Sulphate of ammonia _ Sulphate of ammonia	0	.7	38.5	79.8	111.3
plus 23 lbs. lime- stone per thou-					
sand feet	0	2.0	53.5	88.2	79.5
Liquid ammonia	0	4.8	54.9	107.4	111.3

SOIL No. 2—Infertile sandy loam. pH value of soil was 5.3, and with lime added, 6.05. Other conditions same as above.

	Per cent nitrogen changed to nitrate in						
Source of nitrogen	Daws	6 Days	10	14	17		
Cottonseed Meal		0	O	0	2.0		
Castor Pomace		1.6	2.0	97.	3.1		
Urea	_ 0	0			4.0		
Dried Blood	_ 0	0	.8	0	1.0	2.7	
Milorganite	_ 0	1.4	.7	0	1.3	3.5	
Grass Clippings	_1.0	.8	.9	0	2.8	13.7	
Sulphate of ammonia Sulphate of ammonia plus 92 lbs. limestone per	_ 0	0	0	0	0	0	
thousand feet	1.9	1.3	4.1	6.4	18.7	62.4	
Liquid ammonia	_ 0	0	0	1.1	7.0	22.3	

Son No. 3-Fairly fertile sandy loam. pH value 6.0.

	Pe	r cent nit	rogen cha	inged to ni	trate after	
12 Days	14 Days	16 Days	18 Days	21 Days	24 Days	30 Days
		Co	ttonseed	Meal		
0	0	2.05	6.4	4.5	8.9	5.9
		C:	astor Po	mace		
.4	2.6	10.8	19.6	28.6	26.7	31.1
			Urea			
1.2	1.2		12.6		43.4	46.7
		I	Dried Bl	ood		
0	.6			27.4	26.7	32.3
		1	Milorgan	nite		
2.56	2.49	7.66	14.1	23.4	25.4	34.0
		Gr	ass Clip	pings		
6.37	8.77			38.2	36.9	46.7
		Sulph	ate of a	mmonia		
0	0	0	0	0	0	6.3

In this experiment 30 milligrams nitrogen were added per 100 grams of soil. Such a large amount of nitrogen probably accounts for the poor showing of sulphate of ammonia. The behavior of grass clippings indicates that they have considerable value as a source of nitrogen.

Nitrate Accumulation In Wooster

Source of nitrogen	Per cent nitrogen change to nitrate after 21 days with varying moisture in the soil % water in soil					
	23	28	3.3	3.8		
Sulphate of ammonia	112	118	93	27		
Nitrate of Soda	110	115	91	54		
Dried Blood	82	81	61	7		
Cottonseed Meal		69	43	5		
Activated Sludge	66	66	60	4		
Alfalfa Hay	60	62	56	6		
Muck	39	39	39	5		
Garbage Tankage		28	20	5		
Calcium Cyanamid	7	6	6	5		
Horse Manure		4	3	4		

This soil was made neutral by adding lime. 20 milligrams nitrogen were added per 100 grams soil.

Several things in these tables may be mentioned as outstanding. FIRST—The acidity of soil 2 (Mass.) has definitely prevented the accumulation of nitrate nitrogen without lime added. Even when liquid ammonia was added the neutralizing effect was not enough to induce the accumulation of nitrates. The lime added with sulphate of ammonia was thoroughly mixed with the soil, yet in spite of this mixing nitrates did not accumulate for sometime. How much longer would it require for lime, applied as a top-dressing and inadequately mixed with the soil, to give a response in terms of nitrates produced?

SECOND—Manure should be considered as typical of the materials with a low nitrogen and high carbon content. The behavior as regards nitrate accumulation is also typical. Very little nitrates are produced, or at least accumulated, and if plants were growing on the soil they would undoubtedly suffer from lack of nitrogen. Garbage tankage behaves similarly. Other tests show that the nitrogen availability in garbage tankage is very low.

