

Of Local Associations

of Greenkeepers are Doing

experimental stations and private experiments and it is hoped that these reports will prove of interest to the Greenkeepers and help them keep abreast with the latest developments essential to their work.

Respectfully submitted,

Ed. B. Dearie, Jr.

Secretary.

Greenkeepers' Association of Westchester County

IN November 1925, about 30 Greenkeepers of Westchester County, New York, met at Green Meadow Country Club to form their Association. They chose as their first president, Mr. Tom Winton of Tuckahoe, a member of a famous old Scottish golfing family. The secretary chosen was Mr. King Troensegaard, of Metropolis Country Club, Elmsford, New York, and he fulfilled his duties with great conscientiousness and marked ability. The Association decided to meet the first Monday of each month, and since no regular meeting place had been arranged for, it was agreed to accept the hospitality of various clubs in the county. At the meetings members read papers on the various maintenance problems, and thoroughly educative discussions took place at every gathering. The Westchester Green Section invited the members of the Greenkeepers' body to attend their monthly meetings.

At the annual meeting in November 1926, Mr. King Troensegaard was elected president, and Mr. Edward Casey, of Rye Country Club, took the secretaryship. A satisfactory year was reviewed, and a constructive program drawn up for the ensuing year. Arrangements were made to engage a regular meeting hall in New Rochelle where all meetings are now to be held. A new office was created, namely, that of director of lectures, and for this the members chose Mr. Albert J. Wilder, Fenimore Country Club, White Plains, empowering him to nominate each month two lecturers to speak at the following month's meeting. These lectures are always followed by intensely keen general discussion. At the April meeting two unusually good addresses were given by Mr. R. J. Hayes of Pelham Country Club on "Drainage," Mr. H. Shakeshaft of Century Country Club on "Relative Values of Commercial Fertilizers." These subjects are typical of monthly discussions.

Philadelphia Association of Golf Course Superintendents

In complying with the request that I write an article about our organization I think it would be proper that I write under the heading "The Dawn of a New Day." I really believe that many of us, from time to time, had dreamed that perhaps some day through some strange act of Fate we might meet many of the men who were in charge of other courses and discuss our troubles and problems with them. But we dreamed on and like all dreamers we did nothing to make such a thing come true. Much to our surprise in September 1925 we received an invitation to meet at one of our local clubs and discuss the forming of an Association of Golf Course Superintendents. The gentleman who formulated the plans and made possible "Our Organization" was Mr. Howard Toomey of the firm of Toomey and Flynn, the well known golf course architects and engineers. I would indeed be an ingrate if I failed to mention the names of Mr. Chapman, Mr. Schann, Mr. Flynn and many others who have contributed so much to our success. The organization was quickly formed and that our first year was so successful was indeed due to our wise selection of officers, namely:

President, Mr. Thomas Young, White Marsh Country Club; vice president, Mr. Joseph Valentine, Merion Country Club; secretary, Mrs. I. K. Eddy, Philadelphia Green Section.

It was decided that our committees should consist of a Membership, Educational, Entertainment and Employment, and they have functioned so well that to them must go much credit. The Educational committee furnished *talks* by well known experts on the Japanese beetle, gasoline, oil, hose construction, bearings, planting and the care of trees, etc., and our worst enemy, brown-patch. In addition we had two wonderful trips to the U. S. Experimental Station at Riverton, New Jersey, and a splendid demonstration of golf course equipment and *good time* at the well known Manufacturer's Club and the Philadelphia Toro Company headquarters. The latter was furnished by their representative, Mr. Gustin.

This article would not be complete without mentioning the name of Mr. Leach of the U. S. Experimental Station at Riverton, New Jersey who gave so freely of his

time and knowledge that we might be better prepared to combat the golf course pests of fungus and insect life.

We meet once a month at different clubs and find these visits very instructive as we get ideas on how the other fellow does it and the results speak for themselves on the general condition of our courses. At our recent annual meeting Mr. MacFarland of the Marble Hall Club was elected vice president, Mr. Elwood Young, secretary, Mr. Lave, treasurer and the writer president.

Have we a slogan? Oh! yes—"Better Employees." That we may deserve this compliment from our employers since the "dawn of a new day" is the sincere wish of

Fraternally yours,
Lewis M. Evans, President
Cedarbrook Country Club.

Metropolitan Association of Greenkeepers

AT the invitation of the Westchester Greenkeepers' Association a meeting was held in February 1927 in the Hotel McAlpin, New York City, of Greenkeepers from Long Island, New Jersey, Staten Island and Westchester County for the purpose of forming a Metropolitan Association of Greenkeepers. There was a gratifying turnout, and the new association was launched with enthusiasm. The following office holders were elected:

President, Capt. D. L. Rees, Progress Country Club, Purchase, N. Y.; first vice president, J. H. Youmans, Nassau Country Club, Glen Cove, L. I.; second vice president, Riggs Miller, Richmond Country Club, Staten

Island; secretary, R. J. Wyllie, The Links Golf Club, Roslyn, L. I.; treasurer, N. L. Mattice, Lakeville Country Club, Great Neck, L. I., (now of Pine Valley, Philadelphia); trustees, 1st., Robert J. Hayes, Pelham Country Club; 2nd., A. Lauer, Glennbrook Country Club; 3rd., H. Shakeshaft, Century Country Club.

