HUBBARD NURSERIES

CREEPING BENT STOLONS

Washington and Metropolitan Strains

Pure, free of weeds, and of one season's growth

DR. AMOS F. HUBBARD, N. Kingsville, Ohio

home. The New York boys all offered their help to make John comfortable while he was in their midst and saw that he was well taken care of. How nice it was to have friends in a

strange city in time of need.

This is just one of the points of brotherly love and fellowship found in our association. John is home now but is still confined to his bed. We hope he will be well in time to attend the convention as it would not seen; like old times if we did not see his smiling face and hear his quiet voice to greet us. The last report we had stated that he was getting along very nicely.

N. A. G. A. COMMITTEES-1929

(Continued from page 19)

Harry A. Burkhardt, Chairman, Cleveland, Ohio
Committee on Benevolence

John MacGregor, Chairman, Wheaton, Ill. Eric H. W. Pahl, Hopkins, Minnesota George Davies, Louisville, Ky. Alex McWhinnie, Morrison, Ill. Paul Andress, Salem, No. Carolina John Anderson, West Orange, N. J. Carl A. Bretzlaff, Indianapolis, Ind.



1929 Catalogue

A postal will bring your copy

You will note a general reduction in prices and numerous new items.

We will have space No. 11 at the Greenskeepers Show in Buffalo.

J. Oliver Johnson, Inc.

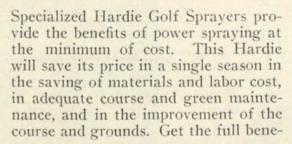
World's largest golf course equipment house

Morgan Huron Superior Sts.

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A LOW-PRICED DEPENDABLE GOLF SPRAYER



fits of soluble fertilizers and fungicides, insecticides, worm eradicators, and weed killers by applying them with a Hardie. Saves time, materials and depreciation. Write for Hardie literature on golf course maintenance and Hardie Golf Sprayers.

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Canadian Factory, Petrolia, Ontario







B. R. LEACH



JOE VALENTINE



VICTOR GEORGE

PROGRAM Third National Greenkeepers' Conference Hotel Statler, Buffalo, February 13, 14, 15, 1929

Wednesday, February 13-2:00 P.M.

SOILS I HAVE SEEN ___ By O. J. Noer, Milwaukee, Wisc. ANIMAL VS. CHEMICAL FERTILIZERS
By Victor George, Lafayette, Ind.

Thursday, February 14-2:00 P. M.

HUMUS AND ITS USES _____By James A. Smith, London, Ohio GRUB CONTROL _____By B. R. Leach, Riverton, N. J. CAN GOLF MAINTENANCE BE STANDARDIZED?
_____By R. H. Montgomery, Detroit PLANTING AROUND THE CLUBHOUSE _____By Prof. A. H. Tomlinson, Guelph, Canada

Friday, February 15-2:00 P. M.

FUNGI DISEASE FROM A FLORIST'S STANDPOINT
_____By J. E. Cannaday, Sedalia, Mo. EDUCATION OF GREENKEEPERS

By Prof. L. S. Dickinson, Amherst, Mass. BROWN PATCH CAUSES AND CURES

By Dr. John Monteith, Jr., Washington, D. C.

THE TREND IN THE GREENKEEPING PROFESSION

By B. R. Leach, Riverton, N. J.

CONSULT HOTEL BULLETIN BOARD IN LOBBY FOR LOCA-TION OF CONFERENCE ROOM



JNO. MONTEITH, JR.



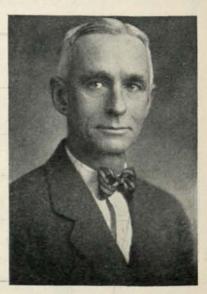
O. J. NOER



J. E. CANNADAY



R. H. MONTGOMERY



JAMES A. SMITH



ALL ABOARD FOR BUFFALO

Time: Feb. 13-16, 1929-Place: Hotel Statler

By ROBERT E. POWER, Editor-The National Greenkesper

THE big day will soon be here when we all leave for Buffalo. It is the Third Annual Conference, Convention, and Golf Show of the National Association of Greenkeepers of America and greenkeepers from far and wide are coming.

