

The International Fairway Tractor owned by the park board of Grand Forks, N. D., cutting through the rough on the Lincoln Park golf course.

### A Gallon of Gasoline or Less an Hour Runs the FAIRWAY



This tractor is also used for road-maintenance work in the Grand Forks parks.

The economy of the International Fairway Tractor recommends it as a sound investment in power for golf-course and park work. It easily solves the problem of maintenance, and, in addition, it has ample power for construction work of all kinds, for general golf-course and turfimprovement work, and for operating beltdriven equipment. Put an end to maintenance problems—turn them over to the International Fairway. Ask our nearby International dealer or Company - owned branch for a demonstration.

INTERNATIONAL HARVESTER COMPANY (Incorporated) 180 NORTH MICHIGAN AVENUE -:- CHICAGO, ILLINOIS



### YOUR TURF PROBLEMS ... and their solution

### **QUESTION:**

Three of our fairways are practically devoid of grass; coverage consists of buckhorn, plantain, and chickweed. If we plow and reseed, play is prevented until sometime during the next season. Is there any way whereby we can eliminate weeds and re-establish grass without materially interfering with play?

ANSWER: Yes. There is a method worth trying which will not interfere with play. Although still considered experimental, it has been used successfully by several clubs.

By this scheme, weeds are eliminated with sodium arsenite, or arsenic acid, followed by liberal fertilization with superphosphate and an organic source of nitrogen. These areas are then reseeded with appropriate grasses using an alfalfa and grass disc seeder.

While these chemicals are effective weed killers, they are not always safe because both are fairly toxic to grass; bent and fescue being most susceptible and blue grass least. Injury is more likely with the liquid than with the dry method of application.

Since fairways are devoid of grass, possible injury to grass is of no consequence. Elimination of weeds, before reseeding, is the first necessity.

With either chemical, at least two treatments will be needed. In the absence of rains, within 24 to 48 hours after application, leaves begin to wilt, then turn brown and shrivel. However, on the old plants, new leaves soon appear. The second treatment should be made when these leaves attain a length of approximately 11/2 inches.

The first application should be made in August, so two to three weeks (for new leaf development) will elapse before the logical seeding time in your district. If desired, fertilization and reseeding can

Jeed with MILORGANIC NUT GANIT

immediately precede the second and final treatment, without detriment to the new seeding.

A rate of 4 ounces per 1000 square feet is ample for sodium arsenite or arsenic acid for liquid spray application. With the dry method of application, double this quantity can be used.

Before seeding, apply 300 to 600 lbs. 20% grade superphosphate and 800 to 1500 lbs. of high-grade organic fertilizer (such as Milorganite) per acre, depending upon level of soil fertility. With these materials, immediate seeding is safe.

Grass is so sparse that a reasonably heavy rate of seeding is justified - about 125 lbs. per acre for a mixture of 90% Kentucky blue grass and 10% bent. For all fairway reseeding, the use of the alfafa and grass disc seeder is strongly urged because it cuts the seed into the soil. Crossseeding is necessary because discs are spaced 4 inches apart.

NOTE: On fairways where turf is reasonably good, systematic fertilization will eliminate most weeds. Any "doubting Thomas" should make trial applications of the arsenicals on limited areas before attempting large scale control with these chemicals. Otherwise, serious injury to the grass may result, due partly to lack of experience.

Tell us about your Turf Problem. The facilities and service of our Soil Testing Laboratory and Field Agronomists are at your disposal, within reasonable limitations.

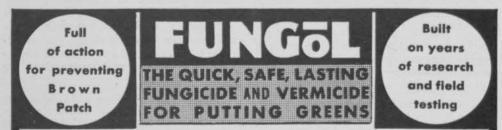
Turf Service Bureau THE SEWERAGE COMMISSION MILWAUKEE WISCONSIN

ORGANIC-NITROGEN TURF FERTILIZER

### BUCKNER **Dual-Action** Sprinklers

Where the water supply is limited or low in pressure, these new type sprinklers are extremely useful. Because they have only one nozzle, they require less volume than other sprinklers covering the same distance. Rotation is quite slow-about one minute per revolution. No speed adjustment is necessary as they operate at practically the same speed regardless of pressure. Made in two sizes of performance. . . . Materials: All brass. Equipped with plain or sand-proof bearings. Write TODAY for performance tables and prices.