THIRD—The effect of too much water in soil in the experiment by Bear is plainly evident. The 38% water content is probably higher than most soils can carry under playing conditions. No doubt the available nitrogen in many greens is lost because of poor drainage, and occasionally because of overwatering. Even when nitrates are added to the soil as nitrate of soda or similar material, the nitrates disappear under the influence of too much water.

Minnesota Short Course

THE University of Minnesota's short course for green-keepers, which was held February 15-17 was very successful. There were fifty-six registrations, which included one from Wisconsin, five from North Dakota and five from Iowa.

Every subject connected with greenkeeping was covered as far as the short time would permit. Doctor Monteith, of the U. S. G. A. Green Section lectured each day. He described very clearly the grasses for greens and fairways, and told about plant diseases and their control.

There were several speakers on the important subject of "Soils," and the various kinds were well described and analyzed. Mechanical engineers covered the subject of equipment, while other experts discussed trees and landscaping, drainage and irrigation, golf course architecture, and maintenance costs.

It was suggested that next year's course should be continued for a week.

A Last Tribute to My Friend, W.J. Rockefeller

By AL SCHARDT, Greenkeeper Wanakah Country Club, Buffalo, New York

Y Es, boys, "Rockie" is dead but his spirit will never die in the hearts of those who knew him. I had the honor to escort his remains from Toledo, Ohio, to his old home in Harford Mills, New York, where he will be buried in the family plot in a little cemetery, among the hills, where he roamed as a boy.

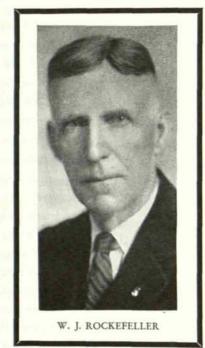
As I left the portal of his beautiful estate to take him on his last long journey homeward the fine old stately elms seemed to bow their heads just a little lower; the magnificient pines looked just a bit more dreary; the marvelous links which forever will stand as a monument to his stewardship looked a little more bleak—all in respect to the fine old man who planted, cared for and mothered them for the past thirty years.

Life didn't hold much for "Rockie" after the green and fairways of Inverness which were almost a part of him, passed out of his competent hands. Some men are like that. "Rockie" helped build the famous Inverness course almost thirty years ago and he remained in active charge of the beautiful links until just before the National Open last summer. From the day of his retirement he started to decline.

"Rockie" had a varied career, including twenty-three years on a farm, a musical education, chemist and later drifted into hospital work at Binghamton, New York, and Toledo, Ohio, finally ending by taking up green-keeping at Inverness in 1903. In the early days at Inverness he was considered an outstanding player of that district and the many cups and medals he won kept him in the spotlight for many years.

By virtue of Inverness' place in golf and the national attention it attracted because of its perfect turf and historic greens, "Rockie" became a figure of importance in the sport. He was a valuable aid to the government in his grass experiments and many a test was made there for many years. He was an important adviser to the United States Golf Association Green Section and was recently made a member of the Executive committee. He was a Charter member of the National Association of Greenkeepers of America, having served as Secretary of that organization for some time.

"Rockie" would have given anything to have died on



the course with a rake in his hand, but it wasn't to be. Still in his last days he could look out across the great stretch of rolling land that remained beautiful in its gown of winter snow and know he had done more than any other man to change it from a farmer's meadow into a historic playground.

"Rockie" may not have been happy in the end but he had glorious memories that somewhat helped to alleviate the pain of disappointment and grief. Abraham Lincoln once said, "stand by your principles, and victory complete and permanent is sure at last." And what greater victory than friendship, all who knew him were his friends and all his friends loved him.

WILLIAM J. ROCKEFELLER
An Appreciation

By SYLVANUS PIERSON JERMAIN, President Toledo District Golf Association

In the beautiful little valley, overlooked by the clubhouse, nestles the historic eighteenth green at Inverness, Toledo. Nearby a solitary figure, in the dusk of life, lingers and fondly looks and looks again as turning he comes wearily up the eastward slope and passes on into the shadows. It is his last "good night" to the world-famous green—product of his heart and hands.

