



USGA JOURNAL

COMBINING
TIMELY TURF TOPICS

Bing Sings for Caddie Scholarships



Golfer Crosby, who once played in the Amateur Championship, sings "Tomorrow's My Lucky Day" in Western Golf Association's new film "Honor Caddie." Chick Evans approves this effort for caddie program he founded.

SPRING 1949



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TIMELY TURF TOPICS

PUBLISHED BY THE UNITED STATES GOLF ASSOCIATION

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UNITED STATES GOLF ASSOCIATION
73 EAST 57TH STREET, NEW YORK 22, N. Y.

Correspondence pertaining to Green Section matters should be addressed to:

USGA GREEN SECTION, Room 307, SOUTH BUILDING, PLANT INDUSTRY STATION, BELTSVILLE, MD.
EDITED BY Joseph C. Dey, Jr. and John P. English. ADVISORY COMMITTEE—John D. Ames, Chairman;
Isaac B. Grainger, Curtis W. McGraw, James D. Standish, Jr. All articles voluntarily contributed.
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USGA COMPETITIONS FOR 1949

Walker Cup Match: August 19 and 20, at Winged Foot G. C., Mamaroneck, N. Y.
Men's amateur teams, British Isles vs. United States.

(Dates entries close mean last dates for applications to reach U.S.G.A. office, except in the case of the Amateur Public Links Championship. For possible exceptions in dates of Sectional Qualifying Rounds, see entry forms.)

Championship	Entries Close	Sectional Qualifying Rounds	Championship Dates	Venue
Open	May 16	May 31	June 9-10-11	Medinah C. C. (No. 3) Medinah, Ill.
Amat. Public Links	*June 9	**June 19 to 25	Team: July 9 Indiv.: July 11-16	Rancho G. C. Los Angeles, Cal.
Junior Amateur	July 5	July 19	July 27-30	Congressional C. C. Washington, D. C.
Amateur	Aug. 1	Aug. 16	Aug. 29-Sept. 3	Oak Hill C. C. (East) Pittsford, N. Y.
Girls' Junior	July 29	None	Aug. 15-20	Phila. Country C. (Bala), Phila., Pa.
Women's Amateur	Aug. 12	Aug. 30-31	Sept. 12-17	Merion G. C. (East) Ardmore, Pa.

* Entries close with Sectional Qualifying Chairmen. ** Exact date in each Section to be fixed by Sectional Chairmen.

THROUGH THE GREEN

Ben Hogan

The spirit of fraternity among golfers is unique even in the world of sports, where men seem to get along with one another better than in most other spheres. So it is that the hearts of golfers have gone out to Ben Hogan.

You hear all manner of comment and inquiry about Ben and the injuries he sustained in a Texas motor accident



Lathrop-Silvera

last winter. You hear all sorts of guesses about when he will be able to play again.

The remark which seems best to fit the case is this very simple one: "If anybody can beat this bad break, Ben Hogan can."

There is a classic tribute—a tribute not so much to the Open Champion as to a person, a sportsman.

Americans Abroad

By weight of numbers, if nothing else, Americans will make an impression in the British Amateur Championship during the week of May 23 at Portmarnock, near Dublin. Nearly twoscore entries have been certified by the USGA.

The more serious travelers are Frank Stranahan, holder of the British Championship; William P. Turnesa, who won it in 1947 and who is the current USGA champion; and Robert H. (Skee) Riegel, 1947 USGA Champion.

It may sound anachronistic, but Francis Ouimet and Chick Evans are in the list. So is Ellis Knowles, former Seniors' Champion. He is going over with his son, James B. Knowles. That makes two father-and-son pairs, for Robert A. Stranahan will be a rival entrant of his son Frank.

Three Californians have entered — Edward E. Lowery, Clarke Hardwicke and Max Felix. Leonard Martin and Udo M. Reinach, of New York; Elmer Ward and Frank Craven, of Boston; Theodore S. Bassett of Rye, N. Y., and three soldiers stationed abroad — Major Lewis J. Wright, Lieut. Willis Johnson and M/Sgt. William G. Ebey—are in the American platoon.

It will be the first holding of the British Championship on Irish soil. Mr. McCackletackle, our peripatetic philosopher, asked us:

"Have you seen a shamrock divot?"

The British Ladies' Championship is to be played in the same week as the British Amateur, at the Royal St. David's Golf Club, Harlech, Wales. It, too, will have American entrants of quality. Miss Grace S. Lenczyk, our Champion, has entered. So has Miss Peggy Kirk, of Findlay, Ohio. There may be others.

Walking Off With The Flag

When an Englishwoman was fined five pounds for stealing two scarves from a shop, her husband testified that she was very absent-minded, and that her habit of walking off with a flag from the green when playing golf had annoyed the other club members so much that she had to give up playing.

Spreading The Word

To increase the usefulness of the USGA JOURNAL, Fielding Wallace, USGA President, has requested the presidents of all USGA Member Clubs and Courses to cooperate in a widespread subscription plan. The idea is for each club to send to all of its individual members little folders containing a description of the JOURNAL and a subscription form (the folders being supplied by the USGA); it is suggested that they be enclosed with each club's next general mailing to its members.

Feasibility of this plan was proved during a test conducted by the Sectional Affairs Committee. Each committeeman was asked to arrange with one club in his section to try the plan with its members. Results exceeded expectations.

The Blue Hills Club, of Kansas City, produced 64 new subscribers; and that's testimony to diligent work by E. L. Hoth of the Sectional Affairs Committee. Incidentally, 125 individuals constituting the boards of ten clubs in the Kansas City section are JOURNAL readers.

Pittsburgh Field Club, inspired by Fred Brand, Jr., turned in 61 subscriptions. Col. Lee S. Read of Louisville doubled up his test, with the following results: Big Spring G. C., 41; Audubon C. C., 35. Other leaders were: Winged Foot G. C., Mamaroneck, N. Y., 34; Kenwood C. C., Cincinnati, 30; Guyan G. and C. C., Huntington, W. Va., 29; Illini C. C., Springfield, Ill., 27; Meridian Hills C. C., Indianapolis, 24; Montclair (N. J.) G. C., 24; Brae Burn C. C., West Newton, Mass., 23.

\$500 To Aid Children

The Women's Golf Association of Northern California had its outstanding season in 1948, according to Mrs. L. V. Parmelee, retiring secretary: 1,088 members, record tournament entries, a new Grandmothers' and Seniors' Tournament with 90 participants, hole-in-one pins to 15 members.

"With our increased membership and interest," Mrs. Parmelee says, "we were able to donate \$500 to the 'Save the Chil-

dren Federation.' This sum is being used to sponsor two schools, one in Finland and a Navajo Indian school in Arizona."

They Serve The Game

Maynard G. Fessenden, of Chicago, President of the Western Golf Association, has been voted by the Golf Writers' Association of America as the man who made the outstanding contribution to golf in 1948. He has been awarded the William D. Richardson



M. G. Fessenden

Memorial Trophy for his leadership in developing the Western's caddie scholarship program.

Runner-up in the writers' voting was Bing Crosby, followed by Mayor James Rhodes, of Columbus, Ohio, who founded a national caddie tournament, and Dr. Fred V. Grau, Director of the USGA Green Section.

Chairmen of USGA Committees

The following Chairmen of USGA committees for 1949 have been appointed by Fielding Wallace, of Augusta, Ga., President:

Rules of Golf—

Isaac B. Grainger, New York.

Championship—

Richard S. Tufts, Pinehurst, N. C.

Implements and Ball—

John D. Ames, Chicago.

Amateur Status and Conduct—

James W. Walker, New York.

Membership—

Daniel A. Freeman, Jr., New York.

Green Section—

James D. Standish, Jr., Detroit.

Women's—

Miss Frances E. Stebbins, Boston.

Public Links—

Totton P. Heffelfinger, Minneapolis

Sectional Affairs—

William C. Hunt, Houston, Texas.

Handicap—

William O. Blaney, Boston.

International Relations—

Charles W. Littlefield, New York.

Museum—

C. Pardee Erdman, Pasadena, Cal.

Public Relations—

John D. Ames, Chicago.



"Yes, I admit I lost my temper."

Reprinted by courtesy of GOLF MONTHLY, Edinburgh, Scotland.

Pigeon Run

It took the lady the longest while to realize that the shot is not called the pigeon run.

Happy Birthday To You

These are Golden Anniversary days for the Western Golf Association, the Women's Metropolitan Golf Association, and the Western Pennsylvania Golf Association.

Many clubs reach their 50th birthday this year. Among those which already have come to notice are the Bellevue Golf Club, Melrose, Mass., and the LaGrange Country Club, LaGrange, Ill.

The New Haven (Conn.) Country Club, which completed a half-century in 1948, has just published its history, entitled "The First Fifty Years." It is replete with interest, thanks largely to painstaking research by Robert D. Pryde. Here is one excerpt:

"It is said that 'bad manners' were responsible for the founding of the New Haven Country Club. For the New Haven Golf Club admitted Yale students, who soon overran the course and made it impossible for the women members to play. . . . We are told that the Club was not able to control the students or to get rid of them, and the only way out was the formation of another club. Whether this is too harsh a judgment may be hard to determine now; at any rate, the strong feeling against student play long manifested itself at the Country Club. Thus the Board's proposal for the admission of undergraduate students 'not exceeding fifteen' was voted down

at the annual meeting of 1901. In December, 1903, the Board had to take steps to warn members against bringing students out to play golf. The rule persisted for many years, until long after the Race Brook Country Club was started and a new outlet thus opened for the undergraduates."

At another point, an 1898 conservative expressed the view that "Golf is a new game to the Americans and it may not appeal to them for very long."

Salutations!

And Happy Birthday To Us

Thank you very much, and this is the beginning of the second year for the USGA JOURNAL. It's a good occasion to recall promises we made in the first edition:

"We shall be mainly concerned with two things — the play and conduct of the game, and improvement of golf course maintenance.

"As for play of the game: We propose to provide a meeting place for golf-lovers to exchange useful ideas and a medium for USGA decisions, comments and information, on such subjects as the Rules of Golf, tournament procedures, handicapping, USGA Championships, amateur status, golf balls and clubs, and new trends in the game. We'll also touch on golf history and background. Successful players will give hints on how to play.

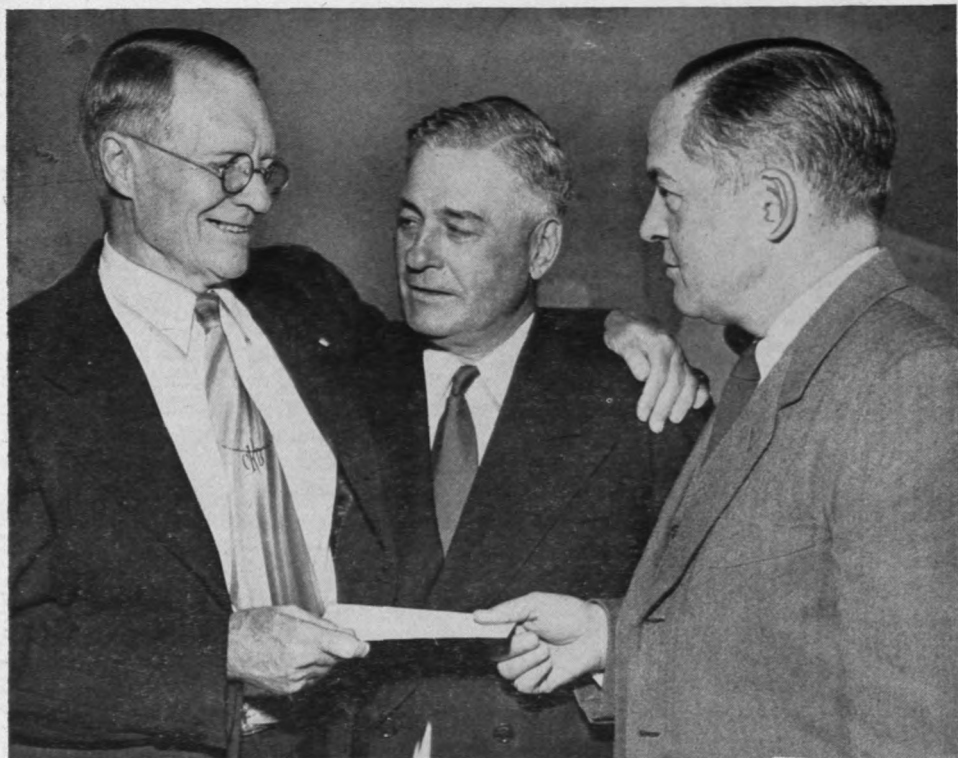
"As for golf course maintenance, each issue will contain a section entitled **TIMELY TURF TOPICS** — information issued by the USGA Green Section. For more than 25 years the Green Section has been advising the Member Clubs on course upkeep. Its work has been a major factor in developing many of the best greenkeeping practices now standard on many courses. The Green Section's advice has been invaluable in terms of improved playing conditions and economical maintenance — elements important to all golfers.

