

"YOU'VE GOT SOMETHING THERE ROSEMAN" . . . and it proved the sensation of the Greenkeepers' Show.

Greenkeepers from every corner of the country went to their annual convention with open minds and eager interest—to see and study methods and machinery for improving golf course maintenance. And they found a new mower that kept them humming around like bees. A Fairway gang mower that eliminates scalping of abrupt rolls, cuppy terrain and all uneven fairway surfaces.

From the standpoint of inquisitive inspection and enthusiastic comment Joe Roseman's exhibit of his new 30 inch fairway gang mower held the spotlight all during the annual show.

Retaining the Roseman principle of design—rolling and mowing combined—the new 30 inch unit embodies 17 major improvements . . . improvements which greenkeepers readily conceded would bring to modern golf courses the most advanced equipment for getting the finest of fairways at remarkably low cost.

No Scalping

Whereas all other fairway gang mowers leave a scalping area span of 33 inches between their side wheels, the critical greenkeepers saw how the new Roseman units reduce the span to 14 inches, permitting the mower to safely and smoothly follow uneven surfaces—and they all have plenty of trouble with scalping.

Spring Bed Knife Adjustment

Directly above the bed knife is a patented spring tension adjustment—a shock-proof feature that safeguards against reel breakage. They found it easily accessible and enthused over the speed with which they could make exacting adjustments for all cutting conditions.

Structural Simplicity

New improved roller-chain and machine-cut sprocket drive are enclosed in a dust-tight housing and run in an oil bath. There is one drive

shaft and one reel shaft each respectively mounted on Hyatt Roller and Timken Taper bearings. Side frames are secured with six cross members as against an average of two for side wheel gang mowers. This Roseman structure provides higher speed, maximum strength, lightness of pull and better balance.

25 Years of Progress

It was twenty-five years ago that Joe Roseman began the development of his Roller-drive Fairway Gang Mower. As a veteran greenkeeper and golf architect, he pooled his knowledge and experience of golf course maintenance and soon perfected the only mower to apply putting green treatment to fairways.

The following are typical of the comments made to Joe Roseman, president, during a recent tour covering 10,000 miles:

"My one Roseman gang will outwear any two gangs of side wheel makes and still be doing a good job against their third new gang." Topeka Kansas G. C.

"Our fairways were nothing but bare spots, and mud holes after rains. Now, after using Roseman Mowers for just a year, the whole course is a blanket of good, strong, velvety turf." Metairie G. C., New Orleans, La.

"Believe me, every club should use Roseman Mowers. They've given us the best fairways in the South." Bellerive Country Club, Nashville, Tenn. (*All four private clubs in Nashville are using Rosemans.*)

Not only does the New Roseman give greater economy through larger capacity and longer life, but brings additional saving in its new initial low cost—the lowest ever offered on a roller-drive mower. For complete details about the New Roseman 30 Inch Fairway Mower and 1938 Roseman Special Tractor write — Roseman Tractor Mower Co., 2610 Ridge Road, Evanston, Ill.



MAKES WEEDS HELPLESS

ONE drop of Dolge Weed-Killer is equal to two drops of the ordinary "good" chemical for the purpose. Because Dolge Weed-Killer (1) contains the highest possible concentration of active ingredients, (2) blended in a way that lets you get the last unit of energy from them.

Dilute Dolge Weed-Killer according to simple directions and sprinkle in sand traps to eradicate ugly growth. Sprinkle in the rough to kill thistles, nettles, briars. Sprinkle on tennis courts, parking areas, drives, walks—wherever you want no growth whatsoever.

Important: Dolge Weed-Killer finishes poison ivy—and other deep-rooted growth.

BETTER PUTTING

Diworma eradicates worms—angle worms, night crawlers and wire worms—in putting greens. Result: better putting, because no worm casts. Simply dilute in 250 parts of water and sprinkle. No broadcasting or watering in. Worms come up to surface: rake 'em up: job's done.

Send for 1938 Ground Maintenance Manual. It's ABSOLUTELY FREE.



The C. B. Dolge Co.
Westport, Conn.

GOLF FLAGS

with a guarantee of
SATISFACTORY SERVICE.

CHAMBERLAIN GOLF FLAGS
ARE FADE PROOF—SHRINK
PROOF—and WEAR LONGER.
BETTER LOOKING, TOO!

Send for Prices

ERNEST CHAMBERLAIN
8628 ELMIRA AVE. -:- DETROIT, MICH.

