



USGA JOURNAL

COMBINING
TIMELY TURF TOPICS

Champions When the Open Was More Casual

Photos Edwin Levick, N. Y.



Willie Anderson (left) won the Open four times—1901-03-04-05. He was the only player to be Champion three years in a row. At right, the Champion of fifty years ago, Willie Smith, winner in 1899.

JUNE 1949



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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			June 9-10-11	Medinah C. C. (No. 3) Medinah, Ill.
Amat. Public Links	*June 9	**June 19 to 27	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

Entries and the Three H's

In this materialistic age, when man apparently tends to believe only what he can see with his eye, it is refreshing to have a hand in such a thing as reception of entries for the Open Golf Championship. You come out of it with faith renewed — with the conviction that there are a great many persons who put considerable stock in unseen forces. Forces like Hope, and Humility, and Honor, for instance.

Golfers are a notoriously hopeful breed. But you've never seen Hope at its highest until you've examined a few tardy entries for the Open.

Here's one: Postmarked in Chicago at 3 P. M. on May 16. A trusting soul must surely have thought the post office would haul forth a jet plane and have it in the USGA office in New York by the published closing time of 5 P. M. on May 16. Actually, it arrived the morning after. Entry declined.

One was mailed in Los Angeles at 1:30 A. M. on the 16th, via air mail special delivery (2c postage was due when it reached us); but it didn't arrive until next day. Entry declined.

Several disciples of Hope actually *posted* their entries *after* the closing time. They probably placed most of their hope in USGA charity. On merely technical points relating to entries, we may bend a trifle sometimes and, in the spirit of the game, give opportunity for an *i* to be dotted or a *t* to be crossed. But where tardiness is concerned, there is just one rule: either you miss the ship or you make it.

Time of receipt in the USGA office *has* to be the deciding factor. If time of postmark were considered, you might never be able to close entries in time to hold the Sectional Qualifying Rounds, especially when some of your

constituents do business with the Honolulu post office.

Your heart bleeds for the innocent, trusting, belated applicants. Perhaps an Open Champion lay a-borning among them. It's particularly cruel to decline such entrants: if you take Hope away from a golfer, what've you got left?

Well, you may have Humility left. One Open entrant had it to a marked degree. After reading on the entry blank that you shouldn't send cash but rather a check or money order as entry fee, he enclosed a note with seven one-dollar bills: "I *had* to send cash because the post office was closed this afternoon and I didn't know it." Entry on time and accepted.

The quality of Honor is likewise reflected in the filing of entries. A gentleman's entry fee consisted of a basketball check which the bank bounced right back at us. We reluctantly called the gentleman's attention to this trifling little matter; he forthwith replied with another check and the following philosophical note:

"Try this one. My wife beat me to the punch (or was it the check book?). You know how it is. Sorry. No one hurt. Tear up the other one."

Hope . . . Humility . . . Honor. Now, if we could only putt. . . .

Top-Heavy — Light-Headed

Uncle Joe Dickson, the Sage of Louisville, is Secretary of the Kentucky State Golf Association, has long been a member of the USGA Public Links Committee, and knows human nature. So it's well to listen when he says:

"A top-heavy committee is usually light-headed in the end."

More Caddie Scholarships



Courtesy Pittsburgh Post-Gazette

These eight gentlemen have served as President of the Western Pennsylvania Golf Association and were trapped just before holing out at a dinner celebration of the Western Pennsylvania's 50th Anniversary. Left to right: Norbert Garbisch, Butler, President 1948-49; Jay D. Swigart, Pittsburgh Field Club, 1942; S. Davidson Herron, Allegheny and Oakmont, 1945; Harmar D. Denny, Jr., Fox Chapel, 1931; E. E. McCoy, Oakmont, 1926; Robert Monroe, III, Pittsburgh Field Club, 1947; Ernest R. Braun, Jr., Shannopin, 1944; Robert W. Smith, Greensburg, 1933.

The healthy contagion of lending a hand to somebody else has a good hold on organized golf, especially where assistance to caddies is concerned. In recent months the Detroit District Association has started the James D. Standish, Jr. caddie scholarship. The Massachusetts Association has established the Francis Ouimet Caddie Scholarship Fund; handicap cards are sold at \$2, and \$1 of each will go to the Fund.

The Western Pennsylvania Association, in celebrating its 50th anniversary this spring, revealed that it maintains nine scholarships at the University of

Pittsburgh and two at Carnegie Tech, under arrangements whereby half the cost is provided by the institution and half by the Association.

E. E. McCoy was instrumental in starting this program, which began in 1940 and was interrupted by the war. C. K. Robinson is Chairman of the present Caddie Welfare Committee.

The tireless work of Fred Brand, Jr., as Secretary was recognized by the Western Pennsylvania Association's gift of a watch to him. He has arranged a schedule of 27 events this season, with a tournament for men every week from May through September.

Placing the Cups

What considerations govern the placing of cups in USGA Championships?

Richard S. Tufts, Chairman of the Championship Committee, says:

"It is almost impossible to set up any fixed rules, as there are many factors that can affect a cup location, with the result that the first consideration should always be the use of good judgment in deciding what will give fair results under the given conditions.

"We generally start with the requirement that, for an area of from two to three feet around the cup, the putting

surface be in good condition without any steep slopes or, if possible, any changes in the degree of slope. In other words, the green should be flat, if possible, but it does not have to be exactly level.

"Next, we try to start, if possible, at least five paces away from the edge of the surface especially prepared for putting. If a trap is close to the edge of the surface, the distance should be greater, especially if the approach to the green is over the trap.

"Other than these, there are no general rules to guide the location of the cup. You have to consider the hold-

ing quality of the green, the length of the shot to the green, the probable prevailing conditions for play for the day, and the design of the hole.

"Cup locations for the early rounds can be simpler, and as play proceeds the various architectural features of the course be brought more sharply into play, always keeping in mind that the location selected should be fair."

Passing of Max R. Marston



George S. Pietzcker Photo.

Max R. Marston with the Amateur Championship Trophy in 1923.

Max R. Marston, who passed on recently, had an unusual record in competition. He played in a great many USGA Amateur Championships, was winner once and runner-up another time, and was a member of four Walker Cup Teams.

In the 1923 Amateur he went through a great bracket, defeating among others Robert T. Jones, Jr., then the Open Champion; Francis D. Ouimet and, in the final, the defending Champion, Jess W. Sweetser. The final went 38 holes.

Ten years later, at the age of 41, Marston was runner-up to George Dunlap in the Amateur. He had been a semi-finalist as early as 1915.

Marston was a member of the Ameri-

SPORTSMAN'S CORNER

They have to remain anonymous, so we'll call one the Big Boy and the other the Little Boy—he really was one of the youngest in the tournament. They met in a match in the USGA's first Junior Amateur Championship last year.

Near the finish, the Big Boy accused the Little Boy of moving his ball as he addressed it on the putting green. The Little Boy denied it. They batted a few words back and forth, then called for an official. The evidence indicated that the ball had not moved, so the match proceeded. The Little Boy won on the home hole.

That night, back in the hotel at bedtime, the gentleman who had escorted the Little Boy to the tournament asked him, point-blank: "Little Boy, did that ball move on that green this afternoon?"

The lad stared back with innocently wide eyes. "No, sir", he said. "It surely didn't."

"That's all I want to know," said the man; and he turned out the lights to go to sleep.

Minutes later, the man was just dropping off to sleep when he was awakened by the boy's voice. "Sir," he said hesitantly, "are you awake?"

"No, son," said the man. "What is it?"

"Well, sir, I was just thinking—that Big Boy taking the Lord's name in vain back there on the 17th green this afternoon—that didn't help him any, did it?"

* * *

So there you have two boys—two future leaders—meeting at golf—meeting in a trial of character. There you have the Little Boy making a contribution to the Junior Championship. There you have the Big Boy learning something from it.

In either case, it's great.

Plum Hollow Likes to Read

Some 60 members of the Plum Hollow Golf Club in Detroit are subscribers to the USGA JOURNAL — approximately 18 per cent of the membership.

can team in the first Walker Cup match in 1921 and served again in 1923-24-34.

Golf in Moscow

Bindari Pasha, Egyptian Minister to the USSR, steadfastly refuses to give up golf despite the fact that Russia has no golf courses, Eddy Gilmore reports through the Associated Press from Moscow.

The Minister, who has played golf for many years in championship brackets, goes out every favorable afternoon armed like an expedition. He takes along a caddie, a number of balls, and his clubs.

Bindari Pasha has discovered an open rolling field where the grass—because of much cow grazing—is cut almost as smooth as a fairway. He fixes his eyes on the horizon, locates an imaginary hole, and lets fly.

His “golfing” during the fine summer days Moscow had last year naturally attracted a crowd. One day he found some collective farmers looking on, shaking their heads and muttering to themselves.

It's no wonder, for in addition to his golf clubs, Egyptian caddie, and the small white ball, Bindari Pasha wears plus fours and speaks but little Russian.

Massachusetts Ladies

The Women's Golf Association of Massachusetts started its 50th year with a demonstration of complete democracy. By postal questionnaire, the Association polled all 69 of its Class A players on their wishes regarding the date and system of play in the annual Championship.

There was also instituted a Limited Player Membership for those who retain their interest but cannot compete often enough to submit the required scores for a handicap. Limited Members will not be eligible for the Championship or for weekly prizes but may play from scratch in various events.

Mrs. James H. Cave, Secretary, reveals that the Association was first organized at a meeting on March 5, 1900, with six women present. It consisted of four clubs: The Country Club, Oakley Country Club, Brae Burn Country Club and Concord Country Club. Twenty-five players took part in the first Championship at Oakley, October 22-25, 1900, with Miss Grace B. Keyes defeating Miss Harriot Curtis, 5 and 3, in the final. Miss Pauline Mackay was medalist with 102.



“See how my putter becomes a sword?”

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Amateurism Is in the Spirit

By JAMES W. WALKER

CHAIRMAN, USGA AMATEUR STATUS AND CONDUCT COMMITTEE

Prof. Charles W. Kennedy, of Princeton University, has given to the world of sport, through a series of essays on "Sport and Sportsmanship", a philosophy which I think is basic to golf and is very helpful in interpreting the Rules of Amateur Status. To give you the benefit of Prof. Kennedy's sound logic, here are excerpts from his very enlightening book:

"At bottom the essential distinctions between the amateur and professional points of view are matters of spirit. Many attempts have been made to define amateurism and professionalism in technical terms, and these definitions have quite rightly discerned one of the roots of professionalism as a desire to coin into material advantage a participation in sport which should be governed solely by a love of the game itself and the joy of playing it. But when the last definition has been penned, and the last piece of regulatory legislation formulated, it will still remain true that the essential difference between professionalism and amateurism is a difference of spirit. I believe that it is possible to make a fairly clear and simple statement of this difference in spirit.

More Important Things

"I believe that an amateur sportsman is one who wishes to play a game as well as he can play it *in relation to more important things*. A man engaged in business, or in a profession, who is free to withdraw a few hours a week from his professional occupation in order to engage in golf or tennis or some other sport, wishes, of course, to play his chosen game as well as he can play it under these circumstances. But he knows from the beginning that he cannot play it as well as he would be able to do if he devoted his entire time to attaining a proficiency in sport comparable to the

proficiency which it is his chief ambition to attain in business or in his profession.

"On the other hand, I believe that in spirit a professional athlete is one who not only wishes to play the game as well as it can be played, but who has made the decision that he will devote all his time, and subordinate all other interests, to the perfecting of his skill and proficiency in his chosen sport.

"In my judgment, therefore, the essential values of amateur sport will always be most wisely discerned from the point of view of those participants whose professional interests lie elsewhere, and who approach a game in the spirit of play and recreation."

The honest-to-goodness amateur golfer, then, plays primarily as a recreation and a diversion from his primary occupation. Strictly speaking, a player is not an amateur at heart if he does nothing but play in order to be able to compete successfully with professionals with the intention of later turning pro. Playing golf is actually his business during this build-up period. In justice to both pros and amateurs, such an individual would do better to turn pro, out and out, at an early stage.

Of course, there are exceptions among those who apparently do nothing but play golf — for example, the individual who has retired from business, or one who never has had an urge to work and who plays golf simply as a diverting pastime. Generally, however, the true amateur cannot possibly compete with a player who does nothing but play golf and who, broadly speaking, is making a business of it.

