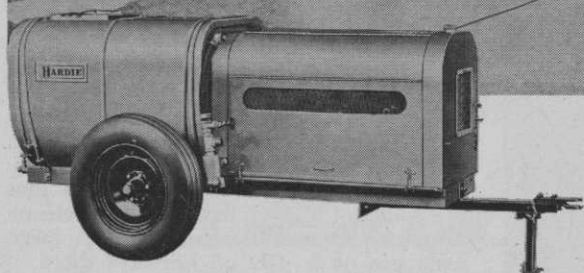


HARDIE SPECIALIZED GOLF COURSE SPRAYERS



THE FINEST IN SPRAYING EQUIPMENT

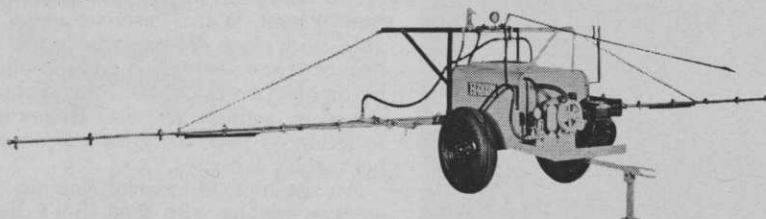
Preserve the beauty of your fairways, greens, and club house grounds with a dependable HARDIE Sprayer.

HARDIE Hi-Pressure sprayers are available in all sizes, from 3 to 60 gallons per minute. Pressure is adjustable from 50 lbs for weed spraying to 800 lbs for hand spraying of greens, shrubs, etc.

HARDIE also manufactures a complete line of single and multi-nozzle spray guns for exacting green or shade tree work. The

Hi-Lo pressure regulated weed boom is considered by many golf course Superintendents as the ultimate in boom design and performance.

There is a HARDIE Sprayer, with either the famous long-lasting Hardie wood tank or conventional steel tank, to meet your exact requirements. See your HARDIE Dealer soon, or write for illustrated literature. DEALER TERRITORIES AVAILABLE. WRITE TODAY.



See Us At Booth 109 —
International Turf-Grass Conference — Toronto



Send Coupon Now for Information

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730 South Main Street, Wilkes-Barre, Pa.

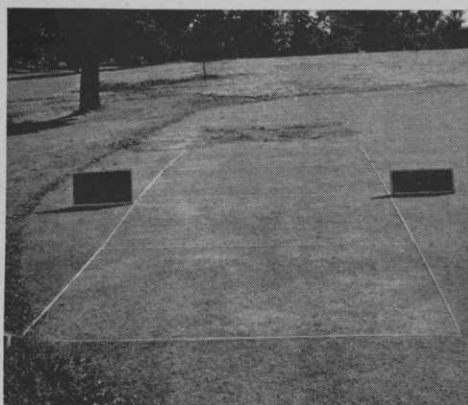
NAME

ADDRESS

CITY State



Rhodes scale damage on green of Tifgreen Bermuda grass on course in Florida.



Compitox damage on Old Orchard in nursery at double and quadruple suggested rate.



Grass type weeds along skipped line in Bermuda grass fairway sprayed with a proprietary disodium methyl arsenate plus 2, 4-D formulation.

none of the 2, 4-D type herbicides curbed either of these weeds.

As mentioned before, the use of selective herbicides is supposedly safe but that always has not been the case. This spring one club in Quebec was compelled to reseed a bent fairway on which 2, 4-D had been used the fall before. The soil was dry at the time of application and stayed that way. Another nearby club killed bent where phenoxy acetic acid type herbicide was used on greens in an attempt to kill localized spots of chickweed and a little clover. Extensive loss of Northland bent occurred in Alberta Province when 2, 4-D was used to kill broadleaf weeds on newly planted greens.