The first annual meeting was held on March 7th, when the president, in his address, outlined a program for the year, featuring the formation of a series of committees—Care of Equipment, Elimination of Pests, Watering, Rolling, Fertilizing, General Maintenance, etc.—These committees will turn in reports, which will be read and discussed fully, and filed as a record of the year's work. Considerable research is planned, too, along the line of soils and grasses. Findings and summarizings of vital interest are looked for, since the territory covered by this association is widely representative. The Metropolitan meetings are held quarterly in New York City, the next being in May, when the president hopes to select a member to act as "press agent"—one who will arrange with the Press to publish all activities of the Association.

Twin Cities Greenkeepers' Association

Fourteen of the members of the Twin Cities Greenkeepers' Association enjoyed the hospitality of the Toro Manufacturing Company at a banquet held at the Radisson Hotel, Minneapolis on March 11.

Those present were Carl Handall, Minnetonka Country Club; Charles Erickson, Minikahda Golf Club; Eric Pahl, Interlachen Country Club; Victor Larsen, Minneapolis Golf Club; Benjamin Eide, Superintendent of
(Continued on page 33)



First Annual Banquet, given by the Toro Manufacturing Company, in honor of the Twin City Greenkeepers' Association, held on March 11th, in the Spanish Room, Radisson Hotel, Minneapolis



The Clearing House



Address all questions relating to general golf course maintenance to this department. Every question answered free of charge by a committee of experts.

Exterminating White Grubs

Having had considerable trouble last year with the white grub, I used ten ounces of sodium cyanide to fifty gallons of water on putting greens. In September, after taking up some of the turf I found there were eight to ten grubs per square foot that the cyanide did not kill. At the strength I used it, the turf was burned to some extent. What is another remedy and how do you use it?

Clayton, Mo.

An emulsion of carbon disulphide applied with a proportioning machine will kill white grubs, but will not insure against infestation another year. It is the best emergency treatment so far known. Professor B. R. Leach, in his work at the experimental grounds at Riverton, New Jersey, has determined that when lead arsenate is mixed with the top soil of a green under construction at the rate of $3\frac{1}{2}$ pounds per 100 square feet, this will insure against white grubs, as well as grubs of other kinds for a period of five years. At the present time he is experimenting with lead arsenate poisoned soil applied in regular top dressings on old established turf. Such a method would be of very little trouble to a greenkeeper, who has only to add the poison to his regular top dressings. However, it will take another year or two to determine whether or not a grub-proof layer of soil can be built up on an established green. It is interesting to know that these experiments already show that applications of lead arsenate at the rate of five pounds per cubic yard of top dressing on established greens already show a marked stimulation of turf growth, a lessening of weed growth and a discouraging effect on angleworms and grubs.

(Members of the N. A. G. A. are urged to conduct an experiment on an established golf green, using lead arsenate mixed with top dressing, and applying the poisoned dressing twice each month during this season. Continuing this experiment next season, by the fall of 1928 every greenkeeper who complies with this request should send a complete report of conditions to the office of the association at 405 Caxton Building, Cleveland.)

Snow Mold in Canada

Our only trouble here is a fungus that seems to form on top of the snow, and when the snow goes off it is deposited on the grass. The fine grasses of the greens it kills outright, and we get bare patches all over the greens. It also appears in the fairways and rough. Where the grass is long it does not hurt. Last winter we covered

the greens mostly with willow, and this year when we took the covering off the grass was fine underneath. Our greens are low lying and undrained, but when we get them going we have no trouble at all during the season. What procedure do you recommend?

Edmonton, Alberta, Canada.

The use of straw or brush covering on such affected greens should not be generally recommended. It has been tried in Minneapolis and Detroit, and although some years it seems to check the amount of injury, in many more cases it seems to greatly increase the amount of damage. This probably depends upon how quickly the change is made from winter to spring. If there is an early thaw and the covering is left on for a long time there is likely to be some damage, whereas if spring is late so that snow remains late and disappears quickly and the greenkeeper removes the covering soon after, there is likely to be much less damage. Perhaps this condition prevails generally at Edmonton, and if so it would perhaps be wise to use a covering. However, this should be tested thoroughly before being definitely recommended.

Sulphur in Water

Last fall we drilled a well 190 feet deep, and this water is almost black with sulphur. What effect will this have on our greens?

Toledo, Ohio.

As a similar condition prevails at an old established nearby club, this question was referred to the other greenkeeper for quick reply. A further discussion of this problem will later appear in this magazine. The greenkeeper, who has had twenty years' experience, writes:

"The water used at our club is secured from a drilled well and an artificial lake. Both come from an abundant coal mine, which contains a large amount of sulphur. We have never had any ill effects from the use of it. However, you should have the water analyzed, as there may be other chemicals in it which are injurious to your greens. Bents and fescues are averse to lime and sulphur, but by all means have an analysis made and make a further report."

Clock Type Practice Green

I have been asked to build a practice green of the clock type, on a corner of the clubhouse lawn. We have good natural drainage with clay subsoil, and need very little grading as it has a gentle slope to the east. We can

build one 75 feet in diameter. What is the most practical diameter, and what suggestions can you give me as to the right way to build such a green?

