



USGA JOURNAL

AND
TURF MANAGEMENT

HOPE AT SUNSET



This is the season when hope rides high in the golfer's breast and the scene above is being duplicated at courses all over the land. The round has been completed. The score was not bad. The player goes to the practice tee at the end of the day to work out that one remaining flaw which ever seems to prevent him from achieving his golfing objective.

JUNE 1954



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AND
TURF MANAGEMENT

Published by the United States Golf Association

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VOL. VII No. 2

June, 1954

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

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

Correspondence pertaining to Green Section matters should be addressed to USGA Green Section, Room 206, South Building, Plant Industry Station, Beltsville, Md.; to USGA Green Section Western Office, Box 241, Davis, Calif.; to USGA Green Section Southwestern Office, Texas A. and M. College, College Station, Texas; to USGA Green Section Northeastern Office, Rutgers University, New Brunswick, N. J., or to USGA Green Section Southeastern Office, Georgia Coastal Plain Experiment Station, Tifton, Ga.

Entered as Second-class Matter March 3, 1950, at the Post Office at New York, N. Y., under the Act of March 8, 1879.
Edited by Joseph C. Dey, Jr., and John P. English. All articles voluntarily contributed.

USGA COMPETITIONS FOR 1954

Americas Cup Match—August 12 and 13 at the London Hunt and Country Club, London, Ontario, Canada. Men's Amateur Teams: Canada vs. Mexico vs. United States.

Curtis Cup Match—September 2 and 3 at the Merion Golf Club, Ardmore, Pa. Women's Amateur Teams: British Isles vs. United States.

(Dates entries close mean last dates for applications to reach USGA 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	Closed	June 7	June 17-18-19	Baltusrol G. C. Springfield, N. J.
Women's Open	June 21	none	July 1-2-3	Salem C. C. Peabody, Mass.
Amateur Public Links	June 4*	June 20-26**	Team: July 10 Indiv: July 12-17	Cedar Crest G. C. Dallas, Texas
Junior Amateur	July 6	July 20	August 4-7	The Los Angeles C. C. Los Angeles, Cal.
Amateur	July 12	July 27	August 23-28	C. C. of Detroit Grosse Pointe Farms, Mich.
Girls' Junior	August 16	none	Aug. 30-Sept. 3	Gulph Mills G. C. Bridgeport, Pa.
Women's Amateur	August 30	none	Sept. 13-18	Allegheny C. C. Sewickley, Pa.

* Entries close with Sectional Qualifying Chairmen.

** Exact date in each section to be fixed by Sectional Chairmen.



THROUGH THE GREEN

The Uniform Ball?

The British are becoming more cognizant of the need for controlling the distance their golf ball can be hit, if the following editorial in The Weekly Scotsman is a criterion:

"Circumstances and, I think, changing opinion are hitting the golf ball more firmly into practical politics. More and more people are asking if the time has not arrived for some measure of restriction on the power of the ball in this country.

"Clearly, judging from a statement made by the President of the United States Golf Association, Isaac B. Grainger, a new and solid effort will be made, in conference with the Royal and Ancient Golf Club, early next year to attain ball uniformity in the two countries. . . .

"The ball reformers in this country are convinced, and their preaching has no doubt made converts, that the present British ball goes too far.

"As the basic implement in the game, the pivot on which everything hinges, the ball can, of course, decide whether golf gets out of joint, becomes more expensive and reduces the pleasure for the great majority of its players.

"Nobody questions that greater length of shot has come into the game and that courses have had to be stretched to meet that development, with added course maintenance costs and more superfluous walking for the golfer . . .

"The extra 'hiking' now involved between green and tee at, for example, Hoylake and Portmarnock indicates the extension needed to meet the problem of longer-hitting. Even the Old Course at St. Andrews has had to be brought into line, and the tees set as far back as possible."

Service to the Game

The forthcoming Open Championship at the Baltusrol Golf Club, Springfield, N. J., is the ninth USGA competition that Club has entertained, a record of service to the game which can be matched only by the Merion Golf Club, in Ardmore, Pa., and the Chicago Golf Club, in Wheaton, Ill.

Baltusrol will have held four Open, three Amateur and two Women's Amateur Championships since 1901. Merion has had four Women's Amateur, three Amateur and two Open Championships since 1904, and will go ahead later this season when it entertains a tenth event, the Curtis Cup Match. Chicago Golf Club has been host to four Amateurs, three Opens, one Women's Amateur and a Walker Cup Match since 1897.

The only Club other than Baltusrol which has held as many as four Open Championships is the Myopia Hunt Club, in South Hamilton, Mass. It entertained its four in the years from 1898 through 1908.

Splendor with a Purpose

Those dark brown jackets you will see

during the Open Championship will be adorning members of the Golf Writers Association of America.

During the past winter the golf writers adopted not only this jacket, which will bear the insignia of the organization on the breast pocket, but also a dark green necktie embroidered with gold tees.

The outfit is designed primarily for identification rather than splendor, but it does happen to be good looking, too.

The golf writers held their annual election during the Masters Tournament and renamed Lincoln A. Werden, of The New York Times, president; Charles Curtis, of the Los Angeles Times, and Desmond Sullivan, of the Newark News, vice-presidents; and Charles Bartlett, of the Chicago Tribune, secretary-treasurer.

Jones Award Committee

The USGA announced last winter the institution of the Bob Jones Award for distinguished sportsmanship in golf, to be presented annually starting next January.

Isaac B. Grainger, president of the USGA, now has named the following to the selection committee to pick the first winner: Messrs. Jerome P. Bowes, Jr., Chicago, Ill., T. R. Garlington, Atlanta, Ga., Totton P. Heffelfinger, Minneapolis, Minn., Horton Smith, Detroit, Mich., Richard S. Tufts, Pinehurst, N. C., Lincoln A. Werden, New York, N. Y., and Mrs. Harrison F. Flippin, Ardmore, Pa.

For a Blind Tee Shot

The sixth hole at the Tamarack Country Club, in Greenwich, Conn., calls for an uphill tee shot toward a large green which cannot be seen from the teeing ground. Unless the tee shot is extremely long, the green cannot be seen when playing the second stroke, either.

In order to make intelligent position play possible, Tamarack has had a small relief model of the green reproduced in wood, appropriately painted and set table-like on a post beside the teeing ground, with a miniature flagstick and a series of small holes in which it can be placed.

When the hole is changed on the green, the position of the small wooden flagstick

on the relief model is changed accordingly, and any player can determine at a glance before playing his tee shot which route will be best that day.

An Artificial Aid

Another device has been placed on the market in an attempt to aid golfers in controlling their swings. This one is a leather-covered weight which can be strapped on either hand. The maker claims that it slows the hand action during the swing, with beneficial results.

The USGA Rules of Golf do not permit the use of such a device. It is presumably designed to give a player artificial aid in making a stroke, and it is a basic tenet underlying all the Rules that a player should not receive any such artificial aid in making his stroke.

The President's Green

A small practice putting green has been established on the south lawn of the White House. It is a gift from the United States Golf Association to President Eisenhower, who finds golf a refreshing diversion from his heavy duties.

The green comprises nearly 3,000 square feet of polycross creeping bentgrass, a recent development of Prof. H. B. Musser of the Agronomy Department of Pennsylvania State College. The USGA purchased the sod from the Aronimink Golf Club, Newtown Square, Pa., which had grown it in a nursery last year. The apron of the green is sodded with Merion bluegrass. Establishment of the putting green did not entail any public expense.

The green was designed and constructed under the direction of Alexander M. Radko, Northeastern Director of the USGA Green Section, and Richard Watson, turf advisor to the Burning Tree Club, Chevy Chase, Md., where President Eisenhower often plays golf. James E. Thomas, golf course superintendent of the Army-Navy Country Club, Arlington, Va., and president of the Mid-Atlantic Association of Golf Course Superintendents, assisted. The Mid-Atlantic Association of Golf Course Superintendents and the Golf Course Superintendents Association of America cooperated.

It is not always easy to be a hero in the eyes of your caddie, but Billy Joe Patton has made the grade.

Two years ago Patton was a contestant in the USGA Amateur Championship at the Seattle Golf Club. He was not one of the stars of the show, being eliminated in the third round after a default and a win, but he must have won the heart of his 13-year-old caddie, John Coughlin.

Last April Patton nearly won the Masters Tournament at the Augusta National Golf Club. From the time he took the driving contest with a swat of 338 yards until he putted for a birdie on the 72nd green in the hope of tying Sam Snead and Ben Hogan, he captured the imagination and the support of many spectators. Here was an amateur, little known outside his home state of North Carolina, playing stroke for stroke with the great masters.

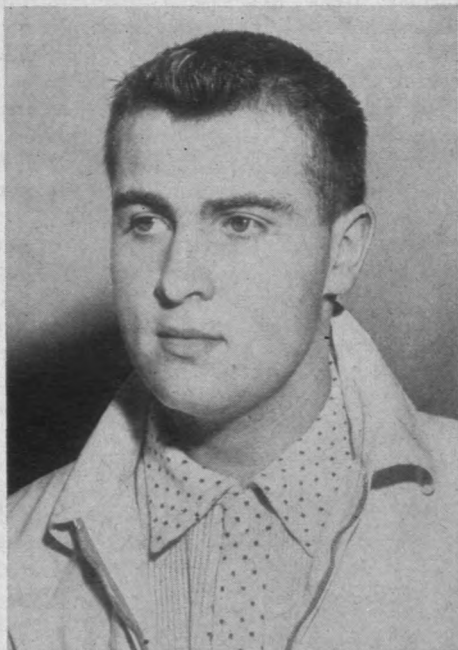
Of the many nice happenings that befell Patton, one which touched him deeply was a telegram he received from John Coughlin. It read simply:

CONGRATULATIONS AND BEST OF LUCK FROM YOUR CADDIE IN THE 1952 AMATEUR CHAMPIONSHIP AT SEATTLE.

As Patton said, "This telegram demonstrates that the best things in this world are really relatively simple."

Bill Zongker, professional to the Seattle Golf Club, fills us in with a bit more information about young John Coughlin, who is the son of Mr. and Mrs. Walter Coughlin of Seattle:

"John was 13 at the time of the 1952 Amateur and had been caddying at the Broadmoor Golf Club for two years. He has become very



JOHN COUGHLIN

interested in golf and extremely interested in the exploits of Billy Joe Patton, having saved every clipping from newspapers and magazines that has any mention of Billy Joe.

"He has the T-shirt we supplied the caddies for the tournament and the big number 196 hanging on the wall of his room to remind him of something he considers quite special in his life."

We who play the game can never know when or how we may affect the heart of the boy who carries our bag. But it is a certainty that we do affect him, for good or for ill.

Superintendent's Salaries

The 1953 Annual Report of the Detroit District Golf Association once again contains a most interesting section on turf-maintenance practices at twenty-eight clubs in that part of the country.

Among other things, it lists the results of a survey on superintendents' salaries which, for clubs in the metropolitan area,

ranged from \$7,300 to \$4,000, with an average of \$5,400, and, for clubs out-state, ranged from \$5,000 to \$3,000, with an average of \$4,150.

Ten clubs supplied a house and eight reported extra allowances ranging from \$200 to \$800 in the form of Christmas bonuses, car expenses and utilities.

Appraisal of Pine Valley

Herbert Warren Wind, writing in the June issue of *HOLIDAY*, relates the tale of Eustace Storey's first look at the formidable second hole at Pine Valley when he remarked: "I say, do you people play this hole or do you just photograph it?"

In addition to this and other anecdotes which have given the Clementon, N. J., course its fearsome reputation, Wind also sets down as fine an appraisal of the layout as you will read in many an evening:

"The demands that Pine Valley makes on a golfer are like those of no other course. As should be fairly obvious, it is no place for a duffer or a sprayer. The man who cannot bang a straight tee shot at least one hundred and seventy-five yards on the carry should attempt the course only if he is bent on atoning for some transgression. But for the golfer of reasonable competence, it offers rare and authentic excitement. The word *challenge* is so abused these days that one hesitates to use it, but the tee shot on every hole is a wonderful challenge to a golfer's ability to hold his concentration in the teeth of terror and produce the solid, accurate shot necessary to reach and hold the fairway (or, on short holes, the green). If the golfer comes through with the required tee shot, the course then lavishes a magnificent bounty on him: the most dazzling succession of superb second shots available on any course . . . A par on a hole is an honest prize."

