues and initiation and transfer fees.

or entrance fees: one by \$25, two by \$250, four by \$300, two by \$500 and one by \$1,000. The annual assessments per member were slightly higher in two clubs, while one club which had assessed its members \$250 each in 1954 did not collect an assessment in 1955.

Of the clubs reporting dues as to classes, the small clubs reported that the "regular" members who constituted 60% of their membership contributed 71% of the dues

income. The large clubs reported that the regular members constituted 54% of the membership and contributed 77% of the dues income.

Golf Course Upkeep Rises

The cost per hole for the upkeep of the golf course and grounds averaged \$2,022 for the small clubs and \$2,601 for the large clubs, rises of 8% and 7%, respectively, over the preceding year. In ratio to

Summary of Operations, 1955 and 1954

14 Large Country Clubs

(Dues of \$150M to \$250M)

	Ratios to Dues and Assessments		Amounts 1955	Increase or Decrease from 1954	
	1955	1954		Amount	Percentage
Membership dues	96.6%	93.5%	\$2,401,596	\$ 113,674	5.0%
Assessments	3.4	6.5	85,405	r72,570	r46.0
Total	100.0	100.0	2,487,001	41,104	1.7
Deduct net cost of operations					
Clubhouse (detail below)	42.5	42.4	1,057,084	19,239	1.9
Golf, grounds and outside activities	33.3	31.5	827,486	56,658	7.4
Total	75.8	73.9	1,884,570	75,897	4.2
Net before fixed charges	24.2	26.1	602,431	r34,793	r5.5
Rent, taxes and insurance, and interest	16.3	15.4	406,675	30,718	8.2
Dues* available for depreciation	7.9%	10.7%	\$ 195,756	\$r65,511	r25.1%
Detail of clubhouse operation					
Food and beverage net departmental profit	18.1%	15.5%	\$ 449,869	\$ 70,354	18.5%
Rooms, locker rooms and other sources of income—net	5.2	4.9	128,482	9,486	8.0
Total	23.3	20.4	578,351	79,840	16.0
Undistributed operating expenses					
Clubrooms	15.3	14.9	380,546	15,737	4.3
Entertainment	2.9	2.4	69,331	9,910	16.7
Administrative and general	31.5	30.0	783,230	51,506	7.0
Heat, light and power	8.1	7.8	202,360	10,812	5.6
Repairs and maintenance	8.0	7.7	199,968	11,114	5.9
Total	65.8	62.8	1,635,435	99,079	6.4
Net clubhouse cost—above	42.5%	42.4%	\$1,057,084	\$ 19,239	1.9%
Restaurant sales					
Food			\$2,151,910	\$ 134,090	6.6%
Beverages			1,254,154	\$ 56,982	4.8
Total			\$3,406,064	\$ 191,072	5.9%
Total sales and other income†			\$4,175,148	\$ 284,107	7.3%
Payroll					
Restaurant			\$1,114,727	\$ 42,895	4.0%
Total club			2,736,950	149,876	5.8

M—thousands.

r—red figure.

* Dues plus assessments in five clubs.

† Excluding income from dues and initiation and transfer fees.

total dues and assessments, the gross maintenance cost of the golf course and grounds in the small clubs was 41.4%, an increase of 2 points over 1954, while in the large clubs the maintenance cost was 32.0% of dues and assessments, an increase of 1.6 points. We wish to point out that this cost does not include any fixed-asset costs (improvements, additions, replacements or depreciation), nor any fixed charges, such as real estate taxes and interest on bor-

rowed capital.

In conclusion, we wish to point out that the value of this study to a particular club is entirely dependent upon the ways in which the data are used. Since the "Uniform System of Accounts for Clubs" is followed in compiling the study, the results of those clubs already following the system will be most easy to compare with the operating results shown in this study.



THE REFEREE

Decisions by the Rules of Golf Committees

Example of symbols: "USGA" indicates decision by the United States Golf Association. "R & A" indicates decision by the Royal and Ancient Golf Club of St. Andrews, Scotland. "56-1" means the first decision issued in 1956. "D" means definition. "R. 37-7" refers to Section 7 of Rule 37 in the 1956 Rules of Golf.

Handicap For 36 Holes

USGA 55-43—Revised Handicap

(Note: This supersedes Decision 55-43 dated September 6, 1955.)

Q.: We held a two-day two-ball (four-some) handicap tournament. The members of a team had handicaps of 10 and 9. I gave them 10 as we were using one-half of combined handicaps. I deducted the handicap of 10 from each day's play as I have always done in this type of tournament. Example—78-10-68; 80-10-70; total 138.

One of the contestants claimed we should take the two days' gross and deduct 19, this being the full total of the individual handicaps of the two partners who were handicapped at 10 and 9.

What is the proper method?

On the schedule the tournament was listed as follows: July 30, Medal play, Two Ball Handicap Tournament, First Round. July 31, Medal play, Two Ball Handicap Tournament, Final Round.

Question by: C. T. MACMASTER
Pikesville, Maryland

A.: USGA handicaps are 18-hole handicaps and should apply to each 18 holes

played, irrespective of the number of holes played in any given competition.

In the example you cite, the team should receive a 10 handicap for each day's play.

