SHEETS FROM A GREENKEEPING NOTEBOOK

THE late Ralph Barton, architect and supervisor of maintenance for a number of New England courses, supplied superintendents at courses he advised with notebook sheets giving recommended practice and much handy reference data.

These sheets were much worn by the end of each season and were highly regarded by men who were not associated with Barton as well as considered by Barton's own team-mates invaluable guides and time-savers.

Herewith are some excerpts from Barton bulletins:

Soil Topdressing

It is extremely difficult to place soil so that it will lie evenly distributed. When throwing with the shovel a very good job can be done if the material is so thrown that it leaves the shovel parallel to the ground. That is, be sure to turn the shovel so that its short edge in front makes a right angle with the ground. Do not load the shovel to full capacity about one-half.

There are two essentials in placing soil topdressing: that it be evenly distributed; and that it all be worked through the grass to the soil underneath. It is fatal to leave soil or other covering on grass to cause it to sweat.

The following figures are well to keep in mind:

When evenly distributed, 1 cubic yard of soil topdressing covers:

Sq. Ft.	In. Deep
2700	0.12
4500	0.072
5400	0.060
5994	0.054
6300	0.051

One acre is 43,560 square feet. Hence a putting green of:

5000 square feet equals 0.1149 acres 6000 square feet equals 0.1375 acres

Seed

Never place seed and fertilizer at the same time. Allow fertilizer to get incorporated in the soil before placing seed. Five days is, in most cases, a sufficient time to allow between fertilizer and seed.

Oct-Nov-Dec, 1943

If excessive watering, either natural or artificial, follows fertilizing, seed may be placed in two days; if the fertilizer is not too strong, in one day.

It is interesting to note the comparative size of seeds used on the golf course as indicating the comparative number required to fill a given space, and an indicator of what happens when placed from a seed mixture with seeds of considerable variation of size. This points directly to the worth of placing each variety separately.

Seed	No. of Seeds
Varieties	per Lb.
Bents	6 000,000
Red Top	2,150,000
Kentucky Blue	2,150 000
White Clover	. 680,000
Chewings Fescue	545,000
English Rye	226,000

Watering

In general, long period watering at intervals is much better than light watering daily. Of course, the greenkeeper must be guided at all times by weather conditions of rainfall, heat, dryness, and the apparent condition of the soil. But as a general procedure for normal July and August weather, watering for one to two hours per green two or three times a week is much to be preferred to watering daily for a quarter to a half hour.

Nobody has yet determined the best time of day to water greens. Of course, watering when the sun is up and at its hottest is no time for water to be running on a green, but if it is cloudy, watering may be effective any time of the day. This pretty generally reduces us to morning and evening watering. From my experience early morning watering seems to give better results.

We should always keep in mind that wind drys the soil quite as rapidly as the sun's heat.

There are times in drought and very hot weather when it seems impossible to place enough water artificially to meet the need. Such a condition may often be avoided and always minimized by following a good rainstorm with artificial



Yes, now is the time to plan a "Washer Fund" to provide Lewis Washers at every tee after the war. Loss of players (let's not kid ourselves) has been a big problem . . . and getting them back to the game is going to be a still bigger one. So let's plan now to make them want to play . . . a clean ball from every tee helps increase player enjoyment by providing the means to FASTER PLAY, FEWER LOST BALLS, LONGER DRIVES, MORE ACCURATE APPROACHES and PUTTS.

Of course, there are no new ones available . . . so in the meantime, do everything you can to keep up the Lewis Washers now on your course. There is a limited supply of Lewis repair parts

available. Contact your golf supply dealer as soon as possible to keep those Lewis Washers on the job next year.



watering in about 24 hours, and then following the regular watering schedule. It takes much longer to fill an empty pail than one which has water almost up to the brim. When the green is filled with water the top soil carries a supply for 4 or 5 days. To wait that 4 or 5 days and try to fill the green artifically is attempting the well nigh impossible.