Use QUICKMAIL Coupon No. 23

are you ready?

Before long, thousands of golfers throughout U. S. A. will be chasing the little white ball around the course. Are you prepared to help them keep the ball clean and white? Check up now and be sure you have Lewis Washers at every tee!

G. B. LEWIS COMPANY
Dept. G3 WATERTOWN, WIS.

LEWIS WASHERS



**Multi-Ball
Roto**

each.....\$15.00

Paddle-Type

1 to 10,
each.....\$6.00
11 to 20,
each.....\$5.50



4 SPECIAL-PURPOSE FERTILIZERS FOR GOLF COURSES



TO meet your exact requirements, Agrico Country Club Fertilizers come in 3 grades, each specially formulated to do one job and do it better: Agrico Country Club Fertilizers for Putting Greens, 8-6-2 . . . for Fairways, 8-6-4 . . . for Seeding new Fairways, 6-8-2. And, if you prefer an all-organic turf-food, use Agrinite—8½% Nitrogen.

Proof that these fertilizers assure better results and give more turf-feeding power per dollar invested—better turf at lower cost—is supplied by leading greenkeepers, who report year-after-year improvement with Agrico.

“Agrico gives best results at moderate cost—the special formulas for each purpose mean good, substantial turf that has the needed staying power,” say John Pentenero, Supt., Quaker Ridge C. C., Mamaroneck, N. Y. “We use Agrico because it is ideal for greens and fairways,”

says Herb Shave, greenkeeper, Oakland Hills, Birmingham, Mich. It's the same story everywhere. So, why not try some Agrico yourself this season, and see the difference it makes?

Agrico is sold in New York Metropolitan area by Arthur D. Peterson Co., Inc., 420 Lexington Ave.; in Chicago by Worthington Midwest Co., 1043 West Washington Blvd.; in Detroit by The American Agricultural Chemical Co., 204 South Forman Ave.; in Baltimore-Washington area by John S. Connolly, Bethesda, Md., and by A. A. C. Sales offices in other principal cities.

Agrico is Manufactured Only by

**The AMERICAN AGRICULTURAL
CHEMICAL Co.**



50 Church Street, New York

AGRICO COUNTRY CLUB FERTILIZERS

• Use QUICKMAIL Coupon No. 25 to answer this ad •



INSIST ON PROOF

when you choose a

POWER PUTTING GREEN MOWER

In addition to the fact that Jacobsen pioneered the power putting-green mower, we offer you cost and performance records from hundreds of prominent clubs, some whom have been Jacobsen users throughout the 17 years of our sustained leadership.

JACOBSEN

Power Putting Green Mowers

give you more efficient cutting, at lower operating cost, over a longer period of years. Jacobsen Steel Wire Brush Attachment combines cutting and brushing in one operation — affecting a healthier, more perfect putting surface.

• See the NEW REAR WHEEL DRIVE FAIRWAY MOWER — the most advanced design in fairway mower construction in the past decade.

Write for Catalogue.
Demonstrations on Request.

JACOBSEN MANUFACTURING CO.
734 Washington Ave. Racine, Wis.

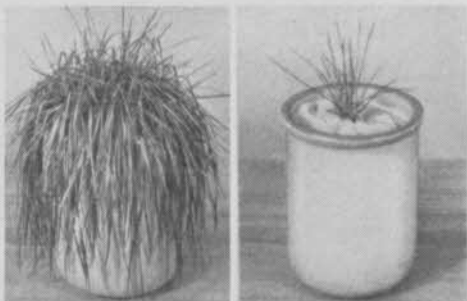
Factory Branch, Dept. O
101 Park Ave., New York City

JACOBSEN POWER MOWERS

Thick, Hardy Turf

FOR GREENS AND FAIRWAYS

These tests show you how it can be assured



Fed all eleven needed food elements.

Fed all but one needed food element.

Taken during a famous University's feeding test, these photos show what happened when a single vital food element was withheld from grass.

This year, build up a thicker, healthier turf that will crowd out weeds *early in the season* — before they get a start. Feed your greens and fairways with scientifically balanced fertilizers that are especially prepared for golf courses. Take advantage of Swift's Soil Service that will study *your* conditions and recommend the exact fertilizers to give you *the best results most economically*. See the nearest Swift representative, or write Swift & Company Fertilizer Works, Chicago.