Ball Accidentally Moved

USGA 56-24

D. 3; R. 27-1c

Q.: In a match between A and B, A's second shot enters an area marked "Ground under Repair". In searching for his ball A accidentally moves it, then lifts his ball and drops it outside the designated area, under Rule 32-1a. A claims that he lies two, whereas B claims that A has incurred a penalty under Rule 27-1c for having accidentally moved his ball. A takes the position that no penalty was incurred since it was not his intention to play the ball from the Ground Under Repair area when found.

Question by: FRED O. TILSON
Pinehurst, N. C.

A.: B is correct.

A's ball was in play (Definition 3) when he accidentally moved it. A therefore violated Rule 27-1c and incurred a penalty of one stroke.

A had the option of playing his ball as it lay after it was accidentally moved or taking relief under Rule 32-1.

An Extra Club

R. & A. Decision

(USGA 56-23)

R. 3 and Note, 11-4, 36-5, 40-3h, i.

Q.: The incident occurred during a first round match in our annual four-ball Match Play Trophy. The match, as per rule, commenced at our 9th tee and the sides were A and B versus X and Y.

After playing 13 holes, X and Y were five down and the players were standing on the 4th tee (the 14th of their match) when X discovered and announced to all of the other players that A had fifteen clubs in his bag. This fact was accepted.

The match proceeded, A and B won the 14th hole and were accepted by X and Y as the winners. A still had 15 clubs in his bag. X has now reported the foregoing facts to the Handicap Committee, which Committee is responsible for running the competition, at the same time stating his side was fairly and squarely beaten, furthermore that he does not wish to apply for a replay.

The Committee are fully conscious that the Rules of Golf have been broken but are at a loss to know how to apply Rule 3 to one of a side in a four-ball match, alternatively how to apply Rule 40-3 paragraph h and/or i. Furthermore, would like guidance as to whether the power granted under Rule 36-5 could be applied without creating a dangerous precedent.

Question by: DARTFORD GOLF CLUB, LTD.
Dartford, Kent

A.: Since A had violated Rule 3 at every hole he played, he must be treated as having lost each one. It is irrelevant that X and Y have not lodged any claim; your Committee have a duty to review the case under the Note to Rule 3.

On a strict application of Rule 40, the penalty does not extend to the partner, and the result of each hole played should be recalculated, awarding it to X and Y in every case where it cannot be established that B holed out to secure a half or a win, or that X and Y conceded the hole to B alone; the match should then

continue at the 15th hole with the state of the match revised.

This is almost certainly impossible due to the number of holes affected, apart from the lapse of time. While Rule 3 leaves the decision in the discretion of your Committee, the Rules of Golf Committee consider that they are bound to act in this case and that it would be inappropriate to invoke Rule 36-5 in a clear example of a serious breach of an important Rule.

B cannot benefit from his partner's infringement and the only practicable course is to award the match to X and Y on grounds of equity (Rule 11-4).

Penalty Is Disqualification For Quitting Course

R. & A. 56-38

R. 37

Q.: Four players playing together in an eighteen hole four-ball competition (stroke play) thought that they heard a distant rumble of thunder but saw no lightning. They were playing the second hole of the round; it was not raining. They did not take shelter and continued to play a further five holes. At this point, rain began to fall and although there was no more thunder or any lightning they took shelter. When the rain had eased off a little the players completed the round.

Questioned about the matter by the Committee in charge of the competition, the players stated that they considered it quite in order for them to take shelter, as they had heard thunder while playing the second hole and referred to Rule 37-6a. On being asked why they did not take shelter on the second hole, one of the players replied, that "it was not raining then".

The Committee in charge of the competition are divided in their opinion as to whether the players concerned should be disqualified or not.

A.: You have stated as a fact that at the time the players discontinued play there was no thunder or lightning, the last evidence of thunder having been five holes back. If your Committee is satisfied that this was so, the players should be disqualified.

ified under Rule 37-6. It is not clear from your letter whether the players reported to the Committee that they had discontinued play as required by Rule 37-6. If they did not, they should be disqualified on this ground also. It is emphasized that whether or not players were justified in discontinuing play under Rule 37-6 is a matter to be decided by your Committee after full consideration of the conditions.

Flagstick Attended by Partner

R. & A. 56-40
R. 34, 40

Q.: A and B are partners in a four-ball match. A approaches his ball to putt and B, unasked, approaches and stands near the hole. As A strikes his putt, B takes hold of the stick and is holding it when the ball strikes the stick. I take the view that B must be deemed to be attending the stick and that A loses the hole. (Rule 34-1 and 34-2.)

My opinion, however, has been challenged on the ground that A did not ask B to attend the stick and did not know that B was holding or attending the stick until after he (A) had struck his ball. It seems, however, that B is not penalized (Rule 40-3b) unless Rule 40-3h can be made to apply.

For my part, I cannot see how Rule 40-3h can possibly apply in such a case. B is certainly assisting his partner's play but not "so as to assist his partner's play". Rule 40-3h appears to me to apply only when there is an intentional infringement, e.g. when the player's ball is moved by the partner intentionally and not accidentally (see Rule 40-3d).

