Casual water, except in a bunker, is not of any great consequence to the player because he can lift his ball out and away from it without penalty. But in a bunker he must play the ball as it lies or lose a stroke in removing it—so these traps, as we call them, (bunkers is the proper name) must be drained and kept drained. This is imperative. If any bunker cannot be drained quickly after a rain it is the duty of the greenkeeper to request the green committee for permission to fill it up.

**Putting-Green**

The “putting-green” is all ground, except hazards, within twenty yards of the hole.

When you are inclined to place the cup in the corner of the green, remember that 20 yards or 60 feet is quite a distance and the putting green rules governing play are very rigid and explicit. You better get them out and read them carefully. Part of your “putting-green” may be in bad rough on the back of a hillside where the green is built. While it is almost impossible to confine the theoretical putting green to the surface smoothly mowed for that purpose, it is good practice generally in cutting the cup to permit the player to see the hole unless he is in a hazard.

**Hole**

The hole shall be 4 1/4 inches in diameter and at least 4 inches deep. If a metal lining be used, it shall be sunk below the lip of the hole and its outer diameter shall not exceed 4 1/4 inches.

Very little comment is needed except that frequent changing of the hole is necessary if the rule restricting the diameter of the hole to 4 1/4 inches is to be observed. When the edge shows wear or the hole gets larger, the greenkeeper should change it without waiting for special instructions.

(To be continued)

**Editor’s Note**: Next month the author will cite the important rules of golf that affect directly the work of the greenkeeper and comment on the best way to overcome the problems involved.
Around the Office Desk

The Association office is a pretty busy place these days. Everybody shows interest in what the greenkeepers are doing, but so far nobody has expressed any surprise that they have organized nationally. Letters arrive on every mail from all quarters of the United States and Canada, and here are some of the many good wishes sent in to our organization during the past few weeks:

"In enclosing herewith my advertising contract for the next twelve months in THE NATIONAL GREENKEEPER, I am doing so with the feeling that for the first time my messages will be going directly to the men who are doing most to create better golf. My best wishes to the members of the new National Association."

Wendell P. Miller.

"I shall be pleased to bring to the attention of our members any proposition that may further the co-operation and interests of the Greenkeepers. I have been working somewhat along the same lines here in Canada, but as we have only a little over three hundred clubs and them very far apart, the hoeing has not been very good mostly for the want of a magazine devoted to Greenkeeping.

"Wishing your Association every success and offering myself as a member."—H. Hawkins, Greenkeeper, Lakeview Golf Club, Port Credit, Ontario.

"Just to show you that my heart is with you in this undertaking, I am enclosing 12 months contract for one-quarter page in the Greenkeepers Magazine.

"I have often thought that this would be the correct way to get upkeep equipment before the men on the firing line. These men are on the job all the time, while Green Chairman change year after year.

"I firmly believe that this magazine will be a wonderful success right from the start. I have mentioned it to several greenkeepers and everyone is strong for it and you will find them flocking to it."—W. A. Buckner, Fresno, California.

"I am certainly interested in the National Greenkeeper and feel that it will be a success since it has such a fertile field before it. The Greenkeeper is being more and more recognized in this country and his work is becoming of increasing importance; so I feel sure that a magazine which will give the valuable and pertinent information such as yours will, is bound to grow and win recognition of golf clubs throughout the country.

"Please send me a copy of your first issue, as I am very anxious to see it."—T. J. Harris, Manager, General Educational Bureau, Portland Cement Association, Chicago, Illinois.

"I want to take advantage of this opportunity to compliment you in this wonderful idea of a National Association of Greenkeepers. It is with a great deal of pleasure that I accept the kind invitation to join as I feel that we will do the "greatest good to the greatest numbers" in such an organization.

Assuring you of my hearty co-operation in everything that you may do and trusting that success will crown our every effort, I remain—Fraternally yours, Lewis M. Evans, Cedarbrook Country Club, Mt. Airy, Philadelphia, Pennsylvania.

"Just to show you how heartily we endorse the new organization, likewise their official publication, we wired you immediately on receipt of the announcement.

"We hope we were among the first, if not the very first, to put in our order and while we are not sure just how much space we will require in each issue we know we will want full pages for the first two or three.

