

Bulletin of the Green Section of the U. S. Golf Association

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A MONTHLY PERIODICAL TO PROMOTE THE BETTERMENT OF GOLF COURSES

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The Greens Keeper

EDGAR A. GUEST

He's on the job at break of day and when the stars come out,
There's always trouble on the course for him to fret about,
He starts the gang to work at dawn and follows them around
Then listens to committeemen whose wisdom is profound,
They talk of "bents" and "fescues" in a way that makes him squirm
For they acquire much knowledge in one brief official term.
His task is one that calls for tact, for lacking that it means
Next year there'll be another man brought on to keep the greens.

The members seldom know his name, or have a smile for him,
They only wonder why it is the course is not in trim.
They only rave and rage and rant while hunting for a ball
And wonder why the greensman hasn't cut the rough this fall,
And when they find a cuppy lie or footprints in a trap
"The course is in a rotten shape!" declares each gloomy chap.
And yet my hat is off to him, now winter intervenes,
I want to pay my tribute to the man who keeps the greens.

He's on the job from dawn to dusk, a million pests to fight,
'Tis his to see that every green is watered well at night.
The weeds attack his finest work, the drought destroys his grass,
The rain beats down the tender shoots, but still the players pass
And still they play the game they love, a happy golfing clan
Who never stop to count the odds against a single man.
And so I wave my hand to him, who toils in sturdy jeans,
The best old friend all golfers have—the man who keeps the greens.

Annual Report of the Chairman of the Green Committee of the U. S. Golf Association for the Year 1922

MEMBERS OF THE GREEN SECTION:

At the end of the second year's work of the Green Committee the chairman is able to make a report which it is believed justifies the conclusion that the Green Section has made notable progress in the task it has essayed. The task is in reality one of huge proportions. It requires ample facilities for experimental work, as it is mainly by this means that our knowledge is increased. Thus far we have had cordial cooperation from the United States Department of Agriculture; but the Green Section itself should have the means to enlarge the investigations.

THE BULLETIN and the Service Bureau are primarily educational in scope; and all educational processes need to be continuous in order to be effective. In short, the Green Section has no temporary task, but one which will be needed as long as golf is played.

Membership

The Green Section now has the support of 557 clubs, in contrast to 387 one year ago—an increase of 170, or nearly 50 per cent. In addition, we have a list of special subscriptions to THE BULLETIN, largely of men who in some way are especially interested in the progress of golf.

Green Section Membership

	1921	1922
U. S. Golf Association clubs	269	376
Other clubs	118	181
Total clubs	387	557
Individuals	75	193

The Green Section ought to embrace every *bona fide* golf club in the United States and Canada, as its influence will be nearly in proportion to the number of readers of THE BULLETIN. Under the present plan of support it really reaches only the better clubs. It is highly desirable to devise a means of support for the Green Section so that its services can be secured by every club at a much smaller fee than is at present the case. The present plan is really a makeshift to provide the necessary means. As a contribution to the development of public golf courses, the Green Committee now sends THE BULLETIN free to the Superintendent of Parks or equivalent officer in every city that supports a public golf course. There are now 36 such cities, according to information at present available.

Financial Report

Statement of Cash Receipts and Disbursements for Year Ended December 31, 1922

Receipts

Membership Fees from 549 clubs.....	\$9,020.00
Subscriptions for THE BULLETIN other than provided for in membership fees	728.80
Reprints—Vol I	81.61
Interest on bank deposit	98.99
Miscellaneous	21.56
Total receipts	\$9,950.96

Disbursements

Twelve monthly BULLETINS, including printing and cuts.....	\$2,481.40
Binders	240.00
Washington office expenses:	
Clerical services, rent, equipment, postage, telephone, telegrams, stationery and office supplies.....	3,780.55
Traveling and sundry expenses of committee members.....	1,211.84
Subscriptions—Periodicals	21.50
Experimental material and examinations.....	298.00
Experimental implements	62.50
Expenses—meetings	321.25
Bank exchange	15.02
Total disbursements	\$8,432.06

Excess of receipts for year ended December 31, 1922..... 1,518.90

Cash Account—December 31, 1922

Cash in bank and hand, December 31, 1921.....	\$3,585.04
Excess receipt year ended December 31, 1922.....	1,518.90
Advance payments received for 1923 membership fees and subscriptions	1,191.00
	\$6,294.94
Deduct—Loan United States Golf Association, repaid.....	2,500.00
Cash in bank and on hand, December 31, 1922.....	\$3,794.94

The disbursements shown in the foregoing statement very closely represent the operating expenses of the Green Committee for the year. Two additional obligations incurred during the year are however not included in the cash disbursements, due to the fact that payment for the obligations was not approved prior to the close of the year; these additional obligations are the reprinting, in a single cover, Volume I of THE BULLETIN, and the printing of the index for the 1922 BULLETIN. These two obligations amount to approximately \$1,150.00.

The Bulletin

The twelve numbers of Volume II of THE BULLETIN issued in 1922 contain 348 pages not including the index; the index will be mailed out with the January, 1923, BULLETIN. The committee has been much encouraged by the many commendatory letters received, and if one may judge from this, THE BULLETIN is rendering a highly appreciated service.

The issue of Volume I became entirely exhausted some time since, and as there is still large demand for this volume it has been reprinted and is offered at \$2.25 per copy. Already a large number of orders have been received.

Beginning with the last number of Volume II, THE BULLETIN has become the official organ of the United States Golf Association. Many of the official actions of the United States Golf Association are of permanent reference value to all golfers. The rule decisions published in THE BULLETIN will have the *official endorsement* of the United States Golf Association and therefore be authoritative.

Enlargement of Work

For the fiscal year 1923 the United States Golf Association has allotted \$8,500 for enlarging the activities of the Green Section. This sum is over and above that received from membership dues in the Green Section. The additional money will be used partly to increase the amount and scope of the turf experiment work and partly to promote additional field work. At the present time there are many requests for assistance, each of which really requires a visit. Most of these requests it has been impossible to fulfill, but it is hoped that a field specialist can be secured to perform such duties. Eventually at least three such men will be needed, but it may be necessary first to train such men so that they can render proper service.

In the growing and maintenance of fine turf there is still a vast array of problems, and with the additional funds available the amount of the investigations now under way will probably be doubled. Incidentally it is hoped to stimulate more technical experimental work in the South and in the West, where the conditions are very different from those at Washington.

District Green Sections

As an outgrowth of the Green Section idea there are now local or district green sections organized in nine cities, as follows: Boston, New York, Philadelphia, Pittsburgh, Detroit, Chicago, Minneapolis-St. Paul, St. Louis, and Kansas City. Some of these district sections are exceedingly active and helpful to the member clubs. It is apparent, of course, that such

organizations can do many things beyond the scope of the United States Golf Association Green Section, such as cooperative buying, machinery demonstrations, etc., all of which are highly desirable; besides, they can do much to raise the standard of greenkeeping by frequent meetings involving inspection of courses, discussions of methods, etc. Eventually there should be such a local green section in every large golfing center.

