

## ELECTRIC GOLF CARS

Now, fewer moving parts, minimum payout for maintenance... plus a magnificent blend of safety, styling, simplicity of operation.

New Viking I

SAFER BY DESIGN. The new Viking I is stronger, steadier, easier to control in every driving situation. Rear torsion stabilizing system, wide-track design and lower center of gravity reduce risk of tipping. Safety side rails, 4-speed switch control, safety reverse switch, all work together to make Viking I the safestriding golf car made.

SIMPLICITY OF OPERATION AND MAINTE-NANCE with fewer moving parts, fewer things

Sen pric line to go wrong. Maintenance-free, doublestrength Fiberglas sectional body; positive, automatic braking system; long-life nylon rear suspension bushings; single solenoid switch control; and easy accessibility to all moving parts.

ELEGANT, FUNCTIONAL STYLING. Longer, lower silhouette; soft, flowing, sculptured look —truly the most noticed golf car shape in years. Send coupon today.

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es on the Viking of golf cars.	ADDRESS	An Sector Sector		1831	
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#### QUICK WAY OUT OF TROUBLE- AGRICO

No matter what the problem is—drought, weeds, excess traffic you can swing out of it in a hurry with famous formulas from AGRICO,<sup>®</sup> the **right** fertilizer.

AGRICO Golf Course Programs are specifically tailored to your own soil and climate—and include expert counsel whenever Mother Nature gets you into a trap.

That's why 2 out of 3 Professional Turf Men prefer AGRICO Fertilizer and AGRICO Service to any other kind!

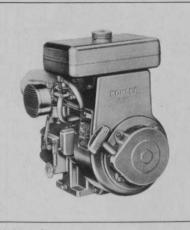
AGRICO<sup>®</sup> Country Club Fertilizers ...

For more information circle number 243 on card

# New products



Carlson Company manufactures the Jiffy Field Marker. The marker has many uses on the course such as: out-ofbound markings, bounds for marking hazards and to mark areas during tournaments.



Kohler Company introduces its new 4hp engine, model K101. This cast iron engine is the smallest in the Kohler line. Its standard features include: retractable starter; automatic compression release; precision, oil bathed, flyweight type governor internallymounted with external adjustment, and a silencer type muffler.



Motor Appliance Corporation introduced their new model 1555-T battery charger. It features three different lights that turnon in sequence throughout the charging operation to show how much the batteries have progressed.

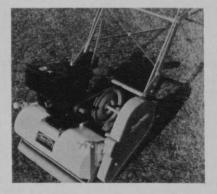
#### Take time now to Save Time—Money—Manpower—this year

Call or Write your West Point Distributor He'll demonstrate the Proven West Point Way to

Better Playing Surfaces Less Interruption to Play Lower Labor Costs



The MC5A Vertifier with Core Catcher for greens.



The VC-4A Verti-Cut<sup>®</sup> Mower Precision-built for grain-free greens and better putting surfaces immediately!



The PD-2 Power Drag for greens. One man mats one green in one third the time!

For the name of your West Point Distributor, write West Point Products Corp., West Point, Pa. 19486



#### New 4-bagger - Money-Maker

It's as simple as this: if you've been renting a 2-bag car for \$7, you can almost double your rental income by getting \$12 for our new 4-bagger. And each golfer pays less!

#### **Double your fleet capacity?**

Yes. And with less cars. You go through those peaks of demand for tournaments, corporate outings and other special occasions. You probably have to beg, borrow or rent additional cars. Our new 4bagger will accommodate twice as many golfers, double your fleet capacity. No more begging.

Most golfers want exercise, too! For the first time, a foursome or threesome can rent one car. Most golfers want exercise, without fatigue. With our 4-bagger, each member of a foursome can walk 9, ride 9. Each golfer in a threesome is able to ride 12 holes.

#### Advantages of the 4-bagger

- Doubles your income potential with less initial investment
- Doubles fleet capacity for those periods of peak usage
- Eliminates caddy problem
- Reduces cost-per-rider on rentals
  Expands market to threesomes
- and foursomes
- Satisfies golfer's need to exercise, without fatigue

**Pay yourself with a demonstration.** The name of the game is profit and our new 4-bagger doubles your potential. Call or write us today for a demonstration. That's free.

