

Poa Annua? No!

By JOHN McNAMARA, First Vice President
National Association of Greenkeepers of America

ABOUT twelve or fourteen years ago my interest was first aroused in regard to *Poa Annua*. There were patches of it growing in many places on the golf course, growing very thick and with a nice green color. It looked so good to me that I thought, for some reason, it would make a fine grass for tees. My greens at that time were in good shape, but I had a little trouble with the tees. At that time this variety of grass was unknown to me and so I sent a sample to Washington and there they gave me the name "*Poa Annua*," for the classification of this variety and many others, I have the Bureau at Washington to thank.

Annual or Biennial?

I became so interested in *Poa Annua* that I transplanted a patch of it near my house to keep it under close observation. Whether this grass is an annual or biennial I cannot say as it appears on the course from season to season. It shows up from the end of February to first of March and continues to thrive until the latter part of November. During the middle part of the summer it loses

its green color and attains more yellowish color. After I knew the name I wrote one of the large seed companies in the East to try and purchase some seed and they informed me that there was none on the market.

Too Stiff for Good Putting Surface

I am glad that I did not get it at that time as it seems we have more *Poa Annua* now than we care to have. Its strongest flowering or seeding time is in June and that is the time my objections to it are strongest as it is much too stiff for a good putting surface.

Some greenkeepers favor this variety as it does much better on their greens and fairways than other grasses. *Poa Annua*, they say, is better than no grass at all. I find that on a green composed of a light humus soil, the *Poa Annua* thrives and grows coarser than in a heavy or clay soil.

Some say they can get it out of the green. I am sure that I know of no way to get rid of it, except by letting the golf course go into a hay meadow for a few years.

In the Red River Valley

By ARTHUR JENSEN, Greenkeeper, Fargo Country
Club, Fargo, North Dakota

WILL try and write an article on golf in North Dakota, and the troubles of an 18-hole course run on small finances.

This like many other clubs is run on a very small amount of money, but so far we never have reached a set amount on running a course, and I don't think it will ever be that way either as seasons, soil, demands of players, and sizes of green differ all over the country, and I have found here that within a radius of twenty-five miles the soil is entirely different.

This course is situated along the Red River of the North, right in the fertile Red River Valley, but,—and its a big but too, we have the heavy gumbo soil to contend with and I sympathize with any greenkeeper who has it. With a reasonable amount of moisture we can grow things quicker I believe than anywhere but with dry weather it's hard as brick. The greens can be nice and soft one day, and the next with a strong wind and sunshine they will bake and crack and be as hard as pavement. So far we have discovered nothing to overcome that. I would like to see different opinions on it. We use plenty of sand, but unless you have about a half

inch of loose sand the ball will bounce right off. In dry weather I have seen cracks in the fairway nearly large enough to lose a ball in.

Our greens are small in comparison to most courses. They average from four to five thousand square feet—that helps us in labor. We have a pretty well trapped course, but I believe for a club of small finances they should leave all traps and bunkers out, with the exception of a few holes like the small ones, unless there are some natural hazards.

I have started with bent up here and it does very well. I have had a small piece in one green for two years and it withstands all the elements very well. One thing that bothers us a lot is the barren ground in winter. Our upper nine is perfectly flat, and the snow never stays. I have tried brush on the greens, but owing to the high winds the greens are swept clean no matter how much is on. This fall I will have enough bent for three greens—I am using the nursery method entirely, and lay the turf on the greens. It may be slower, but I believe in safety first, as that way if you should have had luck your greens are still in play.

Ridgewood — Scene of Nation

U. S. G. A. Officials Praise Splendid Condition of Course

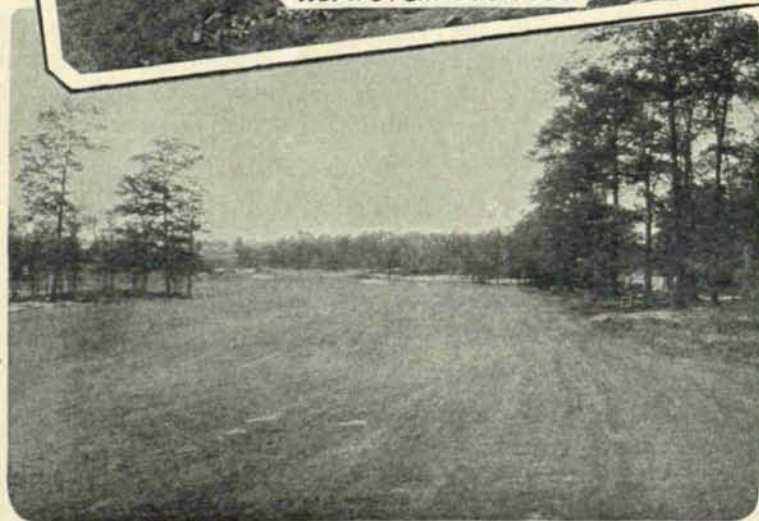
"PERFECT from tee to green" were the apt words of James D. Standish, Jr., Chairman of the Public Links section of the United States Golf Association in compliment to Frank Ermer, greenkeeper of the Ridgewood Golf Course, Cleveland, at the conclusion of the National Public Links Championship the first week in August.

