#### Best Greenkeepers Work on Platform from Their Green-Chairmen

UCH has been written and spoken on the necessity of versatility as a prime qualification for the successful greenkeeper. They tell about the greenkeeper being a turf expert, a fertilizer wizard, a drainage wonder, a labor management star, an accounting phenomenon, a landscaping genius, a marvelous mechanic, and heaven knows what all else. All these he must be, they say, in order to rate as one of the leaders of his profession.

But, in viewing the above list of the greenkeeper's qualities, it is GOLFDOM'S opinion that one of the prime requisites of of greenkeeper, according to many chairmen, is that of mind-reading. It is our observation that a good part of the misery of greenkeeping is not caused by weather. the budget, or other matters beyond the greenkeeper's control, or beyond the jurisdiction of his chairman, but is directly the result of failure to have a correct and complete understanding between the chairman and his chief of operations. In reviewing some sad cases of good men being divorced from club payrolls, it strikes us that the trouble can be traced to a failure to get some definite policy instructions from the chairman. Then, if serious misunderstanding crops out, all the chairman has to do in a crisis is to turn his rather onerous burden over to someone else, but the greenkeeper is the real sufferer in being discharged.

Every season we are reminded of this necessity of an understanding and close team-work between the chairman and the greenkeeper. It was brought up vividly lately in a note from Joe Valentine of Merion Cricket club. This note, giving some of the sidelights on the new Merion watering job, referred to elsewhere in this issue, is one of the pleasant things we like to mention. Joe sent us a picture of his chairman and said about the boss: "He is practically responsible for the installation of the system. He went to bat in the board of governors' meeting and got everything he asked for because he knew what was needed. He has been chairman five years, and is a grand, democratic fellow."

Some of the greenkeepers who have had experience with new chairmen coming to



Weeds in a golf course are costly. The time to start cutting down on their cost is when you buy your seed. When you buy impure grass seeds for your greens or fairways, you begin right then to pay for weeds and you keep on paying for them in bills. for labor, renovation, etc., for years to come.

It pays to know-definitely and exactly-the quality of the seed you buy.

That is why the Albert Dickinson Company maintains the finest commercial seed testing laboratories in America-so that they can definitely control, and can tell you the exact quality of every lot of seed.

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Kentucky Blue Grass Wood Meadow Grass Fancy Red Top Rough-stalked Chewing's Fescue Meadow South German Mixed Bent Colonial Bent Sheep's Fescue Crested Dogstail

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the position with pep, high purposes and not the slightest idea of what it's all about. say the farther the chairman keeps away the better. The statement is not without its virtue in many cases, but unless the chairman gives the greenkeeper a good idea of what the club expects and how the course work has to be co-ordinated with Greenkeeper other details of the club's operation. chances are there is a storm brewing. Sprinkler Asking some of the chairmen about their

relations with their greenkeepers brought forth a number of interesting replies. Leonard J. Fox, chairman at Losantiville at Cincinnati, tells GOLFDOM:

"In the first place-we do not use the expression 'greenkeeper' or 'green-chairman' at our club because golf clubs are no longer exclusively for golf but are recreation centers for the members, in that the modern club embodies golf, tennis, trapshooting, outdoor dancing, swimming and even polo.

"So we use the term 'grounds chairman' and the man in charge of the grounds is the superintendent of grounds.

"Our superintendent and I have weekly conferences and when emergencies arise conferences are held as often as is necessary.

"Our grounds superintendent has a perfect knowledge of what is desired and instructions are given to him in writing, verbal orders are not permitted. I think this leads to a firm understanding.

"When perplexing club problems arise I send for experts who discuss the matter with our grounds superintendent and the writer, but this is seldom necessary on account of experience we have had.

"Verbal complaints from our members are not considered, they must put their complaints in writing; they are not always complaints for we get many valuable suggestions from the members.