The relations between the United States Golf Association Green Section and the local green sections bring up some new problems which will require careful consideration. The United States Golf Association Green Section is primarily concerned in finding and disseminating information about the physical problems of golf courses, such as turf growing, soils, architecture, machinery, etc. The local sections, to be sure, also carry on this work, but in addition can be exceedingly efficient in such matters as cooperative buying, standardizing methods of greenkeeping, and other activities directly concerned with the management of the club. In short, the local green sections can well engage in many activities that it does not seem wise to include in the scope of work of the United States Golf Association Green Section.

For practical reasons it is desirable that every local or district green section be represented by a member on the Green Committee of the United States Golf Association so that their respective activities may be thoroughly discussed and the best possible cooperation secured.

Golf Architecture

That there has been a decided betterment in golf architecture during the past five years is too patent to deny. There is still room for very large improvement, however. It is not too much to say that some recent architecture deserves only censure. During the coming year there will be many articles on this subject in THE BULLETIN. Better golf courses will be secured just as soon as the golfing fraternity comes to realize what a golf course should be. Likewise this will help to cut out extravagant costs in building courses. It will be a happy day when clubs begin to brag about what they get for their money rather than how much they spend.

Acknowledgements

The Green Committee is deeply appreciative of the encouragement and assistance given by so many clubs and individuals, including business men. Contributions to THE BULLETIN from individuals are becoming more numerous continuously. This bespeaks an active and intelligent interest in the task of the Committee. Golfers are more and more realizing how much help can be rendered by team work and by pertinent discussions. All of these symptoms indicate an improved *esprit de corps* among golfers, one concerned not only in playing the game but in furthering all matters that concern the progress of golf.

The Green Section does not guarantee or certify the goods of any commercial dealers in seeds, fertilizers, machinery, or other golf course supplies. Beware of the dealer who states or implies that his goods have the endorsement of the Green Section.

Second Annual Meeting of the Green Section

The second annual meeting of the Green Section was held Saturday, January 13, 1923, at 10 a. m. in the Blue Room of the William Penn Hotel, Pittsburgh. About 200 delegates and visitors were in attendance when the meeting was called to order by Mr. W. C. Fownes, Jr. The Annual Report¹ of the Chairman was read and approved. The Green Committee elected for 1923 includes a few changes.²

No formal scientific program was arranged for the meeting, but interesting addresses were made by the following gentlemen, each of them occasioning some lively discussion: Dr. R. A. Oakley, Prof. Lyman Carrier, Mr. W. C. Fownes, Jr., Mr. John Morley, Mr. J. S. Clapper, Dr. E. O. Fippin, Mr. J. C. Wright, Mr. F. B. Barrett, Mr. H. C. Toomey, Mr. W. D. Vanderpool, Mr. J. F. Burke, Mr. Egloff, and others.

The meeting adjourned at 1:30 p. m., with the general feeling that the time allotted was much too short.

Winter Care of Motor Equipment

C. C. ROSS

The article in the December BULLETIN entitled, "'Service.' Who is Responsible?" should be heeded by every green committee which has any motor-driven equipment in its control. Mr. J. S. Clapper has made some pertinent remarks upon the subject in that article. Too often valuable pieces of machinery, such as tractors and lawn mowers, are put into the hands of operators who know only how to drive them, and are given no attention until something goes wrong, and that frequently happens just before an important match or a tournament, much to the embarrassment of the committee, to say nothing of the expense involved of having hasty repairs made.

A question may be raised, however, in regard to some of the suggestions made in the article for the preparing of tractors for winter storage, and also some suggestions may perhaps advantageously be added. With regard to the use of gasoline for the flushing purpose, mentioned in the second suggestion, it should not be overlooked that gasoline cuts oil and evaporates, leaving a surface subject to oxidation (rusting). Kerosene is as good for the purpose and leaves a film of oil which will prevent rust. Kerosene has the further advantage of being both cheaper and less inflammable. Sometimes it may not be necessary to remove the motor crankcase, under which circumstance the old oil may be drained off and the crankcase flushed with regular cylinder oil. It is not advisable to use either gasoline or kerosene for this purpose, as some of it is bound to remain in the crankcase and dilute the fresh oil afterwards put in.

Just as modern surgery frequently finds it preferable to allow a bullet to remain in the human body rather than to incur the risk involved in cutting the flesh, so should a gasoline motor be left intact and not disturbed unless some trouble is indicated. Therefore, do not remove the pistons to examine the piston pins and rings, and do not even remove

¹ The Annual Report appears in full in this issue of THE BULLETIN.

² The members of the new committee are shown on the title page of this issue.

the cylinder head unless some indication is given that trouble exists. Grind the valves only when there are external indications that grinding is necessary or when for some other reason the valves are accessible. Defer the tearing open of the motor until such time as trouble may develop or until the motor is thoroughly overhauled by the manufacturer, his agent, or his representative. More troubles develop with gasoline motors from operators trying to improve them than from all the faults of design and manufacture put together.

The pouring of oil into the radiator is of very questionable value. In the first place, radiators are made of copper or terne-plate, which will not rust; in the second place, oil will rot the rubber hose connections and thus cause trouble; and in the third place, the oil is liable to settle in the pockets of the circulation system, there to dry and become gummy and sooner or later to stop up the radiator. Drain the water from the circulation system and leave the outlets open so that air can circulate and thus dry the interior.

A half-pint of oil in each piston is not only more than is necessary to prevent winter rust but is so much that it is likely to cause trouble. It would be better to limit the quantity of oil to about two tablespoonfuls.

In the magneto breaker box use the vaseline sparingly. Only a thin coating on the bright metallic parts is necessary to prevent rust, and, even at that, when spring comes it may be necessary to wipe the parts clean before the distributor will function properly.

In addition to the other precautions mentioned by Mr. Clapper, it is well to slush all bare metal with grease and store the machine in a clean, dry place. A tarpaulin covering of the equipment is also well worth while.

Construction Costs of the Nine-Hole Course of the Ashtabula Country Club, Ashtabula, Ohio

A. F. HUBBARD

Our course is built on 70 acres of just fair agricultural land, with a creek valley 30 feet in depth having three laterals of 1 to 500 yards in length, which give hazards to all the holes except one, each one much different from the others. Two of the greens which lie on the crest of a hill required much grading, and two which are in low spots required raising. These cost about \$400 each to grade; the others cost from \$100 to \$250 each. Most of the greens have raised and undulating borders and surfaces varying from 18 inches to 3 feet, but none are built up high above the surrounding land, so that the natural moisture relations are not much changed. Three greens are well underdrained with 3-inch tile.

