

on both old and new courses. The adequacy of some of these irrigation systems is questionable. In some cases, it is a mistake to call them "systems" at all as they are only "aggravations." However, there has been much recent improvement in the design and installation of irrigation systems and there is much hope for the future.

Imitate Nature in Watering

IN WATERING turf, the object is to imitate nature as closely as possible. Temperature, humidity and length of time since rainfall are all factors which influence sprinkling. Grass does not get rain every day under normal conditions and, if sprinkled every day, it becomes unhealthy. During the summer months the turf should be sprinkled at intervals of from three to ten days. Best results are obtained by sprinkling at night when the coolness prevents evaporation of the surface water. Incidentally, play is not disturbed.

The amount of water necessary to irrigate a golf course depends upon both general and local conditions. Naturally, the requirements of different courses vary greatly. These conditions should be studied thoroughly by a competent irrigation engineer before any plans are made for an irrigation system. The preferable time to give them consideration is before the site is acquired as irrigation is too important to be ignored in making the initial investment.

The climate of the locality is very important. Accurate information should be obtained of the maximum and minimum temperatures and the mean temperature, maximum and minimum amounts of rainfall and mean amount of rainfall for each month for several years back—in fact, as far back as records are available. Special attention should be paid to the average period of time between rains during the summer and the average precipitation during such storms. Consideration should be given, also, to statistics concerning snowfall and to any climatic peculiarities such as the existence of wet and dry seasons.

Topography Must Be Considered

THE topography of the course cannot be ignored in considering irrigation. The

slope of portions of the land may be such that rain water will flow off without percolating into the soil at all. In such a case, a minimum of benefit can be expected from rains while the drainage problem will be greatly intensified.

To be beneficial to the turf, water either from natural or artificial sources, must be absorbed by the roots of the grass. Water evaporated from the surface of the ground is wasted. Water, which percolates through the soil so rapidly that it cannot be assimilated by the grass is wasted likewise.

The types of soil on the property determine the rates of percolation. Some varieties of soil, such as sand and gravel, permit surface water to pass thru too rapidly while other varieties, such as clay or adobe, are almost impervious to the passage of water. The ideal soil is one which permits surface water to seep thru it at a rate of speed most favorable to assimilation by the plant roots.

A soil chart will be found almost indispensable in planning an irrigation system. Samples of the various surface soil should be

7
THE LARK
SPRINKLER
4



Preferred because it
always sprinkles **EVENLY**

The LARK sprinkles **EVENLY** from center to outside circumference on any pressure. Big drops that dig out top-dressing are eliminated by a small spray screw. The LARK has no complicated parts to wear out. That is why it is always ready for use.

And it must satisfy or you needn't keep it. You can try the LARK for 15 days. If it isn't better in every way, return it and your money will be refunded promptly. Price \$15.00 each in the U. S. Write for details.



L.R. NELSON MFG. CO.
PEORIA, ILLINOIS



HOSELESS IRRIGATION for GOLF COURSES



Country Club of Detroit: FAIRWAY IRRIGATION BY
WENDELL P. MILLER & ASSOCIATES

Sooner or later, every course that needs irrigation at all will be driven by the demands of superior economy and convenience to install an engineered irrigation system. It is a penny-wise, pound-foolish policy to install or use makeshifts. The installation of Miller-designed systems is invariably followed by greater club prosperity, because of actual savings in time and labor of watering, reduced course maintenance and increased member patronage.

At least have us make a survey of your property and a report of your needs—the cost is nominal. Full information on request.

Wendell P. Miller and Associates

105 W. Monroe St., Chicago 85 E. Gay St., Columbus, O.

Consulting Engineers

Eastern Engineering Representatives
for BUCKNER-CALIFORNIA Hose and Hoseless Systems

Drainage - Irrigation - Turf Development

carefully analyzed by a competent agronomist and the areas which they cover plotted upon a map of the property. Analyses will be made in many cases by your state department of agriculture or the state college of agriculture, when requested.