A.: The flagstick is always under the control of the player about to play. The player, before playing, should make it clear whether he wishes the flagstick to be attended or left alone. If, without making his wishes known, he plays his stroke when another player or caddie is standing near the flagstick, he must be assumed to have given his tacit assent to the flagstick's being attended. If his ball then strikes the flagstick, he suffers the penalty laid down

in Rule 34-2. Accordingly, A cannot come into the reckoning at this hole.

The penalty in this case does not apply to A's partner, Rule 40-3i. Since B's infringement of Rule 34 did not help his partner's play, Rule 40-3h does not apply.

Flagstick Attended

R. & A. 56-42
R. 34

Q.: The following query has been raised and an official ruling on the point at issue is requested.

In a four-ball, foursome or greensome match, can a player instruct his partner to attend the flagstick, leave the stick in while the player is playing his stroke but remove the stick if the ball looks like going down—for example, when a long putt is being played?

A.: In the circumstances described the flagstick is "attended" in accordance with the procedure laid down in Rule 34. It follows that if, due to the partner's failure to remove the flagstick, or in any other way, the ball strikes either the stick, the partner or equipment carried by him, a penalty of loss of hole will be incurred.

Wall Across Fairway

R. & A. 56-43
Def. 20, R. 31

Q.: Across the 5th and 6th fairways of our course runs a stone wall about 5 feet high. It has always been regarded as a hazard of the course, but since Rule 31 came into force this tradition has often been questioned.

On behalf of the competitions committee, I now seek rulings on these points:

1. Must we declare the wall an obstruction under Rule 31-2?
2. If the wall is not so declared, can the wooden stile be declared an obstruction in itself?
3. In Rule 31-2 last sentence—who is the judge as to whether interference exists?

A.: The wall in question is an obstruction (Def. 21) and a player is entitled to relief as stated in Rule 31-2. If such relief would, in the opinion of the Committee,

interfere with the proper playing of the game on the ground that the wall forms an integral part of the design of the course, a local rule may be introduced stating that walls within the boundary of the course are not obstructions, and that relief under Rule 31-2 is not permitted.

If necessary, the stile may be declared an obstruction in itself.

Whether or not a player's stance, stroke or backward swing for the stroke in the direction in which he wishes to play are interfered with by an obstruction is a question of fact to be decided in cases of doubt by a referee or, failing agreement between the players in the absence of a referee, by reference to the Committee.

Playing First Or Lifting

R. & A. 56-46
R. 35

Q.1: Under Rule 35-3b may the fellow-competitor lift his ball rather than putt it, if he considers that by playing first he may be assisting the competitor, e.g. by giving him a line to the hole?

A.1: No. Under Rule 35-3b—Ball Assisting Play—a fellow-competitor must play first. He has not the option of lifting.

Q.2: Under Rule 35-2a, I take it that if the player considers that the opponent's ball interferes with his play and therefore asks him to lift it, the opponent does not have the right to putt it instead of lifting it. Is this correct?

A.2: You are correct.

Caddie May Precede Player

R. & A. 56-47
Def. 7; R. 16, 32, 37

Q.: We have a problem at our Club which pertains to Rule 37-2, and we would be grateful if you would clarify the rule for us. We have on our course three holes which run parallel to each other, two hundred to two hundred and fifty yards in length. These holes have a rise in ground between them and their respective tees, and consequently they are blind holes, but have guide posts on the top of each hill to indicate the line of play.

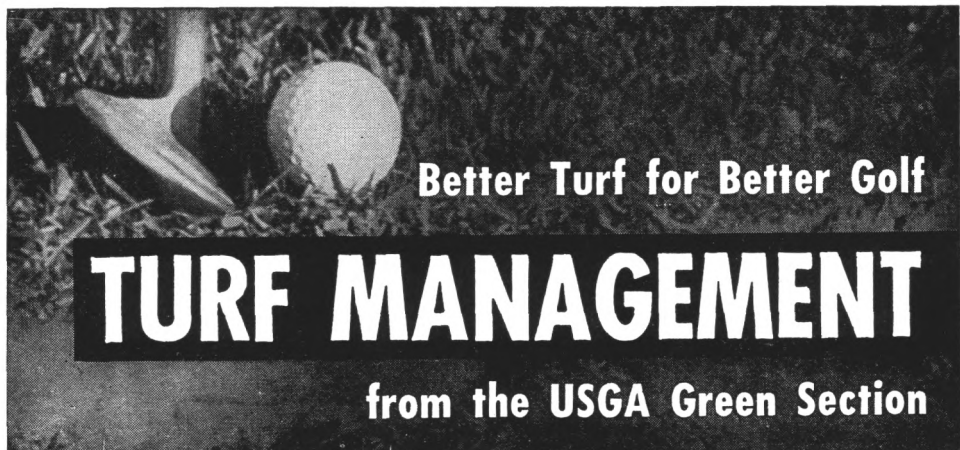
It has been the practice for years now for players to send their caddies forward to the top of each hill to watch the flight and direction of the balls; and, assuming the balls are hit well, they go over the hill and out of sight of the player. The caddies then go over the hill, out of sight and control of the player, and proceed to find the balls which could be on the fairway or in the rough. The caddies are standing near the ball, and could have improved the lie or worsened it, if they so desired, before the player arrives at the place where his ball has stopped.