This is a type of green very little called for. Such a green should be more on the level with slight undulations than all sloping in one direction, and surface drainage should be kept in mind. A green of this kind of 75-foot diameter would be very desirable, as the hole can be located anywhere on the green. The green should first be contoured, with due regard to perfect surface drainage, then covered with about four inches of good top soil, of fine and mellow texture free from stones and sticks. The usual method of sowing seed or stolons, rolling and watering should be followed, taking care that a fine spray nozzle is used on the hose and the watering carefully done to prevent washing out the new planting.

Pine Needles on Greens

Will pine needles left on a new green and covered with top dressing have a bad effect?

If the needles are too plentiful, so that they have covered the grass it would be well to remove a quantity of them. If their presence is only slight, they will probably do no harm, but if there are many, conditions detrimental to the growth of bent may develop, owing to the pitch and resinous materials contained in the needles. They do not decay very rapidly, and although containing a slight percentage of nitrogen, they are of little value as a humus forming material.

Excess Acidity

Is there any danger of getting too much acidity in bent greens by the use of sulphate of ammonia?

All soils have a marked tendency to resist change in

reaction, especially so the heavier soils. Hence repeated applications of sulphate of ammonia are many times required before the desired point of acidity for bents is reached. Except in some special localities it is doubtful if the soil will become too acid, especially if top dressing mixtures are regularly used. It may be possible that you need a balanced fertilizer, such as 12.8.4. or 8.4.3., but before the proper proportions of fertilizer can be determined, you should have your soil analyzed to determine its general quality and acidity. One member of the questionnaire committee asks you to send in a sample of your putting green soil, which he will test and send report direct to you. Mail to the association at 405 Caxton Building, Cleveland.

Forcing New Bent Greens

May I have a few of the most important points about bringing new bent greens into quick playing condition?

DuBois, Pa.

About three weeks after planting, such greens should be ready for a top dressing. This is the critical time in pushing the grass along to make a thick mat of turf. The green can be made or spoiled from this time on. All runners should be kept up by brushing different ways of the green, preferably every day, and by all means cut the new grass every day, top dress every two weeks, and use good judgment in keeping properly watered. This of course depends upon soil and weather conditions. Your top dressing should be mixed in accordance with the type of your soil. If heavy, use plenty of sand and cut down on the manure and top soil. After the green has been planted four or five weeks, sulphate of ammonia added to the dressing will hurry the grass along. Such a green should be ready for play in about six weeks, if care and conditions are right to make it so.

Where The Big Tournaments Will Be Held

June 2—French open Amateur Championship at **Wimereux**.

June 9-11—Long Island Golf Association Amateur Championship at the **Engineers Country Club**, Roslyn, Long Island.

June 9-11—New Jersey State Golf Association Amateur Championship at the **Trenton Country Club**, Trenton, New Jersey.

June 14-16—United States Golf Association Open Championship at the **Oakmont Country Club**, Oakmont, Pennsylvania.

June 14-18—Missouri Golf Association championship, **Meadow Lake Country Club**, Kansas City, Mo.

June 17-18—Pacific-Northwest Golf Association Open Championship at **Colwood Country Club**, Victoria, British Columbia.

June 20-24—Ohio Golf Association Amateur Championship at the **Miami Valley Country Club**, Dayton, Ohio.

June 20-25—Pacific-Northwest Golf Association Amateur Championship at the **Colwood Country Club**, Victoria, British Columbia.

June 20-25—Trans-Mississippi Golf Association Amateur Championship at the **Broadmoor Golf Club**, Colorado Springs, Colorado.

June 22-25—Metropolitan Golf Association Amateur Championship at the **Nassau Country Club**, Glen Cove, Long Island.

June 27-30—Twenty-eighth Annual championship Connecticut State Golf Association at **Hartford Golf Club**.

June 28-29—Massachusetts State Golf Association Open Championship at **Sandy Barr Country Club**, Wayland, Massachusetts.

July 11—British Open Championship at **St. Andrews**, Scotland.

July 18-23—Western Golf Association Amateur Championship at **Seattle Country Club**, Seattle, Washington.

July 27-29—Buffalo District Golf Association Championship at **Wanakah Country Club**, Buffalo, New York.

August 2-6—United States Golf Association Public Links Championship at **Ridgewood Golf Club**, Cleveland, Ohio.

August 17-18—Irish Open Championship at **Portmarnock**, Ireland.

August 22-27—United States Golf Association Amateur Championship at **Minikahda Golf Club**, Minneapolis, Minnesota.

September 1-3—New York State Golf Association Amateur Championship at the **Oak Hill Golf Club**, Rochester, New York.

September 19-24—United States Golf Association Women's Championship at the **Cherry Valley Club**, Garden City, Long Island.

September 28—French Open Championship at **St. Germain**.

November 21-28—Professional Golfers' Association Championship at **Cedar Crest Country Club**, Dallas, Texas.



Month by Month With the Trees

By C. M. SCHERER

Principal of The Davey Institute of Tree Surgery, Kent, Ohio



A CONTINUOUS and conscientious following of the best rules and practices in the feeding, pruning and spraying of trees is very helpful in eliminating the need for the treatment of cavities. However, trees are subject to accidents. Many times during grading operations the bark of the neighboring trees is bruised and torn. Lightning sometimes rips off large areas of bark. Fire, the weather, certain insect pests and often times careless individuals are responsible for wounds in trees which if not treated cannot heal before infection of the wood takes place and decay has progressed to such an extent that the physical strength of the trees is materially depreciated. With these facts in mind it is easy to realize that the treatment of cavities in the care of trees is essential.