"Ridgewood is the best course we have ever had for the Public Links Championship" continued Mr. Standish, "and its splendid condition considering its age reflects great credit on the greenkeeper, Frank Ermer and his crew." There's a reason of course. Ridgewood was built in 1924 and first opened for play



OUT			IN		
Hole	Yds.	Par	Hole	Yds.	Par.
1	319	4	10	352	4
2	433	4	11	327	4
3	298	4	12	179	3
4	478	5	13	421	4
5	425	4	14	485	5
6	117	3	15	421	4
7	407	4	16	425	4
8	479	5	17	227	3
9	369	4	18	388	4
Out 3325			37	In 3225	35
			6550 yds.		

No. 4. From Back Tee



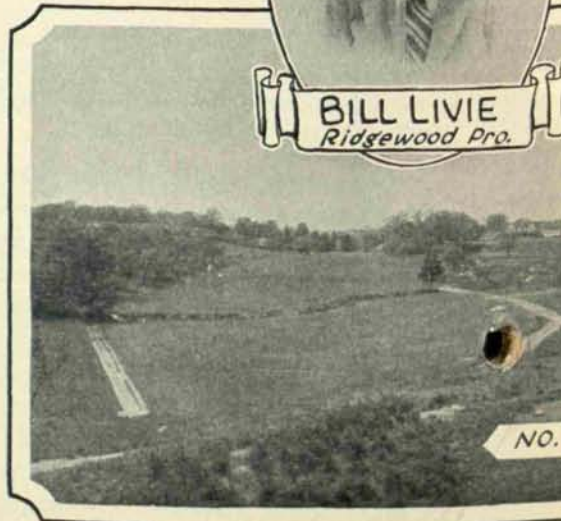
Looking Down No. 7 Fairway



The Ridgewood



BILL LIVIE
Ridgewood Pro.



NO.

Public Links Championship

on July 4, 1925. Built on a heavy clay soil the fairways came slowly. Last summer the task of whipping it into shape for a National Championship seemed hopeless. But Ermer is resourceful and with the advice of O. J. Noer of Milwaukee, John Morley of Youngstown and Fred Burkhardt of Cleveland, all experts in turf culture and greenkeeping, a plan was laid out and followed to the letter.

Let Ermer tell you in his own words how he treated the fairways:

"We started in the 15th of August, 1926 and fertilized fairways by broadcasting a mixture of 200 pounds acid phosphate and 75 pounds sulphate per acre, then

used a tractor disc (setting blades so as to cut straight and prevent turning of the sod) and went over each fairway at least three times in different directions so as to help work fertilizers down to the roots. The fairway was then top-dressed with a good grade of screened top soil, and seeded with a mixture of fescue, redtop and a little Italian rye. The top-dressing being worked into the grass by using a large wire flexible mat pulled by a tractor, and with a light rolling the work was completed. We used 1600 loads or approximately 3000 yards of screened top-soil on the fairways. Then as the freezing weather came on we gave all the poorest spots a liberal coating of well rotted manure, and also used twenty tons of bone-meal.

In the spring this manure was matted around and left lying to wash into the grass. Any bare spots on approaches and landing areas were either sodded and seeded in the spring and four weeks before the tournament the approaches and landing areas were given a mixture of 750 pounds Milorganite and 75 pounds nitrate of soda which gave very good results. The fairways were kept a little longer than usual until two weeks before the tournament when they were nipped right down.

Getting Greens Ready for Tournament

We went through our
(Continued on page 40)