Rule 37-2 states definitely that, "The player may not employ anyone to act as a forecaddie." Quite a few members and myself interpret this rule that the player is employing his caddie to act as a forecaddie and is therefore disqualified. I would like to know what you can do with your caddie, i.e., is he just a bag carrier who stays with you, or can you send him forward at blind holes to watch the ball and indicate the position of the ball, that is, to go near the ball out of your sight and wait for you to arrive.

We also have cattle on two holes and consequently have a little trouble with manure. We have a local rule allowing the player to lift and drop behind, on the fairway, but not if on manure in the rough. Surely the player can lift and drop his ball off manure on any part of a golf course, that is, through the green without penalty.

A.: There is no reason why a player should not send his caddie forward to mark his ball at a blind hole. A player, however, is at all times responsible for the actions of his caddie, who is never an agency outside the match. If a player's caddie moves a player's ball deliberately, the player is penalized under Rule 16. It is a matter for your Committee to deal with any infringement of the Rules.

The words "rough" and "fairway" are neither used nor defined in the Rules of Golf, and it is considered that they should be omitted from your local rule dealing with cattle dung. If dung cannot be dealt with as a loose impediment, relief should be given as in Rule 32-1.



Better Turf for Better Golf

TURF MANAGEMENT

from the USGA Green Section

THE NEMATODE OUTLOOK IN TURF

By GENE C. NUTTER

Assistant Turf Technologist, University of Florida Agricultural Experiment Station

ALTHOUGH nematodes have been described in written records since biblical times, plant nematology was not recognized until 1855 when Berkeley (1) associated root galls on cucumbers with nematodes. From then until 1940, work in plant nematology dealt largely with the root-knot organisms. However, since 1940 there has been greater recognition of other kinds of plant parasitic nematodes.

In 1951, Tarjan and Ferguson (9) reported nematodes with the "yellow tuft" disease of bentgrass in Virginia. Damage by stubbyroot nematode (*Trichodorus spp.*) was found in Florida by Kelsheimer and Overman (5) on St. Augustinegrass in 1951 and on improved bermudagrass in 1952. Sting nematode (*Belonalaimus gracilis*) was discovered in heavy infestation in the bermudagrass turf nurseries at the University of Florida in 1953.

Within the past two or three years, increasingly more attention has been given to nematodes as parasites on turfgrasses. Surveys conducted in Rhode Island by Troll and Tarjan (10) and in Florida by Christie, et al. (2) indicate that several species of nematodes may be causing serious damage on both northern and southern turfgrasses as either primary or secondary plant invaders. Following their survey in

Rhode Island, Troll and Tarjan stated pointedly that "the old idea about nematodes not causing significant damage in colder climates is fallacious." As such work continues and is expanded to other areas, undoubtedly new parasitic species will be revealed and the nature of presently recognized forms better understood.

Description and Symptomology

Nematodes, called "eelworms" by the British, are members of the animal kingdom, very small to microscopic in size. They are found in almost all soil environments as part of the natural biologic complex. A heavy population may number thousands in a handful of soil. However, many of these myriads of nematodes are not parasitic to plants. In fact, some are useful in the breakdown of organic matter, while some are predatory on other nematodes and on insect life.

Parasitic forms of nematodes feed on plant rootlets. Some forms (called ectoparasites) attack the small feeder roots and root hairs externally while other forms (endoparasites) move inside the roots to feed. Infested roots become stubbed-off, restricted, and appear brown and necrotic. In extreme infestations, root hairs and feeder roots may be destroyed and the en-



Research Assistant Robert A. Lagasse, of the University of Florida Nematology Laboratory, is collecting nematodes in Baermann funnels for later identification and counting.

tire root system may be reduced in depth to less than two inches. In addition to direct damage, lesions formed by the feeding nematode may become ports of entry for root rot organisms and other fungi. Under such circumstances the secondary organisms may cause more damage than the nematodes.

Several visual symptoms are associated with nematode damage to turfgrasses. The infestation will usually begin in a localized area and spread outward from this center. In the early stages of damage the turf will begin to show loss of vigor. Gradually the turf will become thin and exhibit a "melting out" or dieback condition. More intensive management will be required to maintain growth. As damage progresses a spreading chlorotic condition will develop and the grass will no longer respond to treatment. Finally, the turf will show

serious wilt, numerous symptoms of malcondition and a severe state of decline in both above and below ground parts. The increasing inefficiency of the root system to supply the water and nutrient requirements of the turf is largely responsible for the diseased and declining condition of the above ground parts of the grass.

Positive Identification

While the above ground appearance of the turf can be used as one of the signs of nematode injury, this criterion alone should not be relied upon for diagnosis. Numerous other factors may cause similar vegetative symptoms. Mineral supply, general nutritional status, improper water relations, poor soil aeration, disease, and complexes of these and other factors may be primary causes of turf decline.

