#### MILORGANITE THE IDEAL TURF FERTILIZER For further Information address SEWERAGE COMMISSION 508 Market Street Milwaukee, Wis.

Most leading greenkeepers today have been up against it with small tees and if the architect or contractor has not supplied enough teeing space they are remedying this fault themselves, by enlarging their tees periodically, as they can get the necessary time and money. At Crestmont we have enlarged all of our short-hole tees as well as some of the long ones.

This fall we enlarged our number 2 tee from eighteen hundred square feet to three thousand three hundred and sixty square feet. Now I figure on keeping as near as possible perfect turf on this tee all the season through. Of course we have laid the water line to it also.

It is very essential that the teeing ground gets at least the same standard maintenance as the putting green. I find it works well to have the tee markers changed every morning

## Grass Seed Fertilizers Seeders Discers Greens Equipment Toro Equipment Grounds Equipment Rollers

When in Chicago visit our show room where you will see the largest display of equipment in the country. A Postal will bring our 1929 catalog.

## J. Oliver Johnson, Inc.

World's largest golf course equipment house Morgan Huron Superior Sts. CHICAGO, ILL.

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## Register NOW for Turf Program

Good turf on greens and fairways is the soundest foundation for satisfactory golf. A systematic, scientific program of turf development is the only sure way to develop the perfect and permanent turf your membership demands.

### First Step—A Complete Survey

Make every move count. A complete preliminary survey of the course, by specialists who *know* turf needs and how to meet them, will give all the necessary information. No mystery—just science and sound sense.

## SecondStep-FollowDirections

The survey reveals the facts about your course. These facts are the basis for sane, sensible recommendations for a systematic program of turf development. Follow these recommendations—and know absolutely that everything you do is right—then you will have turf to be really proud of.

### Result-Economy, Satisfaction

Such a program of turf development is sensible, eliminates costly mistakes, gives positive, permanent results, improves playing conditions, and greatly lengthens playing seasons.

Our organization makes the survey and specifies the entire turf program, at a nominal cost.

Our booklet gives all the details-write for it today.

#### Wendell P. Miller and Associates 105 W. Monroe St., Chicago 85 E. Gay St., Columbus, O. Consulting Engineers - Golf Course Specialists

and at least once a week have the divot holes filled with compost and seed. I have used Rhode Island Bent seed on my tees for two years and find it makes a very useful tough turf and heals up quickly. Much has been said about the tee being mowed with the fairway units, but I find it does not work out except in a very few cases, so I think we will be handmowing our tees for some time yet.

In concluding I would say, "Look after your tees as well if not better than the greens: they get rougher treatment. And keep on making the small ones larger as you get the opportunity."



SAY YOU SAW THE AD IN THE NATIONAL GREENKEEPER

PAGE TWENTY-ONE



"Quality Grass Seed for a Quarter Century"

#### Amherst Course Opens January 2

THE ten weeks winter school for greenkeepers which is held every winter by the Massachusetts Agricultural College at Amherst, Massachusetts, opens this year January 2. The demand for entry was so great that the course was filled four months ago and a waiting list established according to a recent report from the College Short Course office.

M. A. C. is offering one of the best courses of its kind in the country in this new field of golf course management, and because of the large demand has to limit enrollment rigidly and can accept only professional greenkeepers or men who have worked on golf courses and are recommended by Green committee chairmen.

All sections of the country are represented by the application list which includes:

G. H. Cassell, Balboa Heights, Canal Zone, Fort Amador Golf Club.

Harry B. Burns, Jr., Bradford Woods, Pa., Bureau of Parks, Allegheny County.

William Rueck, Evanston, Illinois, Cook County Forest Preserve Course.

Robert Roy, Lake Placid Club, New York.

Lloyd G. Stott, Fall River Country Club, Mass.

Thomas H. Howe, Wellesley Country Club, Mass. Walter Howe, Wellesley Country Club, Mass.

Robert McGregor, Hastings-on-Hudson, N. Y., St. Andrews Golf Club.

Joseph Johnston, Belmont Springs Country Club, Mass.

Charles A. Earle, Spencerport, N. Y., Westridge Golf Club.

Charles T. O'Keefe, Charles River Country Club, Mass.

William F. Stuper, Winnetka, Illinois, Sunset Ridge Country Club.



#### 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

George Picard, Plymouth Golf Club, Mass.

Albert B. Larson, Rockport, Maine, Magunticook Golf Club.

