The Edgewater Beach Hotel—capital of smart summer living for Chicagoans and visitors from all over the world. Where gay parties gather on the famous Lake Michigan Beach Walk...and smooth away dull care with delicious, more keenly refreshing Pabst Blue Ribbon.

Win Greater Prestige and Greater Profits
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Full color menu riders are yours for the asking. They're increasing check averages for many other managers...why not send for samples? Write to Dept. 718, Pabst Sales Company, Chicago.

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- From coast to coast you'll find the truly smart eating and meeting places are giving the play to Pabst Blue Ribbon. They've found that Pabst is a beer with prestige...familiar to every customer...famous for its light, bright, brisk body.

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PASS THE WORD...YOU SERVE Pabst BLUE RIBBON

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“It’s WILSON today in Sports Equipment”

Today, in the most unusual advertising of its kind, Wilson is telling its story nationally to sports-loving and sports-playing America. We are telling it in the most forceful of all printed messages—the experiences of playing “stars.” Millions of readers will feel the pressure of the oft-repeated slogan—“It’s Wilson Today in Sports Equipment.” Millions will read it and accept it.

Wilson Leadership will affect the sales of every Pro Golf Shop. Wilson National Advertising is your advertising. Utilize its great selling and merchandising power by featuring Wilson Equipment in your stock.

Equipped with True Temper Step-Down Shafts

PLAYER: They tell me that Wilson K-28 Ball is the “wonder” ball of 1939, Tommy. Well, if it helps Ralph Guldahl shoot his kind of “magic” golf, I’ll try it.

PRO: Better have the box, Mr. Saturday. It’s a sweet ball. But the ball can’t do it all. There’s still the man and the clubs. Have you tried the new Wilson Woods?

Ralph Guldahl is retained on Wilson’s Advisory Staff.

MERCHANDISE SHOWN HERE IS RESTRICTED TO SALE BY PROFESSIONALS

“It pays to play.” WILSON GOLF EQUIPMENT

WILSON SPORTING GOODS CO., CHICAGO, NEW YORK AND OTHER LEADING CITIES
BUCKNER Quick-Coupling Valves
Give You Perfect Control of Water Consumption

• They are provided with Built-in Flow Control, enabling the operator to compensate for any increase in pressure. • They are Self-Closing when the coupler is removed, absolutely preventing any leakage. • They are Grit-Proof, Repackable under Pressure, Safe and Long-Wearing.
• They represent the result of over 25 years' manufacturing experience. • Write us TODAY!

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EVERYBODY'S FAVORITE TORO PONY
The Toro Hand Putting Green Mower with a fine fifteen year reputation is now equipped with a 1/2 H. P. motor to drive the reel.

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Reduce your sales effort—but increase your sales. Sounds strange, you say? But not if you're located in the Lytton Building—the golf trade buying headquarters of the world. You'll then 'cash in' on the drawing power of the golf companies, golf publishers, and the golf associations located in this building.

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AVOID ORDINARY TURF CHEMICALS WHEN YOU CAN GET THIS HIGH GRADE FUNGICIDE AND VERMICIDE AT LOW COST

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Laboratory and field tests over many years have proven the great value of this unusual multi-chemical product for treating both Large and Small Brown Patch.

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FORTIFY AGAINST BROWN PATCH

DIWORMA is the perfect defense against brown patch. Not only fortifies greens against this turf disease, retards it if already started—prevents spreading on affected areas.

Dilute one pint DIWORMA in 50 gallons of water—sprinkle and brown patch loses again. Repulse an attack of brown patch by using DIWORMA.

Write for information on brown patch control, also 44 page Ground Maintenance Manual—FREE

The C. B. Dolge Co.
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"Congratulations on the fine condition of the Golf Course"

This was the radio comment of the broadcaster, reporting the Ohio Amateur Golf Championship at Miami Valley Country Club, Dayton, Ohio, a few days ago.

"After torrential rains it is still in fine shape—" Miami Valley is completely watered by the Skinner System of Hoseless Irrigation. It is interesting that the strong, sturdy turf built up from several years correct irrigation has resisted the damages of sudden downpours, such as would ruin a thin, unwatered fairway.

An unexpected benefit is added to the numerous obvious advantages of Skinner System watered fairways, greens and tees.

Have you our golf course bulletin 236? One is yours for the asking.

THE SKINNER IRRIGATION CO.
415 Canal Street
Troy, Ohio

JAPANESE YEW
THE ARISTOCRAT OF EVERGREENS

- 2 to 2 1/2 Feet
- High, Balled and Burlapped
- $5.00 F.O.B.
- Fort Wayne, Ind.

