

can be planted. It is quite evident that either method would make almost a jungle along the edge of the fairway, so that every ball that went into the rough would be lost. Lost balls would take much of the joy out of the game when playing on that particular course, and the course would naturally lose much of its popularity. The very reason for its existence would be destroyed.

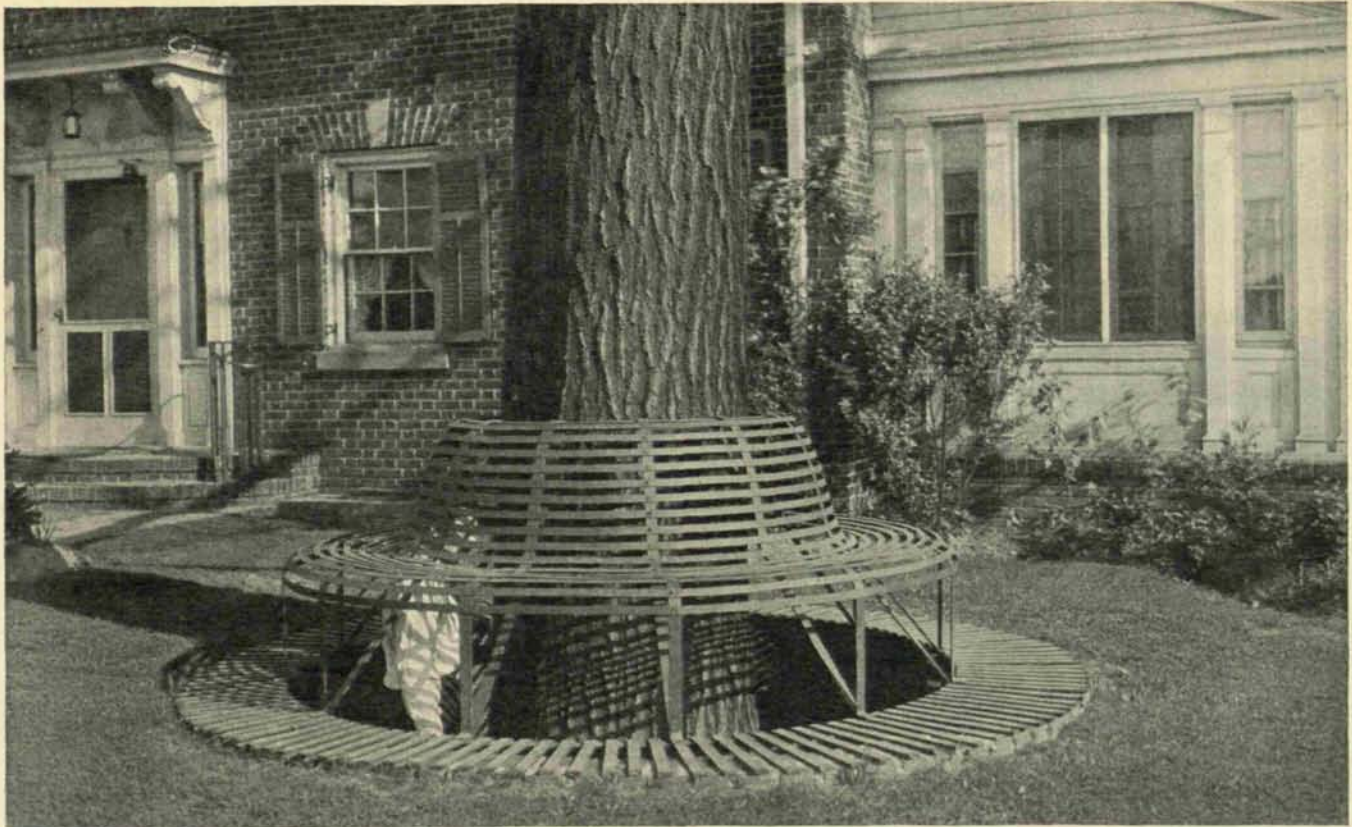
Plant Young Trees in Time to Replace the Old

In spite of adversities it is still possible to have the

a tree that is healthy and vigorous, good for many years to come.