Harry Burkhardt, Rocky River, Ohio, Butternut Ridge Golf Club.

James M. Pauli, Three Rivers, Michigan.

John McNamara, Sharpsburg, Pa., Pittsburgh Field Club.

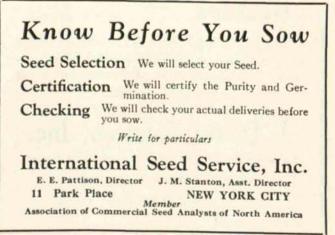
#### Davies Says "Come"

After attending the Executive Committee meeting in Indianapolis, I came back feeling even more sure, if that were possible, about the success of the Convention to be held in Louisville, February 4-7, 1930, and feel quite sure will have much the largest attendance of any Convention up to now, not only of greenkeepers but of the public.

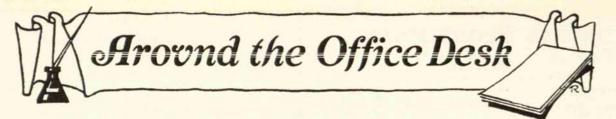
I am sending out an invitation to every member of all the golf clubs in this part of the country to attend the Show and lectures. As you know a great number of these people own large private estates and the exhibits will be of as much interest to them as to the greenkeepers and will give the exhibitor a chance to make sales to these private estate owners or their gardeners. I want to give the Exhibitor all the show in the world and will ask every greenkeeper not to purchase any of his supplies for 1930, be it machinery, seed, fertilizers or what not until he has seen the exhibitors in Louisville and then everything being equal please buy from our exhibitors.

I won't tell you anything about the entertainment but you can bet it's going to be right up to the minute —the greatest any of you have ever seen any place so come altogether. Remember the big Show begins on Tuesday, February 4, 1930.

> George Davies, Chairman Entertainment Committee



PAGE TWENTY-TWO



#### Greetings From New England

Brae Burn Country Club, Incorporated 1897 West Newton, Massachusetts

December 10, 1929

Mr. John Morley, President The Nat'l Ass'n of Greenkeepers of America Youngstown, Ohio

Dear Mr. Morley:

I am in receipt of your letter, dated December 1st, inviting me to attend the 4th Annual Golf Show and Conference at Louisville, Ky., Feb. 4-7.

Owing to the condition of my health at the present time I do not feel able to accept your kind offer. This I regret as I would like very much to attend the Conference. However, if by that time my health has improved don't be surprised if I do show up unexpectedly.

I might also say that while I am still at Brae Burn Country Club, it is only in an advisory way, as I am no longer an active greenkeeper.

I thank you for your kind offer, and if at any time I can be of service to the greenkeepers, you will always find me ready and willing to do my part.

> Sincerely yours, John Shanahan

#### "Come In," Says Moore

HOW on earth any greenkeeper can stay out of this association is beyond me, as it is just what greenkeepers have been after for years. I have heard them say many times that we will never get anywhere or be paid according to our ability because we won't stick together.

Just a few years back greenkeepers were very envious of each other and if your nearest neighbor was getting good results it was impossible to get his secret, therefore they did not try to help each other and that is the very thing that our association is doing today helping each other.

Boys, what I am trying to get to you is: DON'T STAY OUT, COME IN and you will be well paid. I have asked many pro-greenkeepers to join and the answer that some would give me would be, "I am not able." But that same fellow would go out and play for five dollar nassau and lose all three ways for fifteen bucks, yet, he was not able. Any man can pay these small dues. He can save his pennies and do so and if there is any greenkeeper that is not able to put down \$10.00 at one time to become a member I will gladly loan him that amount and he can return it to me at \$1.00 per month without interest.

I am a charter member, joined when it was in its infancy and the money for my dues has been the best money that I have ever spent. I more than enjoy reading my journal and never miss a word of it. It would break my heart to lose it in any way, because I realize the value of this association and the good it has done for me.

Greenkeepers are not the only ones to be proud of this wonderful association. The men who finance golf clubs are being saved many thousands of dollars each year because the right results are being put into effect through the teaching of this association.

It is also the duty of every member to attend the meeting in Louisville in February and I am sure that any club sending its greenkeeper would be well paid by hard work and honest effort the following year and years to come. It is my intention if nothing seriously happens to be in Louisville and hope to see all of my brother members there.

Hugh Carlton Moore

Sea Island Golf Club P. O. Box No. 53 St. Simons Island, Ga.