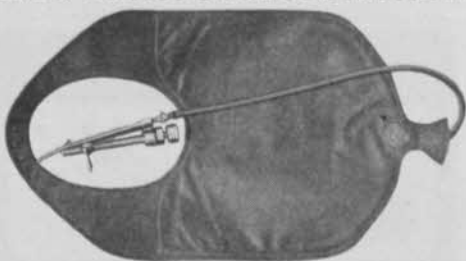
The switch is to
SWIFT'S SPECIAL GOLF FERTILIZER
and
VIGORO
COMPLETE PLANT FOOD

BUDGET and SAVE with

PERFECTION SPRINKLERS and ONE-MAN PROPORTIONERS

For 1938 Perfection Sprinklers will be improved with a new "Swing" type of Nozzle Turning Speed Adjustment to eliminate the necessity of adjusting the arms. It is simple, effective, and no increase in price.

Perfections will give you the utmost in Large, Even Coverage, Long, Continuous Service, The Simplest Turning Speed Adjustment and the Lowest Prices of any high grade sprinklers made. Perfections satisfy in every way.

**And! Do Not Overlook the NEW****ONE-MAN PROPORTIONER**

The Latest Contribution to Labor Saving Devices for treating Greens and Fine Lawns for Brown Patch, Worms, Grubs, etc. Also for Distributing Soluble Fertilizers, Weed Killers, etc.

Greenkeepers and Dealers everywhere are unanimous in their praise for this new device and it is certain to soon come into general use.

With the exception of the brass nozzle, it is made entirely of Chemical Resisting Rubber and, with reasonable care, it will last several seasons.

It will actually save, in time alone, several times its cost in one single season.

It will pay you to Budget for Perfection Products in 1938.

Manufactured and fully guaranteed by

PERFECTION SPRINKLER CO.
PLYMOUTH, MICH., U. S. A.

Answer above ad with QUICKMAIL No. 30

GRASS SEED

of

"Known Quality"

Tested for Purity and Germination

SAVE MONEY BY ORDERING NOW

Seaside Bent and Triple A Bent packed in 50 lb. tin canisters, enclosed in strong wooden boxes for protection, preservation, identification.

Grass Seed Over 99% Pure

Seaside Bent (*Coos Co. strain*)
Triple A Bent
Rhode Island Bent
Colonial Bent
Superfine Red Top
Chewing's N. Z. Fescue
Rye Grasses
Bermuda

We are able to refine other varieties almost to this wonderful standard of quality.

Also South German Mixed Bent and Velvet Bent over 94% purity.

Kentucky Blue over 98% purity and Putting Green and Fairway Formulas of maximum purity and germination.

Such tested seed will reduce labor cost for weeding.

Your Private Lawn—Write us for expert advice and prices of Staigreen — the modern mixture for luxuriant lawns.

"ESSENTIALS FOR GOOD TURF"
Our New 1938 Book—Free on request.

Stumpp & Walter Co.

132-138 Church Street (Corner Warren St.)
NEW YORK

• Answer above ad with QUICKMAIL No. 16 •

NuREXFORM ARSENATE OF LEAD

... the worm's worst enemy



● NuREXFORM, the Improved Arsenate of Lead STOPS insect damage to greens and fairways, lawns and shrubbery.

Properly applied, either as a spray or dust, NuREXFORM settles in the ground to a depth of two to three inches and when the grubs and earthworms feed on the tender roots—NuREXFORM poisons them.

NuREXFORM Lead Arsenate is the recommended lead for golf course use because of its fineness of particles, uniformity and ease of application.

WRITE FOR FOLDER ON GRUB CONTROL

E. I. DU PONT DE NEMOURS & COMPANY, INC.



GRASSELLI CHEMICALS DEPARTMENT
WILMINGTON, DELAWARE

ROOT ALL - PURPOSE SPREADER



NEW

**ADVANCED IMPROVEMENTS
IN CONSTRUCTION MAKE IT**

THE 1938 SPREADER SENSATION!

More accurate—more efficient—more economical—than any other method! Locked Feed Set and "Finger Touch" Control eliminate all possibility of "burn" at start or finish lines. Greatly increased agitation assures better, smoother distribution. Nothing compares with it in fertilizing, seeding or top dressing. Built for hard, rugged service. Write at once for full details.

Also available with Metal Tires at lower cost.