The fairways were plowed in the fall and were disk-harrowed every week from April to seeding time. The grading of all but two of the fairways consisted in leveling the old dead furrows. The two fairways in the valley required changing the brook and bringing them up to a surface drainage, as well as extensive subdrainage.

The water system connects with city water, and the pipe is 2 inches. Smaller pipe is unsatisfactory, unless the pressure is very high.

The actual work of construction commenced the middle of April, with about 18 men, 5 teams and 2 tractors, and the work of grading, installing the water system, draining, and sanding was completed by July 15. Then 6 men continued through until November 1, preparing the seed beds, seeding, watering, mowing, etc. The greens were seeded August 20, and by September 15 the fairways were completed. The covering was done by a gang-plank with coke forks attached—a home-made and most satisfactory machine. We found the coke fork with a 2-inch spread between the tines worked best. South German bent was used on the greens, and Kentucky bluegrass, redtop, and fescue on the fairways.

The stand is exceedingly thick and fine, and the greens were mowed many times, and the fairways some. The prospects are favorable for opening early in April—and not winter golf either. Some rain-washed spots will have to be sodded. We think that the splendid stand of grass is due to summer disking, a firm seed bed, and manure, and the almost complete absence of weeds—due especially to the disking, and we are prepared to maintain that it is superior to a cover crop.

Having felt the need of this kind of information when studying up the question of costs and essentials in our organization, we hope the publication of this may be useful to others, and we would be pleased to answer any question concerning plans of organization and the details of the statement of costs appended.

Apportionment of Construction Costs

Architect and supervision	\$1,100.00	
Clearing; about 5 acres	1,125.00	
Draining; about 13,000 feet	2,185.00	
Equipment; mowing machine, tractor, etc.	1,494.00	
Water system; city connection cost \$550.00.....	1,973.00	
Oil and gas	539.00	
Grading:		
Fairways, Nos. 2 and 5	\$1,238.00	
Fairways—the others	295.00	
Greens	2,700.00	
Tees	450.00	
Traps—11 on the fairways	275.00	
		4,958.00
Fertilizers:		
Fairways:		
Bone	\$296.00	
Manure, 450 tons	1,191.00	
Lime, 25 tons	187.00	
Hauling	433.00	
		2,107.00
Greens:		
200 tons mushroom soil	600.00	
200 tons greenhouse soil		
Hauling	400.00	
		1,000.00
		3,107.00
Seeds:		
Fairways, 4,140 lbs.	1,651.00	
Greens, 350 lbs.	612.00	
		2,263.00

Sand; for traps, 200 cubic yards.....	200.00
Labor, after July 15, in preparing seed beds, seeding, mowing, etc.....	1,835.00
Miscellaneous expenses	256.00
Building shed	400.00
	\$21,435.00
Uncompleted work, about	2,000.00
Total	\$23,435.00
Total cost of labor	\$11,500.00

The Need of Criticism in Golf Architecture

There is a positive if indefinable relation between the character of a golf course and the pleasure derived by the golfer. The character or degree of excellence of a course depends on three things: First, its architecture; second, its standard of maintenance; and third, its landscape beauty. In the betterment of any golf course, all three of these elements are essential, and the excellence of golf courses will improve in proportion as golfers realize their importance. It is true that golfers get a lot of fun out of a simple course laid out in an old pasture; but it does not follow that such a course is to be considered a model.

In promoting the movement for better golf courses, the Green Section is concerned not only with turf, but also with landscape beautification and with quality of architecture.

There was a time when the professional golfer was supposed to be a Pooh Bah who knew all about playing the game, everything about green-keeping, and the whole subject of golf architecture. Today nearly everyone recognizes these three things as distinct though interrelated subjects, and justly distrusts the man who claims to be proficient in all three or even in two of them. In other words, specialization has entered golf as in other fields where progress is usually in proportion to intensive studies of limited scope. The day of the man who assumed expertness in all phases of golf has gone the way of the Ichthyosaurus.

In the evolution of any particular subject, frank discussion of principles and methods helps to promote advancement. There certainly has been and still is abundant discussion as to playing the game of golf, and usually with the assumption that the form of the latest champion is the best. Every one has perfect freedom to present his experience and theories on how to grow grass. When it comes to golf architecture, however, there is practically nothing in print, but by word of mouth one often hears violent expressions of opinion in which the word "rotten" is frequently used. The relative immunity of golf architecture to critical discussion is partly due to the fact that it involves the architect himself, or in other words is likely to be taken as personal criticism. There is likewise a vague sort of unwritten law akin to lese majesty which to a great extent absolves artists (including architects) from criticism. Finally the architects themselves maintain a sort of guild—they do not publicly discuss or criticize each other's ideas, nor do they write books or articles for the education of the golfing world. This condition of affairs is not a healthful one for the progress of golf architecture.

In spite of these strictures there has been progress in golf architecture, mostly by a very few men. It is depressing to see many new courses built in which the construction features deserve only censure. In the effort to construct something novel, the result is often one that excites only ridicule. Incidentally such caricatures reveal that the architect is only human—not, as we were fain to believe, one of Nietzsche's supermen. And so the architect must submit to criticism like any other mortal.

One of the notable advances in golf architecture in America was made when the National Links were built by Mr. Charles B. Macdonald, each hole being a more or less exact replica of one in Europe which had become well known. Valuable as this plan may be, there are two obvious limitations. First of all, if used generally there could be no progress but merely constant replications of the holes chosen as best. Second, there is wide divergence of opinion in regard to certain well-known holes, some architects insisting they are in reality not *famous* for their good qualities but *infamous* for their bad traits. Clearly a discussion by the different architects over the merits or demerits of a particular hole could not help but be educational. But the architects remain silent, and it is becoming increasingly apparent that the discussions will have to be by the growing number of amateurs who are making a study of golf architecture. Such amateurs are not content either with the explanation that a hole is a replica of one that is noted, or with the architect's ex cathedra pronouncement that the hole is superb. The amateur student of architecture asks himself such questions as these: Is the green properly placed? Is it of the best size and shape and properly undulated? Are the bunkers correctly placed and of the right size to be fair? etc. In the answer to such questions neither authority nor tradition should have influence. The attitude must be that of the scientist, who remains skeptical until the proof is sufficient.

As an outcome of this growing amateur interest in golf architecture, it is not surprising to find work of very superior character being done by non-professional architects. Indeed, it is not too much to say that such amateurs are outstripping the professional architects in the excellence of their work. This is doubtless due in part to the fact that such amateurs devote far more time and study to the building of a particular hole than does the professional architect. If this be the true explanation, then many architects are endangering their reputations by undertaking too much work—which naturally leads to a sort of made-in-the-factory type of architecture.