Since nematodes are receiving increased

popular emphasis, there will be an increasing tendency in many cases to blame nematodes for turf damage caused by some of the above mentioned aspects of poor management. In such cases considerable money and effort will be spent in applying materials for nematode control, only to result in lack of response and disappointment. Therefore, it is essential that strong emphasis be placed on proper diagnosis of nematode damage before control measures are taken. It will probably be a long time (if ever) before we have enough specific information on symptoms to reliably use vegetative characteristics alone for identification of nematode injury.

Since nematodes are soil inhabiting pests, it is necessary to go underground to find them. Even then, the mere presence of nematodes does not prove cause of turf decline. As already mentioned, the soil may contain many species of nematodes not parasitic to plants. Furthermore, nematodes that cause damage to other plants may not injure turf grasses. An example is the well known root-knot nematode group (*Meloidogyne spp.*). This group has long been recognized as a pest of many cultivated plants, yet has not been considered a problem on turf.

It follows, then, that diagnosis of nematode damage requires positive identification of recognized parasites by a trained worker. Adapted laboratory procedures and equipment are necessary. Identification service is performed by a number of state and federal laboratories. Some commercial concerns are establishing such laboratories and providing trained technologists to offer both research and extension identification service.

Sampling for Nematode Analysis

Proper collection and preservation of samples is of paramount importance in the identification of nematodes. These very small animals seem to develop in population centers. Although individual nematodes probably do not migrate far, populations may develop rapidly under favor-

able conditions. Unless the suspicious area is thoroughly and uniformly sampled, the analysis may not give a true picture of the species involved and of the actual degree of infestation.

Several samples should be collected from the fringe immediately around the area of heaviest damage and also from relatively healthy areas. Each group of samples should be mixed into a composite sample representing each of the respective turf areas. At least a pint of soil should be submitted for each laboratory determination. Comparison of such contrasting areas often reveals important facts useful in diagnosis. Dead areas of grass should not be sampled for nematode analysis. Nematodes feed largely on live root tissue and once this food supply is dead or exhausted, the population will die off or migrate to the fringe areas in search of fresh food. For this reason, the largest nematode population will often be found in the fringe areas adjacent to dead or badly declining patches of turf.

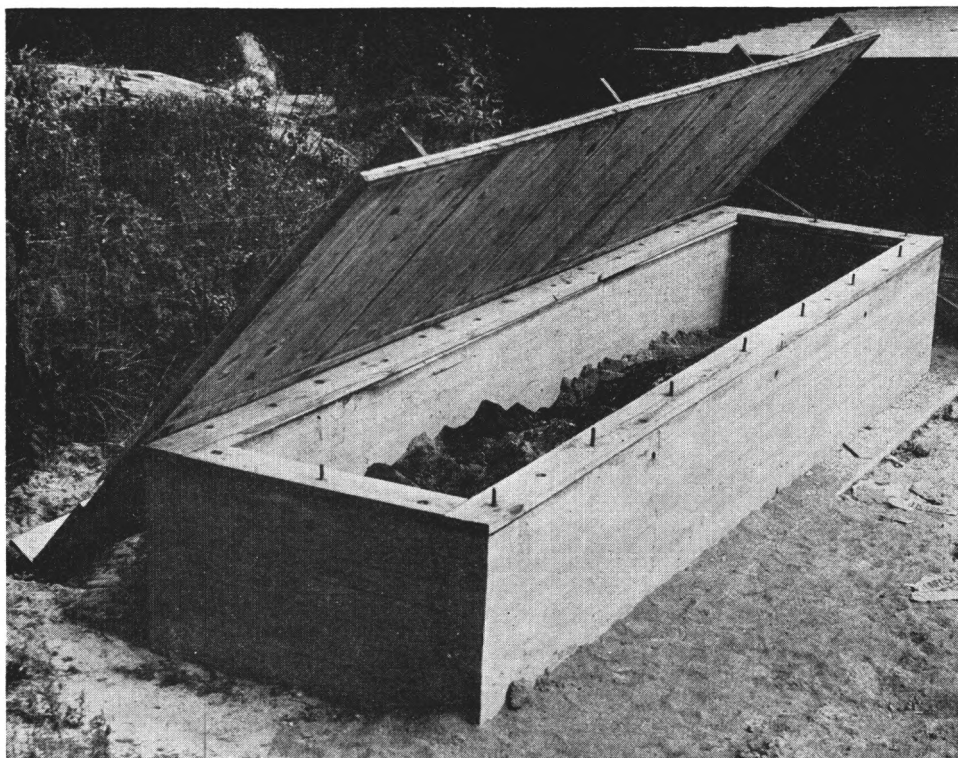
It is extremely important that samples for nematode investigation arrive at the laboratory in a moist condition. Dry soil and dead or dessicated grass samples are not suitable for laboratory identification procedures. Samples should be collected when the soil is moist (but not saturated) and packaged in protective containers which will prevent loss of moisture by evaporation. Plastic bags are excellent for this purpose.

Nematode Control

Control of nematodes in turf may be divided into three phases: 1) in the plantbed, 2) topdressing sanitation and 3) in established turf.