When it happens that a green has gone empty and artificial watering is inadequate we may greatly aid by:

(1) Applying 5 lbs. to 10 lbs. of sulphate to the green.

(2) Give light soil top dressings at intervals of three or four days.

Both these processes appear to bring moisture from below when sufficient is not available from above.

All night watering is to be avoided except in emergencies, for it coarsens the grass and packs the soil.

Miscellaneous Notes

Farm yard manure stored in the open should be covered with 2 in. to 3 in. of soil.

Soluble manures placed when the plant is dormant will be lost and do no good.

Lime liberates potash.

Potash creates starch.

Lime loosens clays.

Lime binds sandy soils.

Never mix: Dung with lime, guano with lime, guano with slag, nitrate with superphosphate, sulphate with slag, superphosphate with slag, lime with sulphate of ammonia.

Sprague's Liming Table

Soil Acidity Pounds per 1000 sq. ft. Light

		Sandy	Medium	Loam and	Clay
p	H	loam	Sandy	Silt loam	loam
4.	0	60	80	115	145
4.	5	55	75	105	135
5.	0	45	60	85	100
5.	5	35	45	65	80
6.	0	0	0	0	0

One acre equals 43,560 square feet.

Therefore, to obtain amount per acre, multiply by 44.

Successful turf building involves not only a yield of grass and turf fruition such that it serves pleasingly the purpose for which it was builded, thereby paying for its keep, but as well the future and permanent productivity of the soil upon which the turf depends.



In modern war, messages are transmitted by radio to all parts of the battlefield and to the airplanes above. Because this radio equipment must be light weight, easily portable and highly dependable, Jacobsen air-cooled, 2-cycle engines have proven ideal for the purpose.

The "Back-Pack" power unit shown here has the same dependable characteristics as the Jacobsen engine that drives our putting green mower. It is being used on faraway battle fronts by the United States Signal Corps as a power unit for communication equipment and other sundry services. Uncle Sam needs all of them that we can build.

There will come a time, we hope soon, when Jacobsen engines will again be built into Jacobsen Power Mowers for your golf course. Then, too, materials will be released for the manufacture of those popular Jacobsen All-Steel Hand Mowers and Jacobsen Water Systems.



Jacobsen Greens Mower



734 WASHINGTON STREET . . RACINE, WISCONSIN

Alex Milne, PGA Founder, Dies in New Jersey

ONE of the grand old men of pro golf, Alexander M. Milne, died Sept. 19 at his home in Bloomfield, N. J., aged 72, after a long illness. Three of his sons, George, Alex and Kenneth, are pros.

Milne was born in Aberdeen, Scotland, and came to this country 33 years ago. He had served clubs in New York, Massachusetts and Vermont prior to coming to New Jersey. His last pro job was at the Bloomfield (N. J.) CC.

He was one of the charter members of the PGA. As a fine, friendly character he left his impress on pro and amateur golf and did much to direct the progress of the game in this country by his genial, sound advice.

First AGF Booklet Sent All Golf Club Boards

A 12-PAGE brochure, "What is the American Golf Foundation?", constitutes an opening gun in the Foundation's campaign in behalf of American Golf clubs. The brochure is being mailed free of charge to directors of all golf clubs in the U. S. early in November, according to George S. May, the AGF's founder. Copies will also go to newspaper sports writers. The reports describes the golf and business activities of May and explains the purpose of the AGF.

Chartered as a non-profit corporation, the AGF will supply research reports to golf clubs. Its staff will analyze pro shops, club dining rooms, kitchens, bars, entertainment, dues budgets, taxes, etc. Recommendations based on these findings will be made available free of charge to all U. S. golf clubs, private, public-fee, and municipal.

Need for this service is acute and widespread as witness the large number of queries, many in the S. O. S. category, which have poured in at the AGF's new headquarters in the May Building, 2600 North Shore Ave., Chicago 45, Ill.