The golf clubs are vitally interested in this matter, because golf courses are expensive and the members like to have a course that excites admiration, not one that calls for adverse criticism. The architects owe it to the clubs, from which they derive their support, and also to themselves, to aid in getting better architecture and in suppressing freak construction. It is earnestly urged that they abandon the policy of secretiveness and silence and discuss frankly the good and bad architectural features of golf courses—to the end that golf progress be furthered.

Professional golfers' register.—A register of professional golfers is maintained by the Professional Golfers' Association. Clubs desiring the services of a competent professional are invited to make their wants known to the Secretary, Professional Golfers' Association, 366 Fifth Avenue, New York, N. Y.

Purchasing and Caring for Tools and Equipment

L. J. FESER, *Greenkeeper Woodhill Country Club, Wayzata, Minn.*

"A dull razor gives a poor shave."

If greens committees would enlarge a bit on that fact, the saying might apply to golf courses with "dull razor" equipment and tools, resulting in a "poor shave" for the course in general. Next to an efficient crew of workmen, the greatest asset to a greenkeeper is efficient equipment. A workman may be well trained and industrious, but with poor tools his daily work is of no greater value than that of a poor workman with good tools.

In purchasing equipment for Woodhill there are four points that I always take into consideration: quality, service, repairs and cost.

Of these points I consider quality the most essential, for with tools of quality there is little trouble with service and repairs. While visiting a manufacturing plant a short time ago I saw a wonderful demonstration of quality. The firm is building a new type of cutting unit for power mowers. Fortunately, I happened to call while this machine was being tested. The cutting unit was placed in a large box, constructed with glass on one side to afford a view of what was happening within. The cutting blade had been removed, and the wheels were supported by two belts, which moved in opposite directions at a speed comparable to that of a machine mowing grass. A mixture of iron filings, sawdust and dirt was shoveled into the box. The wheels and reel revolved in the mixture, forming a cloud of moving dust in the box. The machine had been running for many hours before it was taken out and opened. I watched the opening of the gear case with intense interest, for I thought the gears would be badly worn by such severe treatment. To my great surprise, not a bit of the dust had entered the gear case; the oil was as fresh and clean as though it had not been used. That manufacturer tested his machine for quality, and his product stood the test.

Second in importance to quality is service. Every greenkeeper has to "sweat blood," as when, in the middle of the cutting season, a mower or other piece of equipment breaks or becomes otherwise disabled. How soon can the machine be fixed? The answer depends largely on the kind of service the manufacturer or dealer can render. To send to New York for a casting for my tractor would mean that the golfers would have to play in hay fields before the machine could be put back in running order. Our tool man can mend or repair an ordinary break, but he can't make a casting. Therefore, I buy with the idea of quick service on broken parts, or even new machines.

Repairs and cost go hand in hand. Both are dependent on quality. Repairs are always costly, not to mention the inconvenience they incur. To pay ten dollars more for the original machine is better than to pay twenty for repairs. Manufacturers base the cost of a machine on quality and workmanship. I prefer to pay ten dollars for ten dollars' worth of quality rather than seven dollars for five dollars' worth. It is up to the purchaser to use his best judgment, and it is wise to remember that the golf

club wants to keep up the grounds three or four years in the future as well as at the present.

I doubt whether the average golfer knows or cares how much money his club has invested in tools and equipment, but the greenkeeper and the greens committee ought to know. An inventory once or twice a year, with every article justly depreciated, would open the eyes of many of the men who foot the bills, for maintenance of a high-standard golf course means money invested in tools and equipment.

It should be part of the responsibility of the greenkeeper to know his tools, their value, age, use, and place where they are kept. At Woodhill I find that workmen are apt to leave tools where they work the last hour of the day, taking for granted that they will return the next day. But maybe he doesn't come to work the next day. Then it is a question as to where he "ducked" the tools he had been using. It would require a host of guardian angels to keep track of tools if this policy were permitted. I have found it to be of advantage to the club to allow the men to cease work fifteen minutes earlier in the evening in order to give them time to clean and put their tools in the proper places.

We are fortunate to have all of our equipment under one roof. Horses, tractor, mowers, shovels, rakes, in fact all of the essentials to upkeep, are kept in the big barn. There is a place for everything; and it has become a matter of educating the workmen to bring in their tools and put them in the right place. We have a very small loss due to mislaid tools, though it is very difficult to bring that loss to nothing.

A barn man has charge of the barn and everything in it. He takes care of the horses, runs the engines, pumps the water, keeps the floors clean, sees that tools are put away properly, makes repairs; in short, he is the greenkeeper's right-hand man. Only on certain occasions is it necessary for a grounds man to repair a tool. Anything in need of repair is placed on a table, and it is the duty of the barn man to keep that table clean.

There is a constant accumulation of odd bits of machinery, bolts, nuts, nails, washers and many other odds and ends which, if taken care of, lessen the cost of equipment upkeep. For the smaller of these items we have what we term a "pigeonhole rack." This is a rack built with twenty or more separate pigeonholes of various sizes. On the outside of each pigeonhole is nailed a sample of what the compartment contains. In this way these articles are kept in an orderly condition and are always in place so that no time is lost hunting for them. The larger pieces of machinery are put in our "junk room," where they are kept for future needs. This accumulation of non-essentials has proved to be of value many times, for there are many uses for such material in the construction of new machinery or the repair of the old.

Most members of golf clubs are business or professional men, but at many of the clubs I have visited I noticed a lack of systematic purchasing and maintaining of equipment, which, if tolerated in a business concern, would bankrupt any firm in less than a year. Golf maintenance is a business, and requires business methods to produce the best results.

(In submitting his article to THE BULLETIN, Mr. Feser writes us as follows: "Woodhill Country Club is situated 15 miles west of the city of Minneapolis. It is an 18-hole course, and in addition to the golf course 150 acres of farm and

pasture land are taken care of by the greenkeeper. All of our wood, fertilizer, ice, hay, and many miscellaneous articles are made on the grounds. It has often occurred to me that without a system of caring for our tools and equipment the supervision of a place of this size would be impossible for one man. We have three teams on the place belonging to the club, and in the summer time we employ from eighteen to twenty men, in addition to green-weeders. I point out these facts for your consideration in relation to what a greenkeeper thinks of tools and equipment."—EDITORS.)

Sclaffed Tees

MAYNARD M. METCALF, *The Orchard Laboratory, Oberlin, Ohio*

Wear and tear upon tee and fairway turf is somewhat increased by the well-nigh universal habit of addressing the ground behind the ball instead of addressing the ball itself. The chief cause of sclaffing is, of course, looking up instead of keeping one's head down until after the ball is struck; but an additional cause is inaccurate address, soling the club instead of placing the club-head on the level of the ball when starting the backswing.

Addressing the ground instead of the ball necessitates a vertical correction in the swing, a correction equal in each case to the height to which the ball is teed up. For an unteed ball no such vertical adjustment is needed. For a high-teed ball a vertical adjustment of as much as an inch may be required. On the other hand, if one acquires the habit of addressing the ball instead of the ground there is no vertical adjustment needed at all, whatever the lie, and the swing is simplified to just this extent, all lies being alike to the player.