Keep Specimen Trees Fertilized and Watered

Quite often there are possibly ten to twenty trees on a golf course which are especially important. Naturally those growing in the immediate vicinity of the club house are very valuable. Sometimes a specimen tree on the course is very important. Possibly it is the only tree in the neighborhood of a tee. Such trees are worth



Building this expensive well around the big oak above failed to preserve its life.

tree screen between two adjacent fairways. In order to have it, however, it is necessary to appreciate the condition of the existing trees, especially the old ones. When a young tree grows up under the adverse conditions, which it finds on a golf course, it adapts itself to those adverse conditions, and will make a good specimen in spite of them. If, when the course is built, small trees are started to take the place of those which will die in ten or a dozen years, a real step forward has been made in guarding against a treeless golf course. It is remarkable how much progress a young tree will make in ten to fifteen years. It is not at all unusual to see a tree twenty-five to thirty feet high produced in so short a time. Although a tree twenty-five to thirty feet high does not wholly replace a beautiful specimen one hundred feet high, it is certainly far better than no tree at all. Then too, it is

much more attention than is the average. For the preservation of such trees the water and food material needed to keep them growing can be supplied artificially. In other words the trees can be watered thoroughly each week. Of course the amount of water supplied depends to a large extent on the size of the tree, but all the ground occupied by the roots should be thoroughly soaked. This will require the use of a sprinkler for several hours. Then each year fertilizers which will supply food material for the tree can be applied.

Preserving Trees When Changing Grade Levels

Oftentimes in building tees, greens, and club houses it is necessary to change the grade around valuable trees. There are few proceedings that are as surely fatal as are changes in grade levels. If the grade is lowered the tree stands up on a little mound and dies of thirst. If

the grade is raised the roots are buried, and the tree suffocates. It is next to impossible to save a tree when the grade is lowered. By taking the proper precautions, however, it is possible to save a tree when the grade is raised. In such cases it is necessary first to lay a circle of drain tile around the tree approximately under the tips of the branches. From this circular row of tile, radial rows of tiles should be laid to the base of the tree. Over the tile, to a depth of six or eight inches, gravel should be spread covering the entire area of soil occupied by the roots of the tree. Then around the trunk of the tree the gravel should be built up as high as the new grade level is to be. The tile and gravel are then covered with soil as deep as needed.

Quite often one sees wells of stone or brick built around the trunk of buried trees. These are little better than nothing at all. They do keep the soil away from



Grading around this home buried these trees too deeply. They are now recovering, since the soil was removed as shown

the trunk of the tree, but make no provision for water and air to reach the spreading roots which extend out many feet from the base of the trunk. The tile and gravel make it possible for air to circulate over the original soil which is occupied by the roots, and also make it possible for water to seep in and supply the roots with this essential material.

Trees so treated can be expected to live on indefinitely. Trees that are welled around will sometimes live for three or four years, while trees buried without any provision will usually start declining the following year, and by the end of two or three years will be completely dead.

In Planning New Courses, Protect Your Trees

I have in mind one particular illustration of this. I know of a club house, which when built, had two beautiful maples on the southwest side. The bases of these trees were filled around in order to make a new grade. No provisions were made for air and water and now, after only a few years, the trees are dead and gone. Nothing is there to replace them. The club house is now barren and hot during the summer months, where formerly it was shaded and cool.

Members planning the construction of golf courses can well afford to at least get authentic advice regarding the trees before operations have gone too far. It is reasonably certain that by so doing they can save themselves money in the future and certainly they can save trees which would otherwise be destroyed.

THE PATIENT

Said old man Jones to Doctor Buzz,
"I ain't so well as I once wuz;
There's somethin' must be ailin' me,
My back ain't what it used to be.

Why, doc, I ain't but eighty-four,
And them fool boys up at the store
Jes' called me in and laid a bet
To prove that I'm a good man yet.

They dasted me to lift a sack
Of wet cement, but my durn back
Give out before I got a-hold,
But 't'want becuz I'm gettin' old!

What, *me*, the strongest man in town?
Why, no man ever put me down!
With my back playin' me that trick,
I had to tell 'em I wuz sick!

By Gertrude A. Farley

Feed and Water Your Grass

By JOHN MacGREGOR, Second Vice President
National Association of Greenkeepers of America

THE oft repeated saying, "One can tell a greenkeeper by his greens," used to be regarded as a fact, but today the greenkeeper who still regards this saying as a fact, is unknowingly lagging behind. A great deal more is expected of him.

Golf is making rapid strides, and it is up to the greenkeeper to keep ahead of it. As it is played by the leading golfers of today, golf must be met by modern greenkeeping methods, which demand grass on the fairways as well as on the greens during the playing season.

To accomplish this, irrigation and fertilization must be resorted to. On established courses where the turf is poor, topdressing with compost has been tried, which has a beneficial effect for a short time. When one takes into consideration how often greens are topdressed, fertilized, and watered, does this not in itself just about answer the question of prevailing turf conditions on fairways?

