years since it was organized. John has not only a golf course to look after, but he has the finest grass tennis courts in the country, as well as good clay courts. Any greenkeeper building or about to build a grass tennis court should get a tip from John. He is always willing to help his fellow greenkeeper. He also has the honor of being the Squire of the fashionable district of Sewickley, Pennsylvania.

NOW is the time to harden your putting greens so that they may be better able to stand the ravages of the winter months.

T^F greenkeepers that are considered successful, will join our association, why is it that those who are trying to be a success have not sent in their applications?

JOHN McNAMARA of the Pittsburgh Field Club, Aspinwall, Pennsylvania, is building a putting green undermined by two rows of thirty-inch sewer pipe. It no doubt would be a good place to sit and rest on a warm day to hear some of the language used on a golf course, especially by some of the fair sex.

A DVICE is seldom welcome. Those who need it most like it least. I would rather have a greenkeeper come to my course and observe what I am doing, than go to his and tell him what to do.

E A. CROMBIE of the Edgewood Country Club, Wilkinsburg, Pennsylvania says he wishes that when they took the coal from under the course that they had leveled the hills down to hold the moisture before they seeded the course.

SOME men will not shave on Sunday, and yet they spend all the week in shaving their fellowmen. Many folks think it very wicked to black their shoes on Sunday morning, yet they do not hesitate to black their neighbor's reputation on week days.

BOB HENDERSON of the Buffalo Country Club is wondering how to get the poloists to replace their divots. Bob is doing wonders on their new course.



Say you saw the ad in The National Greenkeeper

Our Message to You

Some of you have seen Bent Nurseries, we wish you could all see ours.

More than five hundred greens will be planted with our Improved Washington Strain of Creeping Bent this fall.

Every bag of stolons furnished will be from absolutely clean nursery rows, free from clover and weeds and less than one year old. Not a drop of artificial watering or an ounce of fertilizer has been used on our nursery stock. You know what that means.

Talk and claims convince no one. Come and see our Nursery, see our equipment and let us tell you what we expect to do for the clubs who patronize us.

BENT GRASS COMPANY HOOPESTON ILLINOIS

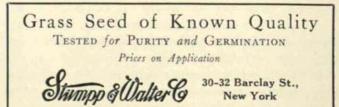
"When there is a better strain of Bent, we will grow it."

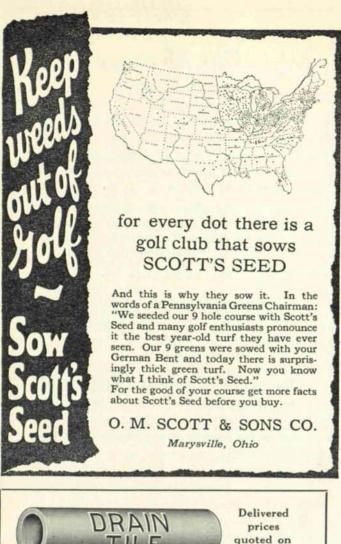
Tile Drainage For Golf Courses Is A Permanent Investment Insures Good Turf

Hancock Vitrified Tile is Everlasting

Write for Drainage Bulletin

The Hancock Brick and Tile Company Orchard Avenue FINDLAY, OHIO





request

THE E. BIGLOW CO. Dept. G New London, O.

From Local Viewpoint (Continued from page 16)

such combined applications have a tendency to check the growth of the grass for several days thereafter, which was noted by the much smaller amount of clippings in evidence after mowing. In his investigations, Mr. Stanley Aldrich, greenkeeper at Madison Golf Lakelands, made five applications of corrosive sublimate combined with sulphate of ammonia this season, and the results after each application showed a decided slackening of growth.

Late in the afternoon the elective meeting was held. Fred Burkhardt, Westwood Country Club, was elected president, succeeding Mr. Morley. B. G. Sheldin of the Country Club accepted the vice-presidency, and Frank Ermer of Ridgewood Golf Club, was elected secretarytreasurer.

Mr. Burkhardt announced that the new Advisory committee will be appointed at the first indoor meeting, to be held at the Hotel Winton the afternoon of November 14.

A B C of Turf Culture

(Continued from page 13)

sulphate of ammonia. This can be determined only by trial.