To the habit of addressing the ground there are also, of course, the additional objections that soling a club is not allowed in a hazard and that soling a club in the fairway, or especially in the rough, sometimes makes the ball move, causing the loss of a stroke.

The general habit of addressing the ground instead of the ball seems in itself rather absurd, complicating the swing and making it just so much more difficult; but the reason for mentioning it in this BULLETIN is the fact that the injury to turf is appreciably greater than it would be if it were the general habit to address the ball instead of the ground back of the ball. The writer can testify from experience that a proper swing after addressing the ball itself is easier and safer than the compensated swing after addressing the ground.

New Member Clubs of the Green Section

Westchester-Biltmore Country Club, Rye, N. Y.
Greensburg Country Club, Greensburg, Pa.
Catawba Cliffs Golf Club, Catawba Island, Port Clinton, Ohio.
Lakeside Country Club, Manitowoc, Wis.
Helena Country Club, Helena, Ark.
Eshquaguma Club, Biwabik, Minn.
Hillcrest Country Club, Sawtelle, Calif.
Hamilton Golf and Country Club, Hamilton, Ontario.
Christiana Country Club, Elkhart, Ind.
Buck Hill Golf Course, Buck Hill Falls, Pa.

Canada Bluegrass (*Poa compressa*)

C. V. PIPER and R. A. OAKLEY

It does not require a trained botanist to tell the difference between Canada bluegrass (*Poa compressa*) and Kentucky bluegrass (*Poa pratensis*). Color alone is almost sufficient, but there are other and more important distinguishing characters. Canada bluegrass differs in general from Kentucky bluegrass in shape of stem, shape and color of leaves, character of the seed head or panicle, and in its turf-forming habit. The stems or culms of Canada bluegrass are flat or compressed. They bear few leaves, which are of a dark bluish green color and are much shorter than those of Kentucky bluegrass. The panicle is quite compact and is much shorter than that of Kentucky bluegrass. The flat, nearly solid stems are of a character which the layman will find very useful in distinguishing this species from the other grasses commonly found on golf courses.

Canada bluegrass is a very hardy perennial grass which produces an abundance of creeping rootstocks. These make the grass aggressive and enable it to form a tough sod. But the habits of the grass are such as to cause it to produce a thin turf, which is undesirable from a golf standpoint.

Although widely distributed throughout this country and found growing largely in uncultivated areas, Canada bluegrass is an introduced species. Its native home is Europe. However, it was introduced here early in colonial times. Now it is nearly as widely distributed as Kentucky bluegrass, but is neither as plentiful nor as important. It is found in greatest abundance in southern Ontario, but it is very common in the New England states, New York, Pennsylvania, Virginia, West Virginia, Ohio, Michigan, Indiana, Illinois and Missouri.

Canada bluegrass will thrive on poor, stiff, clay soils and on poor gravelly soils where Kentucky bluegrass will scarcely succeed. However, it does not do well on sandy soils, and on rich soils it is unable to compete with Kentucky bluegrass. As for its temperature relations, it has a somewhat wider range than Kentucky bluegrass.

Because of its peculiar habit of growth, which results in the production of thin, stubby turf, Canada bluegrass has no place on putting greens or fairways of golf courses. However, as a grass for the rough, Canada bluegrass is excellent especially as the southern limits of sheep fescue are approached. It offers about the proper penalty to the player and at the same time it does not afford a hiding place for the ball.

As a soil binder on clay banks where the soil is poor, Canada bluegrass may be used very advantageously. As an agricultural species it is by no means without merit. It is very nutritious and is highly regarded as a pasture. It makes excellent hay grass, but does not produce a sufficiently high yield to make it of great importance as a hay grass.

Back Numbers of The Bulletin

Volume I (1921) has been reprinted and may be obtained in one cover for \$2.25.



Canada bluegrass (*Poa compressa* Linnæus). A, Entire plant, one-half natural size; B, panicle; C, cross section of the stem, showing how it is compressed so as to be two edged.

Low Fertilizing Value of Peat

That peat has a low fertilizing value is the opinion of the United States Department of Agriculture Fertilizer Council, which has been studying the problem as a result of many inquiries. During the past few years peat has frequently been advertised for sale as "humus," to be used as fertilizer or in place of fertilizer or manure. It has been alleged that special processes, such as "bacterization," occasionally give it unusual power to improve soil conditions and plant growth. The department council finds that peat, as well as muck and similar materials, whether bacterized or not, are distinctly inferior to stable manure or mineral fertilizers for increasing crop production. Although it is too bulky and too poor in available plant food to serve as substitutes for these materials, certain kinds of peat appear to be suitable in the growing of specialties or as a potting soil in greenhouse forcing. In the manufacture of mixed fertilizers the use of peat as a conditioner, as well as a filler, appears to have been satisfactory to the mixer.

According to the statement made by the department council, a well-decomposed layer of peat contains little plant food of any kind. The rather high percentage of nitrogen occasionally found in peat or muck is due not to the presence of available nitrogen, but to the slow accumulations of nitrogenous material of an extremely inert character, the more soluble substances having been lost. Peat deposits represent slow accumulations of layers of plant material of different kinds, and show great variation in texture and quality. Many peat deposits are agriculturally unsatisfactory and some peat contains substances which actually injure plants. However, considerable areas of peat and muck soils are under cultivation and these frequently show high productivity for many kinds of truck crops or as grass land.

The claims of unusual value for bacterized peat appear to be based more or less directly on statements made a few years ago by Professor Bottemley, of England. Further experiments in this country and abroad have failed to support this theory and no laboratory process for the "bacterization" of peat which improves its fertilizer value has been discovered.

A Few Kind Words; or What Keens the Green Committee On the Job

"We joined the Green Section of the U. S. Golf Association and desire here to say that we are deeply indebted to this wonderful organization for the invaluable aid and advice they gave us during the time that our course was being constructed. Time and time again questions arose relative to many of the details connected with the work on our course with regard to which we found it necessary to obtain not only the advice of our architect and our professional but also of other experts; and the Green Section always came to the front, without charge to us other than the small membership dues we pay annually, and gave us the benefit of all they had learned from many years of experience with golf courses."—*Mr. Benjamin C. Ribman, President, Fresh Meadow Country Club, Flushing, Long Island.*

"You are to be congratulated on this move. Our public course, in common with others, strives to give facilities to players at the lowest cost possible. Assistance from an agency whose sole interest is to accumulate and disperse intelligent information for the sake of golf itself will result in fewer errors and

lower costs. Our organization feels indebted to you."—*Mr. Louis B. Harris, Municipal Golf and Tennis Association, Wilmington, Del.*