Greenkeeping Exhibit

Warren Bidwell, superintendent at the Seaview Country Club, Absecon, N. J., is directing a campaign among members of the Golf Course Superintendents' Association of America to establish in "Golf House" an exhibit which would trace the development of the art and science of greenkeeping.

The nature of this exhibit has not yet been precisely determined, and will not be until Bidwell has more information on available items. However, pictures and plastic figurines seemed destined to have a place along with actual implements and tools. Among the items he is especially

seeking are a photograph of sheep grazing on a golf course, the leather boots which horses formerly wore while cutting grass in the spring, an Austrian scythe and early home-made aeration tools.

Myers Park

The USGA has accepted an invitation from the Myers Park Country Club, in Charlotte, N. C., to entertain the 1955 Women's Amateur Championship. The dates will be August 22 through 27. This will be the first USGA Championship to be held in North Carolina.

1955 British Championships

The 1955 British Amateur will be held at the Royal Lytham and St. Anne's Golf Club, Lancashire, England, starting June 4; and the 1955 British Open will be played at St. Andrews, Scotland, starting July 4.

The Golf Business

Once again golf equipment led all other categories of athletic and sporting goods in sales during 1953, according to the annual survey conducted by Ernst & Ernst for the Athletic Goods Manufacturers Association. Measurement is in dollar volume, based on factory selling price including excise tax.

Sales of golf equipment during the year were \$48,707,666. Sales of baseball and softball equipment, the second-place item, were \$24,911,342.

Golf equipment comprised almost one third of all athletic and sporting goods sold, which reflects a slight decline in its relative position in the field. However, golf equipment sales last year increased 23 per cent over the previous year.

Manufacturers who participated in the survey sold last year 4,071,245 golf clubs, 2,716,552 golf balls and 495,422 golf bags.

Failed to Qualify

The last time the Open Championship was held at the Baltusrol Golf Club, Springfield, N. J., was in 1936, and the list of those who failed to qualify for the final 36 holes included the name of Ben Hogan. He scored 75-79—154, which was three strokes too many.

THE FALLACY IN SOME HANDICAP CONTROLS

by

THOMAS G. McMAHON

Member,

USGA Handicap Committee

HANDICAPS MUST be the result of actual performance on the golf course.

Beginners, players with physical handicaps and those of advanced age should have handicaps sufficient to protect their pride and sense of economics.

Some individuals, not athletically inclined, take a greater beating than we realize. If their handicaps are not high enough, no one wants them as a partner and they suffer the humiliation of being thrown up for grabs on the first tee every-time they play. Practical ostracism can be the result of our failure to provide them with handicaps to fit their ability.

Yet some golfers feel that a strokes-per-hole control, or limitation, on hole scores is necessary for handicap purposes. This is largely because they do not recognize the value of the controls in USGA Golf Handicap System for Men.

It is unfortunate that those who favor strokes-per-hole controls sometimes indulge in extravagant misrepresentation by saying that many miss shots intentionally for the sole purpose of obtaining higher handicaps. This is a serious indictment of those who play a gentleman's game.

What is the value of a strokes-per-hole control where players turn in improper total scores for handicaps?

However, we do not share that lack of faith in our golfing fraternity. The handicap viewpoint must assume the highest moral principles.

Control No. 1

Our present general controls involve using the average of the lowest ten scores of the last fifteen rounds played. This eliminates the five highest scores from handicap computation.

This is done because the five highest may not, for many reasons, represent an



THOMAS G. McMAHON

individual's average ability. If six scores were listed that did not reflect one's average ability, only one score could enter the computation.

This form of control makes all handicaps approximately two strokes, on the average, lower than they would be if all of the last fifteen scores had been used.

The steady golfer's reduction in handicap would naturally be somewhat less than two strokes, in some cases nearer to one stroke. The erratic type of golfer, however, would experience a greater reduction as a result of not using the five highest scores of his last fifteen scores posted; in some cases this reduction would be nearer to three strokes.

Control No. 2

For many years it has been a custom to reduce handicaps for match-play competition, but experience gained by extensive

statistical investigation has proved that this practice has been unnecessary where handicap systems with adequate controls are used.

Higher scores and higher handicaps provide the greatest opportunity for improvement and consequently require more adequate controls. Therefore, in the development of a handicap chart such as the new USGA Handicap Differential Chart, controls are set up to take care of the greater improvement potential among beginners and those who finally decide to take lessons and practice.

This additional control is built into the present chart. Here are some comparisons:

Differential	Handicap	Plus or Minus
44	36	—8
40	33	—7
36	30	—6
30	25	—5
24	20	—4
18	15	—3
13	11	—2
11	10	—1
5	5	0
2	3	+1
0	1	+1

Many golfers who would limit hole scores to two over par seem to be unaware of the fact that these controls are more equitable and simple.

The placing of a scratch man on the same two-over-par score per hole limit as a 36 handicap man is so obviously inequitable it does not merit discussion. However, the following should show how unfair that procedure is to high-handicap golfers:

Assuming course rating and par are both 72—

If he averaged two over par or more on all eighteen holes,

the differential would be 36

the maximum handicap would be 30

* If he averaged one over par on five holes and two or more over par on the other holes per round,

the differential would be 31

the handicap would be 26

If he averaged one over par on five holes and two pars per round with the balance two or more over par,

the differential would be 27

the maximum handicap would be 23

Limiting a 36 handicap man to two over par on each hole, which equals 36 over par on 18 holes, with a resulting all time *maximum* handicap of 30, is the same as limiting an 18 handicap man to one over par on each hole, or 18 over par on 18 holes, with a resulting all time *maximum* handicap of 14, or limiting a scratch man to par on each hole or par on 18 holes, with a resulting all time *maximum* handicap of 1.

Control No. 3

A further control lies in the fact that handicap chairmen are required to reduce handicaps two strokes as often as is necessary to assure themselves that neglect or refusal to enter all scores is satisfactorily adjusted.

If this does not correct the condition, of course, the matter should be brought to the attention of the Board of Directors.

If further controls are necessary, which is doubtful, they can easily be applied.

* * *

Incidentally, there is no point at all in complaining that one's handicap is too low while accepting conceded putts. The following was copied from the score card of the Canterbury Golf Club, in Cleveland:

"No player has the right, privilege or authority to concede any putt or other advantage to himself or to any other player whose score is to be entered in the handicap or event records of this club."

Unnecessary strokes which create unwarranted high scores are null and void and automatically expose offenders to two-stroke handicap penalties at clubs which impose handicap penalties.

Day in and day out friendly competition should be both match and stroke play handicap.

All scores should be recorded immediately after play on a score sheet or score board placed in a conspicuous and convenient location.

TREAT HIM AS YOU WOULD YOUR SON

by

FRANCIS C. TRUITT

Member, USGA

Junior Championship Committee

AT THE MERIDIAN HILLS Country Club, in Indianapolis, Ind., we have found a wonderfully satisfactory and successful solution to the caddie problem. It works, and our membership has had a lot of fun making it go.

The basic reason for the universal question, "Any caddies today?" is a shortage of manpower. Most of us can remember before the war when we had a much larger supply of caddie material at our clubs. However, the young men and the older men who used to be our career caddies—our regulars, so to speak—have switched to industry because they can make more money in a less seasonal type of work.

We no longer have the backlog of well-trained men who serve as an influence on the younger, less experienced boys coming up. There are few who have an interest in moving up to the post of caddie-master. If they have an interest in golf as a livelihood, it is in playing, teaching or selling. Many clubs report a shortage even of young men who could be trained as caddies.

At our club, we realized we had to find a new and untapped source of labor. The old source was gone.

The Key to the Source

Is there another source? Our faith said yes, and our subsequent experience has rewarded our faith.

There is a fundamental concept which, in many cases, may have been overlooked, one which, if we are to rebuild, must be kept in mind. Any program entered into today to insure a good and adequate supply of boys must be entered into with understanding, patience and cooperation on the part of the membership of the club.

Now to our program, which is in its third year. Mind you, this is only a suggestion, one which has worked for us.

From my work with juniors I have a great deal of respect for their adaptability, their needs, their desires and their abilities and capabilities if given proper direction and guidance. Knowing that these boys stick pretty close together and look to someone older for their inspiration, we decided it would be necessary to find a man who would be a magnet and draw a number of these boys onto his team.

Naturals for the Job

Where to find such a man?

In the field of athletic coaching there are men who are naturally liked and to whom the boys flock with enthusiasm. Just such an athletic coach has directed our program, and we now have a card file of some 700 boys to call on.

Most high school coaches are looking for summer work to augment their incomes. Many are camp councilors. Some go into industry. They all need and are looking for summer work.

They are naturals for the position of caddie-master. Many are golfers themselves. With only a little help from the club professional or the Caddie Committee, they are able to teach the boys what to do and how to do it. Remember, their main job is imparting knowledge of sports to boys.

Proper facilities, such as shelter, toilet and shower, sandwiches and soft drinks, baseballs, horse shoes, basketball court and balls, are an added incentive to draw boys and to keep them occupied when not actually out on the course.

Boys like to have a feeling of identity with a thing of importance. Give or sell at cost to those who, by their regular attendance, have earned the right, T shirts which proclaim their association with the club, but make them earn the right to wear them.



The job of caddying and the caddie yard must be made attractive in order to draw the best boys and to keep them as happy as these caddies obviously are.

Such identification also helps them to get rides out to the club. If it is possible to designate pick-up locations on the way out to the club which are not out of the way for the members, it will help solve the transportation problem for the boys.

If a boy comes out, spends the day and doesn't get a job, it is our suggestion that he be given lunch money and car fare and be placed at the head of the list for the following day. He goes home with the feeling that he has been fairly treated, and he has good reason for coming back.

Perhaps, by now, you realize that while these things are being done the club is getting much good word-of-mouth advertising.

One thing that has been most amazing to us has been the number of parents who have called us, wanting to get their boys into our program. They have heard about it, they like the supervision given to their friend's boy and they want the same thing for their own boy. The slogan we have adopted for our program and ask our members to follow is: "Treat your caddie as you would your son."

Our caddie-master-coach holds classes every morning on weekdays during the summer. Some of the instruction is gen-

eral, some may be quite specific. Records are kept, and he knows how each boy is doing, where he is strong and where he is weak.

At the conclusion of every round members and guests are asked to note on a card furnished by the caddie both the good and the not-so-good points about the boy. This is returned to the caddie-master and forms the basis for instruction and/or praise. An additional feature of the card is that it serves as a means of introduction of the player and the caddie. Both names are shown on the card, and the boy gives the card to the player on the first tee.

At the end of the season, each member sponsors a boy at a dinner held at the club. Awards are made to the boys with the best attitude, the best attendance record and the most improvement.

It's a wonderfully fine feeling to reflect on a season of play and realize that, while you have had your fun and your share of good games, you have helped all these young fellows—who have honestly tried to be the best caddie you've ever had—to become better citizens of tomorrow. The objective has been accomplished, you have enjoyed it and they appreciate it. You have treated them as you would your son.

THE BOUNDARY THAT WASN'T THERE

by
JOSEPH C. DEY, Jr.
USGA
Executive Director

SUPPOSE YOU are the USGA Amateur Champion.

Suppose, in the defense of your Championship, you find yourself matched in the first round against a tenacious opponent who has you all square after 36 holes, and again after 37 holes, and still square after 38 holes.

You go to the 39th. And there you win the match without hitting a single stroke.

No, your opponent does not expire. He is just so keen and so eager that he overlooks some points in the Rules and the customs of the game.

All this actually happened back in 1920. It was at the Engineers' Country Club, Roslyn, N. Y. The defending Champion was S. Davidson Herron, of Pittsburgh, who the year before had defeated Robert T. Jones, Jr., in the final over Herron's home course, the Oakmont Country Club course.