This green and all greens at Inverness, were built by William J. Rockefeller, who died at his home, adjoining the course, on Monday, February 9th, 1932, in the sixty-seventh year of his age. He was born at Dryden, New York, where his remains were taken for burial.

His services as keeper of the greens at Inverness, covered a period of nearly thirty years. Greens construction and maintainance was the highly useful and inspiring profession to which he loved to devote himself. During this period he also designed and supervised the construction of the two eighteen-hole courses at Heather Downs Country club, Toledo, and was frequently called into consultation concerning betterments of other courses in the Toledo district.

The National Association of Greenkeepers of America, which was organized at the Sylvania Golf Club, Toledo, in 1926, elected him its first Secretary.

(Concluded on page 34)

Some Thoughts on Greenkeeping

By M. E. FARNHAM, Superintendent, Philadelphia Country Club, Philadelphia, Penna.

Read at the 6th Annual Educational Conference of the National Association of Greenkeepers of America, held at New York City, January 19-22.

Our president, Colonel John Morley, in inviting me to address this gathering, left the choice of a subject to me. My title may seem rather vague, but I have a few thoughts which I hope may be worth consideration if you will bear with me for a while.

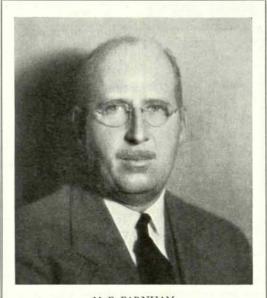
In every profession there are certain outstanding events which mark the start of an era. That day in September, 1926, when some of our friends and benefactors met at the Sylvania Golf in Toledo and started the wheels turning on the vehicle which brings us here today is surely the start of

the present era of the profession of greenkeeping.

All of us know that the day of trade secrets in greenkeeping practices is gone. I know there are individuals here today who, in the past, have been flatly told, "Find it out for yourself; I've had to and I'm not telling you." Today, thanks largely to the offices of this Association and the various District Associations and to the research and educational efforts of the United States Golf Association Green Section and the various state institutions, he who travels his path without help and inspiration regularly and in times of need has only himself to blame.

GREENKEEPING NEVER AN EXACT SCIENCE

THERE still remains, in some quarters, a certain distrust of some of the before-mentioned activities. I hope that this will soon pass. Greenkeeping will never be an exact science in that it will be possible to predict and prescribe definitely for all eventualities. No set of experiments will answer all aspects of any one problem. There will always be a definite



M. E. FARNHAM

Who combines his practical knowledge of greenkeeping with research experience of plant life. Mr. Farnham happily combines the theoretical and practical expe-

rience of his profession.

role for the greenkeeper. Each of the various beforementioned activities merely gives the greenkeeper an additional tool to use in getting to the root of his problems. As he becomes more successful and efficient in doing so, his place in the picture becomes larger.

The rapid development of the game of golf in this country is responsible for our most difficult problems. Look back at your own course ten years or less ago. Are golfers satisfied with conditions then obtaining? I don't hear many "ayes." Have the additional refinements required been in line

with what Nature likes to give us? Again the "noes" have it. What is the result? We are busy trying to work contrary to Nature and as most of us have learned to our distress we sometimes go too far.

I admit my inability to solve your problems in this line. I can tell you what I've done; when and perhaps why I've been successful; when and perhaps why I've failed. They've done this at Arlington, and that at State College or Chicago. Will the results be identical on your course? Probably not, although the results there form a basis for the start of your own experimentation.

There probably is no "best." At the last meeting of the Philadelphia Association the question was asked, "What is the best fertilizer program for fairways?" I think about the only definite answer which can be given that question is, "There is no best." Will the same program be the best for Poa Annua fairways, Kentucky Blue fairways, or fairways subject to Crab Grass infestation? I don't

March, 1932



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F. & N. TITAN Mowers used in this equipment are designed and built especially for this rugged service.