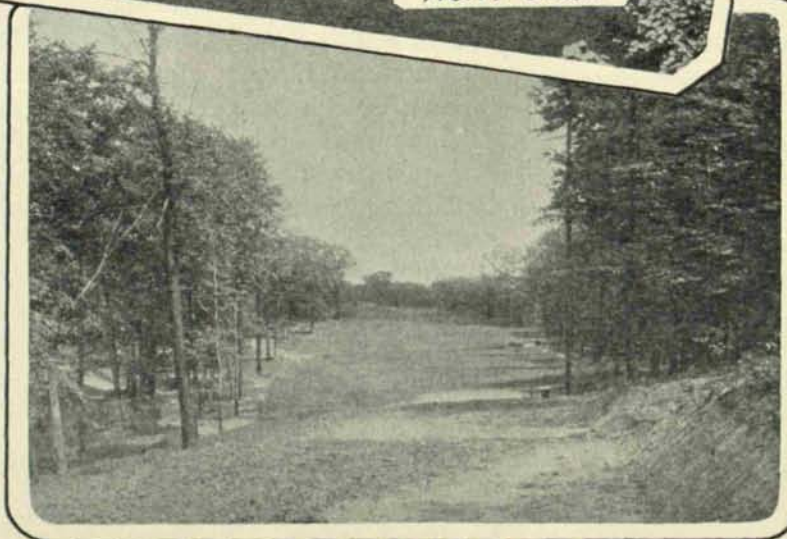
Club House



NO. 17 Green



From Tee



No. 3 From Back Tee



Frank Ermer

Faithful Work and Common Sense

By VICTOR GEORGE

Greenkeeper, Country Club of La Fayette, La Fayette, Indiana

YOUR request to write an article for the greenkeeper's magazine came like one from my old Captain in the 10th Infantry when he ordered me to take care of his infant child, when the baby's nurse was sick and the Captain and his wife wanted to play golf.

In other words, I know as much about writing an article as I did at that time about taking care of the Captain's offspring. Being the father of three lusty youngsters now, I have improved a lot in that direction, but writing articles is still a mystery.

Of course, if it comes to nursing *Agrostis Stolonifera*, it is a different matter and I am glad to say that my greens as well as nursery show the effect of good faithful work and common sense.

Green Section Bulletin

I have been a faithful student of the Bulletin of the Green Section Committee of the U. S. G. A. (formerly Green Section of the U. S. G. A.) and such knowledge as I possess of chemical treatments, top-dressing, etc., I owe to the Bulletin, which advice with slight variations as to amount of chemicals I have followed consistently.

Washington Strain

We have eight creeping bent greens in play and one is to be planted late in August or early in September. Of the three strains of bent we have planted, the Washington is by far the best. And, if I can take the word of some of our members, as well as some strangers, our Washington strain greens are among the best in Hoosierland.

Putting Green Mowers

We believe that the Toro is the best putting green mower available, but think that even this could make more cuts per inch to give a really first-class job. We have used a mower which cuts much more often than the Toro, and it gives a beautiful job of cutting, but is faulty in other respects. This mower was a special job and is not now being manufactured, but it is my hope that some of the standard makes will increase their reel speed, thus giving a better job on the Washington strain.

Routine Care of Greens

The greens are watered every morning beginning at five o'clock and we use the "Lark" sprinkler and one inch hose and as we have an abundance of pressure and large pipe, the job is done quickly and if any mycelium is on the grass it is washed off. Moreover, this causes no interference with play and our greens keep in splendid condition throughout the day. As soon as the greens are dry enough, they are cut, and, if necessary, a second cutting is given in the afternoon. The

greens are top-dressed every three to four weeks and ammonium phosphate is applied after the top-dressing is put on and also at least once in between top-dressings. During the brown-patch season, we are trying to apply calomel at least every ten days as a preventive measure, and if conditions are especially favorable to brown-patch, we apply it every four or five days. Last year we used corrosive sublimate with fair success, but, from present indications, believe that the calomel will prove infinitely more desirable. We are using about one-fifth of a pound to one thousand square feet. We have had no brown-patch since we started using calomel, although neighboring courses have had it, and we have had no burning from the calomel. Incidentally, at the suggestion of our Chairman, I have set aside a green to test out in competition the different compounds of mercury, such as chlorophenol mercury, corrosive sublimate (mercuric chloride), and calomel (mercurous chloride). There is little doubt in our minds but that the mercurous chloride or calomel will prove greatly superior to all of the others.

Application of Chemicals

This is one job I do not yet entrust to anyone else. At first I had a few bad burns. In fact, last year with corrosive sublimate, some of the greens were burned in very small spots. At first I was at a loss to understand this, but I finally realized the cause. I had been using about six to seven ounces of corrosive sublimate mixed in about two buckets of top-dressing for six thousand square feet of green. In scattering the mixture, small amounts dropped out of my hand near the little finger before I made the sweeping motion. I am now able to guard against this with the result that I no longer get burns of this character. In fact, I have not had a severe burn of any kind this year. I had one light burn due to the fact that in one green the surface drainage concentrates the water in a sort of bottle neck and in using a little more water than should have been used, a large part of the chemical was washed upon this part of the green. By using the proper amount of water and sprinkling this area last, this also is avoided. In applying ammonium phosphate, I prefer to apply it dry and alone, as, by mixing it with soil and other chemicals, it seems to me that it draws moisture, especially if allowed to stand over night, so that it is more difficult to distribute evenly.