A desirable rainfall is about one inch and not over this amount of water should be applied at a time artificially. The portion of the average golf course, which requires irrigation, usually is about 55 acres in extent or almost 2,400,000 square feet. To cover this surface with one inch of water requires 200,000 cubic feet or almost 1,500,000 gallons.

Sources of supply, capable of furnishing water in such quantities, are none too plentiful. Few country clubs are close enough to centers of population to tap water mains. When this is possible, there is always the likelihood that the supply of water may not be sufficient in summer—when needed the most. Then too, the cost of piped water thru a meter is usually prohibitive. A site near a large body of water, such as a lake or

a river, is most fortunate. Two major problems of maintenance—irrigation and drainage—are greatly simplified.

Using Wells for Water Supply

WELLS in some localities are the only means of securing an adequate supply of water. Their cost depends upon their depth. Generally water may be obtained less than 500 feet below the surface but sometimes it is necessary to go 1500 feet, depending upon geologic formation. Sand provides the best water but sometimes limestone is much closer to the surface. Sulphur water is often obtainable but is not so desirable.

While the sources of water are being considered the club should have the benefit of the advice of an experienced hydraulic engineer who is familiar with local geologic conditions. He will be able to explain the relative costs of obtaining water from different sources and can plan the general irrigation system. It should be his duty, also, to supervise the sinking of wells, the construction of the pumping plant and all details concerning the laying of the irrigation lines and sprinklers.

If wells are necessary, a drilling contractor should be chosen with care for his experience and reliability. Otherwise, the club treasury is likely to suffer. He should be thoroly familiar with the geology of the locality and should have definite knowledge as to the approximate depth at which water is obtainable. Guesses are exasperatingly expensive. Selection of the drilling contractor should be guided by the advice of the hydraulic or irrigation engineer. The drilling contract should provide for the keeping of a diary, recording the progress of the drill thru the various rock formations and small samples of rock should be taken every day. Sinking a well often takes longer than contemplated and plenty of time should be allowed for the drilling and the facing of the well.

A pumping plant is a necessary installation in almost every case, no matter what the source of the water. If it is drawn from surface sources, it must be pumped to the property; if it comes from wells, it must be

stored until needed. Some very elaborate pumping plants have been installed by some of the most prosperous country clubs. These contain pumps of tremendous capacity and automatic devices to control their operation and to regulate both pressure and volume of water. Ordinarily, one reasonable size pump with a capacity of from 150 to 2000 gallons of water per minute, depending on the type of installation, is sufficient. If possible, the site for the pumping plant should be near the clubhouse so that it may be easily accessible. The building which houses the pumping plant should be of brick or tile and fireproof.

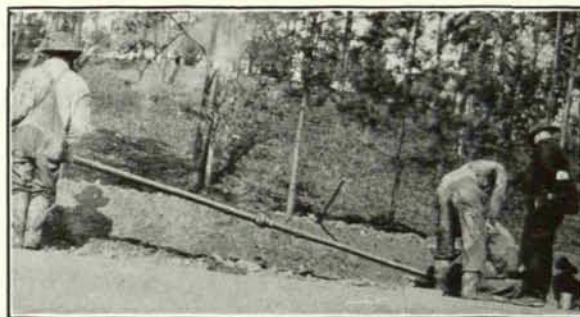
Artistic lakes or lagoons on the course may be included in the design and created artificially. They not only improve the appearance of the property but solve the problem of water storage as provisions may be made to pump water into and out of these so that the water level will not be greatly changed. Lagoons winding through the course makes an excellent water hazard, and improve the landscape.

Two Systems of Fairway Irrigation

THERE are two different systems of fairway irrigation. One consists of installing hydrants at convenient places in the rough to which hose may be attached and the other consists of laying underground pipe in such a way that the use of hose is not necessary. The former arrangement costs less for initial installation but the latter arrangement is more efficient.

