of that parent stem. It seems that it should be plainly apparent to any individual that the removal of the dead branches which are always a menace to persons and property in the vicinity of the tree and to the life of the tree itself is far more economical than is the practice of allowing the branches to fall and the stubs to rot away.

### Many Practical Reasons for Judicious Pruning

When one is removing superfluous branches which interfere with the proper development of the tree, it is sometimes difficult to determine just which branches should be removed. Oftentimes one finds two branches trying to occupy the same space, with the result that neither is properly developed and that each is doing more or less damage to the other. In such cases, it is necessary to determine which of the two branches is the more important, which one can fill the place most effectively, and then remove the other so that the one may develop without restriction. Occasionally one finds trees, when this practice has been neglected, in which two or more large and important branches have so interfered with one another that the resultant damage makes it next to impossible to save either of them and since the damage results in the destruction of one or both of the branches, the beauty and the usefulness of that individual tree is destroyed at the same time.

Many times it becomes necessary to remove branches which interfere with activities going on in the neighborhood of the tree. Probably the most outstanding examples of this are supplied by the trees along our streets and roadways. The branches may interfere with pedestrians who use the sidewalks. They may interfere with automobiles using the roads or streets. Or they may interfere with public service wires which go overhead. Of course, the pedestrians must use the sidewalks, the automobiles must use the streets, and probably for a considerable time at least, the public service wires must be suspended from poles along our streets and roads. When pruning of such superfluous branches must be done, a great amount of care must be used so that the sacrifice made by the trees is not too great. The trees give, in their beauty and shade, both an intrinsic and an esthetic value. Whereas, the streets, sidewalks and public service wires represent a definite intrinsic value and when these two values, the one represented by the trees and the other represented by the activities which go on in the neighborhood of the trees clash, it is necessary that each make a sacrifice for the benefit of the other. The happy medium where neither sacrifices too much and where each sacrifices enough, is the ideal to be sought but at the same time, it happens to be an ideal exceedingly difficult to find.

All of us have seen trees which for the exception of one or two straggling branches, are exceedingly beautiful. When these straggling, unsightly branches are properly removed and the merited beauty is given to

the tree, one of the purposes of pruning has been accomplished.

Cut Close With Sharp Tools

In the actual pruning operation, many tools of different kinds are used. In removing small branches, a good sharp pruning knife or pair of hand pruners are very effective. In the removal of larger branches, a saw is requisite and because the wood to be cut is green and unseasoned, a saw made for that purpose is by far the best. All of the better known saw manufacturing companies make saws especially designed for the pruning of trees. Some concerns make pruning saws with long pole handles and these are quite effective in removing small branches high up in the tree. There are also on the market numerous so-called pruning hooks which are built on the same principle as are the pruning shears, but are on the end of a long handle. The hooks can be used to remove twigs which are high up in the tree.

When the branches are removed, considerable care is necessary to insure the most effective healing of the resultant wounds. The cut must be made flush with the parent stem. If a stub is left, healing will not take place. In fact, healing is impossible until the stub is gone. When a tree heals a wound, the healing material in the form of refined sap comes down from the leaves. When a stub is left, there are no leaves beyond the wound and the healing material coming down from the leaves which may be higher on the parent stem will not move out the stub and heal it. When the cut or wound is flush with the parent stem, the healing material coming down from above washes the sides of this wound and healing takes place quite rapidly and in a comparatively short time, the wound is covered with callus and the protective covering of bark is again restored.

Correct Method of Removing Large Limbs

Special precautions must be exercised when large branches are removed. Too many times, carelessly removed large branches result in great ugly tears in the bark and wood of the parent stem below where the cut is made. The weight of the branch is so great that the wood cannot support it until the final cutting is done, but gives way and strips down, causing a wound which in some cases extends a number of feet down the trunk. To properly remove a large branch, it is first necessary to start cutting about a foot or so out from the parent stem and on the underneath side of the branch. Cut through as far as possible until the saw "pinches" and then start cutting on the upper side, an inch or two either way directly over the undercut. This method allows the branches to snap off clean, leaving a stub about a foot long which can then be cut off at the proper place without fear of damaging the parent stem.

