



USGA JOURNAL

AND
TURF MANAGEMENT

THE AMATEUR RETURNS TO PEBBLE BEACH



The rushing waters of California's Carmel Bay break against the rocks on the beach below the 7th green at the Pebble Beach Golf Links, site of next month's Amateur Championship. The story of one of the great oceanside courses and the four USGA Championships held there in the past begins on page 4.

AUGUST, 1961



USGA JOURNAL

AND
TURF MANAGEMENT

Published by the United States Golf Association

© 1961 by United States Golf Association. Permission to reprint articles or material in the USGA Journal and Turf Management is granted to publishers of newspapers, periodicals and books (unless specifically noted otherwise), provided credit is given to the USGA and copyright protection is afforded. Neither articles nor other material may be copied or used for any advertising, promotion or commercial purpose.

VOL. XIV, No. 4

AUGUST, 1961

Through the Green	1
Pebble Beach: Johnston Got His Feet Wet	4
Sikes' Haste Not Waste in Public Links Victory	8
Golf Knowledge an Asset to Course Superintendent	11
Mickey Wright Has a Day to Remember at Baltusrol	14
Do You Know Your Golf	16
A Procedure for Measuring Golf Holes	
Minnesota Golf Course Superintendents' Association	17
Golf Is Everyone's Game	19
The Referee: Decisions Under the Rules of Golf	22
Turf Management:	
Returfing Greens at the Country Club of Rochester	
Charles Baskin, Jr.	25
Rhizoctonia Solani in Relation to Maintenance of Golf Courses	
R. J. Lukens and E. M. Stoddard	27
An Improved Method of Transplanting Large Trees	31
A. M. Radko	33
It's Your Honor: Letters	

Published seven times a year in February, April, June, July, August, September and November by the
UNITED STATES GOLF ASSOCIATION
40 EAST 38th ST., NEW YORK 16, N. Y.

Subscription: \$2 a year. Single copies: 30c. Subscriptions, articles, photographs, and correspondence should be sent to the above address.

Second Class Postage Paid at Pinehurst, N. C.

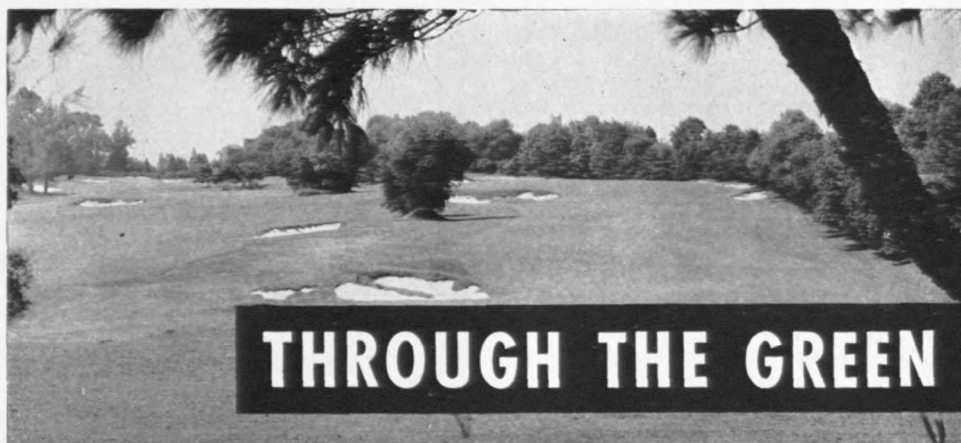
Editor: Joseph C. Dey, Jr. Managing Editor: Frank Hannigan. All articles voluntarily contributed.

USGA COMPETITIONS FOR 1961

Championship or Team Match	Entries Close	Qualifying Rounds	Dates of Event	Location
Women's Amateur	Closed	None	Aug. 21-26	Tacoma Country & G.C., Tacoma, Wash.
Walker Cup Match***	—	—	Sept. 1-2	Seattle Golf Club, Seattle, Wash.
Amateur	Closed	Aug. 29	Sept. 11-16	Pebble Beach Golf Links, Del Monte G. & C.C., Pebble Beach, Calif.
Senior Amateur	Aug. 30	Sept. 19	Oct. 2-7	Southern Hills C.C., Tulsa, Okla.
Americas Cup Match****	—	—	Oct. 21-22	Club Campestre Monterrey, A.C., Monterrey City, N.L., Mexico

***Walker Cup Match: Men's amateur teams—Great Britain vs. United States.

****Americas Cup Match: Men's amateur teams—Canada vs. Mexico vs. United States.



A RARITY IN THE ORIENT

The following is an account of a round of golf played by Mr. Naoyasu Nabeshima at the Hodogaya Country Club near Yokohama, Japan. Written by Mr. Yasuji Hirata, it depicts a golfing rarity—two holes-in-one during a single round. More than that, it demonstrates that golf produces experiences and emotions recognized wherever the game is played.

"The 5th of March, 1961, was a chilly day with a north wind when the spring was still very young. I started the round with Messrs. Nabeshima (hdc. 1), Nakano (hdc. 2) and Okura (hdc. 5), all top players of our Club.

"Mr. Nabeshima is a famous golfer and a representative player of amateur golf in Japan. He won the Japan Amateur

Championship three times in a row—1933, 1934 and 1935. It is also well known that he represented Japan in the first World Amateur Team Championship in 1958 at St. Andrews.

"On this particular day Mr. Nabeshima had 36 going out which seemed to be just normal for him. But coming in he seemed to do everything just perfect. When we reached the 10th hole, which is a short hole of 175 yards, he had the honor by having a birdie on No. 9 and went up to the tee.

"Just then Mr. Zentaro Kosaka, the Japanese Foreign Minister, came up and passed us to join a threesome ahead. The wind was blowing from the left and slightly behind and he made the shot with a No. 4 iron to a little on the left side intending to let the wind carry the ball onto the green. The shot seemed to fade a little as intended and landed at an ideal spot a little short of the green and bounced on towards the hole.

"One of our partners cried out 'Hole-in-one.' The ball stopped dead and looked as a vague white spot. Some said it was definitely in. Mr. Nabeshima himself looked unhappy and said 'It looks near but I bet there's quite a distance left.'

"Mr. Kosaka started running towards



Naoyasu Nabeshima

the ball. Yet the ball was clearly seen white. Mr. Kosaka was shouting something but we could not hear it because of the wind. Then he started jumping and waving both hands. The ball must have been in. Then we knew it was a hole-in-one. It so happened that the first witness was to be Foreign Minister Kosaka. When we reached the green we found the ball suspended between the pin and the edge of the cup but completely in it. No wonder we could see it from the tee. The three of us shook Mr. Nabeshima's hand with words of congratulation.

"He kept up his good play and was 3 under par when he came to the 16th, another short hole of 148 yards. He used a No. 6 iron and the ball flew straight to the pin, landed about two yards in front and disappeared this time as if it had been sucked into the cup.

"The shouts of joy went up from us and I unconsciously jumped and embraced him and the other two did the same almost at the same time. Mr. Nabeshima's blank face and his hands adjusting his sweater disarrayed by our embraces are still vivid in my eyes. People watching this from some distance away must have wondered what was happening. A double hole-in-one was really like this. I felt just like I was in a dream.

"Still under the influence of excitement, even a veteran like Nabeshima must have suffered some emotion by these unusual incidents. He had a 7 on the 17th and a bogie 5 on the 18th including three putts. You never know what will happen in golf. I deeply felt that golf knew no sympathy. When he jabbed the sand into the bunker on the 17th we, the partners rather than he himself, felt most uneasy.

"His failures on the 17th and 18th were to deprive him of a very good chance of making the course record and winning a gold medal. However, he won the March Cup with a net score of 69, gross 70."

Necrology

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

Gay R. Levis, of Brighton, N. Y., a former President of the Rochester District Golf Association.

The Urbane Ambassador



"A great champion . . . accomplished golf ambassador . . . urbanity and tact."

The gentleman described in those phrases on a ballot recently distributed by the Golf Writers Association of America is pictured here living up to them. He is Walter Hagen, winner of the first Walter Hagen Award. Hagen (right) received the cup from the Prince of Wales after winning the British Open Championship at Sandwich in 1922.

The new award will be presented each year to the "golfer or official, past or present, who has made the most distinguished contribution to the furtherance of Anglo American Golf."

Hagen, four-times the British Open Champion, twice winner of the Open, and five-time winner of the PGA Championship, received the award on the eve of the 43rd PGA Championship last month at the Olympia Fields Country Club near Chicago.

The award has been donated by Dr. S. L. Simpson of London who says that its purpose is "to instill ever greater substance to the bonds—cultural and spiritual—that link Britain and the United States."

14,937 to 1

What are your chances of making a hole-in-one? According to figures compiled by the Professional Golfers' Association of America, the odds are approximately 14,937 to 1.

The PGA has conducted a hole-in-one contest since 1957. Approximately 478,000 golfers have participated and 32 holes-in-one have been recorded.

This year's PGA contest is scheduled for Labor Day throughout the country. One hole, at least 150 yards long, will be selected for the contest at each participating course. The player who scores a hole-in-one on the longest hole will be the National Champion. Four players holed their shots off the tee in last year's contest.

Ah, Youth

Craig Goldate of Memphis, 17 years of age, is a youngster who does not waste a minute of the golfing day.

Early on the morning of July 14, Craig began a match in the quarter-final round of a Memphis tournament. He won it on the 15th hole. He quickly set out to do battle in the semi-final round but lost at the 18th.

Swallowing that disappointment Craig consoled himself by setting out on a third round to qualify in his section for the USGA Junior Amateur Championship. His score of 74 earned him the only Memphis qualifying berth.

Craig and his playing partner went through the first nine holes of his third round of the day in 45 minutes. Evidently starting to feel the effects of 51 holes, Craig sauntered through the second nine in 55 minutes.

Books Reviewed

Encyclopedia of Golf Rules, Appendix Golfing Tales, by Seichi Takahata. A reference work written in Japanese that includes decisions about each of the 41 Rules of Golf.

Golf in Europe 1961, by Ted H. Ostermann (published in Zurich, Switzerland, \$2.00). A handbook that lists details on more than 350 courses in 17 European countries.

USGA COMPETITIONS FOR 1962

Championship or Team Match	Entries Close	Qualifying Rounds	Dates of Event	Location
Open	May 2	Local—May 21 *Sectional—June 5	June 14-15-16	Oakmont Country Club, Oakmont, Pa.
Women's Open	June 13	—	June 23-29-30	Not determined
Amateur Public Links	*May 31	*June 17-24	July 9-14	Sheridan Park Golf Course, Tonawanda, N. Y.
Junior Amateur	June 27	July 17	Aug. 1-4	Lochmoor Club, Grosse Pointe Woods, Mich.
(1) Curtis Cup Match	—	—	Aug. 17-18	Broadmoor Golf Club, Colorado Springs, Colo.
Girls' Junior	Aug. 3	—	Aug. 20-24	C. C. of Buffalo, Williamsville, N. Y.
Women's Amateur	Aug. 8	—	Aug. 27-Sept. 1	C. C. of Rochester, Rochester, N. Y.
Amateur	Aug. 15	Sept. 4 or 5	Sept. 17-22	Pinehurst Country Club, Pinehurst, N. C.
Senior Amateur	Aug. 29	Sept. 13	Oct. 1-6	Evanston Golf Club, Skokie, Ill.
(2) World Amateur Team	—	—	Oct. 10-13	Kawana Fuji Golf Course, Ito, Japan

** Open Championship: Date of Sectional Qualifying Championships may be changed to Monday, June 4 if local authority in charge deems advisable.

Amateur Public Links Championship: *Entries close with each Sectional Qualifying Chairman.

† Exact date in each Section to be fixed by Sectional Chairman.

(1) Curtis Cup Match: Women's amateur teams—British Isles vs. United States.

(2) World Amateur Team Championship: Men's amateur teams.

PEBBLE BEACH: JOHNSTON GOT HIS FEET WET

By
**FRANK
HANNIGAN**
USGA Public
Information
Manager

The first USGA Championship ever played west of St. Louis was the Amateur of 1929 at the Pebble Beach Golf Links, Pebble Beach, Calif. The distinctive oceanside characteristics of Pebble Beach, where the Amateur returns next month, are evidenced by a single stroke played during the 1929 Championship.

The stroke was played by Harrison R. (Jimmy) Johnston on the last hole in the morning round of his final match against Dr. O. F. Willing.

The 18th at Pebble Beach is one of the great finishing holes in golf. A par 5 of 540 yards, the hole is bordered by a cliff and pounding surf along the entire left side.