The quantity of hose necessary to care for an 18-hole course with taps in the rough depends upon the acreage, topography and amount of water essential. Some clubs use over 7,000 feet of hose and a few as much as 14,000 feet of it. The average life of hose is about three years. Concealed receptacles for it may be placed underground. Here it may be kept coiled and out of the sun to extend its life.

The best hose obtainable is always the cheapest. This does not mean the most expensive but the most durable. Before buying hose, samples should be obtained and carefully compared. Hose of the necessary sizes



Rust Won't Hurt McWane 2-inch Pipe

Makes golf courses pipe-trouble free.

Here is 2-inch pipe that can be laid and forgotten—McWANE CAST IRON PIPE in 18-foot laying-lengths, with Precalced Joints. Lays as fast and simply as *any* pipe, last centuries longer than *many* pipe. Investigate it and avoid rust forever. Skilled pipe-fitters not needed. Saves fittings too.

Sizes: 1¼ through 12 inch. Standard Lengths.

At least investigate. Learn the prominent courses using McWane alone.

McWANE CAST IRON PIPE CO.

Birmingham — Philadelphia — Chicago — Dallas

for golf course use usually comes in 50-foot lengths. If 75-foot lengths are necessary, they should be ordered in ample time as couplings often have to be put on at the factory. The economy of using large hose sizes is demonstrated every season. The use of inch hose is being substituted for three-quarter-inch hose wherever possible. When the water pressure will permit the use of inch-and-a-half hose, it is recommended. The faster water can be applied, the lower the labor cost.

The Hoseless System

IN the hoseless system, two main lines of three-inch pipe are laid down the length of the fairway and ground taps are placed at staggered intervals. Where lateral lines are necessary because of the width of the fairway, smaller pipe is used but the size should not be too small on account of friction losses. It is wisdom to install pipe, adequate in size which will not prevent the future expansion of the irrigation system.

Hoseless systems enables the watering to be done with half the number of men ordinarily required. In moving hose about at

Creeping Bent Turf



Ready to Lay Down

Hundreds of golf and country clubs, greenkeepers, landscape architects, parks, etc., utilize Illinois Grass Co.'s True Washington Strain Creeping Bent in solid turf form. Furnished in rolls ready to lay down like a carpet. Our solid turf has the reputation of being extremely hardy and uniform in texture. It is mowed with a putting green mower and is hand-weeded. Guaranteed to grow vigorously into a rich, green, velvety lawn if properly cared for. Our scientific nursery methods of preparation and growth are unexcelled.

TRUE WASHINGTON STRAIN CREEPING BENT STOLONS, Too

Illinois Grass Company's stolons enjoy the same reputation for hardiness, uniformity, smooth texture and rich color as our solid turf. Stolons packed in bags, sufficient to cover 250 square feet of area.

Give Your Members a "Break"

Do your members pay dues and assessments to play on temporary greens and tees for half the season? After your remodeling is completed, use Illinois Grass Company's prepared sod, and you are ready to play on your regular greens in a week or less.

Write today for prices, samples and facts about our unusual service

ILLINOIS GRASS CO. Dept. 380

18455 Reigel Road Phone Homewood 746 HOMEWOOD, ILL.

J. A. Carter, Sales Agent, 75 E. Wacker Drive, Chicago

night there is always the possibility that the men may neglect one spot and over-water another spot nearby. The hose itself represents considerable investment and it must be repaired and replaced constantly. In consideration of these economies hoseless systems are being looked upon with more favor every season.

Florida and California courses, which originated the underground pipe systems, are not troubled with frost and it is not necessary to place such lines over a foot below the surface. When pipe is laid so close to the surface in most other sections of the country, provisions must be made to drain the water into the drainage lines at the close of the season. To avoid the frost hazard, pipe must be laid about four feet below the surface. The expense of the deeper ditch is about three times greater. However, this extra cost is more than counterbalanced by the safety of the deeper system.