The When and How of Pruning

I have often been asked when is the best time to prune, and I usually answer with what is seemingly a (Continued on page 40)

# Building Forty-five

Superintendent, North Hi



Number 2 Green and Fairway ready for seeding, East Course, at North Hills Country Club, St. Louis. This is a Par 3, 215-yard hole

THE North Hills Course, St. Louis, Missouri, was built under my supervision the summer of 1922. I understand we made a record for construction, 45 holes in ninety days! During the period of construction we used 250 men, 55 teams and 5 tractors together with eight 5-ton trucks hauling material. These trucks hauled 150 carloads of manure, 50 carloads of sand, 15 of humus, 45 cars cinders, 2 fertilizer, 1 car lime and 1 carload of seed.

Every golfer is inclined to have decided views upon the merits of a course or the merits of a hole. It does not seem to follow that because a man is a good player he is a good judge of a golf course. A player on a certain course might unexpectedly play a fine game, invariably he will be apt to praise the course, while another player on the same course playing a poor game because of hard luck, is quite as apt to execute the course.

It is not by any means impossible to construct a course which will earn the approval of all classes of players. Golf being primarily a pastime, the player should have the opportunity of extracting from the game the maximum amount of pleasure with the minimum amount of discomfort. To this end the location of the



Here is the working force, every man and every team

# Holes In Ninety Days

UEL LYLE Country Club, St. Louis, Missouri



Part of Number 2 Green, Number 3 Tee and Number 4 Green, top of hill, on North Hill Country Club Course, St. Louis

greens and hazards, non-parallel fairways and proper drainage are to be considered.

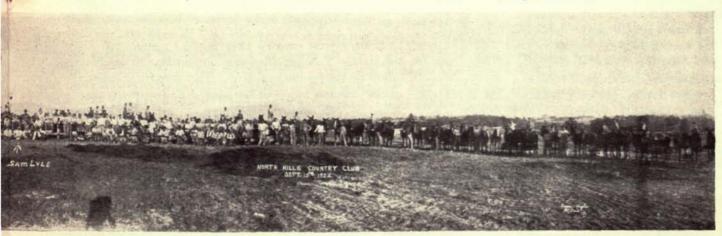
Each green should have its own individuality; elevation and contour. Hazards should be placed around the green during construction, the natural hazards through the fairways may be improved. Severe trapping, I would suggest leaving until after the course has been played upon from six months to one year.

When the site is favorable eliminate running the fairways parallel and run as many north and south as possible.

### Better Too Much Tile Than Not Enough

Drainage is an important factor to a properly constructed course and I do believe that it would be a difficult thing to overdrain a golf course. Many courses are constructed without considering the drainage problem until the time comes for playing, in this case the green-keeper meets with difficulty, in cutting the grass he must resort to hand mowers, which is slow and a costly operation.

Drainage is necessary on most inland courses on account of the heavy condition of the soil which is unable to absorb the spring and fall rains.



made a record in building 45 holes at North Hills in ninety days

In the flat lying districts it is sometimes expedient to grade the fairways as well as to drain them. I suggest doing this from past experience, one instance was that of the Royal Montreal Golf Course, Montreal, Quebec: the land was so flat that it wasn't possible to obtain a fall in any direction. Although an expensive operation the result was well worth the expenditure. Fairways of this description should have two main lines of 6 inch land tile with laterals or branch lines every 30 to 40 feet apart. An important detail in connecting these branch lines into the main, is to cement them and see that the fall runs the same direction as the main lines.

### Protect Your Tile Outlets

It is a good plan to lay the main lines about six inches deeper in the ground than the branch lines, this gives a more ready flow. Main lines should be 3 feet 6 inches under ground with a fall of 4 inches every two hundred feet. The branch lines 3 feet under ground with a fall of 3 inches every two hundred feet, this will insure proper drainage and allow the water to gravitate easily. All outlets should be cemented to stop washouts and wire screened to keep rabbits, etc. from making nests in the main.