Creeping Bent Versus Blue Grass Tees

We are building some fairly good-sized tees, one of
(Continued on page 37)

University Students as Greensmen

By T. K. McCLENAHAN
Greenkeeper, Mayfair Golf and Country Club, Edmonton, Alberta, Canada



T. K. McClenahan

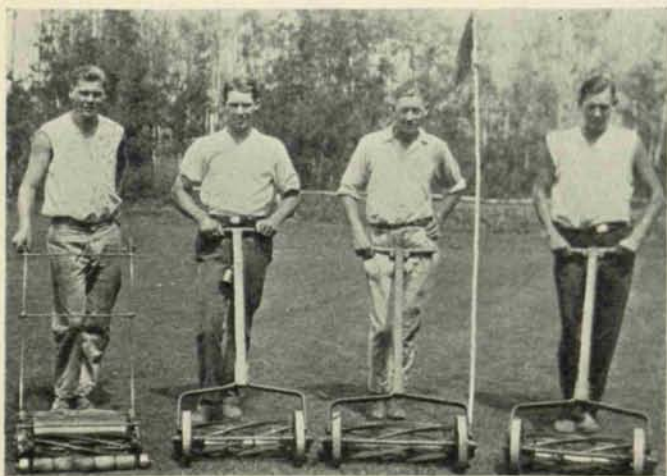
UNLIKE most of the other writers in the *National Greenkeeper* I cannot start by telling you of my past experience as a greenkeeper, this being my first position as a greenkeeper. I worked when a boy with my father on a gentleman's estate in the north of Ireland. One season on a cricket grounds, and one season on a football ground, was all I ever had to do with turf until I came to Canada.

I started work here the same year that the Mayfair Golf and Country Club opened. At the end of the second year I was given charge of the grounds, and like old Irish whiskey the grounds and I have both improved with age.

What I am going to write is not intended for the men whose articles in the *National Greenkeeper* have given me so much help—in particular Mr. John Morley, Mr. O. J. Noer, and others—but I write in the hope that it will help someone who, like myself, has newly joined the Association, and is up against it for men and tools.

Playing Season Short in Alberta

Our seasons here are very short, usually from the 16th of April to the 15th of October,—there is never much growth before May. Four men cut, top-dress and apply sulphate of ammonia to the greens. They start to cut each morning. Our greens are cut each day during the growing season—about ten a. m. Before starting to cut, two of these men, with a barrel truck and pump, spray two greens with sulphate of ammonia. This is done every work day except Saturday. Allowing for



Four of the Mayfair Greensmen, all University Students

Saturdays and Sundays you will see that each of our greens gets an application every two weeks.

Before adopting this method we tried putting the sulphate in compost; also putting it on with a watering can, but we find our present way best. We use a very fine spray. The same two men use this spraying outfit all the time, adjusting the spray so that each barrellful covers the green twice. We use sulphate of ammonia from the first of June to the end of August. With sulphate of ammonia, and also with compost it is my belief that small doses and frequent applications are best.

Daily Inspection of Mowers

While these men are spraying one of the other men is smoothing out mats and trimming around tees, while the fourth is doing any odd jobs that are required. At 9:45 they return to the tool shed and get their machines. Our machines are inspected, and, if necessary, adjusted each morning. These four men usually finish in time to clean their machines before closing time. At this junction I might state that all men employed on the greens are University students; in fact with two exceptions our staff is made up of students. Moreover employing the same men season after season has a lot to do with keeping the course in fine shape. These men all play golf and for this reason like to do their work so that other golfers can find no fault with it.

One man looks after bunkers, traps, and cutting of tees. I hope our Chairman of Greens reads this. We should really have two men for this work. I think a bunker or trap should always look as neat as a green. This bunker man cuts all grass around the bunkers, trims the edge, hoes out all weeds and finishes up by raking over with a rake made from an old hay mower knife.

The other two men are teamsters; one having charge of the fairway mower. He used to have two three-unit, one-horse machines, but three years ago we built a

frame ourselves to carry five units. It has been a great success and is still going strong. In this way we get a man for other work. During June, July and August, we keep this fairway mower running all the time. The other teamster does all the odd jobs requiring a team; cutting rough, hauling top-dressing, building compost piles, sanding boxes, etc.

During the hot months we have an extra man watering greens at night. He attends to nine greens each night, working every night except Saturday. In this way the greens get a good watering three times a week.

Regular Top Dressing and Often

I now come to a subject in which I am keenly interested—top-dressing with compost. You often hear said that we have not time to top-dress. This shows lack of understanding inasmuch as a green that does not get top-dressed regularly will require far more attention in other ways,—for instance, weeds getting into greens owing to thin turf. We have very little time to spare here, but we manage to top-dress five, and sometimes six, greens each week, using screened compost of one third manure, one third soil, and one third sharp sand. We try to get top-dressing finished on Monday or Tuesday, and in this way the greens are always in good shape for the week-end. During the season there are always large crowds from Saturday to Sunday night.

When we top-dress we take all the men except a man on the fairway mower. The spare teamster hauls the compost from the screen to the greens; five men spread it on evenly with flat shovels. When they are finished spreading one man goes over the green with a wire mat, and next day all the greens are cut as usual. Very little, if any, of the top dressing can be seen, and play

is never interfered with. It takes about five hours to do this job, and it must be understood that while this is being done all other work is stopped. However, it is time well spent.