Now, at Engineers, Herron is bracketed in the first round of match play against young Peter Harmon, of the Scottish-American Golf Club, Van Cortlandt Park, New York City. The first round then was at 36 holes.

They have come to the third extra hole. The hole is a dog-leg to the left.

Harmon has the honor. He drives deep into woods at the angle of the hole.

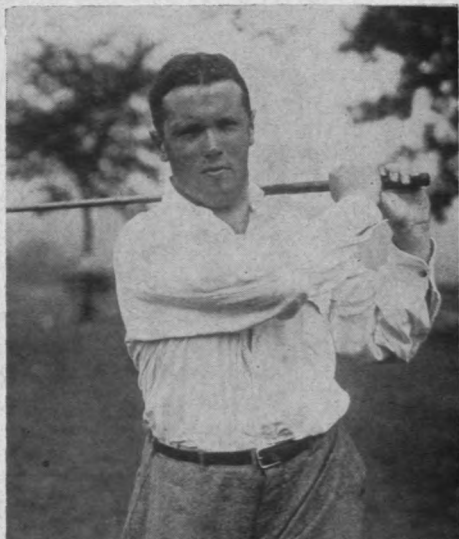
Thinking the ball is out of bounds, he immediately stoops down, tees up another ball and drives it also far into the angle.

Again he tees a ball, the third one, and again he drives into the woods.

That is enough for Mr. Harmon. He extends his hand in congratulation to Mr. Herron, and the match is over.

Mr. Herron has not played a stroke.

The next morning Harmon goes searching for the three balls he struck off the 39th tee.



S. DAVIDSON HERRON
in 1919

He finds all three—and they are all *in bounds*.

The Rule today, and the custom then, provides:

"If a player has to play a second ball from the tee, he shall do so after the opponent or fellow-competitor has played his first stroke." (Rule 12-3)

Harmon might have (a) stepped aside after his first tee shot and allowed Herron to play, or (b) ascertained the location of his first ball or his second ball before proceeding further.

Had Harmon done either, they might be playing yet.

Herron's many friends in golf will be pleased to know that he is well along the road to full recovery from illness last year.

COURSE RATING SYSTEM FOR WOMEN

A REVISED EDITION of *The Conduct of Women's Golf* is being distributed to Member Clubs and to women's district, state and sectional golf associations. The 42-page booklet is prepared by the USGA Women's Committee for guidance in the conduct of women's golf in clubs and associations.

This edition sets forth, for the first time, detailed recommendations for rating courses for women's play. As these recommendations are adopted and implemented by women's district and state associations, women's ratings will be substituted for women's par in computing handicaps.

Course rating is a method of rating each hole, in decimals when necessary, according to the average score a scratch golfer should make every ten times she plays it, without making any poor shots or any exceptionally good ones. The total of the hole ratings, to the nearest whole number, is the course rating.

This contrasts with par, in which the rating of each hole, in a whole number, is based primarily on the yardage of the hole, allowing two putts on each green. Since course ratings are more refined than par, they provide a more accurate measure of the relative playing difficulty of courses and hence a more accurate basis for handicaps.

The USGA Handicap Committee adopted the Massachusetts Golf Association's recommendations for course ratings for men in 1947, and men's ratings developed by men's district and state associations have been used for some time instead of par in computing men's handicaps in those areas.

Patterned on Men's System

The USGA course rating system for women is patterned closely upon the USGA course rating system for men, except for changes necessitated by the fact that women require different clubs than men to play strokes of the same distance.

The *Conduct of Women's Golf* may be obtained from the USGA headquarters, 40 East 38th Street, New York 16, N. Y. The price is 25 cents per copy.

NEW MEMBERS OF THE USGA

Regular

Albertville Golf & Country Club, Ala.
Clarmond Country Club, Iowa
Elizabeth Manor Golf & Country Club, Va.
Graymere Club, Tenn.
Highland Golf Club, Okla.
Hohokam Country Club, Ariz.
Hopewell Valley Golf Club, N. J.
Lakeview Country Club, W. Va.
Municipal Golf & Tennis Association, Del.
Normandy Shores Golf Club, Fla.
Paintsville Country Club, Ky.
Stones River Golf & Country Club, Tenn.
Watertown Golf Club, Conn.
Woodstock Club, Ind.

Associate

Edgewood Municipal Golf Course, No. Dak.
Indian Hills Golf Club, Neb.
Mountain Manor Inc. Golf Club, Pa.

The task of establishing course ratings is one which must be assumed by district and state associations for the courses within their areas. The USGA recommends a system of course rating, but it cannot rate the 1,800 courses of its Member Clubs all over the country. It is necessary, therefore, for district and state associations which adopt the system to establish course rating committees, comprised of women of better than average playing ability. These committee members then share the task of rating their associations' courses uniformly.

The Conduct of Women's Golf has been expanded in other ways, too. New sections have been prepared for detailed guidance in the conduct of match play and team events and to assist women serving as Chairmen of Rules of Golf, Handicap and Junior Golf Committees. The sections on the functions of the Golf Committee and on the responsibilities of contestants have been expanded. In the preparation of these sections, material has been adapted from the excellent booklet of the Chicago Women's District Golf Association entitled *Handbook for Golf Chairmen*. The origin of this material is gratefully acknowledged.

Handicap Computation

The recommendations for computing handicaps remain the same in principle but the section has been reorganized and rewritten for clarification. The substance of the recommendations follows:

"Each handicap should be based upon:

"1. The five best scores made under USGA Rules of Golf within the current and the last previous playing seasons or calendar years, and

"2. USGA course rating or par.

"The handicap is figured by taking four fifths ($4/5$) of the difference between the average of course rating or par for the five rounds played and the average of the five best scores, a fraction of one half or more to count as a stroke, under one half to be dropped."

There has been a revision in the recommendations for handicap allowances in various forms of play, so that they now conform to those recommended by the USGA Handicap Committee for men. The new allowances are:

"INDIVIDUAL STROKE PLAY: Allow each competitor her full handicap.

"SINGLES MATCH PLAY: Allow the higher-handicapped player the full difference between the handicaps of the two players.

"FOURSOMES (not four-ball) STROKE PLAY: Allow 50% of the partners' combined handicaps. (When selected drives are permitted, allow 40%.)

"FOURSOMES MATCH PLAY: Allow the higher-handicapped side 50% of the full difference between the combined handicaps of the two sides. (When selected drives are permitted, allow 40%.)

"FOUR-BALL STROKE PLAY (better-ball basis): Allow each player 85% of her individual handicap, the strokes to be taken as they come on the card.

"FOUR-BALL MATCH PLAY: Reduce the handicaps of all four players by the handicap of the low-handicapped player, the low-handicapped player then to play from scratch. Allow each of the three other players 85% of the resulting difference, the strokes to be taken by each player as they come on the card."

USGA PUBLICATIONS OF GENERAL INTEREST

THE RULES OF GOLF, as approved by the United States Golf Association and the Royal and Ancient Golf Club of St. Andrews, Scotland, effective January 1, 1954. Booklet, 25 cents (special rates for quantity orders). Poster, 25 cents.

ARE YOUR LOCAL RULES NECESSARY? a reprint of a USGA Journal article containing recommendations regarding local rules. No charge.

THE RULE ABOUT OBSTRUCTIONS, a reprint of a USGA Journal article. No charge.

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

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

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

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

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

MOTION PICTURES ON GOLF (list). No charge.

MOTION PICTURES RELATING TO GOLF COURSE MAINTENANCE (list). No charge.

HOLE-IN-ONE AWARDS. No charge.

AMATEURISM IS IN THE HEART, a reprint of a USGA Journal article by E. G. Grace. No charge.

BETTER LAWNS TO COME, a reprint of a USGA Journal article. No charge.

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

USGA JOURNAL AND TURF MANAGEMENT, a 33-page magazine published seven times a year and containing authoritative information on the Rules of Golf, USGA championships, handicapping, amateur status, greenkeeping methods, clubs and ball, new trends and the play of the game. \$2 a year.

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

DO YOU KNOW YOUR GOLF ?

HOW INFORMED are you about various phases of golf?
The questions below are based on information in the last issue of the USGA JOURNAL, as indicated by the page numbers.

Answers will be found on page 17 of this issue.

Scoring: All answers right—par 36. For every answer wrong—add 4 to 36.

	Score	Page
1. The first United States citizen to win the British Amateur Championship was: _____ (a) Robert T. Jones, Jr. _____ (b) Walter Travis _____ (c) Francis Ouimet _____ (d) Jess Sweetser	_____	1
2. The Royal and Ancient Golf Club of St. Andrews, Scotland, is the following number of years old: _____ (a) 100 _____ (b) 200 _____ (c) 300 _____ (d) 500	_____	5
3. Under the USGA Rules of Amateur Status, a player may accept a merchandise prize provided its retail value does not exceed \$250. _____ True _____ False	_____	4
4. Handicaps under the USGA system are based on the following number of scores: Current System: Lowest 10 of last 15 _____ True _____ False Basic System: Lowest 10 of last 50 _____ True _____ False	_____	10
5. The earliest "standard" golf ball had as its main ingredient: _____ (a) Rabbit's hair _____ (b) Feathers _____ (c) Gutta percha _____ (d) Balata	_____	18
6. Golf was at one time prohibited in Scotland. _____ True _____ False	_____	18
7. On the tee, you swing and miss the ball. Then, in addressing it again, you accidentally knock it off its little peg tee. May you pick the ball up and re-tee it without penalty? _____ Yes _____ No	_____	23
8. A fly lands on your ball. May you pick up the ball and knock the fly off, without penalty? _____ Yes _____ No	_____	21
9. You look for your drive several minutes. In resignation, you start back to the tee, saying "I give it up—it's a lost ball." You reach the teeing ground and tee a second ball. As you are about to hit it, your caddie yells "I found it! I found the first ball!" It is now 4 minutes 30 seconds from the time you began to look for the first ball. Are you permitted to resume play with your first ball? _____ Yes _____ No	_____	24

THE GUTTY REPLACES THE FEATHERY

by

JOHN P. ENGLISH

USGA

Assistant Executive Director

THE FIRST gutta percha ball is believed to have been made in 1845 by the Rev. Dr. Robert Adams Paterson from the gutta percha which had been used as packing around a black marble statue of Vishnu which had been sent from India. The statue is now at St. Andrews University, in St. Andrews, Scotland.

The earliest balls were produced under the name "Paterson's Patent." They were brown in color and were made with the hand by rolling the gutta percha on a flat board. They had smooth surfaces, lined to simulate the seaming of the feather balls which they replaced and ducked quickly in flight until they had been marked and cut in play.

Thus they were not introduced into the game generally until 1848, by which time the makers had learned to apply effective permanent markings to the surface so that they would fly properly. The gutta remained the standard ball until 1901-1902, when the present rubber ball replaced it.

The introduction of the gutta ball occasioned one of the great rejuvenations in the history of the game. Its lower cost, longer life, improved flight, truer run on the greens and the fact that it did not fall apart in the rain attracted an enormous number of new players, and the feathery was quickly abandoned despite the best propaganda efforts of its makers to protect their livelihood.

The influx of new players, in turn, forced the conversion of the Old Course at St. Andrews to a full eighteen holes. Until the gutta ball was developed, golfers played "out" along what is now known as the left-hand course, until they reached the End Hole. There they turned around

and played "in" to the same holes. If two groups approached a green simultaneously, preference was given to those playing "out." However, as golfers multiplied with the advent of the gutta ball, the links proved too narrow to accommodate them, and about 1857 it was widened sufficiently to turn the greens into double ones so that eighteen holes could be cut instead of nine.

Gutta balls were generally as large as, if not larger than, the modern United States ball of diameter not less than 1.68 inches. They were marked 26, 26½, 27, 27½, 28, 28½ or 29 to designate their weight. These numbers probably referred to pennyweights in the troy weight scale. In this scale, 20 pennyweights equals an ounce.

Gutta balls were far easier to make than featheries, since they consisted solely of the single lump of gutta percha, properly molded. Gutta percha is a concrete juice produced by various trees and has the property of becoming soft and impressible at the temperature of boiling water and of retaining its shape when cooled. It is not affected by water except at boiling temperature.