In laying the tile have the joints one quarter of an inch apart, over the tile place a thin layer of hay and six inches of clinkers, then fill the ditch within six inches of the top with cinders, this should be tamped firm and a layer of light soil to complete the filling. (Important, see that no clay is mixed with the top-soil.)

Fairways running through the hollows also need some attention. Generally one main line is sufficient with branch lines extending up the slopes: this system of tiling will also take care of the seepage from the hillsides.

### Wet Sand Traps Unfair to Player

Another important drainage question on golf courses is that of sand traps, casual water in the trap is an unfair penalty to the golfer. (U. S. G. A. rules forbid a ball being lifted from casual water in a hazard.) Therefore all greenkeepers should make sure that the sand traps drain immediately after a rain.

I have seen many cases where the water has remained in the sand traps for several days after a heavy rain. most of these cases were avoidable. Location of the traps sometimes make it impossible to run a 3 inch tile into the rough. In this case a French well is a very good solution, made as follows: dig a hole 4 feet square and 4 feet deep at the lowest grade in the trap, fill same with large rocks or clinkers, clinkers preferred. Take a layer of sod and place same upside down to cover the clinkers, then about 3 inches of top-soil on top of the sod, scatter 6 inches of sand, this will take care of your water problem.

The ordinary everyday work of the greenkeeper in maintaining a golf course is often seriously hampered because of improper original construction, and it is only of late years that golf course drainage has received the attention necessary to efficient and economical maintenance. It costs a great deal of money and much discomfort to playing members, to tear up sections of an established course in order to install or add to a drainage system. A full and complete tile drainage system installed when the course is constructed will pay for itself within a short time after the course comes into play, and such a well drained course gives the greenkeeper every chance in the world to make good.

# As We Approach the Green

POR the reason that the approach, or apron to a green is used to a very large extent in the playing of the hole, it is very necessary that it be given very careful treatment so that it will be practically the same as the green. This means that it will have to have the same treatment as the green, both as regards the kind of grass used and the rolling and top dressing.

These approaches should be cut the same length as the fairways. They can be cut with the regular tractor but preferably with a small handpower mower, which makes it possible to cut close to traps and right up to the green.

These approaches should extend for about ten to thirty yards in front of the green, depending on the length of the shot to the green. On a long two-shot hole there should be about thirty yards, while in the case of a drive and pitch hole there only need be about ten yards.

If the greens are all Bent then the approaches should be Bent. This condition can be produced by putting plugs of Bent into the approaches at various places. If the approach is very bad it would be best to disc it, then broadcast bent stolons, top-dress and then roll. Continuing to do this will, in a surprisingly short time, produce the result desired. Remember that perfect approaches are about as important as perfect greens.

Of course the approach can be seeded, in which case bent seed will give good results after the surface has been disced, top-dressed and dragged with chain or brush harrow. In this case the new grass should be allowed to grow long enough to establish itself before cutting.

## Turning Nature's Forces Upside Down

By VALENTINE FLOOD

Professional and Greenkeeper, Shuttle Meadow Club, New Britain, Connecticut

AM one of the few who holds down the position of Pro as well as greenkeeper. I have been at Shuttle Meadow eight years. Came here from Ardsley Club where I spent five years, Crescent Athletic Club four years, Ocean Country Club of Far Rockaway four years,

in charge of New York City's public courses two years, Pitts-field Country Club, Massachusetts two years. Construction work together with the growing of fine turf with me has been a hobby.

Shuttle Meadow is an 18-hole course, 6037 yards long with a par of 71. It is what might be termed an easy, hard course; easy for the duffer, hard for the par player, but always fair to both. Our greens are always green, and you are sure to have a good lie if you are on the fairway. The rough is kept so that you can find your ball.