"When we make certain improvements such as changing greens, deepening or adding new traps, changing fairways, etc., such matters are always planned far in advance of the fall season because there are many days during the playing season when our men cannot work on the general run of grounds work and may be used for preparatory work on changes wanted in the fall.

"I believe the fine condition of our course is due to the perfect understanding I have with our superintendent. When either of us have ideas we confer and when we are not sure we call in experts. Then when

AN unbeatable team, these two. The Mas-ter Sprinkler has been a winner ever since it teed off its first game. For courses with operating pressures of 25 pounds or more, there's no better sprinkler made than the Master.

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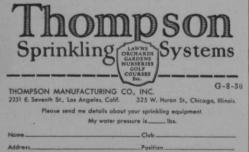
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The Greenkeeper covers 60 to 80 feet. It operates on pressure as low as 15 pounds. For either one inch or three-quarter inch hose. Can be used on the Thompson Quick-Coupling Valve, too.

Handsome, sturdy, reliable is the Greenkeeper. Always ready for emergencies. Ask your equipment dealer ur write us for details.



#### AUGUST, 1930

we have reached a conclusion the instructions are placed in writing.

"We watch our budget very closely, having had our auditors prepare our report in a simple manner so that our superintendent is able to read it. We separate our various activities and a copy of this report is in our superintendent's hands. He knows exactly what can be spent for sand, cinders, gasoline, oil and such items as we purchase, although this is made flexible because in maintaining such grounds. emergencies arise and must be given proper attention.

"All our purchases for the grounds are made by our superintendent who must get at least two bids. Quality considered, purchasing is done from the lowest bidder. He places his order through our office which then mails out the requisitions. When the bill arrives-it is approved firstly, by the grounds superintendent and then by the writer."

#### Keep Budget Ample.

G. M. Posner, green-chairman of the Bryn Mawr C. C. (Chicago district), points out that close contact between the greenkeeper and chairman means that the chairman will know enough about what's going on to put up a good fight in board meetings for the greenkeeping budget.

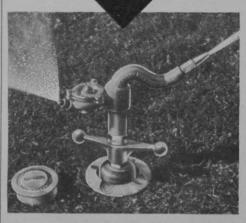
Mr. Posner, in his comment to GOLF-DOM, emphasizes that the more the greenkeeper keeps his chairman acquainted with the extent and character of the maintenance work, the easier it is for the chairman to get the greenkeeper the money he needs. He states:

"It is necessary that the chairman of the grounds and greens committee keep in contact with close greenkeeper the throughout the entire season, in fact throughout the year.

"A constant analysis of upkeep expenses, such as payrolls, fertilizers, sand, machinery and general supplies and equipment, and comparing same with each month of the previous years, going into this analysis frequently with the greenkeeper, making allowances for work that is out of the ordinary and only work done at periods of three or four years, will give you an idea of what the chairman can expect from the greenkeeper in the way of results and benefits to his course and keeping within his budget allowance.

"Almost daily discussion, if only over the telephone, between the greenkeeper and green-chairman, and at least a week-

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HOMPSON Quick Coupling Valve installations of hoseless irrigation overcome all hazards of droughts and scorching suns.

The perfect "lie" of each Quick-Coupling Valve . . . the uniform coverage of the Master Sprinkler as it is attached ... can't help but give even distribution of water over the entire course.

Thompson Hoseless Systems will save enough in water . . . hose . . . labor . . . will bring in enough additional paying players . . . to pay for themselves in a surprisingly short time.

Write today for free booklet telling more about this new way of overcoming dry weather hazards at less cost and work.





Position

ly inspection of the golf course by the green-chairman, is the only way that he can expect results.

"We expect our greenkeeper to have the greens and tees cut daily; the fairways cut once or twice a week, depending on the weather; the sand raked loose after heavy rains and before Saturday and Sunday play; the greens topdressed once a month; all machinery and equipment kept in perfect working condition; the trees and shrubbery carefully watched and soil turned over at least once during the season; prevent brown patch and other diseases affecting the greens; and in general keep the course in first class playing condition at all times. This can only be done by frequent discussions between the greenkeeper and the green-chairman with a budget allowance that is ample for the greenkeeper to do all of the work required to give the above mentioned results.