Evergreens
Our Specialty

Catalogue on Request

REAM NURSERY
FORT WAYNE, IND. R. 2

The new AL LINK GRIPPER GLOVE

Its hand support allows ample adjustment and free hand movement—Slipping or turning of club is reduced to minimum.

Hand support unit clings tightly to club grip—a definite aid for perspiring hands . . . Lessens muscle tension and promotes relaxed control . . . Conforms to semi-finger palm grip . . . Eliminates blisters and callouses . . . Equally helpful to men and women golfers.

Ask Your H. & B. Representative to Show You This Great Glove, or Write to

HILLERICH & BRADSBY CO.
LOUISVILLE, KY.

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Ask Your H. & B. Representative to Show You This Great Glove, or Write to

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**CUREX**

for BROWN PATCH

An organic mercury compound. Will not shock or discolor turf. Constantly improved during the last six years, its efficiency has now been increased to a marked degree. Product of Curex, Inc.

**CUREX TURFMASTER**

for BROWN PATCH

Especially designed for light applications during midsummer. Contains plant food element for quick comeback after Brown Patch attack. Use with safety even before your most important tournament. Product of Curex, Inc.

**MAGIKIL**

KILLS ANTS!

A 32 oz. can of viscous liquid with special applicator costs only $5. Order from your supply house now, and plan to use Magikil Golf Club Ant-Bait during the season. Product of Lethelin Products Co., Inc.

**FUNGEX**

for Better Control of BROWN PATCH

A calomel corrosive sublimate mixture containing a special activating ingredient increasing efficiency of both materials; very voluminous; wide margin of safety when applied either wet or dry.

**WOOD-RIDGE MIXTURE '21**

for Turf DISEASE CONTROL

Used for many years from coast to coast by leading Greenkeepers to control large Brown Patch, Dollar Spot and Snow-mold on golf greens and fine lawns.

Your regular dealer can supply you. Write for literature covering the use of the above products.

THE WOOD RIDGE MFG.
Division of F. W. BERK & Co., Inc.
Wood Ridge, New Jersey

*Registered U. S. Patent Office.

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**TIMELY TURF TIPS**

**TREE ROOTS IN GREENS AND TEES**

Damage caused by tree roots is seldom suspected, although quite common where greens and tees are surrounded by trees. In open locations, even though 50 feet or more away, large trees should be regarded with suspicion. Any tree with lateral spreading roots may cause trouble, but willows, poplars, elms, and maples are most likely offenders. Their roots may permeate the entire area of green or tee, from the surface to a depth of several feet. Serious damage occurs in hot mid-summer weather.

Tree roots are supposed to injure grass by depriving turf of needed food; actually, damage is due to their effect on soil moisture. In hot weather, demand for water is great; tree roots pump water from the soil faster than it can be restored by sprinkling. This robs soil of its available water to a depth of several feet. Grass wilts first, then withers, turns brown, and soon dies... for want of moisture rather than from shortage of plant food.

Removal of trees is the obvious remedy, and is sensible... despite wailing members... where trees are numerous. Otherwise, sever roots, between green and tree by periodic trenching to depth of 3 feet. Where neither of these remedies seems feasible, sub-irrigation may be employed as an alternative expedient.

Tell us about your Turf Problem. Write:
Turf Service Bureau
THE SEWERAGE COMMISSION
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The Heddon Power-Shoulder Shaft Improves "Feel," Power and Control

The Heddon Power-Shoulder Shaft imparts to the hands a more sensitive "feel" of the club. Rhythm and follow-through are effortless. Control is improved. Play is better in all ways because the Heddon Power-Shoulder Shaft is stiffer near the head, carrying the head "through" the ball with greater Power and Control.

These "Heddon" features assure better scores for your players, and better sales of your quality clubs carrying a high profit.

Featured only in the finest grade clubs of leading manufacturers

JAMES HEDDON'S SONS
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THE POWER SHOULDER IS "THE HEART OF THE SHAFT"

HEDDON
"CUSTOM-DRAWN" STEEL GOLF SHAFTS
"The Shaft of Steel with the Sweetest Feel"
Jap Beetles Doomed!

The complete elimination of the turf-destroying Japanese beetle is now in sight, is the welcome news from the U. S. Experiment Station at Moorestown, N. J.

Japanese beetles first appeared in America at Riverton, New Jersey, in 1916. It is assumed that the grubs, or eggs, were brought into Riverton with plants imported from Japan for a local nursery. Along the Atlantic seaboard between Maine and North Carolina, extending westward to the Allegheny escarpment, approximately 25,000 square miles of territory is now heavily infested and 116,000 square miles are inside the quarantine lines of the U. S. Department of Agriculture.