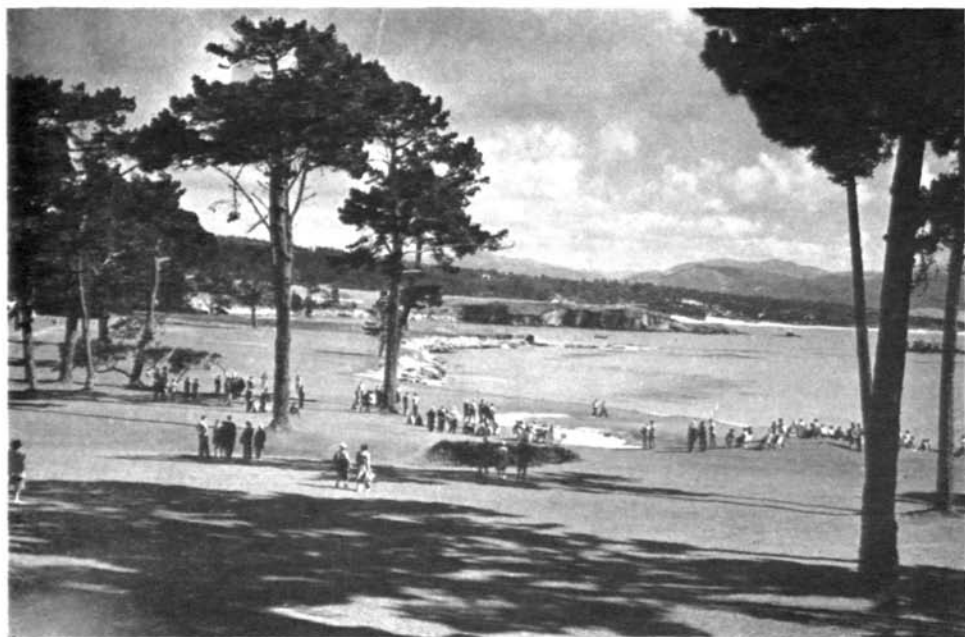
Johnston, 1 down to Dr. Willing at the time, hooked over the cliff with his

second. He thought the ball had gone into Carmel Bay. Johnston's own words describe best what then happened:

"My provisional brassie shot was good, just short of the green, but as I went through the crowd, my caddie came rushing up from the ocean and said that if I hurried, he thought I might be able to play the ball.

"I found the ball lying on a bunch of pebbles the size of eggs at the water's edge. It was necessary to stand in the ocean to address the ball, and as I hurriedly did so a gentle wave swashed through my legs and eight to ten feet onto the beach, burying my feet some seven inches in water.

"Fortunately, when the wash receded, my ball had not moved, and before the



The 18th hole at Pebble Beach is one of golf's most notable par 5s. The player who seeks to shorten the distance by playing close to the left side must reckon on the danger of the cliff that borders the entire left side of the hole.

next wave came in I quickly banged the ball up over the cliff to the edge of the green from where I was able to get a par 5 to halve the hole, thus ending the morning round only 1 down instead of 2, which, needless to say, put me in a more comfortable and better fighting frame of mind."

The spade mashie with which Johnston executed that shot was later donated by him to the USGA. It is now lodged among the Clubs of Champions display in "Golf House" in New York City.

Deane Beman, Jack Nicklaus, Charlie Coe and all the other contenders for the 1961 Championship may not have to get their feet wet to win but they will always be conscious of the craggy headlands that drop sharply into Carmel Bay. Eight holes run along the bay. They include some of the most spectacular visions in golf.

Jim Barnes, Open Champion in 1921, once looked up after topping a ball at Pebble Beach. Gazing out over the blue waters of Carmel Bay to the Santa Lucia Mountains, he remarked that the course was so "dommed" beautiful he couldn't keep his mind on the game.

Pebble Beach is one of three courses which serve as sites every January for the National Pro-Amateur tournament sponsored by Bing Crosby. The others are the Cypress Point Club and the Monterey Peninsula Country Club. All three are within a radius of three miles of a central point of the Del Monte Forest.

The other courses, the Del Monte Golf Course and a municipal course at Pacific Grove, are within the same radius. The Monterey Chamber of Commerce does not hesitate to refer to the Peninsula as the "Golf Capital of the World."

Next month's Amateur will be the fifth USGA Championship at Pebble Beach. The Amateur was played there in 1929 and 1947, the Women's Amateur in 1940 and 1948. The Pebble Beach course had been selected for the Amateur in 1942, but World War II intervened. The winner will add to the heritage of a great Championship and a great course.

JIMMY JOHNSTON IN 1929

All eyes were on the great Bob Jones in the practice rounds for the 1929 Amateur. He had won the Amateur four times, the Open three times and the British Open twice—all in the space of seven



Jimmy Johnston

years. He tied for the medal this time with a 145, and the gallery loved it.

All seemed in readiness for the spectacle of another coronation of the undisputed King of Golf.

The king was assassinated in the first round by young John Goodman. One observer wrote: "Five thousand people walked away as from the scene of a particularly atrocious murder."

Goodman, on the very afternoon of his great upset, was put aside by an even more obscure player competing in his first Amateur, 18-year-old Lawson Little, Jr. (who now lives just off the first fairway). The two later proved that their achievements at Pebble Beach were not accidental. Goodman won the Open in 1933 (no Amateur has won since) and the Amateur in 1937. Little went on to the "Little Slam," victories in both 1934 and 1935 in both the U. S. Amateur and the British Amateur. He added the Open title as a professional in 1940.

Johnston's march to the 1929 Championship was marked by a thrilling 39-hole match in the quarter-final round against George Voigt. Jones, on the sidelines now, refereed this match.

Johnston rallied from a morning round deficit to defeat Dr. Willing, a dentist, by 4 and 3 in the final match.

The semi-finalists were two of the most distinguished veterans of the game. Fran-

cis Ouimet, winner of the Open in 1913 and the Amateur in 1914, beat Little 1 up before bowing to Johnston in the semi-final round. H. Chandler Egan, the Amateur Champion in 1904 and 1905 who had a hand in preparing Pebble Beach for its first USGA event, gave one of his greatest exhibitions in carrying the fight through a great field to reach the semi-final round.

BETTY JAMESON IN 1940

Miss Betty Jameson, of San Antonio, Texas, Women's Amateur Champion in 1939, became the 8th player to win the Championship in successive years when she defeated Miss Jane S. Cothran 6 and 5 in the 1940 final match. The feat has not been accomplished since.

Miss Jameson defended her title with comparative ease. Four of her five 18-hole matches, through the semi-final round, went no further than the 15th hole. She was extended only by Miss Mary Agnes Wall, who lost 1 down in the second round.

Pebble Beach proved a difficult scoring test. Only three players of a starting field of 157 scored below 80 in the quali-



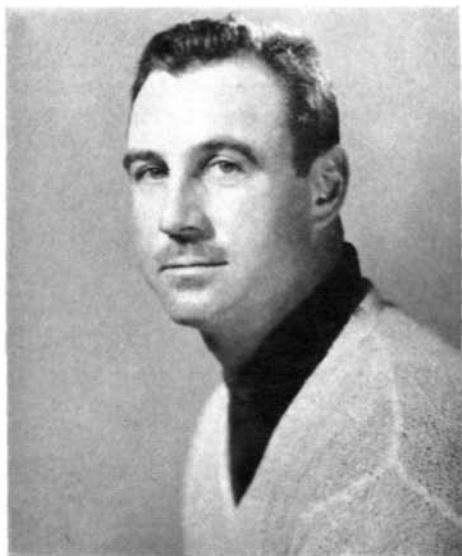
Miss Betty Jameson

fying round. The medalist was Miss Dorothy Traung, whose score was 78.

The women golfers of California responded avidly to their opportunity to compete close to home in a national championship. Thirty-nine of the 64 qualifiers for match play were representatives of California clubs.



Pebble Beach's 13th hole is a par 4 of 400 yards. Carmel Bay and the Santa Lucia Mountains are in the background.



Skee Riegel

SKEE RIEGEL IN 1947

The Amateur Championship of 1947 was conducted entirely at match play for the first time since 1936. The Champion, Robert H. (Skee) Riegel, had to play 163 holes in his eight matches.

Riegel, 32, defeated John Dawson by 2 and 1 in the final round. Among his victims were Don Cherry, a member of the 1961 Walker Cup Team, in the first round and Bob Rosburg, National Hearst Junior Champion that year, in the quarter-final round.

Two long putts, a 30-footer on the 24th for a half, and a 20-footer on the 25th for a win, were vital for Riegel in the final. The second putt gave him a lead he never relinquished.

Dawson, at 44, was at that time the oldest finalist in the history of the Amateur. His most notable victory came against Frank Stranahan, the pre-tournament favorite, in the fourth round. Dawson chipped in for an eagle 3 on the 20th hole to end the match.

Jimmy Johnston, 18 years after his victory at Pebble Beach, was an entrant. He lost to Gene Andrews, another 1961 Walker Cup player, in the first round.

A Hollywood touch was added to the Championship when movie star Randolph Scott qualified at Los Angeles with 150.

He lost in the first round.

GRACE LENCZYK IN 1948

Ted and Rudy Lenczyk, caddies at the Indian Hill Country Club, Newington, Conn., had sister Grace hitting golf balls at age 11. Her classroom was the club's 14th hole across the street from the Lenczyk home.

Ten years after her brotherly instruction, Miss Lenczyk won the Women's Amateur Championship to climax an outstanding 1948 season. She had won the Canadian Ladies' Championship earlier.

Miss Helen Wilson, the runner-up in the 1941 Championship and a semi-finalist in 1946, again lost in the final round, by 4 and 3.

Pebble Beach proved an even sterner test in 1948 than in 1940 when three players scored below 80 in the qualifying round. Mrs. Bettye Mims White, the 1948 medalist with 77, was the only player below 80.

Miss Marlene Bauer, winner of the first Girls' Junior Championship the following year, reached the quarter-final round. She was 14 years old.

The 1948 Champion, now Mrs. Grace Lenczyk Cronin, is still an outstanding player. She won the Connecticut State Championship this summer two weeks after her early instructor, Ted Lenczyk, won the men's amateur championship of the same state.



Miss Grace Lenczyk

SIKES' HASTE NOT WASTE IN PUBLIC LINKS VICTORY

By
P. J. BOATWRIGHT,
JR.
USGA
Assistant
Director

Golf-lovers who are concerned about increasingly slow play would have been heartened had they attended the 1961 USGA Amateur Public Links Championship at Rackham Golf Course, Royal Oak, Mich. Public links golfers usually resign themselves to the fact that it may take five to six hours to play a round. Consequently the players at Rackham were rarin' to go when they had the use of a course on which there were at most 150 players, all of championship calibre.

An outstanding example of the fast pace of play exhibited in this Championship was shown in the second round of qualifying. The first group of three finished in 3 hours 26 minutes; the last group finished in 3 hours 58 minutes. This is comparatively good time when you consider that in some match play events two players may take considerably more time to play 18 holes, without holing out at every hole.

Another prime example was the time required to play the semi-finals. The match between John Molenda, 22-year-old Detroit Tech junior, who was the eventual runner-up, and Lt. Commander Lou Gifford, Navy pilot from Jacksonville, Fla., started at 9:45 A. M. The morning round of the match was completed at 12:30 P. M., only 2 hours 45 minutes later.

Sikes Carried His Bag

Even at that pace, this pair could not keep up with John Schlee, Memphis State University student from Memphis, Tenn., and Dick Sikes, the new Champion from Wichita, Kans. It was said of Sikes that even though he carried his own bag throughout the event, he would play an iron shot, retrieve the divot, replace it, and have his bag on his shoulder heading for the green before the ball landed. This may be a slight exaggeration, but the lanky native of Arkansas most certainly did get to the business at hand with no waste of time, and, it certainly did not affect his game adversely.

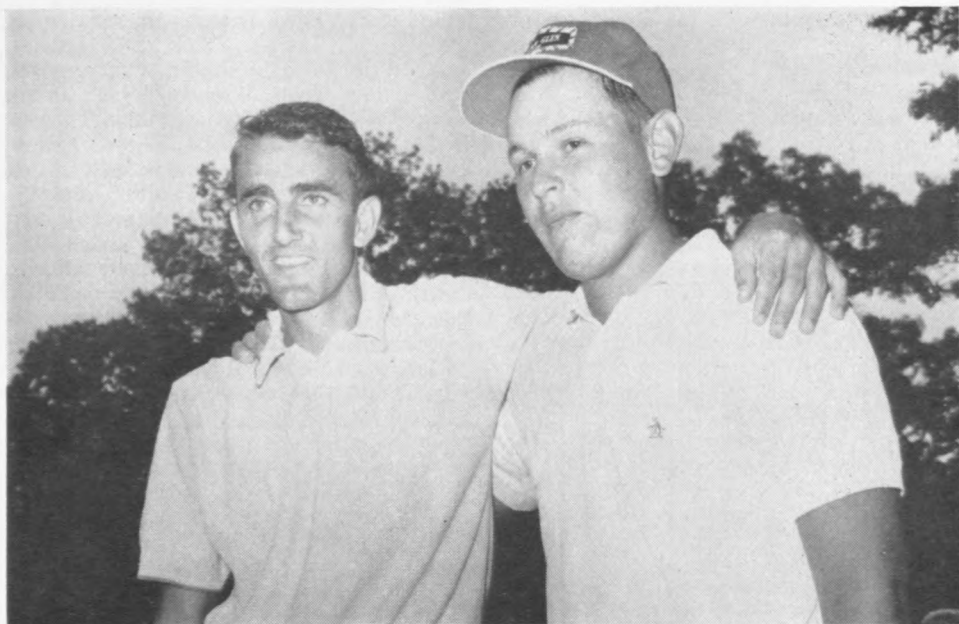
Sikes is a 21-year-old University of Arkansas physical education major. He is a native of Springdale, Ark., but is working this summer in an aircraft factory in Wichita, Kans. He played fine golf all week. He captured the qualifying medal with a five-under-par 70-65-135, two strokes better than second-place David Bettencourt, Honolulu, Hawaii. Sikes then played through 130 holes of match play in four under par. His closest match was the 36-hole semi-final against Schlee, which he won by 2 and 1. In this match, Sikes shot a 2-under-par 68 in the morning round to lead by two holes, a margin which he maintained throughout the afternoon with even par golf.