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FIVE blades are made of special analysis chrome vanadium steel.

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think that even the most enthusiastic fertilizer salesman should answer, "Yes."

I am not raising these points in an attempt to be confusing but wish to illustrate something of the problems of a greenkeeper today in growing turf.

CHANGING OFFICIALS CAUSES HARDSHIP

THERE is another side of the greenkeepers' problems to which I wish to direct some attention today. Along with the development of higher standards for fine turf has come the development of Golf and Green committees. If they were all Golf committees in reality, it might not be quite so bad. We have with us, however, the Green committee. The Green chairman often takes the position because someone has to. You are all familiar with the hardship wrought club and greenkeeper alike by frequent change in this position. Much has been written and talked on this phase of golf course affairs. It is all very well to talk but actions speak louder than words.

In an active search for improvement of our technic in maintenance methods we should not lose sight of this other side of our job, both in fairness to ourselves and to our employers.

There are questions of policy on every course which are outside the province of the greenkeeper. That is where the Golf committee enters the picture. Inside of the greenkeepers' province the committee should pass out of the picture. This mere statement of the fact is no solution. I may meet with dissenting opinions but discussion is a healthy sign and need not involve personalities.

Like Topsy, many golf courses just grew. The greenkeeper's position, logically, grew correspondingly, or should have. Often it has not. Why? The answer would be the solution of a problem worthy of any scientist.

In the first place many unsatisfactory conditions have persisted under committe management which would not have existed long under a more business-like form of management. However, I can not look for a correction of conditions from this angle. The greenkeeper must add another to his multitude of activities. He must sell his abilities as well as be constantly enlarging them as are all of you here today.

In today's outstanding commercial enterprise the automobile industry—ability is probably as richly rewarded as anywhere. However, the minute a man begins to slow up in his ability to carry on at top speed in that field of intense competition he passes out of the picture. In our field of working with Nature results can not always be guaranteed according to specifications. We can only be sure that we are constantly on the alert and openminded.

The percentage of Green chairmen who, from choice, wish to dictate greenkeeping practices is relatively small. The percentage of chairmen who do, to a greater or less degree, dictate greenkeeping policies is larger than it should be. Undoubtedly this condition is due to a lack of knowledge of conditions and a lack of confidence in the greenkeeper. It is this condition which I view as one of the major problems of the greenkeeper.

GREENKEEPER HAS A THINKING JOB

I saw a statement recently that few club members realize that in spite of their overalls greenkeepers are gentlemen. This is the source of one weakness. How many men in other branches of endeavor with as large an investment under their control list overalls among the requirements for their position? A man's value in what he can produce with his hands is strictly dependent upon physical limitations.

The greenkeeper's position and responsibilities offer opportunity enough to be well worth his salary for the work he can and should do with his head, except in very rare cases. When the overalls are in use, very likely, work is being done which proper supervision would see was done and other work is suffering for want of proper supervision. Furthermore, overalls or any similar raiment are not in keeping with what should be the status of a man who is responsible for the maintenance of an investment of hundreds of thousands of dollars, as is the greenkeeper.

The greenkeeper's position should be such that his recommendations be sought, rather than considered and often discarded. His results determine his success or failure in life. This does not hold for any Green chairman. Often the greenkeeper makes recommendations and sees them ignored for one reason or another. This should not occur. A recommendation should not be made unless it is essential and worth fighting for. Once made it should be actively supported. If, for due and sufficient reasons, it must fail it should be made a matter of record in writing for future reference.





For that green you love to touch

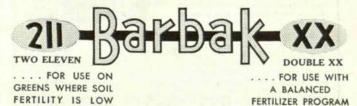
Whether it takes one or six to get on the green, every golfer enjoys playing one that is kept smooth, velvety and free from Brown Patch by Barbak. Barbak eliminates deadly Brown Patch, that destroyer of good greens.