"With sincere wishes for success of the new organization, also their publication, we are,"—Pennsylvania Lawn Mower Works, Philadelphia, Pennsylvania.

"Your Greenkeepers' Association looks very good, and I believe it will be a great thing for our golf courses throughout the country.

"I will subscribe for a magazine, if that is possible, for our office files.

"Wishing you success in your worthy venture, I am,"—Yours truly, George Hansen, Superintendent of Parks, Milwaukee, Wisconsin.

"The most important thing in connection with golf is the course itself, for the better the course, the more enjoyable the game. The problems in connection with greenkeeping and course maintenance are many, and an unbiased magazine dealing solely with these problems should be very helpful to greenkeepers and officials interested in this work.

"Although we have already contracted for a considerable amount of advertising for next year, we believe that "The National Greenkeeper" should be a splendid medium, and we will be pleased to take some space.

"Wishing you and The National Association of Greenkeepers the utmost success with this magazine, we remain."—L. J. Reade—Reade Manufacturing Company, Jersey City, New Jersey.

"Am more than pleased to join the Greenkeeper Association and state I think it's a big step forward for the Greenkeeper to have such an organization and I surely
January, 1927

THE NATIONAL GREENKEEPER

23

will be with you in every respect.” Thanking you I am, Yours truly—Bonnie Weaver, Care of Burlington Golf Club, Burlington, Iowa.

“Enclosed find $5.00 money order and application. Am certainly glad the boys have got together at last. Will be pleased to see a lot of the old boys at the March meeting. Kindly send card and acknowledgement of receipt of this.

“I am with best wishes for success.”—Chas. L. Ream, Station D, Route 2, Box 920, Milwaukee, Wisconsin.

One Green committee chairman, in desperate straits to secure a good greenkeeper, seems to require just two qualifications, commonsense and experience. His plea reads:

Oh, give me just one man who knows
That greens are not laid out in rows;
Most any man who does his stuff
Can tell the fairways from the rough,
But give me just one man, that’s all,
By him I’ll stand or by him fall;
Just one who has some commonsense
To throw in with Experience.

Commonsense and Experience—well, he just about covered the ground. Commonsense is the tie that binds loose brains together. And Experience plays the leading part on the stage of the world. It’s a sure thing that it plays a leading part in the profession of Greenkeeping. Golf clubs which have retained the services of greenkeepers over a period of from fifteen to twenty-five years can testify to the value of experience in maintaining good greens. Green committeemen come and go, but a good greenkeeper stays with the course.

Against all the forces of Nature the greenkeeper maintains a fighting front. Morale in the ranks of the workmen on his course must be kept up; turf diseases creep in, often over-night, and he must know how to combat them and rescue threatened greens before they are destroyed. The sun refuses to shine, and heavy rains leave in their wake washouts which must be filled in and re-turfed. Northwesterners uproot some of his finest trees, and blow the sand out of the bunkers. When Nature chooses to destroy she makes a thorough job of it. And a good greenkeeper makes a quick job of cleaning up the wreckage.

Keeping a golf course in playable condition against the onslaught of destructive storms, summer droughts, and unseasonable freezing and thawing is a fine test of courage. But as John Morley says, “That’s only part of being a greenkeeper.” As in every other line of work, the good greenkeeper is the man who can overcome obstacles and get results.

Memberships in the National Association are now coming in rapidly by every mail. In every instance statements are made in the letters which come with them to the effect that such an organization for the men who keep the greens has been needed for years. It is well to reflect that as the need has existed over a long period, the rapid growth of the National Association of Greenkeepers of America is assured. In looking over the By-Laws, any greenkeeper can check-mark at first reading at least ten good reasons why he should join the Association as a Charter Member.

How Rubber Hose is Built

“How Rubber Hose is Built

“Twenty-five years ago,” says Mr. Gattshall, of the Republic Rubber Company of Youngstown, Ohio, “no one ever heard of a piece of water hose over fifty feet long, and great excitement was caused by the announcement that a new method would permit the building of a continuous length up to five hundred feet. The old “wrapped” type was made of three, four, five, six or seven plies of duck or sheeting wrapped upon a mandrel, each ply being first coated with a thin sheet of rubber. When this tightly wrapped mandrel was subjected to heat the rubber would run together, but the best manufacturers could do would not permit of making an even tension on the duck, consequently when the hose was bent sharply a kink would result and a leak would soon appear at the kink.