Topdressing Fairways Too Expensive

Personally, I believe the topdressing method for fairways is very expensive, and unproductive of satisfactory results. There usually is plenty of grass on the fairways, but it is undernourished, and while in this condition, weeds, moss, etc., take possession. Many take the appearance of moss on a fairway as an indication of sourness or too much acidity, when in reality it is the absence of proper fertilization. If a well balanced fertilizer suited to the particular soil were used, the grass would respond and the moss would disappear.



Watering the fairways at the Chicago Golf Club



*John MacGregor
Chicago Golf Club*

Fertilization alone will not certify a green turf during the hot months of summer. It must have water. A great many clubs are seriously considering a water system for their fairways. This goes to show that the average golfer of today wants to play on turf, not hard baked soil. It is

common to hear of a mediocre golfer getting a 275 or 300-yard drive on a baked course, but I have observed these same players on an irrigated course get about 200-yard drives. An irrigated course is essential to real golf, as the ball does not roll 100 yards after it lands.

Fertilize New Seedings

I am certain if a little more time and money were spent in the preparation of the fairways before seeding a new course, the club would be well repaid. Fertilization can be accomplished by ploughing in a liberal application of barnyard manure, or by ploughing and seeding to oats and soy beans. When this crop has attained a height of from 18 inches to 2 feet it should be ploughed under. Either method will afford ample humus and fertilization and for a few years, the result will be gratifying.

After three years, it will then be necessary to resort to a system of fertilization to keep the grass in a healthy condition. This can be accomplished by fertilizing 9 fairways one year and 9 the following year, in other words fertilizing every two years.

Association Member!

Have you invited the chairman of your Green committee to attend the coming annual programs on February 23-24 at the Hotel Fort Shelby, Detroit?

Please extend an invitation to him when you read this notice, and advise the office of the association at 405 Caxton Building, Cleveland, how many will attend from your club.

Don't forget to make your reservations early for hotel accommodations.

What Makes My Greens Grow

By HARRY HANSON, Greenkeeper
La Crosse Country Club, La Crosse, Wisconsin



Harry Hanson

IN 1914 I started at the La Crosse Country Club as a caddy, then I got the job as a green cutter and held it for four years, then became greenkeeper.

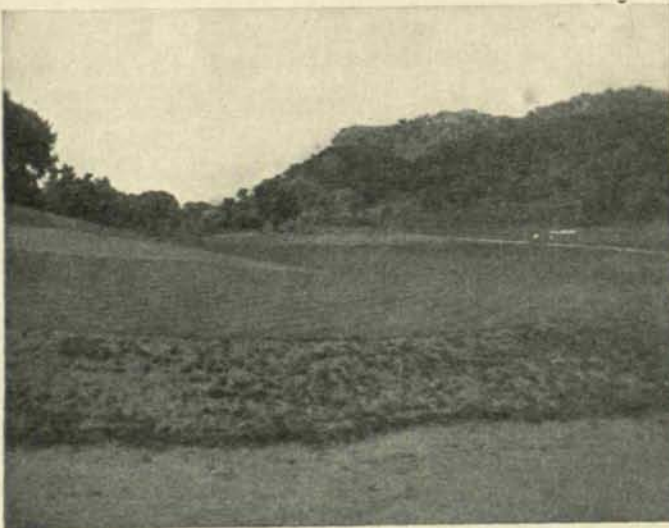
The first few years it was hard and being quite young and inexperienced I made a few mistakes.

We had two teams of horses to work with until 1922, then we got our Washington tractor. It took us a week to mow our course with the teams, but now it takes us a day and a half.

Power Putting Green Mower Cuts Labor Cost

We have a 9-hole course and I have five men working for me. One man drives the tractor and repairs all the mowers. One man mows tees, rakes bunkers and keeps the water pails filled. One man scythes ditches and does other odd jobs. A night man waters the greens and one man mows the greens. We did have two men, but now we have a Jacobsen power mower and the work is done in half the time.

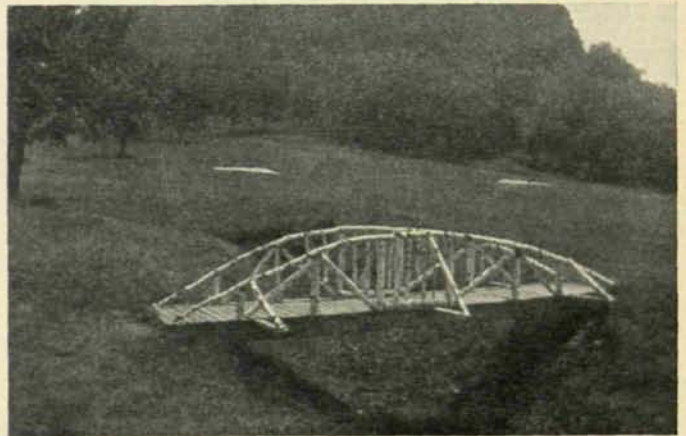
Our greens are top dressed three times a year. The dirt is hauled by the greens the day before, and in this way it takes us about a day. We use a Toro top dresser. When we did it by hand it took us two days.