I have been asked to write a few words on "upkeep" of golf courses. That sounds constructive—but in reality it consists of turning nature upside down—of course Nature rebels and employs every conceivable bug and disease to re-

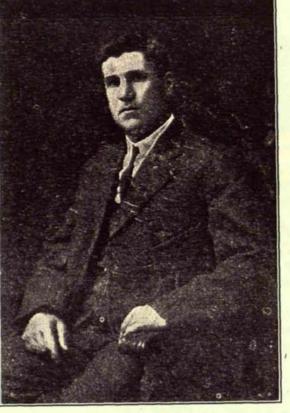
sent our actions. It drifts into a survival of the fittest with a continual fight going on, all the time.

### Unnatural Conditions Govern Golf Turf

Grass was intended to grow into hay and pasture. We reverse that order of things to suit our pleasure, Nature fighting back in the most subtle ways, some of which, while going on all the time we know little of. But everything is counted by results, so, when things are going well, we think we have it. When they go bad we know that the enemy has paid us a visit. The great thing to find out is the real cause—which is not always easy. For example, there are hundreds of worms in the ground of which practically nothing is known. The workings of certain combinations of these grubs may entirely change the character of the soil.

Then there are other forces at command to safeguard Nature's interests, one of which she uses for pruning trees and grass plots. Every now and then she decides that we shall have a winter that will cover the trees with icicles, the coldness of which causes the limbs to become

brittle, and the weight breaks them off. The Indians who have been watching the process say, "It is going to be a good fruit year." And when grass is planted too thickly Nature uses mildew to thin it out. When we convert grass into turf, we not only prevent it from seeding in the natural way, but we keep it working all the time at full blast, which was by no means intended.



Valentine Flood

#### A Good Greenkeeper Must Be "Jack of All Trades"

So we have to get some one to neutralize Nature's methods by bringing one force to combat the other. We call him a greenkeeper, and this is what he should be. First and above all he must have eternal vigilance. He must know the game's requirements, understand construction, drainage, soil structure, turf culture and have an elementary knowledge

of chemistry; must be something of a carpenter, blacksmith, plumber, machinist, painter and a good handler of men with knowledge of what each is best fitted for. Then he must be a stratagest. These are part of the duties which he is sure to be called on to fill. You do not always get a man of this description. But having found the man, who in turn has gotten together his force,—

The first thing to be gone over is the equipment. "There is no time lost in sharpening tools." Get everything ready for spring. There is always a certain best time to do anything.

#### Nature's Time for Sowing Seed

The best time to prune an apple tree is any time you have an axe. But the best time to sow grass on thin

turf on a putting or fair green is in the spring when the frost has just about left the ground; after the process of thawing and freezing when the ground has been left in a spongy honey-combed condition. This is the seed bed constructed by Nature, on which you may plant "bent," with a nurse crop of "redtop," then cover the seed with a warm top dressing; use ordinary care and don't doubt the results.

This method applies to putting greens and fairways, only on the latter you may use some blue grass as well as the others—be sure that the seed is covered—don't expect to have it exposed to the sun and live. Nature has done her part by leaving the ground in such a condition that it invites seeding. One thousand men working one month could not put the fairways of an 18-hole golf course in such an ideal condition to plant grass.

There are two reasons why sowing grass seed in the spring has been condemned. First it was sowed too late, and secondly when it came up it was expected to thrive without care.

### Why Do You Use a Roller?

After your putting greens, fairways and tees have been taken care of, you may direct your attention to rolling. But ask yourself why you are going to roll. Then answer yourself that it is not primarily to give the players good brassie lies, but to insure that the crowns of the grass plants be pushed back to the soil from which the frost heaved them. So that when they throw out their new roots, they will be in a position to reach food. Without rolling, starvation would ensue. Everything is annual either by root or seed, and new roots from bases heaved up by frost, would be out of reach of food centres.

#### Know Your Soil and What It Needs

Now upkeep embodies feeding, seeding, weeding, rolling, cutting, draining, bug killing and bug developing. The soil being the body or incubator that the seed is brought to life in, and the different seeds require dif-

ferent bodies—so nature has supplied different soils for the various seeds.