"The JOURNAL thus will help further to unify these two major spheres of interest — how the game is played, and where it is played."

This being a non-profit publication by golfers for golfers, we welcome contributions of articles, notes and photographs of general interest.

Light up that first candle, Mr. McCackletackle!

SPORTSMAN'S CORNER: O. B. KEELER



Courtesy of Atlanta Journal

O. B. Keeler requires the support of W. D. P. McDowell as he receives gift of an automobile certificate from Bob Jones in behalf of those present at testimonial dinner.

By ED MILES

THE ATLANTA JOURNAL, ATLANTA, GA.

Oscar Bane Keeler, a sportsman if ever there was one, finally received his due from 300 representatives of the whole golfing world at a testimonial dinner in Atlanta on the eve of the Masters Tournament. The due consisted of a sincere display of affection, which O. B. has earned in 40 years as a newspaperman, and he responded with an equally sincere display of embarrassment.

In presenting a Buick car to the perspiring ATLANTA JOURNAL writer, Bob Jones said he had often thought about "all the suffering I caused poor old Keeler and how he held my hand through the critical moments of my career. I thought he might need someone to hold his hand tonight, and I am glad to be here to do it."

After fighting back tears of gratitude, Keeler answered, "Life has been good to me, but this is the finest moment of all. . . I can't thank you folks for this night. I can only say, 'God bless you'."

The honored sportsman had blushed when Horton Smith called him one of the finest characters associated with golf. He had shared in the laughter when Col. Lee S. Read, Secretary of the Southern Golf Association, said, "Keeler is to golf what fertilizer is to grass, and I doubt if anyone has spread more of it."

Ed Danforth, sports editor of the ATLANTA JOURNAL, was toastmaster and W. D. P. McDowell chairman of the dinner committee. Other speakers were Charles Bartlett of the CHICAGO TRIBUNE, Secretary of the Golf Writers' Association of which Keeler is President, and Fred Russell, of the NASHVILLE BANNER.

Col. Bob Jones and Bob Jones, III, Bob Harlow, Henry McLemore, Hugh Fullerton, Jr., Zipp Newman, Keith Conway, Mitt Jeffords, Jimmy Thomson and Lawson Little were among those introduced.

Special Balls? - Makers Say No

By JOHN D. AMES

CHAIRMAN, USGA IMPLEMENTS AND BALL COMMITTEE

In the latter 1930s, with the golf ball apparently growing "longer" every year, the USGA started on a program to limit the ball's distance qualities. For some time there had been a Rule specifying maximum weight and minimum diameter for the ball, but this had now become inadequate to meet the new situation fully.

It now seemed necessary to regulate directly the *performance* of the ball. Some courses were being outmoded as regards length, and it was costly to the clubs and their members to bring them up to date. Further, it seemed desirable, as a USGA announcement said, to have "greater emphasis on individual playing skill by promoting uniformity in the manufactured elements of the game." Finally, it was hoped that limitation of distance qualities would cause competing manufacturers to concentrate mainly not on distance but on making balls of better all-around quality and uniformity of performance (and perhaps reduce their cost!).

So, to obviate further distortion of the game, the USGA retained Armour Research Foundation of Chicago to devise apparatus which would scientifically measure the velocity of the ball immediately after impact. There is, of course, a direct relation between the velocity of a ball and its "carry."

After the device tested some 6,000 balls during 1941, at temperatures varying from 45 to 100 degrees Fahrenheit, the USGA added the following provision to the Rules:

"The velocity of the ball shall be not greater than 250 feet per second when measured on the USGA's apparatus; the temperature of the ball when so tested shall be 75 degrees Fahrenheit; a maximum tolerance of 2% will be allowed on any ball in such velocity test."

This had the effect of "freezing" the ball at its 1941 "length." The manu-

facturers agreed to cooperate in maintaining the new standard.

The golf balls tested prior to the war fell, generally, within the specifications. During the war, testing first was curtailed and finally suspended, and the test equipment was dismantled and stored. When peace came, the apparatus was put into operation, tests were resumed, and are continuing.

According to the post-war records of the USGA device, there has been a tendency for the ball to go faster, and the tendency is continuing.

The USGA Executive Committee felt that this should be brought to the attention of the ball manufacturers, so that they could take the proper steps to hold the ball within the prescribed limits.

Further, there has been much gossip to the effect that certain companies make special golf balls for playing professionals on their staffs, and it was decided that this matter also should be thoroughly aired.

Therefore, late last year the USGA wrote to all golf ball manufacturers setting forth the situation and asking what steps, if any, they were taking to hold *all* their golf balls within the specifications.

All manufacturers responded. Without exception, they stated that they had made no change in the construction of the ball and that they did not manufacture any special balls for individuals.

In recent weeks a new phase of the problem has arisen in reports that some balls are being made slightly smaller than the specified size, and we know of one source which has advertised a small-sized ball, even though it does not conform with USGA Rules. Variations in size admit of on-the-spot checking. The Association naturally assumes that the manufacturers keep the factor of size in mind as well as weight and speed.

The report that manufacturers pro-

duce special, long-distance balls for their own playing professionals was labelled as pure gossip and without foundation by every manufacturer.

"The writer has been in the golf-ball business since 1902," wrote Jack Jolly, President of Jack Jolly & Son, Inc. "We made the Kempshall Flyer, liquid-center ball at that time, which was the first liquid-center ball made here. For the past 30 or 40 years I have heard all kinds of stories of special golf balls being made for pros and certain amateurs. As far as I know, it's just a lot of nonsense. I don't know of any golf ball company that would want to do anything like that."

Both MacGregor Golf, Inc., and the Wilson Sporting Goods Co. pointed out, however, that golf balls vary somewhat in resiliency even when manufactured within specifications and that their staff professionals hand-select their balls from regular stock.

"Our staff professionals have played nothing but our standard construction, and we have no intention of producing special balls for them," wrote Henry P. Cowen, President of MacGregor Golf, Inc. "Because of their special power, however, it is customary to hand-select this stock in the higher compression, from 90 to 100, but we do not believe that this is outside the scope of USGA regulations when construction from center to cover is identical in all respects to regular stock.

"Of course, we would not deny 90 to 100 compression golf balls to anyone who might ask for them, and such stock will be included in deliveries to the trade, along with stock grading down to 75 compression. In other words, regular stock has a standard of 75 to 100 compression. The stock we have anticipated supplying our advisory staff would have a closer tolerance of 90 to 100 compression, but again I repeat that there is no variance in construction."

A high-compression ball obviously is not suitable for any but the powerful hitter, and even the leading professionals may not all want identical balls. Fred J. Bowman, Vice-President of Wil-

son Sporting Goods Co., pointed this out when he wrote:

"Some players have their own ideas as to what they want in the hardness of golf balls, as well as the feel and click, and usually do their own selecting of balls out of each dozen available. A ball that may suit one player may prove to be unsatisfactory or undesirable for another.

"In our opinion, a variation in the hardness of a top-grade ball will not give one player an advantage over another. Statistics will show most of the tournaments are won on the green, where distance is not a factor as compared with feel and click.

"We do not have special specifications on golf balls for certain players."

Vincent Richards, Assistant to the President of the Dunlop Tire and Rubber Corp., labelled the report of specially manufactured balls most concisely when he wrote: "As far as this company is concerned, we make only one stock ball for the pro shops. . . . We, too, have heard gossip and rumors. . . . The consensus was that it was merely gossip and rumors."

Placing the period at the end of the discussion, William T. Brown, Vice-President of A. G. Spalding & Bros., Inc., wrote: "I would like to emphasize most emphatically that for the past 20 years,



United States Rubber Co.
This 140-year-old Scottish ball of sheepskin and goose feathers posed no problem

at least, A. G. Spalding & Bros., Inc., has not made a single special ball for anyone. . . . We are in full agreement with you that it isn't fair nor to the best interest of the game and doesn't go with the spirit of the game to supply anything but standard balls at tournaments."

Only one manufacturer suggested any explanation for what the USGA test apparatus indicates is a general increase in the ball's velocity. Mr. Brown, of Spalding, pointed out:

"During the war period the Army took over Armour Institute, the (USGA) driving machine was dismantled, and electrical connections were not only removed but lost. After the war, the missing parts were replaced by newly developed electronic devices that were undoubtedly more accurate than those first used, on which errors had to be computed. The newly devised hook-up, as it now exists, reads several feet per second faster than the old set-up, so that the Spalding Dot, for instance, on which no change in construction has been made and which was within the legal limits in 1941, is now slightly in excess of them. . . .

"It is my personal opinion that 5 or 6 feet per second faster represents about the amount of the change in the read-

ing on the Armour machine between the post-war electronic timing device and the pre-war slower reading, and would confirm our statement that the ball has not been changed in any respect except in name since 1934."

"So far as we know, Acushnet golf balls comply with the USGA specifications," wrote F. W. Bommer, President of the Acushnet Process Sales Co., in a remark that was typical, "even though we do not quite agree that measuring the velocity of a golf ball very close to a clubhead correctly determines the ultimate distance the ball will fly on a golf course. You can count on our continued cooperation."

J. W. Sproul of the United States Rubber Co., wrote:

"Our manufacturing specifications are set up to comply with the requirements of the USGA as closely as possible, and we are confident that all golf balls marketed by us are entirely within the prescribed limitations as set down by the USGA."

J. C. Brydon, Vice-President of the Worthington Ball Co., wrote:

"It has always been our intention and we will continue to keep our golf balls within the limits as specified in the Rules of Golf."



Arthur D. Little, Inc.

Resilience of the modern ball is revealed in these "stop-motion" photographs which show how clubhead flattens ball at impact. Exposures were 1/100,000 of a second.

"Honor Caddie"

By CHARLES BARTLETT

GOLF EDITOR, CHICAGO TRIBUNE; SECRETARY, GOLF WRITERS' ASSOCIATION

The 50th candle in the golden anniversary cake of the Western Golf Association flamed into "Honor Caddie", one of the game's finest movies, on the evening of March 29 in the grand ballroom of the Chicago Athletic Club. The occasion of this half-century celebration of American golf's second oldest national organization was the formal premiere of the film with a cast including 15 of the sport's leading professionals and amateurs, men and women, and a two-some of fair country duffers named Bing Crosby and Bob Hope.

This was no Hollywood premiere, with searchlights picking out the mink-and-black-tie set. The audience was composed of golf leaders from every section of the country, headed by John D. Ames,

of the United States Golf Association, and Maynard G. Fessenden, president of the Western Golf Association.

Among the guests were three former caddies who grew up into a trio of the most illustrious names in golf—Chick Evans, Walter Hagen and Gene Sarazen. Hagen recalled the first time he caddied in his native Rochester, N. Y., receiving the munificent sum of 15 cents for his labors. Sarazen harked back to his bag-toting days in Westchester County, New York, when he was Caddie No. 99, and only on week-ends did as many as 99 golfers go forth.

Both Hagen and Sarazen made special mention of Chick Evans and his mother, who originated the Evans Scholars Foundation, now administered by the Western Golf Association to provide college educations for deserving and academically qualified caddies.

Nearly 100 former caddies have been graduated from or are now attending college under this plan. Northwestern University was the original school in the Evans plan, and is the site of the Evans Scholars House, but the W.G.A., under the leadership of Fessenden, has now expanded so that 10 colleges and universities throughout the nation are now joined in the Evans Foundation. Detroit, Wisconsin, the Pacific Northwest, and the Illinois Women's Golf Association foster separate scholarships, and the Massachusetts Golf Association has indicated that it will presently join the plan.