Word arrives from the Trans-Continental

Passenger association that many greenkeepers from California and British Columbia have made reservations and special permission to buy reduced fare tickets as early as February 6th has been granted. The Southwestern Passenger association has advanced the purchase date of tickets to February 8th for greenkeep-

To Obtain Reduced Fares to Buffalo

Read These Instructions Carefully

Present yourself at ticket office any day between February 9-15 inclusive at least 30 minutes before train time.

Tell the ticket agent you are going to Buffalo to attend the National Greenkeepers' Convention and ask for a reduced fare convention certificate.

If your wife or children accompany you get certificates for them also.

Buy your full fare ticket to Buffalo—the reduced rate applies only on the return trip.

On arrival at Buffalo report at once to Harry A. Burkhardt, Chairman of the Registration

Committee at the National Association of Greenkeepers of America. Registration Booth in the Golf Show.

Leave your certificate with him until Friday and if you are in good standing it will be validated by the Special Agent.

Call at the Registration Booth Friday and get your certificate properly validated.

When you buy your ticket home present your certificate to the ticket agent in Buffalo and you will get a full fare ticket for half fare, thereby saving you 25 per cent of your total railroad expense.

ers in Oklahoma and Texas. Greenkeepers from New York. Philadelphia, Pittsburgh, Cleveland, and Chicago are going to Buffalo in special cars which will be granted to any group of twenty-five at the regular reduced rate.

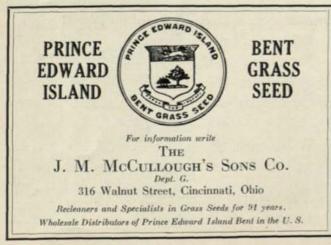
You will find on a preceding page the complete Conference program of papers to be read and discussed on the afternoons of Wednesday, Thursday and Friday. Practically every subject connected with golf course maintenance is included and men who really know these subjects from practical experience will be the speakers.

There is no guess work about the greenkeepers' Convention or Golf show. It will be one hundred percent in quality and interest to golf club officials, greenkeepers, and in fact everybody interested in turf culture and maintenance. We will see gardeners of private estates, superintendents of grounds of schools and colleges, and keepers of parks and cemeteries in the show and at the conferences because their problems are similar to the green-

keepers and they use essentially the same equipment and supplies.

The Golf Show opens Wednesday morning at 10: 00 o'clock with President John Morley officially "pushing the button." Immediately afterwards Mr. Morley will call his Executive Committee into session and by noon all the machinery will be running at full speed.

It is most important to all those who are





making the trip to Buffalo to write ahead and reserve rooms because there will be a big crowd and those who do not make reservations cannot expect to find any of the reasonably priced rooms left for them. The Statler Hotels all over the country have rigid rates which are published and posted in every room and from which there is no variation. Each room is equipped with a radio and bath and the management provides every service and comfort which is known to hotel life.

Greenkeepers who bring their wives may expect to see very little of them because special entertainment has been provided, while the mammoth hotel itself with its shops and social affairs affords many interesting sights for the ladies.

One of our greenkeeper brothers writes in and says, "The Convention this year at Buffalo will undoubtedly be a success if you can keep the greenkeepers on the American side of the border". We have no idea just what he ards composed of the most able and experienced means, but perhaps it's the same reason which attracts so many tourists over there in the summer time.

MEETING DATES

Opening of Show-10:00 A. M. Wednesday. Executive Committee Meeting-12:30 P. M. Wednesday. Exhibitors Breakfast-9:00 A. M. Friday. Committee Meetings-7:30 P. M. Friday. Annual Meeting-10:00 A. M. Saturday.

WATCH THE BULLETIN BOARD at N. A. G. A. Headquarters in the Golf Show.

New Committee on Standards

TOHN MORLEY, president of the National Association of Greenkeepers of America, in his customary progressive and farsighted way. has appointed a committee on Standards to serve during the ensuing year.