May has been keenly interested in golf club operation since 1936 when he acquired Tam O'Shanter GC (Chicago distr.) and proceeded to bring it out of the red by applying business-engineering principles. He regards the postwar outlook for clubs as none too bright in view of probable tax burdens on golfers—unless the clubs are scientifically managed. Sponsorship of the AGF by the May business-engineering firm is a logical development, May believes, because of the firm's past experience with management problems on some 7,500 engineering jobs, and May's possession of the Tam O'Shanter club as a "guinea pig" for club-management experiments.

AGF reports will go out regularly. The second, "A Golf Club as a Business", will analyze major elements of golf-club management.

Marine Badgley Breaks Foreign Course Record

WARTIME curtailment of sports hold few real difficulties for a determined professional golfing veteran stationed with Marines at Trinidad, B. W. I.

Despite the handicap of unfamiliar courses and limited equipment here, Pfc. John C. Badgley, U. S. M. C., Long Branch, N. J., has broken the course records in occasional off-duty sessions on courses at nearby Port of Spain.

After nearly 15 years of golfing at numerous American clubs, 30-year-old Badgley admits that the British equivalent of "par" on local courses is not an easy score. Hidden greens and winding fairways add a disconcerting factor to American golfers, he confesses.

Prof. George McClure, Turf Authority, Dies in Ohio

PROF. GEORGE M. McCLURE, head of the department of agronomy in Ohio State University's college of agriculture, died in Columbus, O., Sept. 24. Prof. McClure had suffered several strokes and had been in failing health for some time. He was 55.

George McClure was widely known in the golf field for his many and valuable contributions to the development of course maintenance. He appeared several times on greenkeeper national convention programs and was a frequent speaker and guest at regional turf meetings. He was active in the establishment and development of the Ohio State University courses.

George McClure was very widely known and held in high and warm regard by men in golf course maintenance. His influence on this field is reflected by standard practices first adopted in many instances as the result of his recommendations.



Precision Built by HILLERICH & BRADSBY of Louisville

NOW MAKING WAR MATERIALS FOR UNCLE SAM

Oct-Nov-Dec, 1943

Golf Meets War Demands

(Continued from Page 12)

ing on gallantly. A lot of them have enlisted in various Service branches and Red Cross work; a lot of them are canning, or were during the season; yet the gals played their Georgia State and Atlanta City championships, with fairly representative fields, while the boys have called off their formal competition, and confined their tournaments to club championships, compressed as much as possible into week-end affairs.

Some of the clubs went in for Victory gardens. East Lake reports 50 bushels of excellent sweet potatoes, scaling up to 5 pounds, and a flock of turnips. Capital City had a Victory garden, but lost most of the produce during the nights—which, of course, means that the vegetables went on somebody's table; East Lake produced worthy supplies from a garden near the No. 4 green, and used them for the club service.

The rapidly increasing Bell Aircraft population at Marietta, 20 miles from Atlanta, has boosted play at the famous old Marietta CC; and North Fulton, the last course laid out by the late Chandler Egan, and a truly great layout, reports at least 200 regular players from the Bell plant.

There are 7 public courses in the Atlanta District, five city and two county, and it is rather significant that under the regime of George Clayton, president of the Atlanta Public Links GA, three of our public courses, North Fulton, Adams Park and Bobby Jones, recently have joined the USGA.

"And we should like it to be generally known," adds Mr. Clayton, "that we are grooming North Fulton for the National Public Links championship, to be played there the second year after the War is over. Denver has the first turn; and North Fulton the second."

It may also be noted with a modicum of pride that the Atlanta Public Links GA got Bing Crosby and Bob Hope down here to play in an exhibition four-ball match with Johnny Bulla and Ed Dudley, president of the PGA, for the Red Cross—and the biggest gallery that ever followed a golf match in Atlanta, at the the Capital City CC, turned up \$5,220 for the Red Cross fund.

The private clubs all are encouraging Service men to play, with half-rates where indicated; the public course rates are so low as not to make much difference25 cents for the nine-hole layouts; 50 cents for the 18-hole courses, on week days, and up to 50 cents and \$1 on Saturdays and Sundays.

The transportation problem in and around Atlanta is not acute, because of rather good service by the street car and bus lines.