In the final match, it appeared that Sikes' putter, hot all week, might have finally cooled. In the early stages he could not get a putt up to the hole, and found himself 3 down after 14 holes to Molenda, the young Detroiter who has been playing golf only seven years. At this point, however, Molenda's putter cooled and he missed three-footers at the 15th and the 16th to lose most of his lead. He lost it all when, at the 18th, his second shot was bunkered and he dropped the hole to Sikes' par.

It seemed that winning three of the last four holes of the morning round to get even was all that Sikes needed to regain his confidence. He played the first nine of the second round in 33 for a 3-up advantage. He gained an additional hole in the first six holes of the last nine to win by 4 and 3. For the 33 holes of the match Sikes was 2 over par; Molenda was 7 over.

In advancing to the final Sikes defeated Forrest T. Jones, Bloomington, Ind.; Owen T. Douglass, Jr., Honolulu; Leonard Pietras, Toledo; William B. Kelley, Jr., Coraopolis, Pa.; and Schlee.

Molenda advanced at the expense of Woodrow Gray, Oklahoma City; Wallace Smith, Pontiac, Mich.; William A. Wright.



Dick Sikes (left), the medalist in the 36th Amateur Public Links Championship, continued his fine golf throughout the tournament. He is pictured here with the runner-up, John Molenda, before the final match which Sikes won 4 and 3.

the 1959 Champion from Seattle; Bob Lunn, 16 year-old high school student from San Francisco; and Gifford.

Sikes, who resembles Hillman Robbins, Jr., the 1957 National Amateur Champion, became the third medalist to win the Championship. The only others to turn this trick were the late Carl Kauffmann, Pittsburgh, Pa., in 1929 and Wilfred Crossley, Atlanta, Ga., in 1947. Sikes' 65 in the second qualifying round was only one stroke above the lowest score ever made in the Championship qualifying. His medal-winning 135 was only one stroke higher than the record qualifying score made by James C. Clark, Jr., Long Beach, Calif., in scoring 134 in the 1946 event at Wellshire Golf Course, Denver, Colo.

The 65 shot by Sikes in the second qualifying round was equaled by Jim Ferriell, Jr., Louisville, Ky., who led the qualifiers in the first round, and Bettencourt, who added a 65 to his first-round score of 72.

The defending Champion, Verne Callison, Sacramento, Calif., failed to qualify for match play.

There were exactly 64 scores at 150 or

better; thus a play-off for the 64th qualifier's place was not necessary. The records do not show when this oddity last occurred, but a senior member of the USGA Public Links Committee stated that a play-off had been necessary every year since 1931.

The Harding Cup, symbolic of the Team Championship, was won by a team representing Honolulu, Hawaii, with a score of 428; this was only three strokes higher than the record established by a team representing Dallas, Texas at Denver in 1959. Members of the winning team are: Owen T. Douglass, Jr.; Hung Soo Ahn; and David Bettencourt. All of them were defeated in the second round in the individual Championship. The Wichita team, led by Sikes, was second with a total of 431.

In addition to Sikes, Schlee, Gifford, and Molenda, the following advanced to the quarter-finals: William B. Kelley, Jr., Coraopolis, Pa.; Frank W. Campbell, Birmingham, Ala., 1959 runner-up; Bob Lunn, San Francisco; and Mike Andonian, Pontiac, Mich., a semi-finalist in 1960.

The USGA's sincere gratitude goes to Harold Rutledge, General Chairman, and

to all the members of his local committees. They left no stone unturned toward making the event a pleasure for all.

Despite heavy play by the public prior to the Championship, the Rackham course which played at 6,538 yards for the Championship was in excellent condition. The fairways were good and the greens nearly perfect. A special tribute is due Bob Holma and Gene Treppa, the golf course superintendents, who worked so hard to have the course in Championship condition.

Nineteen members of the USGA Public Links Committee were on hand to assist in the conduct of the Championship.

They were: Fred Brand, Jr., Chairman, Pittsburgh; Ray O. Fischer, Greendale, Wis.; Ralph C. Ghioto, Sr., Jacksonville, Fla.; Eddie Irwin, Wichita, Kans.; Judge John L. Niblack, Indianapolis; Thomas A. T. Ching, Honolulu; John J. Morse, Tonawanda, N. Y.; Denmar Miller, Des Moines; Jim H. Obert, Peoria; John W. Riggle, Phoenix; Henry J. Sawicki, Sr., Toledo; C. Allen Ducker, Charleston, S. C.; Mark A. Greer, Sr., Long Beach, Calif.; Alfred W. Wareham, Minneapolis; Edward C. Knuth, Cleveland; Joseph S. Dickson, Louisville; W. Gordon Young, Dallas; Earl Shock, Dayton; and Edward A. Atlas, the host committeeman, Detroit.

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, more than 500).

USGA GOLF HANDICAP SYSTEM FOR MEN, containing recommendations for computing USGA Handicap and for rating courses. Booklet 25 cents. USGA Slide Rule Handicapper 25 cents. Poster 15 cents.

THE CONDUCT OF WOMEN'S GOLF, containing suggestions for guidance in the conduct of women's golf in clubs and associations, including tournament procedure, handicapping and course rating. 35 cents. USGA Slide Rule Handicapper 25 cents. Poster 15 cents.

USGA HANDICAP RECORD FORM, revised in 1961, provides for the listing of 75 scores. It is designed for ease in determining the last 25 differentials from which to select the lowest 10 when more than 25 scores are posted. \$3 for 100.

A GUIDE FOR GREEN COMMITTEE MEMBERS OF GOLF CLUBS, a 16-page booklet compiled by William H. Benguefield from correspondence, articles and speeches by Green Committee Chairmen, Golf Course Superintendents and USGA officials. 25 cents.

COURSE RATING REPORT, a form for rating a course hole by hole; for association use, size 4½ x 7 inches. 10 cents. \$7.50 per 100.

COURSE RATING POSTER for certifying hole by hole ratings to a club; for association use, size 8½ x 11 inches. 5 cents. \$3.50 per 100.

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.

PREPARING THE COURSE FOR A COMPETITION, a reprint of a USGA Journal article. No charge.

DUTIES OF OFFICIALS UNDER THE RULES OF GOLF, a reprint of a USGA Journal article that contains a check list of the duties of the referee and other committee members on the course. No charge.

COSTLY FIRES IN GOLF CLUB PROPERTIES, reprint of a USGA Journal article by T. Seddon Duke. No charge.

THE RULE ABOUT OBSTRUCTIONS, a reprint of a USGA Journal article by Joseph C. Dey, Jr. No charge.

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

HOLE-IN-ONE Awards. No charge.

LETTER AND SPIRIT OF THE AMATEUR CODE, a reprint of a USGA Journal article by Joseph C. Dey, Jr. No charge.

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

WORK OF A CLUB GREEN COMMITTEE, a reprint of panel discussions conducted by the USGA Green Section Committee. No charge.

HOW TO MEET RISING COSTS OF GOLF COURSE MAINTENANCE, PARTS I & II, reprints of panel discussions conducted by the USGA Green Section Committee. No charge.

WATER USE ON THE GOLF COURSE, a reprint of talks delivered at the 1960 Educational Program conducted by the USGA Green Section Committee. No charge.

THE GOLF COURSE WORKER—TRAINING AND DIRECTION, a reprint of talks delivered at the 1961 Educational Program conducted by the USGA Green Section Committee. No charge.

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

ARE YOU A SLOW PLAYER? ARE YOU SURE? A reprint of a USGA Journal article by John D. Ames. No charge.

A JUNIOR GOLF PROGRAM FOR YOUR CLUB AND DISTRICT, a 16-page booklet on organizing and developing junior golf programs at different levels by the USGA Junior Championship Committee. No charge.

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.

GOLF KNOWLEDGE AN ASSET TO COURSE SUPERINTENDENT

By

HARRY W.
EASTERLY, JR.

Member, Executive
Committee, Virginia
State Golf Association
and USGA Green
Section Committee

Based on a talk delivered at the 1961 Virginia Turfgrass Conference.

The importance of the Golf Course Superintendent to the golfer is often underestimated. He is to the golfer what the hotel manager is to his guest, the Commissioner of Highways is to the motorist—and perhaps to stretch the point—what the airline pilot is to his passenger. In most cases, he didn't conceive, design and construct the course—nor the pilot the plane—but each day he must present it to the golfer in its most playable form.

Did you ever stop to think why golfers literally dream of such courses as St. Andrews, Pine Valley, Augusta National, Cypress Point, Cascades, Fisher's Island, Pinehurst No. 2, Pebble Beach, Oakland Hills, Baltusrol and Oakmont? Because they are great and classic courses. But why? They are all beautiful, and mostly long and testing. Each is a course in which the designer has done a unique job of combining God-given land beauty with marvelous placement and design of the components which make up the course. The designer, in every case, has used his terrain to the very best advantage in setting off the features for these components. Each course has such an attachment to its locale that, miraculously transplanted elsewhere, it would be completely out of keeping with its new surroundings.

Hazards Add Flavor

The greatness of these and other courses is in their general setting and in their hazards as well as greens, fairways and rough. There is a paradox about hazards on these courses: though they impose their penalties with terrifying severity, they, more than perhaps any other feature, give the courses their flavor and much of their beauty.

And so the golfer does not praise or blame the Golf Course Superintendent for the inherent good and bad in a course. The average Superintendent is a profes-



Harry W. Easterly, Jr.

sional who has spent much time studying his vocation and must continue to keep up with the many new developments and methods. His is a frustrating existence in many ways, for he can never say "My work is done." He almost invariably fails to get funds sufficient to bring his course up to what he considers optimum condition. His problem of managing his labor and his turf are never ending.

The average golfer, on the other hand, is only vaguely aware of these problems. He is more concerned with why the tee markers were crooked on No. 13 or why that trap on No. 17 wasn't raked than with the fact that the Superintendent had to go out personally to water the ninth green at midnight to keep from losing it.

Make no mistake about it: with the golfer, "it's the little things that count." How then can the Golf Course Superintendent deal with these little things? How can he know the mind of his golfers and serve up his course on a day-to-day basis in "apple-pie" order?

He might do this by following five

pieces of advice which are admittedly a little extreme and perhaps might not always be taken literally or might even be modified as circumstances dictate.

The Superintendent should:

1. Play his course once per week the year round. If he is not now a golfer, he should become one!
2. Put himself in the position each week where he can be criticized by his golfers.
3. Be an expert on the Rules of Golf.
4. Know thoroughly that portion of the USGA Golf Handicap System booklet which pertains to course management, course rating procedure, and the mechanics of handicaps.
5. Be insulted when his players play "winter rules."

It might be well to enlarge on the above somewhat deliberately extreme statements.

1. **The Golf Course Superintendent should be a golfer.**

This will give him a chance on a regular basis to see his course from the standpoint of the golfer. It will also give him a chance to see it in a leisurely way in the company of other golfers. It will have the collateral advantage of having the Superintendent become well acquainted with a broad cross-section of the players in his club. In being a regular golfer, the Superintendent should have the continuing encouragement of club authorities.

2. **The Superintendent should periodically subject himself to criticism.**

Merely playing once a week is not enough. He should perhaps stay near the first tee awhile on Saturday morning or at some other time when there is heavy play. It will keep him from being a mystery man. Here he can hear suggestions and complaints and accept or answer them. This contact with the membership can have a great effect on selling the program of the Green Committee.

This procedure should not, in any way, be considered going over the head of the Golf Committee Chairman. In practically every club

there is a problem of rotation of authority pertaining to golf. The Golf Course Superintendent is, hopefully, a permanent professional employee. He must be loyal to a succession of bosses who are doing the job as an avocation. To be continuously effective, the Superintendent must be a tactful person. It is most important that he maintain close communication with a hard core of men of good will who know something about turf and the many problems he faces. Few Golf Chairmen will begrudge him these contacts as long as he continues to take his orders from constituted authority only.