The 10 schools now associated with the Western-Evans plan are American Academy of Art, Colorado A. and M. College, Michigan State College, Northwestern University, Purdue University, University of California, University of Chicago, University of Michigan, University of Wisconsin, and Wheaton College.

"Tomorrow's My Lucky Day"

That's the title of the song which Bing Crosby sings in the Western Golf Association's new motion picture, "Honor Caddie," and here are the lyrics by Johnny Burke (music by Jimmy Van Heusen):

Oh, the av'rage golfer gives up golf
On the av'rage of twice a week,
But it won't take long till he'll admit
It was just an unlucky streak.
If you ever get near him, flatter and cheer him,
Likely you'll hear him speak:

I only play golf for the fun —
Tomorrow's my lucky day.
It's great to get out in the sun —
Tomorrow's my lucky day.
When there's a broad green fairway,
What picture compares?
I love to tee the ball up
And well, who cares?
This morning the grass was too long —
Tomorrow's my lucky day.
The putter I broke was all wrong,
The caddie got in my way.
I took eleven lessons,
I know how to play.
Really, I only went out for the walk —
Tomorrow's my lucky day.

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"Where'd That One Go?"



Courtesy of Western Golf Association

Bob Hope starts one of his famous double-takes by peering down the fairway in a vain search for a tee shot he has missed. In a moment he will discover where his ball is. Bing Crosby, too, has been fooled, but Chick Evans, Ben Hogan and the caddies know the answer. Scene is from Western Golf Association's new film.

Of the 53 Evans scholars who served during World War II, 38 won commissions, 11 became non-commissioned officers, and two were killed in action. These young men also have made exceptional records in professional fields. Two now operate their own engineering firm. Another figured prominently in the first atomic bomb experiments. Sid Richardson is now golf coach at his alma mater, Northwestern, after a distinguished Navy career.

When Hobart C. Chatfield-Taylor, Arthur P. Bowen, Phelps B. Hoyt, and George R. Thorne organized the W.G.A. in 1899 with a membership of 10 clubs—Belmont, Chicago Golf, Edgewater, Evanston, Glen View, Midlothian, Onwentsia, Riverside, Skokie and Westward-Ho—they had no suspicion that

their youthful lodge would become the vehicle not only of three of golf's top drawer championships but also of the game's No. 1 conductor of caddies and their future.

The movie, "Honor Caddie", is a handsome technicolor production with a running time of 22 minutes. Unlike most other golf films, it de-emphasizes the instructional side of the game. Its theme revolves around the conduct of caddies and their relationship to their employers, with award of an Evans scholarship through the Western Association as the objective of a caddie identified as "Chuck".

The movie opens and closes with Crosby's rendition of "Tomorrow's My Lucky

(Continued on page 14)

Evidence and the Semi-Amateur

By JAMES W. WALKER

CHAIRMAN, USGA AMATEUR STATUS AND CONDUCT COMMITTEE

A question frequently asked today by those interested in maintaining a high standard of sportsmanship for golf is: "Why doesn't the United States Golf Association do something about the infiltration of semi-professionalism in the amateur ranks?"—a condition abhorred by all and apparently a growing one.

The answer is unfortunately simple—lack of evidence.

A primary responsibility of the USGA Executive Committee is "to adopt, enforce and interpret a rule or test of amateur standing". In doing so, the Committee employs the American way rather than that of the "police state". In other words, evidence is the determining factor.

This is the democratic way, the only fair way by which judgment can be passed on the many and varied cases presented. Even when the Executive Committee may seem to be arbitrary in ruling a player ineligible for amateur competition "for the best interests of the game", you may be assured there is excellent reason.

For the sake of clarity, let us take a brief look at a few specific cases.

Anonymous Letters

In one instance, we received an apparently very sincere letter making strong accusations against an individual who, it was alleged, had become a great detriment to golf through flagrant violations of the Rules of Amateur Status. The writer beseeched us to do something about it. However, he made one great mistake in neglecting to sign the letter, and that reduced to a large extent the effectiveness of the information given.

By coincidence, the letter was supported by the receipt of a number of voluntary oral complaints. Again, however, every individual refused to permit his name to be mentioned, nor would he put his complaint in writing for fear of "becoming involved", although each and

every one felt that calling the situation to our attention was for the best interest of the game. But there was nothing concrete.



James W. Walker

the time being, this particular case remains in abeyance due to lack of evidence.

On the other hand, there was a player of prominence who for some time had been reported in violation of the Amateur Rules but concerning whom there was no concrete evidence. Then a report was received that he had lent his name as a golfer, by markings on his golf bag, for the advertisement of golf equipment.

The player was questioned. He denied having so lent his name.

But several other players gave oral and written testimony which contradicted the individual's statement. The factual evidence was so conclusive that the individual was debarred from amateur status and was disqualified from the Amateur Championship shortly before the tournament began.

Another case in point is that of professional intent. An article in the press reported that a prominent amateur golfer had applied for a job as professional at a club; the article further stated that if his application was not accepted, he would remain an amateur.

The Amateur Status and Conduct Committee then took action to investigate the matter. The person accused was asked a number of direct questions, and the various accusations were enumerated. He categorically denied each charge in its entirety. Thus, for

This was clearly a case of professional intent. Even so, before the Executive Committee could consider the matter seriously, it would need evidence that the player actually filed application for the pro position.

These three cases are cited merely to illustrate the point in question—that the basic determining factor is evidence, even though it may be the consensus that debarment in all three instances would be for the best interest of the game.

The USGA Amateur Status and Conduct Committee welcomes comments and complaints regarding violations of the amateur code, whether intentional or unintentional, and will make immediate investigation of them. But successful prosecution will depend largely upon the evidence produced.

Gossip, reared on false information, or locker-room tips coming sotto voce only tend to aggravate a delicate situation which is harmful to the game.

Championships

The Open

Thirty sectional qualifying locations have been arranged to serve the convenience of entrants in this year's Open Championship, 49th in the USGA series which began in 1895.

A number of new centers were established in the Middle West inasmuch as the Championship proper will be held at the Medinah Country Club's No. 3 course, in the Chicago district. Another large entry is expected after last year's record of 1,411.

Entries, filed on USGA forms, must arrive not later than 5 P. M. on Monday, May 16, at the USGA office, 73 East 57th St., New York 22, N. Y.

Sectional rounds will be held Monday, May 31 in 28 districts. At Honolulu the date is May 24, and at Washington, D. C., it is June 1, to avoid conflict with the final day of the PGA Championship at Richmond, Va. The Championship proper at Medinah will be played June 9, 10 and 11, with 162 competitors.

Girls' Junior

The newest Championship will be played at one of the oldest clubs. The Philadelphia Country Club, which was formed in 1890, has kindly invited the USGA to hold the first Girls' Junior Championship over its Bala Course, and arrangements have been completed for the tournament there from August 15 through 20.

The Bala course is the older of the Philadelphia Country Club's two courses, and is within the city limits. The newer course, Spring Mill, was the scene of the 1939 Open Championship, won by Byron Nelson.

The Girls' Junior is the only USGA Championship in which all entrants go direct to the Championship location without engaging in sectional qualifying. The tournament will start with an 18-hole qualifying round, to determine 32 qualifiers. All matches will be at 18 holes.

Entrants must not reach their 18th birthday by the day of the final (August 20). They must be members of USGA Regular Member Clubs or must enjoy the privileges of such clubs through membership of their families.

CHAMPION IS RUNNER-UP

William P. Turnesa is the Amateur Champion of the country at golf, but he's a runner-up in his home town of Elmsford, N. Y., where he recently failed to win an election for mayor. However, he is on the Board of Trustees of the town.

The Champion is Chairman of the Metropolitan Golf Association's Amateur Status Committee, and conducts that work in an exemplary manner. Whenever he receives an application for reinstatement to transmit to the USGA, he invariably invites the applicant to his business office for an interview.

Golf and Happiness

By R. C. ROBERTSON-GLASGOW

The height of frustration must be a Grade One American golf tournament professional who hands in a card of over 70. Conversely, the happiest games-player on earth must be the fellow who wins the big pot with 89—20—69. And, if you reckon that's a fanciful score, I can tell you I played 22 years ago in an Open Amateur Meeting on a South of Scotland course where the handicap event was won by 75—18—57. I ought to remember, because I had handed in 69—9—60, and was already mentally spending the sweep-money.

The last truly happy big-time golfer I saw was Walter Hagen. Walter enjoyed it all, win or lose; and his fat smile wasn't just face deep. Mark you, anyone who chipped from the rough and holed the putt as often as Walter did—well, he had cause to smile.

But for perambulating advertisements of misery, give me the field in a big tournament. A year or two ago, on a lovely summer's day, I sat in a convenient and comfortable spot, watching the entrants in the Open pass. Iron shot after iron shot went whizzing to the distant green, but their players, almost without exception, looked as if iron shots were a felony for which they would shortly be sentenced to imprisonment. And, high above them, the larks sang.

Of course, they've got the idea of the Open all wrong in these days. There is a general impression that if a competitor doesn't win it, he might just as well not have entered.

Having watched a good many different sports and pastimes, I have concluded that golf knocks all the others in its power of giving happiness to its less effectual practitioners.

At golf, the dub has that happiness which only Hope can give. He can live for a week on a spoon shot which, unexpectedly elevated, bounces between two bunkers and runs on to the side of the

hole. Better still, he can pretend that he meant it so. At no other game could he thus enjoy the sweet indulgence of hypocrisy. He follows this stroke with others of a varied and complex futility. But he knows his moment will come again.



Soon, unknown, unknowable golfers will be hurrying from office to play, for the first time since last spring, those six or nine or twelve holes after tea. During the darkness of winter they have pondered over a new sort of interlock in the grip, is more open stance of the tee, another and yet more infallible system of holing the four-yarders. These are the happy ones.

My memory floats back to the exponents of hope and happiness at a club where I played for many years. In sight of his own bungalow by the second hole, Mr. A. will be playing mashie shots at his hat. It will be an old hat, and an old deception; for he plays these shots in a valley whose sloping sides convey the ball, almost automatically, to the same spot. Mr. B. will be doing that well-known 94 of his, which would have been a 89 but for the entirely needless top-dressing on the 15th green and a huge footmark in the bunker by the ninth, left by Major C., whose ignorance of the game's etiquette is notorious and inexcusable. On the putting green by the clubhouse, Mr. D. will be scooping away in his inimitable egg-and-spoon style.

And the Secretary, who believes nothing impossible, will be pinning up a notice requesting the world at large not to remove the monthly magazines from the members' lounge.

Changes in the Rules of Golf

By ISAAC B. GRAINGER

CHAIRMAN, USGA RULES OF GOLF COMMITTEE

To the average golfer, the only noticeable change in the 1949 edition of the USGA Rules of Golf booklet probably is the color of the cover. However, a number of refinements will be detected by one who has made it a practice to carry a Rules book in his golf bag (a practice which all golfers would find most helpful).

Rule 17, probably the most often violated, has received the most attention. It will be noted that, in the definition of a hazard, "road" has been eliminated.

The classification of a road as a hazard has existed throughout the game's American history, so far as available records show, and the effect of the change is that, when a ball lies in a road, it may be dealt with in the same manner as a ball lying through the green. If you wish to sole your club or remove loose impediments, that is your privilege under this revision.

Few if any roads on American courses have been constructed with the view of purposely creating hazard conditions; hence, roads have often interfered unfairly with normal play. Likewise, much confusion has resulted from inability, in many cases, to distinguish between actual roads and tracks, such as those made by the occasional passage of vehicles or of greenkeepers' equipment.

However, under the new Rules, roads do not enjoy any other preferential treatment. For instance, there is no lifting without penalty, as is allowed on some courses.

A significant change has been made in the language of Sub-section (1) of Rule 17. One purpose of the former

Rule was to prohibit the testing of sand and grass conditions of other hazards for such benefits as might be derived for playing a ball from the hazard within which it lies. The new Rule is specific on this point and thereby eliminates the possibility of a penalty arising simply from inadvertence.

The Obstruction Rule

Rule 7 (4) also has been clarified. Artificial drains have been added to the list of artificial obstructions, and relief from all artificial obstructions in a hazard has been given.