How They Were Made

Gutta percha was procured from overseas in long, round rods about an inch and one-half in diameter. Sufficient gutta percha was cut from this rod, with the aid of a gauge, to make a ball of the desired size and weight. This piece was softened in hot water. At first it was shaped and rolled by hand and nicked with the thin end of a hammer. Later iron molds, or ball presses, were introduced, first with plain molding surfaces and subsequently with indented surfaces to create markings on the ball. When first painted, gutta balls were given several coats, until it was noticed that this tended to fill the indentations of the mark-

*From an exhibit of the development of clubs and balls in "Golf House."

ings. The number of coats was then reduced to two. It became customary, after applying the first coat, to let the balls season on racks for weeks before finishing them off.

The best-known balls were the hand-marked private brands of the clubmakers, such as the Auchterlonies, Old Tom Morris and Robert Forgan, and the bramble and patent brands, such as the Eureka, Melfort, White Melfort (of white gutta percha), White Brand, Henley, O.K., Ocobo, Silver-town No. 4, A.1, Clan, Thornton, Park's Special and Agrippa. The Agrippa, with bramble marking, became a great favorite. The A.1 floated, but all guttas did not.

In the earlier part of this period, there was a rival to the gutta ball, commonly called the putty ball to distinguish it from the "gutter." It was named the Eclipse and was made of undisclosed ingredients, possibly including India rubber and cork fillings. It had a shorter carry but longer run and better wearing qualities.

Effect on Clubs

The gutta percha ball was harder than the feather ball and put a considerable strain on the slender clubs with which feather balls had been stroked. Thus wooden heads gradually became shorter and squatter in shape. Hard thorn was discarded for the softer apple, pear and beech in the heads, and leather insets appeared in the faces. Hickory, which for golf originally came from Russia and later from Tennessee, replaced ash in the making of shafts.

Iron clubs increased in both number and variety and became vastly more refined. The superlative play of Young Tom Morris, of St. Andrews, who died in 1875 at the age of 24 after winning four British Open Championships, is credited with pop-

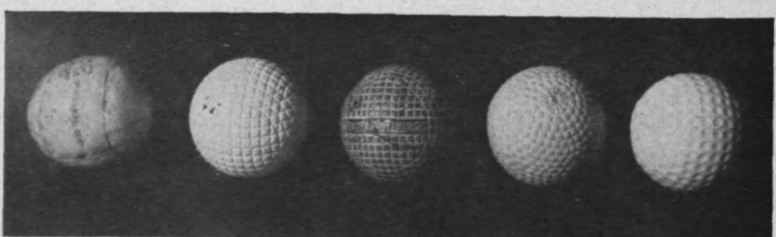
ularizing the iron clubs he used so deftly.

A full range of clubs at the zenith of the gutta ball period consisted of seven woods (driver, bulger driver, long spoon, brassie, middle spoon, short spoon and putter) and six irons (cleek, mid-iron, lofting iron, mashie, niblick and cleek putter). From these the golfer usually selected about eight. The range of clubs which Willie Park, Jr., had in winning the British Open Championships of 1887 and 1889 was bulger driver, straight-faced driver, spoon, brassie niblick, wooden putter, cleek, iron, mashie, iron niblick and Parks Patent putter.

The increase in the number of clubs brought about another innovation in the early Nineties, that of a simple sailcloth bag in which to carry them.

The introduction of the gutta ball did not change the club-makers; it simply required them to develop new designs and materials. Douglas McEwan lived until 1896 and bridged both periods of the feathery and the gutta. His son Peter in his turn became a club-maker, and was followed by his four sons, who constituted the fifth generation of club-making McEwans. James Wilson, who had made clubs for the feather ball under Hugh Philp, set up his own shop at St. Andrews in 1852, and Philp then took in his nephew, Robert Forgan. Forgan and his son Thomas continued the business under their own name after Philp's death and achieved their own fame.

Robert Forgan was the first to appreciate the merit of hickory shafts after bolts of the wood had come up the Clyde to Glasgow for conversion to handles for



Golf ball evolution (left to right): a feather ball (its leather cover holds a silk hatful of down), a gutta percha ball, a rubber-core ball, a pneumatic ball (filled with compressed air) and a modern ball. All these are displayed in "Golf House."

pick, shovel, rake, hoe and ax. Thomas Forgan produced the bulger driver and the ebony putter. Old Tom Morris, the Andersons and the Auchterlonies were other noted club-makers at St. Andrews, and there were Ben Sayers at North Berwick, Willie Park of Musselburgh, the Simpsons of Carnoustie and many more.

In March, 1891, Willie Dunn, son of Willie of the famed Dunn twins of Scotland, arrived in the United States to lay out the course at Southampton, N. Y., for the Shinnecock Hills Golf Club, and he remained to make clubs here.

The trade itself was little changed. Wooden heads were cut out of a block, filed, spoke-shaved, chiseled, gouged, leaded, boned, glass-papered, sometimes stained and treated with a hare's foot dipped in a mixture of oil and varnish. Where the club-heads used by Allan Robertson were only five-sixteenths of an inch deep, the depth gradually increased to one inch and, for a time, two inches.

Iron heads were hand-forged from a bar of mild iron, heated, hammered, tempered, emery-wheeled and polished, and the socket was pierced for the rivet and nicked. Hickory shafts were seasoned, then cut, filed, planed, scraped and glass-papered down to the required length, shape and degree of whippiness, which was the real art. Shafts for wooden heads were finished in a splice, glued onto the heads and whipped with tarred twine. Shafts for irons were finished with a prong to fit into the socket and holed for the iron cross-rivet.

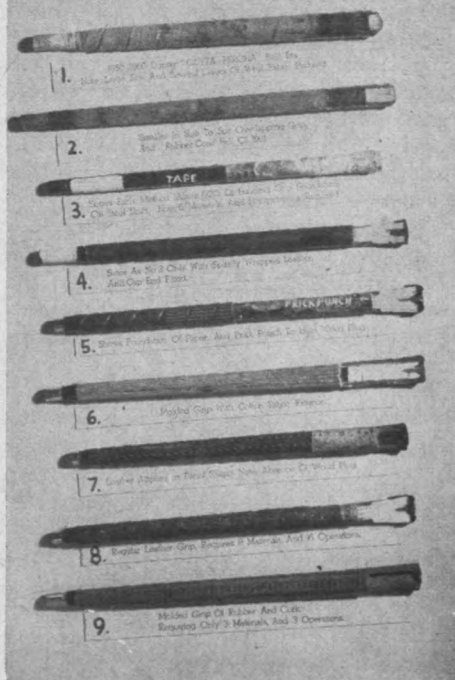
Strips of untanned leather, shaped with a chisel, were nailed to the top of the shafts, wound on spirally over a cloth foundation similarly applied, rolled tight between two polished boards and nailed at the bottom. Both ends of the grip were bound with tarred twine, and the whole grip was then varnished.

Caliber of play improved greatly with the advent of the gutta ball. Allan Robertson, when finally won over to it, shattered all precedent by scoring a 79 at St. Andrews in 1858, and this record stood until Young Tom Morris made a 77 in 1869.

The British Open Championship was

MUSEUM PIECE

EVOLUTION OF THE GOLF CLUB GRIP 1850 • 1953



This wall piece was prepared by J. Victor East, of Chicago, for the Museum in "Golf House." It traces the evolution of the grip from the earliest wrappings to the most modern.

instituted at Prestwick, Scotland, in 1860 and was played there through 1872. Willie Park, Sr., won the first Open with a score of 174 for 36 holes, and Young Tom Morris retired the belt, emblematic of the Championship, by winning his third successive Championship, with a score of 149, in 1870.

The first known golf in the United States was played with gutta balls, and the USGA Amateur, Open and Women's Championships originated in 1895, three years before the invention of the rubber ball.

THE CHAMPIONSHIP PICTURE

THE TUMULT and the shouting during the Open Championship this month emphasize the most glamorous fraction—but only a fraction—of the competitions the USGA will conduct this season.

It is well understood, of course, that the Open is but one of seven Championship and two international team matches which will occupy the Association this year.

The four Championships for men and boys climax an additional series of qualifying rounds at various sites all over the country. This sectional qualifying system gives the USGA responsibility for another 164 competitions this year.

The 32 elimination rounds for the Open already have taken place, and in them 1,904 entrants vied for 129 places in the field at Baltusrol. Another 33 entrants, including 14 former Champions, were exempt from qualifying.

While the galleries are not so large and the tensions not so agonizing as in the Open itself, these sectional competitions require a vast amount of volunteer assistance from friends of the game in our member clubs and they provide a multitude of capsule dramas as the line is drawn between success and failure.

The 46 trial rounds for the Amateur Public Links Championship, the 48 for the Junior Amateur Championship and the 38 for the Amateur Championship are yet to be played, but lists of the sites are carried on this page.

Entries for the Amateur Public Links must have been received by the sectional qualifying chairmen no later than June 4, and the trial rounds will be held between June 19 and 26.

Entries for the Junior Amateur must be received by the USGA no later than July 6, and the qualifying will take place generally on July 20.

Entries for the Amateur must be received by the USGA no later than July 12, and the qualifying will be held generally on July 27.

Women's championships do not yet require sectional qualifying.

However, entries for the Women's Open must be received no later than June 21, and the Championship will be played at the Salem Country Club, Peabody, Mass., July 1 through 3.

Entries for the Girls' Junior must be in by Aug. 16. The Championship will be held at the Gulph Mills Golf Club, Bridgeport, Pa., Aug. 30 through Sept. 3.

Entries for the Women's Amateur close on Aug. 30, and the Championship will take place at the Allegheny Country Club, Sewickley, Pa., Sept. 13 through 18.

	Public Links	Junior	Amateur
ALA.	Birmingham	Birmingham	
ARIZ.	Phoenix	Phoenix	Phoenix
ARK.	Little Rock	Little Rock	
CAL.	Los Angeles	Los Angeles	Los Angeles
	San Francisco	San Francisco	San Francisco
COLO.	Denver	Denver	Denver
D.C.	Washington		Washington
FLA.	Jacksonville	Orlando	Miami
	Miami		
GA.	Atlanta	Atlanta	Atlanta
HAWAII	Honolulu	Honolulu	Honolulu
ILL.	Chicago	Chicago	Chicago
	Peoria		
IND.	Indianapolis	Indianapolis	
	South Bend		
IOWA		Des Moines	Des Moines
KANS.	Wichita	Wichita	
KY.	Louisville	Louisville	
LA.	New Orleans	New Orleans	New Orleans
	Shreveport		
MD.		Baltimore	
MASS.		Boston	Boston
MICH.	Detroit	Detroit	Detroit
			Grand Rapids
MINN.	St. Paul	Minneapolis	St. Paul
MISS.	Jackson	Hattiesburg	
MO.	Kansas City	Kansas City	Kansas City
	St. Louis	St. Louis	St. Louis
MONT.		Butte	
NEB.	Omaha	Omaha	Lincoln
N.J.-N.Y.	Metropolitan	Metropolitan	
N.M.	Albuquerque	Albuquerque	Albuquerque
		Hobbs	
N.Y.	Buffalo	Rochester	Albany
			Buffalo
			New York
N.C.	Charlotte		
N.D.		Fargo	
OHIO	Cleveland	Cincinnati	Cincinnati
	Dayton	Cleveland	Cleveland
	Toledo	Columbus	
OKLA.	Oklahoma City	Oklahoma City	Tulsa
ORE.	Portland	Portland	Portland
PA.	Pittsburgh	Philadelphia	Philadelphia
	Pittsburgh	Pittsburgh	Pittsburgh
S.C.	Charleston	Orangeburg	Columbia
S.D.		Sioux Falls	
TENN.	Memphis	Memphis	Memphis
	Nashville	Nashville	
TEXAS	Dallas	Dallas	Dallas
	Galveston	San Antonio	Houston
	San Antonio		Lubbock
UTAH	Salt Lake City	Salt Lake City	Salt Lake City
VA.		Alexandria	Richmond
WASH.	Seattle	Seattle	Seattle
	Spokane	Spokane	
W. VA.		Parkersburg	Huntington
WIS.	Milwaukee	Milwaukee	Milwaukee

DEVELOPING A JUNIOR PROGRAM

by

GENE ANDERSEN

*Professional, Oyster Harbors Club,
Osterville, Mass.*

THE DEVELOPMENT of junior golfers can be made a whole lot easier if an interesting program can be arranged and if the youngsters are left with the impression their activities make up an important phase of normal club operations.