3. **The Superintendent should be a Rules Expert.**

Before he can really be well rounded in his job, he must know the Rules of Golf, especially as they relate to the golf course. He must deal with such problems as boundary fences, stakes, ground under repair, ditches, the marking of obstructions, etc. By his attention to these matters, the Superintendent determines to a considerable extent the ease of interpretation of the Rules on his course.

4. **The Superintendent should know thoroughly the USGA Golf Handicap System.**

Although a great majority of Golf Course Superintendents do a very creditable job, there are few indeed who understand how to balance the placement of tees and holes according to the USGA Handicap System. The course rating, too, requires the cooperation of the Superintendent. In fact, the whole handicap system in a club can be put in serious jeopardy without his cooperation.

5. **The Superintendent should be insulted when his members play "winter rules."**

A prime Rule of Golf is that you play the course as you find it. As Mr. Richard S. Tufts, former President of the United States Golf Association, has said:

"Allowing a player to move a ball permits him to gain many ad-

vantages aside from improving his lie. He may improve the line of flight, obtain a better stance when his ball is near a depression or a hazard, or be able to remove a loose impediment which he could not otherwise lift without moving his ball. In other words, any modification of the Rules makes golf a different game.

"Furthermore, there is a certain pride and satisfaction in doing a thing right. Observance of the Rules may present greater problems in the play of certain shots, but the acceptance of the challenge is sure to increase the skill and ability of the player. Golf has always meant more to those who play the game right."

In the winter of 1960-'61, the author decided to follow these wise words, come what may. Living in an area where golf is played avidly the year round, though freezing weather and snow are frequent, he nevertheless played weekly and (with the exception of one round, in a pro-amateur tournament) never once used "winter rules." Rarely did he suffer any disadvantage when he was unable to get his foursome to "play them as they lie." This was true on a variety of courses, some of which might be considered to be "in bad shape." Though his poor record was in no way enhanced, it was certainly not harmed by his observance of the Rules.

It is easy to find in every club a hard core of golfers who, with a little persuasion, are willing to try abiding by the Rules. Surely members of national, state and local golf governing bodies should set the example.

It is a good question whether the Golf Course Superintendent can control his players to the extent that they do not play "winter rules," even if he gives them a perfect course. But there will be a hard core of these men in each club. And if all courses are in good shape, it may be that we will live to see the day when golf will be played in this country as it is meant to be played. When that day does come, much praise will be due the Golf Course Superintendent. How will he be able to reach this point? This is where he must employ every ounce of persuasion, ability, prudence and wise use of the money he has available to get results.

USGA FILM LIBRARY

"Second World Amateur Team Championship for Eisenhower Trophy" is a 17 minute film in full color of the competition at the Merion GC last fall which was won by the United States team. Ex-President Eisenhower is shown receiving the American and the Australian teams at the White House.

"Famous Golf Courses: Scotland," is an 18-minute film in full color. Famous holes were photographed at Troon, Prestwick, Carnoustie, St. Andrews, North Berwick and Muirfield.

"Walker Cup Highlights," is a 16-minute film tracing the early history and play for the first international golf trophy. Bob Jones, Francis Ouimet and other Walker Cup stars are shown. The latter half of the film is in color.

"St. Andrews, Cradle Of Golf," is a 14-minute, full color, 16mm travelogue of historic St. Andrews, Scotland, its Old Course and the Royal and Ancient Golf Club clubhouse.

"First World Amateur Team Championship for Eisenhower Trophy," is a 14-minute, full color, 16mm film of the first World Amateur Team Championship at St. Andrews. Twenty-nine countries compete for the Eisenhower Trophy.

"On the Green," a 17-minute, full color, 16mm presentation filmed at the Mid-Ocean Club, Bermuda, illustrates correct procedures under the Rules of Golf governing situations arising on the putting green.

"Golf's Longest Hour," a 16mm full color production of 17½ minutes, depicts the closing stages of the 1956 Open Championship. Filmed at the beautiful Oak Hill Country Club, Rochester, N.Y., it shows the eventual winner, Cary Middlecoff, set a target at which Ben Hogan, Julius Boros and Ted Kroll strive in vain to beat.

"Play Them As They Lie," a 16mm color production of 16½ minutes in which Johnny Farrell, Open Champion of 1928, acts as intermediary between Wilbur Mulligan, a beginner of unimpeachable integrity, and Joshua P. Slive, a past master in the art of breaking the Rules. The film was made at the Baltusrol Golf Club, Springfield, N. J., where Farrell is professional.

"Great Moments in Golf," lets the viewer see the many interesting exhibits in "Golf House," USGA headquarters in New York, and re-live golf triumphs of the past with many of the game's immortals. The film is a 16mm black and white production and runs 28 minutes.

"The Rules of Golf—Etiquette" 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 16mm color production of 17½ minutes.

The distribution of prints is handled by National Educational Films, Inc., 723 7th Ave., New York 19, N. Y., which produced the films in cooperation with the USGA. The rental is \$20 per film; \$35 for two; \$50 for three; \$60 for four and \$70 for five, in combination at the same time, including the cost of shipping prints to the renter.

MICKEY WRIGHT HAS A DAY TO REMEMBER AT BALTUSROL

By

**FRANK
HANNIGAN**
USGA Public
Information
Manager

The ability to hit a golf ball with authority is often apparent in the very young. At age 15, Mary Kathryn Wright displayed this ability when she won a special driving competition at the 1950 USGA Girls' Junior Championship. Her three balls went 680 yards in total on a wet fairway.

Miss Wright was the runner-up in that tournament. She won the Girls' Junior Championship two years later.

Last month Miss Mickey Wright earned the USGA Women's Open Championship with a 72-hole score of 293 on the Lower Course of the Baltusrol Golf Club, Springfield, N. J.

On the eve of the tournament Miss Wright said that Baltusrol's length could prove a distinct advantage to her. The course as played measured about 6,300 yards, although originally planned for 6,372 for this event. Miss Wright made good use of her power hitting, particularly on the four par-5 holes by playing them in an aggregate of 73 strokes—7 under par.

Four USGA Championships

Miss Wright, who also won the Women's Open in 1958 and 1959, has thus won four USGA Championships. Now only 26, the attractive young lady from San Diego has both the talent and the years to challenge Bob Jones' all-time record of nine USGA titles. She was runner-up in the 1954 Women's Amateur.

The talent of Mickey Wright was never more in evidence than on the final day of the 1961 Open. Her scores were 69 and 72 over one of the great golf courses. She quickly certified this victory as the most satisfying of her career because it transpired on such a marvelous test of the game.

Miss Wright and Miss JoAnn Prentice were tied for the lead at 72 after the first round. A second round of 80, caused primarily by poor putting, placed Miss Wright four strokes off the pace at the end of 36 holes. The leaders at 148 were

Miss Prentice, who followed her 72 with a 76, and Miss Ruth Jessen, who recorded 75-73.

At the start of the third round a generous share of the record gallery of 3,757 went off with Miss Wright and her playing partner, Miss Louise Suggs. Most of the crowd, however, waited for the leaders, who were paired.

Miss Wright gave no evidence of what was to follow when she began her third round with two pars and then a 5 on the par-4 third hole.

Then began a surge which saw her overtake Miss Jessen on the 43rd hole, go into the lead for good on the 44th, and continue her brilliant play until the 72nd hole when she was six strokes ahead of the nearest competitor, Miss Betsy Rawls.

Miss Wright started her move with a birdie 2 on Baltusrol's picturesque water hole, the fourth. After that she had five more birdies which more than offset lapses on the 10th and the 16th holes.

She finished the round with perfect play on the 17th and 18th holes, uphill par-5s of 525 and 500 yards. Two booming wood shots on both holes left her short approaches to the greens. She dropped both to within 6 feet and made the putts.

Miss Wright's score of 69, three under par, was the lowest ever on the course by a woman. Her lead after 54 holes, however, was by no means secure. Miss Rawls, the defending Champion seeking her fifth Women's Open Championship, was only two strokes behind and in a good position to come from behind as she did in 1960.

The Definition of Par

But Miss Wright played her closing round of 72 as if she had just read the USGA definition of par as "perfect play without flukes and under ordinary weather conditions, always allowing two strokes on each putting green."

Two strokes on each putting green is exactly what the Champion had on her

final round. The other statistics, which should stand a model for Championship play, are as follows:

She hit 16 greens in regulation figures or better; she strayed from the fairway only twice with her drives; she used every iron club in her bag from the No. 2 iron on the par-3 9th hole to her wedge approaches on the 17th and the 18th.

Her two birdies came on the par-5 first and seventh holes, which she reached in two strokes with iron shots. Her shots to the green on holes 3 and 16 were trapped and there she went over par.

Miss Rawls, who predicted that 300 would be good enough to win, was the runner-up with 299. Miss Jessen made her finest showing in the Championship with a third-place finish and a 300 total. Miss Suggs continued her achievement of finishing in the top ten of every USGA Women's Open. Her score of 301 placed her fifth.

The lowest amateur score, 306, was turned in by the petite Canadian, of Font-hill, Ont., Mrs. J. D. Streit. Mrs. Streit,

then Miss Marlene Stewart, won the USGA Women's Amateur Championship in 1956 and the British Women's Amateur in 1953, as well as the Canadian title several times. Mrs. Philip J. Cudone, a former Curtis Cup player and the current New York Metropolitan Women's Amateur Champion, had the second best amateur total of 308.

The Champion's share of the \$8,000 prize money was \$1,800. She has won approximately \$85,000 since she became a professional in 1955. Miss Rawls' prize was \$1,200, Miss Jessen's \$800, and Miss Suggs' \$650.

The Championship was marked by record galleries on each of the three days. They were estimated at 2,754 for the first round, 3,081 for the second round, and 3,757 for the final day. The total was 9,592, or 2,394 more than the previous record of 7,198 set in 1959.

Baltusrol has now been host to 10 USGA competitions, second only to the 11 of the Merion Golf Club, Ardmore, Pa.

It means a great deal to golf for major



Miss Mickey Wright (center) received the Women's Open Championship Trophy from Mrs. Henri Prunaret, Chairman of the USGA Women's Committee, and USGA Vice President Clarence W. Benedict at the Baltusrol Golf Club. Miss Wright won the Championship for the third time by playing Baltusrol in 69 and 72 on the final day for 72-hole of 293.

competitions to be played at Baltusrol.

A Warm Welcome

The members are always warm in welcoming their guests, and the committees and staff invariably make excellent preparations. The General Chairman was Frank W. Boyd. The USGA records its gratitude to him and his colleagues, including John C. Smaltz, President, and the staff, headed by Carl Jehlen, General Manager, Edward J. Casey, Golf Course Superintendent, and Johnny Farrell, Professional.

Round-by-round scores of leaders with 72-hole totals:

Miss Mickey Wright ..	72-80-69-72—293
Miss Betsy Rawls	74-76-73-76—299
Miss Ruth Jessen	75-73-77-75—300
Miss Louise Suggs	78-74-76-73—301
Miss Marilyn Smith ..	77-74-77-75—303
Miss JoAnn Prentice ..	72-76-80-76—304
Miss Barbara Romack ..	77-77-78-74—306
*Mrs. J. D. Streit	74-77-77-78—306
*Mrs. Philip J. Cudone	77-76-75-80—308
Miss Shirley Englehorn	80-73-78-77—308
Miss Mary Lena Faulk	78-77-80-73—308

* Amateur

Miss Wright's hole-by-hole scores, with par:

Par	5 4 4 3 4 4 5 4 3—36	4 4 3 4 4 4 3 5 5—36—72
1st	5 4 5 3 4 5 4 4 3—37	3 4 4 4 4 4 2 5 5—35—72
2nd	4 5 5 3 4 5 5 4 5—40	5 5 3 4 6 4 3 5 5—40—80—152
3rd	5 4 5 2 4 3 4 4 3—34	5 4 3 3 4 4 4 4 4—35—69—221
4th	4 4 5 3 4 4 4 4 3—35	4 4 3 4 4 4 4 5 5—37—72—293

DO YOU KNOW YOUR GOLF?

Here is a golf competition in which there is no waiting on the first tee, you play as you sit, use a pencil instead of clubs, and a round can be played indoors at night.

But you need to know something about the Rules of Golf, definitions, history and records of the game.

The answers to the questions are given on Page 21.

1. Who has the lowest aggregate score in the two most recent National Open Championships?
2. Four players tied the Oakland Hills competitive course record of 67 in the second round of the 1961 Open. Name two of the four.
3. Has any player won both the Amateur and the Amateur Public Links Championships?
4. Bob Jones' "Grand Slam" in 1930 consisted of victories in the U. S. Open and Amateur and the British Open and Amateur. Which of the four Championships did he win only once?
5. Has any Girls' Junior Champion gone on to win the Women's Amateur Championship?
6. Who was the last man to win the Amateur in successive years?
7. Who was the last winner of the Women's Amateur in successive years?