When cavities are treated several different purposes are expected to be realized. First, it is necessary that all diseased wood be removed. In other words the infection has to be eradicated from the trunk or branch of the tree and unless the diseased wood is eradicated failure is sure. Next after the disease is eradicated it is necessary to protect the wound from future infection. Of course, it is obvious that the diseased tree is weaker physically than is a sound tree so that the third purpose sought is the restoration of as much physical strength as possible to the treated tree. The fourth result desired is the ultimate complete and perfect healing of the wound so that there is no possible chance of future trouble at the same place.

You Must Know What Causes Decay

In seeking to accomplish the first purpose of treating cavities, it is not particularly important to know the cause of the wound in the tree. However, it is very essential that one knows the cause of the decay. There are

some wood destroying fungi such as the so called mushroom root rot, caused by the fungus (*Armillaria mellea*) which very rapidly and completely permeates the roots and base of an infected tree so that unless the tree is treated in the early stages of the disease, it is impossible to eradicate the diseased wood and of course that means failure of the treatment. The white heart rot of trees caused by the fungus (*Fomes igniarius*), the brown checked wood rot, caused by the fungus (*Polyporus sulphureus*), the white piped butt rot caused by the fungus (*Polyporus pilotae*) which is confined almost

entirely to oaks and chestnuts, are in about the same class as is *Armillaria mellea*. It is equally true that most all the other causative organisms work slowly and that little fear need be had of success in eradicating them from the tissues of the tree. With this information it is quite apparent that much time, energy and money can be expended in trying to do the impossible when the operator does not have the necessary information concerning the disease which is affecting the tree.

Some Trees Worth Treating, Others Are Not

Not only is it necessary to have knowledge of the troubles, but it is equally necessary to have a knowledge of the tree itself together with a knowledge of the insect pests which attack that tree. As an example, one can cite the case of cherry trees. Sometimes specimen cherry trees are so located that they are of great value, but when one realizes that it is next to impossible to get a cherry tree to respond to the treating of diseased areas in its trunk and branches, one can appreciate the fact that it is more economical and satisfactory to allow such a tree to stand as long as it will and then replace the tree with some other more desirable variety. Another example, is the

Author is an Expert

Almost every greenkeeper has trees to take care of and loses a certain number every year. That's why we have enlisted the aid of Mr. Scherer, a nationally noted tree doctor to tell us what happens to the trees through all seasons of the year. It's a precious work, saving trees, and we believe the greenkeepers of America will appreciate Mr. Scherer's contribution to our worthy cause.—EDITOR'S NOTE.

white birch tree which is being attacked throughout the country by an insect pest which cannot be controlled. This insect is killing the birch trees very, very rapidly and consequently it would be poor judgment to try to save the birch trees from the attacks of some wood destroying organism when you can be reasonably sure that within a few years at the most it will pass on because the attacks of an insect which up to the present time is beyond any control measures which can be followed.

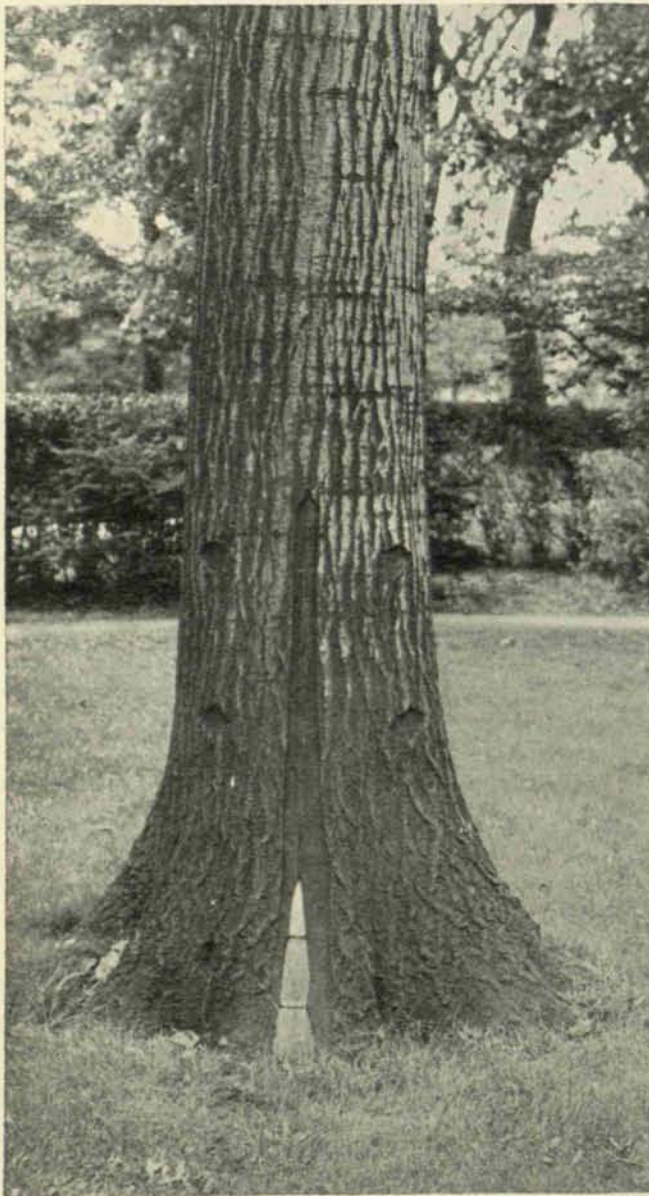
Tree Surgery Compared to Dentistry

Still other trees seldom merit the treatment of diseased areas because for various reasons the wood decays