Plantbed Sterilization

Much work has been done on plantbed sterilization, or fumigation, for the control of nematodes. Several effective chemicals have been developed and are in widespread use as plantbed sterilants. Some of these materials are D.D., E.D.B., chloropicrin and methyl bromide. Steam has been



This is a soil sterilization bin used to treat topsoil material at the University of Florida Turf Research Nurseries. The bin is made of reinforced concrete with counterbalanced, air tight lid. Methyl bromide is introduced through five entry ports around the sides.

used very effectively for such intensive operations as nursery or greenhouse beds. Newer materials being evaluated include allyl alcohol, Craig's Experimental Material 974 and Stauffer's Vapam. Comparative properties of these various materials have been discussed (6).

Where turf is being established in areas found to be infested with parasitic nematodes, soil sterilization is a basic requirement. On more valuable areas such as greens, tees and high quality lawns, it would be wise to select a sterilant also effective against weeds and weed seeds. The upper 10-12 inches of putting green topsoil could be sterilized in bins before it is placed on the green. It is more practical, however, to sterilize the topsoil in place on the green after grading, leveling, and mixing have been completed. It should be

pointed out that on golf greens the effective depth of sterilization should exceed the depth of the cup cutter. Otherwise, the green will become re-infested in the routine process of changing the cup.

Toppedressing Sanitation

A nematode-free green may be infested by the use of contaminated toppedressing materials. It is poor management to risk infestation of nematodes on newly planted, sterilized greens or tees. This is entirely a matter of toppedressing sanitation. Sterilization bins for handling topsoil and toppedressing materials (similar to the one illustrated) can be constructed easily and inexpensively. Methyl bromide has proven to be one of the most effective and practical materials for this type of sterilization.

Gas-type sterilants are more suitable and effective than drench type materials for

compost sterilization. Drenches must be applied in high gallonage to uniformly wet the loose soil and avoid channeling effects. Large volumes of water cause drainage problems around the compost bin, leach away valuable nutrients, and leave the top-dressing in a wet and unusable state.

Where sterilization bins are not available, compost material may be spread upon the ground in long, shallow piles, covered with sheets of plastic and quickly sterilized with methyl bromide. This relatively cheap but very important process insures nematode, weed, disease and insect free top-dressing material for producing high quality greens.

In Established Turf

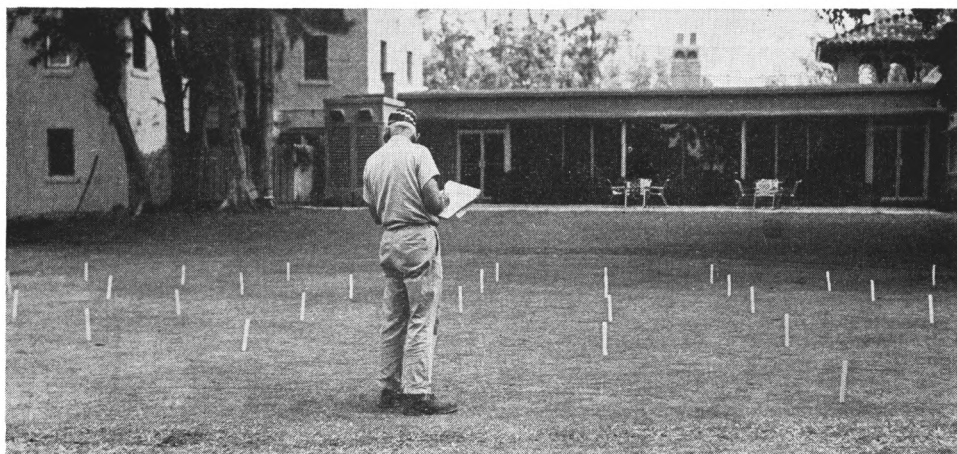
While pre-planting sterilization is effective in controlling nematodes in the plantbed, reinfestation may occur in time as the population from below the sterilized zone migrates back into the root zone. Periodic examination and analyses will be needed to check on this situation.

Until recently there was no way to control nematodes in established turf. The materials used to sterilize plantbeds could not be used on established turf because they were highly toxic to the turf as well as to the nematodes. As the nematode

population increased, the turf gradually declined to the point where complete renovation and plantbed sterilization were again necessary. It was fortunate that while recent surveys and preliminary research were discovering the serious nature and distribution of nematode damage on turf, industry had anticipated this problem. At almost the same time, Goodrich, Shell and Virginia-Carolina Chemical Companies introduced chemicals which showed promise for nematode control in established turf. Both industry and the turf research centers immediately began testing these materials. To further investigate nematode problems in turf and to initiate control studies, research grants were placed at the Florida Agricultural Experiment Station by each of the three above mentioned companies. The U. S. Golf Association Green Section added a sizeable amount of money to augment the scope of these studies. Some preliminary results have been published (7). The work is being continued and expanded during the current year.

Much Research Needed

Results to date from the Florida investigations have brought out some useful facts and emphasized some problems concerning nematode control in established turf. The need for more information on the basic



Colonel Frank Ward, of the Bradenton Country Club, Bradenton, Fla., is shown recording turf conditions on a practice green following treatment for nematode control. The green was heavily infested with lance, ring and sting nematodes.

biology and cultural relationships of the various parasitic nematodes has become evident. Information is needed on the influence of temperature, soil moisture and other environmental factors on the fluctuation of nematode populations. It is obvious also that detailed study on nematode control must be carried out with each chemical for each species of nematodes. For example, all three of the original materials tested (Nemagon, Nemakril and VC-13) brought about turf improvement on a heavily infested St. Augustine turf. However, application of these materials did not result in a clear-cut reduction in nematode population. Three species of parasitic nematodes were involved in the study and each species responded differently to treatment. Furthermore, there was considerable variation among species as to seasonal activity in both treated and untreated areas.