The market contains a number of golf course sprinklers, some of which are quite efficient. The most popular styles are those

on snap-valves which may be snapped or plugged directly into the water pipe, and those on wheels or roller bases so that they may be easily moved from one spot to another. In the sea-serpent type of sprinkler four or five sprinkler heads are placed at intervals along a 100-foot length of pipe on wheels. This sprinkler is able to water a rectangle about 80 feet by 100 feet at a time.

Large traveling sprinklers, revolving about an axis, will water a circle about 160 feet in diameter. In the pop-up system, sprinklers are kept in concealed underground metal boxes and rise out of the ground when the water is turned on. No labor is required except supervision.

Fifty Pounds Pressure is Best

THE size sprinklers to purchase depends entirely upon the available water pressure. This should average 50 pounds at the connections for best results. Large fairway sprinklers will throw ten gallons of water per minute a distance of seventy feet. Tee sprinklers can be obtained which will quite satisfactorily throw six gallons of water per minute 40 feet. It is unwise to use too large sprinklers on the greens as the excess of water is likely to flood the traps. Water connections should always be placed at the back of the green and not on the approach.

Where water is scarce as in the Southwest, the cost of the water itself is quite an item. In many cases, the annual cost exceeds the total expense of installing the irrigation system. Some courses in California are reported to spend as much as \$30,000 a year for water. Naturally, such an expenditure must be balanced by reduction in other maintenance expenses. In most sections of United States, however, water is fairly plentiful and low in cost, so low that it should not be spared when needed.

The best is always the cheapest in golf course operation. While the cost of installing an underground system is considerable more than a system depending upon hose, it is doubtful if it is any more expensive over a period of years. Pipe scarcely ever needs replacing while hose is continually wearing

Do you buy Grass Seeds by Quality or Price?

Let us quote you on your Fall Seed-
ing, with Samples. Our Special
Grass Seed Circular is free.

Henry A. Dreer Seeds, Plants, Bulbs

1306 Spring Garden St.

Philadelphia, Pa.

ESTABLISHED 1838

out. Then, the cost of labor is much less with the more efficient system.

An adequate supply of water is important for several reasons. It will protect the clubhouse from fire and supply the showers and provide enough water to take care of the flower beds and landscaping in the vicinity of the clubhouse and on the club grounds.

The designing of the irrigation system should be done by an experienced irrigation engineer familiar with the peculiar technicalities of this field. Pump capacities, pipe sizes and types of sprinklers all require careful consideration. The irrigation engineer should supervise the installation of the system, whenever possible, and the contractor doing the actual work should not be paid unless the inspection is properly approved. The system should be tested for both pressure and capacity thoroughly.

A subject as important as irrigation deserves the most serious consideration by any club contemplating the construction and operation of a golf course. Plans should be made right after the master plan is approved and the subject should not be lightly dismissed as a problem which will take care of itself. There is no greater necessity for the proper maintenance of a golf course than adequate and economical irrigation. An irrigation system, properly designed, installed and operated is a permanent investment and a decisive factor in reducing maintenance expenses and in keeping the course in playable condition.

Next Month

Conditioning the Golf Course.

Are Your Sprinklers Dependable?

The Buckner number 6 is positive in action, fool proof, and guaranteed to give satisfaction, will give more water over a larger area than any sprinkler we know of.

OUR HOSE PRICES ARE RIGHT

SEMESAN—NU-GREEN

Calo-Clor—Calo-green

CORROSIVE SUBLIMATE

*Exceptional service given on
above orders.*

J. Oliver Johnson, Inc.

World's largest golf course equipment house

Morgan Huron Superior Sts.

CHICAGO, ILL.