8. Who was the last player to win the U. S. Amateur and the British Amateur in the same year?
9. Who has played in the most Walker Cup matches?
10. Bob Jones won the Amateur Championship five times, a record. Who is next in number of Amateur Championships?
11. What club has been host to the most USGA competitions?
12. Who was the first native of the United States to win the British Open Championship?
13. Is a player permitted to remove an out-of-bounds stake if it interferes with his swing?
14. How far behind the markers on the teeing ground may a player tee up his ball?
15. Has any one been a member of both a Walker Cup Team and a Ryder Cup Team?
16. May a player remove an empty package of cigarettes from behind his ball in a hazard?
17. If a player's ball be moved in removal of a cigarette package in a hazard, is there a penalty?
18. In a four-ball match, Player A's ball is knocked into the hole by another ball in the match. Has A holed out?

A PROCEDURE FOR MEASURING GOLF HOLES

By
the Minnesota
Golf Course
Superintendents'
Association

The Minnesota Golf Course Superintendents' Association agreed this year to assist the Rating Committee of the Minnesota Women's Golf Association in the measurement of courses. The M.G.C.S.A. formulated the following outline which was sent to all members of the Association.

EQUIPMENT REQUIRED

1. A copy of USGA "Conduct of Women's Golf, 1960 Revision." (This booklet will be referred to as CWG and should be consulted when such references are made.)

2. A copy of the golf architect's plan showing lines of play, if copy is available.

3. A 100 foot or longer steel tape. (Take all measurements in feet and convert to yards as required.)

4. 18 suitable permanent markers—one to be installed at each tee used in making this measurement. (See Section 28-1, CWG)

5. Two stakes or poles which can be temporarily set and seen from a distance of 250 yards.

6. A dozen or more small stakes which can be easily inserted into the ground—these stakes to be used for tape lengths or fractions of tape lengths.

7. A plumb line and bob to assist in getting correct measurements on slopes.

8. A clipboard on which work sheets or note book can be held for making the log of the work done.

CREW REQUIRED

Two men and one or two members of the Women's Golf Committee of the club involved. More than two committee members may result in time-consuming discussions. It is essential, however, to have at least one member present.

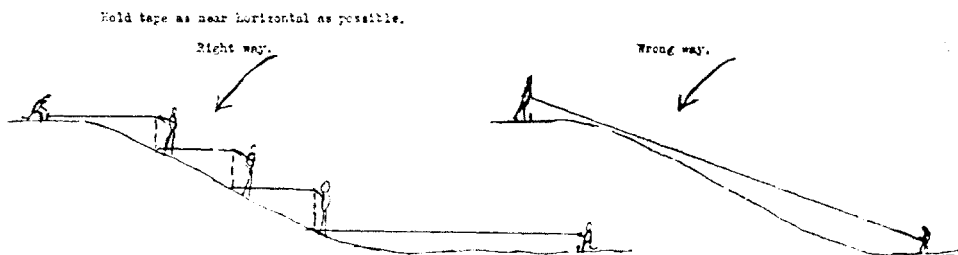
PROCEDURE

1. Have all cups and pins placed as close as possible to the center of each green. The final measurement on each hole will be to that location.

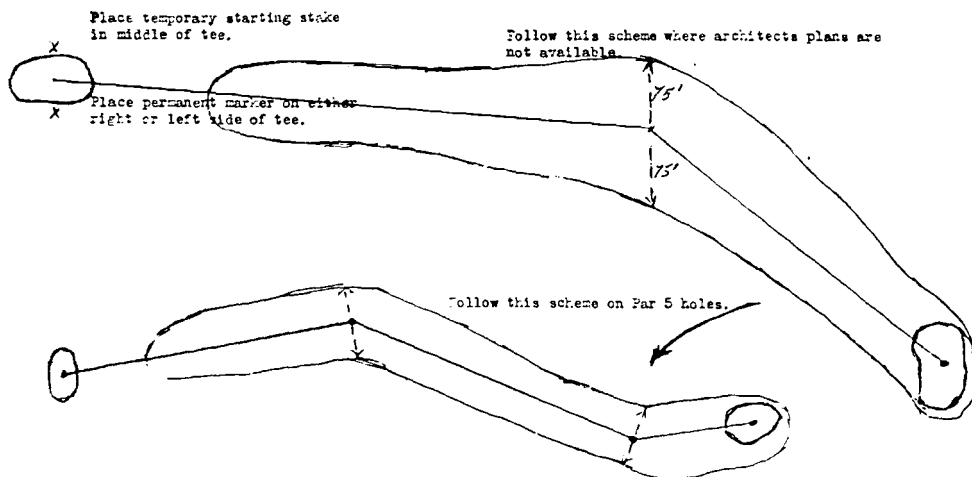
2. Have the member of the Women's Golf Committee designate which tees are to be used as ladies tees. (Section 28-2c, CWG)

3. Determine "Starting Point" by locating the middle of the playing area of the tee. Place permanent marker on either left or right side of tee. (Section 28-1, CWG)

How to Measure on Hills



How to Measure Dog-leg Holes



4. Where architect's plan is available follow the lines of play indicated on his plan. Measure in straight lines from point to point, and keep the tape as close as possible in a horizontal position. This is very important when measuring over hilly fairways; it is here that the plumb bob may be used to excellent advantage. Use the small stakes to mark the intervals, mark the distance in the log, and leave the stakes in until the hole is measured. This will permit checking for possible errors. On non-dog-leg holes, the measurement should be made in a straight line directly to the cup and flagstick.

On dog-leg holes—when architect's plans are not available—measure from the starting point straight down the middle of the fairway to the point where the elbow is reached . . . such point to be determined by one or more competent golfers. From this point, measure straight down the middle of the fairway to a point where the second elbow is reached (this point to be again determined by one or more competent golfers) or directly to the center of the green. To assure measuring in a straight line, set stakes at these determined points before measuring.

5. Make sure that all measurements are accurate and properly logged before picking up stakes and proceeding to the next hole.

NOTES

Reading Section 28, Page 49 CWG, note in paragraph 2 of "Measurements" that an error of a yard under certain circumstances can distort the final course rating.

This "PROCEDURE" was designed to do an accurate and uniform measuring job for the Women's Association, using designated ladies' tees and "elbow points" designated by the ladies. To measure the standard or "Men's Course," the same procedure may be followed with the Men's Committee designating these points. Do not attempt to do both jobs at the same time; such procedure would be almost impossible to carry out.

Every effort should be made to procure the plan of the architect and use the lines of play designated by him. It is only where such plans are not available that committees should determine the line of play.

On holes of unusual shapes and conditions, judgment must be used. The primary intention is to follow the planned line of play.

GOLF IS EVERYONE'S GAME

By
GEORGE L. HALL
Treasurer,
The Professional
Golfers' Association
of America

What makes golf great is that the vast majority of those who play it do so for fun.

Golf is basically an amateur game. We professionals recognize that fact and no one could be happier about it than we are.

Who's the indispensable man in golf?

No, it's not the No. 1 tournament player of the year. Neither is it an outstanding executive for a major golf association. Nor is it the greatest teacher in the game.

From the standpoint of participation, the most important man in golf is the high handicap amateur.

From the standpoint of tournaments on the PGA Tour, it's the spectator, who pays for his ticket and tramps around the fairways to see the golf stars in action.

Abraham Lincoln is supposed to have said, "The Lord must love the poor people—he made so many of them."

Following the same line of reasoning, the Lord must love the high handicap player, too. He made them, too, by the millions, wherever golf is played.

By the same token, He must love the man in the gallery. He made millions of them, too. Happily, their number increases every year.

The Pro's Best Friend

We golf professionals love the high handicap player, too. We love him because he's our customer, our friend and our boss . . . and because he loves golf.

Yes, and we love the spectator at tournaments on the PGA circuit, too. He and his kind have helped make the Tour grow bigger and bigger every year.

Between them, the high-handicap amateur and the man in the gallery have helped make golf the No. 1 participant-spectator sport in America today.

It isn't at all surprising that the high handicap amateur and the galleryite are, in many cases, one and the same. Those



George L. Hall

who love golf play it when they can, as well as watching it.

That one fact sets golf apart from the other major sports, baseball, basketball, football, horse racing, track and field and all the rest.

How many people at a major-league baseball game would you say ever played the game above the sandlot level? One in 100? Or, perhaps, one in 1,000? The same would be true of the spectators at most major-league contests in most other sports.

But golf is different.

Golf is the one major sport in which a man—or, for that matter, a lady, a boy or a girl—can be a spectator at a national championship one weekend and a player the very next weekend.

It's the one major sport in which weekend players can compete on the same course, under the same conditions and using the same equipment as the game's greatest professional players.

Thus, the man in the gallery can feel a kinship with the tournament player as

he watches the skilled professional shoot for fabulous prizes on the PGA Tour.

It is with these facts in mind that we salute the golf's indispensable men, the high handicap amateur and the tournament spectator.

Now, why the salute? That's easy!

Let me remind you that upwards of 5,000,000 people play the royal and ancient pastime on 6,385 regulation courses across this great country of ours.

In 1960, America's golfers spent about \$85,000,000 on golf balls, golf clubs and other golf equipment.

Also in 1960, according to the National Golf Foundation, \$53,000,000 was invested in land, construction and equipment for 394 brand new courses.

That brought the nation's investment in courses, clubhouses, course equipment and so on to an incredible total of around \$1,423,000,000.

An estimated 90,000,000 rounds of golf will be played on America's golf courses in 1961, wiping out 1960's all-time record of 86,805,500.

But what, you may ask, have all these statistics to do with the high handicap player?

Simply this—as many as 90 per cent of the golfers of America fall within that category. Do you doubt it? If so, look around your own club.

How many of the players there shoot in the 70s? Or even in the 80s? If more than one out of 10 do, you have a number of exceptional golfers at your club.

Who pays the freight in golf these days?

For the most part, it's the man who loves the game, even though he has never mastered it and never expects to—the high handicap amateur.

High Handicappers Work

In addition, you'll find him serving your club as an officer or a director. You'll find him on all of your club's most important committees.

Frequently, he's the fellow who works hard and puts in many, many hours serving the interests of your club, of its members and of the game of golf.

When a major tournament is held at your club, he's the man who takes the time to serve on a key committee, handling one of the essentials, such as finance, marshalling, ticket sales and so on.

Then, when the tournament actually arrives, he buys his own ticket to get into the grounds, so that he can continue doing an important job.

Today's nation-wide golf boom would be impossible if he and his like weren't around to keep it growing. He's the fellow the grand old game can't do without.

Few Break 90

People who have never tried golf may ask why some 90 per cent of all golfers play a game in which their scores will average 90 and over.

Well, in my opinion, there are a number of reasons.

Perhaps the most important is that a big percentage of people never take up golf until their middle years, when they're retired or nearing retirement.

Starting late in life, one can learn to enjoy golf, but it's difficult for him to learn to play it well.

If there's a game which should be started young, that game is golf.

When you're young, you have the reflexes, the muscular control and the ability to relax, which are vital to the low handicap player.

When you're older, you have to learn to get along as well as you can without those things.

However, people in their middle years often have one advantage over the younger folks. They have the time it takes to take lessons and to practice.

When one only has so much time, as most younger folks do, he wants to spend his time playing golf with his favorite foursome, even if he plays poorly.

Therefore, we have the high handicap golfer, the older fellow who got a late start in the game or the younger one who doesn't have the time to master it.

This, then is our salute to the golfer who shoots 90 or higher round after round, but who loves the game as much as does the low handicapper.

Here's what I tell the 90-and-over shooters at my club and what I want to tell those at your club, too:

Don't fret about your game. Enjoy what golf has to offer you. Get out on the course and play just as often as you can.

Every time the opportunity presents itself, go to a major tournament and watch the stars in action. However, keep this

word of caution ever in mind: Don't try to improve your game by copying a "name" player.

Remember, the touring professional plays or practices every day to keep his own tailor-made swing working just right. His swing won't work for you.

When you have the time, see your professional and arrange to take a series of lessons. Then, be sure that you take time to practice what you've learned.

You may be surprised at the results. You may wind up playing golf better than you ever thought you could.

However, don't get too good. If you do, you may miss the fun you used to have playing with the old gang which has put up with you these many years.

Remember, golf is for fun. It should never become a grim, mechanical task. Keep the fun in golf.

It doesn't matter whether you shoot a

69 or a 96, a 72 or a 127. Golf can be fun, regardless of your score.

The fact is that most golfers shoot 90 or more—sometimes much more—every time they play.

However, they keep coming back for more. To me, that proves how much they are a part of it.

So, remember, Mr. High Handicap Golfer, that you are a very important person in the royal and ancient game.

And, you Mr. Tournament Spectator, remember that without you there would be no PGA Tour and no national competition in golf.

Without you, there would be few golf courses. There would be little or no golf equipment to sell and no one to sell it to. There would be no golf lessons.

Without you, golf would be a minor sport indeed. You have made it America's No. 1 recreation.