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and prevent Large and Small Brown Patch. Fungol gets right down to grass roots in curing quick outbreaks of

Effective low cost protection from fungous turf diseases

fungous troubles. Does not quickly wash out. Write

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Learn about our protective plan of spray treatments. More Courses

using it yearly to save money. Big advantage in large covering capacity of Fungol -3,500 to 7,000 square feet to pound. No extra cost for chemicals in Fungol for combating

> Earthworms. Sod Webworms, Cutworms. Grubs.



### FIRST GAME STEEL... then COP-R-LOY For Golf Course SPRINKLING SYSTEMS

First came steel pipe to make possible "every-evening" sprinkling of fairways and greens. Then came COP-R-LOY Pipe, introducing the greater resistance to corrosion of fine mild steel alloyed with pure copper—creating a new standard of durability for longer, better and more economical service. Wheeling Steel Corporation, Wheeling, West Va.

COP-R-LOY Pipe

### IT'S WHEELING STEEL

OP-H-O

GOLFDOM



Sheriff James (Jimmie) Williams, Chairman of the Greens Committee of the Hillorest Country Club, scene of the recent Kansas City Open Championship, with Worthington equipment used to keep the course in championship condition.

WORTHINGTON EQUIPMENT will groom your course to Championship condition, too.

Worthington Overgreens cut in concen-tric circles giving you "truer" greens finer playing surfaces, for your ball always rolls toward the cup from any direction over the same nap or grain. Overgreen cut greens are never alternately "fast" or "slow" as greens cut the old-fashioned way in strips or ribbons must be. Overgreens pay for themselves in time, money and man-power saved, for one man with one Overgreen can cut the entire 18 greens in approximately 41/2 hours-a job that takes from 18 to 22 labor hours by hand cutting on the average 18-hole course. This enables you to spend more time - without additional labor cost - in raking traps, trimming around bunkers and hazards, weeding greens, grading and seeding and other work, necessary but often neglected, to keep your course in championship shape.

It is interesting to note that 44 out of the 56 courses in the United States, Canada and England, on which the National Open and Amateur Championships have been played, used Worthington equipment and that there are more Worthington Gang Mowers in use throughout the World than all other makes combined.

Tear out this coupon for handsome, illustrated catalogue with full details of Worthington time and money-saving equipment.



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#### BENTS NO POLLUTION! NO ADULTERATION! That's what PURITY means Startling but true! We offer Seeds of the following that have been proven by test to be over ninety-nine percent pure: COOS COUNTY SEA- TRIPLE BENT SIDE BENT RHODE ISLAND COLONIAL BENT BENT CHEWING'S RED TOP FESCUE ASTORIA BENT RYE GRASSES SOUTH GERMAN MIXED BENT FESCUE RYE GRASSES Also, U. S. grown Velvet Bent (94% pure), Kentucky Blue Grass (98% pure), South German Bent (90% pure). Reliable Putting Green and Fairway Formulas. And further! It is acknowledged that within botanical varieties there are varying "strains"; all our seeds are the finest "strains" available. CONFIDENCE! That's what you enjoy when you sow our Seeds, for you know you are using the best that money can buy. Same-day shipment from our air-conditioned warehouse; Bents packed in airtight metal containers. Catalogue of Golf Course Requisites and Equipment on Request. Write for prices now, NUMDD G WALLE 132-138 Church Street (Corner Warren St.) NEW YORK

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#### **AUGUST**, 1938



Brown Patch on putting greens has been the cause of many golfers dropping their club membership—but this need never happen.

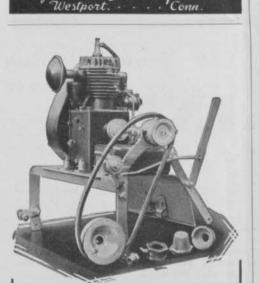
Good scores-perfect putting greens-elimination of brown patch can be obtained by using DOLGE DIWORMA. It fortifies greens-retards brown patch if already started.

Get those old members back-give the new members something to join for!

Use DIWORMA and watch the new members join, but best of all watch the old members come back.