"It is pretty generally thought that the chairmanship of a greens committee is a thankless job, but after having been elected a life member of our club at the last annual meeting I am forced to believe that this is not true. I am naturally very proud of the honor, but my reason for mentioning it here is because I feel that the Green Section of the U. S. Golf Association is responsible for it. All I have done has been to bother the life out of you people, study THE BULLETIN closely, and endeavor to comply with what I so learned. I wish to thank you for your untiring assistance to us in the past year, and wish you much success for the ensuing season."—*Mr. R. A. Young, Highland Golf Club, Indianapolis, Ind.*

Some U. S. Golf Association Decisions on the Rules of Golf

Question.—In a two-ball mixed foursome, A and B (the men) and C and D (the women), A and C playing together and B and D playing together, it is C's shot from the tee. She tees her ball and swings, but does not strike the ball. A, not being satisfied with the way C had teed her ball, removed the ball from the tee and made a new tee, to suit his style of playing, on another part of the teeing ground. Had he the right to do this, or should he have driven the ball from the tee which C had made? In other words, after the ball had been put in play, had he the right to lift it?

Answer.—A ball is in play as soon as the player has made a stroke at a teeing ground, and it remains in play until holed out, except when lifted in accordance with the rules. Therefore, after C had struck at the ball it was in play and should not have been touched. The penalty for lifting the ball is two strokes in medal play and the loss of the hole in match play. (See rule 6.)

Question.—In match play, opponents A and B are both on the putting green on their first shot, A being about 25 feet away and B being about 10 feet away. A, without sending his caddy to the flag-stick, putts, and his ball strikes the flag-stick as it stands in the hole, bounces up, and drops in the hole. B protests that A should have removed the stick from the hole; A claims not. B then putts out, making a hole in three. Who wins the hole?

Answer.—In match play either player may have the flag removed at any time, and the fact that A hit the flag-stick and the ball dropped in the hole does not incur a penalty. B had the right to have the flag-stick removed if he had wanted to. (See rule 32.)

On the Special Importance of Good Fairway Near the Greens

MAYNARD M. METCALF, *The Orchard Laboratory, Oberlin, Ohio*

Some fortunate courses have nearly uniform condition of turf upon fairways and greens, but of most courses this can not be said. Turf of only moderate quality through the major part of the fairway is not a very serious disadvantage, but irregular turf just short of the greens is a serious disadvantage. It is here that most balls must light on the approach shots, and the turf should be so even and uniform, so free from cuppy spots, ant hills, mole runs, and worm casts, as to allow one to approach with predictable results. The high, deadstop ball lighting on the green itself is not the only good approach shot in golf. It should be possible to use the pitch-and-run and also the run-up ball, except upon "island greens," from which a running shot is purposely excluded, and of this sort of green there should be not many examples in the eighteen holes.

Recent inspection of a score of very good courses in different parts

of the country and of an equal number of more poorly kept courses shows that about one-fourth of the former and most of the latter fail to keep the fairways just short of the greens in as good condition as they should. Except the greens themselves, the portions of the fairways adjacent to the greens are the most important part of the course to keep in good condition. It seems the normal thing to use the same planting as for the green, to roll frequently, and to rake for worm casts and ant hills; in short, to treat these portions of the fairways about as one treats the greens except leaving the grass of fairway length.

On one eastern Massachusetts course, one of the best courses in the whole country, red fescue seed was used on the fairways short of the greens, and, as is frequently the case, it proved to be contaminated with sheep's fescue. As a consequence a number of holes can not be played by pitch-and-run or run-up approach. Even if pure red fescue seed had been used, it would hardly have been satisfactory for these most important portions of the fairways.

Taking the country through, perhaps half of our courses fail to give proper care to the fairway near the greens, and some otherwise well-kept courses are remiss in this regard.

Cost of Course Maintenance

The Green Committee is frequently asked for information on the cost of course maintenance. This is a problem that can only be worked out by the clubs themselves. The Committee is anxious to assemble data on this subject, and will therefore appreciate it if the member-clubs of the Green Section will mail to the Green Committee of the U. S. Golf Association such annual reports of their clubs as are available, or indeed any figures bearing on the subject whether incorporated in the annual report of the club or not.

It is believed that if the clubs will promptly cooperate in this matter some valuable data can be assembled.

Tell Us What Interests You Most

The editors and committee are exceedingly anxious to make THE BULLETIN interesting to its readers, and particularly to the greenkeepers, who are concerned with the practical end of greenkeeping.

It will be a great help if you will write to the editors and tell them what interests you most.

What subjects do you wish to have developed by articles in THE BULLETIN?

Tell the editors how they can make THE BULLETIN of more interest and value to you. The committee is trying to serve you, and if you will say what you want an effort will be made to give it to you. A letter or a post card will do. Just give us this, that, or the other thing—whatever you want. The editors would like to receive a letter of this sort from every greenkeeper and every reader.

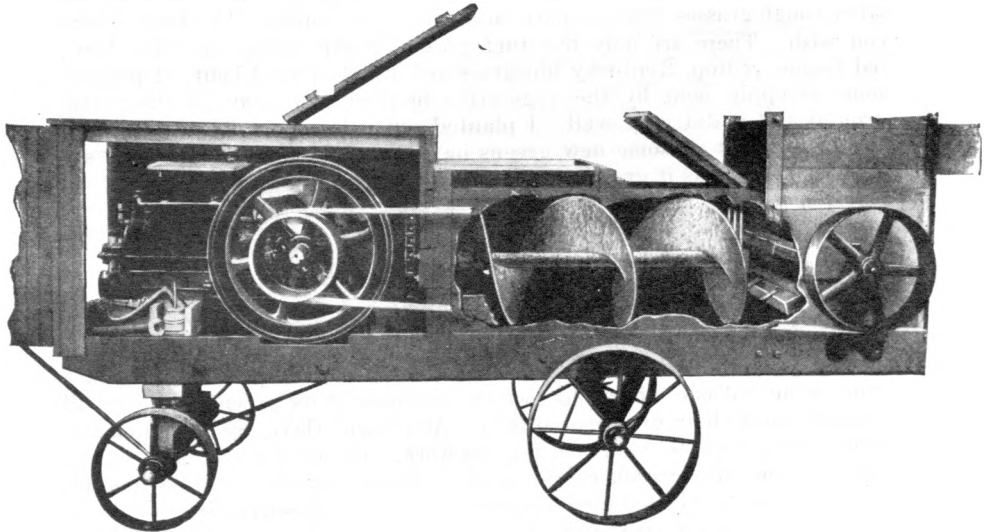
The things that interest you will interest others like you.

The Green Section of the United States Golf Association is a co-operative enterprise conducted in the interest of golf clubs in the United

States and Canada. Neither the committee nor the editors claim to know all or even a small part of everything there is to be known; but if you will indicate your wishes a genuine effort will be made to give you the kind of a bulletin you would like.