It is the duty of the club professional to set up a worthwhile teaching program. From there, club officials take over and see to it that junior golfers are not completely reduced to a "seen but not heard" status.

My theory has always been 60 per cent fun and 40 per cent instruction for youngsters starting out in golf. I do considerable clowning and laughing with my students, and it seems to make them eager to come back for the next lesson.

It is impossible to teach a youngster as you would an adult, so I stress just the grip and the stance. The minds of young pupils are not developed to the point where they can absorb intricate instruction.

Enjoyment Must Come First

With the correct grip and stance, a young pupil can learn to swing the club-head in the proper arc. By avoiding too much detail, I feel the drill does not become stereotyped. Youngsters cannot develop a liking for golf without enjoying it first. That is why I insist the juniors enjoy themselves while under my supervision.

Early teaching should include a lecture or two on golf's etiquette. The juniors should be taught that golf is a quiet sport and consideration must be given to others at all times. Youngsters can do their hollering and get their bodily contact in other sports but should be instructed that golf is, to a large degree, a game of concentration.

DO YOU KNOW YOUR GOLF?

(Answers to questions on page 12)

1. (b) Walter Travis
2. (b) 200
3. False. Limit is \$150.
4. True. True.
5. (b) Feathers.
6. True.
7. No. See Definitions 5 and 30, and Rules 14 and 27-1c.
8. No. See Definition 17, and Rules 16 and 23-3.
9. Yes. See Definition 6.

So much for the instruction side from the professional's viewpoint.

The best way to round out the teaching program is to have a tournament at the close of the season and award prizes for the best performances. Here's where club officials should come into the picture.

If at all possible, the youngsters should receive their awards at the same time and from the same club official handing out prizes to the club champion and runner-up. Being in a golf atmosphere such as that, the prize-winning youngsters have the proper feeling of recognition. Having been shown that club officials are interested in their activities, junior golfers begin to think in terms of a longtime association with golf. A properly enlightened youngster can develop into the ideal future member.

NEW MEADOW BROOK COURSE

WORK is advancing rapidly on the new golf course of Long Island's Meadow Brook Club on what was formerly the Middleton S. Burrell property at Jericho, N. Y. The course, being constructed by Dick Wilson, is scheduled to be planted in September and, if all goes according to plan, ready for play next summer. It will be of real championship length and design, with shorter tees for average and women's play.

The Club is using the famous old course and clubhouse at Westbury for the last season. On November 1 the property will be taken by Nassau County to make way for a cross-island parkway.

Meadow Brook was formed in 1881, according to its certificate of incorporation, "to support and hunt a pack of fox hounds in the proper season, and to promote other out-door sport." But it was as a polo center that it became best known. Before World War II many international matches with Great Britain, Mexico and Argentina were played at Meadow Brook's International Field, involving such famous polo-playing members as the Waterburys, J. Watson Webb, Devereux Milburn, Louis E. Stoddard, Tommy Hitchcock, Jr., and Winston Guest.

The Board of Stewards on October 18, 1893, authorized the formation of a Golf Committee and the laying out of a golf course. At a subsequent meeting, about two months later, the Golf Committee was empowered to hire a professional to teach golf to the Club members.

Scene of First Women's Amateur

So, in spite of horses and hounds, golf came to Meadow Brook, and the club actually played host to the first USGA Women's Amateur Championship in November, 1895.

The turf on which Meadow Brook is situated is famous for its springy quality and ideal for golf, which assumed a more and more important place in Meadow Brook activities as the years went by. Polo interest appeared to decline correspondingly. Where the Club had eight polo fields at

Westbury, it probably will have no more than two at Jericho.

According to latest reports, the Deepdale Golf Club, at Great Neck, N. Y., is to remain in its present location. The Long Island parkway will take some of its property, too, and necessitate a rearrangement of the holes. What is now wooded land on the club property will be cleared and a new championship layout is planned. The architect on this project, too, is Dick Wilson.

Deepdale was built in 1925 on the property of the late William K. Vanderbilt.

The fate of Meadow Brook is shared by the Tuxedo Club, in Tuxedo Park, N. Y., which was laid out in 1889 and is the second oldest club in the Metropolitan New York area.

Tuxedo is giving way gradually to the New York State Thruway. Construction crews already have blasted their way through a part of the venerable golf course, and the members now can use only nine of the holes. The Thruway will swallow up practically all the course by the end of the season.

The Club has not yet reached a final decision on a site for a new course.



New officers of the American Society of Golf Course Architects are, from the left, Robert F. Lawrence, of Miami Beach, Fla., secretary-treasurer; William H. Diddel, of Carmel, Ind., president; and James Gilmore Harrison, of Turtle Creek, Pa., vice-president.

MORE CLUBS of CHAMPIONS

in "GOLF HOUSE"

by

EDWARD S. KNAPP, JR.

USGA Executive Assistant

IT'S A POOR workman who blames his tools, but golf champions cannot be poor workmen. They have a refreshing way of crediting their clubs for much of their success.

The USGA wrote again recently to a group of United States and British Championship winners, soliciting contributions of clubs which had played a part in the winning of their championships for our exhibit of Clubs of Champions in "Golf House."

Charles R. Yates, of Atlanta, Ga., the Captain of last year's Walker Cup Team, immediately sent the driver he had used in winning the 1938 British Amateur Championship. Of it he wrote: "It played a very useful role in the Championship and also in the Walker Cup Match of that year. The moderate amount of loft was useful in keeping the ball down under the wind along the seaside courses of Troon and St. Andrews."

Littler's Wedge

Gene Littler, of San Diego, Cal., sent along the pitching wedge, which he used along with his sand wedge in winning the 1953 Amateur Championship at the Oklahoma City Golf and Country Club.

When Julius Boros won the 1952 Open Championship, his wedge and his putter received almost equal credit. The putter, a large bulbous aluminum-headed affair, has just been placed among the "Clubs of Champions."

Lew Worsham, of Oakmont, Pa., forwarded his No. 4 iron with the explanation that he had used it in making several birdies on par 3 holes at the St. Louis Country Club, where he won the Open Championship after a play-off with Sam Snead in 1947.

Denny Shute, of Akron, Ohio, who was British Open Champion in 1933, presented the brassie he used then.

Two other 1953 winners have already sent in clubs, Rex Baxter, Junior Amateur Champion, donating his driver, and, Miss Betsy Rawls, first Women's Open Champion, her putter.

In point of age, Mrs. Temple Dobell's mashie is the oldest of the recent acquisitions. Mrs. Dobell, who lives in Cheshire, England, won the USGA Women's Amateur Championship as Miss Gladys Ravenscroft in 1913, defeating Miss Marion Hollins in the final at the Wilmington (Del.) Country Club. It has been so well buffed and polished that no clue to the maker's name can be detected on the back of the head.

Of her No. 7 iron Miss Dorothy Kirby, of Atlanta, Ga., USGA Women's Amateur Champion of 1951, writes: "—used to chip with in the national, and to my mind, played a big part in my winning. It saved me many times by getting my ball close enough to make a one-putt when I needed it."

It is the hope of the USGA that the task of financing "Golf House" will be completed this year. Approximately \$7,500 is needed to reach the goal of \$110,000. Contributors since the last issue have been:

Individuals

Harold W. Glissman
W. S. Hook
Bill Horne

Spencer L. Jones
Keith Kallio
Alpheus Winter, Jr.

Associations

Bowling Green Golf Association, Ky.

Others

Metropolitan Club Managers Association

HANDICAPPING CHAPMAN FOURSOMES

LAST JULY the USGA JOURNAL published a description of the increasingly popular Chapman-style of foursome play, developed by Mr. and Mrs. Richard D. Chapman, of Pinehurst, N. C. In this style of play, both partners drive and then each plays a second stroke with the other's ball. After the second strokes have been played, one ball is selected to be continued in play by alternate strokes.

At the time that article appeared, however, experience with the system had been too brief to provide a solid basis for determining a fair handicap allowance. Chapman has been studying this problem for

some time but has been perplexed because a fixed percentage appeared to work a hardship on higher-handicapped players. Now he believes he has hit upon an improved formula for stroke play.

In foursome stroke play (not four-ball) the USGA recommends that 50 per cent of partners' combined handicaps be allowed; when selected drives are permitted, 40 per cent. In the Chapman system, where selected seconds are the order of play, it is Chapman's recommendation that the following sliding scale of percentages be used for combined handicaps:

Combined Hdcp	Per cent	Combined Hdcp	Per cent	Combined Hdcp	Per cent	Combined Hdcp	Per cent
10 (and under)	35.	28	36.8	46	38.6	64	40.4
11	35.1	29	36.9	47	38.7	65	40.5
12	35.2	30	37.	48	38.8	66	40.6
13	35.3	31	37.1	49	38.9	67	40.7
14	35.4	32	37.2	50	39.	68	40.8
15	35.5	33	37.3	51	39.1	69	40.9
16	35.6	34	37.4	52	39.2	70	41.
17	35.7	35	37.5	53	39.3	71	41.1
18	35.8	36	37.6	54	39.4	72	41.2
19	35.9	37	37.7	55	39.5	73	41.3
20	36.	38	37.8	56	39.6	74	41.4
21	36.1	39	37.9	57	39.7	75	41.5
22	36.2	40	38.	58	39.8	76	41.6
23	36.3	41	38.1	59	39.9	77	41.7
24	36.4	42	38.2	60	40.	78	41.8
25	36.5	43	38.3	61	40.1	79	41.9
26	36.6	44	38.4	62	40.2	80	42.
27	36.7	45	38.5	63	40.3		

The recommended maximum handicap for any one player is 40 and the minimum scratch, under this system. Fractions of .5 and more are computed as 1.

These allowances were employed for the first time this spring in the John D. Chapman Memorial Mixed Foursomes, which the Silver Foils and Tin Whistles conduct at Pinehurst for a trophy honoring Chapman's late father, and the results were very satisfactory to Chapman. Mrs. F. S. Dick-

inson and H. B. Smith won with a gross score of 82 and a net score of .66. Of the seventy-one teams in the competition, only four had net scores under 70. The competition is at stroke play and Chapman has no basis for a recommendation for a match-play allowance.

The USGA itself has had no experience with the Chapman system of foursome play and therefore has no official recommendation for handicapping it.



THE REFEREE

Decisions by the
Rules of Golf Committees

Example of symbols: "USGA" indicates decision by the United States Golf Association. "R & A" indicates decision by the Royal and Ancient Golf Club of St. Andrews, Scotland. "54-1" means the first decision issued in 1954. "R.37-7" refers to Section 7 of Rule 37 in the 1954 Rules of Golf.

Movable Obstruction Defined

USGA 53-55
R. 31

Q: A ball was hit from the seventeenth tee and hooked, landing in fairly heavy grass about midway between a tree and a ball washer at the eighteenth tee, the distance between the tree and the washer being about two feet. This washer is on a post like a fence post driven about two feet or more in the ground and with a piece of iron V shaped on the bottom to keep it solid. These washers are placed at every tee as a permanent fixture and have never been removed even during the winter. The player who made the shot insisted he had the right to move this washer and with the aid of caddies was able to pull it out of the ground, claiming that under the Rules it was a movable obstruction on the course. He was then able to make a clear shot to the green and tie the match, suffering no penalty for his bad tee shot. The matter was referred to the Golf Committee but they couldn't agree as to whether the washer was or was not a movable object but did agree that it had been put there as a permanent fixture.

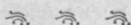
Question by: FRANK H. REYNOLDS
NEW YORK, N. Y.

A: The ball washer which you described appears to be an immovable obstruction within the meaning of Rule 31. The player may have been entitled to relief under Rule 31-2, governing immovable obstructions, but he was not entitled to relief under Rule 31-1, governing movable obstructions.