If your ball lies within two club-lengths of any artificial obstruction within the confines of a hazard and your contemplated stroke is interfered with by such obstruction, you may now lift and place your ball in a similar lie and position as near as possible to its original location—without penalty. As an example, if your ball is in the water under a bridge, relief is granted from interference by the bridge, but in obtaining such relief the ball must be replaced in the water as near as possible to the bridge. If unplayable in the original position, the ball cannot be made playable by moving to shallow water.

You no doubt are asking yourself, "What must I do if a ball comes to rest on that portion of a bridge or other obstruction within the confines of a hazard?" Obviously, it would be impossible to find a similar lie; hence, you have only one course to follow without penalty if you do not wish to play from the obstruction. You may lift and place the ball within the hazard, not nearer the hole, but as near as possible to the obstruction without interference therefrom.

Do you ever have occasion to brush away loose impediments on the putting green? If so, be sure that the brushing takes place *across* the line of putt, which is permitted, rather than *along* the line

How to Obtain Rules Books

The 1949 edition of the USGA Rules of Golf booklet may be obtained from the Association's office, 73 East 57th St., New York 22, N. Y.

The price is 15 cents per copy, regardless of quantity.

of putt, which is prohibited under Rule 18 (2).

If your ball stops on the lip of the cup and you have an urge to influence its movement with the hope that it may drop in the hole, Rule 18 (5) admonishes you to restrain yourself if you wish to avoid the general penalty of loss of hole in match play or two strokes in stroke competition. The old Rule referred only to shielding the ball from wind and did not cover other methods of changing the position of the ball, such as deliberately jarring the ground around the hole.

If you are a "creeper" who thoughtlessly delays other players, new Rule 2 (3) should provide a helpful warning. This Rule formerly carried an automatic disqualification penalty for interfering with others through delay in play. The Rule now requires that "A player shall play without undue delay", and the penalty has been changed to the general penalty of loss of hole in match play or two strokes in stroke play; but repetition or deliberate interference will result in disqualification.

Because of the severity of the former penalty, automatic disqualification, it was difficult to invoke the provisions of Rule 2 (3), with the result that some general disregard of the effect on other players has crept into the game, particularly in major competition. Under the new provisions, the committee or the referee may now give warning before applying either the general penalty or the disqualification penalty.

Do you ever have an urge to break a club over your own or your opponent's anatomy? If so, you are advised to read the new Preamble to the Rules, because you may find yourself without the use of a necessary club. A club may now be replaced only if it becomes unfit for play "in the normal course of play". There is no substitute allowed for a club which has been deliberately broken.

Can you distinguish the difference between a forecaddie and a caddie? If not, new Definition 10 will be of assistance. Actually, when employed by a player, there is no difference in status. A fore-

caddie so employed is a part of the match and, accordingly, subject to all the provisions of the Rules relating to a caddie. However, if the forecaddie is provided by the committee, he is an outside agency and, as such, can do nothing to precipitate a penalty on the player, nor may the player seek advice from him.

A major refinement of the 1949 Rules booklet appears in the index. For a long time the Rules of Golf Committee has wanted to develop an index which would be brief but sufficient to promote quick reference to the appropriate Rule. From comments which have been made to the Committee, our last previous experiment seems to have over-simplified this problem. We have, therefore, returned to an alphabetical cross-reference index, although less extensive than that which prevailed for many years prior to 1947.

"HONOR CADDIE"

(Continued from page 9)

Day", a ballad of a hopeful golfer. Hope almost steals the show with a sequence in which he takes a vicious cut at the ball while starting a foursome with Crosby, Evans, and Ben Hogan. The sound track produces a sibilant "S-s-s-w-w-i-sh", but no connecting click. Finally, Bob, after squinting into the distance as though following the flight of his alleged drive, says to his caddie, "Pick up that ball, son, and follow me!"

In addition to Crosby and Hope, the personnel of "Honor Caddie" includes Frank Faylen, Hollywood actor who portrays the caddie-master; Joe Novak, President of the Professional Golfers' Association; Hogan, Byron Nelson, Lloyd Mangrum, Jimmy Demaret, Evans, Sam Snead, Babe Zaharias, Frank Stranahan, Bud Ward, Johnny Dawson, Patty Berg, Louise Suggs, Jimmy Thomson, and Porky Oliver.

The Western Golf Association began national distribution of "Honor Caddie" on April 1. Contributions through club membership in the W.G.A. (\$35 per year) or individual memberships (\$5) will be directed to the Evans Scholars Fund. Clubs interested in securing the film for special showings may contact the Western G.A., 8 S. Dearborn St., Chicago 3.

Every Golfer His Own Referee

By N. C. MORRIS

SECRETARY, COLORADO GOLF ASS'N; MEMBER, USGA SECTIONAL AFFAIRS COM.

A time comes in everyone's life when the strenuous sports no longer may be followed with physical safety. What, then, can one do for a recreation?

Golf seems to offer the best outlet because it combines physical exercise in proportion to the need of the individual, social contacts, pure air and sunshine. Moreover, golf is almost the only recreation in which all persons may participate. It may literally be said that golf can be played from the cradle to the grave, and by both sexes. It plays no favorites.

Like every other sport, golf flourishes best under proper organization and direction. The great function of the USGA has been to develop a code of Rules and Etiquette governing the game. The persistence of our national organization in refusing to be stampeded into various changes due to sectional whims has finally bloomed. The PGA voted to adhere to the USGA code. The Western Golf Association differs only in the style.

A code, however, is not sufficient. It must be respected and obeyed. In almost every sport there are umpires and referees to enforce the Rules. Golf, however, always has been called a "gentleman's game," and though provisions are made for referees, there seldom is one. Golfers are their own referees for the most part. Only in the most important events are referees appointed, and then only toward the final.

The fact that golfers are generally their own referees leads to the most important part of my message. It is: the need for all golfers, young and old, whether tournament players or not, to learn the Rules and abide by them.

The idea seems to have grown prevalent in recent years to disregard the small things. It is usually due to ignorance, although betting has its influence at times. The old adage that "little



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N. C. Morris,
One of Golf's Finest Leaders

drops of water and little grains of sand make up the mighty ocean and the pleasant land" is still good, although maybe a bit moss-covered. If one gets into the habit of teeing six inches, or maybe a foot, in front of the markers, where may the limit eventually be? The teeing ground is definitely prescribed in the Rules.

The Rules prescribe that the same ball must be played from the tee into the cup, with certain very definitely prescribed exceptions. What, then, must we think of the fellow who is constantly changing his ball on the putting green, playing a new ball each time? Visit any course and just a little observation will show you that many golfers, some of them leaders in the game, change their balls on the putting greens, tee up in

(Continued on page 20)

Swinging the Clubhead

By ERNEST JONES

AUTHOR OF "SWINGING INTO GOLF"

When teaching golf, I try to present a picture of a fundamental principle that applies to all golfers. It does not matter to me whether the pupil is a national champion or has never held a golf club. I try to explain exactly what he should try to do, somewhat in this fashion:

What you must realize is, as Sir Walter Simpson explained 60 years or so ago, that there is only one categorical imperative in golf, and that is: to hit the ball. There are no minor absolutes.

There is only one thing you are allowed to hit the ball with, and that is the head of the club. So therefore, the object is to use your power to transmit as much force as you are capable of producing into the clubhead.

No one can do more than one thing at one time, and golf is no different from anything else. For instance, I refer very often to a circle; I point out that you do not have to know how many parts you can break it into, such as 360 degrees, so many minutes, so many seconds, etc., but it is simply one line, perfectly round. And it is just the same with a swing. A swing is one continuous motion, to and fro, backward and forward.

In 1917 I collaborated with Daryn Hammond in a series of articles entitled "The Essence of the Matter", which became the basis of the book, "The Golf Swing—The Ernest Jones Method". In that, it was pointed out that I was convinced that the golf swing could be readily taught and consistently performed only if it were conceived as one movement, under one control — the hands. Further, that various members of the body (including the shoulders) were normally anxious to get busy too strenuously and too soon, and that the only way of insuring their working in due co-ordination with the other members of the body, notably the hands and fingers, was to treat them as disastrous

leaders, but as wholly admirable followers. The basis of the swing was the proper action of the hands and fingers.

Now, after thirty years of teaching, it has become an axiom that the only way to have control of the motion of the clubhead is through the medium of the hands and fingers.

Emphasizing the Positive

Today all golfers talk about their swing. Any kind of hitting or any kind of style in golf is referred to as that person's swing. Practically every pupil who comes to me for help wants to know what is wrong with his or her swing.

Invariably I ask, "Do you think it would help you if I were to tell you what is wrong?"

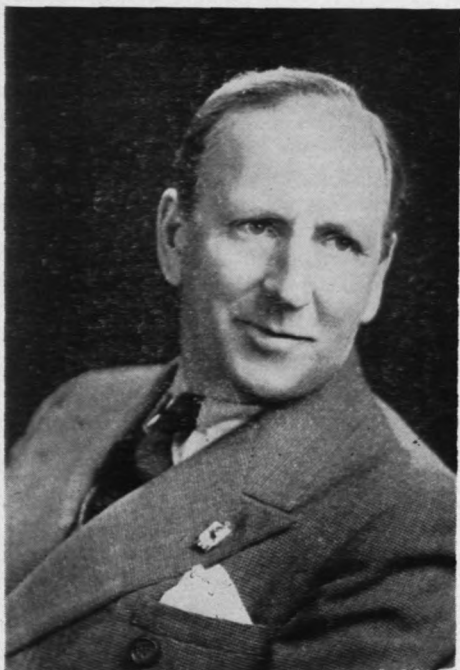
"Most certainly I do," is the usual reply.

"Well, now, if I did tell you what is wrong, I would only be telling you something you should not do, or something to avoid. Don't you think it would be much better for me to tell you what is right and give you a chance to learn something positive?"

Anything you do that is possible to exaggerate is no good—you can caricature only an imperfection—but you cannot overdo what is right, so let us begin with what you must be aware of doing. You are going to use your powers to generate as much force as possible into the head of the club.

Now, your power means your strength, energy, which is in every part of your body. Force is speed times weight. The club has the weight, but you have to create the speed, so the next point is what kind of motion will produce the greatest force. The greatest force you can create is centrifugal, which moves away from and around a center.

At this point, I bring out a weight on the end of a string and, by whirling it



Lorstan

Ernest Jones

around and around, demonstrate what centrifugal force means. Then I begin moving it backward and forward with a swinging motion to explain what is meant by swinging. (In all my experience I have not had anyone explain, when asked, what he means when he uses the term "swing".)

Most good golfers talk about altering or changing their swing. I have been told very often by some of the top players that they can swing in lots of different ways—upright, flat, inside out, outside in, etc. Now this is not possible. A swing is a positive, indivisible motion to and fro, or, in a golf shot, backward and forward. It has a definite form or shape, which is an arc, or part of a circle. It has perfect rhythm which can be put to waltz time music. It is a measure of time just as the pendulum of the clock, and is subject to Galileo's law. The pendulum takes the same length of time to swing irrespective of the length of the swing.

Thus, a short putt would take the same length of time to play as would a full drive if the same club were used and held

at the same place. The idea of swinging fast or slow is not possible in the same length of swing. It must be made clear that a true swing takes the same measure of time; so therefore, the longer the swing, the greater the force, or speed. The shorter the swing, the less the speed, or force.

Again, I often demonstrate Galileo's law of falling bodies, which I find is very little understood. All falling bodies (except a feather or anything of that nature) take the same time to fall irrespective of weight. A table tennis ball will hit the ground at the same time as a ball of lead if dropped from the same height. But the lead would hit with much more force (force being speed times weight). A heavyweight boxer doesn't hit faster than a flyweight, but he hits with greater force. Again, two horses cannot run faster than the slower if they are harnessed to a light chariot, but they have more power together.

So many golfers are always suffering in trying to find out how to hit harder, instead of knowing how to develop speed in the clubhead. The Hogans, Nelsons, Cottons develop it through practice, practice, practice, and there is no other way. The whole point is to know what, and how, to practice. I am so sorry to have to say to many who come to me, "You must have worked very hard to get as bad as this, when the right way can be so enjoyable if you will only have the courage and trust in what is right." Truth is simplicity, although it is elusive.