The problem of the greenkeeper is to make the different soil conditions harmonize with the requirements of the seed sown. This is where the use of manures and other fertilizers come in. Stable manure is the only complete fertilizer known; it is a plant food carrier returning to the soil ½ of that taken away. It helps the physical condition of the soil so as to retain plant food moisture, and releases the minerals buried there. It promotes bacterial life, and land on which it is used responds more fully to commercial fertilizers.

Sandy or gravely soils are usually weak in nitrogen, phosphoric acid and potash. While clays usually rich in minerals contain potash, they are poor in lime and phosphoric acid. Limestone soils are rich in lime and often in phosphates but poor in potash. Then we have soils made up usually rich in nitrogen but poor in mineral foods.

A knowledge of the elements contained in the various soils should act as a guide in the application of commercial fertilizers. But there is no hard and fast rule to guide you. As a general rule potash is a good thing to use on a sandy soil. A clay soil usually has sufficient potash but may require phosphoric acid and perhaps lime and nitrogen. Sulphate of Ammonia is a good thing if not overdone. A thing to remember in its use is that it absorbs moisture—and if used too strong or too often it will seal up the ground, shutting out the air and prevent capillary action, taking to itself the moisture needed by the turf.

### A Valuable School-Experience

Now from an upkeep standpoint the most important thing on a golf course is the greens, then the tees, then the fairways, then the bunkers. But there is no pen long enough to write down all the things that should

(Continued on page 42)



Number 17 at Shuttle Meadow



Number 2 Green, showing slope of fairway at Shuttle Meadow

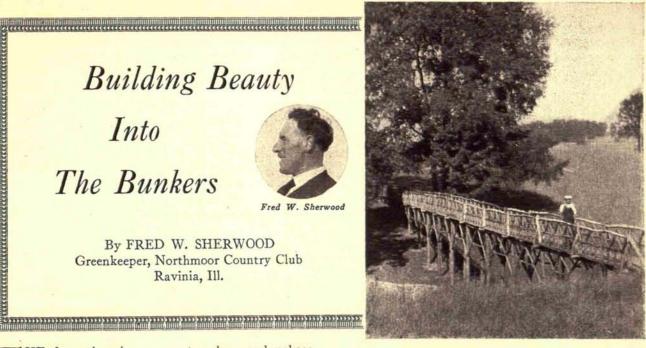
# Building Beauty

Into The Bunkers



Fred W. Sherwood

By FRED W. SHERWOOD Greenkeeper, Northmoor Country Club Ravinia, Ill.



Bridge designed and built by Fred W. Sherwood

THE formation, improvement and general upkeep methods at an up-to-date golf course these days is no small matter, affording as it does keen delight and substantial satisfaction to members and visitors alike who frequent our golf clubs and courses. In the old days when golf courses were artificially made with their inartistic flat greens, possibly some of them down in a hole modeled after a basin, bunkers that were unsightly holes in the ground, varied sometimes by a ridge that stretched across the fairway, which stood out as stately as the Great Wall of China, natural beauty on golf courses was certainly conspicuous by its absence. Just such a one was the Lytham and St. Anne's Golf Course where the British Open was played in 1926, and which ended so gloriously for Bobby Jones.

Seeking Natural Beauty in Building Bunkers This club, which is situated on the West coast of Lancashire, England, rightly or wrongly claims to be the

natural appearing artificial trap designed by Fred W. Sherwood.

Greenkeeper. Northmoor Country Club

pioneer of natural bunker making. When I took charge of the course in 1908, discussions were started as to how to make the course more attractive. What we did when we wanted to make a natural and attractive bunker. we (the Secretary and I) would take a walk into the many sand dunes that abound around this coast, take a mental view, noting the artistic slopes, the gentle undulating wind swept hollows. With this in our minds' eve we remodeled all the bunkers on the course. We kept before us all the time that whilst doing their duties as bunkers they should have a natural beauty and inviting attractiveness so that one felt it a pleasure sometimes to get into them. These bunkers were always made of sand and we varied them in height according to the topography of the ground. A large bunker, say from 90 to 120 feet long at its highest point would be around 16 to 18 feet high and the piled-up sand would vary in width from 18 to 30 feet. We would leave it then for a few days or a week, and the wind and rains would put on the natural wildness before we planted it with a sea side grass, that was commonly called Star Grass. This grew like rushes to about 2 feet high. We would plant it alternately 2 feet apart and this would keep the sand from blowing away. The back side of the trap we would turf and in course of time the front would likewise become grass from its own seeding excepting of course those parts which we wanted to retain as sand hazards.