There have been similar instances elsewhere in other years. Damage from using a 2, 4-D, 2, 4, 5-T combination herbicide on fairways occurred on several metropolitan New York courses during the summer of 1959. The season was a bad one weatherwise. In the fall of 1948 some of the bent fairways at Milwaukee CC were sprayed twice with 2, 4-D in Oct. in a vain attempt to control chickweed. By spring, loss of grass was so severe that reseedling of the damaged areas became necessary. It was the first and last large scale use of 2, 4-D on fairways there.

Sodium Arsenite Effective

Before 1948 and after the bad results with 2, 4-D that fall, sodium arsenite has been relied upon for chickweed control at Milwaukee. Spraying has been in the range of 1 to 2 lbs. per acre, starting in mid-Sept. Discoloration never has been more than slight. Fairways have been sprayed three to four times, spaced 7 to 10 days apart.

These Milwaukee fairways are singularly free of chickweed and clover. They contain a minimum of poa and a high proportion of bent. Worm casts are never noticeable underfoot. Those who promote the use of the new phenoxypropionic acid herbicides overlook the plus values produced by sodium arsenite. Hence it is apt to retain its popularity for use on watered bent grass fairways.

An attempt to control yarrow in Milwaukee roughs with 2, 4, 5-TP has been reported. Control was not complete with the one treatment made in 1959. Another application in 1960 seems to have killed 90 per cent or more of the yarrow. The rate both times has been 1½ lbs. per acre. No attempt has been made to kill scattered patches of yarrow in the fairways because of severe damage to bent on test plots in

(Continued on page 79)

Club Managers or Pros . . .

**now . . . you can profit
from our experience!**

The most highly qualified team of design and production experts in the industry introduces a car designed with one thought in mind . . . years of profitable, dependable, trouble-free service to you! It's the beautiful, continental styled . . .



TeeBirdie

The striking good looks of the TeeBirdie's rugged fiberglass body conceals a host of engineering innovations, unmatched by competitive cars at any price. With painstaking attention to detail, veteran golf car designer Bill Bales has achieved such a perfect balance of engineering and appearance features that for the first time in the industry, a full 1 year warranty is offered on parts and workmanship. Some of TeeBirdie's features are listed below.



● **2½ gallon fuel capacity**, enough for an entire day of golfing.

● **Muffled intake and exhaust**, plus completely insulated engine compartment, combine for **extreme quietness of operation**.

● **Automatic transmission** provides smooth powerful acceleration.

● **Power brakes** set and release with slight toe action, provide safe, positive stops.

● **Continental Styled Body** never needs paint, doesn't dent.

● **Wide Base 6½" rims** distribute weight, spare the turf.

● **Air intake** is located on front of engine compartment, away from damaging dust . . . insures long engine life.

● **7 H.P. Kohler engine** provides margin of power for really rough going.

● **Spicer Automotive differential assembly**, the same provided on many of our finest autos.

● **4 interchangeable coil springs** plus new suspension geometry provide effortless ride, comparable to a fine automobile. And the TeeBirdie **won't tip over**, even under extreme conditions.

● **Automotive Ignition** . . . turn the key, it starts!

If you are looking for rental profits,
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TORO

Greensmaster*
gives you
constant
cutting-weight
on the green!

(and you can lease it for a few cents an acre under the new Toro Fleet Finance Plan. Write Toro Manufacturing Corp. for complete facts!)



*A registered trademark of Toro Mfg. Corp.