This is the first of two articles by Ernest Jones. The second will appear in the next issue. This material must not be reproduced, in whole or in part, without the consent of the author.

Harris, Dahlbender Turn Pro

Bobby Harris, 20-year-old holder of the National Collegiate Championship, has become assistant pro at the Oklahoma City Golf and Country Club.

Gene Dahlbender, Jr., of Atlanta, turned professional by accepting a position as assistant at the Winged Foot Golf Club, Mamaroneck, N. Y. He was a semi-finalist in the USGA Championship and won the Southern Amateur Championship last year.

Ontario's Novel Opening Rally

Our neighbors to the north may have added something new to the promotional side of the game by what — for want of a better name — the Ontario Golf Association called a "Monster Golf Rally". The Ontario Association, which is comparable with a State or district association in the United States, administers golf in Canada's largest Province.

The Golf Rally was the dream child of Phil Farley, President of the O.G.A., Canada's second ranking amateur, aided by Charles Watson, First Vice-President of the Royal Canadian Golf Association. The purpose was to launch the new season auspiciously.

The Rally was held at Toronto's Royal York Hotel, largest hostelry in the British Empire. First item was a dinner for 980 golfers, men and women. Clubs had their long tables, each plainly marked with the club name, and there was the spirit of a class reunion. One club turned out 85 strong.

During the dinner there were a welcoming message from Nicol Thompson, dean of Canadian professionals and now retired; a civic welcome from Mayor H. E. McCallum of Toronto, and presentation of the CANADIAN SPORTS MONTHLY trophy by publisher H. R. Pickens, of Montreal, to Walter McElroy, of Vancouver, who had been adjudged Canada's top-ranking amateur of 1948.

After dinner 350 persons who could not be accommodated for the meal were admitted to the hall. The program began with a technicolor movie of Canada's 1948 Open Championship. Next, a short address by Mr. Farley, who then introduced the guest speaker, Francis Ouimet, of Boston. He reminisced about the past and, with characteristic modesty, said his winning of the USGA Open in 1913 was due almost wholly to a series of fortunate circumstances. He gave the audience an intimate insight into what goes on within the breast of a 20-year-old who is winning a great championship.

Mr. Ouimet closed with a plea for more international matches. He declared that golf can be one of the greatest agencies for better understanding among peoples, and he voiced the hope that a way might be found for the North American nations to meet in annual competition.

A motion picture was then shown — "Muscles and the Lady", with Frank Stranahan, Canadian Amateur Champion, and Miss Louise Suggs.



Next, there was a novel and pretentious "Golf Clinic". On the main stage of the great room, Horton Smith took charge. Armed with a portable microphone and a set of clubs, he acted as class leader in a one-hour clinic with the assistance of Canadian professionals Bill Chinery, Bob Gray, Jack Littler, Joe Noble, Lex Robson and Lloyd Tucker. They occupied six stages spotted along the walls of the room; each stage was covered with an artificial grass tee, and each was within easy viewing distance of a substantial part of the spectators.

As Smith went from orientation to fundamentals, to progression of power, to mental attitudes and to mechanical faults, the six assisting professionals demonstrated in unison what Horton was explaining from his large stage.

Many impartial observers voted it the most comprehensive and intelligent golf lesson they had ever been given.

The program concluded with a showing of the Michigan PGA picture — "Behind the Scenes with the PGA".

The majority of the guests arrived by 6:30 p. m. and were still "on the course" at 11:30. The Ontario officials were so encouraged by the reception of the experiment that they intend to hold an annual variation of it from now on.

Changing to USGA Handicap System

By WILLIAM O. BLANEY

CHAIRMAN, USGA HANDICAP COMMITTEE

We have been asked many times what is the best method for a club to change over to the USGA Handicap System from some other system. Unless we know what the other system is or how the previous scoring records have been kept, our answer must be limited to generalities. Briefly, the following steps should be taken:

1. The club should have its course rated according to USGA methods as outlined in the USGA booklet "Golf Handicap System". It is preferable that this rating be done by a rating committee from the local golf association to which the club belongs so that the rating will conform to the standards used in rating neighboring courses. If the local association does not have a rating committee, the club should strongly urge the association to establish one. Failing this, the rating should be done by the club professional and two or three of the best member players after careful study of "Golf Handicap System".

2. An enlarged copy of Handicap Table A should be obtained from the USGA and posted prominently in the clubhouse as near as possible to the place where the handicap and scoring records are kept. Red lines should be drawn on either side of the handicap column under the course rating figure assigned to the course. This makes locating the proper handicap a quicker and more nearly certain process.

3. If existing club records include the last 50 or more scores for members, or if it is known that members have played 50 or more rounds during the past year or two and a record is available covering the lowest 10 scores, then the total of the lowest 10 scores for each such player should be applied to Handicap Table A and new USGA basic handicaps assigned to said players.

If scoring records do not contain sufficient information to carry out the sug-

gestions in the preceding paragraph, there are several satisfactory ways of establishing new USGA basic handicaps for club members. Two of the better methods are:



(a) Start the season with the handicaps produced under the former handicap system. When a player has recorded 10 consecutive scores, assign him a temporary USGA basic handicap by applying the average of the lowest 20% of his total number of scores to Table A. For example, if 13 consecutive scores have been recorded, the average of the lowest 3 (the nearest whole number to 2.6) should be used. If the 3 lowest scores average 79, Table A will show that a handicap of 10 should be assigned to the player on a course rated 70. If 22 scores have been recorded, the average of the lowest 4 (the nearest whole number to 4.4) should be used. These temporary handicaps should be adjusted frequently until 50 scores have been turned in, at which time permanent handicaps can be assigned according to the regular formula.

(b) For clubs having each player's 5 lowest scores recorded under a previous handicap system, add 5 scores equal to the highest of the five lowest scores and apply the total to Table A. For example, if a player's five lowest scores are 76, 77, 78, 79 and 80, add thereto five scores of 80, making a total of 790, which when applied to Table A will give the player a handicap of 10 if his course is rated 70. When 20 to 30 scores have been recorded for the

current season, check the handicap produced by the above method with one produced by applying the average of the lowest 20% of the player's total number of scores to Table A. If there is any difference, the lower of the two handicaps should apply.

Both of the above methods assume that every player has turned in all of his scores.

How To Obtain Scores

4. Several suggestions have been received on how to induce players to turn in all their scores. Rather than recommend any particular method, the best of these suggestions are briefly outlined below:—

(a) Have the man in charge of the scoreboard collect from every player completing a round either (1) his score card, or (2) his actual score. A golf manager, starter, caddie-master, or any other employee constantly on duty near the first tee or 18th green can do this task. This plan, of course, will not work at clubs having no regular employee on duty near the course.

(b) Have the caddie-master keep a list of every member who tees off. Alongside the entrance to the locker room, keep a pad of forms on which a member can write his name, score and the date, and put it in a Handicap Box provided for the purpose. Check the scores turned in with the starter's sheets, and for anyone not turning in a score and not having a valid excuse (such as not playing a full round), use for the missing round a score equal to the lowest score already posted on the player's record. (This method will upset the accurate scoring records of the players unless these fictitious scores are circled or otherwise marked to show they are not actual scores.)

(c) Have the man in charge of the golf shop or bag-room where players keep their clubs maintain a chart on which he is to record the dates on which each player takes out his clubs. Each week-end check the

chart against the scores actually turned in and apply a penalty to players not turning in all their scores. This penalty, for use in club tournaments only, might call for a reduction of 3 strokes from the handicap of players turning in less than 75% of their scores, 2 strokes for those turning in 75% to 84% of their scores, 1 stroke for those turning in 85% to 94%, and no strokes for those turning in 95% or more of their scores. This method is a bit complicated and will not be 100% perfect if some sets of clubs are kept at players' homes or in their lockers.

None of the above suggestions are perfect, all having some "out" about them. Perhaps a combination of two or more would prove satisfactory, and probably no one system will work perfectly at all clubs. We will, however, continue to entertain ideas on how to obtain all scores and will pass along the best of them through the pages of this JOURNAL.

Every Golfer His Own Referee

(Continued from page 15)

front of the markers and do numerous other things that are violations of the code and which give them a definite advantage over those who will not do such things.

These are only a few instances of violations that will only lead eventually to embarrassment. Get a copy of the Rules and study them. They are easily available. Unfortunately, most professionals instruct in the mechanics of the game, not the Rules. Few players in any sport read the Rules for themselves. They depend upon their coaches, and golf professionals could render a great service here.

If one does not have the time or desire to read the Rules, follow the Golden Rule. Every person wants to be treated squarely by others. Why not try the same treatment on others?

If every golfer played the game according to his own knowledge of right and wrong, he would, when in doubt, carefully avoid doing the wrong thing, and then he could be sure he was right.

(Reprinted from the Denver Post)

THE REFEREE

Decisions by the USGA Rules of Golf Committee

Example of symbols: "No. 49-1" means the first decision issued in 1949. "R. 7 (3)" means Section 3 of Rule 7 in the current Rules of Golf.

Practice Swing Toward Hole

No. 48-97. R. 7(3)

Q: My committee has been asked to rule as to whether or not a player may take a practice swing in the direction of the putting green on the hole in which he is engaged in play.

I have read Rules 7 and 17 quite thoroughly and find nothing therein that prohibits a practice swing towards the putting green but, as your Rule 7(3) states, a practice swing may be taken any place on the course, etc., and also forbids drawing a club backward and forward across the line of play.

I personally believe that it is a point of etiquette involved rather than a rule not to take a practice swing toward the putting green.

Do these rules mean that a player may or may not take a practice swing toward the putting green?

PAUL L. DEVORE
NEWTON, N. J.

A: Rule 7(3) is explicit. A practice swing may be taken in any direction or at any distance from the ball provided Rules 7 and 17 are not violated. A well-mannered player will take care that he does not come close to violating these Rules.

Not a Hole-in-One

No. 48-98. R. 15(3)

Q: The following quotation will explain an unusual occurrence in connection with a hole-in-one:

"Frederick J. Day of Council Bluffs, playing the third hole of the qualifying round, arched a spectacular tee shot to the green on the 188-yard hole.

"His ball stopped approximately 18 inches from the flag, and a bit to the right of the hole.

"Meanwhile, some unidentified qualifier had let fly a wild slice from No. 5. This ball, in its descent, landed on top of Day's ball at just the proper angle to send it caroming into the cup as Day neared the green.

"Under the rules of golf, Day's shot stands as a hole-in-one and was so reg-

istered on the qualifying score card. He had a 76 for the round."

It is my belief that the tournament official's ruling was incorrect according to USGA Rule 15(3). Can you tell me if this rule is applicable in my case, and, if not, what would your decision be?

FREDERICK J. DAY
COUNCIL BLUFFS, IOWA

A: The official's ruling was incorrect. Rule 15(3) is specific and your ball should have been replaced as nearly as possible to the place where it lay, without penalty.



Ball Almost Lost

No. 48-101. R. 8 (Def.)

Q: In stroke play, a competitor played a shot from the teeing ground which she did not think could possibly be lost, and therefore she did not play a provisional ball. Upon arriving at the spot where the ball was presumed to have come to rest, it was not readily found. The competitor left the area where the search was being made and started back to play a second ball. She was within a few feet of the teeing ground when the ball was found and the five minutes were not yet up. She returned and played out with her original ball, never having played a provisional ball.

It has been my understanding that once a player leaves the area where her ball is presumed to be lost, regardless of whether the five minutes are up or not, if it is then found she must consider it as lost under the Rules and cannot play it from then on.

If this is not the rule today, was it not a rule about ten years ago?

MRS. RAYMOND S. PATTON, JR.
WEST HARTFORD, CONN.

A: It would be permissible to play the original ball if it were found within five minutes after the player or her caddy had begun to search for it (see Rule 8, Definition), and if the player had not

played a second ball after returning to the tee. Had the player played a second ball prior to the termination of the five-minute period permitted under the Rules for the search, she would be deemed to have abandoned her first ball and would have to continue play with the second ball.

There has been no change in the Rule covering a lost ball.

Ball Striking Opponent's

No. 48-79. R. 12 (4, 4a)

Q: In match play, with both players' balls on the putting green, the player putts and his ball hits the opponent's ball. Is a penalty invoked?