ANSWERS TO QUIZ

1. Jack Nicklaus. He was second in 1960 with a score of 282 and tied for fourth this year with 284, for a two-year total of 566.
2. The four: Jacky Cupit, Bob Harris, Eric Monti and Bob Rosburg.
3. No. Smiley L. Quick came closest in 1946 when he won the Amateur Public Links title and was defeated by Stanley (Ted) Bishop in the final round of the Amateur.
4. The British Amateur. Jones won the U. S. Open four times, the U. S. Amateur five times, and the British Open three times.
5. Yes. Miss JoAnne Gunderson, Girls' Junior Champion in 1956, won the Women's Amateur in 1957 and 1960; she was runner-up in 1956.
6. E. Harvie Ward, Jr., in 1955 and 1956.
7. Miss Betty Jameson in 1939 and 1940.
8. W. Lawson Little, Jr., who won both in 1934 and 1935.
9. Francis Ouimet was named eight consecutive times from 1923 to 1934. Ouimet was also non-playing Captain of the U. S. Teams in 1936-38-47-49. Joseph B. Carr, of Great Britain, will make his eighth Walker Cup appearance next month.
10. Jerome D. Travers was a four-time winner, in 1907-08-12-13.

11. The Merion Golf Club at Ardmore, Pa., has been host to 11 USGA events.
12. Walter Hagen in 1922.
13. No. By Definition 20, an out-of-bounds stake is not an obstruction. Further Rule 17-3 prohibits improving the line of play or the position or lie of the ball by moving anything fixed or growing, and a note to the Rule says that "things fixed include objects defining out of bounds."
14. Definition 32 of the Rules of Golf defines the teeing ground as "a rectangular area two club-lengths in depth."
15. Yes. Fred Haas, Jr., played in the 1938 Walker Cup Match and the 1953 Ryder Cup Match.
16. Yes. Under Definition 20, a package of cigarettes is an obstruction, and relief is granted under Rule 31.
17. No. Rule 31-1 says: "Any movable obstruction may be removed. If the ball be moved in so doing, it shall be replaced on the exact spot from which it was moved, without penalty."
18. No. Rule 40-1c stipulates: "If a player's ball move any other ball in the match, the owner of the moved ball shall place the ball on the spot from which it was moved, without penalty, as provided in Rule 27-1a."



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. "61-1" means the first decision issued in 1961. "D" means definition. "R. 37-7" refers to Section 7 of Rule 37 in the 1961 Rules of Golf.

DISQUALIFICATION OF FINALISTS: COMMITTEE MUST DECIDE HOW EVENT TO BE DECIDED

USGA 61-16
Misc.

Q: Without mentioning any names I would like to cite a situation which occurred in a recent tournament. I am waiting at the 18th green for the finalists to come up. A, who was the final winner, was just short of the green and B was also just short of the green. They both chipped up close and A reached down and put the ball he was playing with in his pocket and laid down a new ball and putted it in the hole. B walked over and congratulated him. I remarked at the time that this was against the rules but I didn't raise any question about it because there was no referee. However, in discussing it later, one of the ladies told me that on the 12th hole A had said to B: "Do you care if I put down a new ball to putt with?" Player B said: "No, go ahead." Now under that circumstance they were both agreeing to violate the rules. As I understand the rule on this, they were both disqualified. Now, if the finalist and runner-up are disqualified in a tournament of this kind, who then becomes the champion? Do the two semi-finalists who

were beaten play off for the championship or do the winners of the beaten eight win it?

Question by: FRED L. RIGGIN, SR.
Port Huron, Mich.

A: Since the Rules of Golf do not make specific provision for this contingency, the Committee would be authorized to decide how the outcome of a match play tournament is to be determined when both the finalists are disqualified. The only known precedent is Decision 53-48 which held that if both finalists default, the tournament must conclude without there being an outright winner. A committee would have discretion to decide otherwise to meet particular conditions.

NASSAU MATCH: IS CONSIDERED THREE SEPARATE MATCHES NASSAU MATCH, PLAYER UNABLE TO FINISH: IS ENTITLED TO ANY POINTS WON BEFORE WITHDRAWAL

USGA 61-25
R. 6-3

Q: During the play off of our annual Inter-Club Team Match series just completed we had the following situation arise with respect to the Nassau System of scoring:

In a singles match the competitors played to a tie on the first nine, earning $\frac{1}{2}$ point each; after the turn, one competitor became ill and had to withdraw from the match. The question then arose on correct scoring of points in this match. Did the competitor who had to withdraw retain her $\frac{1}{2}$ point, relinquishing $2\frac{1}{2}$ points by default to her competitor? Or did her withdrawal from the match preclude her taking any points?

Question by: MRS. WILLIAM VERHAGE
Needham, Mass.

A: The Rules of Golf do not specifically cover the question you raise. However, inasmuch as a Nassau match is in effect three separate matches—first nine holes, second nine holes and eighteen holes—it would seem to us that the player who became ill would be entitled to the one-half point won on the first nine, unless the Committee had published a rule to the contrary. Such a ruling would be in accord with Rule 6-3.

DIVOT: NOT LOOSE IMPEDIMENT IF NOT DETACHED

USGA 61-12
D. 17, R. 17-1, 18

Q.1: If a player's ball comes to rest in front of a divot which is folded over but not completely detached, may the player replace or remove the divot before playing?

A.1: Not if the lie of the ball could be affected—see Rule 17-1. A divot not completely detached is not a loose impediment under Definition 17.

DIVOT: IS LOOSE IMPEDIMENT IF DETACHED AND NOT REPLACED

Q.2: If a player's ball comes to rest in front of a divot which is completely detached, may the player replace or remove the divot before playing?

A.2: A detached divot may be a loose impediment (Definition 17) depending upon the circumstances indicated below.

(a) A detached divot which has not been placed in position is a loose impediment (Definition 17) and, except in a hazard, it may be replaced or removed as provided in Rule 18-1. However, there is a one-stroke penalty if the ball move after a loose impediment lying within a club-length of the ball has been touched—Rule 18-2.

(b) A divot which has been placed in position is an irregularity of surface (Rule 17-1), and may not be removed if it could in any way affect a player's lie. Note: Etiquette 7 provides: "Through the green, a player should ensure that any turf cut or displaced by him is replaced at once and pressed down."

Questions by:
JIMMY E. THOMPSON, Professional
Rancho Golf Club
Los Angeles, Calif.

LOCAL RULE: FOR RELIEF FROM PROTECTIVE FENCE LOCATED DIRECTLY BEHIND GREEN

USGA 61-18
R. 31-2, LR

Q: There is a protective fence about 18 feet long directly behind a green on our course. A player cannot get relief from this fence under Rule 31-2 because, in order to get relief, he must, in most cases, drop nearer the hole than the spot where the ball originally lay.

Would it be in accord with the Rules of Golf for our club to establish a special area on which a player entitled to relief from this fence could drop?

Question by: MRS. L. J. O'TOOLE
Chicago, Ill.

A: Yes. The Appendix of the Rules book, page 56, provides that, in such a case, the local committee would be justified in establishing a special area on which a ball could be dropped.

Further, due to the proximity of the fence to the green in the present case, the local committee would be justified in also providing relief when the screen intervenes between the ball and the hole. A local rule somewhat as follows would provide relief in all circumstances and would also eliminate the need for maintaining a special drop area:

"If the screen behind No. — green interfere with the player's stance, stroke or backward movement of the club for the stroke, or if the screen intervene between the ball and the hole, the ball may be lifted without penalty and dropped as near as possible to the end of the screen nearer which the ball originally lay, so as to avoid such interference or intervention; the ball must come to rest not nearer the hole than its original position."

**BALL DEFLECTED FROM HOLE:
INTENTIONALLY BY FELLOW-
COMPETITOR**

USGA 61-19
R. 11-4, 35-1j, 37-8

Q: In the fourth round of a stroke play tournament, A and B are in the same group. A holes out on the final hole for a total of 274. B, confronted with a sizable putt for a score of 273, hits his putt. A, seeing that B's ball has a good chance of going in the hole, deliberately deflects it.

What rule covers such an incident?

Question by: STANLEY MICHELMAN
Brookline, Mass.

A: B's predicament is not specifically provided for in the Rules. Under the Rule of Equity—Rule 11-4—he should be required to replace his ball and replay his putt.

A's deliberate deflection of B's ball constitutes a violation of Rule 35-1j, which provides that no player or caddie shall take any action to influence the position or movement of a ball, but in this case the Committee would be justified in going farther and imposing a penalty of disqualification for unsportsmanlike conduct or violation of Rule 37-8, which provides: "If a competitor in stroke play refuse to comply with a Rule affecting the rights of another competitor, he shall be disqualified."

**SEARCHING FOR BALL IN BUNKER:
RECOMMENDED METHOD FOR
REMOVING SAND**

USGA 61-24
R. 33-1e

Q: We have recently had new silica powdered sand put into the traps on our golf course. In a recent round of play, my ball landed in a trap and completely buried itself with no indication of where the ball was lying. In "removing the sand" to locate the ball, as per Rule 33-1e, what should be used to locate the ball? Is it permissible to use a clubhead, or your hand, or should the player only use a rake to try and locate his ball?

Question by: MISS ELIZABETH LAKE
Cleveland District Golf Assn.
Cleveland, Ohio

A: Although Rule 33-1e does not specify the means which may be used to find a ball covered by sand in a bunker, it

limits the amount of sand which may be removed to "as much thereof as will enable him to see the top of the ball." It is therefore recommended that the fingers be used, on the theory that their use can be controlled over a minimum area. It would be permissible to use a clubhead or rake if the spirit of the Rule is observed.

**BALL STRUCK AT FAIRLY: IF MOVED
FROM AGAINST BOARD FENCE BY
STROKE AT OPPOSITE SIDE OF
FENCE**

USGA 61-22
R. 19-1

Q: The inside face of a board at the bottom of a fence constitutes an out-of-bounds line. A ball comes to rest against the board and is virtually unplayable.

The player stands out of bounds, swings a club against the board on its out-of-bounds side, and the board comes in contact with the ball and moves it. Is this permissible?

Question by: FRED BRAND, JR.
Pittsburgh, Pa.

A: Yes. The player could justifiably contend that he was fairly striking at the ball, even though other material intervened between club and ball (as often happens in sand or heavy grass.)

**BALL RESTING AGAINST FLAGSTICK
MOVED ACCIDENTALLY WHEN
CLUB STRIKES FLAGSTICK**

Revised: USGA 60-42
R. 27-1c

Note: This supersedes original Decision 60-42 issued October 13, 1960.

Q: In stroke play the ball was leaning against the flagstick after the player's fifth stroke. Being upset over his poor play of the hole, the player struck the flagstick a sharp blow with his putter, and his ball jumped from the hole and came to rest four feet away. What is the ruling?

Question by: HARVEY RAYNOR
Professional Golfers' Assn. of America
Dunedin, Fla.

A: The player incurred a one-stroke penalty under Rule 27-1c for accidentally causing his ball to move. He was obliged to play his ball from where it came to rest.



Better Turf for Better Golf

TURF MANAGEMENT

from the USGA Green Section

Returfing Greens at the Country Club of Waterbury

By CHARLES BASKIN, JR.

Assistant Superintendent, Country Club of Waterbury, Waterbury, Connecticut

(Ed. note: For many years now the Country Club of Waterbury has been in search of perfection in putting green turf and because the members at the club place full confidence in Superintendent Charles Baskin, Sr., whose son has written this account of their returfing program, they have left the matter of changing over greens entirely to him. The Senior Mr. Baskin is now in his 34th year at this club. He first came to work there as foreman in the reconstruction of the course in 1927. Like many accomplished superintendents, he has devoted most of his working life to one golf club in search of golf turf perfection).

The Country Club of Waterbury is located in the rolling hills of Waterbury, Connecticut, and though built at the turn of the century, it has withstood the test of golf time. Even though greens at our course have always been considered quite good year in and year out, my father has never been truly satisfied that they were the very best turf possible that he could produce for this area. He therefore sold the club on a three year program of converting all 18 of the present greens, which are a mixture of Washington creeping bentgrass and *Poa annua*, to the Toronto (C-15) strain of creeping bentgrass. The program began in 1958 when 37,000 sq. ft. of nursery sod was grown for the conversion of six greens in 1959. Each year to date this amount of sod has been grown. Twelve greens have been fully converted and the remaining six are scheduled to be converted this year.

Our program can be described in four phases:

1. Growing sod in the nursery.

We first modified our nursery soil with sand and organic matter in sufficient quantity to make the top inch as nearly as possible like that which we desire to have on the putting green. This phase of the program was begun in midsummer and the soil was worked over in order to thoroughly mix the soil amendments into the nursery soil. By Labor Day the



1. Cutting of sod in 37,000 sq. ft. nursery.

area was ready for stolonizing and the entire 37,000 sq. ft. nursery was planted to Toronto C-15 creeping bentgrass at the rate of eight bushels per 1,000 sq. ft.