In his letter of appointment Mr. Morley says:

"I believe the time has come when our association should consider the adoption of certain standards to protect the golf clubs against inferior products which may be used in competition with standard articles. Therefore, I have decided to appoint a Committee on Standmen I can find who will act with me as chairman during the ensuing year as a help and protection to our member greenkeepers and their clubs.

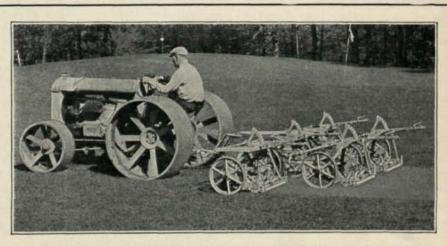
"Personally, I believe the appointment of this committee will make a decided impression with the golf club officials and will serve as a warning to the trade that the association is alive and will not permit unmerited products to be foisted upon its member clubs. We have had the experience and I feel we should not shirk our responsibilities and I believe we may do something constructive to add to the standing and reputation of our association.

"The committee I have appointed is as follows: John Morley, Youngstown C. C., chairman; T. H. Riggs Miller, Richmond County C. C., Staten Island, N. Y.; George Sargent, Scioto Country Club, Columbus, O.: Edward B. Dearie, Jr., Ridgemoor C. C., Norwood Park, Ill.; Joseph Valentine, Merion Cricket Club, Philadelphia.

"I will call this committee together at Buf-



Smooth operation is permanently assured with F. & N. TITAN Fairway Mowers enter the patented F. & N. Self-Adjusting Device in the sendering selection.



The NEW

F. N. "Quintet" Fairway Equipment

New and greatly improved features are offered in the famous, trouble-free F. & N. Mowing Equipment for Golf Fairways for 1929. In addition to greater strength, more convenient and efficient operation, the new flexible all-steel frame for 1929 has been considerably lightened in weight. The F. & N. "Quintet" is equipped with TITAN Mowers especially designed and built for this purpose. They embody the same superior points of construction as heretofore which have made the F. & N. Fairway Equipment famous. The patented interlocking frame and cutter bar construction positively keeps the mowers in rigid alignment and prevents the frame from becoming wobbly. The gears are drop-forged steel, with cut teeth, and heat treated. They revolve on genuine Timken Roller Bearings in a constant bath of oil. The five blades are made of special analysis chrome vanadium tool steel. All parts are machined and fitted as precisely as those in finest automobiles. Best of all, the reel bearings are equipped with the patented self-adjusting device which entirely eliminates the troublesome adjustments of these bearings. The F. & N. Fairway Equipment is supplied in gangs of three or five for any tractor. Write today for full details, catalogs and special prices.

The F. & N. Putting **Greens Mower**

Greenkeepers who have used the F. & N. Putting Greens Mower, frankly say that it is the finest on the market for preducing those velvety smooth greens so necessary today. Here's why: Unbreakable, all-steel construction. Patented interlocking frame and cutter bar. Cut steel gears. Self-adjusting. Alemite oiling. Etc., etc. Furnished with rubber-tired carriage for transporting. Write for full details and prices today.

The F. & N. Lawn Mower Company Richmond, Indiana

falo and trust you will accept your appointment and be present at that time."

Greenkeepers Will Banquet Thursday Eve

GREENKEEPERS and their families and friends will sit down Thursday evening at seven-thirty with golfers from the Buffalo district and others interested in maintenance work, to the annual banquet which is always a big feature of Convention week. This banquet is open to the public and reservations may be made and tickets secured at the Registration Booth in the Golf Show. The cost is \$3 per plate.

The Entertainment Committee composed of Robert Henderson, chairman, and Al Schardt, secretary and other members of the Western New York Greenkeepers Association has prepared a splendid menu and program for this event. Special music has been provided with songs by women soloists, also group singing by the whole assemblage.