© Reg. JOJ Inc. 1928

JUST OUT~

The Lawn

BY LAWRENCE S. DICKINSON

Ass't. Professor of Horticulture
Massachusetts Agricultural College

Defines and describes the Culture of Turf in Park,
Golfing and Home areas.

CONTENTS

| | |
|------------------------------|---------------------|
| The General View | Controlling Pests |
| Molding the Lawn | General Maintenance |
| Preparation of the Seed Bed | Lawn Mowers |
| Seed Selection and Planting | Park Turf |
| Important Turf Plants | Cemetery Turf |
| Planting a lawn with Stolons | Useful Tables |
| | Fertilizing |

Illustrated

128 pages---Price \$1.25 postpaid
to any address

The National Greenkeeper

405 Caxton Bldg.

Cleveland, Ohio



JOHN QUAIL SAYS:

The Executive Committee meeting in Toronto was one of the best meetings ever held in the history of the association. President Morley appointed committees to work out certain problems and then report the next day. This plan did away with a lot of preliminary discussion which usually took up a lot of valuable time and consequently the executive board was able to cover a multitude of subjects.

The financial report was indeed gratifying. The association is building up quite a large reserve fund and in the near future will be able to offer the members an interesting proposition in regards to benevolent work.

A copy of the financial statement will be sent to all members in good standing as soon as statements can be printed.

Lewis Evans reported that his work as National Organizer has brought in fifty members this year. Did you help him get any new members? If not, why not? The more members we have, the stronger we will be and the more good we can do for the greenkeepers will be greatly increased.

Word comes from the southern and central Ohio districts that the dry spell is on in earnest. No rain for several weeks and the courses are burning up. This is one thing that they

THE PEERLESS MOWER SHARPENER

The Peerless Lawnmower Sharpener is a wonderful but simple invention that sharpens all makes of Power and Hand Lawnmowers, scientifically—quickly—perfectly: does the work as nothing else can. It grinds a perfect bevel and clearance—no more hard-running mowers—no more pulling and tearing of turf. Operated by 1-3 H. P. Motor—attach it to your lamp socket.

Special Grinding Wheel Attachment for sharpening grass shears, sickles, scythes, axes, etc. Skate Sharpener attachment sharpens all makes of skates—including hockey. Earns money all the year 'round. Will save its cost the first season. Write for Catalog and list of users.



Hundreds of Golf Clubs, large and small, now use the Peerless Lawnmower Sharpener.

The Fate-Root-Heath Co.
925 BELL STREET
PLYMOUTH OHIO



Send for this new and interesting folder, which describes NACO and what this complete, all organic fertilizer can do for the greens and fairways of your golf course. A card will bring the folder.

NACO

"A GOLF COURSE FERTILIZER"

NITRATE AGENCIES COMPANY
104 PEARL STREET NEW YORK CITY

can't blame on the greenkeeper when he doesn't have a good water system.

Among the visitors to Toronto during the executive committee meeting were William Philipson, Arthur Stephens, James Connaughton and Al Kroll. These boys are members of the Western New York Association and we were glad to have them with us.

The Canadian greenkeepers are second to none when it comes to hospitality and entertainment. They surely had a nice program arranged for our benefit and the trip to the various courses was indeed interesting and instructive.

The Canadian courses are in fine shape and the greenkeepers deserve a lot of praise and credit for the condition of the courses. The natural beauty and good maintenance make a trip to Toronto golf clubs a sight worth seeing.

RHODE ISLAND
BENT
CREEPING BENT
FAIRWAY
MIXTURE

GRASS SEED

Winter hardy BENT GRASS SEED grown under the rigid climatic conditions of New England makes the most permanent and desirable turf for your greens, fairways, tees, fine lawns, etc.