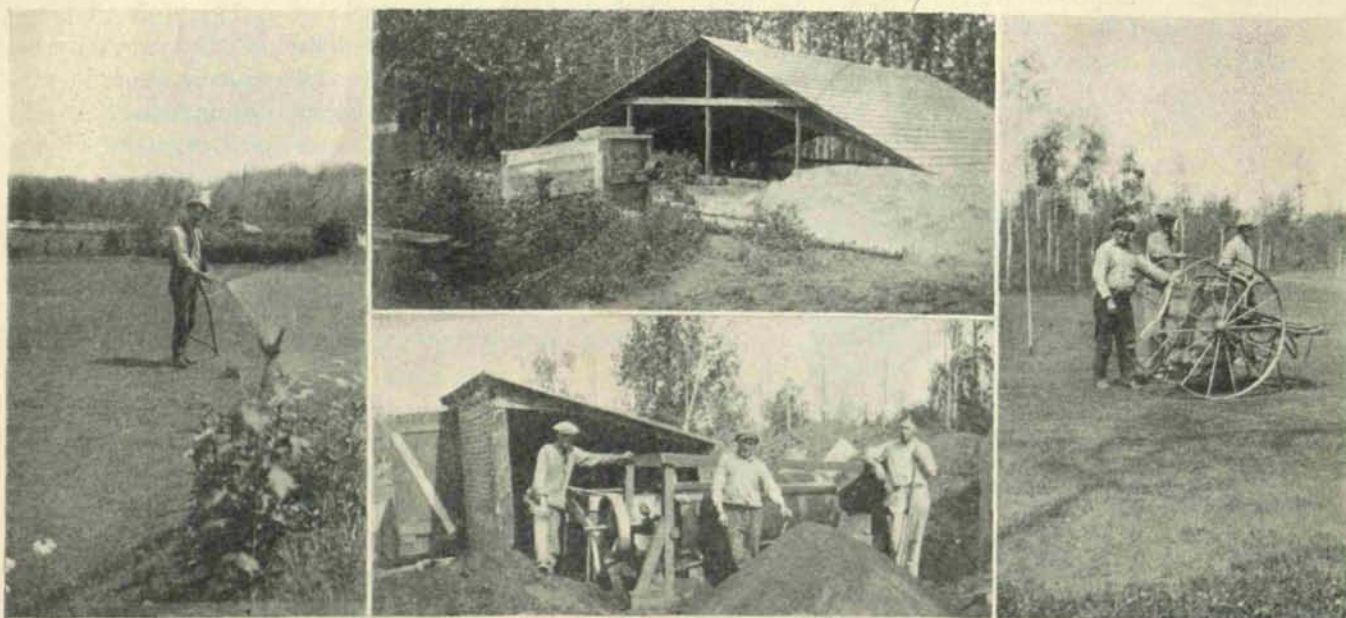
Compost Shed and Screen

Up to the last season we had a great deal of trouble getting enough compost screened and so we decided to build a rotary screen, mostly from junk. Last year we turned it with a crank, but this season we strengthened both screen and frame, and now use a gasoline engine for driving. When any of the men are looking for a job, and cannot find one, they go to the compost pile and start the screen. The screen will handle compost as fast as three or four men can shovel, and in this way we always have a pile of screened compost on hand. The only drawback is wet weather, and to offset this we have built a large compost shed that will hold enough for one season.

Planning to Plant Vegetatively

As to the grass on the greens, we have bents from having seeded with South German mixed bents, and Prince Edward Island bent, or Brown Top, as it is called. Our Green Committee has planned to plant all greens to Washington bent, and we have a nursery, roughly about 60,000 square feet. This is the fourth season we have used ammonium sulphate and we find that it makes weed control much easier.

In conclusion I would like to add we have always had go-ahead officials, and members who are proud of their course, and a Pro who is always ready and willing to help. This coupled with the loyalty and ability of the present ground staff, makes the greenkeeper's work here very pleasant indeed.



Sprinkling Flower Border, Practice Green at Mayfair

Upper, New Compost Shed; Lower, Home-Made Compost Machine, Used at Mayfair Golf and Country Club, Edmonton, Alberta, Canada

Pepping Up the Mayfair Greens with Sulphate of Ammonia

From The Viewpoint Of Local Associations

What District Associations of Greenkeepers are Doing

Philadelphia Association of Golf Course Superintendents

THE regular monthly meeting of the Phila. Association of Golf Course Superintendents was held at the Springhaven Golf Club, Media, Pa., on Monday, July 11, 1927.

The meeting was called to order at 7:15 P.M., after all of the twenty-four members present had partaken of a sumptuous repast.

The application of John Plant of the Pine Run Country Club was submitted to the proper committee for approval.