The majority of golfers subscribe to Prof. Kennedy's views. They are a constant challenge to remind us all of the spirit which lies behind the letter of the Rules.

Chicago Rich in Open History

By JOSEPH C. DEY, JR.

USGA EXECUTIVE SECRETARY

A great deal of Open Championship history has been made on golf courses in the Chicago district. The 1949 Open at Medinah is the tenth in a Chicago setting—10 of the 49 in the USGA series which began in 1895. Here are flashbacks on others:

1897—Joe Lloyd had 162 for 36 holes to win, at Chicago Golf Club.

1900—Harry Vardon, on his first American trip, won at Chicago Golf with 313 for 72 holes.

1904—Willie Anderson took the third of his four Open Championships, at Glen View. Only he and Bob Jones won four. Anderson alone had three in a row.

1906—Alex Smith, with 295 at Onwentsia, became the first Open Champion to score under 300.

1911—Johnny McDermott was the first American home-bred winner, with 307 at Chicago Golf.

1914—Walter Hagen gained his first Championship, at Midlothian.

1922—Gene Sarazen won his first, at Skokie. This was the first time admission fees were charged to a USGA Championship. The USGA annual report said: "The paid attendance of 15,078 was the first authoritative check on the spectators attending a Championship."

1928—Johnny Farrell won from Bob Jones in a play-off at Olympia Fields.

1933—Johnny Goodman became one of the rare amateur winners, at North Shore. Goodman's 66 in the second round tied the existing single-round record.

Complex Preparations

Medinah's rugged No. 3 course has entertained a number of fine tournaments in the last 20 years, including the Chicago Open, Western Open and Victory Open. In preparation for the USGA Open, a great deal of special work was done in the last year, under the Green Committee headed by John Skala. The course is long and difficult, with Championship yardage of 6,981 and a par of 71.



These three men directed Medinah's preparations for the Open Championship. Left to right: E. Jack Barns, General Chairman; Warren N. Barr, Sr., President of the Club; Lowell D. (Larry) Rutherford, Co-Chairman. Mr. Rutherford was, until recently, a member of the Tournament Committee of the Chicago District Golf Association for 16 years and was long its Chairman.

Over the Water at Medinah



The second hole on the Medinah Country Club's No. 3 course requires a carry over water. It is a par 3 of 182 yards.

The average player and spectator appear ignorant of the vast amount of preparation that goes into an event of this sort. One club's general chairman for an Open estimated that more than 10,000 man-hours were spent by his colleagues in planning and management.

Practically all such work is done by volunteers. Golf championships with large spectator interest, such as the Open and the Amateur, couldn't be held in their present form if all work were compensated. There simply isn't enough money in them for that. They depend essentially on the generous spirit of hundreds of golfers—amateurs in the best sense of the term—who labor early and late to care for competitors and spectators alike.

Each club entertaining a USGA competition is responsible for all physical arrangements except the actual conduct of play. Thus, club committees handle such matters as preparation of the golf course, admission tickets, caddies, gallery control, certain scoring duties, automobile parking, accommodation of players, clubhouse services, public information, and publication of an official program. They are aided by a USGA

manual of some 20,000 words, representing the accumulated experience of clubs which have held USGA competitions.

Typifying the volunteer workers are E. Jack Barns, General Chairman of Medinah's committees for the Open; Lowell D. Rutherford, Co-Chairman, and Warren N. Barr, Sr., President of the Club. For nearly two years they and fellow-members worked toward the 1949 Open—a three-day event. At times they sacrificed personal interests to do the job. I've had the pleasure of being involved in something over 50 national and international golf affairs, and I've seen at first-hand the enthusiasm, careful thought and selfless devotion which club committees give.

Why do they do it? Why do they take on free work and sometimes make generous costly sacrifices?

Well, if there's a single reason, it's just because they love it. They love the game. They love what it stands for. Sportsmen are that way. Just as a tree is likely to be healthiest when it is giving fruit, so are people at their best when their attentions are focused on worthwhile things, bigger than themselves.

37 for Two Holes in the Open

When the definitive history of the Open Championship is written, it will be concerned with many things besides such efficient performances as Ben Hogan gave a year ago at Riviera by making 16 birdies, 48 pars and going one over on only eight holes. His record 276 is only part of the saga.

The title also has been won with a score as high as 331. Willie Anderson required that many strokes at Myopia, near Boston, in 1901, and he won everything. He was no duffer, either. Later he took the Open three years in succession. Although Bob Jones matched his total of four victories, no one but Willie Anderson has won three in a row. Or even one with a score like that 331.

Every duffer can take heart, too, from the fact that Ray Ainsley, now professional at the Montecito Golf Club in Santa Barbara, Cal., used 19 strokes—yes, 19—on a single hole to set the Open record for profligacy. Ainsley committed his 19 on the 16th hole, a par 4, in the second round of the 1938 Championship at Cherry Hills, Denver.

Had Ainsley holed out in one fewer, he would only have tied the record of 18 which Willie Chisholm made on the 185-yard 8th hole in the 1919 Championship at Brae Burn, Boston. The circumstances surrounding these two spectacular scores were quite different. Fortunately for the definitive historian, the two events have been appropriately recorded.

A National Hero

Henry McLemore, at the time a sports columnist, witnessed Ainsley's 19 and, tucking his tongue firmly in his cheek, filed a copyrighted story which the United Press permits us to reproduce. From the scene of the disaster, McLemore wrote:

"Ray Ainsley, of Ojai, Cal., Saturday was the most beloved man in the United States.

"Five million golf duffers recognized him as their beau ideal, hailed him as their vindication, their excuse for living.

"Ainsley, an unknown until Friday, bounded into fame when, playing in the Open Championship at Cherry Hills, he scored a 19—15 strokes over par—on the 16th hole.

"For almost half an hour he stood in a swift-moving creek that borders the 16th green and belabored his ball with blows. It is recorded that a little girl who witnessed his efforts to knock the ball from the creek turned to her mother when Ainsley finally got it out and said:

"Mummy, it must be dead now, because the man has quit hitting at it."

"When he finally finished—with a sparkling 96—Ainsley was besieged on the clubhouse lawn. Hagen was forgotten. So was Jones. So was an assorted group of state governors, and so was Henry Picard, whose second consecutive 70 had given him the halfway lead.

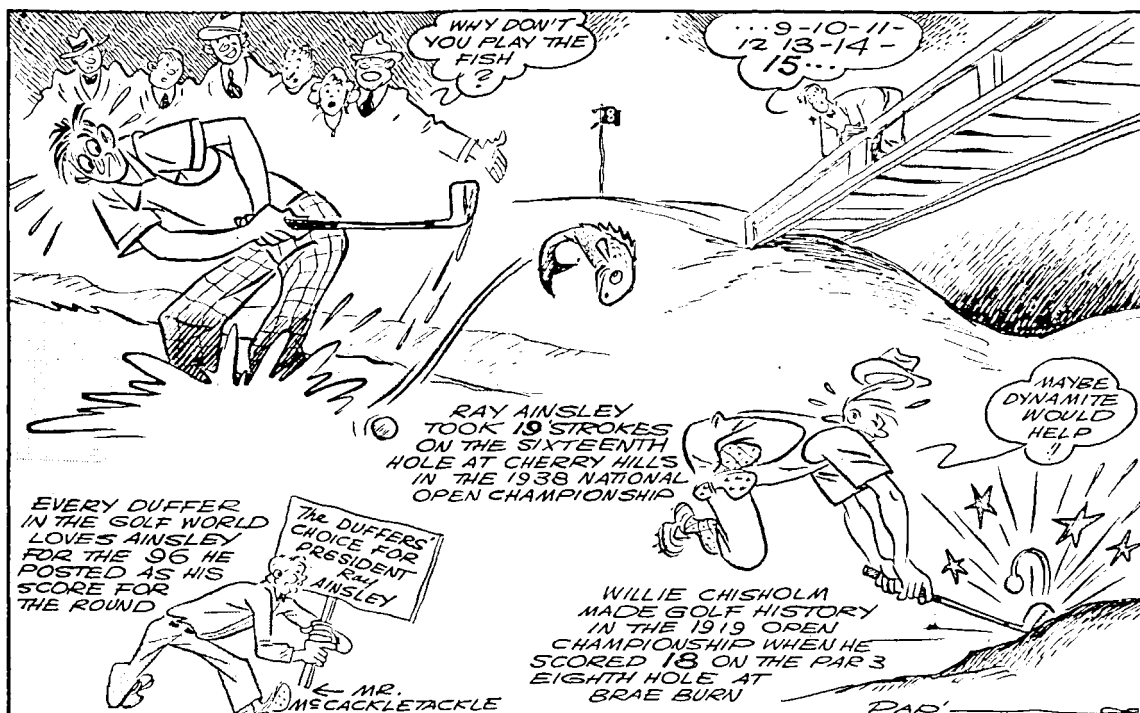
"The autograph hunters and the candid-camera filberts swarmed about him. It was obvious that the autograph hounds figured that the signature of any man who took a 19 on one hole in the Open would some day be worth more than the signature of Button Gwinnett or any other signer of the Declaration of Independence, and that the picture of a man who had perpetrated such a deed would outlive Gainsborough's Blue Boy.

"Ainsley's effort at the 16th will go down in sports history with the famed 'long count' of the second Dempsey-Tunney fight at Chicago. Just as Dave Barry became confused after Jack's knockdown of Gene, so did the official scorer become lost in a maze of figures as Ainsley swatted at the ball. After many strokes, the scorer turned to Ainsley's playing companion, Bud McKinney, and called,

"Pick up the count. I'm through."

Battling the Current

"McKinney counted as high as he could, but, not having majored in mathematics, he quit after one of Ainsley's blows lifted a speckled trout high into the air. A spectator suggested that



Ainsley play the trout and not his ball, but as there is no USGA rule to cover such an emergency, the Californian took another notch in the pants of his diving bell and continued trying to hit the ball.

"He was a sad sight as this point. He was covered from head to foot with sand, and his clothes were soaking wet. Each time Ainsley missed the ball, the current would sweep it farther downstream, and he would have to run along behind it, trying to get in a decisive blow. No man ever showed more game-ness.

"He scorned treacherous currents that swirled about him and threatened to sweep him into whirlpools. He ignored the dangers of boulders, seaweed and the incoming tide.

"Sharks nibbled at his ankles' but he kept whacking away.

"Passing ships sent out lifeboats, but he waved them aside.

"Finally, Ainsley backed the ball into a neutral eddy and caught it squarely on the head and it soared from the water.

"The spectators cheered—until they saw that it had landed beyond a tree on the far side of the green. An amphibian by now, Ainsley adapted himself to dry land with remarkable alacrity and strode into the bush. After much thrashing, the Californian beat the ball onto the green and putted it into the cup.

"Saturday he was sought by (1) the curious who wanted to see and touch the man who had taken the highest score on a hole in the history of the Open, and (2) game wardens, who said the trout he had killed was under the legal limit.

"Ainsley, old fellow, give me a stroke a hole and I'll play you for 10 cents a hole. You sound like my meat."

As an epitaph, Morton G. Bogue, then chairman of the USGA Rules of Golf Committee, adds that he asked Ainsley why he had not availed himself of the privilege of lifting his ball from the water hazard under penalty of only one stroke.

"I thought I had to play the ball as it lay at all times," responded Ainsley,

who at that point became a sadder but wiser man.

But as the USGA Executive Committee's annual report stated: "The fact that he holed out was an interesting commentary on the sportsmanship of the golf professionals of America."

Ball Runs Poorly for Willie

In one sense, Willie Chisholm perhaps should share equal honors with Ainsley. Each went 15 strokes over par on a single hole. It might be argued that Ainsley was able to exceed Chisholm's score by a stroke only because he chose a par 4 hole and Willie a par 3.

The historian is again fortunate in the Chisholm case, because the man with the most remarkable memory in golf, Francis Ouimet, was a competitor at Brae Burn in 1919 and has contributed the following account of Chisholm's climactic mishap:

"In 1919 Walter Hagen defeated Mike Brady for the Open Championship after the two had tied at 301 at Brae Burn. Among the favorites was Jim Barnes, to say nothing of other fine players. Barnes had as his playing companion in the first round a Scot named Willie Chisholm.

"They were to start rather late, so Willie prepared for the ordeal by playing a few chip shots beforehand with Johnny Walker (Black Label).