A. N. PECKHAM Kingston
Rhode Island

10 YEARS OF FURNISHING SEED
DIRECT FROM THE FARMS WHERE IT GROWS TO YOU.

Purchase your seed DIRECT from the FARMS where it is grown and thus SAVE all middlemen's PROFIT

New England Notes

BY LLEWELLYN L. DERBY

THE past month has been one to test the skill and ingenuity of the New England greenkeeper to keep his course in shape, for it has been comparatively dry in this section and play has been extremely heavy.

As to the dryness of some of the courses, part of it is due to lack of moisture this season while on the other hand we must point an accusing finger at last summer's drought for after-effects responsible for much more of it.

Speaking of the punishment absorbed by courses due to the hundreds of feet trooping down the fairways, the daily average for a week recently at Franconia, municipal course at Springfield, Mass. was 540, while on one day 652 played the 18 holes to set a record for attendance.

The writer found on a visit the other day, that this Springfield venture was worth inspection and recommends it to greenkeepers who penetrate into the Connecticut Valley this summer. First of all, it is a thing of beauty and a late afternoon and early evening would not be wasted if one was merely to sit on the clubhouse veranda and look out over its interesting topography.

The greenkeeper is George Post, originally an Easterner and a graduate of Massachusetts Agricultural College, who gravitated to California where he was in charge of several private courses and now has come back to New England.

One's first impression of the course at a glance is that it is a difficult one with traps on every hand. However, a little analysis hole by hole proves the fallacy of this notion for the traps are to right or left as they should be.

Horton Smith, teaming up with Diegel, Farrell, and Cruikshank at Franconia last week in an exhibition foursome expressed the

opinion that the course was a bit sporty in spots. Perhaps it is and shouldn't be so, or would you take the other side of the argument? Wouldn't a good many folks get considerable satisfaction in having conquered a certain hole with a minimum of strokes?

But for those who don't agree with this line of argument, there is Washington, D. C. with four public courses, graded in severity. As a player becomes expert on the easiest course he qualifies to perform on the next more difficult one, and continues to graduate from course to course according to his improvement.

There is music at Franconia, too. Part of the time last winter was spent in building bird houses and Greenkeeper Post reports swallows, martins, bluebirds, and wrens as summer tenants.

Dr. Dahl of the Green Section of the United States Golf Association was a visitor at the Massachusetts Agricultural College plots recently, Prof. Lawrence S. Dickinson reports. By the way, these plots have been thrown open to play by the summer school students in order to approach ordinary conditions as much as possible. The experiment may be continued with the enrollment of the regular students in the fall according to the success of the summer trial.

The New England and Connecticut Associations join up for a meeting at Worcester Monday, August 4th.

Rhode Island greenkeepers organized on June 23 at a meeting held at the Bonnet Shores Country Club, Narragansett, R. I. The following officers were elected: R. Wallace Peckham, Sachuest Country Club, president; James Lawson of Misquamicut Country Club, secretary; and Thomas Galvin of the Rhode Island Country Club, treasurer.

Meetings are to be held the third Monday of each month and the club plans to work in

conjunction with the Greenkeepers Club of New England. The next meeting is slated to take place at the Sachuest Country Club, Newport, July 21st.

Lloyd Stott, formerly assistant at the Country Club, Brookline, Mass., is now assistant to James Lawson at Misquamicut Country Club, Watch Hill, R. I.

Greenkeepers of New England held their July meeting on the seventh at the Weston Country Club, Weston, Mass.

William Lindsay is now in charge of the Manchester (N. H.) Country Club course.

Guy West, superintendent of the Fall River Country Club, reports Eastern Massachusetts as vying with the Western part of the state in the matter of practice fields.

A new miniature course, the Wonderland Golf Course, modeled after the Plaza Links at Miami Beach, Florida, has been opened at Revere Beach, Mass. under the management of John F. Coleman, Jr. It is an 18-hole course with varied hazards and par is 42 strokes.

FLEX BLADES

THE ORIGINAL SELF-SHARPENING LAWN MOWER BLADE

Flex Blade is the greatest of lawn shearing inventions. Leading Greenkeepers endorse it as their most valuable accessory in maintaining a perfect fairway.