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TURF DISINFECTANT

The man whose recommendations are frequently overruled soon loses cast and experiences the greatest difficulty in obtaining even the most essential items. The man whose discarded recommendations are shown by time to have been correct and essential has no redress unless he has presented those recommendations in writing. Be sure your recommendations are correct and important, put them in writing, and then do not be easily persuaded that perhaps they are not so important after all.

It sometimes happens that through frequent change in committees the greenkeeper loses the habit of working things out for himself in the face of the necessity to satisfy a succession of different individuals. His initiative suffers. This is a vicious condition, because the farther it progresses the worse it becomes.

I have encountered the feeling on the part of some greenkeepers that the procedure of writing recommendations to chairmen might be considered insubordination. This feeling should be corrected. All industries encourage and reward initiative. The illustrations of this fact are manifold. Any case in which this does not hold is certainly an unsatisfactory position to be in.

GREENKEEPER MUST HAVE INITIATIVE

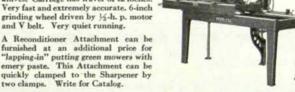
IN THE absence of initiative on the part of the greenkeeper the chairman's responsibilities are multiplied and the position of the greenkeeper becomes less and less satisfactory. I think this is self-evident and the correction of such conditions is certainly one step toward more satisfactory conditions.

Another phase of present-day developments viewed with considerable concern by many is the General Manager proposition. Fundamentally that development is sound. Any successful business is based on properly distributed responsibility among

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Grinds all type of power-driven, fairway, putting green and hand mowers without removing mower wheels or reel knives. Carriage has travel of 42 inches. Very fast and extremely accurate. 6-inch grinding wheel driven by ½-h. p. motor and V belt. Very quiet running.

A Reconditioner Attachment can be furnished at an additional price for "lapping-in" putting green mowers with emery paste. This Attachment can be quickly clamped to the Sharpener by two clamps. Write for Catalog.



THE FATE-ROOT-HEATH COMPANY 532-568 Bell Street Plymouth, Ohio qualified employees. There is no reason why such procedure should not be successful in the club business. It would unquestionably stabilize conditions and cure some of our present ills such as frequent changes in personnel.

It should, however, be kept in mind that such a development must contemplate displacement of no employee now in the picture. It does contemplate replacement of committee management by a properly qualified individual to serve primarily in matters of policy and financial detail.

WEAKNESS OF THE CLUB MANAGER PLAN

 $T_{
m HE}$ weakness of such development lies in two directions. In the first place, many clubs cannot afford a properly qualified man for such a position. This being the case the development becomes dangerous in that an unqualified manager is worse than none at all. On the other hand, a qualified man not satisfactorily remunerated would profit at the expense of others. In the second place, there is a dearth of qualified men for such positions.

It sometimes happens that a golf course which has profited by exceptionally favorable conditions or circumstances becomes the envy of all members of other clubs who may play or visit it. Comparisons with the home course are made with no consideration being given any of the contributing factors. The favored greenkeeper, architect, or what have you, seems the logical individual to solve all the problems of the home club.

Here we have a problem developed which should receive some consideration. It is a question of ethics to which we must give some thought if our profession is to grow as it should. Unfortunately, the question of financial reward enters the picture and none of us are affluent enough to disregard entirely such aspects. However, they must be forgotten, in this type of case, unless untold harm is to be done.

In the medical profession consultation is requested of another physician by the doctor on the case. No man of standing accepts a call to a case in another man's hands except on his request or with his approval. This is as it should be and I do not see why it should be any different in the greenkeeping profession.

In the same line of thought, a man looking for a position has certain definite procedures open to him. For him to solicit employment indiscriminately in the absence of known vacancies seems to me a very unethical practice. This type of problem will become less prominent as we become stronger individually but there does seem to be opportunity for some collective action in setting up professional standards.