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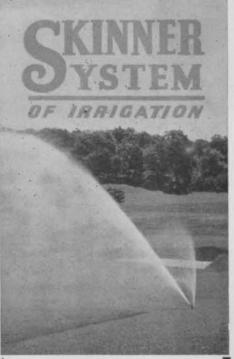
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#### Convert Your Toro Hand Greensmowers to Power Mowers

It is not necessary to buy a complete new machine. We can furnish you with this simple Motor Conversion Unit to slip on your present chassis, converting your hand machines into power greensmowers.

Toro Manufacturing Corporation Minneapolis Minnesota



### SKINNER SYSTEM SERVICE

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 Skinner System equipment, experience and engineering ability will assure economy in first cost, efficiency in performance and permanent satisfaction.

 Write for Golf Manual No. 236. Ask about your problems.



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# Destructive worms with NuREXFORM ARSENATE OF LEAD



• The most effective way to eliminate the damage done by grubs and worms to greens, fairways, tees and lawns is regular application of NuREXFORM Arsenate of Lead.

We recommend NuREXFORM for golf course use, either as a spray or dust, because of its fine mesh, uniformity and ease of application. It spreads evenly assuring economical use.

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### ARE YOUR GREENS RAZZ PROOF?

The average—yes, even the good golfer scarcely "smacks" his first ball until he joins the razzing chorus. He misses a putt (usually) and the green committee catches h—. Greens of Scott's Creeping Bent provide slander insurance to said committee.

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The Toro Hand Putting Green Mower with a fine fourteen year reputation is now equipped with a 1/2 H. P. motor to drive the reel.

The complete unit, weighing only 90 pounds, does a beautiful job of cutting and is easily handled at a definite saving in time and energy.

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### PROS

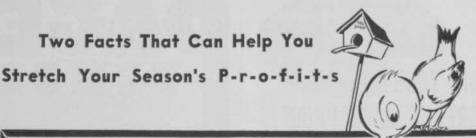
If you haven't ordered your selling helps for the 'Birdie Specials' Nation-Wide Pro-Shop Sale to be held August 27-September 5—then do it immediately!

Send order by card or letter TODAY to

### **Golf PROmotion**

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### Fact No. 1

According to reliable estimates, 25% of the year's total golf is played during the two months of September and October.

. . .

#### Fact No. 2

Experts agree that fully 40%of the playing equipment of amateur golfers is seriously unsuited to the players' types of games.

Spalding believes you can make profitable use of this fact — and wind up your selling season with a bang!

Talk to your members. Find out who among them are using clubs that were improperly sold on Spalding believes you can turn September and October — usually "tapering off" months — into golden harvest months. How? Take a look at

weight, length, lie, and type of shaft. Check up on members whose clubs are unsuitable because of changes in the players' weights or builds or strength. And sell them the right Spalding clubs!

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GOLF EQUIPMENT



## WHAT'S AHEAD FOR GREENKEEPERS?

#### By WALTER E. LANGTON

Greenkeeper, San Gabriel (Calif.) CC

Technical progress in greenkeeping during the past 10 years has been little short of astounding. Higher maintenance standards have been generally achieved despite the handicap of almost every financial, turf cultural, and social development.

But, notwithstanding the advance in the profession's methods and results, the greenkeeper himself has not advanced materially or in recognition of golfers and club officials.

The situation is unfair, and holds grave consequences for the future of golf. Walter E. Langton, greenkeeper of the San Gabriel CC, and dean of Southern California greenkeepers, considers the greenkeepers' status in a calm, philosophical manner that will interest greenkeepers and club officials, alike. —The Editor.

**F**OR a greenkeeper to write about the future of greenkeeping as a profession would require a combination of qualities that few of the calling possess. To be in any degree accurate he would have to be prophetic, imaginary,

philosophical, scientific—in fact, he would be an extremely gifted individual imbued with a profound knowledge of the future of economics and social trends, and there just ain't no sich animal. Or if there were, he most certainly would not be a greenkeeper.

The best this greenkeeper can do is a lot of wishful thinking and guessing. Greenkeepers like most other folks are not entirely captains of their souls and are merely creatures of circumstance. Lile birds in a cage they can only move within the limits of their environment.