B. R. Leach came forward with arsenate of lead as a specific in 1926. The beetle scourge struck the Merion golf courses in the Philadelphia District in 1927.

Beetles Cost Merion $12,500

Since 1929, Merion has used for beetle control on its two courses 30 tons of arsenate of lead, at a prime cost of $6,000. To dilute the arsenate for application by fertilizer drill, 500 tons of sand have been used at an initial cost of $1,500. Unloading and handling through concrete mixer in preparation for spreading, together with the expense of application, has cost Merion approximately $5,000. The total cost over the ten-year period has amounted to $12,500, an average yearly cost of $1,250. The number of acres treated was 66.

Depending upon weather conditions, the beetle appears annually during the latter part of June or in early July. It deposits its eggs in the soil over a period of 8 weeks. Each female lays an average of 60 eggs. The eggs hatch in about 8 days into larva. The larva when full grown is about 1/2 in. long, resembling more than anything else an undersized cut worm.

Grubs Feed on Grass Roots

A complete beetle infestation will show an average of 27 or 28 grubs per sq. ft. The maximum will run as high as 40 per sq. ft. The grubs feed on the organic matter of the grass roots. An infestation running greater than 15 per sq. ft. will strip the turf completely off a fairway if the grubs are left unimpeded between the time they hatch and the time they burrow into the ground for their dormant period throughout the winter.

With the approach of warm weather in spring the larva comes toward the surface of the ground and once more starts feeding on the grass roots. About the middle of June the grub ceases feeding. It then goes into a transitional stage and develops into the pupa. The pupa changes rapidly into an adult beetle and thus the cycle is complete.

Some five or six years ago a field man came into the office of the Bureau of Entomology of the U. S. Department of Agriculture at Moorestown, New Jersey. He held in his hand a dozen or more dead
Japanese grubs which had turned white. The live grubs are a slate color with a black tip at the tail.

Since no white grubs, either dead or alive, had ever before been observed, one of the entomologists then studying the Japanese Beetle problem under the direction of the chief entomologist of the Moorestown Station, became interested in the field man’s find.

**Death From Disease Probed**

After examination the idea was conceived that these white grubs had died of disease, probably caused by a bacteriological infection. With that thought in mind, some of the plasma of the dead grubs was injected into healthy grubs. The latter immediately became diseased, turned to a milky white color and died.

From these dead germs a culture was made and smeared on several microscopic slides. These slides were put away for three years. At the end of that time a drop of water was put on each slide. The solution thus obtained was injected into healthy grubs. As before, the healthy grubs paled and died, proving conclusively that the bacterial organism had not degenerated or in any way lost its virulence.

Looking toward a practical method of propagating the disease, the Moorestown entomologists next took a single dead grub, ground it up and put the mulch into a pint of water. With this pint of water they sprayed 10 sq. ft. of sterile ground and into the sprayed soil introduced a number of healthy grubs. A few days thereafter the healthy grubs once more turned milky white and died. Not at that time having isolated the definite organism, its effect thereafter was referred to simply as the “Milky White” disease.

Next 1 qt. of inoculated soil was scattered over 100 sq. ft. of virgin soil. Into this soil healthy grubs were once more introduced. Within two weeks the healthy grubs became diseased and within three weeks 90% of them were dead. Thus the second step was established. The soil itself, once infected, could be used to disseminate the disease, and the greater the number of grubs, the more virulent the disease. Then, too, it was also discovered that the bacteria not only attacked the Jap grub, but in a like fashion also diseased and destroyed the Asiatic grub, the so-called May grub, and the June grub as well.

It was about this time, while working out a control program for chinch bugs with the pathologists and bacteriologists of Pennsylvania State College, that Joe Valentine, greenkeeper at Merion, got wind of the experiment in progress at Moorestown. He promptly told the story to his chief, Arnold Gerstell. The latter’s reaction was immediate. “Joe,” he said, “go get those bugs. We need them.”

As the Moorestown experiment was pushed along it was found that two tons of infected soil would effectively inoculate one acre of virgin soil. Not content, however, those in charge of the experiment began searching for a natural carrier. To this end they fed infected grubs to a flock of chickens. Afterward, the droppings from the hen house were scattered on grub-infested soil. Ten days later the grubs again became infected, turned white and died; but the chickens, scorning to feed on the adult beetle, suffered no damage whatever in gobbling the larva.

Proceeding further, a number of wild birds, held under controlled conditions, were fed with infected grubs. The birds, like the chickens, proved a natural carrier, and also like the hens, suffered no ill effect.