"In conclusion wish to state that to obtain what the chairman expects of his greenkeeper the chairman must be patient and helpful and give time unsparingly. It means work on the part of the green-chairman but you will get results. All that you expect of the greenkeeper will be fulfilled, and your club will prosper."



#### Audubon Makes Quick Time with New Fairways

A UDUBON C. C., Louisville, Ky. is boasting a new fairway this year that has an interesting story. Thirty-six days after the scrapers had left the job there was play on this fairway and a good stand of grass. Such a record is of particular interest to fee courses where time means money and the tale certainly is not without its value to private clubs confronted with the necessity of making alteration when the rush traffic is on.

A. C. Chapman, green-chairman of the club and C. O. Bohne, Jr., greenkeeper are proud of this achievement and tell of the procedure as follows:

"Our No. 13 is a one-shot 125 yard hole and was not visible from the tee. To get visibility it was necessary to excavate along the entire distance between the tee and the green. In some places as much as four feet and in no place was it less than 18 inches so of course there was nothing left but a very heavy clay sub-soil on the surface.

"On May 1st we had finished with the rough grading and were ready to prepare our seed bed.

"We first plowed the ground to a depth of about eight inches, disc-harrowed it three times double discing each time and then dragged it twice with a tooth harrow to get it reasonably smooth. Our next step was to add enough manure and other fertilizers to make good soil out of that clay; so we put on per acre 18 cubic yards of mushroom soil, 1,000 pounds milorganite and 400 pounds of 20 per cent superphosphate. These materials were then thoroughly mixed with the top six inches of soil by going over it again with the disc harrow, four more times double discing this time also. Following this we again dragged it with the tooth harrow, going over it until the surface was perfectly smooth and ready for the seed.

"On May 3, we sowed 100 pounds of Kentucky blue grass, 80 pounds fancy red top and 40 pounds of rye grass per acre

# Keep the scars of BROWN PATCH off your greens... Leading greenkeepers use

#### Leading greenkeepers use this effective method

In the next few weeks the strongest and healthiest turf may be scarred—perhaps completely ruined—if it is unprotected against brown patch. The disease has no respect for the cost of your greens!

But damage by both large and small brown patch can be prevented. Greenkeepers of hundreds of leading golf clubs know this by their years of experience. They apply Semesan or Nu-Green regularly, and their turf stays green and velvet-smooth. Or, if the disease has already developed, a prompt application soon restores the grass to normal health.

For the control of brown patch, 1 pound of Semesan or Nu-Green to 50 gallons of water will treat 1000 square feet of turf by sprinkling. Applied with a power sprayer, 50 gallons of Semesan solution will treat 2000 to 3000 square feet—50 gallons of the Nu-Green solution, 1500 to 2000 square feet.

SEMESAN is advised when soil fertility is high, but controls brown patch under all conditions.

5 lbs\$13.00	100 lbs\$220.00
25 lbs 56.25	300 lbs 645.00
NU-GREEN conta	ins the same effective
ingredient as Semesan	. Recommended where

ingredient as Semesan. Recommended where fertility is lower.

5	lbs	\$ 9.00	100 lbs\$145.00	
25	lbs	37.50	300 lbs 420.00	

Order now from your seedsman or golf supply house. Bayer-Semesan Company, Inc., 105 Hudson St., New York, N. Y.



Regular treatment kept this green free from brown patch. The small panel illustrates damage done to turf by the disease.



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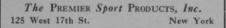
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The Silvertown Co., London

#### John Wanamaker New York Sole United States Distributors

New York Chicago Boston Memphis Philadelphia Los Angeles and dragged it in, taking care not to cover it too deep.