As heretofore outlined developments in the field of fine turf maintenance tending to give the green-keepers added knowledge as to how to meet various problems which may arise are encouraging. The opportunities to meet and compare experiences have multiplied rapidly in recent years, so that there seems reason for considerable optimism for the future of our efforts in fine turf production and maintenance.

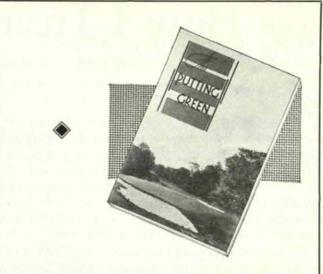
There remains, practically unconsidered, the development of better working conditions. The present status of things has been a development largely of necessity. While it is undoubtedly often unsatisfactory in many details none of the interested parties are blameless.

INDIVIDUALS MUST IMPROVE CONDITIONS

IT is purposeless to rave against conditions and make no effort to improve them. I feel that much can be done, not by any collective action or activities, but by the individual actions of each of us. We are all interested in raising the standards of our profession, if only selfishly, because what benefits the group benefits the individual therein. It is useless to attempt to climb the ladder of success and pull someone along up too. We must each one of us go up because no one stands still. We must either go up or down, and as Wm. L. Brownell has said, "The ladder of life is full of splinters, but they always prick the hardest when we are sliding down."

I have tried to suggest some thoughts which have been somewhat neglected in the face of our constant striving for improved maintenance conditions but which seem to me just as vital for success in our undertakings as the maintenance of good turf on our golf courses.

It all seems to resolve itself into the fact that it is essential for each one of us to sell himself more thoroughly to his employers as well as to keep the course in good turf. The sale having been made I know that much of the dissatisfaction with the present scheme of things will disappear. Committee management will become less of a problem with fewer changes in committees and even those changes will be of increasingly less importance.



Get Your Copy of This Free Booklet

Every greenkeeper, every pro, every club official interested in a better golf course should have a copy of "The Putting Green." It has 40 illustrated pages of unbiased information on grasses, construction, planting and care of greens. Ask for your copy.

Here are a few new comments from those who already have it:

"The Putting Green" was read by Mr. Stephenson and myself. He has been loaning the book to others always insisting that it be returned.—E. F. Schmidt, 2227 Densmore Drive, Toledo, Ohio.

"The Putting Green" received and found very interesting. It should be in the hands of all greenkeepers.—D. R. Niederlander, 9 Parkland Place, St. Louis, Mo.

Your book is the best I ever saw.—D. C. Sullivan, Sparta, Wis.

I like your booklet, thanks.—George L. Williams, 5700 Train Ave., Cleveland, Ohio.

I have mislaid the copy you sent me and want a replacement and also copies for the other two members on my green's committee. Your book is one of the best I have ever seen. Sensible, sane and safe.—F. H. Jackson, M.D., Houlton, Maine.

A very fine piece of work.—J. E. Schipper, President Briar Hills Country Club, Briarcliff Manor, N. Y.





How I Treated My Greens

By HARRY A. BURKHARDT, Greenkeeper Manakiki Country Club, Willoughby, Ohio

FIFTEEN or twenty years ago someone decided that a greenkeeper didn't have a thing to do during the winter but sit by the fire and talk over the past summer's troubles. I'd like to show the fellow who made that mistake my working schedule for the next four months; I certainly think he would change his mind. So don't think this is idle fireside gossip of "what might be"—it is an actual experience with outside conditions.

The last two summers I have been doing a little work on the side to determine a few facts about grass for myself. Two years ago I ran some soil tests on my greens, measured the root growth and took note of the color and strength of the grass blades. Checking back through the results I found four greens linked very close together as far as results of the tests.