“Molded and braided water hose is made in an entirely different way. The tube or water way, made from specially compounded rubber stock, is placed in a braiding machine, where bobbins revolve about it, braiding on the tube, threads, a good deal in the fashion a May Pole is wound up. Sometimes one thread is braided on, sometimes two, and naturally it makes considerable difference in the strength of the hose whether the braid is single or double. The size of the thread also is a determining factor. After the braid is applied a sheet of rubber is put on the hose which acts as insulation between plies and friction to hold the plies together. Then another ply is braided on. Generally only two plies are used, but sometimes more are called for. This makes a hose which can be bent and twisted without causing kinks and breaks. “The Fairway hose made by the Republic Rubber Company is furnished with the name of the club imprinted on the label, which serves as a mark of identification.”
A Smooth Green and Good Hotel Service are alike in this—they are products of long experience and professional skill!

NEW HOTEL SHERMAN
CHICAGO

offers you the biggest dollar's worth of hotel comfort and service in America. 1700 rooms and 1700 baths are available at these remarkable prices:

- 150 rooms . . . $2.50
- 350 rooms . . . 2.95
- 500 rooms . . . 3.50
- 300 rooms . . . 3.95

Rates for Two—from $5

Interior of Living Room, "House on the Roof," opened by President Calvin Coolidge

THE COMING INTERNATIONAL GOLF SHOW and ANNUAL MEETING of THE NATIONAL ASSOCIATION OF GREENKEEPERS

A CORDIAL invitation to all members and prospective members of THE NATIONAL ASSOCIATION TO ATTEND THE INTERNATIONAL GOLF SHOW at the Hotel Sherman, Chicago, the week of March 21-26 has been received from Mr. Spearman Lewis, Manager of the exhibition.

This is the finest possible opportunity for the greenkeepers of the United States and Canada to see for themselves just how various pieces of golf course equipment look and operate. Such an exhibition tends to bring together thousands of men who are interested in what goes to make good golfing conditions. It arouses a sense of good fellowship and helpfulness, and gives greenkeepers a chance to become acquainted with one another on a social basis.

The first annual meeting of THE NATIONAL ASSOCIATION OF GREENKEEPERS OF AMERICA will be held in the Louis XVI Room of the Hotel Sherman on Saturday, March 26, the last day of the show. In deciding upon the actual date of the annual meeting, the officers of the Association took into consideration the fact that as greenkeepers from all parts of the country will attend for the greater part of Show week, several informal meetings during the week will be necessary. At these preliminary meetings, open discussions as to plans for the Saturday meeting will be in order.

Mr. Lewis has reserved a special booth for the National Association and Mr. W. Harlan Ware, Manager of the Convention Bureau of the Hotel Sherman, offers accommodations for all greenkeepers who attend during the big week. Reservations for rooms should be sent direct to Mr. Ware, who will give them his personal attention. All members and prospective members of the National Association should begin laying plans to attend. Make your reservations for rooms as early as possible. Just remember how last-minute instructions affect your work on the course, and give Mr. Ware time enough to take care of you properly.

THE NATIONAL ASSOCIATION OF GREENKEEPERS OF AMERICA, the officials in charge of the International Golf Show, and the Hotel Sherman join in welcoming every greenkeeper who arrives in Chicago the week of March 21.
WEEDS—
Golf’s Worst Enemy

Three-fourths of the golf course seed sowed could have been made purer by another cleaning. By that simple process the expense of seeding would be increased no more than 5% and you could charge off twice that amount from your weed-pulling bill.

Scott’s Seed has had the extra cleaning. It has given complete satisfaction on over 700 golf courses in 43 states. If not in use on your course, why not suggest to the greens chairman that he send the next seed order to—

O. M. Scott & Sons Co.
Marysville, Ohio

Sulphate Killed Weeds
Twenty Years Ago

Mr. John MacNamara, Greenkeeper at the Pitts­burgh Field Club, and Vice-President of the National Association, believes this recipe for the extermination of weed growth one of the first testimonials to the value of Sulphate of Ammonia:

October 2nd, 1906.
Directions
Make any quantity you desire according to the following:
1/5 Sulphate of Ammonia, 4/5 Sand.
Put this mixture on the weeds on a dry day. Before or during the first shower after the application sow with seed and in place of the weeds you will have a patch of beautiful grass.