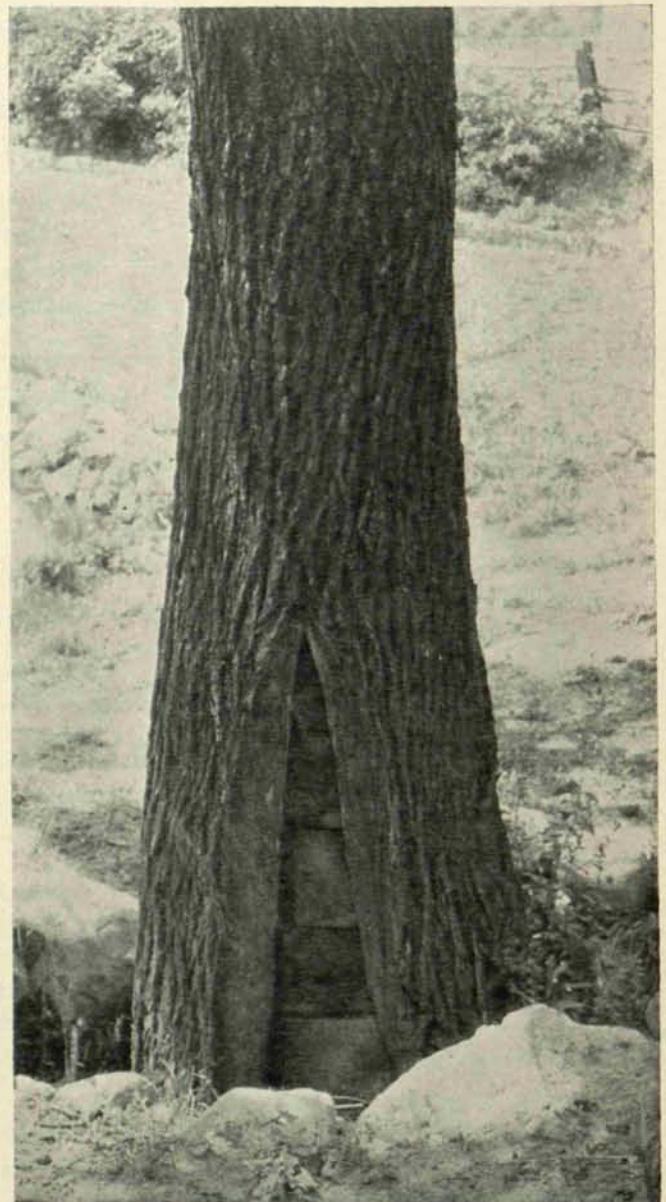
very rapidly and usually the tree is one which grows quite rapidly and a new and better tree can be supplied at less expense than would be needed to care for the tree already in place. This is particularly true of many of the poplar trees. Poplars are not particularly desirable at best and it has to be a valuable poplar tree indeed that merits the necessary expense to treat diseased areas in its trunk.

When the infection has all been removed from the wound, it is next necessary to protect that wound from future infection. The wound must be sterilized in much the same way as a dentist or a physician sterilizes the wound in a tooth or a break in the protective skin cover-

Examples of Expert Tree Surgery



Perfect healing over cement filling in oak tree on J. R. Nutt estate, Cleveland



New bark growing over cement in severe wound in elm tree, on Myron Wick estate, Chagrin Falls, Ohio

ing of your body. Immediately following the sterilizing process, it is necessary to cover the wound with some dressing which is permanent and after the dressing is applied it is necessary to fill the cavity with some permanent substantial weather and disease resisting material. Up to the present time no substance better than cement has been found for this purpose. Cement is cheap, permanent, easily obtained and easily applied. At the same time it is a perfect protection against outside agencies getting into the wound through the protective covering of the bark.

Proper Bracing Plays Important Part

Before filling is put in place, it is often times necessary to brace the tree to restore as much as possible its original strength. One has to be well versed in the mechanical structure of the tree in order to place the braces most advantageously. A brace placed in the wrong position is often worse than no brace at all. Whereas a brace placed properly is almost always one of the many division points between failure and success. Of course the filling itself adds considerable strength to the tree in that it prevents the sides of the cavity crushing together under the terrific strains to which trees are subjected.

Many Factors Control Success

Even if the first three purposes are fully realized and the last one is a failure, the whole operation is a failure. In other words, the wound must of necessity heal to have the operation a success, and there are certainly many factors which have a bearing upon the successful healing of a treated cavity. It is quite apparent that a tree must be healthy and vigorously growing for the wound to heal. It would seem a comparatively easy matter to decide whether a tree is growing vigorously.