#### What a Greenkeeper Should Study

We also turned our attention to making the course in general attractive. We sowed wild thyme on some of our fairways (the hilly ones) and what a gorgeous mass of bloom we had around August, clumps of broom (Cistus) in many varieties were planted to hide unsightly places. Golden willows and other shrubs suitable to the conditions were set out, making the course a thing of beauty.

Building a golf course is a work of art and the man who prepares himself for this class of work should be a student not only of nature, but of horticulture, agriculture, landscape gardening and botany. The golf architect and likewise the greenkeeper should be up-to-date if success is going to be assured, for fashions in golf courses like fashions in wearing apparel change very quickly, though I must say in the main it is only the perfecting influence of time that can perfect the fairways.

#### Greenkeepers Should Play Golf

I would strongly urge all greenkeepers, who can find time, to play golf. It stimulates interest, the men get a more thorough insight into duties that are expected of them and it also gets them to look at things from a player's point of view, which is just what we want them to do. I have in mind getting up a competition for the men on one course where I was employed. The committee when I mentioned it to them donated some good prizes to be competed for.

Interest amongst the men was soon aroused. They begged, bought or borrowed golf sticks from somewhere and practiced diligently early and late. As we played medal from handicaps of the three best scores turned in during their practicing period, each just about knew what the other fellow could do. There were some astonishing low scores and one of them today rates in the first ten in England.

### Guarding Against Suffragettes

Another incident of those days which may be of interest to readers was that the British Ladies Open Golf Championship was to be played over the Lytham and St. Anne's course in anniversary of its 21st meeting. We commenced weeks before to have everything in readiness for such an important meeting. Imagine the committee's feelings, likewise my own, when it was hinted that the Suffragettes, who at that time were doing wanton damage to golf courses, and other foolish stunts to have their rights recognized, were likely to pay us a visit. For six weeks I had the greens guarded by night as well as day, and I want to say I was never so thankful in all my life when I saw the last putt holed out and the championship brought to a successful conclusion.

(Continued on page 38)

# A Complete Golf Supply House in Cleveland

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Cleveland, O.

### California Club Joins for Greenkeeper

THE Los Angeles Country Club is one of several which have enclosed their own checks in payment of Charter membership dues, and offers further support by encouraging their greenkeeper, Mr. Cavanaugh, to write a story for our magazine. This club was active in taking steps to organize a Southern California Greenkeepers' Association, and we have heard from them several times. Mr. Quigley, Assistant Secretary, goes on record with the following letter:

The National Association of Greenkeepers of America 407 Caxton Building Cleveland, Ohio Gentlemen:

Enclosed herewith you will find application for membership of Mr. Charles M. Cavanaugh, our Superintendent of Grounds, together with our check for \$5.00 in payment of current dues and a subscription to the National Greenkeeper. Please see that the magazine is addressed to Mr. Cavanaugh personally. We have told him about your desire to have him write an article for your journal and hope that he will have time to comply with your request.

Yours very truly,

March 8, 1927

G. J. Quigley Assistant Secretary.

Los Angeles Country Club, Beverly Hills, California.

# Dealing Death to Earth Worms

By CHRISTOPHER BAIN
Greenkeeper, Oakwood Country Club, Cleveland, Ohio



Christopher Bain

SOME authorities claim that we need the worm for drainage purposes. Well all I have to say is, get good drainage and you will have fewer worms and better greens. For a healthy growth of grass it is necessary that the surface be kept open so that air may reach

the roots of the grass and drainage obtained at the same time, but personally I don't look to Mr. Worm to supply the drainage.

From observation you will find that heavy and undrained soil gives a liberal supply of worms as against a heavy and well drained soil. Naturally a light and well drained soil is still less favorable to the worm.