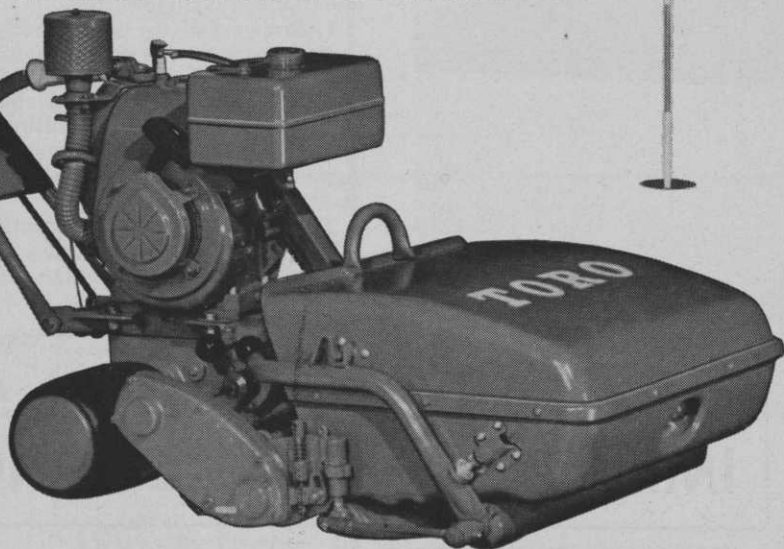
THIS IS IT—the greensmower with a cutting unit completely independent of the catcher, and independent of the operator's handling style, too! Result: cutting height does not vary with clipping weight; all greens look like they were cut by the same man.

This remarkable machine, the result of several years of study at the Toro Research and Development Center, is built in three separate units: the traction unit—consisting of 3 hp engine, gear box, soft-rubber traction drums and handle; the catcher unit—connected directly to the traction unit by a supporting fork with roller; the cutting unit—a 21-inch, 9-blade reel mounted between catcher and traction unit, and completely independent of both. Units can be separated or joined in minutes—without tools.

Compare the Toro Greensmaster with any other greensmower. Your Toro distributor will be happy to demonstrate the difference *on your own greens*. He's listed in the Yellow Pages under "Lawn Mowers."

TORO

TORO MANUFACTURING CORPORATION
3009 SNELLING AVE., MINNEAPOLIS 6, MINN., U.S.A.





**Construction, architectural ideas,
a long time in the making, can bring
real savings in course management**

By BOB DUNNING

WITH THE acceptance of the "sandy mixture" for putting greens it becomes possible to combine proved construction methods with architectural design of putting surfaces, irrigation and engineering. Through this, nearly every golf course can reduce its overall maintenance costs by 30 to 40 per cent.

This is not a new or revolutionary idea but one that has been more than 10 years in the making. It has involved the combined efforts of the best thinking in soils, construction methods, drainage, putting green, and in particular putting surface design. But even all of these advancements have not been enough.

During the same period manufacturers have improved irrigation equipment, engineering and design. Semi-and fully-automatic sprinkling systems have become a reality. Now, for the first time, golf is offered a full package deal. It is something really new that can reduce costs and labor time, result in better playing conditions, more disease resistance and wear-free greens.

A summary of the requirements to obtain these advantages are:

1. Proper Soil — Use proved methods or laboratory testing of materials and mixtures for developing topsoil for putting greens. Follow specifications closely. The soil will have very rapid infiltration, absorption and percolation of moisture, with enough water holding capacity to sustain plant life.

2. Construction — Construction methods, published and available, will insure internal and lateral drainage, as well as

FULL PACKAGE DEAL FOR IMPROVED MAINTENANCE

(L) Bob Dunning pores over course contour charts.

Ryan

LANDSCAPING EQUIPMENT

871 Edgerton Street • St. Paul 1, Minnesota

Company

- **Simplify turf maintenance**
- **Improve turf at low cost**
- **Cut better quality sod—faster!**

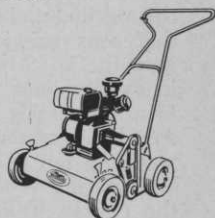
The 8 RYAN machines are beautifully engineered and ruggedly built for trouble-free, year 'round operation in all turf and soil conditions. There's a size and type for every user—golf course, nursery, landscape company, sod growers and cutters, estates, parks, schools, churches, hospitals, cemeteries, contractors, suburban industrial plants, and equipment rental companies.

SOD CUTTERS

World famous RYAN Sod Cutters are offered in four models and five widths, cut from 100 to 300 sq. ft. per minute in uniform thickness, $\frac{1}{4}$ " to $2\frac{1}{4}$ ", for fast, easy laying. Optional attachments give added usefulness.