It was moved and seconded that all members who have failed to pay their dues for the year of 1927 be suspended.

By a unanimous vote it was decided to hold the annual picnic at the Manufacturers Country Club, Oreland, Pa., on Monday, Sept. 12, 1927.

The following members were appointed to arrange all details for the picnic, namely: Messrs. Valentine, Toomey, Evans, Young, MacFarland, Pollock, Farnham, Lane and Carney.

The meeting was an open one as no speaker had been secured, however, we had many interesting discussions among the members on their various problems.

Dr. Manges, Chairman of the Green committee of the Springhaven C. C. was called for a speech and responded with a short talk.

It was moved and seconded that the next meeting be held at the St. David's Country Club on Monday, August 8, 1927.

After extending a vote of thanks to the Springhaven

Club for their hospitality and excellent dinner, the meeting adjourned at 8:30 p.m.

ELWOOD T. YOUNG,
Secretary.

Westchester Greenkeepers' Association

ON Monday, July 11th, the monthly meeting was held at Fenimore Country Club. The members of the association were accorded the privilege of playing throughout the day and the business meeting took place in the clubhouse in the evening. Mr. John Eliffe of the Winged Foot Country Club, Mamaroneck, was

unable to be present but he sent along a most interesting paper on "The Equipment Necessary for the Upkeep of an Eighteen Hole Course." Mr. Sid Black of the Broadmoor Country Club, New Rochelle, presented a paper on "Watering Sys-

tems." Both papers were afterwards very fully discussed.

Westchester Golf Association Green Section

THE second meeting of the season under these auspices was held on Thursday, July 21st, at Oak Ridge Country Club. The Green committee chairmen in the county and their greenkeepers had full club privileges for the day and in the evening Mr. Eugene Harkin presided over the dinner and meeting. A paper was read by a visiting golf course constructor on "The Propagation of Stolon Bent Greens," and it resulted in an unusually lively discussion in which several of the greenkeepers actively took part. The greenkeepers, by their attitude undoubtedly demonstrated that it is unwise to be over-dogmatic as to methods to be adopted and blindly followed by greenkeepers universally—or even generally. The president of the Oak Ridge



Sodding Greens at the Pittsburgh Field Club

Country Club, in a subsequent speech emphasized the added interest that had been lent to the evening's proceedings by the enthusiastic participation of the greenkeepers.

Mid-West Greenkeepers Association

Minutes July 11, 1927

THE Fourth outdoor meeting of the Mid-West Greenkeepers Association was held on July 11th at 10 A. M. at the Glen Oaks Country Club, Glen Ellyn, Ill.

Mr. D. W. Danley, greenkeeper at this club very kindly escorted the visiting greenkeepers around his course and discussed with them the various problems confronted by him in the upkeep of his greens, which we are pleased to say are in very good shape and show the result of very close supervision. An interesting fact noted was the substructure of his greens which are cushion-like. The water system at Glen Oaks is very poor in distribution and had only one half-inch outlets at some of the greens.

The matter of playing golf by the greenkeepers before the meeting was taken up for discussion and it was decided that hereafter no playing on the course would be permitted until after the business meeting.

It was also decided to hold the next outdoor meeting at the Shoreacres Golf Club, Lake Bluff, Ill. and the Old Elm Country Club, Ft. Sheridan, Ill. on July 25th at 10 A. M.

Following the meeting, H. B. Siens, Ph.D., of the Chemical Research Laboratories of Swift and Company gave a very interesting talk. He told of having just recently visited the Arlington Experimental Station at Washington, D. C., where he found that there were some very interesting strains of bent under development at the present time. There were also some interesting fertilizer experiments being conducted.

"If," said Dr. Siens, "we learn the food requirements of our turf grasses more thoroughly, we may be able to obtain fertilizers which will be better suitable for our grasses than we have at the present time. In this matter, not only the mineral foods but the acidity of a soil determine what plant thrives best in it." In recent studies, he found in plant food minerals essential for plant growth, that it is now clear that plants as well as animals have very exacting requirements for minute quantities of certain minerals in addition to the three so-called fertilizer elements required for growing plants.

Respectfully submitted,

ED. B. DEARIE, JR.

Minutes July 25th, 1927

A MEETING of the Mid-West Greenkeepers Association was held Monday, July 25th, at 10 A. M. at the Shoreacres Golf Club, Lake Bluff, Ill.

Mr. Alex Binnie, greenkeeper at Shoreacres took the

visiting members around the course and there was viewed some wonderful golf holes over some of the most beautiful topography in the Chicago district. Mr. Binnie discussed his problems with brown-patch as some of his greens are located in valleys of rolling country and cause considerable trouble in humid weather.

A business meeting was held after the visit around the course. Mr. MacGregor, the president advised the members of the Mid-West Greenkeepers Association to attend the meeting of the U. S. G. A. Section to be held at Evanston Golf Club, July 29th at 6 o'clock, stating that there were some interesting matters to be taken up at this meeting and it would be of interest to all greenkeepers to be there.