2. Preparation of the green for sodding.

The first step in this phase is to remove the old sod from the green, taking the sod deep enough to remove all thatch and mat completely. This was a precautionary measure against the infestation of the new strain with weeds and impurities in the way of grasses from the old green turf.

If subsurface drainage in the old green is poor, then tile lines should be installed in the subgrade. The shaping of the green to the desired contour is the next step, making certain that there will be at least a uniform 8 inches of settled topsoil throughout the entire surface of the green. At this time, after cultivation first, we added sand and organic matter. If physical conditioners are added at this time, a far more thorough mixture is possible than one attempted if the conditioners were added before first cultivating. If added before cultivation, we found that layering of the soil resulted, and it was then impossible to uniformly mix the conditioners into the topsoil. Cultivation of the soil mixture in several different directions is then required. This should be done until the top eight inches are uniformly mixed. Raking out the bumps and shaping of the green is done during cultivation.

The soil is then raked out to the desired contour and a light rolling, preferably with a large diameter hand roller, is the next step, followed by another raking. These steps should be repeated

over and over several times followed by the use of a heavier roller passing over the soil four to six times. Between rollings the soil should be raked to a depth of two inches. During raking always bring the soil to the desired contour. The use of grade stakes and a surveyor's level at this stage are most valuable for the proper surface drainage.

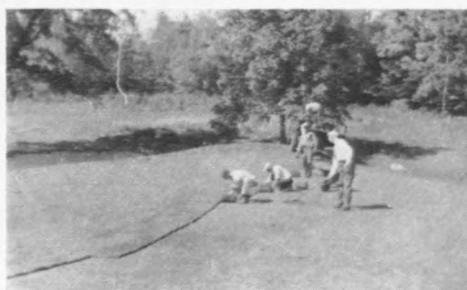
At this time the lime and fertilizer required as determined by prior chemical analysis should be added prior to the final three or four rakings.

3. The sodding process.

Sodding a putting green is a task that calls for special skill and knowhow. Each and every strip of sod must be carefully fitted into the new jig saw green puzzle just as carefully and in the precise order that each piece was removed from the nursery. The joints must be tightly buttressed against one another in a staggered pattern. The sod is cut between 1 to 1¼ inches thick. If cut thinner we found that the turf stretched too much during handling, and as a result was more difficult to lay and smooth. This enables quick rooting of the sod and it will true the surface more quickly too. The more care in placing the sod the less difficulty will be experienced when the green is in play.

We find it best not to allow heavy equipment on the green; this includes trucks carrying the sod (figure 3), all tractors, and carriers. Varying the travel pattern of the men carrying the sod over the green is helpful in reducing compaction. All soil should be lightly raked just prior to the placement of sod.

When laying sod if the day is warm,



2. Laying the sod—note light raking by Mr. Baskin before sod is laid.



3. Matching the sod and tightening the joints. Note truck stops on apron.

the placed sod must be syringed several times so that it does not wilt. We found it worked out better in sodding if we cut only that amount that we could handle daily. If bad weather was forecast we "played it close to our vest," and cut only enough sod that could be laid from hour to hour.

4. Early maintenance of newly sodded green.

As soon as the sodding job is completed, the green should be rolled several times with a large diameter hand roller



4. A view of No. 14 green ten days after the resodding operation.

prior to use of a heavy roller. The latter has a tendency to push or slide rather than level the sod. After the green has been rolled 4 or 5 times with the heavier roller, it is ready to be topdressed. Then it is ready for mowing. Care in mowing the first few weeks is essential to keep from scalping. Care should also be taken to mow frequently so as not to allow the turf to "grow rank."

TOTAL COSTS FOR RESODDING 6 GREENS

Nursery—labor	
To establish rows of stolons \$	130.00
To stolonize 37,000 sq. ft.	1,100.00
To mow	460.00
To spray—fungicide program	80.00
To fertilize	50.00
To irrigate	100.00
To topdress	190.00
Total	\$2,110.00
Nursery—materials	
Fertilizer	\$ 350.00
Fungicide	120.00
Topsoil	550.00
	\$1,020.00
Labor required to condition soil on greens and to transplant sod at \$2.00 per hour	
	\$2,580.00
Totals	\$5,710.00

Rhizoctonia Solani in Relation to Maintenance of Golf Courses

By R. J. LUKENS and E. M. STODDARD

Department of Plant Pathology, Connecticut Agricultural Experiment Station,
New Haven, Connecticut

Rhizoctonia solani (Kuhn) is a difficult fungus to deal with in golf courses. Brown patch is the most common symptom of its presence. Because of the headaches it causes the golf course superintendent, we will discuss the habits of the fungus as they apply to the development of better ways to cope with it.

This fungus causes damping off and root diseases of many plant species. Although its name has been changed several times during the past 230 years, it has been known as *Rhizoctonia solani* (Kuhn) for the past 100 years. The vegetative form is pathogenic to grass in golf greens and elsewhere. The fruiting form of this fungus is found rarely and goes by the name of *Corticium* or *Pellicularia filamentosa*.

Rhizoctonia solani causes brown patch disease when the fungus kills leaves and crowns of bentgrass under warm, humid conditions. Piper and Coe (7) first described this disease when they saw it on

golf greens in Philadelphia. They noted the typical smoke ring symptom, and discovered sclerotia (black compact masses of old fungal hyphae) formed on old diseased plants. These sclerotia started new fungal growth when the weather was warm and moist. The new growth from the sclerotia started another round of brown patch. The disease appeared to be most severe on wet greens suffering from poor soil drainage. These observations were later confirmed and extended by Monteith (5) and Dickinson (2).

Piper and Coe (7) suggested that brown patch began from sclerotia, from which they produced brown patch artificially. They showed that the artificially produced disease had the same temperature and moisture requirements as the disease in the field. With such convincing evidence pointing to sclerotia as the source of disease, the question of other sources was neglected.

Are there other possible sources of

disease? Let us look at what occurs in the field. Turf on putting greens is and has been sprayed faithfully throughout the summer for many years. One would surmise then that sclerotia of *Rhizoctonia solani* persisting in the sod would be killed or exhausted from continual use of fungicides and that brown patch would tend to be less of a problem when the weather becomes hot and humid. Yet, when a spray application is missed at a crucial time, the disease breaks out with its normal aggressiveness. This suggests other sources of disease, possibly from outside the treated area and possibly from beneath it.

Rhizoctonia solani, which is present in most soils, can live on dead organic matter or attack many kinds of plants for its food. Topdressing for greens made by mixing topsoil with sand and organic compost is an ideal food for *Rhizoctonia solani*. The fungus can build itself up in this mixture and is ready to go when the topdressing is spread on the turf. What are we doing? The villain is fattened in the topdressing, evenly spread over its victim, and then gently watered into the turf awaiting for the moment of attack. No fungus ever "had it so good!"

We conclude that topdressing is an important source of brown patch. *Rhizoctonia solani* has been found in topdressing from two golf courses this past season, and brown patch was severe where infested topdressing had been applied.

What control measures may be used to rid topdressing of *Rhizoctonia solani*? These include steaming, or else adding fungicide to topdressing either when mixing or watering it into turf. Inoculating topdressing with other fungi that destroy *Rhizoctonia solani* may help to control the pathogen.

Another external source of *Rhizoctonia solani* is infested seed. Leach and Pierpoint (4) found the fungus could be carried by bentgrass seed. *Rhizoctonia solani* on the seed may cause damping off of seedlings as they break through the ground. This kind of damping off can be controlled by seed treatment, or by watering the seeded area with an effective fungicide.

In the 40 years since Piper and Coe (7) reported on brown patch, *Rhizoctonia* infections on roots of putting green turf

has received little attention. Bloom and Couch (1) have recently referred to *Rhizoctonia* crown and root rot as the last stages of brown patch development. Work at the Connecticut Agricultural Experiment Station has shown that root infection of *Rhizoctonia solani* on grasses is a cause for brown patches in lawns (6). We have seen severe root infections of the fungus in specimen from various golf greens in Connecticut. Roots penetrate less than two inches in soil when they are severely infected with *Rhizoctonia solani*. In some cases there is no evidence of top infection. The fungus attacks roots in cool as well as warm weather. But if the weather becomes warm and humid, diseased roots can be an important source for causing top infection or brown patch disease besides causing extensive root injury.

In addition to serving as a possible source for brown patch disease, diseased roots may also cause wilt. Wilting results from blocking the water supply to leaves caused by either vascular or root diseases. Turf on putting greens suffering from wilt has shallow roots severely infected by *Rhizoctonia solani*. In cases where the fungus is controlled on roots of turf on putting greens, symptoms of wilt disappear and root growth is improved.

Turf with diseased roots has less vigor and requires more care than healthy turf. Frequent water and fertilizer applications, coupled with syringing greens daily to combat wilt, make conditions favorable not only for brown patch, but also for Curvularial blight. This makes necessary the multiple sprays now needed for disease control. Our preliminary studies indicate that turf on putting greens with a healthy root system 6-12 inches deep is less susceptible to top infecting diseases and require fewer of the usual items of care.

Control of *Rhizoctonia solani*

Current control measures depend largely upon foliar sprays. Improvements in the available sprays and spraying equipment made foliar sprays the principal control measure for brown patch. Harrington (3) discovered that thiram was effective against brown patch on putting green turf, thus opening the door for many organic fungicides to be tested for control of turf diseases.

Rhizoctonia solani is known to cause a complex of diseases in turf on putting greens. The best control of the fungus is not achieved through any single operation such as foliar sprays, but through the use of many methods of disease control in the various operations performed on a green. Some of these other methods are the use of disease resistant bentgrass varieties, the use of disease-free seed or stolons, and the use of clean topdressing. Another method is to attack **Rhizoctonia solani** where it lives—in the soil. This we have done with soil drenches.

Root infections of **Rhizoctonia solani** on turf can be controlled with soil drenches of oxyquinoline sulfate. The treatment is one ounce of the compound in 16 gallons of water applied at the rate of one pint per square foot on turf. A single treatment with this solution may control brown patch for three years. The long effective period of the chemical drench was seen on several lawns during the past 10 years. Oxyquinoline sulfate does not control brown patch when used as a foliar spray.

Soil fungicides can control **Rhizoctonia** infections on turf roots on golf greens used for normal play. In August 1959, greens suffering from **Rhizoctonia** root infection, wilt, Curvularia blight, and chemical injury from futile fungicide applications were injected with nabam (1:600 dilution of 22% commercial sodium ethylene-bis-dithiocarbamate). Nabam is a water soluble fungicide known to control **Rhizoctonia solani** on other crops. We treated the turf with a tree feeding injector, pumping the fungicide into soil at 200 pounds per square inch. The injector was inserted every 4 to 5 feet, 8 to 12 inches deep, and held open 5 to 7 seconds depending upon the resistance of the sod and distribution of fungicide in the soil.

The turf immediately responded to the treatment. In a week, new growing points of turf were evident and in a month all areas of greens had recovered except where turf was actually killed. Together with topdressing and reseeding bare areas, the greens fully recovered in two months. At time of treatment, roots were two inches in depth and severely infected with **Rhizoctonia solani**. In two months, new roots penetrated to 12 inches and re-

mained healthy. The effectiveness of the injection persisted throughout the season of 1960.

In June 1960, we set up experiments on four greens that had been treated with nabam in 1959. The test greens were divided into four strips. One strip was left untreated. We injected one strip with water, one strip with nabam (1:600 dilution) and the last strip with oxyquinoline sulfate (1:2000 dilution). The greens were fertilized in the normal manner and watered four hours at night when required. The persistence of the 1959 treatment masked the differences in the 1960 tests except that grass in nabam injection strips had more roots than other treatments. In August 1960, both nabam and oxyquinoline sulfate treated strips had one-half the incidence of **Rhizoctonia solani** than that occurred in the strips receiving water or in the control strips, although all treatments had good root systems. By October, roots in the control strips were shorter, while nabam treated roots grew an inch longer (compare B and C in illustration).

The increase in root activity of nabam treated turf may be caused in part by root stimulating properties of nabam or breakdown products from nabam. In other experiments, we found that drenching rooting material with nabam stimulates rooting of geranium cuttings set in the material afterwards.

An unexpected benefit accompanied the injection treatment. Golfers noticed their approach shots stuck to the surface of greens and rolled true. Apparently, injecting water under pressure breaks up a compaction layer several inches below the surface of the green and seems to improve the playing surface. This may also partly explain the quickness of roots to penetrate after the injection.