For more than 150 years a keeper of the greens has been regarded as little more than a glorified laborer, dignified by the name of Greenkeeper, or sometimes superintendent, and held responsible for everything that happens on his course 24 hours of the day. If he has good bosses he is lucky; if not, he is unfortunate because he has an added handicap. A greenkeeper has enough to fight without contending with bosses who, because they may have made a success in men's furnishings, consider themselves the supreme authority on the upkeep of turf.

Because the greenkeeper perforce must create unnatural conditions, Mother Nature is arrayed against him. The weather usually is too hot or too cold, or too wet or too dry; unnecessary plants infest his turf; and every miserable bug or fungus that loves the juice of grasses preys on them in the dark. In order to compete At the Fargo (N. D.) CC, golfer Carl Lunde found his ball lying high in the thick rough of the 12th hole. He swung at it lustily with an 8-iron and not one, but two balls landed on the green. The other had been hidden in the grass below his.

with these natural enemies, a greenkeeper must be ever on the alert. A little slackness here and there and the bugs have got him. He must possess a working knowledge of so many things: mechanics, drainage, chemistry, entomology, tree surgery, landscape architecture, construction, and botany; and yet even with this rather extensive knowledge he for the most part is the possessor of an inferiority complex. A century and a half of the golfing fraternity's idea of a greenkeeper's job has fixed the type and has placed shackles upon a calling which will be hard to break.

#### Rates Low Spot

#### on Roster

Study the employees' roster of any club carefully for the rating of the greenkeeper. He is usually placed very close to the bottom of the list, sometimes a little higher than the caddie master; and yet good greens, tees, and fairways are what make a golf club. Throw a couple of greens out of commission and see how quickly golf players will desert the course and go to a layout where all the units are in good shape. Golf players will not tolerate bad playing conditions if good ones are available elsewhere. They will put up with a professional who is often off the job or with a poor meal or with most other inconveniences without resigning (there is a successful golf course in the West which has neither pro nor clubhouse), but they will not put up with an inefficient greenkeeper. Of course professionals and house managers have their place in the scheme of things. We as greenkeepers are not envious of any breaks they may get. They have their troubles and annoyances, and if we knew of the every-day problems which beset the pro and the manager we would have more consideration for them. But this is written from the standpoint of the greenkeeper and while it is not our intention to lower anyone's status, we would like to raise our own.

How can this be done? What is the future of greenkeepers? These are vital questions to every greenkeeper old and young. The first thing to do is to evaluate ourselves and ask ourselves why we are so lacking in recognition. Do we lack a fundamental knowledge of our work? Do we lack organization? Are we making the most of our opportunities? Do we lack publicity? Or do we just feel inferior?

Before we can make any conclusions as to the future of greenkeeping, a comprehensive study of the above questions must be made.

Study will show that the status of any group is judged by the status of the individual members. Hence it pays the average man to foster the friendship and acquaintance of those men who are above average in their professional ability. On the other hand, a display of ineffectiveness on the part of one greenkeeper lowers the status of all. Therefore, it is absolutely imperative that the greatest care be shown by membership committees in recommending any man who calls himself a greenkeeper to be added to the roster of a greenkeeper's organization. I am inclined to believe that before anyone is admitted he should be given some sort of an examination, one which will determine whether or not the applicant is capable of handling the various every-day problems which will confront him on a golf course. Further, believe that the applicant's character should be scrutinized carefully before he is given final approval. Organizations do not last long when composed of men of dubious character, so why be dragged down when it is easy to say no? When golf clubs can depend entirely upon the recommendations of a greenkeeper's organization for material to fill a vacant position, then that organization definitely will have arrived.

#### Job Affected by Membership Level

Greenkeepers, like any other men, are subject to the law of supply and demand and other economic vagaries. If there is an over-supply and the demand is limited, salaries inevitably will be lowered. Perhaps private clubs are more affected by the fluctuations of trade than most other organizations. A drop in the market, an increase in taxes, a decline in business, or a suggested assessment will see many with limited means dropping their memberships. We cannot blame people for doing this, for golf is not an absolute necessity and can be dispensed with in time of trouble. The membership mortality in private clubs during the last depression must have been enormous, and the consequent loss of greenkeepers' positions