I watched these four greens closely that first summer, but I did not treat them any differently than the other greens on the course. Three of these four greens came through without a bit of trouble while the fourth one went to pieces after a heavy rain in June, and it was a long, slow task bringing it back into shape.

This bad luck seemed to disapprove my theory that

the right kind of feed in the soil would develop a strong, healthy grass plant able to resist a number of our pest attacks without severe injury to the grass.

Just to give you an idea of what I was working with I will tell you that very few of my greens are underdrained and hardly any that will surface drain. Two of the three greens that came through the summer without trouble are surface drained and one is both surface drained and has underdrainage. The one I had trouble with had neither.

That fall I went to work and drained my sick green and this summer it stayed on the track and ran true to form.

These four greens are in different sections of the course, each one under a different local condition, but each came through in great style. I don't mean to say that they were not attacked by Brown Patch this year because they certainly had it everytime any of the rest did, but it did not go deep enough to scar or mar the surface of the green. Just the very tips of the grass seemed to be affected so that after mowing, all traces of the patch were gone.

THE RIGHT FERTILIZER

to produce best all around turf results must of necessity be an extraordinary combination of materials

—and—Driconure alone, of all the fertilizers available for your consideration meets this need most satisfactorily. If soil isn't physically right, Driconure has the humus content to build it up. If soil is toxic, Driconure will overcome this unfavorable condition. If increased bacterial activity is necessary Driconure will create a most active bacterial culture for its component parts are natural food for bacterial development.

Try it! Compare! Note the color and softly resilient condition of turf after it has been consistently treated with Driconure. One good, thorough test and you will agree that Driconure is the right fertilizer because it feeds the natural way—the *right* way. Samples and prices gladly sent.

INVESTIGATE Driconure as the safest and soundest fertilizer for 1932.

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This is the way the test read two years ago: P. H. value 5.6 to 6.0, P205 250 to 350 pounds per acre, organic material 1 to 1½ parts in 10; root growth 3 to 4 inches; color of grass, shiny green, and stems stiff and sturdy. I might also say that greens that run high in organic material showed a little less P205 and vice versa.

Evidently if I have found anything worthwhile it will show itself next year, if someone is willing to try and keep a few greens under similar conditions. Some place along the line should be a medium of organics and phosphorus in the soil to produce the right kind of healthy growth.

I don't want anyone to believe that I don't use nitrogen because I do, both quick and slow available but all my greens had the same proportion of nitrogen per square foot and there weren't any that showed the result of the four special greens, so I have come to believe that the amount of organic material and phosphorus has something to do with their success.

Spring Work

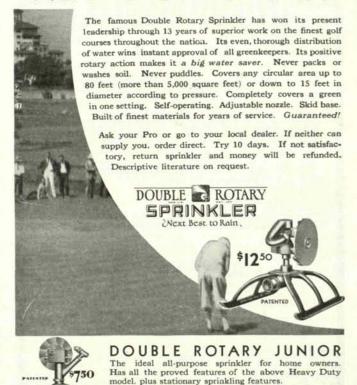
By JOSEPH BALL, Greenkeeper Chartier Heights Country Club, Grafton, Pa.

AFTER the snow has cleared off in early March, I usually make a thorough examination of my course and note very carefully the winter damage so I have no guessing as to where to start.

I usually take the temperature of the ground at various times. In the meantime my men are busy mixing fertilizers and topdressing. And when the temperature rises outside sixty to seventy degrees and the ground is fifty I begin fertilizing. You will notice your grass responding much quicker and at the same time avoiding waste by spring rains, leaching and washing away your fertilizer before it has had time to act on the plants.

It is unfair to always blame fertilizer for your troubles. You can underfeed and overfeed; always let your greens a little on the hungry side. Pay close attention and you will soon note that it will become familiar to you. Let up immediately and your greens go into the dormant stage for now they need rest not abuse. This advice is more for the young greenkeeper.