"From the time the seed was planted until the grass was about one and onehalf inches tall the ground was kept moist with a very fine spray. On extremely hot days it was necessary to water the entire fairway four times a day. I believe we owe the splendid turf to the care we exercised in watering it.

"On May 27 we cut the grass for the first time and have kept it cut ever since. After the first time the grass was cut we stopped watering it for a day or two at a time in order to force the roots down. "June 7, just 36 days from the time the seed was sown, the hole was open for play with an excellent turf."

#### Handbook of Drainage Practice Is New Armco Book

M IDDLETOWN, O.—A Handbook of Culvert and Drainage Practice has been issued by the Armco Culvert Mfrs. Assn. More than 300 pages, with many illustrations of drainage and culvert work details and numerous tables, comprise this book. The price is \$2.00.

It was the ambition of the association to put in this book all available data pertaining to drainage and in achievement of this aim the book represents a real help to those concerned with the drainage problems of golf courses as well as agricultural, industrial and play areas.

The drainage sections of the book are complete arrays of data on standard practice, much of which is profitably applicable to golf construction and maintenance. While the culvert data is not of main importance to golf work it furnishes considerable assistance in handling some serious problems that occur at golf plants.

When a newspaper advertises its golf news in the advertising business magazines as an indication of how the newspaper stands with the real buying power of the community it is a hopeful sign that golf is due to come into its own in publicity. The Boston Evening Transcript, advertising in Printers' Ink, features Linde Fowler golf news as a significant detail of the paper's interest to the reader who is a real buyer.

DON'T be frightened by scientific names of some grasses. *Poa annua* is bluegrass, *Agrostis alba* is redtop, *Agrostis* stolonifera is creeping bent.

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are all important when clubs are striving to hold or increase their membership.

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### Proven Strain of Washington Bent

It has been used in hundreds of bent greens on courses famous for their turf. Some of these greens are among the oldest bent greens in service—and not one of them has failed to establish a reputation for excellent putting, resistance to disease, color and ease of maintenance.

Ask any of the following clubs about Godwin's bent and hear how proudly their greenkeepers, green-chairmen and members speak of their greens.

Aronomink Country Club, Philadelphia, Pa. Country Club of Detroit, Grosse Pointe, Mich. Cincinnati Country Club, Cincinnati, O. St. Charles Country Club, Winnipeg, Man. Brookside Country Club, Winnipeg, Man. Brookside Country Club, Canton, Ohio. Tam O'Shanter Golf Club, Detroit Elm Ridge Country Club, Montreal, Que. Lost Nation Country Club, Montreal, Que. Lost Nation Country Club, Cleveland, O. Buffalo Country Club, Buffalo, N. Y. Essex Country Club, Sandwich, Ont. Milwaukee Country Club, Milwaukee, Wis. Franklin Hills Country Club, Franklin, Mich. Municipal courses in Michigan at Detroit, Pontiac, Lansing, Grand Rapids and Flint.

Prompt shipment of Stolons or Sod from either of two nurseries.

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BENT GRASS

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The eighteenth green and the clubhouse of Inverness.

# Thirty Years in Greenkeeping –Its Lessons and Rewards

By WM. J. ROCKEFELLER Greenkeeper, Inverness Club, Toledo, O.

Thirty years greenkeeping at Inverness has taught me that experience is worth a library full of books, as valuable as the printed experiences of others are.'

Climatic conditions and soils vary so widely. There are a thousand and one localized problems in greenkeeping. A greenkeeper may go along for a long period and even reach the point where he thinks he is so good that he brags about his greens and then—the debacle! Almost overnight comes the epidemic. Putting greens seem to be the most sensitive thing in the world. They are all very delicately reared and subject to sudden and violent disease.

Now I am not out to say anything in this "speech" about any particular "breed of grass." I have so many friends (I hope) in the grass family that I don't want to antagonize one of them. Believe me, all good, refined, upstanding grasses, of whatever name, are the friends of the greenkeeper who has the common sense to keep on good terms with them. Those two words "common sense" are indispensable and no amount of anything else, even university diplomas, can "go over the top" without common sense up in the old dome.