A movable obstruction is one which may be moved only with reasonable effort, without unduly delaying play in violation of Rule 37-7 and with-

out permanently impairing proper course maintenance.

The penalty for a violation of Rule 31-1 is loss of hole in match play and two strokes in stroke play; in four-ball play the penalty would not extend to the player's partner (see Rules 40-3g and 41-8).



Claim Need Not Halt Play

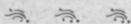
USGA 53-56
R. 11-1

Q: A and B are playing a match for which no referee was appointed. On one of the holes a dispute arises. A makes a claim before the players play from the next teeing ground, as required by Rule 11-1.

X states that this procedure is in accordance with the Rules and that the matter may thereafter be referred to the tournament committee at an appropriate time. Y states that the dispute must be resolved on the spot, before the players play from the next teeing ground or, in the case of the 18th green, before they leave that green. Which is correct?

Question by: WILBUR F. WARNER
SAN FRANCISCO, CAL.

A: X is correct.



Lifting Another's Ball

USGA 53-57
R. 23-1

Q1: When on the putting green may a fellow-

competitor in stroke play or an opponent in match play mark your ball after asking permission to do so?

A1: Never; Rule 23-1 provides:

"A ball to be lifted under the Rules or Local Rules shall be lifted by the player or his partner or either of their caddies."

Q2: If not permissible, which one incurs the penalty, if any, the owner of the ball or the person who marks the ball?

A2: The penalty is levied against the player responsible for the breach.

In match play: If the owner consents to have his ball lifted by his opponent or his opponent's caddie, the owner loses the hole. If the opponent or the opponent's caddie lift the ball without permission of the owner, the opponent loses the hole (Rule 27-2a is superseded by Rule 23-1 in this case).

In stroke play: If the owner consents to have his ball lifted by a fellow-competitor or a fellow-competitor's caddie, the owner is penalized two strokes. If a fellow-competitor or a fellow-competitor's caddies lift another's ball without permission, there can be no penalty since they are outside agencies (Definition 22) and as such cannot be penalized.

Q3: Knowing that all rules have good intent, what is the purpose of this ruling?

A3: The owner of a ball is generally responsible for it. The objects of Rule 23-1 are to preserve that responsibility, to prevent an opponent from taking advantage of the owner by improperly lifting and marking his ball, and thus to promote fair and orderly play.

Questions by: MRS. B. E. WOHLERS

SAN DIEGO, CALIFORNIA



Borrowing Club in Four-Ball

USGA 53-59

R. 3, 11-1, 40-3g, 41-7a

Q: A and B are playing C and D in a four-ball match. Neither C nor D possessed fourteen clubs. A and B noted that on the third green C borrowed D's putter to putt with. This appeared to be accidental and nothing was said. However, this occurred again on the fifth, seventh, eighth and ninth holes. Prior to teeing off on the tenth tee, A and B called it to the attention of C and D and requested the Rules Committee to make a decision on this violation of the Rules.

The decision reached was that C is disqualified from further play. Also, since the violation was brought to the attention of C and D and the Rules Committee at the end of the ninth hole, that C and D should lose the ninth hole. Therefore, instead of C and D being 3 up at the end of nine holes, they are now 2 up. D then went on to play A and B starting at the tenth hole.

Were the two decisions reached by the Rules Committee correct, and under what specific Rules of Golf do these violations apply?

Question by: ROBERT L. MORRIS
PHILADELPHIA, PA.

A: The Committee was right in ruling that C had disqualified himself from further play. Rule 3 was violated when C borrowed a club "from any other person playing on the course," and the penalty is disqualification. We would see no reason for the Committee to waive or to modify the penalty by invoking Rule 36-5 in these circumstances.

The claim made by A and B pertained to the play of the ninth hole. C's score for the ninth hole could not be used by his side; however, D's score could be used (see Rules 11-1 and 40-3g). C's scores for holes prior to the ninth were not affected because A and B did not enter a claim for any other hole within the time limit specified in Rule 11-1.

With C disqualified after the ninth hole, it was proper for D to continue to play the match alone against A and B.

The foregoing is based on the understanding that C's action in borrowing D's putter and D's action in lending the putter were taken in ignorance of Rule 3, that there was no agreement between C and D to waive Rule 3, and that there was no agreement between A-B and C-D to waive Rule 3. If it were otherwise, all parties to any such agreement would be disqualified, under Rule 4.

Had the competition been four-ball stroke play, C would have been disqualified as of the hole where he first violated Rule 3, and D would have been obliged to represent the side alone from that point. See Rule 41-7a.



Provisional Ball Strikes Original Ball

USGA 53-60

R. 11-4, 27-1a, 30-1d

Q: Provisional ball, which is not an outside agency, is played and strikes own original ball:

- (a) In match play, does Rule 26-2a apply and player's side lose the hole?
- (b) In stroke play, does that competitor whose provisional ball strikes his own original ball incur two strokes penalty under Rule 26-3a?

Questions by: S. TAKAHATA, President
HIRONO GOLF CLUB,
KOBE, JAPAN

A: In equity, the original ball must be lifted and dropped, or on the putting green placed, as near as possible to the spot from which it was moved, without penalty. The principle of Rule 27-1a governs.

Although Rule 30-1d provides that "A provisional ball is never an outside agency," it was not meant to force the imposition of artificial and unfair penalties in freak cases such as those above. The principle of equity should underlie all decisions—see Rule 11-4.

A provisional ball has a special status. A provisional ball is customarily played only when the original ball may be in difficulty, the degree of which difficulty cannot usually be assessed at the time the provisional ball is played. It is not permissible to lift the original ball while the provisional ball is being played, nor would it be feasible to do so. Thus, whenever a provisional ball is played, the player runs some risk of having that ball strike the original ball. To force him into a penalty in such circumstances would be unfair.

The term "other equipment" in Rule 26-2a and 26-3a was not meant to cover a ball. This is indicated in Rule 26-3b, where the term "ball or other equipment" is used. Compare also Rule 27-2a with 27-2b.

This supersedes USGA 52-70 and 52-82 (Q and A 2).



Rule 40-1b Has Precedence Over Rule 40-1d

USGA 53-63
R. 40-1b, d

Q: I would like a ruling as to which section of Rule 40-1 has precedence, b or d.

An example: three people are on the green and the person whose ball is farthest from the hole putts, leaving himself a four foot putt. He then wants to complete his putting even though the other two balls are now farther from the hole. He says he can putt, citing Rule 40-1b. The opponents say "no," citing Rule 40-1d.

Question by: JOHN H. FRENCH, JR.
NEW YORK, N. Y.

A: Rule 40-1b, when properly invoked, takes precedence over Rule 40-1d.

In the case you cite, the player whose ball was nearest the hole would have to show that it might be of assistance to another player or side in order to exercise the privilege of playing out of turn without breaching Rule 40-1d.



Provisional Ball on Every Hole

USGA 53-65

R. 8, 29-2 (note), 30-1, 2, 3, 4, 37-7

Q1: The Rules are specific in stating, "The player is not obliged to state the reason for which he plays a provisional ball" and also, "The player is

the sole judge as to when his ball is unplayable, etc." This is a note under Rule 29-2.

- (a) What is there to prevent a player from playing a provisional ball on every par 3 hole?
- (b) If he is in a trap and happens to hole out his provisional ball for a 3, I see nothing in the rule that prevents him from declaring the first ball unplayable. Or if he is close up to the hole on his provisional ball for a sure 4, and if his first ball is by a tree where he must play the ball sideways before hitting it on the green, he may again find it best to declare his first ball unplayable. I don't think this is fair but I don't see why he could not legally do so.

A1: (a) The Rules of Golf are framed on the assumption that golfers play honestly. Permission to play a provisional ball is granted by Rule 30-1 only on the following conditions: first, when a ball may be lost, out of bounds, unplayable, or in a water hazard or lateral water hazard, and, secondly, for the sole purpose of saving time.

If there is no reasonable possibility that the ball may be in any one of the above conditions, the player has no right to play a provisional ball, and if he does so he violates Rule 30-1, penalty for which is loss of hole in match play or two strokes in stroke play. See also Rule 8, which prohibits a practice stroke during the play of a hole, and Rule 37-7, dealing with delay in play.

- (b) In the two situations described, if the player had the right to play a provisional ball, he was entitled to elect whether to play out the hole with the original ball or the provisional ball, as provided for in Rule 30-2.



Provisional Ball Covers All Contingencies

Q2: Can a player hit a provisional off a tee and declare that he is playing it *only* to cover a lost, out of bounds, or unplayable ball but wants to reserve the right to drop the ball as under Rule 33? The only reason he is hitting a provisional is to save time, and the water hazard or ditch is not visible from the tee. He does not want to have to walk up there and back to the tee again but does not want to give up the right to drop out of the water hazard and play 3. On the provisional ball he would have played 3 off the tee, so would be playing 4 in about a comparable position.

A2: No. When a player plays a provisional ball under 30-1, it must be provisional for all of the possibilities stated in the Rule. The Rule does not provide for a player to select certain possibilities and exclude others. Attention is called to sections 3 and 4 of Rule 30.

Questions by: BENJAMIN F. JAKUES
BOSTON, MASS.

"Normal Course of Play" Defined

USGA 54-1

R. 3, 11-3

Q: At the Los Angeles Open two questions arose, and although they were answered by members of the tournament committee, I have been asked to secure your interpretation and advice for future eventualities.

During the first eighteen holes one professional broke the shaft of his putter while going uphill from one green to the next tee, using the putter carelessly and informally as a cane. The contestant, seeing a spectator carrying a similar putter, asked if he could use it. They traded putters and the player carried on.

As he passed the ninth hole he contacted a member of the tournament Rules committee, who on hearing of the accidental breaking approved of the player's borrowing the other putter and authorized the player to continue play.

Two hours late the player posted his eighteen-hole score. Shortly thereafter a ruling was made by a PGA traveling official to the effect that the player had disqualified himself by using fifteen clubs in the round; he claimed the replacement was illegal due to the fact that the original putter had not been broken in the course of play.

Was the player in violation of the Rules of Golf in replacing a broken club under the conditions listed above?

Was the PGA representative in error in overruling the decision made by a badged official member of the tournament Rules Committee?

Question by: HARRY WINTERS,
INGLEWOOD, CAL.

A: Assuming that the competitor started with fourteen clubs, he breached Rule 3 in replacing his putter if it had not become unfit for play in the normal course of play.

The question of what constitutes "normal course of play" is a matter for the committee in charge of the competition to determine. There are other uses to which a club may be normally put during the course of a round aside from striking the golf ball. If the circumstances attending the breaking of the club clearly indicate that the act was accidental and inadvertent, the committee would be justified in permitting the club to be replaced. However, if there be any suggestion that the act was willful or intentional, it could not be construed that the breaking occurred during the normal course of play without opening the door to evasion of the Rule. In other words, it is not "normal" for a player to break a club in a fit of temper, in order to dispose of it or by subjecting it to a strain which obviously may result in breaking it.

Rule 11-3 provides that a Committee's decision is final in such matters. We are not familiar with the administrative organization responsible for the conduct of this tournament and therefore cannot say whether the individual who made the decision

at the ninth hole or the PGA representative properly represented the "Committee."



Ball Unfit for Play

USGA 54-2

R. 28

Q: How does one determine that a ball be so damaged as to be unfit for play?

Question by: RUSSELL N. SHERBA
CANONSBURG, PA.

A: A ball may be properly held unfit for play under Rule 28 if, for example, it becomes cut, loses its shape, or generally becomes cracked, split, pierced, or marred to such a degree as to interfere with its true flight or true roll or its normal behavior when struck.

Rule 28 requires that, in the absence of a referee, the player shall inform his opponent or fellow-competitor of his intention to replace it. If the opponent or fellow-competitor disagree as to the condition of the ball, the procedure is as stipulated in Rule II.

A violation of the Rule—i.e., changing a ball fit for play for another ball—entails a penalty of loss of the hole in match play and of two strokes in stroke competition. No player may be the sole ultimate arbiter of whether or not he has incurred a penalty.