DESMOND A. HARRY
OROYA, PERU

A: There is no penalty. Under Rule 12(4), the opponent has the choice of replacing his ball in its original position (which must be done immediately) or of playing it from the position to which it was moved. See also Rule 12(4a).

Use Current Handicap

No. 48-84. Hdcp.

Q: In playing handicap matches where strokes are exchanged, do you use your latest posted handicap, or do you play the entire match with your handicap as posted on qualifying day, or if paired from the handicap board, that handicap?

MRS. WALTER P. KIMMEL
MILWAUKEE, WIS.

A: A player should use his current handicap when entering a tournament. Generally, a handicap should not be changed during the progress of a competition unless the event extends over a considerable period and the rules provide for handicap adjustment. Such matters should be determined by the committee in charge and its rules should be posted in advance.

Borrowing Partner's Club

No. 48-85. Pre. (14-Club Rule)

Q: In playing a match in the Massachusetts State Mixed Foursomes, our opponents once used each other's clubs for a shot. The lady needed a blaster and her man partner lent it to her. If she had 14 clubs that would theoretically make her use 15. If, on the other hand, she only had 12 or 13 clubs she would be within regulation.

When there are partners (four-ball, best-ball, mixed foursomes or foursomes), can clubs be interchanged between partners?

MISS RUTH WOODWARD
FALL RIVER, MASS.

A: No. The Preamble to the Rules of Golf provides that a player may not

borrow a club from a partner. The penalty is disqualification.

Pushing or Scraping Ball

No. 48-168. R. 2 (1), 10 (1)

Q: Rule 10(1) states that a ball must be fairly struck at—that it must not be pushed, scraped or spooned.

I am unable to find where the Rules state any penalty for not conforming with this Rule. Would I be safe in ruling, as referee, that the penalty would be loss of the hole in match play and two strokes in medal play?

WILLARD M. WHITE
FORT WORTH, TEXAS

A: Yes. Rule 2(1) provides: "The penalty for the breach of a Rule or local rule is the loss of the hole in match play and two strokes in stroke play, except when otherwise specifically provided in the Rules."



Lost Ball Procedure

No. 48-173. R. 2 (1), 3, 17 (Def. 2), 19

Q: 1: Will you kindly explain the conflict between Rule 8 and Rule 19? In Rule 19, "a provisional ball may be played only before the player . . . goes forward", yet in Rule 8 the player "must play his next stroke as nearly as possible at the spot from which the lost or unplayable ball was played."

A: 1: There is no conflict between the basic provisions of Rules 8 and 19.

If the player believes that his original ball may be lost or unplayable, Rule 19 allows him to play a provisional ball immediately, before he or his partner goes forward to search for the original ball. In playing a provisional ball, the player must observe the directions in Rule 8(1) as well as in Rule 19.

If a provisional ball has not been played and the original ball is either lost or unplayable, the player must proceed under Rule 8(1).

Lost Ball Assumed in Hazard

Q: 2: A drove a ball toward a ditch where it disappeared. He dropped a second ball at ditch, counting a penalty stroke, and drove on the green. Upon crossing the bridge, A's first ball was found on the fairway. Must he now play ball No. 1 or continue with ball No. 2? Has he a choice?

A: 2: It is assumed that the ditch was a water hazard. (A ditch is a hazard but is not necessarily a water hazard—see Rule 17, Definition.)

Rule 17 (2) provides in part: "It is a

question of fact whether a ball lost after having been struck toward a water hazard is lost in the hazard or outside the hazard. In order for the player to treat the ball as having been lost in the water hazard and to proceed in accordance with Rule 17(2), there must be reasonable evidence that the ball lodged in the water hazard. In the absence of such evidence the ball must be treated as a lost ball, and Rule 8 applies."

The player's ball was not in the water hazard, and he therefore was not entitled to drop a ball under Rule 17(2a), as he apparently did. He should have treated the original ball as lost under Rule 8(1) and proceeded accordingly. As he did not do so, it is therefore ruled as follows:

Match play — The player lost the hole for failing to proceed as provided in Rule 8 (1)—see also Rule 2 (1).

Stroke play — The player dropped a ball nearer the hole than he should have done under Rule 8(1). In order that he may avoid disqualification for so doing, he should, in equity, be considered to have dropped the ball under option (b) of Rule 8(2). Thus, he should be penalized two strokes and should proceed with the ball he dropped, abandoning the original ball.

Questions by: NORMAN D. MEISNER
DETROIT, MICH.

Ball Resting Against Flagstick

No. 48-177. R. 7 (4, 4a, 7), 10 (5)

Q. 1: Match play. A played his third shot to the edge of the green. B played his second shot and his ball came to rest against the flagstick which was in the hole. B's caddie stepped on A's ball. B removed the flagstick and his ball fell into the hole. Does B get a half?

A. 1: B won the hole, as he holed his second stroke — see Rule 7(7).

Caddie Removing Flagstick for "Leaner"

Q. 2: Match play. A played his third shot to the edge of the green. B played his second shot and his ball came to rest against the flagstick. B's caddie remove the flagstick and the ball fell into the hole. Does B lose the hole?

A. 2: B won the hole, as he holed his second stroke — see Rule 7(7). Under this Rule, the player need not personally remove the flagstick, but may have his caddie or anyone on his side do so.

Greater Part of Ball Below Surface

Q. 3: A player's ball rests against the flagstick but only one-quarter of the ball shows above the surface of the green. Has the player holed out?

A. 3: Yes. As the greater portion of the ball was below the surface of the green and within the area of the hole, the ball was holed. Further, even if re-

moval of the flagstick should pull the ball out of the hole, the player must replace the ball, inasmuch as the flagstick is an obstruction, and a ball moved in removing an obstruction on the putting green must be replaced — see Rules 7(4 and 4a) and 10(5).

Ball Not at Bottom of Cup

Q. 4: A player's ball rests against the flagstick but the top of the ball is half an inch below the surface of the green. The flagstick was of bamboo and had a diameter of less than one inch at the surface of the green, but the joint in the stick being much larger prevented the ball from dropping to the bottom of the cup. Has the player holed out?

A. 4: Yes. See Answer 3.

Questions by: A. B. SUESMAN
ATLANTA, GA.

Lost Ball Penalty

No. 48-176. R. 8 (1)

Q: Although I have repeatedly quoted Decision 48-111 to members of my club in regard to penalty for a lost ball being loss of stroke and distance, I am still getting an argument that a more recent decision stated that the penalty for a lost ball was distance only, just as it is for a ball out of bounds.

I shall appreciate receiving a definite decision in regard to the penalty for a lost ball.

WALTER N. STEELE
MILLBRAE, CAL.

A: The penalty for a lost ball is loss of stroke and distance, and has been so for many years. The Rules of Golf do not condone remission of the penalty stroke or any procedure other than the following provided in Rule 8 (1):

"Except as provided for in Rules 16 (1) and 17 (2), if a ball be lost or be deemed by the player to be unplayable, the player shall play his next stroke as nearly as possible at the spot from which the lost or unplayable ball was played, adding a penalty stroke to the score for the hole."

Handicap Changing During Competition

No. 49-7 Hdcp.

Q. A competition was held by the local golf association on eclectic (ringer) conditions over two days at 18 holes each. One competitor saw published in the paper two days before the competition the name of the person with whom he would be playing and his handicap was published as 16, whereas his recognized club handicap was 18. He immediately procured a letter from the secretary of his golf club, and the day of competition he produced the evidence to the secretary of the golf

association that his club handicap was 18, and the secretary said he would look after it.

He played the first round but nothing was said about the change of his handicap. On the second day when the scores were brought in they took off 16 as the handicap. He again called it to the attention of the secretary and he was advised that the golf association committee had reduced his handicap two strokes and that they had the authority to do so.

The par of the golf course on which the competition was played is identical to that of the course of which he is a member and on which his handicap was based. The golf committee of his club was not consulted, nor was the handicap committee nor the captain of golf of his club. It does not seem proper that this condition should have existed, and I would appreciate your opinion in respect to an authority of this nature changing handicaps without notice and in such an arbitrary manner.

I. DELEVANTE

KINGSTON, JAMAICA, B.W.I.

A: Eclectic contests are not covered by the Rules of Golf.

Generally, a handicap should not be changed during progress of a competition unless it extends over a considerable period and the rules provide for handicap adjustment. Such matters should be determined by the committee in charge and its rules should be posted in advance.

Ringer Tournament: Tie

No. 48-179. Tourn.

Q: A ringer competition ends in a tie. How is the winner determined?

MRS. LILLIAN HEYER
TENAFLY, N. J.

A: The Rules of Golf Committee is not aware of any fair way of playing off such a tie, and therefore recommends that it be decided by lot or that duplicate prizes be awarded.

As ringer contests are not covered by the Rules of Golf, the conditions should be clearly prescribed in advance and interpreted by the local committee.

Burrowing Animal Hole: Evidence re Ball

No. 49-3. R. 7 (6), 8 (1)

Q: One of our local rules states that a ball lodging in crab holes may be lifted without penalty. If you cannot find your ball in the area where it was driven, can you assume that it went down the crab hole far enough that it cannot be seen and can you drop a new ball and play it without penalty?

W. Y. STEMBLER
MIAMI, FLA.

A: Rule 7(6) gives relief for a ball lying in or touching a hole, a cast or a run-way made by a burrowing animal. Your local rule is therefore unnecessary.

It is a question of fact whether a ball is lost in a hole made by a burrowing animal. On occasions when the fact cannot be positively determined, the possibility that the ball may be in a hole made by a burrowing animal is not sufficient; there must be a preponderance of evidence to that effect. Even if the weight of evidence be to that effect and there yet remains the possibility that the ball is not in the burrowing animal hole, the player must strengthen the evidence by searching five minutes for the ball. In the absence of strong evidence that the ball is in the burrowing animal hole, the ball must be treated as lost, and Rule 8 (1) applies.



Local Rule: Committee Must Interpret No. 48-174. LR.

Q: John Doe, in playing the 18th hole, hits his ball across 18th and 1st fairways into river. No. 1 hole has local parallel water hazard rule with a penalty of loss of distance only.

Can John Doe call parallel water hazard rule on hole which he isn't playing?

GEORGE E. FAULHABER
ROCKY RIVER, OHIO

A: The local rule should be interpreted by the committee which put it into effect, as only that committee knows its intention. If the local rule specifically states that it applies only in the play of No. 1 hole, John Doe must proceed under Rule 17 (2).

The USGA does not recommend a loss-of-distance penalty for a local rule covering such a situation. USGA recommendations for local rules for water hazards are contained in the USGA JOURNAL for July, 1948.

If We Drag

*If we drag our spikes while putting,
How can other putts run true?
Let's remember those behind us
Have to use the same greens, too.*

T. G. McMAHON

Better Turf for Better Golf

X

TIMELY TURF TOPICS

from the USGA Green Section

THE HISTORY AND DEVELOPMENT OF CONTROLS FOR MAJOR DISEASES OF BENTGRASS ON PUTTING GREENS

By MARVIN H. FERGUSON AND FRED V. GRAU

AGRONOMIST AND DIRECTOR, RESPECTIVELY, OF USGA GREEN SECTION

The two major diseases of bentgrass on putting greens are brownpatch (*Pellicularia filamentosa*) and dollarspot (*Sclerotinia homoeocarpa*).

Diseases of lesser importance include snowmold, copperspot, *Pythium*, pink patch and yellow tuft.

Diseases of putting-green turf have come into prominence in relatively recent times. Brownpatch is the only turf disease for which the causal organism had been determined prior to the beginning of turf research by the United States Golf Association Green Section in 1921.

The more intensively maintained turf on our putting greens today may be more susceptible to disease attacks, but it is more likely that diseases were overlooked under the conditions of less intensive maintenance which existed in the early days of greenkeeping. Fungus attacks are much more likely to be noticed on a well-kept, luxuriant putting green than they are on poorly kept turf.

In order to satisfy the demands for more nearly perfect turf on putting greens, greenkeepers have been forced to spend much more time and money in their efforts to control diseases. At the present time disease control is one of the greenkeeper's foremost problems. The magnitude of the problem has stimu-

lated a great deal of research by industry, by State experiment stations and by the USGA Green Section.