Greenkeepers Everywhere say: "NEXT BEST TO RAIN"



Give your greens a good sulphating early in the spring as soon as the ground is warm and before the weed seeds germinate. This will cut down your weed picking expenses. I have cut my weed picking expenses from \$20 a day to 75 cents a day. When you start out in the spring let your first thought be greens and fairways; other work can stand.

109 COCA COLA BLDG.

DOUBLE ROTARY SPRINKLER COMPANY

KANSAS CITY, MO.

I am sending you a picture of one of the little things a greenkeeper has to do outside of greenkeeping. A rustic bridge spanning a ravine on No. 13 fairway, 205 ft. long, 16 ft. high in the middle, built by my own men at a cost of \$316 only and supervised by myself.

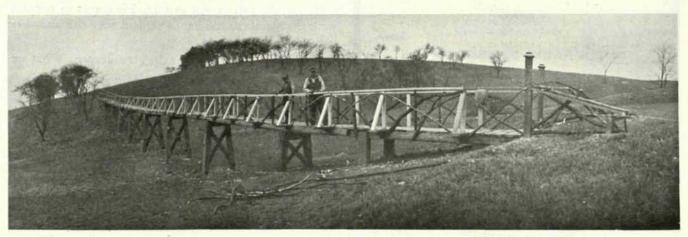


PHOTO OF RUSTIC BRIDGE BUILT BY JOSEPH BALL AT THE CHARTIER HEIGHTS COUNTRY CLUB



EFFECTIVE and ECONOMICAL for

FAIRWAY FEEDING

HIGHER ANALYSIS
+
LOWER PRICE
=
LOW ACRE COST

BETTER TURF

000

will PLEASE GOLFERS and HOLD MEMBERSHIPS

000

AVOID A COSTLY ERROR—

MILORGANIZE FAIRWAYS

THIS SPRING

000

FOR FURTHER INFORMATION
WRITE TO
DEPARTMENT "N"

THE SEWERAGE COMMISSION

MILWAUKEE, WISCONSIN

IDEAL TURF

Minnesota Gossip

By H. E. STODOLA, Secretary



H. E. STODOLA Secretary, Minnesota Association of Golf Course Superintendents.

THE Minnesota Association held their monthly meeting at Minni-kahda Club, Monday, February 8. There were sixteen men present. The meeting started off with a bang and Leo Feser, chairman, kept business moving at a fast pace. The National Convention just over and the Minnesota Greenkeepers' Short Course next week, there was plenty to discuss.

Four of our men attended the National. They were Charles Erickson, Minnikahda; Leo Feser, Woodhill; Emil Picha, Midland Hills; and Leonard Bloomquist, Superior. These men were very enthusiastic over the meeting and said they were

given a royal reception. They were especially proud of Colonel Morley; and Charley Erickson said Leo Feser did himself up proud.

These men from Minnesota spent some time in Canada, but never said anything about the courses there. However, they spoke highly of Canadian beverages, and that's something. They visited courses on Long Island, then spent a day in Washington, D. C., and a day at Pittsburgh. At each stop they were treated like kings.

The two Minnesota delegates to the Convention, Picha and Bloomquist, will give their reports at the Short Course to be held February 15, 16, and 17. This course was discussed at the meeting and the Twin City Green-keepers will attend one hundred per cent.

The question came up who was this Short Course to include. It is very plain that it should include the Green chairman. He is responsible to the club for the maintenance of the golf course proper. He comes in contact with the members and has to explain why this and that is happening.

He is the contact man for the greenkeeper. What we greenkeepers of Minnesota are trying to put over is "more consideration and respect for the Green chairman by the greenkeeper."

The Green chairman is the man that we must work with and understand. Therefore, he should have a knowledge of golf course conditions. One can not expect him to know as much as a greenkeeper, because greenkeeping is his hobby and not his business. But to have his finger tips on the fine points of maintenance he should attend the Short Course. For that reason an invitation was sent to every Green chairman in Minne-