The menu is in keeping with the highest

Toro Equipment

Lecco
Milorganite
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GRASS SEEDS

Greens Discs
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ECONOMY SPRINKLERS

Write for our 32 page Illustrated Catalogue on Supplies and Equipment

GOLF COURSE SUPPLY COMPANY

3049-51 Carnegie Ave. - CLEVELAND, OHIO
A. E. FLACK H. J. STREICH



Statler standard and is appetizing enough to tickle the palate of the far-traveled epicure.

MENU GREENKEEPERS BANQUET

Thursday, February 14th, 7:30 P. M. Fruit Cocktail

o—o
Bisque of Lobster Soup
Celery
Mixed Olives

o—o
Half Chicken Casserole
Potatoes Parisienne
String Beans
o—o
Hearts of Lettuce

Russian Dressing

Nesselrode Glace'
Petit Fours

Large Coffee
Tickets \$3.00 each

Tickets can be secured at the Registration Desk in the Golf Show

Golf Course Maintenance

By GRANGE ALVES, Pro-Greenkeeper Acacia Country Club, South Euclid, Ohio



GRANGE ALVES

OLF course main-T tenance has been a subject of importance for the past decade. You hear of what Bill does in New York and what John does in Pittsburgh and after reading all there has to be said about everything being done this and that way. it reminds you of a mother's dispensary where the topic is, "what is the best way to bring up babies." Some declare that for constipation the best thing to use is castor oil and the next one will swear by Castoria and so on down the line: so that most of the moth-

I have personally taken a great interest in not only golf course maintenance but also golf course construction. I have also attended pretty nearly every convention pertaining to the wonderful advancements for better turf, heard everything discussed pro and con and actually have come back to my own responsibilities like the green mother who went to the dispensary with her baby-not a bit wiser. I have also ready every article by the many leading agronomists for the past 8 years on grasses, fertility and turf diseases and I know not of anything that has been said or written that can be concrete. About four or five years ago I attended a convention and about that time the Washington strain of creeping bent stolons was the popular putting green turf. Its quality and reputation was said to be absolutely immune from brown patch and those who have observed any kind of stolon bent putting greens the past season have seen some of the worst brown patch areas they ever put their eyes on.

To golfers who know a true putting surface, they know these vegetative greens are impossible to figure and to the greenkeeper they are more worry and more expensive to main-

Looking Across

about just as wise as they went in.

ers who go there to better their knowledge of

how to raise their children generally come out

This scene taken soon after the course was completed shows how interested the members were in the work

Acacia's Broad Acres





THE above product is the result of highly skilled craftsmanship, wide awake research, the best obtainable materials, and, a firm desire to produce something way above the ordinary from a service giving standpoint.

In order that users may be properly served at the lowest possible prices it is marketed in the most direct and economical way—through Industrial Supply Distributors. Specify REPUBLIC.

THE REPUBLIC RUBBER CO. Youngstown, Ohio



BELTING - HOSE - PACKING - MOLDED GOODS - LATHE CUT GOODS

tain than a seeded green ever was. Many courses in the Cleveland district that have maintained every conceivable kind of bent stolon greens have gone through the worst siege of brown patch ever known in this country. When the seeded greens old and young were blighted with it and were given the proper treatment they came back in a week. But the former type of green, many of them, never did respond to the same treatment.

This point I want to bring out rather than make a long story out of the many things pertaining to the upkeep of a golf course. There is nothing that I have ever seen that will stand the test of being concrete or prove to be right or wrong. To find his out for yourself map out a number of golf courses here and there to visit and bring your problems to this one and that one, and you will be lucky if you get one to agree with you. There is not a greenkeeper who is up and doing who cannot break down most any kind of an argument on what Mr. Smith says is right or Mr. Jones.

I read an interesting article by Mr. Tracey on evolution in which he said many of the findings of the scientists who study it, dreamt and read their findings of which about one per cent came true; the rest you could discard.

So it goes with all the theoretical and practical experts we have in existence preaching golf course maintenance. You have to be broadminded, use your own common sense of what you observe, analyze what you read and the golf courses you visit, study the soil conditions and their form of treatments. If it compares with your own, go back to your own course taking the worst part of a green and put it to the test before plunging into a lot of expensive experimenting.