#### Toro is Generous

Dear Mr. Morley:

Thank you very much indeed for yours of the 11th, and our only regret is that we didn't have more room to give a wider display to the National Greenkeepers' Show.

As you know, we have been greatly interested in the successful outcome of your organization, and about a

Address all communications relating to Association membership, dues, etc., to--

JOHN QUAILL, Secretary 426 Highland Avenue West View, Pittsburgh, Penna. Address all communications relating to the Golf Show at Louisville, February 4-7, 1930 to---

FRED A. BURKHARDT Chairman, Show Committee 405 Caxton Bidg., Cleveland, Ohio



month ago, when the show contracts came in, I wrote Fred and suggested a series of letters to all the clubs, endeavoring to get them to send their superintendent to the Convention at the expense of the club, which is as it should be.

If there is anything in the world we can do to help your men put this over in a big way, we want you to feel free to call on us, and any facilities we have are at your disposal free of charge.

(Signed) K. E. Goit

#### How About It, Experts?

WE have a little matter of research which has been going on the past year, which I wish to give to readers of the National Greenkeeper, not so much because of the fact that it is going to change our methods but as a reason for certain phenomenon.

What I have been trying to uncover is whether or not the acidity accumulations resulting from the use of Ammonium Sulphate have had a physical effect upon our nitrifing bacteria, or whether or not this acidity has made it impossible for them to make Nitrates which are necessary for plant feeding.

After these bacteria have made nitric acid as a final product, before the nitric acid can be used by plant life it must have become a nitrate by chemical reaction with one of the basic salts always present in our earth, such as calcium carbonate, sodium carbonate, or by simi-





lar action with many other of the basic salts found in the soil. If such a combination has been effected the resulting nitrate becomes at once a feeding for plant life.

Should a green contain a large amount of sulphuric acid as result of heavy ammonium sulphate feedings, our tests have shown that all these basic salts which otherwise might become nitrates have been made sulphates by the excessive amount of sulphuric acid left in the soil, leaving nothing to be acted upon by the nitric acid as produced by the bacteria.

I was convinced that this was true when after making heavy applications of lime water to a green, which was almost past recovery, it immediately regained practically a normal growth and the soil was heavily charged with nitrates where previously it had been sulphates, in excess.

More simply, I should say that our bacteria are not seriously injured by acid reactions in the soil. They should not be as they are constantly producing an acid. (nitric and nitrous) in their daily work, but I believe that after they have finished their work in the creation of a nitric acid, the lack of feedings apparent in our turf is due to the fact that this nitric acid finds nothing left in the soil with which it can combine making a nitrate, thus preventing the loss of nitric acid through leaching.

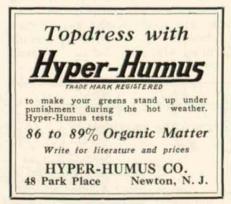
> James A. Smith London, Ohio



# Market Place and Buyers' Guide

Where reputable manufacturers and dealers list and describe their products. Greenkeepers are requested to write the Market Place for any special information they desire about supplies or equipment

Airport Drainage Armco Culvert Mfrs. Association Wendell P. Miller and Associates Ball Washers J. Oliver Johnson, Inc. Bent-Coos County State Sealed and Certified J. M. McCullough's Sons Company J. M. McCullough's Sons Company Bent Seed-Prince Edward Island J. M. McCullough's Sons Company Bent Stolons Hubbard Nurseries O. M. Scott & Sons Co. Stumpp & Walter Co. Ohio Humus Products Co. Bridge Floors Armco Culvert Mfrs. Association Brown Patch Control Stumpp & Walter Co. J. Oliver Johnson, Inc. J. Oliver Johnson, Inc. American Seed Co. Reade Mfg. Co. **Catchbasins, Corrugated Iron** Armco Culvert Mfrs, Association **Cocoos Creeping Bent Seed** Stumpp & Walter Company **Compost Distributor** Toro Mfg. Company Compost Mixer Compost Mixer Toro Mfg. Company Kemp Mfg. Company Compost Screen Ideal Power Lawn Mower Company Kemp Mfg. Company Compost Screen Ideal Power Lawn Mower Company Drainage Engineers Wendell P. Miller and Associates Drainage Gates Armco Culvert Mfrs. Association Dump Carts Toro Mfg. Company J. Oliver Johnson, Inc. Fairway Irrigation Buckner Mfg. Co. Fairway Mower Blades The Budd Mfg. Company E G. Staude Mak-A-Tractor Co. Ideal Power Lawn Mower Works Toro Mfg. Company E. G. Staude Mak-A-Tractor Co. Ideal Power Lawn Mower Company Fairway Rollers Toro Mfg. Company Fertilizers Milwaukee Sewerage Commission J. Oliver Johnson, Inc. Flag Poles Ideal Power Lawn Mower Company Standard Mfg. Company Fictible Steel Mats J. Oliver Johnson, Inc. Golf Course Construction Ohio Humas Products Co. Golf Equipment Stumpp & Walter Co. Stump & Wal