REN-O-THIN

Remove thatch that blocks out air, moisture, and fertilizer, promote healthier growth with the slicing and thinning action of the RYAN Ren-O-Thin. Effective for all types of grasses.

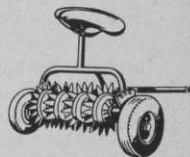


MOTORAIRE

Easy to use aerating machine—opens up compacted soil with specially designed non-tearing corers, covers 10,000 sq. ft. per hour. Evenly spaced cores hold water, fertilizer, promote deeper root growth.

LAWNAIRE

A low cost cultivating, renovating, aerating machine that will attach to 30" mowers or 2 h.p. garden tractor, do a thorough and effective job. Knives and corers easily changed on the 4 wheels.

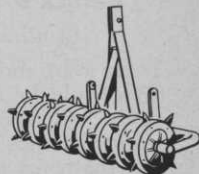


ROLLAIRE

Weighs well more than a quarter ton (water filled) to effectively roll away winter frost heaves, pack and even soil for seeding or re-sodding, and assure tight sod-to-soil contact after sodding. Also for tennis courts, driveways, etc.

TRACAIRE

Specially designed to hitch to any tractor with a standard three point hydraulic lift. Eight independently rotating wheels cover a 6 ft. swath for cultivating, renovating, aerating.

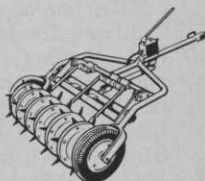


GREENSAIRE

Now you can completely aerate a 5,000 sq. ft. green by taking out 150,000 clean-cut plugs uniformly spaced on 2" centers—and let golfers resume play immediately! Aeration relieves matting, helps hold moisture around the roots.

RENOVAIRE

Two models. Both require tractor power, both have hydraulic lifts for transporting along roads. Choice of cutting knives and tines for three-way use: slicing, renovating, aerating.



See Ryan's New Full Line —Booths 134-5-6—Toronto Show

that of diffusion with disposal of all water over field capacity.

3. Design and Principles of Contouring Greens — Design will insure surface drainage in many directions and not in just "several or two or three directions." Surface water will escape from the green to the nearest outlet on all sides or in every direction. It will be carried only a short distance to the nearest outlet at the perimeter of the green. Methods of construction and principles of contouring greens have been published and are available, including multiple pin positions or cup cutting areas to save greens by preventing wear and tear. This combination, including location, will cover drainage in five phases: surface, internal, lateral, by diffusion and by air.

Irrigation Design and Engineering — By having the necessary phases of soil mixture, construction methods and design, it is now possible to combine fully automatic multiple sprinkler systems to obtain the ultimate in maintenance efficiency that was previously impossible. It will save the U. S. courses millions of dollars in maintenance when proper construction in all phases is combined with automatic sprinkling systems. A three to four hour watering job is completed in 15 minutes.

Watering is the greatest labor cost on the course. What do you get in return? Now this loss can be channeled to productive activities. A course never needs to be closed because the greens are too wet.

Golf courses have never had the opportunities that now are offered. Certainly the objective of our older courses should be toward more efficient management by making use of the many advancements developed in recent years.

Penick's Teaching Is A Hit

(Continued from page 21)

There were more applicants for the course than could be admitted.

She emphasized that the job of fitting women's clubs is tremendously important and that pros must be losing considerable club business by not making women aware of this factor.

Don January told of starting in golf by caddying for his father, then getting into fast amateur competition around Dallas and being tutored by Dallas pros before he decided to turn pro himself. He said that the great lessons circuit pros get are from fellow performers. He said Gary Player gave him valuable assistance by

telling him to look at the ball and not around it so as to stay over it longer.