There are many very able men who are today giving advice who have had nothing more than a theoretical training on golf turf and who have learned and had their minds broadened from the so-called practical greenkeeper with no theoretical training, and some have in fairness to the greenkeeper admitted so.

Facts We Do Not Know

ECONOMY starts with construction and the best expert advice that can be obtained is by far the cheapest in the end. I have

seen so many golf courses built from the top down that can never be corrected. To undo the damage would cost three times as much as the first cost. There is a right and a wrong way to everything and to build from the bottom up means success in obtaining best results.

The soil at the Acacia Country Club is clay and in order to bring about the proper aeration, drain tile was installed twenty-five feet apart with six rows laid on every fairway. Cinders were put on the top of the tile about eight inches deep and the ditches back filled with the natural soil. The fairways were then ploughed six inches deep, disced, harrowed and levelled, then from twenty-eight to thirty tons of rotted manure spread to the acre and disced thoroughly into the soil, with five hundred pounds of bone meal to finish off with: then seeded to fescue, blue grass and redtop.

Greens Construction

THE top soil was removed and composted with rotted manure and sand, and these compost piles turned over every month until the greens were framed drained and the sub grade formed. The sub grade was ploughed and coarse gravel disked thoroughly into the sub-soil then one foot of screened top soil applied to the finish with thirty ton of sharp sand and compost mixed completing the seed bed. They were then seeded down to German creeping bent. The results obtained were remarkable and the course is gradually rounding itself into one of the best turfed in the district.

In maintaining the course I have always felt that a great deal of trouble arose from compost. Compost in most cases at many clubs I have seen has to be used while too green, never being allowed the chance to ferment and be turned over enough to be properly prepared for use. Last year, reading of a commercial fertilizer and its wonderful qualities for turf nourishment I discarded my green compost pile and have dressed with this and sharp sand with wonderful results. The turf grew finer and weeds less troublesome. The results have been so satisfactory that for 1929 the same formula of operation will be carried out. Compost preparation is a big item and with the same success in results for the 1929 season, compost will be off my list.



Drains can be Truck and Tractor-Proof

ROLLERS, tractors and heavy ground equipment severely test drains used in golf club service.

Armco perforated pipe is not damaged by impact because it is flexible—it cannot break.

Your name and address will bring complete information.

Armoo culverts and drains are manufactured from the Armoo Ingot Iron of The American Rolling Mill Company and always bear its brand.



Armco Culvert Mfrs. Association MIDDLETOWN, OHIO

Perforated PIPE

@ 1929, A. C. M. A.



FOR HEALTHY GREENS

Cleve-Brand

Special

Granulated

CHARCOAL

Retains Moisture-Makes Soil Porous

THE CLEVELAND CHARCOAL SUPPLY CO. 1125 Denison Avenue Cleveland, Ohio

I use tobacco and charcoal and sulphate of ammonia also on our greens and have my own general opinion when such operations should be applied. This year I have used arsenate of lead to see what results could be obtained, but so far I am not ready to form any conclusive opinion until further trial.

Watering Important

I DO not believe in heavy watering. Our operation in watering is six greens and six tees each night from four to six hours, the larger greens getting the six hours. I have seen greens drowned and a lot of coarse matter brought about from too much watering.

Before concluding I want to say that I have practiced a great many things against the laws imparted of today and when I say that, where results could not be had with sulphate of ammonia and other plant foods I have used hydrated lime and although contrary to the "book", have had marvelous results. And results to me or to anybody are like the old saying, the eating of the pudding is the proof of it and after all it's results that count.

In closing there has been remarkable progress made in the past ten years on golf turf. And to our fathers Piper, Oakley and Carrier who paved the way for others to follow after in the great research work for better golf turf, the greenkeepers and Green committee chairmen owe a great deal of thanks. No matter what the outcome of their dreams were, (some of them have been good, and some not so good,) but with their constructive, everlasting and untiring efforts, they have broadened the minds of many who have gained all knowledge from their grand work. As a result every golfer enjoys today the results of the combined teaching of these men and the experience and untiring efforts of our greenkeepers in bringing about better golf turf.