"When the two appeared on the tee to answer the call, Jim had the inevitable clover leaf in his mouth, while it could be noticed that Willie was grim and businesslike, eager to get away from the crowd that usually congregates around the first tee.

"The ball was not running well for Willie, and he had more than his share of bad breaks over the first five holes. However, his courage was good, and when he made a 5 on the par-3 sixth, it seemed as though he had played himself back to his normal game. A steady 7 on the par-4 seventh more than confirmed this.

"There was much to look forward to on the eighth. It was only 185 yards long, and while the iron had to be

played over a deep ravine, there were some 2s and many 3s made on the hole during the day.

"At the bottom of the ravine was a tiny brook, and in front of the brook were several large rocks, deposited there during the glacier period. As a matter of fact, that particular hole was a source of much annoyance to the members of Brae Burn because it was no easy climb from the brook up the steep bank—and it was steep—to the fairway and putting green. Therefore, the ever-obliging golf committee constructed a long wooden bridge which spanned the ravine, thus making the hole a more pleasant one to play. The bridge was completed for the Open that year.

"Barnes played a nice shot to the green and, gentleman that he was, stepped aside for Willie to do likewise. As Willie selected an iron, it could be seen he was full—of confidence—but as so often happens, he took a little too much turf, and while he carried the brook nicely, by two or three feet, his ball came to rest two inches beyond a large boulder.

"After reaching his ball and surveying the situation carefully, he called for his niblick, possibly thinking that, if he was to break a club, it might just as well be the niblick. I may say now that such a procedure was common in 1919.

"Jim in the meantime took up a position in the middle of the bridge where he could look down at Willie and help him count his strokes.

Bleeding Niblick

"After a few practice swings, Willie took his stance, held a firm grip on the club and let go at the ball. Unfortunately, the clubhead met the boulder first and bounced over the ball, giving off a few sparks and a sharp ring. This was a novel experience for Willie Chisholm, so he tried it again with the same result.

"Now that he was sure it was no mistake and that he had not been hearing things, he settled down to blast his way to the ball through the rock. After a

(Continued on page 20)

Par for Chipping and Putting

By WILLIAM B. LANGFORD

MEMBER, AMERICAN SOCIETY OF GOLF COURSE ARCHITECTS

Any observing golfer knows that the number of strokes taken with a putter during a round is an inaccurate measure of putting ability. Paucity of putts may mean that the player has displayed marvelous precision with his approach shots, or has played them badly, leaving himself a multitude of chips which have been well executed. The player who consistently makes the green with his long shots will probably take several more putts than the fellow who just fails to get home.

In making par tables, an allowance of two putts per green has been standard procedure. In actual practice, this does not mean two strokes with a putter on each hole; in major competition no golfer who averages 36 putts per round can hope to finish in the money. To me, it means that two strokes, either chip or putts, are allowed with which to hole out after the ball has been played toward the green from any reachable distance exceeding 32½ yards—the point at which fractional par for chipping and putting is 2.5 in the tables I have compiled.

Some ten years ago I prepared a table showing par performance for chips and putts. Since then I have paid close attention to short-game detail in my daily contacts with golfers of widely varying abilities and at many competitions, especially those in which putting records were kept. My observations have induced me to readjust the allowance for short putts, where psychological tension plays havoc with mechanical performance to such an extent that any table for that range will probably undergo vehement criticism.

This is an empirical table for par, not

average performance, based on play over a level, true surface. Although of only academic interest, it should, if it is as accurate as I believe it to be, encourage the poor putters, for the goal set is within the reach of anyone who will work, and keep the better putters from continually blowing their tops because they don't hole all of them. I have had a lot of fun checking and working it out and now present the appended revision with the hope that it may be of some interest to golf analysts.

Golf's battlefront of nerves and finesse around the green is the happy hunting ground of the scrambler and of the chap who never says die. Here the David of the links who has courage and self-control can recover from his losses through the green and fight on even terms with his physical superiors.

Par	Distance <i>Inches</i>	Par Performance in Holing 100 Balls			
		Total Strokes	Possible Distribution of score		
			<i>Acres</i>	<i>Decuces</i>	
1.00	14	100	100	0	
1.05	19	105	95	5	
1.10	25	110	90	10	
1.15	31	115	85	15	
1.20	38	120	80	20	
1.25	45	125	75	25	
1.30	54	130	70	30	
1.35	63	135	65	35	
1.40	72	140	60	40	
1.45	81	145	55	45	
<i>Feet</i>					
1.50	7.5	150	50	50	
1.55	8.5	155	45	55	
1.60	9.5	160	40	60	
1.65	10.5	165	35	65	
1.70	11.5	170	30	70	
1.75	12.5	175	25	75	
1.80	14.5	180	20	80	
1.85	16.5	185	15	85	
1.90	18.5	190	10	90	
1.95	20.5	195	5	95	
<i>Yards</i>				<i>Decuces</i>	<i>Threes</i>
2.00	7.5	200	100	0	
2.05	10.0	205	95	5	
2.10	12.5	210	90	10	
2.15	15.0	215	85	15	
2.20	17.5	220	80	20	
2.25	20.0	225	75	25	
2.30	22.5	230	70	30	
2.35	25.0	235	65	35	
2.40	27.5	240	60	40	
2.45	30.0	245	55	45	
2.50	32.5	250	50	50	

No Change in the Wedge

By JOHN D. AMES

CHAIRMAN, USGA IMPLEMENTS AND BALL COMMITTEE

Clubs of the general type popularly known as "wedge" have been under rather intense consideration by the USGA Executive Committee during the last year.

At its recent spring meeting, the Committee decided to take no legislative action against the wedge. Thus this trouble club remains "legal"—and probably a lively topic for conversation until another flurry of criticism brings it under scrutiny again.

That has been the periodic pattern for the wedge ever since its modern ancestor, a concave-faced niblick with a heavy, rounded-and-flanged sole, made its appearance in 1930. The USGA Executive Committee then lost little time in legislating against it—in January, 1931, it was barred. The report of Herbert Jaques as Chairman of the Implements and Ball Committee then said: "Repeated tests proved conclusively that from grass a ball could strike the club face at two different points in the same stroke." This resulted in adoption of the following regulation: "Club faces shall not embody any degree of concavity or more than one angle of loft."

The concavity of face in the original sandwedge was the basic reason for its abolition. But since then there have been developments in the sale of wedge-type clubs which have caused many lovers of the game to press for modification.

Criticism has originated from belief that the wedge is a sort of foolproof club which takes away much of the need of skill in playing shots from sand and short pitches to the putting green.

There have been honest differences of opinion, even among those who should know the subject. Following are some opinions, and their diversity reflects the scope of the problem which has confronted the USGA Executive Committee.

Con

Herbert Jaques has dealt with the matter periodically for nearly two decades in USGA committees and is an advocate of modifying the club. He has said:

"The feature which makes it a 'self-playing implement' is the angle of the trailing edge of the sole which extends below a horizontal plane, measured from the leading edge, when the *line* of the shaft (not the shaft itself) is perpendicular to the plane." He suggested legislation which, he felt, would do the following:

"1. Eliminate the automatic up-lift or ploughing-out action of the present sandwedge.

"2. Take care of either flat or rounded soles.

"3. Not make obsolete the present clubs, which could be ground down to meet the proposed specifications.

"4. No limitation on width of the sole is necessary to eliminate the up-lift or ploughing-out action."

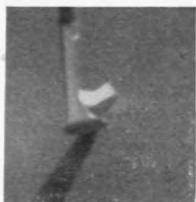
Tommy Armour has remarked substantially as follows: "The present club should be outlawed because it is of inestimable benefit to the expert but of no particular help to the average player because he doesn't know how to use it properly."

Francis Ouimet has said he feels the club "has no place in the game, and I would like to see it declared illegal. I realize, however, that it has given much consolation to a great many golfers."

Pro

Various shades of opinion have been expressed by various USGA Committeemen. One said: "There should be some specifications to limit the club, but some sort of wedge similar to those in use today should be legal. I believe the club helps the club more than the top pro in spite of the latter's proficiency with it, and it would be a shame to bar all

Original Wedge



Note concavity of face in illustration at left, and flanged sole at right.

wedges. I am sure that many of the sandwedges are far from foolproof; at least, I know mine isn't, judging from the numerous frightful shots I have hit with it."

Another view: "The wedge is more helpful to the duffer than to the pro. The pro can get out of a bunker and down in one putt quite regularly due to the wedge; the duffer can at least get out with this club, where with the old niblick he used to take a number of strokes before achieving the result."

Still another was torn between consideration of the average player and a desire to minimize the work done by the club at the expense of playing skill. "Most courses," he said, "cannot afford to keep their traps raked perfectly, and for the average golfer it is almost essential to have a very heavy wedge to extricate oneself from a deep footprint or a very heavy lie."

In any case, the wedge is still with us—and, probably, so are the problems which it has created. The USGA

JOURNAL welcomes the views of golfers on this and related subjects.

Bulges on Club Faces

A convex bulge from top to bottom on the face of any club, including putters, has been approved by the Executive Committee. The present Rules are not clear on the point, and their phrasing will be changed next year so as to embody the new interpretation.

Radioactive Golf Ball

The Association has been asked whether it would approve a golf ball in combination with a radioactive substance—an invention said to relate to a ball which may be located when lost by means of a detector sensitive to emanations from the ball. The detector used would preferably be a small hand-carried Geiger Counter, it is said.

After consideration, the Executive Committee did not feel it had enough information, one way or another, to make a decision, and thought it best to let the matter develop further so that everything involved in such a golf ball could be taken into consideration. There was a good deal of conversation about the advantage of one player over another if only one could afford the Geiger Counter, about any harm to human beings or animals which might come from proximity to such a ball, if any, and whether or not it would make any difference in the manufacture or flight of the ball.

The matter has been left in an indefinite state because a decision now, based on insufficient knowledge, might have to be reversed later.

Lightning Protection

The USGA recently re-issued its poster on "Protection of Persons Against Lightning on Golf Courses." Copies have been sent to all USGA member clubs, and others are available from the USGA, free. The same material is contained in the USGA Rules of Golf booklet.

In checking the text of the poster, the National Bureau of Standards pointed out:

"If golf clubs could be impressed with

the necessity of calling off matches *before the storm is near enough to be hazardous*, the cases of multiple injury or death among players and spectators could be eliminated."

Mednes Only

Whenever we go down to play golf
The ladies are so numerous they crowd
us o!f.

Thank goodness Wednesday

Is the mednesday.

—PUNCH

How to Win at Golf

(WITHOUT ACTUALLY CHEATING)

By STEPHEN POTTER

Many books have been written on correct form in sports, but "The Theory and Practice of Gamesmanship or The Art of Winning Games Without Actually Cheating" by Stephen Potter is the first devoted to the subject of how to win games without being able to play them. Thanks to Henry Holt & Co., Inc., and "Pageant" magazine, the USGA JOURNAL is enabled to present here, in digest form, a few of Mr. Potter's golf "secrets".

Since the first muscle stiffened is the first hole won, the object is to build up an atmosphere of muddled fluster.

When, for instance, your opponent kindly comes to pick you up in his car, your procedure should be: (1) Be late in answering the bell; (2) Don't have your things ready; (3) Walk down path and realize you have forgotten shoes; (4) Return with shoes, then, just before getting into car, pause and wonder whether clubs are at the pro shop or in the den upstairs.

The First Hint

Like the first hint of paralysis, a scarcely observable fixing of your opponent's expression should be visible. Now is the time to redouble the attack with map play (a new and better way to the club, ending, of course, in a blind alley).

An experienced gamesman will keep two changes, one correct and one incorrect; also, two golf bags—one covered in zippers with five woods, twelve irons and a left-handed cleeck; a second containing only three irons and one wood, each with the appearance of string ends around its neck. If he finds his opponent is humbly dressed, he will wear the smart outfit. If the conditions are reversed, out will come the frayed trousers and the stringy clubs. "And I don't want a caddie," he says.

Play against your opponent's tempo. Against a player who makes a great deal of wanting to get on with the game, the technique is to: (1) agree, "as long as

we don't hurry on the shot"; (2) hold things up by 15 to 20 disguised pauses. Peg-top tees were introduced for this purpose. Tee the ball, frame up for the shot and at the last moment stop, pretend to push the peg a little farther and start all over again. Early gamesmen used such naive devices as leaving the driver on the tee and going back for it. The essence of the modern approach is making the pause as if for the sake of your opponent's game: removing an imaginary twig from the line of his putt, asking him to wait until "those kids" (imaginary) stop walking across his line of sight, etc.