Brownpatch is probably the most serious disease of putting-green turf. It was first definitely recognized as a disease in the turf garden of Fred W. Taylor of Philadelphia in 1914. In 1915 the causal fungus was isolated from similar browned patches of turf. It was found to be *Rhizoctonia solani*. This name has been changed recently to *Pellicularia filamentosa* since the finding of the perfect stage of the fungus has been reported.

Brownpatch occurs usually in rings which are nearly circular but which may be irregular in shape because of the fact that several small rings have run together. These patches may vary from a few inches to as much as three feet in diameter. They are characterized by a smoky ring around the edge of the circle in the area of mycelial activity. This characteristic "smoke-ring" may be seen easily in the early morning of a warm, muggy day. Later in the day, the fungus is not ordinarily so active, and the "smoke-ring" is not so easily visible. Often the fungus does not kill all the leaves completely, so that, in the case of light attacks, brownpatch is sometimes difficult to recognize.

Dollarspot was thought for many years to be a different form of brownpatch, and the causal organism was considered to be the same. Greenkeepers spoke of "big brownpatch" and "small brownpatch." In 1926 Dr. John Monteith, Jr., proposed that the name "dollarspot" be used to describe the latter condition. He noted at that time that the large brownpatch occurred more often in the southern portion of the range of bentgrass, whereas the dollarspot disease occurred more often in cooler weather and was more prevalent in the cooler part of the bentgrass range.

It is interesting to note that as late as 1926 he found it necessary to write at length and to offer experimental evidence to prove that these diseases were in reality caused by a fungus rather than by spiders or by weather conditions. Perhaps it is not too surprising to find that laymen believed that diseases were caused by certain weather conditions inasmuch as weather conditions are known to have a marked influence on the incidence of disease.

In 1940 a note in *TURF CULTURE* described the work of F. T. Bennett in England. Bennett worked with American, British and Australian strains of the dollarspot fungus, and he found that some strains of the fungus produced spores while others did not. He considered the fungus to be a species of *Sclerotinia* and suggested the same *Sclerotinia homoeocarpa*. In the course of physiological studies Bennett found that variations in acidity from pH 4.0 to pH 8.0 had no effect upon the growth of the fungus. He also found that the optimum temperature for growth was 68° F. to 78° F. for the British strains and 86° F. for the American strains.

Although several other diseases were mentioned in the introductory paragraph, they are not considered to be so widespread nor so important as are brownpatch and dollarspot. This paper, therefore, is confined to a discussion of these two diseases.

Manipulation of Environment

The two primary contributing factors to disease incidence are weather

conditions and soil conditions. Weather conditions are, of course, uncontrollable. However, there are some practices which may partly offset the influence of unfavorable weather conditions.

Location of the putting green is important in this respect. It has been observed many times that greens in a pocketed area where air movement is restricted are much more frequently attacked by fungi than greens which are located in areas where air can move more freely. The cutting out of underbrush and a few trees may be effective in transforming an undesirable location into a desirable one. Hillside areas are choice locations for greens from the standpoint of freedom of disease, but these may be poor locations from the standpoint of architectural design or ease of maintenance.

While soil conditions are probably on a par with weather conditions insofar as their potential influence on disease incidence is concerned, soil conditions are considered to be a lesser problem because they are controlled more easily. The soil on a putting green is subjected to many operations which are conducive to compaction, poor drainage and poor aeration. Therefore few natural soils are satisfactory under these conditions. A good agricultural soil will, in all probability, be a poor putting-green soil. Obviously, physical characteristics are more important in a putting-green soil than is fertility.

Putting greens are subjected to a number of practices which make them unique in that on no other area do we attempt to grow plants under similar conditions. They are subjected to extremely heavy traffic. On some municipal golf courses as many as 60,000 rounds are played annually. On many courses the greens are mowed daily with power mowers which contribute to compaction. Bentgrass and well-kept putting greens is mowed at heights ranging from 3/16 inch to 5/16 inch. This very close mowing naturally restricts the development of the root system to some extent.

Players demand that putting greens be soft enough to hold a shot. Unless the

Turf Leaders Chat at Los Angeles Conference



Photo by Dick Turner

Bill Beresford, Greenkeeping Superintendent at the Los Angeles Country Club, and Colin Simpson, Chairman of the Club's Green Committee, discuss the California turf program with Fred V. Grau, Director of the USGA Green Section. The occasion was the 20th Annual Turf Conference and Show of the Greenkeeping Superintendents' Association (national) at Los Angeles in February. Mr. Beresford is President of the Southern California G.S.A. Mr. Simpson is a member of the USGA Green Section Committee.

green was properly constructed, the only way to keep the putting surface soft is to overwater. On a soggy soil surface, heavy traffic soon creates a puddled condition. Thus, a vicious cycle is in operation. Too much water plus traffic produce a compacted, puddled soil which will not take up water properly, will not drain properly and hardens readily when it begins to dry out. Even if the greenkeeper refused to apply excessive water, players going out during and immediately after rain would soon create the same conditions.

It is easy to see how plants become weakened and susceptible to diseases when such conditions for growth exist.

improvement of soil structure which in turn promotes improved drainage, improved permeability, improved aeration and a more extensive root system is one profitable line of attack in making putting-green grasses more vigorous and less susceptible to fungus attacks.

Recently, data have been developed jointly by the Green Section and the Saratoga Laboratories which shed considerable light on the subject of physical characteristics of putting-green soils. These data, which have not yet been published, indicate that much higher percentages of sand and much lower percentages of clay are needed than had previously been thought. In the words of a practical

greenkeeper, "Too much drainage and too much sand make a good green."

Cultivation of turf areas, particularly putting greens, has been tried by many different methods during the short history of greenkeeping in the United States. Only in the last two years has thorough cultivation been possible on a large scale. The development of the Aerifier, a hollow-tined, rolling aerator, has made rapid and economical cultivation of turf areas possible. It is believed that this machine will do much to lessen the effects of diseases because of the role it will play in the improvement of soil conditions.

Water management is closely related to soil characteristics in that poor soil characteristics lead to difficulties in the application and drainage of water. Faulty watering in turn may aggravate existing soil conditions. However, the time of day when watering is done may also be important in disease control.

In the early days of greenkeeping research it was thought that copious watering helped the grass to make a comeback after a disease attack, and therefore recommendations were made to water heavily at any time of day. Later, investigations showed that such watering could do much more harm than good. Although it is recognized that our knowledge is not complete, the present viewpoint is that water should be applied in the early morning, and later in the day only if needed.

Brownpatch and dollarspot mycelium appears to be most active in the early morning when there is dew or guttated water on the grass and when the air is comparatively still. Watering knocks the droplets of dew off the grass blades and leaves a thin, even film of water. This film dries more rapidly than does the dew. Watering at night or in the late afternoon, on the other hand, causes the grass blades to be wet during the night and gives the fungus a longer period during which to spread.

Inasmuch as water is one of our critical natural resources, it is believed that a thorough study of the use of water and methods of conserving water would

be well worth while. James Johnson has reported the results of some studies at the University of Wisconsin. This work has thrown considerable light on host-parasite relations as affected by water congestion in plants.

There is evidence to indicate that the nutritional status of plants may have some effect on their susceptibility or resistance to disease. Johnson reports that the level of potassium fertilization affects the degree of water congestion in some plants. Water congestion, in turn, may make the plants more susceptible to invasion by fungi. Many greenkeepers have reported that the level of nitrogen fertilization has a marked effect on the incidence of dollarspot on greens. At present there is not sufficient experimental evidence to substantiate these reports. There is a need for investigation of such nutritional effects in order to reach a better understanding of the mechanism whereby increased resistance is brought about.

Lime has been used frequently to check attacks of brownpatch and algae. While the value of lime for this purpose has been recognized for many years by practical greenkeepers, the mechanism involved in the action of the lime is not well understood.

It is believed that when a full understanding of water relations, nutritional balance and other management factors is reached, turf may be grown which will be much less susceptible to disease attacks.

Protection by the Use of Fungicides

The first recommendations for the treatment of turf diseases advocated the use of Bordeaux mixture. Tests with this material were begun in 1917. By 1919 its use was rather general.

Several disadvantages were associated with the use of Bordeaux mixture; among them were the unsightly color, the need for frequent application and the phytotoxicity of copper accumulations in the soil.

Other copper compounds were used experimentally, and all of them were found to produce injury after a period of time. Other materials, such as sulfur compounds and formalin, were used,

but the mercury compounds which were first used on turf about 1923 were found to be so effective against both brown-patch and dollarspot that other compounds never found a wide use.

Tests at the Arlington Turf Gardens in 1925 included such materials as Semesan, Uspulun, Corona 620, Corona 640 and mercuric chloride. These tests were continued through 1927, at which time the conclusion was drawn that mercury products were the most satisfactory materials for the control of turf diseases and that mercury should be bought on a pound basis. Since the effectiveness of the mercury compounds appeared to vary proportionately to their actual mercury content, the workers recommended that mercury be bought in the cheapest form.

Subsequent investigations showed that mercuric chloride was the quicker acting form of mercury for the checking of actively growing dollarspot and brownpatch. However, heavy applications, especially in hot weather, produced some injury on turf. Calomel (mercurous chloride) is a slower-acting material and was found to have some value as a protectant against attacks of dollarspot.

The fact that these two materials behaved differently led to their use in combinations. The most common mixture is the 2:1 mixture, wherein there are two parts of calomel and one part of corrosive sublimate. This mixture is sold under the trade names of Calo-Clor and Pfizer Mixture. The two forms of mercury mixed in these proportions are still probably the most widely used ones for the control of turf diseases. Corrosive sublimate provides very quick action, and calomel provides a lasting effect. The mixture is normally applied at the rate of 3 ounces to 1,000 square feet. This rate of application, however, often is reduced by half in very hot weather.

Organic mercury compounds have been used to a considerable extent but have never been popular enough to compete with the inorganic mercury materials for use on turf diseases. Many organic

REFERENCES ON CONTROLS FOR BENTGRASS DISEASES

1. Harrington, George E., 1941:
Thiuram sulfide for turf diseases.
SCIENCE, Vol. 93, No. 2413, 311.
2. Johnson, James, 1947:
Water congestion in plants in relation to disease.
Research Bulletin 160, University of Wisconsin.
3. Monteith, J. Jr., and Dahl, A. S., 1932:
Turf diseases and their control.
THE BULLETIN of the USGA Green Section Vol. 12, No. 4, 87-186.
4. Monteith, John, Jr., 1927:
1927 Experiments on brown-patch control.
THE BULLETIN of the USGA Green Section, Vol. 7, No. 11, 210-216.
5. Piper, C. V., and Oakley, R. A., 1921.
THE BULLETIN of the USGA Green Section Vol. 1, No. 6, 112-115.
6. 1942. Tetramethyl thiuramdisulfide.
TIMELY TURF TOPICS of the USGA Green Section, June, 1942.

mercury compounds have been introduced but none of them has had sufficient appeal to induce greenkeepers to abandon their stand-bys.

In 1940, when world conditions caused a scarcity in mercury products, the Green Section undertook the task of finding substitute materials for the mercurials. Numerous organic fungicides were available for experimental purposes at that time. The Green Section procured a large number of these materials, many of which were used as accelerators in the rubber industry. By far the most effective material found was tetramethyl thiuram disulfide, bearing the trade name Tuads. Since 1940 this product has been marketed in various forms under several names. Thiosan was the name of

the first product. It contained 50% tetramethyl thiuram disulfide. Later names have been Tersan, Arasan and Arasan SF. The latter two products are being sold for seed-treatment purposes.

Tersan has been used widely during and since the war. It has provided excellent control of brownpatch, and there have been no reports of phytotoxicity, even at very high rates. Its effectiveness on dollarspot, however, is rather poor. Almost all greenkeepers have conserved their limited mercury supplies for use on dollarspot and have used Tersan for the treatment of brownpatch.

There have been some reports that skin irritations have resulted from the use of Tersan, but this danger apparently is not too serious if the workmen use reasonable care.