Many of us from casual observation decide that a tree is growing rather vigorously, but when we check up on the details which prove our first opinion right or wrong, we find many times that our opinion has been wrong. It is only by a careful examination of the twigs and fissures in the bark that we can determine the vigor and growth of a tree and even after the examination a novice has a rather difficult time interpreting the signs which he may find.

When the wound is made it is necessary to make the angles in the cut at both the top and bottom at a certain sharpness. Experience has proved that an angle greater than (35°) thirty-five degrees is an invitation to failure. One must also cut parallel to the downward flow of sap in order to insure healing. Experience has proved that any irregularity in the side of the wound defeats the very purposes which we originally sought to obtain. In putting the filling in place certain definite rules and practices must be followed or failure rather than success is assured.

After having followed this article through, it should be apparent that the successful treating of cavities in trees require not only proper training in diagnosing the trouble, determining the tree and its general condition, but also demands proper training in mechanical skill or technique to put into operation the principles and practices of the care of trees definitely shown to be necessary in a particular case under consideration. The operator must be constantly on the alert to assure himself that none of the many essential details are slighted. There are few things more discouraging in the care of trees than the expenditure of considerable time and money trying to treat the cavities in some worth while tree, only to find a year or so later that the energy and money has all been wasted and the tree is probably in worse condition than it was when the operation started.

A LIMITED NUMBER OF BACK COPIES OF THE NATIONAL GREENKEEPER ARE AVAILABLE

The January, February, March, April and May numbers contain important articles, among them:

The A B C of Turf Culture, by O. J. Noer
Month by Month With the Trees, by C. M. Scherer
The Permanent Beauty of Concrete, by James E. Foster
What Golf Rules Affect the Greenkeeper, by Robert E. Power
Following Through with a Grass Seed, by John Morley

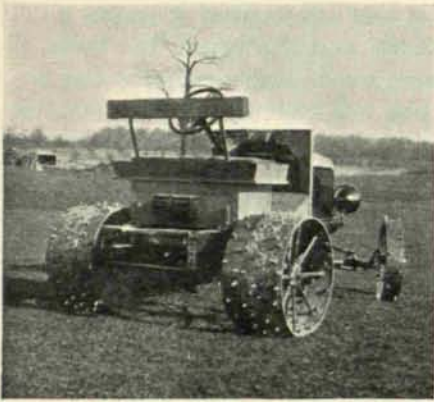
KEEP YOUR FILE OF THE NATIONAL GREENKEEPER COMPLETE

Price 25c per copy

407 Caxton Building

Cleveland, Ohio

Around the Market Place



New fairway tractor with six speeds just introduced by Russell S. Horner, Geneva, Ohio

Shipping Stolons

SCOTT INGLE of the Bent Grass Company, Hoopeston, Illinois, deplores the condition of his game, which has come about as he says "from wanting too much to pick up rocks and sticks from patches of beautiful turf and from stopping to admire a green that is like a bit of rare art in its perfection."

Mr. Ingle sends us a sample of his nursery stock, and asks us not to mistake it for something requiring sugar and cream. "Nearly all our stolons of Washington bent are separated by our process from the parent stem, and it is being attached to the parent stem that causes most heating when stolons go wrong on board cars in shipment."

New Compost Mixer

A SMALLER size of the Royer Compost Machine is now being manufactured by this company.

The capacity of this small mixer is 9 cubic yards per hour, which is ample for the preparation of compost for the average golf course, so we are advised by Mr. L. F. Mitten, Wilkes-Barre, Pa., sole distributor of the Royer.

Shipment can be made within a week or ten days from date of order, and literature describing the new model will shortly be ready for distribution. Write now for your copy.

Proportioning Machine

FOR some time the Elwin Proportioning Machine has been in use by greenkeepers in various sections of the country.

It is valuable in applying chemicals in liquid form, and fits any ordinary size barrel. A concentrated stock solution is mixed in the barrel, the proportioning machine set in, and the dilution of the mixture is controlled by the regulation of a valve in the water supply. Particles up to $\frac{1}{4}$ -inch in diameter will not clog the apparatus.

This company manufactures and distributes several items of golf maintenance equipment and supplies, among them being an all brass putting cup, furnished with a one-inch brass ferrule to fit over the end of the pole.

Your name should be on Mr. Winn's mailing list, and when you write, ask for information about his new machine for the application of "Calogreen" for the control of brown-patch.

Manufacturing Drain Tile

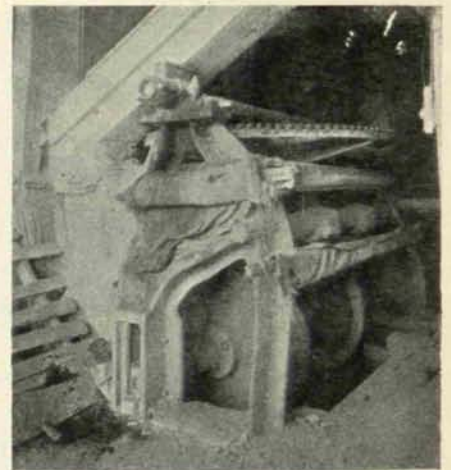
THERE are many important procedures that enter into the manufacture of vitrified drain tile, as we discovered on a recent visit to the large plant of the Hancock Brick & Tile Company at Findlay, Ohio.