On the whole (again) the 1943 golfing situation is a lot better than it was in 1942, when everybody was pretty much up in the air and not always with the right end up. The main problem right now is golf balls. One big, private club recently was down to one type, a 50-cent ball, and still is dealing only in reprocessed balls. I beg to record that inquiry from one and all—what about the golf ball problem? They would adore to get some inside information from you fellows who know what there is to know about it.

The caddie problem of course sticks out like a sore thumb; but a lot of more or less stalwart addicts are toting their own clubs; and the program of play is being staggered so as to fit the situation as well as possible.

But no clubs or courses are closing up, so far as I can learn; and financially the private clubs seem to be going very well; the membership maintenance really is remarkable. Our folks down here seem sensibly inclined to keep on golfing for the relief it brings from the strain of work and worry; and at this writing it seems a reasonable conclusion that they will keep on playing, for the duration. And there again, what about them golf balls?

Transportation Bothers West Pennsylvania Golfers

By CHET SMITH

WESTERN Pennsylvania golf was down noticeably this year, but to quote Mr. I. W. Danforth, president of the West Penn GA, "There was no damage at all to the basic popularity of the game or to the organization structure of the individual clubs or the ruling organizations —which will make for a quick return to normalcy when the great day dawns."

During the ban on pleasure driving, play at both private and public courses was off about 50 per cent, but when the ban was lifted Sept. 1, there was an immediate 25 per cent rise all around, so

NETS HAVE GONE TO WAR

ere Voing

The production of sports nets is out for the duration. We're playing for keeps now, and the R. J. Ederer Company's "Invincible" sports nets have the most important job in the world to do . . . the job of protecting and saving the lives of our men engaged in this grim game of war. We have received the Army-Navy "E" award in recognition of the Excellence for which the name "INVINCIBLE" has always stood, and for our success in supplying our troops with vital war materials. Twenty-four hours a day our factories are turning out these special camouflage nets for the armed forces.

All other games must stop until the day when we have won the greatest contest of all. The bays who have played over our sports nets in the past, are now fighting under them, and it is up to us to keep them covered and sofe. Definite improvements in "INVIN-CIBLE" nets, born of intensified research of war time production will bring a great advancement in the quality and design of our sports nets line in the Post-War period to come. However, until victory is assured, R. J. Ederer Company will continue to turn their full sports nets resources and facilities over to military needs and the winning of the game of war.

R. J. EDERER COMPANY Home Office: 540 Orleans St. Chicago, Ill.

ST.



Whose Fence Lasts Longest?

If it's a Page Fence it was made and erected to render extra long service. But the protective life of this or any other chain link fence can be extended by Page-trained service men. The quality fence that is inspected and serviced expertly will last longer. Write for name of Association member nearest you. He is qualified to serve you. Address PAGE FENCE ASSOCIATION, Headquarters: Monessen, Pennsylvania.

A PRODUCT OF PAGE STEEL & WIRE DIVISION AMERICAN CHAIN & CABLE CO., INC., BRIDGEPORT, CONN.



IT'S getting late, but don't relax! Use THIOSAN now—and put it on your supply list for 1944! Easy on turf, easy to apply, easy on maintenance budgets. 5 lbs., \$6.45; 25 lbs., \$30.00; 100 lbs., \$115.00. Order from your supplier.

THIOSAN pamphlet free. Just write Du Pont Semesan Co., Inc., Wilmington 98, Del it may be deduced that the war has lopped off about one-quarter of the number of golfers hereabouts. Clubs that cater to younger membership were hard hit, but most of the years' resignations were due to members leaving for the services, rather than other causes. Not a single major club closed in Western Pennsylvania; the only one that closed up shop was Wildwood, a former private course that had been taken over by a professional operator, who sought to turn it into a semi-private venture.

In the pay course league, Schenley, cityowned, and located immediately on street car and bus lines, had an almost normal season, while the county-owned North and South parks courses, which lack good transportation facilities, were reduced to about half their usual play.