Although turf improvement resulted from treatment, it cannot be explained on the basis of reduction in nematode population. While turf improvement is the ultimate goal of control efforts, population behavior must be explained before treatment results can be understood and recommendations reliably made. At present little is known about the adaptation, life cycles, mobility, host preference and resistance, and ecology of these newly discovered turf parasites. We are not really sure what constitutes a threatening population level. It is quite possible that differential behavior among species of nematodes might account for some of the differences in nematode behavior following treatment. To answer this and other important problems, we will have to look to expanded research.

Suggested Approach to Nematode Control

As the nematode problem becomes more widespread and recognized throughout the country, need for control will also rise. It is obvious that golf superintendents and other workers in turf must face the problem and make the most practical attempt at control. In this light, and until ex-

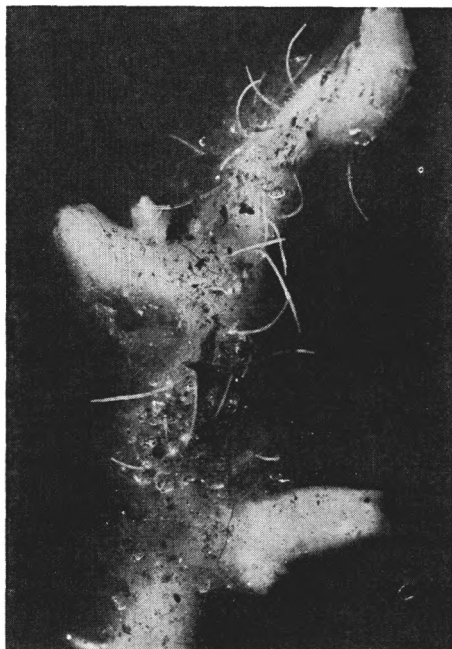


Photo courtesy by Dr. J. R. Christie

This is a close-up showing a root heavily infested with lance nematode, an internal parasite.

panded research will permit official recommendations, the following steps are suggestions for approaching the nematode problem:

1. Maintain the turf under a good nutritional status with proper regard for pH and major and minor element balance.
2. Be thoroughly familiar with insect problems of the area—their symptomology and control.
3. Know the principal disease of the area—the environmental relationship and appearance of all stages of infestation.
4. Maintain proper soil moisture-aeration relationships. Avoid compaction, water logging and mat formation.
5. Make periodic inspection of the root system. If appearance suggests nematode damage and the above factors are not involved, have nematode tests conducted by a qualified nematology laboratory.

Follow good sampling procedure and sample all suspicious greens, tees and similar turf areas.

6. If nematodes are found which are known parasites on turf grasses, set up a spot test on a small section of infested area, applying available materials at company recommendation.
7. Base extensive control efforts on results of spot tests. Be sure to allow sufficient time for materials to react before making evaluations.
8. Following treatment, practice careful sanitation with topdressing materials and equipment to avoid re-contamination of treated areas.
9. On newly constructed greens, tees, and fine turf areas *strongly consider* use of general plantbed sterilant before planting.
10. Keep in contact with USGA Green Section Directors, Turf Research Centers and commercial representatives for latest information on nematode problems and control recommendations.

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MOWING AND THE THATCH PROBLEM

FOR many years frequent topdressings of bent greens was considered necessary. In the past ten years topdressing has been used only when it was desired to smooth up the putting surface or change the soil structure. This change in maintenance practices has caused a new problem. An accumulation of stems and leaves, called thatch or mat, has built up on the surface of the greens, interfering with the circulation of air and water. As most of the fungi damaging to fine turfgrasses attack the grass above the soil line, we have an excellent breeding place in the thatch.

Overwatering, poor air circulation, high humidity and temperatures spell ruin for a heavily thatched green. Raking, brushing, aerifying and vertical cutting devices help control this thatch accumulation, but do not answer the problem completely. How does the design of our putting green mowers fit into the thatch picture?

Could the design of our present putting green mowers be one of the causes of thatch? We set the cutting height with a gauge or from a level surface. We do this very carefully and then go out to mow greens. All our careful adjusting goes for naught. With the cutting mechanism mounted between the guide points, (the front roller or caster and the rear roller)

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we cannot duplicate the conditions under which the height of cut was set. We have the front roller or caster riding on unmowed grass and the rear roller on mowed areas. Therefore, a mower set to cut at $\frac{1}{4}$ inch on the bench in the shop will not cut $\frac{1}{4}$ inch above the soil on the green. The cut will be higher in proportion to the amount of growth the front roller or caster rides on and raises the front of the mower.