In 1946 and 1947 workers at Pennsylvania State College and Rhode Island State College investigated the effectiveness of cadmium compounds for the control of turf diseases. These compounds were found to be quite effective in controlling dollarspot. At least two of these compounds, No. 531 and Puratized 177, are now being sold and are used quite widely. These materials appear to give longer-lasting protection than do the mercury compounds, and they also appear to be less injurious to turf.

Disease-Resistant Strains

There is a great deal of evidence to indicate that bentgrasses vary widely in their susceptibility to disease attacks. This fact is of special importance on putting greens because a large percentage of our present-day golf greens are planted vegetatively to a single clonal strain.

Arlington bent is one of the most widely used vegetative bentgrasses on golf courses at the present time. This grass has been growing for seven years in a plot in the Rhode Island State College turf garden. Half the plot is treated with fungicide and the other half is not treated. It is difficult to determine which half has not been treated. Other grasses in the same series of plots have been damaged badly by disease.

The Green Section transferred approximately 130 selections of creeping bentgrasses from Arlington Farm to the Bureau of Plant Industry Station, Beltsville, Md., in 1942. Since that time all but five of the selections have been discarded. Susceptibility to fungus attacks is one of the chief reasons for discarding these selections.

There is little doubt but that a breeding program directed toward disease resistance would produce some superior strains. Such a program is in progress. However, it is a long-range program that will not produce immediate results.

In summary:

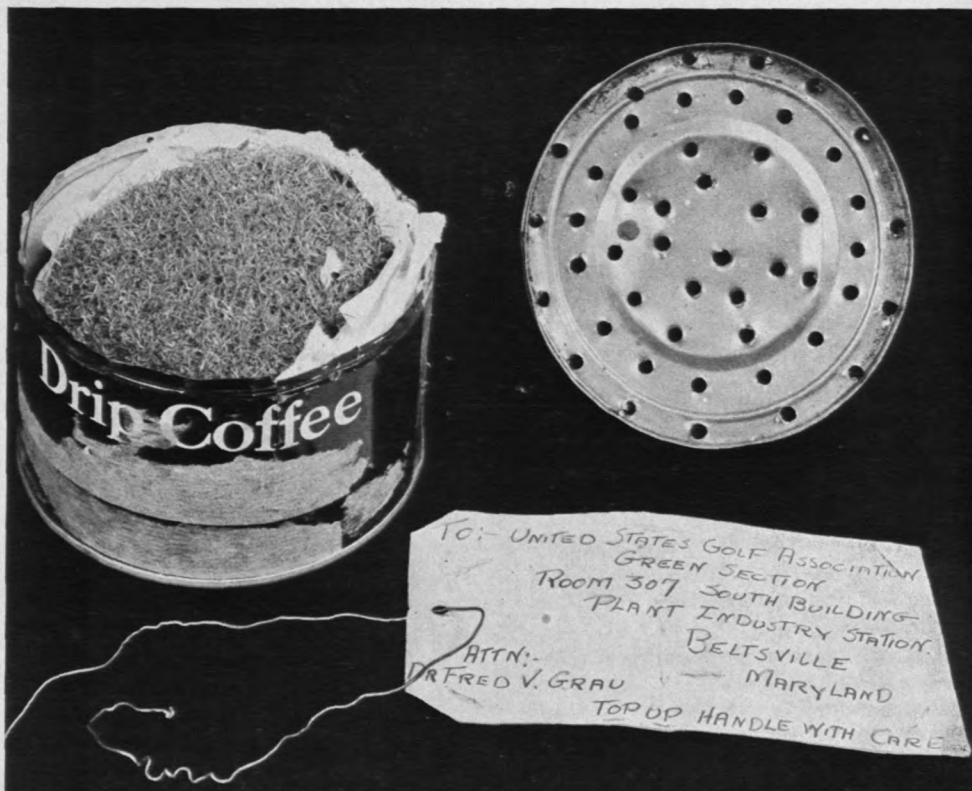
1. Demands for more nearly perfect putting greens are causing greenkeepers to spend more time and money for disease control.
2. To place greens in locations where free air circulation exists tends to make conditions less favorable for the growth of fungus.
3. Attention to physical soil characteristics in greens, drainage, aeration, proper water management and cultivation will pay big dividends in healthier turf which is more resistant to disease.
4. Fungicides are adequate and efficient in controlling the most troublesome diseases at the present time.
5. Some selected strains of bentgrass are in use. There is a definite need for more improved strains. Disease resistance is one of the most important attributes of a putting-green turf.

WATER AND OXYGEN

When turf is overwatered, it isn't the water that suffocates the roots; it is the lack of oxygen. Everything else being equal, the most important operation on turf in the spring is aeration of the soil.

Deep-rooted turf, adequately fertilized and with minimum irrigation, will resist the extremes of summer weather with fewer headaches than shallow-rooted turf growing on dense, compacted soils in low oxygen content.

Turf Specimen Travels Intact in Unique Package



Bureau of Plant Industry, Soils and Agricultural Engineering—Photo by W. J. Mead

Bob Shearer, Park Hill Country Club, Denver, Colo., sent this plug of living turf to the Green Section. It arrived in perfect condition. The lid was punched and wired on. Absorbent paper held moisture and cushioned the plug against breakage. This package was designed by telephone in consultation with J. L. Haines, Denver C. C.

CONTROL OF ANTS IN TURF AND SOIL

BY JOHN C. SCHREAD AND GORDON C. CHAPMAN

FROM THE CONNECTICUT AGRICULTURAL EXPERIMENT STATION BULLETIN 515, MAY, 1948

It appears from examination of results of the experiments that Chlordane is an efficient insecticide for the control of many species of ants. Not only will very small amounts of this insecticide destroy ant colonies present at the time of treatment, but the residual protection obtained in turf prevents reinfestation for a considerable period.

The spot-treatment method is applicable to turf areas where *Lasius* nests occur infrequently or at least not in great abundance. It is not expected that this method will prevent reinfestation for any considerable time. The closer together

treated nests occur, the more certainty there may be in obtaining reasonable residual protection from reinfestation over the entire turf area, especially when greens are watered following treatment.

After two weeks, retreatment may be necessary. One ounce of 50 per cent powder is sufficient to treat 150 nests, either by applying the treatment as a powder to the individual ant-hill and then watering it into the nest or by spraying a suspension directly into the nest.

The principle of the complete turf treatment method is to apply Chlordane in

COMING EVENTS

May 21-24—Joint Southern Turf Conference and Field Day, Tifton, Georgia, and Jacksonville, Florida. Ward Wood, Palm Beach, Fla., and G. W. Burton, Tifton, Ga.

May 27—Cleveland District Golf Association and Cleveland Golf Course Superintendents' Association meeting, Shaker Heights Country Club. Golf, dinner, meeting. Mal McLaren, Oakwood Country Club, Cleveland, Ohio.

Sept. 7-8—Turf Field Day for Greenkeepers, Rhode Island State College, Kingston. J. A. DeFrance.

Sept. 9—Lawn Turf Field Day, Rhode Island.

Sept. 19-20—Turf Field Day and Golf Tournament, Pennsylvania State College, State College, Pa. H. B. Musser.

Oct. 19—National Turf Field Day, Beltsville Turf Gardens, Plant Industry Station, Beltsville, Md., on U. S. 1, three miles north of College Park. Fred V. Grau.

1950

Feb. 20-23—Nineteenth Annual Turf Conference. Pennsylvania State College, State College, Pa. H. B. Musser.

Mar. 6-8—Midwest Regional Turf Conference, Purdue University, West Lafayette, Ind. G. O. Mott.

suspension to every square foot of golf-course green or other turf to be protected. Such procedure may be desirable when turf is heavily infested. Not only will this method result in complete extermination of the ant colonies in turf at the time of treatment but reasonably long protection from reinfestation can be expected.

Longest protection at the least cost was obtained when four ounces were used to each 1,000 square feet of turf. Using this concentration, ant colonies present at the time of treatment were completely destroyed and four to six

weeks freedom from reinfestation followed.

The cost of material for a single treatment for an 18-hole golf course with greens averaging 4,000 square feet in area would be about \$26. Treatment of all greens on a course (average green size: 4,000 square feet) three times, from May 1 to late August, should give ample protection from ant (*Lasius niger*) troubles for the season. Although we have not determined the minimum dose of Chlordane which causes injury to grass, four applications in one season have not caused any injuries in any of our experiments.

It is believed that if all areas of a green are treated, including the apron, sand traps, bunkers, fairways and rough for a radius of 50 feet or so around the green, reinvasion of the green proper could perhaps be prevented for a much longer time than four to six weeks.

It was observed throughout the season that bent greens treated with 50 per cent wettable Chlordane and fairways receiving applications of 5 per cent dust were generally distinguishable from untreated areas by the vigor of turf growth and deeper color of foliage. This remained obvious for a considerable time. The insecticide seems to have fungicidal properties; to just what extent, however, is not generally known. Golf-course greens having applications of one pound or more per 4,000 square feet were obviously resistant to severe outbreaks of brown-patch and dollarspot.

Chlordane is a quick-acting and effective toxicant when used as a control of the mound-building ant, *Formica exsectoides*. Small amounts of this material destroyed colonies varying in size from one to eight feet in diameter.

When sprayed into the soil around chrysanthemum plants at the rate of four ounces in 50 gallons of water, Chlordane controlled root aphids tended by ants as well as the ants.

Two additional species of ants, one constructing nests in lawns and the second working in grass-free soil at the base of shrubs, were destroyed when 50 per cent powder was fogged in.

IT'S YOUR HONOR

More Study, Fewer Decisions

TO THE USGA:

In my humble opinion, it is a most serious mistake to do anything other than encourage the **STUDY** of the Rules that now exist. We have too many Decisions now!

The people who play golf know almost nothing of the Rules. The people who write in for information show this in their questions.

To show you what I mean, some years ago I asked 1,000 persons who had played golf for ten years or more this simple question: "What is a golf stroke?" One, and only one, answered correctly.

Ask for an accurate definition of "putting green" . . . tell a player the word "rough" is not in the Rules of Golf . . . and see his amazement.

With cordial appreciation for your splendid work,

J. C. JESTER
ATHENS, GA.

Valley Forge Needs Filled

TO THE USGA:

I am enclosing check for subscription to the USGA JOURNAL and wish to say that I enjoy it very much. However, with regard to an article in the way of an appeal from Dr. N. Howard Hyman of New York, there is no shortage of golf balls, clubs or any other equipment at Valley Forge General Hospital.

The golf course at Valley Forge General Hospital was built by the local PGA, the Greenkeepers' Association and the Golf Association of Philadelphia; I have been chairman of the committee in charge for the past six years.

In Dr. Hyman's letter, he appeals for clubs lying around in lockers and wants them sent to Major Chesley M. Adams or himself. I was at Valley Forge Hospital recently and gave orders to Major Adams to destroy several hundred of these "unused clubs" that had been sent. Most of them were made before I was born and belong in your Museum, and not at Valley Forge Hospital.

The hospital authorities get their appropriations for equipment through usual Army channels, and they fully understand that anything they cannot get from the Army can be obtained through our committee. We still have several thousand dollars in the fund, which is in my charge, that can be drawn on at any time.

In the future, I wish you would get in touch with the Golf Association of Philadelphia on matters in this district. In that way, you will avoid embarrassment to the officers at Valley Forge and our committee. Any inquiries should be addressed to Captain Jones, Reconditioning Officer, Valley Forge General Hospital, Phoenixville, Pa.

Aside from this blast, please be assured that I enjoy the JOURNAL.

J. WOOD PLATT
PHILADELPHIA, PA.

Rules Missionary

TO THE USGA:

For the enclosed \$6, please send me the proper number of 1949 Rules of Golf.

These booklets are not for re-sale, but for distribution among the caddies and players at clubs where they are not kept for sale.

I do this missionary work each spring in connection with the pleasant hobby of keeping abreast of the Rules of Golf.

W. W. VENABLE
CHARLESTON, W. VA.

Birthday Greetings

TO THE USGA:

Please extend for one year my subscription to the USGA JOURNAL.

During the past year—your first—I have read the JOURNAL through from cover to cover, and have always found it entertaining and informative. I recommend it most highly to all golfers.

HARRY WINTERS
INGLEWOOD, CAL.

Editor's Note: The USGA JOURNAL invites comments on matters relating to the welfare of the game and will publish them as space permits.