New Bent green Number 9 at LaCrosse Country Club seeded May 1, taken August 15, and open for play Sept. 1, 1927

Cottonseed Meal Gives Fine Results

After we have the greens top dressed we use cottonseed meal as a fertilizer, and have been having very good results. I have been using cottonseed for the last two years. I first used it on two of my greens and it made them a rich green color, and one day my chairman asked me what made those greens darker than the rest and I told him I had used cottonseed meal. I have been using it ever since. It gives very good results on new



Looking up Number 5 fairway at LaCrosse

grasses and bent. One good thing about it is if you should happen to use too much it will not burn the grass.

We have started to construct our course this year. We have made twenty new traps and two new greens, and the forms for two more. The greens were seeded with bent May first, and were in good shape to play on September first.

I have a bent nursery which I started this spring with some bent stolons which I bought from Mr. Charles Erickson of Minekahda Club, Minneapolis. I am going to use this bent on the rest of our greens this fall and next spring.

I have found many useful articles in the NATIONAL GREENKEEPER, and expect to find many more. I am sure there could be nothing better in the world than this association for we greenkeepers, and I hope to see several hundred of our members turn out for the annual convention in Detroit.

Maintaining Greens on Sandy Soil

By STANLEY M. ALDRICH, Greenkeeper
Madison Golf Lakelands, Madison, Ohio

MANY fine articles by greenkeepers have come out in our magazine, and I have enjoyed reading them, but cannot get much of a thrill out of writing one myself.

Nothing less than the fear that Mrs. Farley (having become so good a poetess) might leave us if we do not give her full support, would induce me to try this article.

The first nine greens at Madison were seeded in the spring of 1922 to red fescue and redtop. We have a sandy soil which dries out very quickly, and the natives used to come over the first season and laugh and wonder if we expected to grow grass. Eventually, the redtop disappeared and the fescue proved unsatisfactory. Clover was also getting the upper hand and much discussion took place as to what should be done.

Turf Difficult To Establish

Meanwhile during the fall of 1923 the eighteen greens received a reseedling of ten to fifteen pounds of South German creeping bent seed to each green.

This was repeated in the fall of 1924 and 1925. This seed was put in with a wheelbarrow seeder, and then the greens were heavily composted. It took at least two years with us before any of the first seeding became very prominent.

Sulphate Proved A Boon

The first two seasons I was exceedingly green as a greenkeeper, and had not struck the proper gait. My soil was very sweet from the start and crab grass was an annual curse. This was thoroughly weeded out each year at considerable expense.

Starting with the spring of 1925 I commenced to use large amounts of sulphate of ammonia. I have used an average of four tons a year on 27 greens for the last three seasons.

By the continued use of sulphate, as well as one application of Milorganite a year, putting finer nozzles on my sprinklers, and with proper composting each year I have improved my greens wonderfully.

I have found Milorganite the best thing next to sulphate I could use to thicken grass on this sandy soil.

Rate of Application

South German creeping bent consists mainly of velvet and Rhode Island bent, and with me was very slow to spread until I began a heavy use of sulphate. I can hear

someone saying, "too much sulphate," but I have demonstrated that less did not do the work. Ten pounds to a green would grow grass, but I had to make an acid soil, and I feel that my compost was adding

some lime and also the greens were somewhat sweeter each spring than when they went into the winter.

I use a barrel with boom to apply sulphate—ten pounds sulphate to the fifty-gallon barrel. Two and three barrels to a green and even four on the larger ones. Applications are regulated according to the amount of grass the boys are getting from their greens.

The Green Section says, "encourage what grass you have rather than reseed." I believe in that too, only I did not have the right grasses to start with. My greens are mowed very closely, six days a week, and kept constantly moist. Everybody who plays over them comes back for more golf, so I believe our putting surface is now fairly well up to standard.

(Editors note: The greens at Madison Golf Lakelands are some of the best in the Cleveland district, although the soil Mr. Aldrich has to deal with is so sandy that holding moisture and fertility is a difficult problem.)



Stanley M. Aldrich

Notice to Chairmen of Green Committees

The program which will be presented at the coming annual convention of the National Association of Greenkeepers of America is of vital interest to you and to your greenkeeper.

You are cordially invited to attend the meetings of February 23 and 24 at the Hotel Fort Shelby, Detroit.

The foremost golf course maintenance experts of the United States and Canada will talk on subjects of direct interest to you. Read pages 18 and 19 in this issue, and make early reservations at the Fort Shelby.