Provisional Ball Retired From Play Prematurely

USGA 54-3

R. 30-2,4

Q: In a four-ball match the player's drive went in a direction where it might be lost or unplayable. He played a provisional ball. He then found what he assumed was his ball in a bunker and played it to the green. Another of the four players then picked up the provisional ball with, of course, the approval of the player. Arriving at the green, he found the ball he had played to the green was not his. He then found his own ball in the bunker but in an unplayable lie. What could he do?

Question by: NORMAN B. BEECHER,
CLEARWATER, FLA.

A: Rules 30-2 and 30-4 govern. When the player picked up his provisional ball and retired it from play, he was electing to play his original ball under Rule 30-2. The fact that he made the election prematurely is irrelevant to the Rules and involved a risk which he could have avoided by not touching the provisional ball until he had identified his original beyond doubt. Once he retired the provisional ball from play and subsequently found the original unplayable, he was precluded by Rule 30-4 from obtaining relief under Rule 29-2. If the original was in fact unplayable, he could only give up the hole in match play or put the provisional ball back into play as provided in Rule 23-4 in stroke play.



Better Turf for Better Golf

TURF MANAGEMENT

from the USGA Green Section

Summer Management of Putting Greens

by A. M. RADKO

Northeastern Director, USGA Green Section

AS the difficult turfgrass months of July and August approach, superintendents in the Northeastern Region begin to gird themselves to keep their putting surfaces in tiptop condition. July and August are the most difficult months for the semi-dormant bentgrasses, as the combination of high temperatures and high humidity, coupled with heavy use of the areas, provides difficult obstacles for the bentgrasses to surmount.

One management practice that has been the subject of much controversy has been that of watering putting surfaces. Most turf leaders agree that early morning watering is preferable to night watering. Early morning watering washes away the dew, which is a good nutrient culture for fungi, and tends to dry the blades of the grass plants sooner. Dew keeps grass blades wet longer, thereby providing better conditions for fungi to remain active longer on the grass blades.

Another equally important watering practice is that of lightly syringing the putting surfaces during periods of high

temperature when the evaporation rate is greater than the rate at which the plants can absorb water from the soil. It may be necessary during extreme periods to syringe the turfgrasses several times during the day in order to keep plants from wilting.

Troublesome greens—those with poor air, surface or sub-surface drainage—should be given special attention during July and August. Greens with built-in headaches tend to show symptoms of water deficiency (or excess) sooner. These greens fare best if they are hand-watered carefully.

Many putting greens in the Northeast were established from South German bentgrass seed. As South German seed contains a variety of types, it is sometimes necessary to water portions of the greens seeded to this mixture separately and in a special way. Localized dry spots occur more often in South German bentgrass greens, as some of the types present tend to thatch or mat quicker than other plants which have been established from this mixture. The best way to alleviate this condition is to aerate the localized dry spots periodically prior to watering.

Insect Control

by JOHN G. MATHYSSEE

Professor of Entomology, Cornell University, Ithaca, N. Y.

Grubs

Grubs have a white body, with a yellowish brown head and three pair of small legs near the head end. The body is curled like the letter C and is from $\frac{3}{4}$ to $1\frac{1}{2}$ inches long when full grown. A grub is clearly shown in the illustration in Cornell Extension Bulletin 770, The Japanese Beetle.

Japanese beetle: Present generally throughout southern and eastern New York but not in the Adirondacks. Heavy infestations in scattered areas through central and western New York, particularly in and near larger cities and towns.

Oriental beetle: Present in southeastern New York. In some old Japanese beetle areas it causes equally as much damage as the Japanese beetle.

Asiatic garden beetle: Small grub, present in eastern New York.

Masked chafer: The "Annual White grub," in southeastern New York.

Turf Management

The book "Turf Management," sponsored by the United States Golf Association and edited by Prof. H. B. Musser, is a complete and authoritative guide in the practical development of golf-course turfs.

This 354-page volume is available through the USGA, 40 East 38th Street, New York 16, N. Y., the USGA Green Sectional Regional Offices, the McGraw-Hill Book Co., 330 West 42nd Street, New York 36, N. Y., or local bookstores. The cost is \$7.

European chafer: A recent immigrant but very injurious in parts of Wayne and Ontario Counties, absent elsewhere.

May beetle: A large grub called the "white" grub, scattered, mostly in upstate and Western New York.

Rose chafer: A small grub found in sandy areas scattered throughout the State, but worst infestations in western New York.

Grub-Proofing Turf

CHLORDANE: Application: 10 pounds of actual chlordane per acre to kill all kinds of turf grubs. One application lasts approximately five years. Amounts to apply:

Percentages	Per Acre	Per 1000 Square Feet
Dry:		
5% chlordane dust or granulated	200 pounds	5 pounds
2½% chlordane granulated	400 pounds	10 pounds
As a Spray:		
40% chlordane wettable powder	25 pounds	10 ounces
50% chlordane wettable powder	20 pounds	8 ounces
75% chlordane emulsifiable solution*	5 quarts	4 liquid ounces

*Contains 2 pounds of chlordane per quart. For others available, calculate dosages on basis of chlordane content per quart.

DIELDRIN: Dieldrin is highly effective and long lasting against all grubs but has not been so thoroughly proved in use as has chlordane. Against *European chafer*, dieldrin is particularly effective and should be used in preference to chlordane in Wayne and Ontario Counties, New York.

Reprinted by permission from 1954 Cornell Recommendations for Trees, Shrubs and Turf.

Application: 3 pounds of actual dieldrin per acre. Amounts to apply:

Percentages	Per Acre	Per 1000 Square Feet
Dry:		
1% dieldrin dust or granulated	300 pounds	8 pounds
2% dieldrin granulated	150 pounds	4 pounds
In a Spray:		
25% dieldrin wettable powder	12 pounds	5 ounces
18.6% dieldrin emulsifiable solution*	2 gallons	6 liquid ounces

*Contains 1.5 pounds of dieldrin per gallon.

MILKY DISEASE SPORE POWDER: This powder, effective only against Japanese beetle, is slow in action and will not prevent turf damage within two years of application. Useful for prevention of adults. Application: From 2 to 8 pounds of spore powder on low-value lawn areas, parks, roughs and the like. Treat only once.

LEAD ARSENATE: Lead arsenate should be used only on golf greens and tees to kill grubs as well as earthworms. It is expensive. Application: 10 pounds per 1000 square feet. Annual re-treatment at the rate of 2 pounds per 1000 square feet prevents worm casts and grub damage.

Ants and Earthworms

Ants and earthworms are injurious through the mounds or casts thrown up. They may be controlled by the following applications:

	Per Acre
1. Ants	5 pounds chlordane
Mounds on greens, tees and lawns are easily seen	2 pounds dieldrin 2 pounds aldrin
2. Common Earthworms	20 pounds chlordane
Casts on greens, courts and lawns, but remember it is beneficial to the soil	450 pounds lead arsenate
3. Oriental Earthworm	40 pounds chlordane
Casts on greens, only near New York City. Bad odor when crushed	(Safer to apply as 20 pounds in the spring and 20 pounds in the fall)

Above-Ground Pests

	Per Acre
1. Chinch bugs	
Small red and black crawling bugs at grass base. Suck juices, discoloring and killing grass.	5 pounds chlordane
2. Sod Webworms	2½ pounds chlordane
Small caterpillars in web tunnels at grass base. Chew leaves, ragged appearing turf.	5 pounds DDT
3. Cutworms	2½ pounds chlordane
Large caterpillars, no webs. Hide in holes in soil and chew off leaves nearby. Ragged spots in turf.	5 pounds DDT

The minimum dosages of aldrin and dieldrin for effective control of ants, chinch bugs, sod webworms, and cutworms have not been definitely established. Grub-proofing dosages give good control of such pests but are probably excessive.

How to Apply Chlordane

<i>Amounts</i>	<i>Per Acre</i>	<i>Per 1000 Square Feet</i>
For 5 pounds of actual chlordane use:		
5% chlordane dust	100 pounds	2½ pounds
40% chlordane wettable powder	12½ pounds	5 ounces
75% chlordane emulsifiable solution	2½ quarts	4 tablespoons
For 2½ pounds of actual chlordane per acre use:		
5% chlordane dust	50 pounds	20 ounces
40% chlordane wettable powder	6 pounds	2½ ounces
75% chlordane emulsifiable solution	2½ pints	2 tablespoons

Granulated chlordane is not recommended for above-ground pests as there has been insufficient research. How to apply dieldrin and aldrin is told under "Grub-Proofing Turf."

Ways to Apply Turf Insecticides

The following have been thoroughly proved by long practical use:

Spraying, with a large volume of water: High-volume hydraulic sprayers may be used to apply as low as 250 gallons per acre but preferably 1,000 gallons per acre (25 gallons per 1,000 square feet). Application through a boom is to be preferred to a single spray gun, as it is difficult to treat turf areas evenly by a single nozzle, tree-spray gun or even by a broom. Use wettable powders or emulsifiable solutions.

Dry dust application by power or hand duster: Don't use dusts that contain high

percentages of insecticides. Preferably water in the dust after the treatment.

Fertilizer spreader application of insecticide dusts mixed with fertilizer: Mix the quantity of insecticide dust needed for each 1,000 square feet with from 5 to 10 pounds of dry granular material, such as activated sludge fertilizer. Mixing may be done in a cardboard drum with a tight-fitting lid. Avoid inhaling the dust. This method is particularly adapted to home-lawn treatment, using ordinary lime or fertilizer spreaders. Preferably, thoroughly water in the fertilizer after treating.

New Methods

The following methods have been proved effective in recent research:

Low gallonage spraying: Low-gallonage sprayers, such as those used for weed control with 2,4-D, may be effectively used for turf-insect control. From 10 to 20 gallons of water per acre may be used rather than the 250 to 1,000 gallons of water necessary in ordinary sprayers. Gear or other rotary pumps are usually used to pump the insecticide through fine flat spray nozzles in a long boom. It is usual to maintain 40 pounds-per-square-inch liquid

pressure. Although treatment can be made at the rate of 10 gallons per acre, it is suggested that 20 gallons per acre is safer and more foolproof. For grub-proofing, 1¼ gallons of 75 per cent chlordane emulsifiable solution and 18¾ gallons of water per acre is recommended. For combined weed control and grub control in one operation, 2,4-D solutions may be mixed in chlordane solution. Do not overdose. Do not stand still while you spray the turf or while the sprayer is dripping, as grass burn will result. As an example of calculations, an out-

put rate of 2 gallons per minute, through a 20-foot boom, traveling at $2\frac{1}{2}$ miles per hour, will give 20 gallons per acre. An acre will be treated in 10 minutes. *Caution:* All tests to date have yielded good grub control. It would be wise, however, to avoid low-gallage treatment during a prolonged dry spell as there may be excessive insecticide decomposition before it reaches the soil.

Granulated insecticides: Chlordane, dieldrin, aldrin and DDT will be available in 1954 as granulated insecticides. This form is suitable for application directly by fertilizer or lime spreader without pre-mixing. Two forms will be available: one on an attapulgit granule which will spread about like fertilizer; and another on tobacco waste, which is lighter and bulkier than fertilizer. It is suggested that $2\frac{1}{2}$ per cent chlordane on an attapulgit carrier or 5 per cent chlordane on tobacco waste be used. Not more than 1 per cent dieldrin or aldrin should be used. For the commoner type of spreaders available, the attapulgit requires an aperture less than one-quarter

open, and for tobacco waste, a little more than half open. No exact recommendation for spreading can be given. You must adjust the spreader by weighing the amount run out over a known area of ground. Put in a weighed amount of granulated insecticide, spread over 100 square feet and weigh what is left in the spreader. The difference between the two weighings multiplied by 10 will give the rate per 1,000 square feet. Of course the walking speed should not be changed once the adjustment is completed. Granulated insecticides have not been thoroughly tested against chinch bugs, sod webworms or cutworms.

Compatibility

Insecticides recommended for turf insect control are generally compatible with fertilizers and 2,4-D weed killers. Fertilizers in general make good materials with which to mix insecticides for dry application by fertilizer spreader. Do not use hydrated lime with insecticides. Use ground limestone instead.