This recipe was written by an old gardener who had charge of the University grounds of Cambridge, England, as you will note twenty years ago. The discovery of sulphate of ammonia to control weed growth is considered by most to be of fairly recent date. Verily, there seems to be “nothing new under the sun.”

Again next March — and every March thereafter

INTERNATIONAL
GOLF SHOW
AND COUNTRY CLUB SPORTS
EXPOSITION CHICAGO

To be given (second annual) in 1927 at the Hotel Sherman, March 21st-26th, inclusive.

An Exposition “made to order” for the
NATIONAL ASSOCIATION OF
GREENKEEPERS OF AMERICA
whose regular annual convention also will be held at the Hotel Sherman, on dates concurrent with the International Golf Show.

At this Exposition is shown the golf and country club products of the leading manufacturers of the United States and Canada.

It provides a competitive market place of convenience for the up-and-doing greenkeeper to inspect in a single day more modern and efficient equipment than he would see in a month of travel and expense.

EVERYTHING IN GOLF UNDER
ONE ROOF

Through their national organization and convention bureau special provisions will be made for Greenkeepers to attend the

INTERNATIONAL GOLF SHOW
And Country Club Sports Exposition

SPEARMAN LEWIS
Managing Director

A. R. SHAFFER
Associate Director

EXECUTIVE OFFICES:
406 Otis Bldg., 10 South La Salle St., Chicago

Floor plan, space rates and list of exhibitors upon request.
In explaining the principles involved in the operation of the Roseman roller type fairway mowers, the story can best be told in Mr. R. D. Cunningham's own words:

"The principle of Roseman Mowers may not be understood by some of the Greenkeepers who do not use them and it can be explained in a few paragraphs."

"The Hollow Roller on the Roseman Roller-Type Mower takes the place of the side wheels used on side wheel mowers; in fact this hollow roller furnishes the power to drive the revolving cutter.

"The friction surface covers the full width of the mower. The revolving cutter shaft is held stationary in the Timken Adjustable Bearings and the cutting adjustment is regulated by raising or lowering the bed knife. This gives a positive, true adjustment which cannot be shaken out of place.

"The latest type of Roseman Hollow Roller Mowers is equipped with a dual spring adjustment; i.e., there is a spring tension upward and a spring tension downward on the bed knife and the adjustment of this bed knife is made by the turning of one nut on each side of the mower.

"Another new feature of the Roseman Improved Mower is the Alemite Greasing and Oiling System such as is found on high-priced automobiles. A Grease Gun is furnished with each gang of mowers and all wearing parts and gears on the Roseman Mower are housed in oil-tight, sand-proof, dust-proof compartments.

"The R. H. Fairway Tractor
Six Speeds, pulls five mowers under bad conditions.
Built of Ford Ton Truck Parts
Write for literature

RUSSELL S. HORNER
Geneva, Ohio

"The Raining Sprinklers
Arc industrious, always working; no gears, no grease cups—just a natural way. Second only to the clouds to produce evendy and will last for two generations. The lowest prices, the greatest quality. For fairways, greens, and lawns.

THE PELICAN WORKS
148 Woodbridge, East
Detroit, Michigan

Improvements in Roseman Mowers

In explaining the principles involved in the operation of the Roseman roller type fairway mowers, the story can best be told in Mr. R. D. Cunningham's own words:

"The principle of Roseman Mowers may not be understood by some of the Greenkeepers who do not use them and it can be explained in a few paragraphs.

"The Hollow Roller on the Roseman Roller-Type Mower takes the place of the side wheels used on side wheel mowers; in fact this hollow roller furnishes the power to drive the revolving cutter.

"The friction surface covers the full width of the mower. The revolving cutter shaft is held stationary in the Timken Adjustable Bearings and the cutting adjustment is regulated by raising or lowering the bed knife. This gives a positive, true adjustment which cannot be shaken out of place.

"The latest type of Roseman Hollow Roller Mowers is equipped with a dual spring adjustment; i.e., there is a spring tension upward and a spring tension downward on the bed knife and the adjustment of this bed knife is made by the turning of one nut on each side of the mower.