Nitrate Containing Nitrogen Fertilizers

NITRATE OF SODA-This material is also called Chile saltpeter. It is obtained from large deposits in Chile and contains about 15.5 percent nitrogen, equivalent to nineteen percent ammonia.

Nitrate of soda is water soluble and very quick acting. When too large applications are made it burns the turf. Unlike sulphate of ammonia it is never held by the soil, but leaches away in the drainage waters unless taken up by the turf.

The continued use of nitrate of soda encourages the growth of undesirable grasses and weeds. It has a tendency to make the soil less acid, and when used repeatedly may eventually produce a bad physical condition on heavy soils.

Because nitrate nitrogen is the form preferred by most plants, early spring applications of nitrate of soda frequently show quicker results than any other nitrogenous material if the weather remains cool. All experimental results on turf seem to indicate that nitrate of soda should not be used regularly as the main source of nitrogen.

Phosphoric Acid Containing Fertilizers

BONE MEALS-As previously stated bone meal contains from 22 to 27 percent phosphoric acid. They are all slowly available because none of the phosphoric acid is water soluble. Due to the high lime content they make the soil less acid and encourage clover. Because of the slow action, high cost and tendency to encourage clover it is probable that very little bone meal will be used on golf courses in the future.

ACID PHOSPHATES-The acid phosphates are made by treating rock phosphates (mined in Florida, Tennessee and the Carolinas) with sulphuric acid. They can be obtained in at least three grades containing 16.20 and 44 percent phosphoric acid. Generally the higher the content of phosphoric acid the lower the cost per pound of phosphoric acid.

The treatment with acid converts the insoluble rock phosphate into soluble acid phosphate, and hence this is the most readily available phosphate fertilizer obtainable. When added to the soil the soluble phosphoric acid is precipitated as very finely divided calcium or iron phosphate. In this condition it dissolves rapidly in the soil solution when the turf roots make heavy demands. Phosphoric acid does not leach from the soil.

The name acid phosphate is a misnomer, because it refers to the process of manufacture and not its effect upon soil reaction. Acid phosphates have a slight tendency to make soil less acid due to liberation of calcium (lime) when the phosphoric acid unites with the iron always present in acid soils.

Acid phosphate should not be used in larger quantities

than are required by the turf grasses, because of the stimulating effect of phosphoric acid on clover, particularly if the soil is not acid.

BASIC SLAG—This material is seldom used in this country but is a very common phosphate fertilizer in Europe. It is produced when phosphoric iron ores are used in the basic process of steel manufacture, an excess of lime is used to combine with the phosphoric acid and remove it in the slag.

Basic slag contains about 15 percent phosphoric acid and large amounts of lime. It is a slow acting material and makes the soil less acid due to the high lime content.

Potash Containing Fertilizer Materials

MURIATE OF POTASH—This is the most widely used potash containing fertilizer. It is mined in Germany and the newly acquired provinces of France. The principal grades imported into this country contain fifty percent potash.

Muriate of potash is completely soluble in water and hence may injure the turf if heavy applications are used. Although water soluble, potash is not lost from the soil by leaching because the potash is taken up and held by the clay particles of the soil in the same manner that ammonia is held. When the potash is taken up muriatic acid (hydrochloric acid) is released. Consequently nuriate of potash tends to increase the soluble acidity in soils.

Clovers have a high potash requirement and are generally greatly stimulated by applications of potash fertilizers. If clover is not desired potash applications should not be made in amounts in excess of the requirements of the turf grasses.

Clubhouse Gardening

(Continued from page 23)

"gardener" deferred the pruning till after the flowering period all might have been well. Forsythias in conjunction with many other shrubs, flower on wood of the previous year's growth. Thus to prune early in spring would be to remove most of the inflorescence.

Just to create a little diversion from the general theme and by request I hope to deal more fully with shrubs, perennials, etc., hoping that these subjects may be of interest to our readers.

Brother Members, Let's Hear from You

As we shall all too soon be looking forward to the long nights of winter ahead, and few can have the excuse of being busy, o'er fairway and hazard, may I make an appeal to a whole lot of brother greenkeepers, and remind them that whilst they are reading of others, the others are not hearing from them. Remember this, boys, you cannot begin any younger, so open up and do not hide your light under a bushel.

SPALDING

Greenkeepers' Supplies

Unsurpassed in quality, workmanship and completeness

Now is the time to go over and check up on what the course needs for next year. Planning now for next spring means valuable time saved later on, and when time is worth money.