One of the most important processes is the grinding to a floury fineness the pure clay used in making high grade tile, and the amount of this raw material which passes through the grinder shown in the accompanying picture every day is beyond description. Passing through copper screens, the clay is then run through a mixer together with just the proper amount of water, and from there into the molds to the cutting machines.

Row after row of kilns, looking much like huge bee hives, receive the stacks of soft tile, and the degree of heat to each kiln is recorded by pyrometer.

We followed the processes through the cooling kilns to the loading platforms and even into the partly loaded freight cars, and during our final inspection we saw some pieces of finished tile dropped by accident, but with no injury to the tile. "It will stand a lot of abuse without breaking," said Mr. J. Leo Child, who was acting in the capacity of pilot to the expedition. "Nothing goes to waste, for if any tile is broken, we use it to build good roads with."

You can secure some valuable bulletins on tile drainage if you will address your inquiry to Mr. Child, and in them we would call your particular attention to the special directions for laying connections.



Twenty-five ton grinder in use at the plant of The Hancock Brick & Tile Co., Findlay, Ohio

Economical Top Soil Screen

A HAND drive, Junior model rotary soil screen has just been brought to our attention, with particular notice as to its value on nine-hole courses.

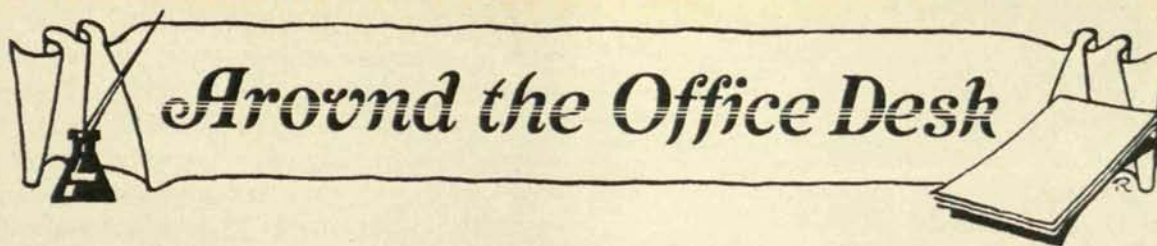
This screen is the Junior No. 4, illustrated in a special folder, and has a capacity of from $1\frac{1}{2}$ to 4 cubic yards of top soil per hour. For the nine-hole course which must be operated with economy, this screen offers a solution of the compost screening problem, and a folder will be immediately mailed to any greenkeeper who writes the Stumpp & Walter Co., 30 Barclay St., New York.

New Fairway Tractor

THE accompanying illustration shows a new golf course tractor now being manufactured by Russell S. Horner, Geneva, O., out of Ford truck parts. This tractor has been used at the Madison Golf Lakelands course at Madison, Ohio, for two seasons, and is now in use by a number of courses throughout the middle west.

Six speeds, special wide tire wheels equipped with the Wear-Well spuds, and general sturdiness of construction are features of this new machine. It is particularly adapted to very hilly courses, and comes with hitch for practically all standard make fairway cutting units.

Full information will be mailed direct to any greenkeeper who writes Mr. Horner.



Around the Office Desk

HOW many questions can an inexperienced greenkeeper ask of an older one in a period of ten minutes?

Recently we received four pages of finely written questions from one source, and if they keep coming in at such a rate the Clearing House will be spread over considerably more than two pages. This young man states, "I have just been reading the last copy of THE NATIONAL GREENKEEPER, and I saw right away it is the goods. I want to join the association, so please send me all particulars, and in the meantime will you give these questions your attention?"

GREENKEEPERS are not the only ones who recognize the value of an exchange of practical information on keeping greens. Mr. T. L. LaMalta, chairman of the Green committee of the Colonial Country Club, Memphis, Tennessee, writes: "After having read THE NATIONAL GREENKEEPER from cover to cover, I am of the opinion that if the standard set-up in the copy I have seen is maintained, the magazine can do a world of good."

THE greenkeeper of the Colonial Golf and Country Club at Wakefield, Massachusetts, Walter Darling, says he is a newcomer in greenkeeping work with only four years' experience, "having taken over my present course after graduation from Massachusetts Agricultural College. The benefits I would have received from an organization of this kind at that time would have helped me very much. I have been waiting for an opportunity to join an organization composed of greenkeepers, as I believe there is no better way of improving golf courses than by the interchange of experience and co-operation of brother greenkeepers."

A. M. ESTERLINE, greenkeeper at the Delaware Country Club, Muncie, Indiana, comes forward with the statement, "I would be a member if it cost me twice as much as it does. I will send you some pictures of my course just as soon as I can get some taken and also tell you how I manage eighteen holes. THE NATIONAL GREENKEEPER is most wonderful, and I am well pleased."

The Family Album

Oh, where is the man who's so dead to the world

That wearing a mustache, he still wears it curled?

And where is the woman who likes to be told
Her bonnet's on crooked, or she's getting old?

Down highways and byways, wherever you roam,

You'll never find any such people at home.

They dwell in our attics, all covered with dust,
In picture frames broken and eaten with rust,

In blue velvet albums, all tattered and torn,

You'll find how a curly mustache should be worn,

And ladies with bonnets awry, and their youth
Extinguished at thirty, accepting the truth.