As I look back over the years, I take pride in a number of my "students." They graduated with honors and went forth to "green fields and pastures new." I think particularly of Joe Mayo, who was with me a long time and has achieved real distinction at Pebble Beach, California. He exemplifies just what I have been trying to convey.

#### **Develops** Men and Course

Through the years it has been a genuine happiness to me to see the development in men and the course at Inverness. We have tried to make the course steadily better in all rational ways. Golf course construction can be abnormal and crucifying. Not so Inverness.

# For the hard work of golf-club grounds you need this *finest*

ROOM

GOODYEAR

**T** IS good to look at, this greenjacketed Goodyear Emerald Cord Hose. In the hardest club service it will last for years.

It will resist long hours under blazing sunlight. Stout flat ribs guard the handsome tube from damage. These are buffers to ward off sharp edges. They are runners also, so that Emerald Cord is dragged easily from point to point. And they are springs to writhe free in an instant from obstructing knots and kinks.

The best of "double-double" cot-

# HOSE

ton cord alone is used in Goodyear Emerald Cord Hose—the most durable rubber. It far outlasts other hose, and the friendly green color matches turf and shrubbery —a well-groomed golf hose for the club.

This de luxe hose costs a little more than ordinary hose. But the kind of wear it gives, its looks and bright willingness in service many times repay investment.

In  $\frac{5}{8}$ ",  $\frac{3}{4}$ " and 1" capacities and in lengths to 500 feet.

For specifications or other information about Goodyear Hose for golf clubs, just write to Goodyear, Akron, Ohio, or Los Angeles, California



The advertisers pay for your GOL FDOM; deal with them.



There is plenty of evidence of careful planning in the architecture of this recently rebuilt 13th green at Inverness.

As an illustration of a green so situated naturally, and protected that its sporting qualities are as they should be without being unfair, I submit the picture of the Eighteenth green at Inverness.

While the men that I have employed to do the actual labor have always been the best I could get, everything in the way of new construction has been done under my personal supervision. It is very difficult to get men who can visualize a completed green from blueprints. I have often had to do a "sample part" of the work myself and then watch closely all shaping of a green to make sure that it fulfilled my ideas. While there are many opportunities to give variety to green construction. especially if as many natural locations exist as at Inverness, there are certain fundamental principles that must be adhered to.

I have always avoided trickiness in construction. High humps upon a green that deflect a finely pitched shot into a pit nearby is very unfair and hence bad construction. As a basic principle, all greens should hold a properly played shot, especially one that is up, for the old saying "never up, never in." must not be discouraged. A green that begins to slope down-hill so that a player dare not hit his approach shot boldly for fear that after it has passed the hole a few feet, it is going to speed up through gravity by reason of a down slope and end up in tall grass at the back of the green is bad construction, particularly on 460 or 470-yard holes.

There are no such greens at Inverness.

During recent years I have relocated and so rebuilt No. 2 (this year) and No. 13 (in 1928), and made fundamental changes in the pits guarding Seventeen and Two. I hope and believe that all of these will be appreciated next year, when our visitors come to the National Open. Many of them were here in 1920 and, no doubt, will not these changes, which show the way a good American course grows.

# Some Physical Properties of the Soil

#### By J. S. JOFFE

(Rutgers University Short Course)

HYSICALLY considering, a soil is a mass of solid particles differing in their size, shape and nature. Assuming the particles to be spheres, we may see how the arrangement of those and their size will influence the pore space in the soil. The larger the particles the less pore space and vice versa. Sandy soils may have 20% pore space and gravelly soils may have even as low as 10% pore space. Most cultivated soils range between 35 and 50% of pore space. The proportion of interspace in a soil determines both the volume of air it will hold and the amount of water it is capable of taking in. The size of the pore space determines the rapidity with which the water will flow through the soil.