For the slow-playing opponent, of course, the flurry works best. Invent some train you would "rather like to catch if the game is over by then."

To counter the old-aunt type of game, I invent an imaginary character called Jack Rivers. Early in the game I praise his charm, good looks, fine war record and talent for games. Then I say, "I like Jack Rivers' game. He doesn't care whether he wins or loses so long as he has a good match." If the method is given time to soak in, chances are your opponent will begin to think, "Well, perhaps I *am* being a bit of a stick-in-the-mud." Soon he is adopting a hit-or-miss method which doesn't suit his game.

My counter to, "I'm afraid I don't play golf. Do you know, I've never been able to see the point of it," is, "No—it is, of course, a game of *pure* skill."

Plans for Championships

The USGA holds four Championships for male golfers, and this year they require a grand total of 146 Sectional Qualifying competitions to determine the fields for the Championships proper. In addition, there will be a score or more of Sectional tryouts for the Women's Amateur Championship, which will have such a feature this year for the first time.

Numbers of qualifying points established for events for males are: Open—30; Amateur Public Links—41; Junior Amateur—41; Amateur—34. Locations for all but the Open follow:

	PUBLIC LINKS	JUNIOR	AMATEUR
ALA.....	Birmingham	Birmingham	—
ARIZ.....	Phoenix	—	Phoenix
CAL.....	Los Angeles	Los Angeles	Los Angeles
	San Fran.	San Fran.	San Fran.
COLO.....	Denver	Denver	Denver
D. C.....	Washington	Washington	Washington
FLA.....	Jacksonville	Lakeland	Miami
GA.....	Atlanta	Atlanta	Atlanta
HAWAII..	Honolulu	—	Honolulu
ILL.....	Chicago	Chicago	Chicago
	Peoria	—	—
IND.....	Indianapolis	Indianapolis	—
	South Bend	—	—
IOWA.....	—	Des Moines	—
KANS.....	Wichita	—	—
KY.....	Louisville	Louisville	—
LA.....	New Orleans	New Orleans	New Orleans
MASS.....	Boston	Boston	Boston
MICH.....	Detroit	Detroit	Detroit
MINN.....	St. Paul	Minneapolis	Minneapolis
MO.....	—	Kansas City	Kansas City
	St. Louis	St. Louis	St. Louis
NEB.....	—	Lincoln	Lincoln
N. M.....	Albuquerque	Albuquerque	—
N. Y.....	Albany	Buffalo	Albany
	Buffalo	New York	New York
	New York	Troy	Rochester
N. C.....	Raleigh	Charlotte	Morganton
N. D.....	Grand Forks	Fargo	—
OHIO.....	Cleveland	Alliance	Cincinnati
	Dayton	Cincinnati	Cleveland
	Toledo	Columbus	—
OKLA.....	Okla. City	Okla. City	Tulsa
ORE.....	Portland	Portland	Portland
PA.....	Philadelphia	Philadelphia	Philadelphia
	Pittsburgh	Pittsburgh	Pittsburgh
TENN.....	Memphis	Memphis	Memphis
	Nashville	Nashville	Nashville
TEXAS.....	Galveston	Fort Worth	Dallas
	San Antonio	Houston	Houston
	—	Midland	Lubbock
UTAH.....	Salt Lake C.	Salt Lake C.	—
VA.....	—	Richmond	Richmond
WASH.....	Seattle	Seattle	—
	Spokane	—	—
W. VA.....	—	Huntington	Huntington
Wis.....	Milwaukee	Milwaukee	Milwaukee

Public Links

June 9 is the last day for entries for the Amateur Public Links Championship to be received by Sectional Qualifying Chairmen. This is the only USGA

event for which Sectional entries do not go first to the USGA office.

The Sectional Rounds, at 36 holes, are scheduled on various dates in the period June 19-27. They will produce a final field of 210 for the Championship proper, to be played at the new Rancho Golf Course in Los Angeles. The Team Championship, involving three-man Sectional teams at 18 holes stroke play, is scheduled Saturday, July 9, and the Individual Championship for the period July 11-16.

Like the other USGA tournaments for males except the Open, the Championship proper is entirely at match play.

The winner will be invited to compete in the Amateur Championship without having to qualify sectionally. Other semi-finalists will be invited to play in Sectional Qualifying for the Amateur. With these exceptions, an entrant may not apply to play in both the Public Links and the Amateur Championships in the same year.

Entries for the Public Links tournament are open to male amateur golfers who, at all times since January 1, 1949, have not had the privileges of private clubs maintaining their own golf courses.

Junior

Entry blanks are out for the USGA's second Junior Amateur Championship. All entries must reach the USGA office in New York by 5 P. M. on Tuesday, July 5. They must be filed on USGA forms and must be accompanied by the entry fee of \$3.

The Sectional Rounds in 41 cities are at 18 holes stroke play on Tuesday, July 19, except that the date is Monday, July 18 for rounds at Denver, Chicago, St. Louis and Seattle.

The 123 successful players will gather for an all-match-play tournament July 27-30 at the Congressional Country Club, Washington, D. C. Rooms and meals will be available at reasonable rates at Georgetown University for players and male relatives and friends. The USGA

Championship Committee will be quartered there and will supervise players.

The Junior is open to boys who will not reach their 18th birthday by midnight of the day of the final, July 30.

In addition to golf, arrangements are being made to take the boys on sight-seeing trips of particular interest in and about the nation's capital.

Amateur

The Amateur Championship is the only USGA event for males in which all American entrants must be members of USGA Regular Member Clubs. This year's tournament will be held over the East course of the Oak Hill Country Club in the Rochester, N. Y., section, during the period August 29-September 3.

Entries close at the USGA office on

USGA COMPETITIONS FOR NEXT YEAR

Curtis Cup Match: Sept. 1 and 2 at Country Club of Buffalo, Williamsville, N. Y.
Women's amateur teams, British Isles vs. United States.

<i>Championship</i>	<i>Entries Close</i>	<i>Sectional Qualifying</i>	<i>Championship Dates</i>	<i>Venue</i>
Open	May 15	May 29	June 8-9-10	Merion G. C. (East) Ardmore, Pa.
Amat. Public Links	May 26	June 11 to 17	Team: July 1 Indiv., July 3-8	Seneca G. C. Louisville, Ky.
Junior Amateur	June 26	July 11	July 19-22	Denver C. C. Denver, Colo.
Amateur	July 24	August 8	August 21-26	Minneapolis G. C. Minneapolis, Minn.
Girls' Junior	August 11	—	Aug. 28—Sept. 1 (Not determined)	
Women's Amateur	August 10	Aug. 24-25	September 11-16	Atlanta A. C. (East Lake) Atlanta, Ga.

THUS SPAKE THE VOICE OF GOLF

I thrive in the green meadows and besides the wooded hills. I glory in cool breezes and sparkling sunshine, yet oft I lure my followers o'er wintry fields or under summer's blazing skies.

I appeal alike to young and old. I encourage the weak, reproach the boastful, reward the strong. I am the spirit of fairness, and the essence of self-control.

I am opportunity oft returning. I am ambition. I am a fixed star; men follow me, and women too, through the slough of despond to the golden heights of achievement.

Men may love me, curse me, kneel

to me, deride me, yet I am constant as the tides of the rolling seas; indeed I shall never die.

Of loneliness I am the chief enemy, for I drive away dull hours and countless petty cares. I have for my bosom companion health, and for my delight a hearty appetite.

I revel in entertainment; the world out-of-doors is my house; my guests are whosoever will condescend to share my delights. I lay foundations of everlasting friendships, and build oft in the land of romance.

I am an intoxicant. I cure all, but kill none.

— Anonymous

Control and Balance in the Swing

By ERNEST JONES

AUTHOR OF "SWINGING INTO GOLF"

To do anything well you must have control. Of course, everyone agrees on that; but when you ask what is meant by control and what is it you must have control of, the answers are, to put it mildly, very confusing and contradictory.

What you must have control of is the club itself. One of my very good pupils when asked, "What do you swing the club with?", replied, "With authority," which is the perfect answer. Control means to be in charge, to be in authority, to know what you are doing with what you are using.

The clubhead is what you hit the ball with. It is the implement which you must master. Until you are perfectly clear as to the way it should be used, there will be very little hope of having any definite sense of control. Many golfers seem to have the idea that control means keeping a straight left arm, or cocking the wrists at the right time, transferring the weight properly, and so on. All these things are the *result* of proper control of the club, and not the cause.

The next thing to consider is balance. If you are not properly balanced, you are under a handicap in one form or another. There is a difference between static balance and dynamic balance. Balance at rest is simply an even distribution of weight, and the comfortable feeling of poise or "suspended animation" that results.

I keep pointing out to a pupil that anything that can be overdone is not good. You cannot overdo what is right—you can only reach it, not go beyond. Your hands, being the only possible medium through which you can have control of the club, must be in a perfectly balanced position. The only true balance is when they are brought together, palms facing, and exactly in the

center of the body. Then I place the right hand on top of the left, and bring them into the position where they would be when holding the grip of the club.

Next, I hold the end of the club between my index finger and thumb and let the head of the club hang naturally. This, of course, is straight down, like a pendulum at rest. The club, to be balanced, is midway between the two feet—which is a perfectly balanced position for every shot. If the clubhead is off-center, something must be off balance. It may be a little or it may be a lot, but there is no logical reason to practice knowingly anything that can be overdone.

Balance in Motion

So far, I have been describing positions of balance at rest, or static balance. The next thing is to consider balance in motion. As soon as you start to move the club the right way, everything is set in motion. I invariably ask the pupil to place his hand on a table and to draw a line with his finger around the thumb in the manner of drawing a circle with a pair of compasses, the thumb being the pivotal point. No one has any trouble in doing this. Then I casually say, "Well, that wasn't hard. But tell me quickly what you did with your thumb."

The answer three times out of four is, "Nothing — I kept it perfectly still."

Then I say, "Just try it again," and, of course, the pupil instantly realizes that the thumb has to move: it is impossible to keep it still—it has to act as the pivot.

This is exactly what happens when you swing the clubhead around your body. Holding a club as I would a baseball bat, I swing it fast, horizontally, so that the force carries my body around in a



Ernest Jones sits down to play a stroke in illustrating his contention that, if the player is aware of swinging the clubhead with his hands, all else will follow in natural order—hips, legs and other parts of the body will do their jobs in responsive action, but they should not initiate the swing.

full-circle pivot. The pivot is the result of the swing and not the cause.

If you wanted to make a top, or any other kind of body in motion, maintain a state of balance, you would have to learn to spin it. The faster the motion, the better the balance. Balance in motion is not a position, but a state or condition governed by centrifugal force.

Next, I ask the pupil to hold a club horizontally out in front of him, at arm's length, with the hands apart, roughly about two feet, and get him to swing the club backward and forward, first to the right and then to the left, letting himself give naturally with the motion.

Of course, when these things can be demonstrated, they are much easier to understand.

As the swinging to and fro continues, I ask, "What are you doing—trying to keep your arms out or swinging the club?"

If he says, "Swinging the club," I ask, "Can you swing the club without your

arms going out?" Of course, it becomes obvious that he cannot. So then I point out: "You are using your power to swing, and not putting it into your arms to keep them straight. The pivot is the result of swinging; no conscious effort is needed to make the body pivot."

Last, but not the least important, is to realize that when the club is swung to the right, the left side, knee and foot give naturally with the action; and when swung to the left, the right side, etc., respond naturally to the leftward motion.

After a little practice at this, so that the body pivot is felt as the result, not the cause, of the swinging motion, I then have the pupil hold the club in the regular golfing position. I take care to explain how to hold the club in the hands, primarily with the control in the fingers, realizing that the most important finger is the thumb. When the club is held properly, the space between the tip of the thumb and the

(Continued on page 20)

Active Year for the Seniors

Has there any old fellow got mixed with the boys?

If there has, take him out, without making a noise.
Hang the Almanac's cheat and the Catalogue's spite!

Old time is a liar! We're twenty tonight!

We're twenty! We're twenty! Who says we are more?

He's tipsy—young jackanapes!—show him the door!