Greens Sprinklers

L. R. Nelson Mfg. Co.
Buckner Mfg. Co.
Hand Mowers

Ideal Power Lawn Mower Co.
Hole Cups
Standard Mfg. Co.
Idea Power Lawn Mower Co.
Hore Drawn Mower Co.
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READE MFG. COMPANY 195 Hoboken Ave. Jersey City, N. J. Rough Mowers Toro Manufacturing Company Pennsylvania Lawn Mower Works Jacobsen Mfg. Company Seed O. M. Scott & Sons Co. J. Oliver Johnson, Inc. Stumpp & Walter Co. J. M. McCullough's Sons Co. Signs Standard Mfg. Company Siphons. Corrugated Iron Armco Culvert Mfrs. Association Sof Cutters J. Oliver Johnson, Inc. Sof Cutters J. Oliver Johnson, Inc. Sof Cutters J. Oliver Johnson, Inc. Sprayers Friend Mfg. Company Hardie Mfg. Company Sprinklers I. R. Nelson Mfg. Company Buckner Mfg. Company Sprinkling Carts Reade Mfg. Company Stolons O. M. Scott & Sons Co. Hubbard Nurserles Storm Sewers, Corrugated Iron Armco Culvert Mfrs. Association Street Culverts. Part Circle Armco Culvert Mfrs. Association Tee Mowers Toro Mfg. Company Pennsylvania Lawn Mower Works Jacobsen Mfg. Company Myper-Humus Company Myper-Humus Company Myper-Humus Company Myper-Humus Company Myser Mfg. Company Mys

#### An Unusual Offer

The Ohio Humus Products Company are making an unusual offer to greenkeepers and golf club officials which will undoubtedly meet with hearty response and appreciation.

In their booth at the Louisville Golf Show they will install a laboratory and will test soil samples while you wait. This information is incorporated in a letter which they will send out to greenkeepers. Here it is—

"Efforts under way to make this meeting even more educational than former meetings have been. We are told that practically all Show space has been reserved or spoken for.

"In our exhibit at this convention we will have ample laboratory equipment and a force competent to operate it so that you may be able to see what might be wrong with some of your soils which have been causing trouble.

"If you will bring a small sample, say six ounces, we will be pleased to examine it and, so far as may be possible, in the limited time and facilities at hand, to suggest the necessary corrections in these soils.

"We cordially invite you to visit us in Booth 38."

SAY YOU SAW THE AD IN THE NATIONAL GREENKEEPER

#### **Position Wanted**

Young man-32 desires position as greenkeeper. A great deal of experience in construction work and well up in all modern methods of maintenance. With present club eight years. Address: H. A., c/o The National Greenkeeper, 405 Caxton Bldg., Cleveland, Ohio.

#### Kemp Soil Shredders

We are pleased to introduce to our readers this month the well known Kemp Soil Shredder, manufactured by the Kemp Manufacturing Company, Erie, Penna. This company claims for their machine that it shreds the soil and sifts it in one operation.

The accompanying illustration shows the power shredder which is

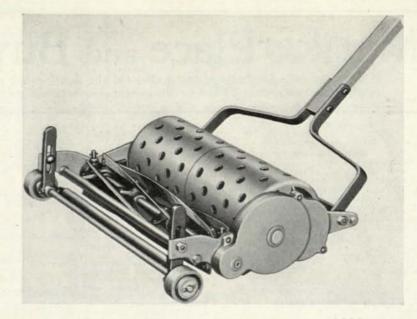


KEMP SOIL SHREDDER This is the type best adapted for aolf course work

ideal for work on the golf course. In the preparation of topdressing for greens the makers claim that one user prepared two thousands yards of topdressing at a saving of sixty percent over former methods. In other words as compared with manual labor the Kemp Soil Shredder will pay for itself in one season.