SUBSCRIBERS TO RESEARCH AND EDUCATION FUND

To assist the USGA Green Section to sponsor research on turf and its management and to help educate turf workers, the following have subscribed to the Green Section's new Research and Education Fund:

American Cyanamid Co., New York, N. Y.

Eberhard Anheuser, St. Louis, Mo.

William F. Bell, Pasadena, Cal.

The Clapper Co., West Newton, Mass.

G. L. Cornell Co., Bethesda, Md.

Henry C. Glissman, Omaha, Neb.

Goldthwaite's Texas Toro Co., Fort Worth-Houston-Dallas, Texas

Golf Course Superintendents Association of America, St. Charles, Ill.

Jacobsen Manufacturing Co., Racine, Wis.

Harry Kenyon, Sandusky, Ohio

The Larkins Golf & Lawn Supply Corp., White Plains, N. Y.

Mid-Atlantic Association of Golf Course Superintendents, Baltimore, Md.

Bernard H. Ridder, Jr., Duluth, Minn.

Sewerage Commission of the City of Milwaukee, Wis.

T. T. Taylor, Harrison, N. Y.

Toro Manufacturing Corp., Minneapolis, Minn.

Vaughan's Seed Co., Chicago, Ill.

F. H. Woodruff & Sons, Inc., Milford, Conn.

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1. An organized national program of research and education for better turf.

2. One subscription to the USGA JOURNAL AND TURF MANAGEMENT (seven times a year) and to all Turfletters issued by all USGA Regional Offices (each office issues approximately six editions a year).

3. Assistance from Green Section agronomists on turf and related matters, through correspondence.

4. Right to attend small group meetings conducted by Green Sectional Regional Directors with golf course superintendents and club officials twice a year.



Bunker-raking apparatus devised by T. T. Taylor for use at the Tamarack Country Club, Greenwich, Conn., where he is superintendent.

Raking Bunkers The Easy Way

by T. T. TAYLOR

Superintendent, Tamarack Country Club, Greenwich, Conn.

Stretching man hours on a golf course is an old, familiar problem to the golf-course superintendent. The development of mechanized equipment has been lagging far behind present-day requirements, because golf-course maintenance is a specialized field and manufacturers do not have sufficient potential sales in this field to encourage the production of labor-saving devices.

Hence, in the maintenance of golf courses, the superintendent is obliged to adapt multi-purpose machinery or to build his own in order to make the best use of the limited labor available. Numerous and varied mechanical devices have been designed in the golf workshop which, in some measure, would reduce the man hours necessary to do certain jobs.

The mechanical bunker raker shown in the illustration was designed for the Tamarack Country Club, in Greenwich, Conn. Bunkers there range in size from small to very large, and contours range from shallow and flat to deep and steeply-banked.

This device not only has met all requirements but also it has done a better and neater job than hand raking and it has done it in less than half the time.

The gadget is as simple to make as it looks in the photograph. A 15-foot section of 5-foot chain-link fence is fastened to a piece of 1½-inch ordinary galvanized water pipe of the same length. This assembly is then fastened in turn with removable clamps, to angle brackets bolted to a regular golf-course tractor and can be removed

easily when not in use.

In order to remove tire marks from the sand, a drag chain of sufficient length to loop behind the raking attachment should be used. The chains used here are two medium weight tow chains fastened end to end; the outer ends are fastened to a light weight $\frac{1}{2}$ -inch or $\frac{3}{4}$ -inch crossrod, which keeps the chain-link wire from buckling and also supports the drag chain. A heavy chain should not be used as it tends to drag the sand up and over the lip of the bunker.

Care should be exercised in determining the height at which the assembly is anchored to the tractor so that the twisted

ends of the chain-link wire drag in the sand at the right pressure and so that the effect is one of continuous light furrows, such as might be obtained with a hand rake.

It should be noted that a dual-tired tractor has been used which supplies all the necessary power and with less tracking or depressing of the sand than might occur with a single rear-tired tractor.

Bunkers at Tamarack range in size from as small as 100 square feet to as large as $\frac{1}{4}$ -acre, with a total area of all bunkers approximately 90,000 square feet. There has been no difficulty in accomplishing the entire operation with one man and a tractor in a half day with this attachment.

THE MAN IN CHARGE OF TURFGRASS CONDITIONING AT THE LOS ANGELES COUNTRY CLUB

by C. G. WILSON

Western Director, USGA Green Section

When our young golfing enthusiasts unveil their swings in the Junior Amateur Championship next August, it will be over one of the best conditioned courses in the country. No small part of the youngsters' satisfaction will trace to the turfgrass manager at The Los Angeles Country Club, William Beresford, Superintendent of Grounds.

In his 26 years at The Los Angeles Country Club, Beresford has received increasing responsibility, from his start as Superintendent of Gardens, Trees and Greenhouses to overall Superintendent of Grounds. This gives him the job of planning and overseeing the work on two 18-hole golf courses and seven acres of gardens and greenhouses.

Now that Bill is approaching the half-century mark, he can look back fondly on many accomplishments at his 309-acre plant. They include propagation and planting of 37,000 trees and shrubs, building one of the finest private orchid and Anthurium collections in the country, and 370 blue ribbons and 31 trophies for floral exhibits.

Bill's training started at the County Antrim Agricultural Technical School,



William Beresford, Superintendent of Grounds, The Los Angeles Country Club, Los Angeles, Cal.

Northern Ireland, where he was graduated in 1921. In 1922 he left for further technical training at the University of Southern California, where he was graduated in 1926. He accepted a position as Assistant Super-

intendent of the E. L. Doheny estates for one year before coming to The Los Angeles Country Club, where he has been ever since.

As a keen observer of all plant life, Bill's enthusiasm and capacity for hard work has promoted the name of The Los Angeles Country Club and the stature of his fellow superintendents far beyond the boundaries of Wilshire Boulevard. Among his extracurricular activities have been the presidencies of the Golf Course Superintendents Association of Southern California and of the Hollywood Horticultural Society. At present he is a director of both the Southern California Golf Course Superintendents Association and the Southern California Horticultural Institute. In addition he is an active member of the Pacific Coast Rose Society and the Research Advisory Committee of the Experimental Program in Turfgrass Culture. He also has the honor, and hard work, entailed in being vice-president of the Golf Course Superintendents Association of America and chairman of the Schedule Committee for the Southern California International Flower Show.

In enjoying The Los Angeles Country Club, Junior Amateur Championship contestants will make special note of the superior turf on No. 13 green and the superb, weed-free fairways. In 1942, Beresford observed a fine vigorous strain of creeping bentgrass, since designated Los Angeles Country Club bent, that was free from weeds and graininess and rapidly crowding other bentgrass strains in the area. From this small start enough vegetative material has been increased to stolonize No. 13 green on the North course, two greens on the South course and a sod nursery that covers three-quarters of an acre.

In 1949 it was obvious to Beresford and the Green Committee, then headed by C. C. Simpson, Sr., that a major renovation program was needed on the fairways. Lack of a feeding program through the years had encouraged crabgrass, fennel, daisy, dichondra and dallisgrass to the detriment of the desired bermuda, bent and annual bluegrass. After consultation with the USGA Green Section, C. K. Hallowell, County Agent, Philadelphia; O. J. Noer, Agronomist, Milwaukee Sewerage Commis-

COMING EVENTS

Aug. 3

Turf Field Day, Rutgers University, New Brunswick, N. J. Dr. Ralph E. Engel.

Aug. 9

Texas Turfgrass Association Field Day, Cedar Crest Golf Course, Dallas, Tex. Grover Keeton.

Aug. 19, 20

Twenty-third Annual Turf Field Days, University of Rhode Island, Kingston, R. I. Dr. J. A. DeFrance.

Sept. 8, 9

Turf Field Days, Pennsylvania State University, State College, Pa. Prof. H. B. Musser.

Sept. 15

Fifth Annual Rocky Mountain Turfgrass Conference, Colorado A. & M. College, Ft. Collins, Colo. Prof. A. M. Binkley.

Sept. 17

Utah Turfgrass Conference, Salt Lake City, Utah. A. R. Emery, 721 East, 3120 South, Salt Lake City, Utah.

Sept. 21, 22

Eighth Annual Regional Turf Conference. State College of Washington, Pullman, Wash. A. G. Law.

Sept. 27, 28

Midwest Regional Turf Foundation Field Days, Purdue University, Lafayette, Ind. William H. Daniel.

Sept. 30

Northern California Turfgrass Conference, University of California, Davis, Cal. R. M. Hagan.

sion; and V. T. Stoutemyer, Professor of Floriculture and Ornamental Horticulture, University of California, Los Angeles, it was decided to establish acre test plots with recognized herbicides followed by fertilizer to strengthen the desired turfgrasses. Based on these findings, Bill embarked on a program of twice-yearly treatments with sodium arsenite, organic fertilizer and turf cultivation that has resulted in some of the finest playing turf in the country.

A true championship golf course is the result of many interrelated components. It must be a championship test of golf; it must have a championship turf management committee of club officials; and it must have a championship golf course superintendent. The Los Angeles Country Club has all three.

IT'S YOUR HONOR

Debt Repaid

To the USGA:

I am happy to enclose herewith my personal check to "Golf House" Fund which, I trust, though small, you will kindly accept since I note that you still need \$7,674.

Golf over the past twenty-eight years has given me a lot in terms of personal enjoyment, out-door recreation and health.

W. S. HOOK
MAGNA, UTAH

From Former Collegiate Champion

To the USGA:

My purpose in writing is to relate that I am declaring my intention of turning professional and would like to use this opportunity to extend my appreciation to the USGA for the many wonderful benefits that I have gained from playing amateur golf.

THOMAS NIEPORTE
CINCINNATI, OHIO

Wonderful Opportunity

To the USGA:

My superintendent, John Wysocki, Charley Baskin of the Country Club of Waterbury and I talked over at some length what we had heard at the meeting to introduce the Regional Turf Service as we drove back that night, and we agreed that no club in its right mind should pass up such a wonderful opportunity. To have the combined knowledge and skill of so many research experts behind one's course will indeed be a comforting thought.

HENRY P. STERNS
CHAIRMAN, GREEN COMMITTEE
WATERTOWN GOLF CLUB
WATERTOWN, CONN.

To the USGA:

I wish to express, on behalf of the Country Club of Virginia and myself, appreciation for the many constructive suggestions that Al Radko gave us for the preparation of our course for the 1955 Amateur Championship.

As a golf-course superintendent, it was a pleasure to work with Al Radko. He is indeed a credit to the USGA and a good friend to all golf-course superintendents. If you can

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

obtain the services of men like Al Radko, the Regional Turf Service will be of unlimited value to all golf clubs and superintendents.

TOM DAWSON, JR.
RICHMOND, VA.

To the USGA:

Charles Wilson, Western Regional Director of the USGA Green Section, has made his first visit to our course, the Olympia Country and Golf Club. We want both you and Mr. Wilson to know we feel his visit was extremely helpful, and we already have been amply repaid for the small cost of the service which is provided by your Association.

Mr. Wilson was extremely helpful by his ability to explain in simple terms and language that could be understood by all present the problems we had, his suggestions to eliminate these problems and why his suggestions should be followed. I have talked with so-called experts in turf culture many times, but I have never encountered one who could so capably cover it as Mr. Wilson. We are looking forward to his next visit.

ADOLPH D. SCHMIDT, JR.
OLYMPIA, WASH.

The Governor's Lady

To the USGA:

I have just been reading the last issue of the USGA JOURNAL, which I always enjoy very much. I notice a list of available publications and would like to have a copy of the Rules of Golf. I would also like to have a copy of Tournaments for Your Club which you list as available.

MRS. DAN THORNTON
DENVER, COLO.

Another Vote against Pools

To the USGA:

I have read with interest the item about the Metropolitan Golf Association which appeared in the February issue of the USGA JOURNAL AND TURF MANAGEMENT. I am much opposed to organized gambling at golf clubs. For several years Calcutta pools have been organized in our club and each time there is considerable dissension and bitterness as a result.

(Name withheld by request)

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