"Gray temples at twenty?"—Yes, **WHITE** if we please!

Where the snow-flakes fall thickest there's nothing can freeze!

* * *

Yes, we're boys—always playing with tongue or with pen—

And I sometimes have asked—Shall we ever be men?

Shall we always be youthful, and laughing, and gay,

Till the last dear companion drops smiling away?

Then here's to our boyhood, its gold and its gray!
The stars of its winter, the dews of its May!

And when we have done with our life-lasting toys,

Dear Father, take care of thy children, **THE BOYS!**

—from "The Boys"

Oliver Wendell Holmes never was guilty of golf, as far as the record shows, so it must have been the prophetic insight of the true poet which he expressed in these lines from one of his jolly works. Surely, he had Senior golfers in mind.

The Boys, to us, are those youngsters on the golden side of 55 years who compose the United States Senior Golfers' Association. Throughout the year they're among the most ardent of players, wherever they may be, but now they're about to reach a peak in their annual Championship, in New York.

Their 36-hole competition always has been held entirely at Apawamis, but this year it's to be divided between Apawamis and Blind Brook. If you really want to feel the spirit of the game, that's one of the tournaments of the year. The record happens to be 143, and it's a rare year when the Champion isn't required to average better than 75s. The 1948 Champion was John F. Riddell, Jr., with 149.



John G. Jackson

It's to be a particularly big year for the Seniors. Immediately after their Championship, a nine-man team sails to renew an international rivalry with the Senior Golfers Society of Great Britain. The match will be played at Woking, England, July 12-13-14. This is to be the first postwar match with the British, the last having been held in 1938. Canada used to participate.

The American team as announced by Henry A. Goode, Tournament Chairman of the Seniors' Association, comprises:

S. W. Creekmore, Fort Smith, Ark.

Robert A. Gardner, Chicago

William C. Hunt, Houston

John G. Jackson, Captain, New York

John F. Riddell, Jr., New York

Fitzwilliam Sargent, Philadelphia

Harrison Smith, Oklahoma City

Duane Tower, Niagara Falls

Joseph M. Wells, East Liverpool, Ohio

Following the British match, the team will play a series of informal games in Sweden, on invitation by the Swedish Golf Union.

37 For Two Holes

(Continued from page 10)

series of ineffectual efforts to cut his way through to the ball, he suddenly decided to shift his tactics. By this time the sole of the niblick was red-hot and dented badly, but the shaft, of real stout hickory, stood up magnificently.

"Barnes, as one of the favorites for the title, was, of course, bearing up splendidly. He did not say how much he enjoyed the performance, but he never left his observation post.

"As I have said, Willie changed his tactics. Now instead of striving to play toward the green, he chose to chip the ball away from the rock. This he did after the second effort. After a little more hard luck, Willie reached the

green, perspiring; and then, as always when things are not going well, needed three putts. I am not sure whether or not Jim got his 3, but I do know he was thoroughly chilled waiting for his turn to play.

"Now came the real test. Willie tried his best to count his strokes, but since he had been working in the bottom of the ravine for the greater part of 30 minutes, he was not sure how many he had taken. As he was exhausted, he turned to Jim for help.

"'Willie, you took 18 for the hole,' said Barnes.

"'Oh, Jim, that cannot be so,' was Chisholm's reply. 'You must have counted the echoes.'"

Control and Balance

(Continued from page 18)

first joint of the index finger forms a V, or triangle, and the apex of the V is on the top center of the shaft when the club rests on the ground. This is true for both hands.

I am definitely in favor of the little finger of the right hand resting on the index finger of the left hand, in what is known as the overlapping grip. The so-called interlocking grip I don't like and never advise, because it robs the left hand of part of the control.

Summing Up

To recapitulate:

1. One categorical imperative: "Hit the ball." No minor absolutes.

2. Only one thing hits the ball: the clubhead.

3. The clubhead must be moved to produce the greatest force coming into contact with the ball — centrifugal force.

4. Only one medium through which power can be transmitted to the clubhead: the hands and fingers.

5. Balance is the result of good swinging.

6. Power is used to produce speed in the clubhead, not wasted by bracing against anything. The straight arm, cocked wrist, pivot, firm left side, head

still, etc., are all results of a true swinging motion.

7. Brevity being the soul of wisdom, as of wit, everything is the result of "Swinging the Clubhead."

This is the last of two articles by Ernest Jones. This material must not be reproduced, in whole or in part, without the consent of the author.

A Caddie's Pay

Rising pay rates for caddies have been made official in Massachusetts. The Commonwealth's minimum wage commission, in establishing new rates for workers in the amusement and recreation field, set minimum fees of \$1.25 a round for experienced caddies and \$1 a round for inexperienced boys.

Four-Ball Event for Juniors

Last year the Myers Park Club, of Charlotte, N. C., instituted a tournament which it calls the "National Junior Four-Ball Championship." It will be renewed soon—June 27 through July 1. The Club's announcement states:

"Again we sponsor this fine event to promote better play, fellowship, sportsmanship, and the general advancement of golf among our champions of the future."

The tournament is open to players who will not have reached their 19th birthday prior to July 1.

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.

Claims: Time Limit For Making

No. 48-171. D. 1; R. 1 (2a), 2 (2)

Q: In interclub women's team matches, the teams play two-ball twosomes, which makes the interclub play in foursomes. A particular match was all even on the back side on the 17th tee.

This hole measures 175 yards. None of the foursome hit the green. All four chipped on the green from short yardage. The lady with the longest putt, after close scrutiny, announced that it was not her ball. Further examination disclosed that her partner was also about to putt with the wrong ball. The partners had switched balls, although none of the four was sure whether the change in balls had been made on the tee or at the chip shot.

Considerable discussion followed, with none of the four knowing the rule governing and none thinking to get an official decision before proceeding. Anyway, they all agreed to hole out the balls they had chipped to the green. The two offending partners both sank their putts while the shorter putt of the opposition was missed, thus giving the offending side one point. Without further comment or protest, they drove off the 18th tee. On this hole the offending team won one point, which put them 2 up on the back nine, thus squaring the match, as they had been 2 down on the front side. These results were turned in by both team captains, with no immediate comment about the 17th hole.

An hour later a protest was filed by the non-offending team with the Association's Rules Committee.

Under the Rules of Golf covering four-ball play, what right of protest does the non-offending team have? I believe, first, that having condoned the exchange of balls by the offending team, the non-offending team becomes equally guilty and that as a result both teams should have been disqualified under Rule 2 (2); and second, under Rule 1 (2a), unless claim of protest had been made before they teed off on the next, or 18th hole, no later protest could be claimed merely because either or both teams did not know the Rule covering.

HARRY WINTERS
INGLEWOOD, CAL.

A: The match described was a four-ball match (see Definition 1).

The 17th hole should stand as played. A claim to the contrary was not made within the time limit provided in Rule 1 (2a).

It was never established that the so-called "offending team" exchanged balls during the play of a hole; the exchange may have been made on the teeing ground when the balls were not in play. In view of this doubt as to whether a Rule was ever violated, it cannot be held that the players breached Rule 2 (2) pertaining to agreement to waive Rules or penalties.

Unplayable Ball in Stroke Play

No. 49-1, R. 8(2b)

Q. 1: There is quite a difference of opinion regarding Rule 8(2b). In the case of an unplayable ball a number maintain that if it is impossible to play a ball behind the place from which the ball was lifted, they can, under penalty of two strokes, play the ball from the fairway no matter what distance it is from the spot where the ball was lifted so long as it is not nearer the hole.

On the other hand, some players maintain that the ball must be teed as near as possible to the spot where the ball was lifted but not nearer to the hole, even if it still be in the rough.

A. 1: Under Rule 8(2b), if it be impossible for a player to keep the point from which the ball was lifted between himself and the hole, he must play his next stroke as near as possible at the place from which the ball was lifted but not nearer the hole. The word "impossible" in the Rule refers to inability to keep the point from which the ball was lifted between the player and the hole and to play therefrom; it does not refer to the difficulty of the stroke to be played. There is no limitation on how far the player may go behind the place from which the ball was lifted; the cardinal principle is to keep that place between himself and the hole if possible.

When Lost Ball Meant Lost Hole

Q. 2: Could you inform me if there was ever a Rule that the penalty for lost ball in match play was loss of hole? If so, when was this Rule changed?

A. 2: Yes. This Rule was changed in 1920.

Questions by: CAPT. A. R. FRANCIS
BERMUDA

Four-Ball Stroke Play**WOMEN'S HANDICAP STROKES IN MIXED COMPETITION**

No. 49-2. Hdcp.

Q. 2: Four-Ball Stroke Play, on better-ball basis—In a mixed partner tournament, should the women take their allotment of handicap strokes as they come on the men's card (in other words, on the long course) or on their own course and par on which their handicaps are based? We use this tournament monthly at Baltusrol, and the men and women take strokes as they come on the men's card. Players are not given full handicaps, as 85 per cent seems fairer when club handicaps have a wide range, to 40. I am anxious to try this type mixed tournament for the Association, and handicaps are limited to 25 for the women, but wish your suggestion on how to take the allotment of strokes.

A. 2: The USGA has had no experience with such a form of competition, but we would think that women competitors should take their handicap strokes as they come on the women's score card, as that card represents the course on which their handicaps are based.

Attention is called to the fact that the Rules of Golf do not cover four-ball stroke play. The USGA has therefore never endorsed a method of handicapping for such form, but has suggested the following system (for men) to those interested:

"When on a better-ball basis, the strokes are taken by each player as they come on the card, using full handicaps. On each hole the lower net score of the partners becomes the score for that hole."

NO LIMIT ON HANDICAPS

Q. 3: Four-Ball Stroke Play, on better-ball basis — What difference in handicap limit should be placed on partners in a mixed tournament? What difference in handicap limit for women in a women's four-ball better-ball?

A limit handicap of 15—no more than 15 difference between handicaps — has been used for the mixed. For the women's, a rule that partners' handicaps must total six has been used.

A. 3: The USGA has no recommendations. If handicaps have been computed on a sound basis and if strokes are taken as indicated in Answer 2 above, it would seem unnecessary to place limits on handicaps except perhaps to restrict the size of the field.

BALL STRIKING ANOTHER BALL

No. 49-21. R. 7(8), 12(4c), 21(6)

Q. In four-ball stroke play (better ball basis) and foursome stroke play (not four-ball but alternate shot), is it correct to assume that stroke play rules apply, and therefore Rule 12(4c) applies and not Rule 12(4e)? Also Rule 7(8)?

If the above assumption is correct and stroke Rules apply, would you say it is proper for a committee to post a notice retracting the above penalties in order to speed up play in a tournament? I realize I am asking about a form of play which the USGA does not endorse.

A: (a) Rule 21(6) provides that foursome stroke play shall be governed by the Rules for Stroke Competitions.

(b) Although the Rules of Golf do not provide for four-ball stroke play, the Rules of Golf Committee believes that stroke play Rules should govern. Thus, Rules 7(8) and 12(4c) should apply. As a matter of fact, Rule 11 (3a and b) and Rule 12(4c) should apply to a partner's ball as well as to a fellow competitor's ball.

We would think it improper for a local committee to remit the penalties provided for in Rules 12(4c) and 7(8). Rather than speed play, such remission might cause inconveniences, confusion and delay.

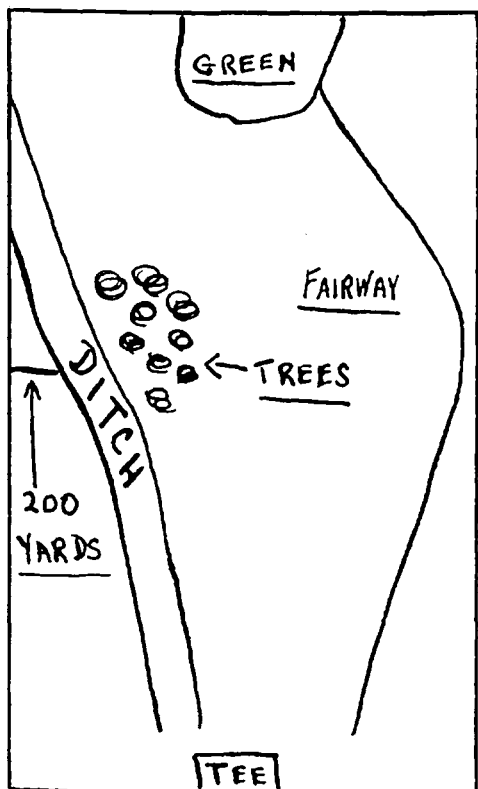
Questions by
MRS. HOMER LICHTENWALTER
SHORT HILLS, N. J.