**Must Propagate Bacteria Artificially**

And so after 5 years of intensive research, it appears that a natural means of completely eliminating the Japanese beetle now is in sight. But, exercising rigorously the meticulous restraint for which scientists are noted, the Moorestown station is not yet prepared to make any announcement as to the discovery. There is still work to be done before a scientific presentation of the case is in order. The diseased organism has been isolated, but as yet the bacteriologists at Moorestown have not accomplished artificial propagation of the bacteria, spore by spore.

It is probable that a formal announcement would have been made early this year had it not been for the fact that the Moorestown budget for 1939 was cut by nearly 50%. In consequence, the final stage of the research has not been completed. The bacillus is still unnamed. Nevertheless, practical application of the discovery is already under way.

Valentine got his “bugs,” with the result that Merion established a disease bed
on its East Course April 27th last, but both Gerstell and Valentine were careful to keep their own counsel. What they foresee in the near future is a saving of more than $1,000 per year on upkeep. As a matter of mature precaution, however, they took no chances on letting the good news leak out at least until after their budget for 1939 had been approved and passed by Merion's Board.

$1,000,000 Course for Cleveland

By J. Noble Richards
Commissioner of Recreation, City of Cleveland

“A golf course that has everything,” accurately describes the million-dollar, 36-hole public golf course under construction on the outskirts of Cleveland, as a part of the city’s development of a greater recreational system. In the last few years, with the help of WPA labor, Cleveland has made remarkable strides in the expansion of its park and recreational facilities. New playgrounds have been built, lighted ball diamonds opened to the public, a winter sports center started, many new tennis courts made available and the scope of the recreation program greatly enlarged. The new golf course is a part of this program and will serve the public of the south and west sides of the city.

For over 20 years a 36-hole course known as Highland Park has been operated for the public on Cleveland’s east side, but the constantly increasing number of golfers and the inavailability of this links to the populace of the south and west sides made it imperative to construct golfing facilities near these sections of the city. In 1938, there were 95,000 paid admissions at Highland Park. Every weekend last summer thousands of Clevelanders swarmed the links and play was slow and difficult because of the crowds.

It was this condition and the need for a course near the other sections of the city that prompted the department of parks and public property, of which recreation is a division, to obtain a Federal appropriation for the new course. An ideal location for the links was found on property already owned by the city near Brecksville, about 18 miles southwest of Cleveland’s public square. About 325 acres of rolling, partly wooded land had been partly used as an emergency nursery, but in recent years it had been abandoned. Although neglected the land could not be better suited for a golf links.
Biggest open money tournament of the summer, the $10,000 Dapper Dan affair, at Wildwood CC, Pittsburgh, Pa., Aug. 10-13, will give its net proceeds to charity. The Dapper Dan organization is composed of sportsmen who are quick to kick in for charitable causes.

Gently rolling hills and beautiful scenery in every direction afford a natural terrain for a golf course. Plans were prepared, under the guidance of A. H. Alexander, Cleveland, chief landscape architect of the city. The project was approved by city and federal authorities and in November, 1938, 3,000 WPA workers were busy grading fairways and leveling greens.

The course will consist of four 9-hole courses, each complete within itself, but so laid out that the circuit of the entire 36 holes may be made without traveling over the same ground. The first nine holes will have a par of 35 and normal yardage of 3,269 yards. Par 36 has been set for each of the other three sets of nine holes and they are 3,469 yards, 3,305 yards and 3,460 yards each. All four nines may be lengthened for championship play by the use of back tees.

Install Fairway Watering System

One outstanding feature of the Brecksville golf course will be the watered fairways. Two streams run through the land and these will each be dammed to form reservoir ponds. Pump houses, well hidden from view, covering pumps and pressure tanks, will be erected at each pond and sprinkling equipment laid in the entire structure will be finished. Included will be a dining room, lockers, showers, and social rooms. Eventually a swimming pool and tennis courts will be built near the clubhouse and the entire aspect will be that of an exclusive country club. Near the site of the clubhouse a practice green and short fairway are being laid out.

When completed, and it is hoped that the golf plant will be ready for use in the late summer of 1940, it will rate with any golf course in this section of Ohio.

Better Service Booms Small Club Income

Better meals are having a decided effect in building up country clubs out of the metropolitan territories, so observes E. W. Sherwood of the Hillside GC, St. Cloud, Minn. Sherwood as pro-greenkeeper, and his wife in charge of clubhouse operation, have done excellent constructive work in club upbuilding, so Sherwood is qualified to speak on what increases club membership in towns where the country club has had tough going.

"Even in the smaller communities families are getting the habit of 'eating out' more often, and a club that provides them with interesting menus, superior food and smartly trained service, soon gets the women of the community boosting the men into joining," Sherwood says. "The problem in the clubhouse is the same as on most of the smaller town courses—