"Another new feature of the Roseman Improved Mower is the Alemite Greasing and Oiling System such as is found on high-priced automobiles. A Grease Gun is furnished with each gang of mowers and all wearing parts and gears on the Roseman Mower are housed in oil-tight, sand-proof, dust-proof compartments.

Thirty Day Trial Offer

"Any of the Greenkeepers who doubt the sturdiness or turf-building qualities or economy of Roseman Mowers are offered the opportunity of taking a gang of Roseman Mowers on a 30 day trial and if they do not come up to their expectations, the Roseman Tractor Mower Company will gladly accept the return of those mowers at the end of the 30 day period so that the expense to the Club for the trial would be merely the transportation charges on the mowers. This offer is made merely as an educational and demonstrative proposition."
New Pennsylvania Putting Green Mower

The Pennsylvania Lawn Mower Works, in announcing the new Super Putting Green Mower emphasizes its high speed and light weight. Mr. J. S. Bonbright, Sales Manager for the company, calls particular attention to "the change to methods of manufacture adopted by automotive engineers, which is well illustrated by the cut gears running in oil tight casings, lubricated by the Alenite system, and the adoption of roller and ball bearings on all the various axles and on the intermediate gear."

Mr. Bonbright further states that "the Super mower makes an 18" cut, is equipped with anti-slip aluminum rollers, and mows a putting green speedily and without ridging."

Greenkeepers are invited to send for the new Golf catalogue just issued, which describes fully the Super mower and other well known products of the Pennsylvania Lawn Mower Works.

Wear-Well Tractor Spud

A tool steel centre pin insures longest possible service and long continued traction because of the tendency of this new spud to "wear to a point" at all times.

Another feature which will be appreciated is its square shoulder, designed to save time and strength in removing and installing.

Mr. Russell S. Horner has been a golf course mechanic and assistant greenkeeper for some time, and his experience in this capacity prompted him to manufacture this small but important item for the benefit of other greenkeepers and mechanics throughout the country.

CLASSIFIED ADVERTISEMENTS

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

WANTED—Position as general golf course mechanic. Ten years' experience. All references. Box 154, this magazine.

WANTED—Position as greenkeeper with well established club. Best of experience and references. Box 151, this magazine.

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

GREENKEEPER desires position January 1. Exceptional experience construction and maintenance. Ohio preferred. Box 153, this magazine.

Grass Seed of Known Quality

TESTED for PURITY and GERMINATION

Remember:—All our seeds are of the highest quality, obtained direct from the most reliable sources of supply and are carefully examined as to purity and growth, including tests made for us by leading Seed Testing Stations.

We offer the benefit of our knowledge and experience in supplying and advising with leading Golf and Country Clubs for many years.

"Golf Turf"—The sixth edition of this helpful book will be ready in January. Sent free on request to those interested in the production and maintenance of fine turf.

Golf Course Equipment
A complete line always on hand for prompt shipment.

Stumpf & Walter Co.

30-32 Barclay Street New York

1 Gem Hole Cutter
The one you have been looking for. Cuts clean and expels plug without scattering soil.

2 Hercules Turf Repairer
9" cut, positively lifts cut plug without breaking sod.

3 Putter Hole Cup
Seamless steel tubing, with heavy four-bracket bridge pinned with taper steel driven pins. Finished in black lacquer.

Complete line of golf course supplies, wheelbarrow seeders, drag mats, bunker rakes, cutting green sprinklers, hose, etc.

Write for literature

The Golf Course Supply Co.
3049-51 Carnegie Ave.
Cleveland, Ohio
Worthington Mowing Machinery is the standard of the world.

The above 1927 Model contains the following improvements:
- Absolutely Dust-Proof Housings
- "Herring-Bone—Unbreakable" Fly Knife Reels
- Electrically Welded Steel Disc Fly Knife Spiders
- New Patented Cleats Prevent Sliding of Ground wheels

The Strongest, Lightest and Simplest Fairway Mowing Combination Ever Constructed.