**Water Hazard: Local Rule Unnecessary**

No. 49-4. R. 17(2); LR.

Q. Please make a recommendation regarding the penalty for lifting out of a ditch on our 17th hole.

Below is a sketch of this hole. We have always considered the ditch to be a parallel hazard and lift out on the fairway side (penalty—1 stroke) with no limit to the distance the player takes



the ball out into the fairway except that he shall not move it closer to the hole. The player obviously would carry the ball well out so as to avoid the trees on his next shot and we feel that this should not be allowed but don't know what to do about it.

FLOYD CHAPMAN, JR.
ST. LOUIS, MO.

A: A ditch is a hazard under Rule 17, Definition, but is not necessarily a water hazard unless its nature or a local rule makes it so. If a ball be unplayable in a ditch which is not a water hazard, Rule 8 governs.

It is recommended that the ditch in question be classified as a water hazard. From the sketch submitted, we believe that play should be regulated by Rule 17(2) — the regular Rule for water hazards. Under Rule 17(2a), a ball may be dropped, under penalty of one stroke, behind the hazard so as to keep the spot at which the ball last crossed the hazard margin between the player and the hole.

We do not believe a "parallel water hazard rule" to be necessary in this instance. There might be some justification for it for the first 150 yards of the ditch immediately off the tee,

but thereafter it appears possible to observe the pertinent Rule of Golf, 17(2).

However, should a "parallel water hazard rule" be desired, the following is suggested:

"Hole 17. Ball in parts of water hazard marked by red stakes (or marked 'Parallel Water Hazard') — a ball may be dropped within two club-lengths of either side of hazard opposite point where ball last crossed hazard margin, not nearer hole, under penalty of one stroke."

Lifting in 3-Ball and 4-Ball Matches

No. 49-9. R.11(4), 12(4), 14e, 18(7)

Q. 1: In three-ball or four-ball match play, with all balls on the green within 60 feet and more than six inches from the hole, not playing stymies, the player away plays first; we know he can ask a player in line to lift or putt his ball, but:

(a) Can he ask players nearer the hole to let their balls lie, and not lift them?

(b) If in putting he hits another competitor's ball, does he (the player) lose the hole (1) if he asked the player not to lift or (2) if he did not ask to have the ball lifted?

(c) Does a competitor have a right to walk up to his ball to lift it just as a player away is putting?

(d) Does anyone except the owner of the ball near the hole have any right to lift another's ball and/or concede a putt, and especially as the player away is about to putt?

A. 1: (a) No, not if someone else in the match desires otherwise. See Rule 11(4).

(b) There is no penalty. The moved ball must be replaced. See Rule 12(4e).

(c) No. Under Rule 11(4), the ball must be lifted or played before the player has played his stroke.

(d) The right to lift a ball may be granted only by the owner of the ball and on his responsibility, under circumstances when the Rules permit lifting. A putt may be conceded by an opponent, but it should be done so as not to interfere with the player about to play.

Note—Stymies are played only in single matches. In the cases cited, the distance of the balls from the hole is immaterial.

Lifting in Single Match

Q. 2: What are the answers to the foregoing questions in single match play?

A. 2: The Rules of Golf do not recognize single matches in which stymies are not played. Rule 18(7) governs lifting balls on the putting green.

With regard to question 1(b), Rule 12(4) provides for singles that "... if the player's ball move the opponent's ball, the opponent, if he choose, may drop, or in a hazard or on the putting green may place, the ball as near as possible to the spot from which the original ball was moved, without penalty, but this must be done before another stroke is played by either side".

Questions by: E. B. FREEMAN

NEWTON CENTRE, MASS.

Putter Shaft and Head

No. 49-6. D.4; R. 10(1); F. & M.

Q: A friend of mine uses a putter with a regular head but on which the shaft is fixed to the center of the head vertically from the middle and which he is able to swing between his legs similar to a croquet shot. Is this style of putter according to the Rules or is it a violation? The head is regular in every way but the stroke is taken with a small swing straight between the legs as in croquet. He sinks 8-footers with aggravating regularity!

V. P. LETCHER
ASBURY PARK, N. J.

A: The Rules Governing Form and Make of Golf Clubs provide in part: "The shaft of a putter may be fixed at any point in the head between the heel and a line terminating at the center of the sole". The Association "regards as illegal the use of such clubs as those of the mallet-headed type, or such clubs as have the neck, or shaft, so bent as to produce a similar effect".

The Rules of Golf provide no restriction on the type of stroke played provided the stroke is in fact a stroke and does not conflict with Definition 4 and Rule 10(1).

Ball Striking Opponent's Ball

No. 49-8. R. 12(4).

Q: If your ball hits your opponent's ball at any time, is it optional whether or not he replaces his ball in its original position, and does the distance from which the ball is hit have any bearing?

CLYDE JOHNSON
HOT SPRINGS, VA.

A: In match play singles, it is optional with the opponent as to whether he play the ball where it comes to rest or returns it to its original position as provided in Rule 12(4, a and b).

In a three-ball, best-ball or four-ball match, a ball moved by any other ball

in the match must be replaced—see Rule 12(4e).

In either case, the distance from which the striking ball is played is immaterial.

Referee Attending Flagstick

No. 49-10. R. 2(2), 7(7)

Q. 1: If, during single match play, the players request the referee to assume part of the caddie's duty and attend the flagstick, is this a violation of Rule 2(2) by collusion to waive any penalty incurred if so attended?

A. 1: No. The players' willingness to accept the consequences in such a case is not the kind of agreement which Rule 2(2) contemplates. Should the referee attend the flagstick, despite the injunction in the note to Rule 7(7), he would, as always, be an outside agency.

Prohibiting Attendance of Flagstick

Q. 2: Does player A have the right under Rule 7(7) to require either his caddie or the referee **not** to attend the flagstick while player B plays his shot during a singles match?

A. 2: Yes, in both cases.

Questions by: H. F. RUSSELL
SALT LAKE CITY, UTAH

Casual Water in Hazard

No. 49-18. R. 7(4), 8, 17(2)

Q. 1: A ball lies in casual water in a sand trap. The only sand not under casual water is nearer the hole. May the player drop the ball, without penalty, into the part of the trap not under casual water even though it be nearer the hole?

A. 1: No. In no case may the player lift the ball without penalty or drop it nearer the hole. The procedure is described in Rule 17(2), which is identical for a ball in a water hazard and in casual water in a hazard. The presence of casual water in a hazard gives such hazard the same status as a water hazard, as far as the Rules are concerned.

No Relief from Fence

Q. 2: The ball is knocked against a fence. The player cannot swing, and the ball cannot be dropped without rolling back against the fence.

A. 2: Rule 7 (4) specifically excludes fences from classification as artificial obstructions, hence no free relief is given. The ball must be played as it lies or be treated as unplayable under Rule 8. Free relief could be given only by a local rule.

Questions by: ROBERT MCCOY
ATLANTA, GA.

Better Turf for Better Golf

TIMELY TURF TOPICS



from the USGA Green Section

SOIL AND TURF RELATIONSHIPS

A Report on Some Studies of the Physical Properties of Putting-Green Soils as Related to Turf Maintenance

By R. P. HUMBERT AND F. V. GRAU

HEAD, AGRICULTURAL DIVISION, SARATOGA LABORATORIES, AND DIRECTOR, USGA GREEN SECTION, RESPECTIVELY.

The purpose of a putting green is to provide for the players a firm, smooth surface which is true and accurate so that a properly stroked putt will roll toward the cup in a satisfactory manner. The quality of the putting surface, composed of the closely cut, densely knitted sod of grass plants, is affected by many factors which can be dissociated for individual study and evaluation only with extreme difficulty. Because of the highly specialized nature of the turf and the limited areas involved, it is understandable that the scientific studies of many of the factors have lagged far behind the practical aspects of the work.

A great deal of study has been devoted to the successful search for strains of bentgrasses which would develop superior putting surfaces. Work with improved strains of Bermudagrass is in progress. Similarly, problems of diseases, insects and weeds, for the most part, have been solved satisfactorily from a practical standpoint. Soil-turf relationships from the chemical standpoint have been studied closely, and the result has been an improvement in fertilizer practices, with a corresponding improvement in turf quality. Studies of the physical properties of putting-green soils have received scant attention

in proportion to their importance in relation to plant growth.

It has been suspected that many of the difficulties encountered in providing continuously satisfactory putting surfaces are traceable to the physical nature of the soil underlying the turf putting surface. This assumption can be made logically on the basis that, under the skilled supervision of a competent golf-course superintendent, each putting green receives the very best care in order to provide the playing qualities that are demanded.

In spite of the best of care and attention, it is significant that, on nearly every golf course, there is a "best" green and a "worst" green. By "best" is meant "easy to maintain," and by "worst" is meant "difficult to maintain."

The "worst" green invariably requires more frequent treatment for diseases or insects or both. The turf, usually composed of the same grass that is on the "best" green, often becomes thin and is more readily infested with weeds. The thin turf provides little resistance to the ball and putts are likely to skid. The green then is called fast or slippery. Watering must be done with greater care to avoid soggy which may encourage algae. During periods

of intense heat and high relative humidity, it is the "worst" green that must be watched closely and managed with extreme care to avoid damage to the turf.

Because the "worst" green actually gets more and better care in the matter of surface treatments than the "best" green, it is entirely logical to seek the answer in the physical make-up of the soil in an effort to discover some of the reasons for the differences in response to treatments. This is particularly logical because in most cases the penetration of the root systems is noticeably greater in the "best" greens.

The value of the related functions of good drainage and aeration in producing satisfactory growth of grass plants cannot be questioned, particularly as it pertains to grass plants which receive heavy traffic and which are cut every day at 3/16 inch to 4/16 inch. It must be recognized that this is highly specialized management and that, to maintain grass growth under these conditions, the soil should be of the best in every respect.

Few putting-green soils are natural soils. They are synthetic to the degree that they are modified by the additions of various soil-conditioning materials. In constructing golf courses little attention has been given to providing uniform physical structure in each green. The factual information concerning soil physics in this phase of agronomic work is fragmentary. Consequently, *variation* is the biggest factor facing the golf-course superintendent. It necessitates his careful study of all conditions in order that he may do a satisfactory job.

Procedure

In an effort to evaluate some of the physical soil factors in putting-green management, the USGA Green Section in 1947 selected a number of golf courses in several states for study. Selection of the courses was made on the basis of a knowledge of existing conditions. Each superintendent was asked to supply a core of soil from his "worst" green and one from his "best" green, each core to be taken from an area rep-

resentative of the green. The judgment of the superintendent was the sole basis for the selection.

The soil cores were taken to the full depth of the cup-cutter and were wrapped at once in waxed paper. They were carefully packaged to avoid breakage in transit and were mailed to the USGA Green Section at Beltsville, Md. Upon arrival, determinations of volume weight were made and observations were recorded on "layering" in the profile. Where marked layering was exhibited, the cores were divided and were analyzed as separate samples. Mechanical analyses were completed on 58 samples, representing 37 plugs. The size distribution of particles was obtained by the International Pipette Method of Analysis, using sodium metaphosphate as the dispersing agent.*

The mechanical composition of a soil and the arrangement of the sand, silt and clay particles control its physical behavior. Thin sections of the soil in its natural structure were obtained by a technique of vacuum impregnation with bakelite. The samples were then ground as any rock sample to a thinness that permitted microscopical examination. Photomicrographs were taken of several distinctively different types of structure.