Suppose, due to drastic methods of raking, verticutting or other means, we have a putting surface on our greens $\frac{1}{4}$ inch above the soil line on April 15th. We mow greens on April 16th and the front roller or caster is riding on one day's growth. The thickness of a blade of bentgrass is about .004 and the diameter of a stem is about .020 of an inch. Suppose that this amount of one day's growth raises the cutting edge .005 of an inch above the $\frac{1}{4}$ inch above the soil line achieved the day before. There are 168 days between April 15th and October 1st. If we gain .005 of an inch per day we will find our cutting edge 1.09 inches above the soil line on September 30th. ($168 \times .005$ plus .250)

In past years frequent topdressings raised the soil line and counteracted a great part of the above condition, as long as we were careful to avoid layers of grass and soil. Now we use other methods to combat the accumulation of leaves and stems, but, from personal experience and observation, success is questionable.

What are we trying to do when we mow greens? Are we trying to maintain a definite amount of grass between the soil line and the putting surface or are we trying to remove a definite amount of grass from the green? If we are trying to maintain a definite height above the soil line, perhaps we need a mower to establish that height of cut and another mower designed with the cutting unit out in front of the mower and the machine supported by the predetermined mowed surface. If we are trying to remove a definite amount of

COMING EVENTS

1956

September 5-6

(Wednesday afternoon and Thursday Morning)

Penn State Field Days
Pennsylvania State University
University Park, Pa.

Prof. H. B. Musser

September 17-18

Midwest Turf Field Days
Purdue University
Lafayette, Indiana

Dr. William H. Daniel

September 25-26-27

Florida Turf Conference
University of Florida
Gainesville, Fla.

Dr. Gene C. Nutter

September 25:

St. Louis District Golf Assn. Field Day
St. Louis, Mo.

September 26-27:

Northwest Turfgrass Conference
Washington State College
Pullman, Washington

Prof. A. G. Law

September 28-29:

Utah Turfgrass Conference
Utah Copper Golf Course
Magna, Utah

J. W. Richardson

October 1-2:

Rocky Mountain Turfgrass Conference
Colorado A & M College
Fort Collins, Colo.

Prof. G. A. Beach

October 4-5:

New Mexico Turfgrass Conference
New Mexico College of Agriculture & Mechanic Arts

State College, N. M.

Prof. C. E. Watson

November 12-16:

American Society of Agronomy Meetings
Cincinnati, Ohio

grass from the green, it appears we should have a mower designed with the cutting unit in the rear, set to cut the amount of grass we want to remove and the mower supported on the unmowed grass.

Water Storage In a Cubic Foot of Soil

These figures can guide you in the correct application of water. To be sure, use a soil probe and find out how deeply you are watering and how wet the soil is.

Type of Soil	Gallons
Fine sand5
Sandy loam9
Loam	1.1
Silt loam	1.3
Silty clay	1.35

IT'S YOUR HONOR

Flagstick Rule

TO THE USGA:

The suggestion has been made that the new flagstick rule, #34, will accelerate play and lessen wear to the green. The contrary seems to be the result. We find now in three and four-ball matches that the first player to putt asks that the flagstick be removed, the second wishes to have it replaced, the third wants it removed again, and the fourth replaced again, and so on, with the caddie running back and forth with the flagstick from the edge of the green, delaying play and certainly causing needless wear to the green.

Also, one cannot escape the feeling that leaving the flagstick in for chips and putts increases the element of luck and lessens the skill required for the shot.

The new rule governing marking of balls—#35—is also of questionable value in speeding play, in view of the fact that most golf is played under three-ball, best-ball and four-ball rules, which permit marking of the ball by any player (Rule 40, 1a). In singles matches (two-ball), giving the player about to putt the advantage of a double backstop of the flagstick and his opponent's ball which has come to rest just beyond or beside the hole also detracts from the skill of putting and increases the element of luck.

RICHARD S. SILVER
NEW YORK, N. Y.

Commendation

TO THE USGA:

Speaking for Charles "Babe" Lind, Supervisor of Golf, and myself, this means is taken to tell you how much we appreciate the fine work of William H. Bengeyfield, the Western Regional

Director of your Green Section. The time he devoted to our problems and the recommendations he has made should greatly improve the condition of Denver's municipal golf courses.

J. EARL SCHLUPP
DIRECTOR OF RECREATION
DEPARTMENT OF PARKS AND
RECREATION
DENVER, COLO.

Wonderful Match

TO THE USGA:

As Captain of the British Isles Curtis Cup Team I would like to thank you, on behalf of the Team, for your telegram of congratulations upon our victory. It was a wonderful match played in a grand spirit and in very difficult weather conditions. We are very thrilled to have won this year. We all thoroughly enjoyed meeting your team.

The British Ladies' Golf Union is already looking forward to the next match on American soil.

MRS. ZARA BOLTON
PORTRUSH, N. IRELAND

Champion Honored

TO THE USGA:

It is with pleasure, and indeed a sense of great honor, that I accept your invitation to forward a golf ball I used in winning the 1956 USGA Amateur Public Links Championship for display in "Golf House."

The ball I am sending is the one I used to hole a 33 foot putt on the 31st hole to go 3 up on Bill Scarbrough. I believe this was the hole that really decided the match.

I wish I could also send you a golf club. However, the clubs I was using were borrowed and I hardly think the boy would go for the idea of my breaking up his set.

JUNIE BUXBAUM
MEMPHIS, TENN.

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