Palmer's Secrets

Arnold Palmer answering a request to reveal the "secret" of being the "best driver" replied that a good deal depends on the grip. He keeps his left elbow straight and high right elbow in. He says that he squeezes the grip if he finds his drives getting off line. When he moves his left hand a bit more on top of the grip to keep from hooking he doesn't have to hold the club so firmly. For longer shots he takes the club away quite slowly. His driver has a 12 degree loft and the shaft is stiff. He takes the driver back from 6 to 12 inches before his wrists start cocking.

Warren Orlick conducted a useful session on the rules, illustrating with diagrams some of the puzzling matters that pros are asked to settle. Orlick also made illuminating comment on the 1961 changes. Orlick, a leading student of the rules and probably the No. 1 practical authority on their application, is a severe critic of the change that permits keeping the flagstick in the hole.

TV Rules Violations

He cited violations of rules in the TV matches as showing that tournament pros need considerably more education in the rules or risk losing public standing as authorities. His remark recalled to several persons a comment Walter Hagen made during the 1960 National Open when a pro sent in from the course for a rules committee decision on a simple case. Said The Haig: "A man who plays golf for a living shouldn't have to ask an amateur for the answer in a case like that."

PGA Meeting

(Continued from page 20)

Rogers of the law firm that unraveled the legal intricacies that led to the PGA brand of equipment being put on the market, reported to the delegates. Schaffner discussed the progress made with the PGA line in 1960 and revealed merchandising plans for the current year, while Rogers brought the delegates up to date on the latest legal developments.

Other business transacted included arrangements made between the PGA and International Golf Sponsors Assn. and William A. Martin and Associates, Chicago, for TV tournament coverage. Miscellaneous circuit details also were worked out by the tournament advisory committee with co-sponsors.

Mr. Professional . .

Something new and exciting is going to be added to your golf shop merchandising picture next month when I introduce the all-new "Dick Metz" signature woods and irons for your inspection and approval at the Annual Pro-Senior Tournament in Dunedin, Florida.

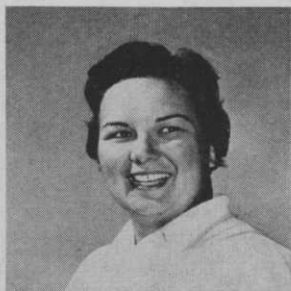


DICK METZ — 1960 National and World's Senior P.G.A. Champion; Advisory Staff Member, Northwestern Golf Company.

The Northwestern Golf Company and I have combined my years of tournament play and golf teaching experience with their golf club design and production know-how to produce a line of professional model golf clubs that incorporate the finest craftsmanship and materials with tremendous eye- and feel-appeal. When you see them you'll agree they'll give your members that itch to 'try and buy'!

We have something new for the ladies, too. You'll be the first to see the new "Jackie Pung" Professional Model women's woods and irons. As a golf merchandiser you know that women are the severest judges of quality, styling and value. When you look at the new Jackie Pung line through the eyes of your lady members, you know that they've just got to make sales for you in the ladies' department of your pro shop!

I'm looking forward to seeing you February 14-19, at the Pro-Senior in Dunedin . . .



JACKIE PUNG — Former Women's National Amateur Champion; Advisory Staff Member, Northwestern Golf Company.

Sincerely,

Dick Metz

Advisory Staff Member

Northwestern Golf Company

World's largest exclusive manufacturer of golf clubs

3505 N. Elston Avenue
Chicago 18, Illinois



BOB BALDOCK, designer of over 100 golf courses and their irrigation systems, says:

“For trouble-free irrigation systems, I always recommend economical Transite Pipe.”

“There are two important reasons for my choice of Transite Pipe. First, it’s an economical pipe to install, operate and maintain. With its long lengths, light weight and speedy coupling, installation is a low-cost operation. Over the years, Transite keeps pumping costs low because it cannot tuberculate. What’s more, it won’t rust, rot or corrode, so maintenance costs are kept to a minimum.

“The second, and equally important reason, is Transite’s trouble-free per-