The Market Place

RECENT letters from advertisers in the Greenkeeper clearly prove our point brought up in the November Market Place columns, that if advertising pays, it sells itself. We wish to extend our sincere thanks for the wholehearted support that has been extended to us during 1927 by manufacturers and dealers in golf maintenance equipment and supplies.

Not only have they increased their space in our magazine for 1928, but many of them have gone out of their way to recommend the advantages of the National Greenkeeper to others who contemplate joining our advertising family this coming year.

That the members of the National Association fully appreciate the loyal support that has been given their magazine is evidenced by discussions at local meetings of greenkeepers held during the month of November. The editor was present at two of these meetings where the president of each local organization asked the members to write our advertisers when in need of equipment or supplies. "Don't forget them, for they are standing by us," said Fred Burkhardt of the Cleveland district, at the November 14 meeting.

News of Grass Seed Market

THE price of grass seed from year to year is largely controlled by crops, and Henry A. Dreer of 1306 Spring Garden Street, Philadelphia, advises that "new crop and imported domestic grass and clover seeds have now arrived. This year has produced crops of fine quality on all important varieties, fully equal to our usual high standard samples, being of good color and high purity and germination. Prices, particularly on the principle domestic grasses, Kentucky Blue and Red Top, are slightly lower, and probably, of the imported varieties, German mixed bent grass is the only one to be a little higher in price, but improved quality justifies the increase."

Shrubby for Spring Planting

The Dreer nurseries and farms totaling over 400 acres and with greenhouses covering in the aggregate, 10 acres, are situated a few miles up the Delaware River in the Garden State of New Jersey, and are well stocked in readiness for the coming season. Quite a number of very attractive shrubs, chief among which is our attractive new Hardy Red Leaved Barberry, are on hand to assist in the beautification of the club grounds, while numerous other decorative plants, and particularly Ferns, Palms, and Roses, all specialties with us, are being wintered over, ready for their appointed place either inside or outside of the club house. Borders of hardy shrubs make beautiful backgrounds, while what can possibly be more beautiful and useful than a large rose bed or border, with a ready sup-

ply of perfumed blooms for the ladies' rooms, dining rooms, and porches?

Their new 224 page 1928 Garden Book, fully illustrated and descriptive, will be ready Jan. 1st, and a copy will be mailed to any greenkeeper interested.

Milorganite Used in South

THE Milwaukee Sewerage Commission reports that Milorganite is being successfully used on many southern courses. Since the fall of 1926 nine carloads have been shipped to Miami, Florida alone. Southern soils are especially in need of nitrogen, and are greatly benefitted by generous applications of Milorganite, which can be used with little danger of burning the turf. Milorganite is especially adapted to use on sandy soils where nitrogen losses are most severe as a result of excessive leaching.

The nitrogen of Milorganite is almost entirely insoluble in water, but is gradually converted into soluble forms as required by the turf. This reduces the danger of loss from leaching and also provides a uniform and continuous sup-

Sixth Annual Party

J. Oliver Johnson, Inc., Chicago.

The regular annual dinner given by J. Oliver Johnson, Inc., to the greenkeepers, professionals, chairmen of Green committees and others of the Chicago district interested in golf was staged at the company's plant on Saturday, October 29.

Covers were laid for 160, and among those present were quite a number of the members of the Mid-West Greenkeepers Association.

These annual dinners are now well established, and each year a larger number of guests enjoy Mr. Johnson's hospitality.

ply of available nitrogen over longer periods. In addition to the nitrogen Milorganite also contains some readily available phosphoric acid.

Milorganite is also adapted to use on winter seeded greens. If applied prior to seeding with redtop and rye grass it aids in quickly establishing a dense heavy turf.

In order to supply the demand for less than carload lots the Sewerage Commission has arranged for distribution from Jacksonville, Florida and New Orleans, Louisiana. Prompt shipments can be made from these points.

Demonstration of Royer at New Jersey Show

On October 27th a Golf Course Equipment demonstration was held at the Shackamaxon Golf Club, Westfield, N. J. under the auspices of the New Jersey Golf Association and the Service Bureau of the Metropolitan Golf

Association. A complete line of golf course equipment and supplies was shown by some 35 concerns and as usual outstanding features were in evidence among them being the showing and operating of the Royer Compost machine.

Three Royers, one model "K" and two model "M" were sold directly after the demonstration and orders for ten model "M" machines were taken for spring delivery. Moving pictures were taken of the operation of this machine and these will be shown during the week of the Chicago Golf Show at the booth of E. L. Winn, Inc., Elizabeth, N. J.