Servicemen were given almost a free hand. They were welcome everywhere but, because Pittsburgh is near no large camp and thus has no more than a handful of 'permanent resident' soldiers and sailors, this was a negligible factor in the game here.

The clubs did well financially, heavily supported the dime-a-round program, but didn't do much in the Victory Garden line. They found for the most part members preferred their own gardens nearer home —although the employees of many clubs did garden on the grounds.

The Women's GA called off its interclub matches and all district tournaments, but women's play remained at a high level, and the girlies, as usual, saved the day.

Nearly all the district professionals spent only week-ends at the clubs and worked during the week in defense plants. Sam Parks, Jr., the former open champion, was an example. He could be found at his club—South Hills—only on Satur-



SELL 'EM A DOZEN GOLF BALLS for CHRISTMAS

Action now will bring you off-season profits; will make a hit with your members, and will assure you more business in 1944.

-You can get the balls . . . here's how-

Now, at the season's end, your players have more unplayable golf balls in their bags and lockers than at any other time of the year.

They know the ball situation is acute, and with active play over they are primed for your Christmas proposition.

A dozen golf balls for Christmas, in these days, is a gift every golfer would prize. Get the word to them that you will see they get the finest of reprocessed golf balls if they'll turn in a dozen of their old unplayable pills.

Keep after them! They'll be depending on you next year to see they get golf balls.

Here's an opportunity to get your players' needed cooperation and insure against a ball shortage cutting into your play next year.

> Next year's pro business depends on golf balls—act now to make certain your players have plenty.

THE WORTHINGTON BALL CO. ELYRIA, OHIO

WORLD'S LARGEST EXCLUSIVE GOLF BALL MAKER

TIMELY TURF TIPS

Right now clubs should forget fairway fertilization. Milorganite fed courses will not fare too badly without being fertilized for a year or two. After the war, or when fertilizer is more plentiful, fairways can be restored quickly—with Milorganite alone—or by using Milarsenite first to curb weeds and clover.

Greens and tees should not be neglected. They should get enough fertilizer to ward off disease and maintain dense turf. We expect to furnish Milorganite in limited quantity for this purpose and hope before long chemical nitrogen will become available again for use on these vitally important areas.

THE SEWERAGE COMMISSION Dept. 8-103 Milwaukee, Wis.

MILORGANITE for BETTER TURF

Sure!... We Have a POST-WAR PLAN

When the war is won and golf manufacturers again have reason for a Chicago sales office, the Lytton Building will once more become GOLF HEADQUARTERS . . . More pros and greenkeepers pass through our entrance than at any other address. That's why your Chicago office should be here!

THE LYTTON BUILDING 14 East Jackson Blvd., Chicago, III.

day afternoons and Sundays. He is with a local steel company and doing a good job. The PGA held its open championship but extended it over some three weeks, with the matches being played whenever the participants could arrange to get to the course on the same day. Parks copped the duke in this one.

The West Penn GA dispensed with its one-day tournaments and held only the amateur championship and the junior. The latter was held early in the season and nearly half the field that took part is now in uniform.

The feeling here is that golf has taken only a mild beating and will be ready to come back strong when the war is over. What will happen next year depends, of course, on how many holes-in-one the absentees score in Europe and the Pacific, but all organizations are keeping the wheels turning. All they will have to do when the resume play order comes through is throw 'er into gear and move off.

Help Lt. Horton Smith Bring Golf to Army Fliers

Lieut. Horton Smith of the Army Air Forces at Seymour Johnson Field, Goldsboro, N. C., reports that there's a demand and need for a practice driving range and putting green at the field where he's stationed. It looks like Horton has, as an after-hours duty, the job of getting these facilities planned, installed and equipped.

Horton has been so completely at work as an Army airman he hasn't been able to keep in touch with what the situation is about getting equipment for the proposed facilities. So, in answering his letter of inquiry to GOLFDOM, we told him that these Army and Navy installations generally are supplied by collections of



ADDRESS FOR MAIL-LENEXA, KANSAS