THE ROOT MFG. CO.
1051 POWER AVE., CLEVELAND, OHIO

MOWERS



A new type Sickle Bar Mower for cutting hay and weeds in rough

Before purchasing any mowers, it will pay you to write us and have our complete mower catalog on hand

Power, Fairway, Greens mowers, Tractors.

ATTRACTIVE PRICES

Write for Catalog



NATIONAL MOWER CO.

839 Cromwell Ave., St. Paul, Minn.

Answer above ad with **QUICKMAIL No. 9**

YOUR TURF PROBLEMS

... and their solution

QUESTION:

Present fertilizer practice on our greens consists of periodic topdressing, together with an occasional application of ammonium sulphate. Is this an adequate fertilizer program?

ANSWER:

As outlined, the program is not complete. It fails to provide phosphoric acid and possibly potash. Besides soluble nitrogen, some slowly available nitrogen is needed to insure more uniform growth. Need for lime is another possibility.

Because the drain on soil nutrients is greater, greens require more fertilizer than fairways. Continuous watering accentuates growth, and promotes leaching losses; furthermore, considerable plant food is carried away in clippings. Fairway growth is less abundant and as clippings decay, all their phosphoric acid and potash is restored and held by the soil in re-usable form. Hence, these elements are needed on greens, but are less important on fairways.

In deciding upon need for phosphoric acid and potash, character of topdressing is the deciding factor. All types are usually low in phosphoric acid, but they differ in respect to potash. When manure compost or mushroom soil is a component, they eliminate or reduce the necessity for potash.

All soils "fix" applied phosphoric acid and potash. Penetration beyond 1 to 2 inches seldom occurs before fixation takes place. Therefore, leaching losses are negligible, so one or two heavier applications are better than frequent light rates throughout the entire season. With the above proposal deeper penetration is more likely before fixation occurs.

Unless available soil phosphorus and potash are abnormally low, from 4 to 10 pounds 20% superphosphate, and from 3 to 4 pounds 50% muriate of potash per 1000 square feet (all subsequent rates on same basis), will suffice if applied once in early spring and again in late August or early September. Increase maximum suggested rate by 20-25% when rapid soil tests indicate low supply of either element.

Then fertilization becomes a matter of sup-

plying sufficient nitrogen. Major feeding should be in spring and fall. With the approach of summer, grass should show slight nitrogen hunger. From June to late August only enough nitrogen should be used to maintain color and growth. Leaves and stems should be sturdy at all times. This is even more important than brilliant green color.

Longer lasting organics (such as Milorganite) should be used to insure uniform, continuous growth, but some inorganic nitrogen is desirable also. The following scheme has been very successful on many courses. In early spring and again in early fall, Milorganite is applied at 15 to 30 pounds per 1000 square feet. When needed, half this rate is used in late May or early June. If topdressing contains manure, the lower rates are approached. In early spring from 2 to 3 pounds ammonium sulphate is sometimes used to initiate growth. In summer, feeding consists of ammonium sulphate at light rates only, from 1 to 3 pounds.

Soil may be acid, due to past use of ammonium sulphate, so greens should be tested for reaction. If strongly acid, make one application of ground limestone during late winter at 50 pounds per 1000 square feet, and half this quantity if only moderately acid.

To summarize: Apply needed lime during late winter. In early spring and again in fall make one application of superphosphate and muriate of potash, together with Milorganite, and repeat Milorganite in May or June at lower rate. During the summer use soluble nitrogen at light rates only. This program will give superior results to the one outlined in your question.

If you have a turf problem, we will be glad to aid you in its solution. Our Soil Testing Laboratory and Agronomists are at your service. Write:

Service Bureau

**THE SEWERAGE COMMISSION
MILWAUKEE WISCONSIN**

feed with **MILORGANITE**
THE ORGANIC-NITROGEN TURF FERTILIZER



"Pabst Blue Ribbon"—on your menu is a refreshing greeting of an old friend to your patrons. Pabst has been acclaimed a worthy companion to good food by five generations.