Changes in Pennsylvania Mowers

THE Pennsylvania Lawn Mower Works writes us: "We have as a result of suggestions made by some of the greenkeepers, made some slight changes in our famous Roller Putting Greens machine, improving the front roller castors by a new type of bearings, also changing somewhat the angle of the bottom blade to avoid this touching the green except on the front edge.

"The 1928 model will be equipped with our new Braun self-aligning ball bearing, which combines the best features of both balls and rollers in the one device.

"We are making a special inducement to Clubs who will place their orders at the present time, of an extra 10% beyond our last quotations of \$135.00 per Unit on the Super Trio and Quint. This has not been widely advertised, but you are at liberty to quote it. Orders must reach us before January 1st, however."

Who Decides What to Buy?

HERE is an actual circumstance, reported to us by O. M. Scott & Sons Co. of Marysville, Ohio: "Golf Clubs may have plenty of committees and numerous names on those committees but the real thinking of golf course matters is done by a very few. One of our men was called to a near-by city recently to talk creeping bent stolons to a Green committee of three and the greenkeeper. The Greens chairman was on the job and his two assistants were playing.

When told that the "expert" had arrived and that planting of the new greens was about to be discussed, the following response issued: "Now Charlie, you know more about this than we do. You and Lucas (the greenkeeper) do the deciding and whatever you fellows conclude to do will be all right with us."

That is the reason the two "greens", keeper and chairman, are a mighty valuable pair around a golf course. Usually what they say goes, not so much from personal choice as from the willingness of the others on the committee to let George do it.

"Committees will continue to be appointed, but you can always put your hand on one or two men who are doing the constructive work and surprisingly little golf playing."



Around the Office Desk



SOUTHERN golf courses are preparing for the onslaught of Northern tourists, if we are to judge by the inquiries we are receiving for greenkeepers experienced in maintaining Bermuda greens. Nearly every inquiry states, "No others need apply," which indicates that there is none too much time in which to smooth up the putting surfaces, not enough to spend in training men in the ways of Bermuda. Members who wish to locate in Florida, Alabama or Georgia, and know how to get Bermuda greens into play and keep them there, should write this office without delay.

IN fact, the Employment Bureau is getting busier as time goes on. Within two weeks' time we have placed three of our members in new positions, all of them satisfactorily, so they write us. One of these members is well known to many of the readers of the NATIONAL GREENKEEPER, A. E. Lundstrom, formerly of the Chicago district. Mr. Lundstrom is now connected with the Crescent Athletic Club, New York. Hugh C. Moore, another Charter member, who has been for several years greenkeeper at the Portsmouth Country Club, Portsmouth, Virginia, has just started with the St. Simons Island Club, Brunswick, Georgia, a new eighteen-hole course in process of completion. One of the best known and experienced greenkeepers of the Cleveland district, Walter C. Reed, is busy whipping into shape the new Westwood Country Club course at St. Louis.

NOW that the November number has been read, letters are pouring in from various parts of the country, some from members who wish to reserve a copy of O. J. Noer's book on Turf Culture, others asking if

Mr. Scherer intends to publish "Month by Month with the Trees" in book form, and nearly all of them hoping to meet Mr. Noer and Mr. Scherer at the annual meeting in February. To all of these we wish to say that both of these good friends will be present in Detroit to greet you, and both have consented to address our convention. Mr. Noer's talk is on the program of the 23rd, and Mr. Scherer's on the 24th.

Christmas Greetings

TO all the good friends who have encouraged us during this, our pioneer year.

You have helped us build a structure, every pillar of which bears the imprint of your hands.

Nothing we have done could have been accomplished without you.

Your confidence has sustained our efforts, and your counsel has guided our way.

It is our Christmas wish that our friendship may grow firmer with the years. That it may always be productive of the greatest good directed toward the greatest number of those who are devoted to the task of perfecting the golf courses of America.

CANADIAN greenkeepers all know C. A. Tregillus of the Canadian Golf Association. Mr. Tregillus has just written us that we can count upon him to assist us during the convention, and we know that no listener will be bored during the time Mr. Tregillus holds the floor.

WE have discovered among our member greenkeepers a most delightful and unusual gentleman. One who was formerly an official representative of the Dutch government in exhibiting specimen tulips and other bulb-grown plants. He is Mr. Joseph T. Van Hagen, now greenkeeper at the Plum Hollow Golf Club, Detroit.

That Mr. Van Hagen finds pleasure in following the profession of greenkeeping is evidenced by the fact that he has with him in this work his two sons, Joseph T. Jr., and James F. All three are Charter members of our association. Mr. Van Hagen will address our convention on the subject of the selection, planting and care of bulb plants. We feel sure that all members who are present will agree with us that Mr. Van Hagen is a real discovery.