Flex are the only blades properly tempered for high powered triplex and tractor mowers. They save 50% wear on mowers. Your mowers, Flex bladed, will operate on half the energy.

Flex blades render stones, glass, and other hard substances harmless to the reel, chain, and reel

bearings. They not only protect your mower, but also make it more efficient and longer lived.

There is a Flex blade for every type and make of mower—and easily attached.

Flex blades have been thoroughly proven in actual performance and have justified every claim made for them. As the result of research made on fairway and in steel laboratories, Flex blades are made from a specially prepared steel.

PRICES:—16-inch to 22-inch, hand mowers . . . \$2.00
18-inch to 25-inch, power mowers . . . 5.00
26-inch to 30-inch, power and tractor . 6.00
35-inch to 40-inch, power and tractor . 7.00

Prices, F. O. B. Cleveland or New York. When ordering specify whether Express or Parcel Post. Five per cent discount for cash with order.

Fairways mowed by Flex bladed mowers are easily distinguished by their unusual smoothness and even surface. Equip with Flex blades and keep your mowers on the fairway instead of the shop.

W. W. KIMBRO COMPANY

509 Fifth Avenue
NEW YORK CITY

1843 Standard Bank Building
CLEVELAND, OHIO

Visiting Toronto Courses

BY JOHN QUAILL, *Secretary*
National Association of Greenkeepers of America

WHILE attending the Executive Committee meeting in Toronto, it was our pleasure to be able to visit several of the golf clubs in and about Toronto. The Toronto boys had a schedule worked out whereby we could cover the most ground in the least time and spend a few enjoyable minutes on each course.

Scarboro

ARRIVING in Toronto about noon on Sunday, and after a very enjoyable dinner, we were taken to Scarboro Country Club where J. T. Anderson is the greenkeeper. Here we received our first surprise of many that were in store for us. The course is very picturesque and the natural setting of the greens in the woods make it a very pretty course. A creek running through the course makes a natural hazard and like all Toronto courses, there are many evergreens to add to the beauty. The course, was well kept and shows the results of the labor it requires to keep a course in good condition.

Cedarbrook

WE next walked over to Cedarbrook Club which almost adjoins the Scarboro links. It is a new course and is not fully constructed yet but good headway is being made. The greens are planted to Washington Bent; good results are being obtained. As the

name of club implies, the course is made a beautiful place by the wonderful cedar trees and the brook running through the course. Some of the greens are inclined to look a little artificial but when completed they will assume a more natural appearance.

Toronto Golf

ON Monday, after the first session of the Executive Committee, we traveled to the Toronto Golf Club, where William J. Sansom keeps the course of the oldest club in Toronto. It is truly a championship course and is well designed and built. They have a problem there as the topsoil is very sandy and they have many difficulties keeping the greens moist and also in holding the fertilizer in the soil as it leaches down through it very rapidly.

After a very enjoyable trek over the course we were entertained and tendered a hearty meal in the luxurious clubhouse. Mr. Armitage the Manager and Mr. Cummings the Pro along with Mr. Sansom were our very genial hosts. The chairman of the Green committee, whose name I can't recall, welcomed us and expressed his pleasure in having the greenkeepers from the States visit his course. The drive into the club house is lined with large pine trees and there are an abundance of evergreens all through the course. The grounds were well kept and the course speaks for itself and the ability of Mr. Sansom.



NUMBER 8 GREEN ROYAL YORK GOLF COURSE, TORONTO
This hole is 218 yards. Part of the 9th fairway is seen on the left.