Wanderings of a Greenkeeper (Continued from page 15)

No. 5 green I put in creeping bent stolons—and then built nine holes more. The soil on the new nine was very poor, so in the fall I ploughed it all up and sowed it in winter rye. In the spring I ploughed this under, and drilled in soy beans, which in turn were ploughed under the first of September. I then put on three tons of crushed limestone to the acre, with a ton and a half of bonemeal, and seeded it down. In a year I had a splendid stand of grass. All the new nines are bent stolons.

Last year I built nine holes for the Brookside Country Club, Barberton, Ohio.

Clay Gumbo and Silt Need Constant Watering

The first of March of this year found me at the Hillcrest Country Club. The soil here is a heavy clay gumbo and silt. It requires constant wetting. It does not matter how wet the sub-soil is—a few hours of sunshine, and the top is as hard as concrete. For example, this summer we had three successive days of rain—then the sun shone for one day—and lo, we had to water again.

So I quite agree with Mr. McNamara that it pays to move around to different courses, profiting by the knowledge gained in contending with the diversifications of climates and soils. Truly, the old adage, "A rolling stone gathers no moss" certainly was not intended for a greenkeeper.

Say you saw the ad in The National Greenkeeper



Classified Advertisements

Golf Club Officials who wish to secure greenkeepers, assistant greenkeepers and golf course mechanics, will save time and money by writing our Employment Bureau at 407 Caxton Building, Cleveland, Ohio.

Advertisements under this heading \$1.00 per 20 words, 4 cents per additional word. This column is operated in connection with the Employment Bureau of the National Association of Greenkeepers of America.

Classified Employment

GREENKEEPER with 25 years' experience wants good position. Box 152, this magazine.

POSITION wanted as greenkeeper. I am not looking for a snap but must be a real man's job where club wants highest type of results. Box No. 162.

WANTED, position as greenkeeper. Eleven years experience maintenance and construction, three years with creeping bent. Box 163. SUCCESSFUL greenkeeper now employed desires change to more progressive club. Understands every phase of golf construction, maintenance, soil, water and machinery, and have ability to handle help, also experience in landscape architecture and nursery. Age 47. Can go anywhere. Box No. 160.

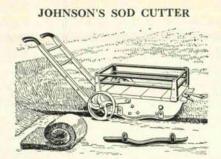
EXPERIENCED greenkeeper will consider position for 1928. Club must desire modern efficiency and the best to interest me. Box No. 161.

GREENKEEPER desires position. Exceptional experience construction and maintenance. Box 153, this magazine.

NOTICE

Greenkeepers who desire to secure positions through the Association Employment Bureau should submit with their applications an account of their experience, proper references and approximate amount of salary requested.

The Classified Advertisement column of THE NATIONAL GREENKEEPER offers a suitable medium through which applicants for positions as greenkeepers, assistant greenkeepers or golf course mechanics may get in direct touch with opportunity.



Price \$45.00

SEED FERTILIZER Worm Eradicators Equipment



JOHNSON'S TURF REPAIRERS

8 inch 12.00 10 inch 15.00

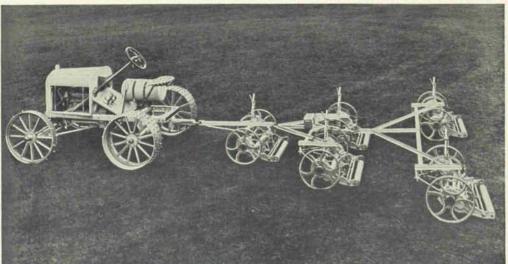
Either one of the above tools will speed up your Fall Repair jobs

J. OLIVER JOHNSON, Inc.

World's Largest Golf Course Equipment House MORGAN, HURON AND SUPERIOR STREETS, CHICAGO

Not only in America, but in England and on the Continent Worthington Gang Mowers, during the last ten years have been used on three times as many golf courses, awarded major Championships, as all other makes of machines combined.

"Wherever you find a good course you will find a Worthington"



Price:-\$1104.00 Complete Worthington Lawn Tractor and Quintuplex Mower combination, cutting a swath nearly twelve feet wide.

CHICAGO Worthington Mower Company STROUDSBURG, PENNSYLVANIA MONTREAL SAN FRANCISCO ENGLAND