What interests you most? Let us know by a letter or a post card.

A Force-Feed Shredder and Mixer



The advantage of the force-feed is that the machine will screen wet, soggy, or lumpy material, whereas, without a force-feed, when the material is wet or soggy the screens will clog, working freely only when the material is fairly dry. The machine is operated by a 3 H. P. gasoline engine.—*E. Hallan.*

Turf Grasses for Pennsylvania

J. J. McNAMARA, Pittsburgh Field Club, Aspinwall, Pa.

It may be of interest to some readers of THE BULLETIN to get some of my experience of twenty years growing grass on Pennsylvania golf courses. It is very amusing to read in the seed catalogues of how many different mixtures the seed people put out, and they want you to tell them the sort of soil you have and they will send you a mixture to suit it, and so on. There are only four or five grasses that are worth anything on either a lawn or a golf course. If the soil is dry or shady, red fescue—either European or New Zealand—is very good, but creeping bent does better than fescue on putting greens, especially if they are of a damp nature. Then there are only redtop and Kentucky bluegrass for the fairways. If you wish to put red fescue or creeping bent in the fairways they are good

but cost more. Sheep and red fescues are about the only grasses for the rough, but the former seems more subject to the brown-spot fungus than the latter, if sown on heavy soil. Of the fourteen different grasses in my trial patches, sheep fescue was the only one which was badly affected last year with the brown-patch fungus. Crested dog's-tail died out the first winter. Rhode Island bent I have not been able to get in the past few years. Last year I obtained a small amount of this seed from a large seed store at a high price, but I found out that when it came up in my trial patch it was nothing but redtop. Canada bluegrass and several of the other rough grasses have no place on lawn or golf course. Use them where you wish. There are only five turf grasses worth while—creeping bent, red fescue, redtop, Kentucky bluegrass and Rhode Island bent. I planted some creeping bent by the vegetative method last year in the trial ground and it did very well. I planted out a large patch this fall and expect to try it on some new greens next year. It is a nice thing to see when it blooms, as it grows so thick and only about a foot high.

Training Greenkeepers

The supply of competent greenkeepers is far below the demand. While there are many first-class men engaged in this work, everyone of them, as a rule, is satisfactorily located. It is almost impossible for a new club, or an old one which has lost the services of its greenkeeper, to fill the position with an experienced man. At present there are no systematic efforts being made to train men for this work. The laborers on golf courses seldom grow into greenkeepers; most of them lack the intelligence and executive ability which a greenkeeper must have to be successful.

The Green Section wishes to start a movement to correct this condition. It believes the best source to draw on is the students in the agricultural colleges. The course of study pursued at such colleges gives these boys a training which should be very helpful to them in greenkeeping work. But few of them know anything about golf. Most of them would not know a green from a sand trap. It would be a gamble, with the odds heavily against the club, to hire an inexperienced agricultural college graduate as a greenkeeper.

In order to give these boys the practical experience they must have before they can become greenkeepers we would suggest that as many clubs as can do so take on one or two of these young men as laborers during the summer vacation. The college year closes early in June, and the vacation period lasts until about the middle of September. Many of these students are working their way through college. Most of them are farm-raised and familiar with hard work.

The Green Section is willing to act as a clearing house to bring together these boys and the clubs that wish their services. We ask that every club which desires to take on one or more of these students this coming summer write us, stating the wages it will pay, and we will do our best to induce a sufficient number of the students at the various agricultural colleges to take the jobs. Many of them will be anxious for such work as soon as they are made to see what such an experience means to them in the future.

Questions and Answers

All questions sent to the Green Committee will be answered as promptly as possible in a letter to the writer. The more interesting of these questions, with concise answers, will appear in this column each month. If your experience leads you to disagree with any answer given in this column, it is your privilege and duty to write to the Green Committee. While most of the answers are of general application, please bear in mind that each recommendation is intended specifically for the locality designated at the end of the question.

1. Winter seeding.—I notice in the December number of THE BULLETIN an inquiry from Ohio as to seeding golf courses in December, and that you disapprove the recommendations of the architect to seed so late in the season. I would say that one of the best stands of grass on our fairways here was sown in December. If there is no weather mild enough after the seed is sown to cause germination the seed will lie dormant all winter and be ready to sprout just as soon as spring opens up and will quite outgrow seed sown in early spring. It has long been the practice for farmers to sow clover seed in February when the ground is frozen, depending on the seed being sufficiently covered by the soil freezing and thawing. Just after a light snow has always been considered an ideal time. As the snow melts the seed sinks into the ground, and is ready to germinate as soon as the soil warms up in the spring.—(New Jersey.)

The sowing of grass seed on snow is very satisfactory in any region where spring seeding gives satisfactory results. That is not, however, the best time to plant grass seed in central Ohio, as fall seeding gives far better results there. Where spring seeding can be done satisfactorily, the earliest possible seeding is highly desirable, and that is best accomplished by seeding on snow. In replying to the Ohio inquiry the editors had in mind the relative advantages of spring seeding and fall seeding. We are glad that you have brought the matter to our attention, as your comments and our further answer will serve to clarify the matter.

2. Spring treatment for new vegetative greens.—It would be a great help if you would be kind enough to outline a program for the care of the greens which we recently planted with creeping bent runners.—(Ohio.)

As soon as the greens are dry enough in the spring so that it is safe to work on them, they should be top-dressed. This is advised largely for the purpose of leveling up the surface and burying the stolons. We would recommend not more than one-eighth inch of top-dressing at any one application. The top-dressing should be followed with a fairly heavy rolling. The greens should then be mowed, being kept down to putting conditions from the start. It is much easier to keep grass down low than it is to correct the condition resulting from its growing too high. One application of top-dressing, and frequent mowing, should put them in good condition.

3. Growing Bermuda grass on sandy soil.—Our soil is a very light, sandy variety, and we have seeded it heavily with Bermuda. It comes up good and strong, but we do not seem to be able to get the smoothness ordinarily found in Bermuda putting greens. We have plenty of water; but we note this is not recommended by some of the Bermuda advocates. Our course is very young and probably we are expecting more than we should for greens of this age. We began to cut off the timber last May, and the subsequent work of stumping, rooting, plowing and planting took considerable time. We have had a pretty fair turf over most of our course for the past four or five weeks, but it seems to us that

now the putting greens should begin to smooth up with the top-dressing which we have been using for the past month. The compost we are using is composed of this light, sandy soil, mixed with muck, so called, which we get in the low country surrounding the golf course. We have accumulated a lot of opinions regarding our light, sandy soil, and the principal difficulty we find is that they do not agree very well. One professional will advise plenty of water, and another none at all for Bermuda. We note, however, that the professionals who advise no water have a heavy clay subsoil; the professionals who advise plenty of water have a soil similar to ours—that is, of light, sandy composition. We attribute whatever success we have had to a plentiful rainfall and our unlimited supply of water, which we have piped to all fairways and greens. We are still far short of what we would like to have, and if you can contribute any information that would assist us in getting the smooth putting green that we have seen on other courses which depend on Bermuda alone we shall appreciate it greatly.—(Florida.)