The Kemp Soil Shredder provides a topdressing material that is free from lumps and as the material is shredded it is also aerated and practically all the moisture is removed. The sieve is equipped with a mechanical shaking movement that is of vital importance in helping the meshes to clean themselves.

The Kemp Soil Shredder can also be used to screen gravel and sand for use in traps and bunkers and makes a real saving in one season.



THE IMPROVED IDEAL GREENSMOWER FOR 1930

#### Ideal Greensmower

The Ideal Greensmower illustrated here has just completed its most popular year. Production for the coming season is being considerably increased to care for the greater demand that is expected in 1930.

A number of important refinements have been incorporated that should make this Greensmower still lighter-running and smoother-cutting. It is now claimed to be the lightest-running greensmower on the market, and weighs but 54 pounds complete with grass box. Its ease of operation is attributed to the particularly high grade of ball bearings, the aluminum side frames and roller and the carefully studied over all design.

Indications are that the 1930 season for grass cutting equipment will surpass that of 1929. Ideal is increasing production on the complete line, including Greensmowers, Power Mowers, Triplex and Fairway Mowers.

Fairway Mowers will show a refinement of details that should insure even better operation. A number of important changes are being made in the design of the 22- and 30-inch Power Roller Type Mowers, and the 20- and 25-inch Power Wheel Type Mowers. In addition a new Power Mower is being added to the Ideal line, which is the world's most complete line of grass cutting equipment.

#### About Bent Seed

For the benefit of your readers, writes J. M. McCullough's Sons Co., seed merchants, 316 Walnut St., Cincinnati. O., we are glad to say that the crop of Prince Edward Island Bent (Agrostis tenuis) is expected to be about 45,000 pounds, which is slightly larger than last year.

The 1928 crop has been sold with the exception of a very limited quantity which we are holding for early orders before the new crop can reach us.

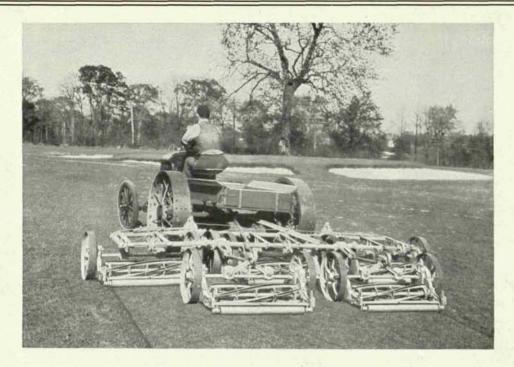
The crop of Certified Velvet Bent will be, we hope, approximately 1000 pounds.

We are also glad to announce a new variety, New Brunswick Creeping Bent (Agrostis stolonifera var. compacta). This will also be Certified and Sealed by the Canadian Department of Agriculture and is a true creeper, somewhat finer in texture than the prevailing vegetative strains.

Both Certified Velvet Bent and New Brunswick Creeping Bent will be sealed in 10-pound bags. Prince Edward Island Bent (Agrostis tenuis) will be sealed in 50-pound bags.

The bed knife of a Worthington fairway mower can be sharpened on a Hardinge Lawn Mower Sharpener without removing the knife from the machine

| Write For Illustration—Particulars—Price |             |                   |                   |
|--|-------------|-------------------|-------------------|
| HENRY H. DOTY                            | Distributor | 1133 Newport Ave. | Chicago, Illinois |



## Easier to Handle and Control

Easier steering, greater speed and better control are all insured with the PENNSYLVANIA "New" Fairway Quint or Trio because of:

- (1) The FLEXIBLE PULL-FRAME. Since this is attached to the tractor by a single bolt, it also permits greater use of the tractor.
- (2) The CLOSELY COUPLED FRAME AND UNITS. The frame is specially designed for quick handling and short turning.
- (3) The WHEEL-TYPE UNITS, which are capable of making shorter turns without digging the turf. They also permit lighter weight with no sacrifice of strength.

Write for new GOLF CATALOG containing full details of the "New" Fairway, the Super Roller and New Aristocrat greens mowers and the other PENNSYLVANIA Quality Mowers for Golf Courses.

PENNSYLVANIA LAWN MOWER WORKS 1645 North 23rd Street : : Philadelphia, Pa. Will exhibit at Annual Grounds Keepers Convention and Golf Show, Louisville, Ky., February 4 to 7