DR. JOHN MONTEITH, JR. is too well known among our members to need acclamation. He has never failed to grant the office of our association any

courtesy we have asked of him. Here and now we ask our members to give him a rising vote of thanks at the convention, which he will address on the 24th, not only for what he has done for you but for what he stands for, a scientist who is always seeking for the truth, and who acknowledges that it is sometimes a long search. Brown-patch is a humid subject, but at times it does not lack humor. Dr. Monteith sent us a photograph of himself this summer labeled, "This is neither large nor small brown-patch."

CORRESPONDENCE relating to the coming convention is heavy these days. Greenkeepers who have been late in joining are sending in their memberships, and we look for a large increase in the association family before the annual meeting date.

SEVERAL chairmen of Green committees have written asking if the convention will be open to them. Our members who are planning to attend should extend invitations to their chairmen to come and hear the programs on the 23rd and 24th. Every member should impress it upon his chairman that the association welcomes him, that he may at first hand determine the value of our organization to the greenkeepers and golf clubs of America. Don't forget to talk with the chairman of your Green committee, and *do it now*.

SOME of the most expert greenkeepers in the United States and Canada will speak at the convention. Among them, Edward B. Dearie of Chicago; W. D. Chinery of Eglinton, Ontario; Joseph Valentine of the famous Merion Cricket Club, Philadelphia; Captain David L. Rees of the Progress Country Club, New York; Joseph T. Van Hagen (before mentioned); L. J. Feser of Wayzata, Minnesota. These, and others we will report in the January issue.

THE wives of our members will be welcomed into Detroit the week of February 21 by a special Women's Entertainment committee to be appointed by Mr. Alex McPherson, Treasurer of the association. We find there are innumerable instances where Mrs. Greenkeeper is the first assistant to her husband in his work. Bring your first assistants, and they will be well taken care of during the convention. The meetings of the 23rd and 24th are open to them, and Mr. McPherson's committee will see that they enjoy themselves during the week. In the coming January issue, the program of entertainment arranged by the Women's Entertainment committee for the convention will be published.

Keeping Sand Greens

(Continued from page 5)

vent the oil from soaking into the area outside of the green. I then put on four barrels of oil, allowing it two days to soak in. Then the ridge of dirt is removed from around the outer edge of the green. This dirt will have to be hauled away as a part of it will be oil soaked.

Next I sod up around the outer edge of the green. I leave this sod about two inches above the base of the green with the exception of a space about two feet wide at the back of the green where I lower the sod a trifle to allow the surface water to drain off.

Putting on Finishing Touches

Finally the green is ready for the sand. First the sand is screened to remove the pebbles, after which it is mixed with oil at the rate of twenty shovels of sand to three gallons of oil. The green is then covered with this oiled sand about one and one-half inches deep. Each morning my greens are raked with a wooden leaf rake and dragged smooth with a wooden float. I start at the cup, dragging in a circle to the outer edge of the green. During the playing season when the sand becomes too dry oil is added with a sprinkling can and, if the sand is too thin, new sand is added.

Special Drag With Round Edges

I have a drag at each green so that the players may smooth out any rough places that interfere with play. For these drags I take four by fours, two feet long to the planing mill and have them turned out round with a handle in the center making a T. The round edges of this drag smooth out the sand and do not drag the sand off the green as badly as some other types do.

During the winter months all the worn sod around the greens is taken up and replaced with new sod. For re-sodding around my greens I keep a large area of Bermuda and buffalo grass in my nursery.

We have one creeping bent green that will be ready for play in the spring. We hope to build all grass greens in the near future.

I would like to read more articles in the NATIONAL GREENKEEPER on sand greens. I feel that we all have a great deal to learn about sand greens as well as grass greens.

Converted to Bent

(Continued from page 6)

ture. We did not, however, let our grass grow rank but kept our machines up more than we would ordinarily do. When growing conditions started to improve we let our machines down and cut much more closely. Cutting daily we left the clippings on the green and while we cannot tell if this did any good yet we know that it did not do any harm, and we are still continuing this. Too much

cannot be said of the benefit of sulphate of ammonia. We apply this fertilizer heavily and often, and the results we are obtaining are most gratifying.

We have several instances of scorching, but with continual watering the brownness soon disappears, and the grass quickly regains its natural colour.

Top Dressing with Compost Distributor

We had never much faith in compost distributors but we saw a machine advertised which appealed to us, and we decided to have it sent to us on trial. Our first experiments with this machine were not very satisfactory as the compost did not seem to flow evenly from it. We then tried putting the compost through a quarter inch screen before putting it in the distributor, and we found we had hit upon the proper solution. One machine now spreads very evenly a very light top dressing, and after we work it into the roots of the grass with a mat you can hardly tell that the green has been top dressed.