**The Staude Mak-A-Tractor is
Making Good on over 1000 Golf Courses**

If your course is not equipped with this sturdy powerful and efficient tractor, be sure to write for full information

E. G. Staude Mak-A-Tractor Co. 2630 University Ave.,
St. Paul, Minn.

Lakeview

WE next moved over to Lakeview Club which is not far from the Toronto Club. H. Hawkins the greenkeeper showed us around his course and explained the various items of interest. He has a very fine course and his greens are very good. He explained how the sandy soil causes the fertilizer to leach away and showed graphic charts of the change in acidity in a short time. He is mixing peat moss and clay in his compost to secure the desired results and his greens show that he is on the right track. From his course you look out over Lake Ontario and the view is very wonderful.

Mississauga

AS we had quite a few more clubs on our visiting list we had to leave Lakeview and be on our way to the Mississauga Club where we were met with a sight that you will find in no other place. The clubhouse and part of the course are situated on top of a plateau and the remainder of the course is in a valley traversed by two streams. To stand by the clubhouse and look out over the valley, is truly a wonderful sight.

Joseph Stanfield the greenkeeper has a problem that is faced by few other greenkeepers. In the spring the floods carry ice down stream and cause the water to back up and completely inundate the lower part of the course. At times there is ten feet of water covering several greens. You can imagine the work he has in the spring to remove the muck and debris that washes down over his course in the freshet. Another interesting thing was the native bent green which is a thing of beauty. It was originally part of the fairway and was cut down to putting green length and is now a wonderful green.

Islington

FROM Mississauga we went to Islington where we again looked over some very fine holes. All the courses we visited were in the pink of condition and were very well kept. The trees and natural beauty add much to the Canadian courses.

Royal York

DAD LLOYD, the affable greenkeeper of Rosedale Club acted as pacemaker and marshall for the excursion again hurried us along and we visited the Royal York course. This course is owned by the Canadian Pacific Railroad and is a fairly new course. Nevertheless we found it in fine condition for the age of it and after resting in the club house a few minutes we proceeded to inspect several holes.

Mr. Hamm the greenkeeper showed us around and entertained us for quite a while and we would have been perfectly willing to spend a lot more time there had not our pacemaker pushed us along with the news that there were some more courses to look over. Before departing, Mr. Hamm had signed an application blank for membership in the association and we were all glad to welcome such a fine man and greenkeeper into the fraternity.

Lambton

OUR last stop for the day was scheduled at Lambton Club where Mr. Wm. Kirby is in charge. After renewing old acquaintances, we were taken over his course which is a very fine one. Again the natural beauty took our attention and mingled with some fine architectural work it was a treat to look over these courses.

After a short rest which we all enjoyed and needed we moved on to the Old Mill where the Toronto greenkeepers were our hosts to a fine dinner and an enjoyable evening. We were entertained most royally and after several speeches and short talks by both greenkeepers and representatives of the City of Toronto we made our way home to a good night's rest with the promise of more for tomorrow.

Rosedale

ON Tuesday, after the main session of the meeting, we were told we would again have to be on the road to visit the club of our old friend, "Smiling Dad" Lloyd of the Rosedale Club. After a most enjoyable ride through the residential and park sections of Toronto we arrived at the Rosedale Club where we surely did enjoy ourselves. The hospitality of the manager of the club and Mr. Lloyd was unbounded. We sat on the veranda and looked out over the valley where the course is situated and marveled at the beauty and grandeur of it all.

Lloyd's course was in wonderful condition and the shrubbery and flowers were the work of a master. Mr. Lloyd then took us down to his home where we again enjoyed his hospitality and sat under the stately old pines and talked over our wonderful trip.



HARDIE makes sprayers
and spraying equipment
for every golf and country
club need. Write for catalog.
The Hardie Manufacturing Company
Hudson, Michigan
Portland, Oregon Petrolia, Ontario



HARDIE
DEPENDABLE SPRAYERS

HUBBARD NURSERIES
CREeping BENT STOLONS
Washington and Metropolitan Strains

Pure, free of weeds, and of one season's growth

DR. AMOS F. HUBBARD, N. Kingsville, Ohio