Worthington Mower Company
STROUDSBURG, PENNSYLVANIA

BOSTON               CHICAGO               MONTREAL               SAN FRANCISCO

Announcement

The Massachusetts Agricultural College at Amherst, Mass., announces their new short course in Greenkeeping, which is open for an enrollment of ten men. The course has been arranged with the co-operation of the New England Greenkeepers' Club, and will continue for a period of from January 4 to March 11. A reasonable education in the English language is necessary, but no entrance examinations are required. A winter school certificate will be given those who complete the full course with credit. Further information may be secured by writing Mr. Lawrence S. Dickinson, Assistant Professor of Horticulture at the college.

SPECIAL QUALITY
GRANULATED CHARCOAL
FOR
PUTTING GREENS

Write
THE CLEVELAND CHARCOAL SUPPLY COMPANY
1125 Denison Avenue   Cleveland, Ohio

Why Tolerate Worm Casts?
GET RID OF THE WORMS, AND YOU GET RID OF THE CASTS

Hundreds of greenkeepers throughout the country have solved the worm problem by using "ELECTRIC" Worm Eradicator. They have found that it is the most effective material for the purpose, and at the same time very beneficial to the greens.

"ELECTRIC" Worm Eradicator also acts as a preventive against Brown Patch and other diseases of the turf.

We will be pleased to give you full information regarding "ELECTRIC" Worm Eradicator. We gladly ship on approval.

READE MFG. CO., JERSEY CITY, N. J.
The New Toro Junior Tractor

The Toro Manufacturing Company of Minneapolis has just brought out the Toro Junior Tractor, which is to be supplementary to their standard 5-unit Golf Machine, with which many golf clubs are already familiar.

Mr. Kenneth E. Goit, sales manager, in introducing the Toro Junior writes that "with a larger club, it is strictly a supplementary machine and has a wide variety of uses; having the advantage of being able to handle almost every need, and on the smaller nine-hole courses, it can be used very profitably as the main power unit. It will cut an average nine-hole course in approximately two days, and the mowers can be disconnected very quickly, permitting the machine to be used for general utility purposes around the course.

"The power plant is a standard 4-cylinder motor, with two-speed and reverse transmission, and an enclosed worm drive rear axle, which provides sufficient power and variable speeds for any reasonable emergency that might be encountered.

"It may be had in several different ways, including a short wheel base front end mowing attachment; truck style, with platform and drawbar for pulling the mowers behind; truck style, with all-steel dump box; and for those clubs wishing the machine to run back and forth between the nearest town or city parks, it can be equipped with Barth rubber tired wheels, giving the machine ample traction, with no possibility of damage to the pavement."
Astonishing Price Reduction

Staude Golf Course Maintenance Machine

Price complete as shown, including Tractor, box, mower hitch and three 30" cutting units only $695.00 f.o.b. St. Paul. Staude General Utility Golf Course Tractor alone $420.00 f.o.b. St. Paul.

In universal use on golf courses.

Easy monthly payments if desired. Machine fully guaranteed. Write at once for full information.

2630 University Ave.  E. G. STAUDE MAK-A-TRACTOR COMPANY  St. Paul, Minnesota

The National School of Greenkeeping

One of the most interesting developments along the lines of distributing correct information among greenkeepers, assistant greenkeepers, golf course mechanics, and others who are employed in golf course work, is a correspondence course of study just issued by THE NATIONAL SCHOOL OF GREENKEEPING at 447 Caxton Building, Cleveland, Ohio.

This is a six months' course, covering the fundamentals of golf course maintenance, drainage and water systems, concrete construction, planting and general care of trees, and care of golf course equipment. The study material is practical and easily understood. It has been drawn from the best sources available, among them being information secured from members of THE NATIONAL ASSOCIATION OF GREENKEEPERS OF AMERICA, and the Green Section of United States Golf Association.

As the course has been arranged to cover approximately six months' study, it may be completed in one winter season, at a time when the demands of golf maintenance work are few, and the long winter evenings afford time to read and study Greenkeeping problems.

The Best Greenkeeper

In The World

Cannot maintain perfect turf unless his course is well drained

Think it Over

WENDELL P. MILLER
Golf Course Drainage Engineer
403-5 East Broad Street  Columbus, Ohio

The Salary of A GREENKEEPER

DEPENDS FIRST UPON KNOWLEDGE

Write
The National School of Greenkeeping
447 Caxton Building
Cleveland, Ohio

The National School of Greenkeeping

O