As to the extermination of the worm there are many worm killers on the market but I have been asked to give results obtained by the use of Corrosive Sublimate (bichloride of mercury), an exterminator I have used for many years.

I have used corrosive sublimate mixed with sand, broadcasted and watered in. I obtained good results from this method, but found it dangerous owing to the water and powder settling in "pockets" on low portions of the green and either killing or greatly retarding the grass in that particular spot. I then made a liquid solution and added same to a given quantity of water. This system was quite successful. However at times I felt I did not get the desired strength, so I forsook this method and now simply add my powder to the water as used—stirring the whole up before applying.

With this system, I am led to understand, some greenkeepers do not obtain quite as good results as from the

use of other destroyers. However, I believe this to be mainly due to the time of application and not to any fault of the powder.

With many exterminators, such as Mowrah meal for instance, we are told to apply on a dull day following rain, and this rule appears to be the one generally followed with all exterminators.



#### BY THEIR WORKS-

THE earthworm's getting busy and he's coming up to see if he can build a mountain where no mountain ought to be. And with him come a horde of little relatives who know from long association with their fellows down below, that if they work most faithfully toward the rising sun, they'll have a multitude of hills to show for what they've done. And after they've accomplished what they started out to do, they wriggle down a little bit and listen in on you. You tee off with a flourish and you make the green one up; your ball rolls slowly to within a few feet of the cup-and then you hear a chuckle and you wonder what's the joke, and take your stance with confidence for one short easy stroke. A perfect putt ahead of you, but do you make it? No! The earthworm's got it fixed just where that little ball will go. You don't join in the chuckle, but you cuss him out instead, and bring down maledictions upon his slimy head. And if the keeper of the greens were near enough to hear, he'd get another name for Nature's Drainage Engineer.

### Delay Application After Rain Fall

After careful observation I have found the second or third day after a rain to be best, and it is immaterial whether the sun shines or the weather be dull.

Naturally you ask why the 2nd or 3rd day and not immediately when the worm is nearest the top and busy? I may say that after heavy rains Mr. Worm keeps busy for quite a few days, and my contention is that while the soil is saturated with water it is more difficult to get to the worm, and the exterminator quickly loses its strength in the soggy green.

A day or so after rain the worm-run is again open and in working order. As you may know in the worm



Sweeping up earthworms with a barn broom at Oakwood

burrow you find in dry weather small particles of grass, leaves, etc., which combined with the slime thrown off by the worm leaves a nice runway for his going and coming. It also makes a good conductor for the poison to reach him and either kill him in his burrow or make him come above ground.

The worm is most susceptible and sensitive to any irritant; hence it is that even an application of soapy water will give results; but we are after his scalp and nothing short of death satisfies a Greenkeeper so we like a more virulent form of poison and so far I have not succeeded in obtaining any better results, with a minimum of labor, than by using Corrosive Sublimate applied by the sprinkling barrel method.

### Mercury Now Advocated for Brown Patch

Now a word on Brown Patch. Having for many years observed that Greens infested with worms, and requiring frequent applications of Corrosive Sublimate during periods of rain, were practically immune from Brown Patch, I became convinced that the applying of Bichloride of Mercury for eradication of worms performed a two-fold purpose, i.e., the destruction of the worm plus an effective control of conditions favorable to Brown Patch.

Some considerable time ago I mentioned this fact to two recognized authorities of the U. S. Green Section. At that time they had not investigated the mercuric treatment as a preventive and were unable to endorse my opinion. Today Corrosive Sublimate is endorsed by the Green Section and the majority of commercial compounds advocated as preventives are mercuric preparations.

## 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 Green-keepers of America.

### Classified Employment

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

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

POSITION wanted as course Superintendent, Swiss-American. Have 17 years experience in constructing and upkeep of Golf Courses, also worked 5 years Potanich in Berlin, Ger., and am A-1 Swiss gardener. Have laid out many Golf courses. Wish to change position. Can give the best of references. Address Box 160, National Greenkeeper.

### 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 Advertisment 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.