The question of playing golf was also brought up again at this meeting and it was definitely decided that no playing would be permitted until after the meeting.

The next meeting will be held at the Northmoor Country Club and the Lake Shore Country Club on August 8th, at 10 A. M.

Respectfully submitted,
ED. B. DEARIE, Secretary.

Cleveland District Association of Greenkeepers

TWENTY-TWO members of the local association sat down to luncheon at the Wooster Country Club, Wooster, Ohio, after a morning spent in an inspection of the new course. Mr. M. M. Parsons, Wooster greenkeeper, acted as host, and Mrs. David L. Rees, of the Progress Country Club, Purchase, New York, was guest of honor. Relaxation and a general good time was the order of the day while luncheon was in progress, and the hospitality of the club was thoroughly enjoyed.

At one-thirty a special palmetto fibre sectional putting green brush was demonstrated by Mr. W. H. Way, professional and greenkeeper of the Mayfield Country Club, Cleveland. The demonstration was necessarily hasty, because of a contemplated visit to the Ohio State experimental station, but showed beyond question that a thorough brushing of creeping bent prior to mowing is most effective in bringing up the runners into position for clean mowing and an upright growth of grass. This special brush is built in six sections, allowing flexible operation, and the wooden frame is well bolted. Brass ferrules in the moving joints insure freedom of action and ease of operation.

At two-thirty the members gathered on the experimental turf plots conducted under the supervision of Dr. Robert M. Salter, assisted by Dr. F. A. Welton.

Dr. Salter explained to the assembled group that the plots allotted to golf turf problems were newly started this spring, and therefore nothing conclusive had been worked out by his staff. However, one of the most interesting experiments being made is that of the reaction

(Continued on page 34)

Grass Seeds in a Nutshell

By CHARLES C. CHANDERLIN

Manager, Golf Grass Department, Philadelphia Seed Company

(Continued from August Issue)

THE bulk of Canada Bluegrass is produced in the Province of Ontario, Canada, and can easily be distinguished from the Kentucky variety. Canada Bluegrass produces a rather coarse growth of a pale green color. It differs from Kentucky in the shape of the stem which is flat or compressed.

The plant is a hardy perennial with creeping rootstocks which enables it to form a tough sod. Where the soil is rather thin and gravelly, it has done exceptionally well. Satisfactory results have not been obtained with this grass on sandy soils. It has no place on putting greens or fairways, but is excellent as a grass for the rough, especially when the southern limits of Sheeps Fescue are approached. One of its most important uses is as a soil binder on clay banks where there is danger of washouts.

On richer soil, Kentucky Bluegrass or Redtop are to be preferred as either of these grasses will produce better results than Canada Bluegrass.

Red Fescue (*Festuca Rubra Genuina*)

This grass is a native of Northern Europe, Germany being the principal source of production. Frequently, Red Fescue is misrepresented, Sheeps Fescue sometimes being substituted by unscrupulous shippers. Other Fescues, such as Sheeps, are grown in the same territory, and it is this fact which is partly responsible for the misrepresentation by shippers. The seed of Red Fescue bears a striking similarity to that of Sheeps Fescue and the difference can only be detected by expert analysis.

Red Fescue is without a doubt a very desirable grass for fairways and roughs. On putting greens it produces a fine, even, thick growth, but at times the close cutting to which a putting green is subjected kills this grass. In New Jersey however, and in sections where the soil is composed of sandy loams it is known to be quite permanent on a putting green if reasonably well cared for. The turf is tough and once it becomes established it can withstand considerable hard usage. On the fairway, bunker edges and approaches where there is less frequent mowing, it can be used with assurance of good results. It is a partly creeping, partly tuft-forming grass, with narrow blades and forms a thickly covered turf, making it difficult for weeds to come through. As a grass for shaded and wooded sections it can be sown with *Poa Trivialis*. For best results in the shade sow 50 per cent Red Fescue with 50 per cent *Poa Trivialis*.

Rough Stalked Meadow Grass (*Poa Trivialis*)

This is a grass which has not been fully appreciated for golf course construction, but will grow in favor as its merits become known. It is grown to a large extent in Germany and the Scandinavian countries. It is a perennial, creeping by stolons, the blades being one eighth inch in size, tapering to a point, shooting off creeping stems above the ground. It is a very hardy grass of rich green color, and is very desirable for mixing with other seed for putting greens and fairways as it produces a dwarf compact growth. The fact is that it grows more abundantly and produces a much thicker turf when sown with other grasses.

Rough Stalked Meadow Grass by all means should be used more frequently in this country. As a lawn grass for the shade, there is no seed which can take its place. It has been known to thrive where no sunlight filters through. The best grass for shaded or wooded sections on the golf course is a mixture of Rough Stalked Meadow Grass and Red or New Zealand Fescue.