PABST

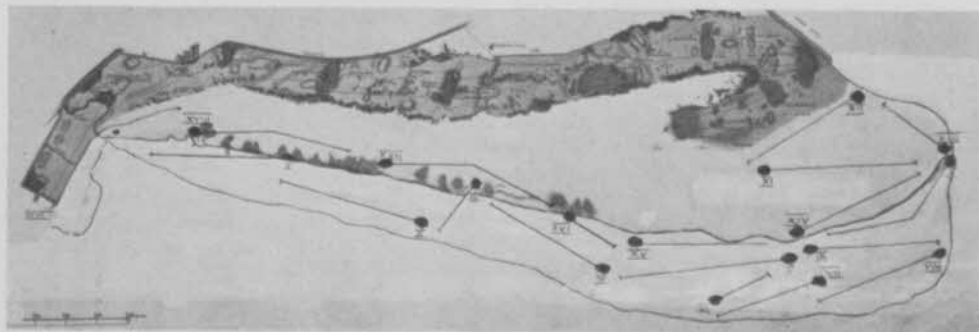
GOOD TASTE FOR 94 YEARS

NEW COURSE PLANNED FOR ST. ANDREWS

ST. ANDREWS is to have another course that will reassert the position of the old Scotch town as the world shrine of golf, if proposals of local residents and influential non-resident British and American golfers are accepted. Modern golf equipment and the recession of the sea have the Old Course in a bad way in its claim to contemporaneous leadership. Four holes now are no more than of drive-and-chip length, and five (in addition to the par-3 holes) can be driven. The ninth, tenth, and twelfth holes are respectively 306, 312 and 314 yards, which gives an indication of

how hopeless it seems to be to preserve the Old Course's reputation as a championship venue.

The present so-called New Course never has been good enough to compare with the famous Old layout and as tinkering with the New course is pronounced futile by experts, it is proposed to install 18 great holes bordering the shore south of



Old Course at St. Andrews is shown in shaded area in upper portion of drawing; site and layout of proposed new 18-hole links is outlined directly beneath. New course will lie between Old Course and sea, as recession of water in recent years has left plenty of room, of the right topography, for a modern and model championship course.

the Old Course. In the last 40 years the sea has been receding to such an extent that in the new land there is plenty of territory of the right topography for a modern course.

Sir Nairne Stewart-Sandeman, Major Cecil Hutchison, and Sir Guy Campbell have been prime-movers of the 15-year-old effort to locate a modern course at St. Andrews and preserve the town's status as a golfing mecca. Golf constitutes a major factor in the town's income but the traditional lure is fast weakening due to the obsolescence of the famed Old course. Competent American appraisers of golf course architecture and playing interest declare that St. Andrews Old Course is far inferior to many other less ballyhooded courses in England, Scotland and the United States.

There has been persistently increasing mention in the United States of the Old

Course's shortcomings, consequently a definite drop in the former desire of American golfers to make a pilgrimage to the shrine. Proponents of the new course have told, with considerable validity, that a modern course would bring again to St. Andrews the easy spenders who figure it's a toss-up between St. Andrews and the Pyramids as relics, and that they can pass up both items of historic interest.

Not much opposition appears to be in the way of the town putting in the new course with a guarantee that construction expense will not exceed an amount that's very reasonable, considering the probable increase of outside money brought to St. Andrews by a modern course. Some natives are strong for the seaside plot being used as a bathing beach and promenade. You can get that at Coney Island, in case St. Andrews decides to compete.

DRAINAGE FIRST

By JOHN MONTEITH, Jr.

You can't grow turf unless you've licked your course's drainage problems

POOR drainage is responsible for the loss of much turf as well as for a tremendous amount of poor turf on golf courses. To remain healthy our common turf grasses must find in the soil adequate food, water and air. A perfectly balanced food supply for grasses, as for man, is of no avail if there is not available enough water or air. Most grasses can not survive long with merely a supply of air available only to the leaves; they must have oxygen from air in the soil to maintain a healthy growth of roots.

In a loose open soil such as found in cultivated fields, moisture and air can penetrate readily. Even in natural stands of vegetation the soil is kept loose by the heaving of frost and the activities of earthworms and other small members of the animal world. On golf courses, however, soils are packed by constant use of machines and the trampling of players. Earthworms, grubs and other burrowing animals are discouraged as much as possible. Consequently the porosity of the soil on golf courses is quite different than

it is in cultivated fields or in wild places where grasses thrive.

When soil becomes saturated with water the air is forced out of the soil. To realize readily how this process works one may take a glass full of marbles. Each marble represents a particle of soil. Air fills the spaces between the marbles but is readily forced out when the glass is filled with water. The air cannot return to the spaces between the marbles until the water is drained off. If the water is left in the glass it can escape only by evaporation. As the water evaporates the spaces in the upper layer are gradually filled with air. In the lower part of the glass there is no air for a long period of time; an even longer time in cold, cloudy weather. On the other hand if there is a crack in the bottom of the glass