The curly mustache, and there on the last page
The woman who meekly acknowledged her age.

By Gertrude A. Farley.

THE owner and manager of the Wilshire Country Club at Los Angeles, California, congratulates us on a very fine issue, and says, "I am very glad that we now have a publication which will cater to the men who have to tackle the problems of greenkeeping. I wish you all success in this work."

THE annual meeting and golf show brought an aftermath of reams of correspondence from greenkeepers, chairmen of the Green and many manufacturers. From their number we select one letter from Frank A. Sundy, greenkeeper at the Pontiac Golf and Country Club, Pontiac, Illinois, which states in part, "I want to say I am certainly pleased I am a member of the organization. When I attended the annual meeting

in Chicago I met some of the officials and they certainly are workers for the greenkeepers. In the near future I am going to send a write-up for the magazine. All the boys are writing very interesting articles."

A MAGAZINE which fills the bill with its readers is resting on the firmest foundation possible to build under any publication. Just such a foundation the greenkeepers of America are building under THE NATIONAL GREENKEEPER. That advertisers recognize this fact is confirmed by a recent letter from L. F. Mitten, Royer Compost machine distributor at Wilkesbarre,

Pennsylvania, stating, "I have just written a prospective advertiser in THE NATIONAL GREENKEEPER as follows: 'I am very well pleased with the returns we are getting from the magazine. We have received four or five orders we can directly trace to this advertising. THE NATIONAL GREENKEEPER is reaching the people who actually buy golf supplies.'"

"THE NATIONAL GREENKEEPER is the only golf publication at present carrying our short story of goods for sale, therefore the actual business and inquiries we are receiving we can attribute only to this medium," says T. B. Tuck, of the Cleveland Charcoal Supply Company.

ONE of the most conclusive evidences of the value of this magazine as an advertising medium is the fact that no advertising campaign has yet been entered into, and no letters filled with flowery adjectives have been written in an effort to secure advertising contracts. Yet we receive practically every day subscription applications from manufacturers, with letters stating that the magazine is on their list for 1928 advertising. Recognition of the place the greenkeeper holds in the world of golf, and the desire to bring before him everything that may be of value to him in maintaining a golf course is expressed in these letters.

MISS MARY K. BROWNE, the tennis and golf star, in a conversation with the writer in our office two years ago, exclaimed "Do you know, I think golfers as a whole take as a matter of course the wonderful greens we play on. Personally, I never realized until I talked with you how much there is to this keeping of greens. Where would we be whose scores mean so much to us, if it were not for the knowledge of good greenkeeping and the fine care our greenkeepers give the courses we play over?" Miss Browne only expressed the viewpoint of the average player, and how better could she have proved the point that golfers as a whole take for granted a playing surface, perfect because of the fine art of the greenkeeper in charge.

LET the mission of THE NATIONAL GREENKEEPER be carried on, not in advertising campaigns, nor in editorial wanderings from the direct line of the goal we are striving to reach, but to

Help the young to make good and the game of golf better,

And take at true value the praise in each letter;

Let none dull the edge of our good commonsense,

And in keeping the faith find life's full recompense.

Monkey Wrenches and Mowers

An automotive engineer with twenty-seven years' experience in testing motors for the United States government once said, "There are more automobiles ruined with a monkey wrench and a screw driver than are worn out on the road."

That's a pretty broad statement, but we are wondering what he would say if he saw in one collection all the putting green mowers that have been in use for the past three years on golf courses in this country. Whatever his remark would be, it is sound judgment on the part of the greenkeeper to allow no workman the use of either of these small tools on any mower unless he knows exactly how to use them.

An uneven adjustment of the blades, even very slight, shows up at once in mowing greens, and adjustments should always be made by a man who has mechanical ability. When properly adjusted the cylinder will revolve without binding at any point, and if the machine is well sharpened it will cut paper cleanly and without tearing.

The summer of the putting green mower's discontent is now at hand, and like all other machinery having parts which bear upon each other and set up friction, the proper grade of lubricating oil is a most important factor. Hand mowers should not be lubricated with too heavy a grade of oil. A medium to light oil is best, and

it should be used frequently. If the bearings become gummed from the use of heavy oil, gasoline should be poured into them, washing out thoroughly and allowed to dry. Then they should be filled with medium light oil. Frequent examinations should be made so that at no time is there a lack of lubrication in the working parts.

Mower blades should never be sharpened with a file. If no grinding equipment is at hand, they should be bevel ground on a stone and finished on an emery wheel, which will give them a lasting edge.

Bolts and screws on every mower should be kept well tightened.

It is impossible to give in detail instructions for the care of hand mowers which will cover the various makes in use on golf courses, therefore the greenkeeper should follow carefully the instructions sent him by the manufacturer of the mower he is using. Designs differ, and some operations in the care of one design are unnecessary in caring for another. The manufacturer of any piece of golf course equipment is anxious to have that equipment give satisfactory service, in order to maintain and build up his business. Every manufacturer's equipment must compare favorably with that of other manufacturers in the field, therefore the instructions he sends out for the care and operation of his particular design of mower should be followed implicitly in order to give the mower a fair chance to give service.