Wood Meadow Grass (*Poa Nemoralis*)

Wood Meadow Grass is a European grass grown principally in Germany. Usually the crop is not very large and prices are high. It is a very hardy grass of rich green color with thin stalks and fine narrow blades. It is very desirable with other seeds for putting greens and fairways as it produces a dwarf, compact growth. It has been used quite extensively in this country for a number of years as a constituent in shady lawn grass mixtures.

Chewings New Zealand Fescue (*Festuca Rubra Falaz*)

Originally a European grass, it was introduced in New Zealand in 1880 and was first sold as a pasture plant by a farmer named Chewings. This is another grass which is used extensively on putting greens and fairways. Generally speaking, Chewings Fescue does not do well south of Washington, D. C., except at high altitudes. With the exception of the Northeastern part of the United States, it does not produce as durable a turf as the Bent grasses. Chewings Fescue turf in the Northwestern part of the United States may be said to be quite permanent if reasonably well cared for. It does not seem to have the ability to recover from injury as quickly as South German Bent, but the turf is tough and will stand considerable hard usage.

It is a well established fact that the germination of this seed deteriorates rapidly. When the seed is shipped

from New Zealand, it encounters on its voyage a period of approximately twelve to fifteen days in the torrid zone, where the hot humid condition is destructive to the germinating qualities of the seed. After the seed arrives in this country, it sometimes germinates as high as 80 per cent, but often after remaining in storage a short time, some of its germinating qualities are lost.

Unlike the Bent grasses, Chewings Fescue does not have creeping roots, but the plants have a tendency to branch out and sometimes spread a foot from the original tap-root. The turf is of a beautiful dark green color. Chewings Fescue does well on practically all soils, including sandy and gravelly soils, and also thrives in shady places. Owing to the conditions affecting its germination, it is necessary to seed heavily.

Sheeps Fescue (Festuca Ovina)

Sheeps Fescue is a native of Northern Europe, principally Germany and is the cheapest of the fescues. Unlike any of the other fescues, excepting Hard Fescue, it grows in tufts or bunches, usually six inches apart. This of course makes it undesirable for putting greens.

It is however, well adapted for the rough, especially on thin rocky ground, also on small embankments where there is danger of a washout. It is also preferable for the rough on account of the obstruction it offers. A

player who is obliged to play from a rough where Sheeps Fescue prevails cannot so easily get his ball out with a wooden club.

Sheeps Fescue may be distinguished from other grasses by its stiff bristle-like leaves and pale green color, which grow in tufts.

Hard Fescue (Festuca Duriuscula)

Hard Fescue is a sub-variety of Sheeps Fescue. It is a small even tufted forming grass with narrow blades and still finer bottom leaves of a deep green color.

Like Sheeps Fescue it should be used in the rough as the tufts or bunches make it very desirable for this purpose. It should never be sown on a putting green or fairway. On account of its growing characteristics, it should be sown with other grasses for best results. A mixture of Hard Fescue and Canada Bluegrass is considered an excellent formula for the rough as the Canada Bluegrass will fill in between the tufts.

Ryegrasses

There are several varieties of Ryegrass, the best known of which are Italian and Perennial. Italian Ryegrass has long been used in Europe for hay production and to a certain extent in the United States. It

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Relaxation

By JOHN MORLEY

President, The National Association of Greenkeepers of America

THE manager of a large industrial organization is reconciled to the fact that some of the most important officials under his charge, will if not allowed at various times to have a vacation, soon crack under the continuous strain upon the nerve system.

While it may be true that a greenkeeper gets a lot of time to relax during the winter months, yet he often gets so much that it becomes monotonous. He is ever looking forward to the time when the robins will again appear, and the noise from the motors is like sweet music in his ears. When this time comes he is jubilant that the season is at hand to get the course in shape for the players.

But it is a long time from March 15 to November 15, and around the middle of the season the appearance and disposition of the greenkeeper often rapidly changes. The continual grind day after day; the many petty grievances he has to hear and bear; the anxiety for rain during a dry spell; some of his most important employees sick or away on vacation; his desire every time his club stages an important tournament to make it a success.

With all these facts in view, golf officials should insist that the greenkeeper take a few days off now and again away from his course. He should be given enough time for the relaxation of his body and mind.

On a large number of our up-to-date courses, the officials follow this policy, and in any such case the chairman of the Green committee will tell you that it pays.

But the fault is not always with the club officials. There is something about the profession of greenkeeping that often causes the greenkeeper to take his work too seriously. He often imagines that if he is absent for more than an hour or two at a time the golf course will immediately go to ruin. When a greenkeeper gets into this frame of mind, he should take stock of himself.

At the close of a busy season, tired and often cross, though he may be very sorry afterward, he is quite likely to give a surly reply which will offend an official or a member of his club.

Don't let your nerves get to the breaking point. See that you take time to relax.