We have a very fine sandy loam on our course which we use for covering the greens and we top dress weekly, and find that this is well suited to the bent, and does not

retard the growth in any way. We have also been applying powdered charcoal but cannot tell what effect this has, but we do know that immediately we started using it our greens seemed to pick up very rapidly.

Up to the present the conclusions we have arrived at are these:—

Use sulphate of ammonia freely but with judgment.

Cut your grass daily and fairly short.

Pour water on the greens.

Top dress lightly and often.

There is no doubt that our methods will be freely criticized, and if this article opens up a field of discussion in regard to the merits and demerits of our methods then we will feel that we have accomplished something. It is only by an interchange of opinions among ourselves that we can hope to progress in this wonderful field of growing grass. I get a tremendous amount of good information out of this magazine. In fact, no interruptions are welcome the first evening after I receive a new copy of the NATIONAL GREENKEEPER.

March Convention Number

The March Convention number of the NATIONAL GREENKEEPER will be the biggest and most widely circulated trade paper ever published in the golf maintenance field. It comes off the press just as the Golf Show and National Greenkeepers' Convention opens at Detroit, February 21, and will be the official publication of the convention.

Every worthwhile product in the line of machinery, equipment and supplies used on the golf courses of America will be described in this special convention number. It will be a reference volume which every buyer will get and keep.

Make Your Space Reservation Now

Please enter my reservation for _____ page space in the special March Convention issue of the NATIONAL GREENKEEPER. I will send advertising copy and editorial description of my product on or before _____.

Signed _____

Address _____

*Chat with President**(Continued from page 12)*

DON'T forget to mention our magazine when sending in an order for sulphate.

WE are only one year old, and our membership is firmly imbedded in thirty-four states and five provinces in the Dominion of Canada.

WHEN you get into a tight place and everything goes against you 'till it seems you cannot hold on a minute longer, never give up then, for that is just the place and time the tide will turn.

W. H. WAY (better known as Bertie Way), pro-greenkeeper of Mayfield Country Club, Cleveland, Ohio is one of the old-timers. I know of a number of greenkeepers including myself in those early days of golf who used to go to Bert for information.

LETTING well enough alone is a foolish motto in the life of a man who wants to get ahead. In the first place nothing is well enough, if you can do better.

AS the time is fast approaching for our second annual convention we will be pleased to receive from any district association or individual greenkeeper suggestions that will have a tendency to further promote the general welfare of greenkeeping or our association.

IT has been stated that the character and qualifications of the leader are reflected in the men he selects, develops and gathers around him. Show me the leader,

and I will know his men. Show me his men and I will know their leader. Therefore, to have loyal, efficient employees be a loyal and efficient employer.

THE greenkeepers of the Chicago district should keep their eyes on Mayor Bill Thompson for when he gets through burning books which he claims are pro-English he will try to destroy golf courses claiming the game to be pro-Scotch.

WE have now arrived at the season of the year when greenkeepers have to commence to do a general overhauling to get everything in first class condition for spring.

ONE way to succeed is to utilize your odd moments. Every minute that you save by making it useful, more profitable, is so much added to your life and its possibilities. Every minute lost is a neglected by-product—once gone, you will never get it back.

FRED BURKHARDT, Westwood Country Club, was recently elected president of the Cleveland district greenkeepers' association. Fred, all the boys in this district wish you success.

EVERY greenkeeper should read Mr. C. M. Scherer's Month by Month with the Trees. How many greenkeepers know what causes the leaves in the fall to have different colors, and know that before the leaves fall the trees draw from the leaves the various elements they contain to be supplied to new leaves in the spring?

The A B C of Turf Culture

To be reprinted in Book Form

THIS remarkable series of articles on the growing of turf grasses for golf courses which has been appearing exclusively in the NATIONAL GREENKEEPER since last January will be published in book form at the end of the year.

Every greenkeeper and Green committee chairman will want to have this book, because it is the most practical and complete treatise on turf culture ever written.

The author combines a university education on this intricate subject with an intensely practical experience in golf course maintenance work throughout the United States. In fact, Mr. Noer has visited more golf courses and is personally acquainted with more greenkeepers than any other expert in his line.

The first edition of the ABC of Turf Culture will be limited. If you want a copy reserved for you write the NATIONAL GREENKEEPER, 405 Caxton Building, NOW and say so. The book will be issued some time in January and orders will be filled in rotation as they are received in advance. The price will probably be \$3.00 a copy.

Send in your order today,—but *don't send any money*. You will be notified when the book is out.

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