The growing of first-class Bermuda greens on sandy soils is difficult, whereas on clay or clay loam soils it is easy. For some reason Bermuda grass behaves differently on sandy soils from what it does on loams and clays. Therefore we have advised that if clay is at all procurable a compost of a clay loam texture be used as a top-dressing on Bermuda greens. Muck and sand mixed together as a top-dressing is pretty nearly useless—the muck particularly so. The sand, of course, will help to fill in depressions, but will not help the texture of the Bermuda grass. By all means see if you can not locate some clay so as to make up a clay loam compost, preferably of the clay loam mixed with well-rotted manure.

We would suggest that you use Arizona-grown Bermuda grass seed for your conditions.

4. Providing bent stolons for vegetative planting.—We have been advised that the vegetative method of obtaining bent sod is still in the experimental stage and that it is hard to secure stolons. We should like to have your advice with regard to this. Can you give us the address of some reliable firm who can supply bent stolons?—(New York.)

The vegetative method, we think, is well past the experimental stage. About 150 greens have been planted last season in that manner. We do not know of any source from which material can be purchased until next fall, and by that time you can easily grow a great amount in nurseries. If you prepare your ground thoroughly and plant nursery rows early next spring you may expect a row 100 feet long to grow enough runners to plant a green, and a row 150 feet in length will do it beyond any question. We would, therefore, suggest that you get the ground prepared with the idea of planting nursery rows early next spring. We assume that you already have bent growing on your fairways; from such turf you can make your own selection of runners for propagation purposes.

5. Burning over turf for controlling crab grass.—What would you think of burning over in some way areas that have been practically taken by crab grass with the object of destroying the seeds which are at present in the soil? We have no definite idea of how it could be done to be effective, but if before sowing the new grass seed the existing crab grass seed could be destroyed, we might then, it seems to us, be able to get the soil full of grass before any new crab grass seed could find lodgment there.—(Maryland.)

We do not believe it would be possible to kill all the crab grass seed

by burning, but if you did there would be the continual danger of more seed being tracked on the ground from surrounding grass lands. This pest has an efficient means of distributing its seed. We have never seen any ground here at Washington, no matter how well it has been kept free from it, but what will come up to crab grass if it gets an opportunity. The best way to fight it is to get a good sod of other grasses, and this can be done by fall seeding. Any preparation which is given the ground in the spring is quite sure to make an ideal seed bed for crab grass, as it thrives so much better than the other grasses during the hot summer months and therefore is usually able to crowd out the finer turf grasses.

6. Eradication of dandelions and plantain from putting greens.—It is generally accepted, we believe, that to eradicate dandelions and plantain from putting greens the roots of the weeds should not be cut but either pulled out or killed by means of a poison. Our greenkeeper, who has had long experience in the care of putting greens and in general is a practical man, says that if the weeds are cut not less than an inch below the surface many of them will die and the ones which do grow up do so in a weakened condition. He admits that sometimes a split root will cause several shoots to grow where one grew before, but he says that they are small and more easily taken out. In other words, he thinks that where a club has to contend with a good many varieties of weeds and can only employ so much labor it is more practicable to keep the greens free from those two weeds by cutting them out as soon as they appear rather than to try to eradicate them altogether, especially when there is available less labor with which to do the work carefully than is needed. Can you give us your opinion in regard to this?—(Pennsylvania.)

We think your ideas are entirely sound.

7. Probably safe to compost pearlwort sod.—We have just finished stripping three of our greens here which were nearly covered with pearlwort. We intended making a compost pile out of it to top-dress fairways, but were afraid of it spreading from the fairways on to the greens. Will it be all right to use in a compost pile the turf which contains this pearlwort?—(Pennsylvania.)

We do not believe there would be any danger from using in the compost pile the sod which contains pearlwort. A few pounds of nitrate of soda added to the sod in the compost pile will hasten its decay, and it is probably advisable to use it. It has been our experience that all living material is killed in the course of a year in a compost heap.

8. Unsuitability of iron sulfate in eradication of dandelions.—We are informed that applications of solutions of iron sulfate are serviceable in the eradication of weeds. Our fairways are quite overrun with dandelions. Would you advise the application of this chemical to eradicate them?—(Ohio.)

We do not think you will find iron sulfate thoroughly satisfactory for the killing of dandelions. By ordinary methods of spraying it, the leaves are killed but the roots remain active. In putting greens it has been our experience that dandelions must be treated individually. Some prefer the acid method; that is, applying a drop of sulphuric acid to each root, and others prefer cutting them out considerably below the surface by means of a hand spud.—(*See Bulletin, Vol. 1, pp. 25, 128.*)

Meditations of a Peripatetic Golfer

How to succeed as Chairman of a Green Committee. Study The Bulletin as you ought to study the Bible.

The course of the Colorado-Maduro Golf Club at Timbuctoo is said to be in bad shade. We are informed that the course is under the charge of Mr. Pooh Bah, the celebrated golf player and expert on golf architecture, soils, turf and finance.

A great collection of disabled and discarded machinery about the greenkeeper's shed. Any good mechanic could show how much of this could be made useful.

A very difficult new municipal course! This we regard as unfortunate. Such a course can not accommodate nearly as many people as a relatively easy one; besides, it will discourage many a beginner and particularly the ladies.

Winter is a good time to get all tools and machines in good order and otherwise to prepare for spring work.

Beware of the man who decries his competitors in business.

If you can't sow your seed in the fall, better sow it on top of the snow in winter. By this method about two weeks of early spring weather will be gained, as one should not seed in the spring while the ground is wet.

Brown-patch on southern putting greens sown to redtop and Italian rye is often very destructive. Bluegrass sown somewhat earlier promises to solve the problem, as bluegrass is immune to brown-patch.

Every greenkeeper ought to know the names of the principal grasses on his course and know how to recognize each. This probably means you.

Some of the southern courses were overirrigated during the past season by floods, but none of them were seriously injured.

Burning over the rough in fall or winter is probably good practice. It doesn't harm the grass and does kill lots of bugs.

Don't raise the tee above the ground level, unless necessary to secure visibility or drainage. It's easier to grow and maintain turf on the ground level.

No far southern course should neglect to have palms and bamboos. These are the most characteristic tropical plants and give the proper atmosphere to the northern visitor.

Better destroy any new weed you find on the course. It may become dangerous.

Giant Bermuda grass, the coarsest variety, on a southern putting green. A wise greenkeeper would secure a finer strain and plant it vegetatively.

Winter is a good time to trim trees on a golf course as well as in an orchard.