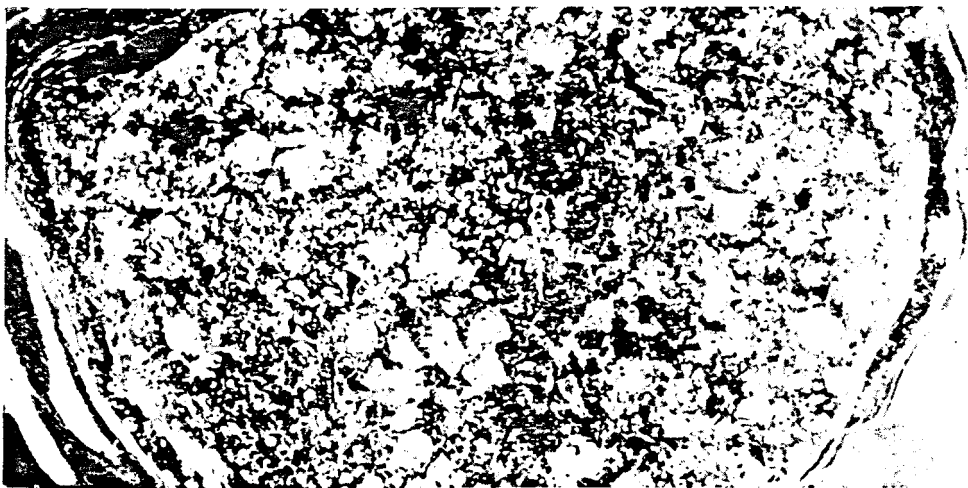
Experimental Results

The extreme individuality of the samples limits the effectiveness of attempting to compare all "good" samples with all "bad" samples. Accordingly, the two samples from each golf course will be compared, and the results will be evaluated in an attempt to discover on how many of the courses the physical soil conditions could be said to be at the root of the trouble. The assumption that all other factors are equal or approximately equal must be made in spite of the fact that they may or may not be identical. Where it is known that other factors are important, it will be so stated in the discussion.

The results of the mechanical analy-

*All mechanical analyses were made at the Saratoga Laboratories, Saratoga Springs, New York, under a research contract with the USGA Green Section.

Course No. 1. Poor Green



This sample is characterized by a very high proportion of sand which creates a very open pervious structure. There is not enough silt and clay to hold moisture and plant food, necessitating more frequent feeding and watering. A green built on this soil will be firm but will not become compacted.

sis, volume weight and porosity studies are presented in the accompanying tables. Representative photomicrographs likewise are presented in connection with the discussion on the course in question. Figures in parentheses indicate depth in inches of samples taken.

Course No. 1

MECHANICAL ANALYSIS

Per Cent by Weight

	Good (0-4)	Poor (0-4)
Organic matter	2.9	3.9
Gravel	0.4	0.6
Sand	85.0	33.4
Silt	10.6	2.5
Clay	4.4	9.1
Volume weight	1.55	1.65
Porosity	42	38

In this case the "poor" turf appears to be associated with higher organic matter, more sand, less silt and more clay than we find in the "good" green. The higher porosity and the lower volume weight in the "good" green are functions of the greater quantities of silt and clay combined.

It must be recognized that on this course even the green labeled "poor" is always in tournament condition. Thus "good" and "poor" are relative terms, and comparisons can be made only on the same course.

These greens would benefit by having

some additional clay and silt incorporated into the sand to increase the ability of the soil to retain moisture and fertility. These are Bermudagrass greens and are noted for their excellence.

Course No. 2

MECHANICAL ANALYSIS

Per Cent By Weight

(0-7 inches; no layering)

	Good	Poor
Organic matter	2.3	1.7
Gravel	0.6	2.2
Sand	21.4	17.8
Silt	60.8	56.5
Clay	17.4	25.7
Volume weight	1.25	1.33
Porosity	53.	50.

The "good" green has a lower volume weight, a higher total porosity, a higher organic-matter content and a lower silt-clay content than the "poor" green. The silt-clay content is so high in both greens that it would seem logical to incorporate sand and organic matter to provide a more open, porous structure and to improve percolation. These soils become very dense and the clay packs tightly around the larger particles, providing no continuous channels for drainage and aeration. The larger, dark particles are concretions, and the dark irregular-shaped particles are fragments of organic matter.

Course No. 3**MECHANICAL ANALYSIS**
Per Cent by Weight

Organic matter	2.9	0.9	2.4	0.9
Gravel	0.5	1.9	0.6	3.1
Sand	72.7	70.5	71.3	62.1
Silt	25.2	20.1	20.6	26.1
Clay	2.1	9.4	8.1	11.8
Volume weight	1.37		1.33	
Porosity	48.		50.	

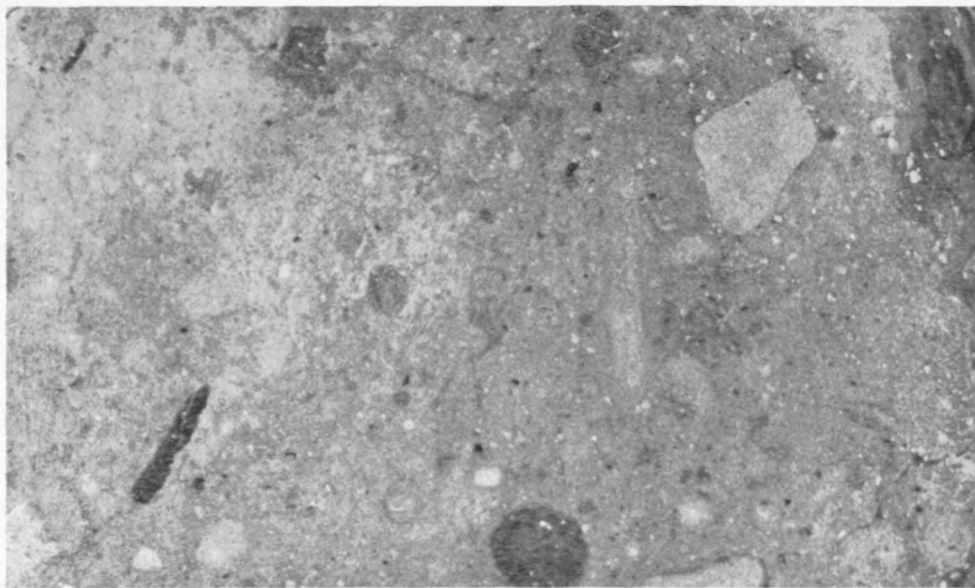
Because of layering, the samples were divided where the cores broke naturally. Looking at the average of the analysis to the 4-inch depth, the "good" green has a higher volume weight, lower porosity, slightly higher organic matter, more sand and less silt and clay than the "poor" green. A reduction in the silt-clay content by incorporating sand and the addition of organic matter would result in improvement of conditions on the poor green.

On this course the difference between "good" and "poor" is small, and it can be attributed to the factor of location as much as to differences in mechanical analysis.

Course No. 4**MECHANICAL ANALYSIS**
Per Cent by Weight

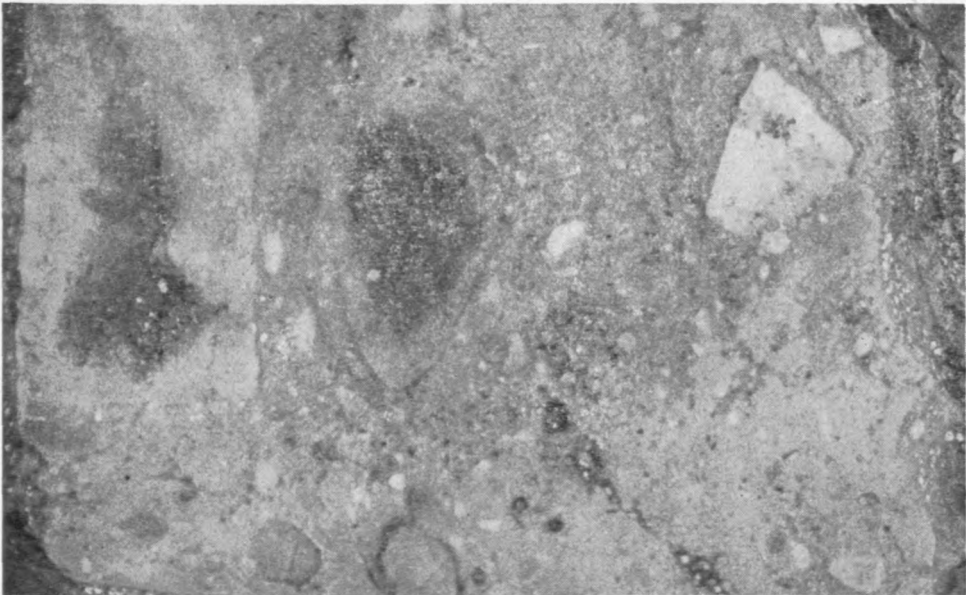
	Good	Poor	
	(0-4)	(0-1)	(1-5)
Organic matter	0.6	14.6	2.1
Gravel	3.6	2.2	0.0
Sand	24.8	45.7	5.1
Silt	59.0	43.6	82.7
Clay	16.2	10.7	12.2
Volume weight	1.31	1.58	
Porosity	51	40.	

In the "good" green there was no layering, but in the "poor" green the sample broke at the 1-inch depth. The difficulty here is not in total analysis but in the high silt (82.7%) and the low sand content (5.1%) in the 1-5 inch depth of the "poor" green. In this case even the "good" green would be benefited by incorporating sand and organic matter to the full depth (6 inches, if possible). The "poor" green would benefit from frequent deep cultivations, coupled with dressings of high sand content. The high organic matter content (14.6%) in the top inch of the poor green would indicate severe matting and

Course No. 2. Poor Green

The soil is an extremely dense, light-colored silt loam. The gravel particles are too few in number to provide continuous channels for good drainage and proper aeration. The clay is closely packed around the larger particles. There is not enough sand to create a desirable open porous structure. The dark, irregular-shaped particles are fragments of organic matter.

Course No. 5. Poor Green



This represents a gravelly clay soil where the films of clay surround the gravel particles, choking off the larger pores and disrupting water and air movement. Less clay and more sand would re-establish drainage and aeration channels.

the development of conditions favorable to disease organism. The high organic matter would hold moisture, encourage shallow rooting and encourage the development of localized dry spots by preventing the absorption of water into the lower levels.

On this course the physical conditions of the soil are known to be at the root of the trouble.

Course No. 5			
MECHANICAL ANALYSIS			
Per Cent by Weight			
	Good	Poor	
	(0-4)	(0-3)	(3-5)
Organic matter	1.0	11.3	7.7
Gravel	2.2	3.5	9.7
Sand	58.3	46.4	37.7
Silt	29.4	41.9	37.6
Clay	12.3	11.7	24.7
Volume weight	1.35		
Porosity	49.		

Here we have a situation similar to Course No. 4, where the surface layer of the "poor" green is exceptionally high in organic matter and where the lower layer (3-5 inches) is exceptionally high in silt and clay. The gravel in the "poor"

green is so tightly surrounded by the finer particles that drainage channels are practically nonexistent. Thorough cultivation and incorporation of sand would be extremely beneficial in encouraging deeper rooting.

This comparison is not entirely valid because the "good" green is Bermuda-grass, whereas the "poor" green is Metropolitan bent. The failure of the bent-grass can be attributed in part to the physical soil conditions.

Course No. 6			
MECHANICAL ANALYSIS			
Per Cent by Weight			
	Good	Poor	
	(0-7)	(0-6)	(0-6)
Organic matter	3.6	3.6	
Gravel	3.2	3.7	
Sand	57.4	60.0	
Silt	24.6	24.5	
Clay	18.0	15.5	
Volume weight	1.19	1.33	
Porosity	55.	50.	

In this case the mechanical analyses are so nearly alike that we must look elsewhere for the difficulty. The volume weight in the "poor" green is much

higher and the porosity much lower than in the "good" green. It must be pointed out in this case that the "good" green gave only slightly less trouble than the "poor" green and that there has been great difficulty on all the greens.

Course No. 7
MECHANICAL ANALYSIS
Per Cent by Weight

	Good (0-6)	Poor (0-2)	Poor (2-5)
Organic matter	2.3	6.7	0.9
Gravel	1.9	0.9	0.4
Sand	53.7	64.1	13.0
Silt	39.4	29.0	56.6
Clay	1.9	6.9	30.4
Volume weight	1.55	1.40	
Porosity	42.	47.	

This course is located on soils that are renowned for their high clay content. The "good" green shows a rather high proportion of silt but, because the profile is uniform, it was possible to maintain a good turf by adjusting management practices. In the "poor" green we find a high content of organic matter in the 0-2 inch level and a very high percentage of silt and clay in the 2-5 inch level, which effectively retards drainage and aeration. An attempt was made to incorporate sand, which shows in the 0-2 inch level, but it has been ineffective because there has been no mixing. The layering has prevented root growth beyond the 2-inch level.