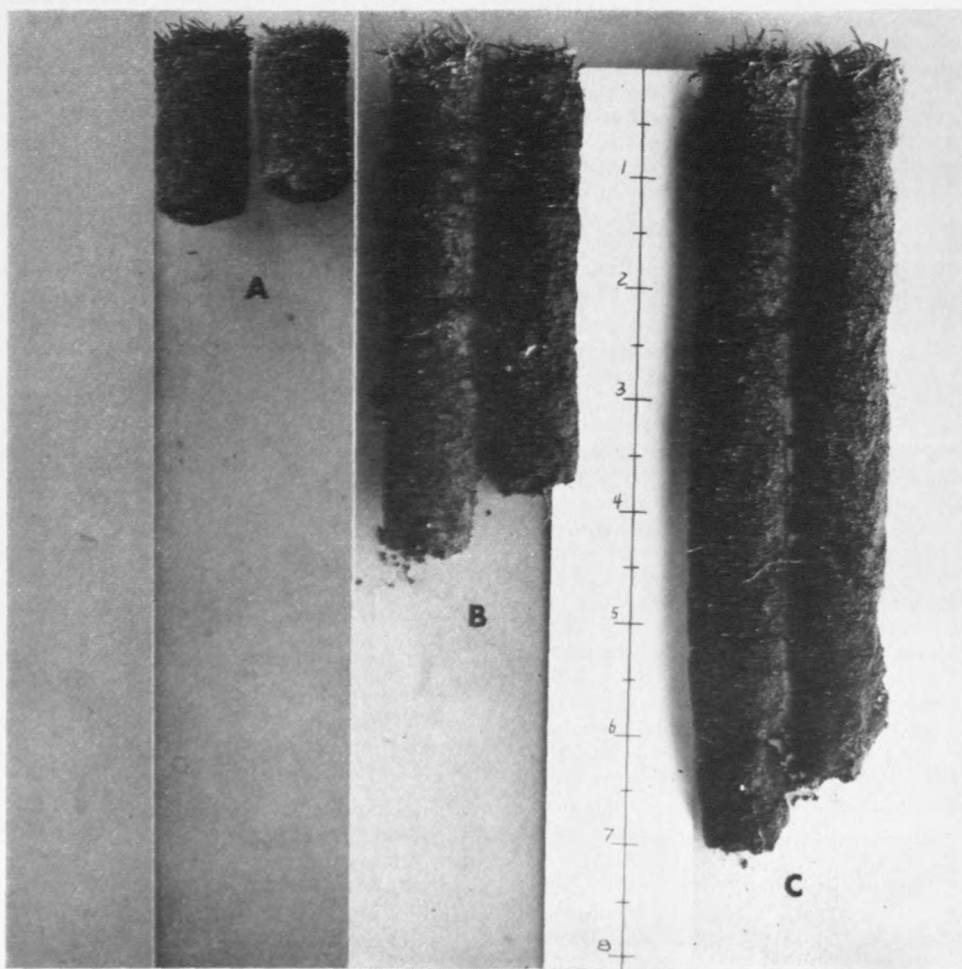
The superintendent of the golf course cared for the other greens in the following manner during 1960: nabam was injected into the sod in early June. In August, the greens were aerified and topdressed. The topdressing was watered into turf with nabam (1:800 dilution). Two sprays of thiram were applied during the summer as a precaution although no evidence of disease appeared on greens. Watering was done at night for four hours when required. Other golf

courses in Connecticut were damaged by wilt and Curvularial blight. Brown patch did not occur to any extent in Connecticut this season.

A golf course situated on a hilltop was suffering from wilt. We found that the roots were one and one-half inches deep and severely infected with *Rhizoctonia solani*. Two months after injecting greens with nabam, symptoms of wilt were reduced. The treated sod developed an active root system down to four inches with

some roots penetrating deeper. At another course, not treated, turf suffering from wilt still had roots penetrating only one and one-half inch and severely infected with *Rhizoctonia solani*.

These tests with soil injections or drenches of fungicides are preliminary in nature. Evidently such treatments control root infection of *Rhizoctonia* but more experience with them is needed to see whether they can control top infecting diseases. These experiments are an



ROOT DEPTH OF TURF ON PUTTING GREENS: "A", AUGUST 1959, BEFORE TREATMENT; "B", OCTOBER 1960, ONE INJECTION OF NABAM (AUGUST 1959); AND "C", OCTOBER 1960, TWO INJECTIONS OF NABAM (AUGUST 1959 AND JUNE 1960). THE RULE IS IN INCHES.

effort to find better ways to control turf infections of *Rhizoctonia solani* than the laborious foliar sprays now being used.

What have we learned? *Rhizoctonia solani* attacks roots as well as leaves and crowns of turf on putting greens. Besides sclerotia found in old diseased grass, other probable sources of inoculum are infested soil, topdressing, and seeds. Many practices now used in maintaining golf greens have failed to improve root systems or to control root infections. In fact they may actually favor other diseases. Injecting solution of nabam into turf reduces *Rhizoctonia* root infections, improves root systems, and possibly reduces incidence of top-attacking diseases. With a greater appreciation of the problem of *Rhizoctonia solani*,

diseases caused by the fungus may be coped with more successfully.

LITERATURE CITED

- (1) Bloom, J. R. and H. B. Couch. 1960. Influence of environment on diseases of turf grasses. 1. Effect of nutrition, pH, and soil moisture on *Rhizoctonia* brown patch. *Phytopathology* 50: 532-535.
- (2) Dickinson, L. S. 1930. The effect of air temperature on the pathogenicity of *Rhizoctonia solani* parasitizing grasses on putting green turf. *Phytopathology* 20:597-608.
- (3) Harrington, G. E. 1941. Thiuram sulfide for turf diseases. *Science*, N. S. XCIII:311.
- (4) Leach, C. M. and M. Pierpoint. 1958. *Rhizoctonia solani* may be transmitted with seed of *Agrostis tenuis*. *Plt. Dis. Repr.* 42:240.
- (5) Monteith, J. 1926. The brown-patch disease of turf, its nature and control. *Bull. U. S. Golf Assoc. Green Sect.* 6:127-142.
- (6) Morgan, M. F., E. M. Stoddard, and J. P. Johnson. 1940. *Turf Management*. Conn. Agri. Expt. Sta., New Haven. Circular 139:1-27.
- (7) Piper, C. V. and H. S. Coe. 1919. *Rhizoctonia* in lawns and pastures. *Phytopathology* 9:89-92.

An Improved Method of Transplanting Large Trees

By A. M. RADKO
Eastern Director, USGA Green Section

The series of pictures below were taken last fall of a tree transplanting method used by Mr. Jimmy DeBottis, superintendent of the Country Club of Rochester, Rochester, New York. The prime mover in the use of this technique is an implement improvised by Mr. DeBottis to take the place of the "stone boat" most commonly used in moving large trees over turf or soil. Trees 30 to 50 feet high can be moved rather quickly and easily using this implement and this technique is compared to that of the "stone boat." Other advantages are readily obvious.



1. A view of the implement which is made of angle iron, pipe, and a dual wheel axle.



2. The rough digging is done by a front end loader or backhoe. A minimum of fine work with pick and shovel is required. The tree is selected from the wooded area on the course.



3. Ken Pillotte (left) and Wayne Rank place chain over burlap.



4. The ball is firmly held by burlap and chain and the tree mover is being backed into position.



5. The tree mover is tilted, the cradle placed against the ball of the tree. Then, with heavy duty rope the trunk is tied to the "Y" fork of the mover.



6. By the fulcrum principle, the tree is eased now into a horizontal carrying position.



7. Driver Norman "Doc" Vane and superintendent Jimmy DeBottis look over proposed planting site for this tree which measured approximately 40 feet.



8. Superintendent DeBottis (left) and Wayne Rank inspect a second tree of similar size planted earlier using this same technique.

IT'S YOUR HONOR

A Crutch on the Green

TO THE USGA:

I should like to make a suggestion for a change in the Rules of Golf which I confidently feel warrants consideration.

It concerns the stick, pole, or what have you, in the cup on each green. My belief has always been that the pole with the flag showing the number of the hole is there primarily to show the location of the hole, not to assist in sinking putts.

Unfortunately, in antithesis to not only the letter but also the spirit of the Rules of Golf, many players are utilizing the stick as a crutch or aid on fast greens, on downhill putts, and as a possible assist when chipping from off the green. I have seen some players request the "pin in" when lining up flat 5-foot putts, even shorter ones. It's sickening.

Although the old rule of penalty for hitting the pin or flag does not have to be revived and should not, my contention is that a new rule should be promulgated proving for a two stroke penalty when the pin is struck by a player's ball which has been putted from on the putting surface.

No penalty would be imposed for a ball that hit the pin even though a putter (or other club) has been used when the ball was struck from a position not on the actual green. The net result of the imposition of

the suggested rule change would be that players either would putt with the pin out or with the pin attended.

The stringent Rules of Golf, based on Fair Play, should not be abridged or diluted by permitting players to use the stick as a help in their putting. I am sure all bona fide golfers will agree.

JULES M. LIEBERTHAL
New York, N. Y.

Rough at the Open

TO THE USGA:

I personally think there should be more rough in the Open Championship. It rewards shot-making and correct thinking, rather than being able to hit every green from the rough. The rough was very short and thin at Oakland Hills as it was at the last six Championships.

The Open Championship should be a Championship for all types of shot-making and thinking and not just hitting it far and wide. If a shot is wide, it should then take good shot-making and correct thinking to hit the next shot on the green—not just being able to smash it on the green after a wild shot off the tee.

Anyway, these are my views, hope the Open Championship remains for all types of shot making.

JACK FLECK
Los Angeles, Calif.

USGA OFFICERS, EXECUTIVE COMMITTEE AND COMMITTEE CHAIRMEN

OFFICERS

PRESIDENT

John G. Clock, Long Beach, Calif.

VICE-PRESIDENTS

Clarence W. Benedict, White Plains, N. Y.

John M. Winters, Jr., Tulsa, Okla.

SECRETARY

Wm. Ward Foshay, New York, N. Y.

TREASURER

Bernard H. Ridder, Jr., St. Paul, Minn.

EXECUTIVE COMMITTEE

The above officers and:

Fred Brand, Jr., Pittsburgh, Pa.

William C. Chapin, Rochester, N. Y.

Edward L. Emerson, Boston, Mass.

Edwin R. Foley, San Francisco, Calif.

Harry L. Givan, Seattle, Wash.

Hord W. Hardin, St. Louis, Mo.

Robert K. Howse, Wichita, Kans.

Harold A. Moore, Chicago, Ill.

Eugene S. Pulliam, Indianapolis, Ind.

Henry H. Russell, Miami, Fla.

GENERAL COUNSEL

Phillip H. Strubing, Philadelphia, Pa.

EXECUTIVE DIRECTOR

Joseph C. Dey, Jr., New York, N. Y.

ASSISTANT DIRECTOR: P. J. Boatwright, Jr.

USGA HEADQUARTERS

"Golf House", 40 East 38th Street, New York 16, N. Y.

COMMITTEE CHAIRMEN

RULES OF GOLF: Wm. Ward Foshay, New York, N. Y.

CHAMPIONSHIP: Bernard H. Ridder, Jr., St. Paul, Minn.

AMATEUR STATUS AND CONDUCT: Harold A. Moore, Chicago, Ill.

IMPLEMENTS AND BALL: Clarence W. Benedict, White Plains, N. Y.

MEMBERSHIP: Edwin R. Foley, San Francisco, Calif.

GREEN SECTION: William C. Chapin, Rochester, N. Y.

WOMEN'S: Mrs. Henri Prunaret, Natick, Mass.

SECTIONAL AFFAIRS: Hord W. Hardin, St. Louis, Mo.

PUBLIC LINKS: Fred Brand, Jr., Pittsburgh, Pa.

HANDICAP: Clarence W. Benedict, White Plains, N. Y.

Handicap Procedure: Herman M. Freyberg, New York, N. Y.

JUNIOR CHAMPIONSHIP: Harry L. Givan, Seattle, Wash.

SENIOR CHAMPIONSHIP: Harold A. Moore, Chicago, Ill.

GIRLS' JUNIOR: Mrs. John Pennington, Buffalo, N. Y.

MUSEUM: Robert K. Howse, Wichita, Kans.

BOB JONES AWARD: Wm. Ward Foshay, New York, N. Y.

FINANCE: Bernard H. Ridder, Jr., St. Paul, Minn.

NOMINATING: Totton P. Heffelfinger, Minneapolis, Minn.

USGA GREEN SECTION

EASTERN REGION

Northeastern Office: Lipman Hall, Rutgers University, New Brunswick, N. J.

Alexander M. Radko, Director, Eastern Region

Raymond E. Harman, Northeastern Agronomist

James R. Kollett, Northeastern Agronomist

Southeastern Office: P. O. Box 4213, Campus Station, Athens, Ga.

James B. Moncrief, Southeastern Agronomist

MID-CONTINENT REGION

Southwestern Office: Texas A. and M. College, College Station, Tex.

Dr. Marvin H. Ferguson, Director, Mid-Continent Region and National
Research Coordinator

W. Wayne Allen, Southwestern Agronomist

Charles E. Croley, Southwestern Agronomist

Mid-Western Office: Room 241, LaSalle Hotel, Chicago 2, Ill.

James L. Holmes, Mid-Western Agronomist

WESTERN REGION

Western Office: P. O. Box 567, Garden Grove, Calif.

William H. Bengeyfield, Director, Western Region