Course No. 8
MECHANICAL ANALYSIS
Per Cent by Weight

	Good (0-1)	Poor (1-3)	Poor (0-2)
Organic matter	5.1	5.8	5.9
Gravel	0.2	0.2	0.2
Sand	81.6	80.3	72.8
Silt	7.0	7.3	15.4
Clay	11.4	12.4	11.8
Volume weight		0.93	1.08
Porosity		65.	53.

The "poor" green here seems to be associated with a higher silt-plus-clay content than the "good" green. This difference, with the higher volume weight which indicates compaction, and the lower porosity, which indicates poor aeration, could account for the difference. This course has a high water table and drainage generally is known to be poor. These greens had very high proportions of medium and fine sand

and only small amounts of coarse sand and fine gravel.

Course No. 9
MECHANICAL ANALYSIS
Per Cent by Weight

	Good (0-3)	(3-6)	Poor (0-1)	Poor (1-5)
Organic matter	3.1	0.9	5.8	1.4
Gravel	2.0	2.0	2.7	4.5
Sand	58.2	40.0	61.2	47.5
Silt	31.7	46.6	20.8	43.2
Clay	10.1	13.4	18.0	9.3
Volume weight	1.11		1.16	
Porosity	58.		58.	
	(0-2)	(2-4)	(0-2)	(2-4)
Organic matter	3.3	2.8	2.0	1.7
Gravel	2.3	3.6	1.1	9.5
Sand	61.7	53.6	61.0	69.3
Silt	27.1	29.3	39.0	21.2
Clay	11.2	17.1	9.0	9.5
Volume weight	1.12		1.20	
Porosity	58.		55.	

It is extremely difficult to discover any logical basis in these analyses for the designations "good" and "poor" for these samples. The "poor" greens are higher in volume weight but are only slightly different. The "poor" greens are lower in porosity but the difference again is slight. The bad layering on all these greens makes interpretation extremely difficult when the other unknown factors cannot be evaluated. In this case we are forced to say that the "poor" greens are poorer than the "good" greens for reasons other than physical soil conditions.

Course No. 10
MECHANICAL ANALYSIS
Per Cent by Weight

	Good (0-6)	Poor (0-6)
Organic matter	3.7	3.6
Gravel	1.2	0.5
Sand	46.5	54.9
Silt	36.4	35.8
Clay	17.1	9.3
Volume weight	1.38	1.49
Porosity	48.	47.

No striking differences exist here, and it is interesting that the "poor" green actually contains more sand in the 0-6 inch level than the "good" green. The "poor" green in this case is poor because of location on the edge of a lake, whereas the "good" green is higher and is

open and well-drained. This is a case where the difference cannot be ascribed on the basis of soil physics.

Course No. 11**MECHANICAL ANALYSIS***Per Cent by Weight*

	<i>Good</i> (0-2½) (2 ½-6)		<i>Poor</i> (0-4) (4-6)	
Organic matter	7.1	3.0	6.7	0.0
Gravel	0.5	5.2	0.1	7.3
Sand	73.5	52.8	76.2	65.2
Silt	5.3	23.0	14.4	21.1
Clay	21.2	19.2	9.4	13.7
Volume weight	1.39		1.33	
Porosity	48.		50.	

This case is similar to No. 10. There is some layering, but it exists in, both classifications. The complete absence of organic matter in the 4-6 inch level of the "poor" green could be a deciding factor. This course is on soil that is famed for its sticky, gumbo-type clay. It is likely that the reason for the designations must be sought elsewhere. All of the greens on this course are famed for their excellence, and any differences are known to be slight.

**Course No. 12****MECHANICAL ANALYSIS***Per Cent by Weight*

	<i>Good</i> (0-1) (1-4)		<i>Poor</i> (0-4)
Organic matter	3.9	2.3	1.9
Gravel	0.1	0.2	1.0
Sand	61.4	55.5	47.1
Silt	28.4	34.8	40.3
Clay	10.2	9.7	12.6
Volume weight	1.19		1.25
Porosity	55.		53.

In the "poor" green the lower organic matter and the higher silt and clay content contribute to a higher volume weight (density) and lower porosity. The "poor" green is at a streamside surrounded by trees, and the air drainage is poor. The green is small and traffic is heavy. The "good" green occupies a more favorable location in addition to having a better physical soil make-up. Even though the differences in the mechanical analysis are not large, they are important when other unfavorable factors are added.

Course No. 13**MECHANICAL ANALYSIS***Per Cent by Weight*

	<i>Good</i> (0-3) (3-6)		<i>Poor</i> (0-7)
Organic matter	2.9	6.3	9.8
Gravel	0.4	1.9	2.5
Sand	62.3	63.9	69.9
Silt	27.1	22.6	16.4
Clay	10.6	13.5	13.7
Volume weight	1.37		1.41
Porosity	48.		47.

The most striking difference that is shown by these analyses is the very high organic-matter content in the 0.7 inch layer of the "poor" green, which actually has more sand than the "good" green. In spite of the high organic-matter content the volume weight of the "poor" green is higher, which is indicative of greater compaction. The "good" green is on a hillside in the open, with no trees near it. The "poor" green is a smaller green (which gets the same total traffic), it is low, entirely surrounded by trees and is a seeded green; whereas the "good" green was vegetated to Washington bent.

Course No. 14**MECHANICAL ANALYSIS***Per Cent by Weight*

	<i>Good</i> (0-2) (2-4)		<i>Poor</i> (0-2) (2-4)	
Organic matter	1.3	2.6	2.7	1.8
Gravel	0.9	0.9	4.6	6.5
Sand	63.5	65.2	64.9	61.2
Silt	18.0	20.2	21.5	21.2
Clay	18.5	14.6	13.6	17.6
Volume weight	0.94		1.15	
Porosity	65.		57.	

These analyses are marked for their uniformity, especially in the sand content. The higher volume weight and gravel content and the lower porosity may in part account for the difference in designation, but other factors are suspected to be more important as in the case of Course No. 13.

Course No. 15**MECHANICAL ANALYSIS***Per Cent by Weight*

Organic matter	3.0	1.0
Gravel	0.0	0.6
Sand	73.2	45.4
Silt	18.3	43.9
Clay	8.0	10.7
Volume weight	1.30	
Porosity	51.	

This single "good" green is given here because it represents a good green from many standpoints. We cannot say that the soil conditions are ideal, but the soil supports a turf that is nearly perfect from the playing standpoint. Careful management is the rule on this course. It is interesting that the volume weight of

1.30 is about midway between the mean volume weight of the "good" greens (1.22) and the volume weight of the "poor" greens (1.34). Likewise the porosity (51) is between the mean of the "good" greens (53.4) and the mean of the "poor" greens (49.9).

(Continued in next issue)

QUESTIONS AND ANSWERS

The answers below are in reply to actual questions received by the Green Section staff in correspondence or at turf conferences and meetings. In some cases the question has been rephrased. Since the authorship of many questions received at meetings is in doubt, reference to location are omitted.

QUESTION—What advantages does B-27 bluegrass have over commercial bluegrass seed? When will B-27 seed be available on the market and what will it cost?

ANSWER—B-27 bluegrass is lower growing, will withstand closer mowing, is more resistant to *Helminthosporium* leafspot and maintains a turf of pleasing color with greater freedom from weeds than does commercial Kentucky bluegrass. There is evidence that it is somewhat more heat tolerant and drought tolerant than is common bluegrass. Co-operative tests in progress will decide some of these points.

Seed should be available commercially in reasonable supply in two years. Acreage increase for seed production is expanding rapidly. Most of the seed will be produced in Oregon.

The cost of B-27 bluegrass will be much higher; it may sell at four to five times the price of common bluegrass. It is expected that less seed will be required to produce good turf. Establishment is more rapid and seedling vigor is greater than with common bluegrass.

QUESTION—We have read in the *Agronomy Journal* and in the *USGA Journal* that the Turf Committee of the American Society of Agronomy has recommended that Highland bent be substituted in turf-seed mixtures for redtop. What are the reasons for the change and what are the advantages of Highland bent over redtop?

ANSWER—Highland bent is a close relative of redtop, but it has the advantage of producing a turf of more pleasing texture and color. It becomes a permanent part of the turf, but it acts as a nurse grass by germinating quickly, as redtop does. Highland bent is available in quantity, whereas redtop has been scarce and high in price because of seed-crop failures.

Highland bent is less competitive than redtop when included in turf seed mixtures because it grows less coarse and less rapidly. Highland bent produces

excellent turf when seeded by itself on golf-course fairways or when included in lawn, tee and even athletic-field mixtures. Its use in athletic-field mixtures thus far has been confined largely to the Pacific Northwest, where it is used in combination with Alta fescue.

Because of its smaller seed size, three-fourths of a pound of Highland bent can be substituted for one pound of redtop. In a mixture with bluegrass, red fescue, or Alta fescue, Highland bent generally need not exceed 20 per cent of the mixture by weight.

NEW SUBSCRIBERS TO GREEN SECTION SERVICE

Since publication of our list of subscribers to Green Section Service in the Winter, 1949, issue of the *USGA Journal*, we are pleased to record the following additional subscribers:

Commercial Firms

Dreer, Henry A., Inc., Philadelphia.
Jacobsen Mfg. Co., Racine, Wis.
Lilly, Charles H., Co., (The), Seattle.
Minnesota Toro, Inc., Minneapolis.
Naco Fertilizer Co., Jacksonville, Fla.
Toro Mfg. Co., Minneapolis.

Cemeteries

Beverly Cemetery Co., Blue Island, Ill.
Evergreen Cemetery Ass'n., Chicago.
Knollwood Park Cemetery, Inc., Queens, N. C.
West Laurel Hill Cemetery Co. (The), Bala-Cynwyd, Pa.
Woodlawn Memorial Park of Nashville, Inc., Nashville, Tenn.

Golf Course Architect

Bell, William P., & Son, Pasadena, Cal.

Individuals

Connell, Bud, Marion, Ohio.
Hall, A. F., Kansas City, Kans.
Shearman, M., Sioux City, Iowa.

Park Department

Hartford Park Department, Hartford, Conn.

IT'S YOUR HONOR

FROM THE JUNIOR CHAMPION To The USGA:

I wish to tell you again that the Junior Tournament last summer was the finest I have played in, and that it was run with the customary courtesy and thoroughness that control all your fine national tournaments.

It was the kind of tournament that, I am sure, made every young golfer that participated carry with him the desire to go on to the National Amateur and the National Open.

With best regards and congratulations for your success in presenting the finest of junior tournaments to the young golfer,

Dean Lind

Ann Arbor, Mich.

(Note: Dean Lind won the USGA's first Junior Amateur Championship last year and is now a student at the University of Michigan.)

ANOTHER TRIBUTE to O. B. To The USGA:

My own eyes were a bit watery as I read the moving story about my good old friend O. B. Keeler in the Spring issue of the JOURNAL.

I had failed to renew my subscription, but your complimentary Spring issue brought the sudden realization that I might have missed entirely the thrill of that fine tribute to O. B. and possibly others to come.

So thank you for the reminder, and here's my renewal check.

Raymond L. Williams
Pasadena, Cal.

MEDIUM OF EDUCATION To The USGA:

We will be happy to recommend the USGA JOURNAL to our membership.

I believe the JOURNAL is an

excellent publication and one that all golfers should read, especially in these times when golf has seemed to lose a little bit of its traditions, not to mention the lack of etiquette.

I am sure the JOURNAL will do much to educate the golfers in the proper spirit in the playing of the game.

Leo Fraser, President
Atlantic City Country Club
Northfield, N. J.

BRITISH LADIES' FUNDS To The USGA:

Miss Enid Wilson has informed us of a letter received by her from Mrs. Edwin Vare inquiring whether reports to the effect that we have a fund of £6000 to cover the expense of sending our team to the U. S. A. for the Curtis Cup Match in 1950 are true. These reports are totally untrue and, we think, have probably arisen when a remark made by our Hon. Treasurer to the effect that the English men had collected a sum of this size was misreported. We have had the report contradicted by the English paper concerned and would be extremely grateful if it were possible for you to have it contradicted in the papers in the U. S. A.

In point of fact, funds are still badly needed to enable us to continue to keep up our Union's international fixtures, and, in particular, the Curtis Cup.

Miss Barbara H. Hale
Secretary
Ladies' Golf Union
London, England

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