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#### Shaft

Continued from page 45

as well as the control flex area. "The old Kroydon Company of Maplewood, N.J., had developed machines to produce high-powered shafts that could be controlled to any diameter and wall thickness in any part of the shaft. Its shape of configuration was such that it insured a very stiff lower section

with controlled flexibility further

up the shaft. "But where do we go from here?" he asks. "I'm convinced," says Mr. Schloss, "that the tip diameter of shafts is too small for steel, aluminum or stainless steel. I'm conducting research for a shaft to fit over the neck of irons, to taper down to a controlled flex point or precise fulcrum up the shaft, then to taper again to reach a butt diameter of not more than .600.

"With woods, I'd increase the diameter and taper of the tip section of the shaft up some 3<sup>1</sup>/4 inches from the bottom, then have a taper to a controlled flex point or fulcrum and finally graduate up to the same .600 or .580 diameter at the butt end.

"I say the lighter the weight of the shaft, the better the balance. But aluminum is not the answer. It does not return the club to its original position as fast and it doesn't occilate. It feels dead. Certainly, stainless steel can be considered the lifetime shaft."

John St. Clair agrees that ''a lighter overall weight to the shaft will increase the velocity of the clubhead and generate more energy (distance), eliminating the need to change your timing.'' However, he feels that ''this could be the aluminum shaft. You can't have help in the clubheld without control. A softer shaft that provides more distance only if your timing is perfect is not the answer. The correct shaft will have all compensating factors built right in.''

But whether your shaft is aluminum, steel, glass or stainless steel, if it doesn't get the clubhead to the ball the exact instant your hands are in hitting position, then it is not the one for you.

Irv Schloss was then asked what else is new in shaft development. ''Most of the research and de-

Continued on page 76

# THE SWING IS TO TROJAN

"MILEAGE MASTER" **GOLF CAR BATTERIES** 



More driving power . . .

Lower maintenance cost . . .

Proven dependability over years of rugged service . . . is why more and more of the country's leading golf courses prefer Trojan Mileage Master Electric golf cart batteries.

#### TROJAN BATTERY COMPANY

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#### LUCKY BUCK

#### SOLID GOLF BALLS

#### FULL REGULATION SIZE

\$3.60 per dozen wholesale

Solid Range Balls \$2.85 per dozen to ranges.

Plastic Golf Tees \$2.10 per thousand in 50,000 lots.

BUCK MFG. CO.

109 Pierce St.

North Aurora, III, 60542

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#### shaft

#### Continued from page 74

velopment into shafts took place before World War II. Since then, approximately 90 per cent of all shafts have followed the pattern introduced by True Temper in 1932.

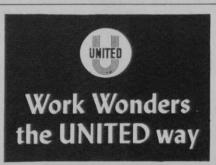
"The True Temper Vickery pattern followed the 2/3-1/3 theory, as did the old Bell Bottom shaft. but the latter never really became popular because of too much flex in the upper section. The Heddon Tear Drop shaft was also used and is still well thought of.

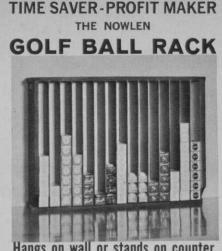
"In 1964, True Temper made steel shafts at four ounces which still retained the firmness necessary for strong players. The shafts in the wood clubs were made in two-step configurations and in one-step for the irons. One large manufacturer and several makers of custom-built clubs used them constantly.

"But not enough research and development in other configuration changes is taking place. This is because a near-monopoly still exists: there is a minimum number of shaft manufacturers and consequently little or no competition."

In any case, Mr. St. Clair agrees with Mr. Schloss about the importance of giving the manufacturer as much information as possible. ''I would like to see the home professional furnish us with specifics when ordering custom-built clubs for his members. Using the technical data booklet Spalding gives to each pro, he should ask for grip size, shaft length, lie and loft in numbers." (The standard club specifications are obtainable from manufacturers).

He also summed it up quite well. "If you have talent, you could probably do all right even with wrong clubs, just as you can learn to wear shoes that are too large. But if you have golfing talent together with the right clubs, you'll break through to much better success."





Hangs on wall or stands on counter

Attractive, orderly display attracts customers-speeds ball selection and sales

- 1 Holds 195 packs of 3 or 4 balls
- 2 Size—32" Wide, 8" Deep, 221/2" High
- 3 Beautiful Walnut Finish
- Bottom pack pulls out without 4 disturbing pack above

PRICE \$59 PLYWOOD INN 810 Highland Ave. St. Joseph, Michigan 49085

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TURF SWEEPER Model 720E Sweeper ROGERS SWEEPERS vary from small self propelled to large 5 cu. yard ca-pacity tractor drawn units.

 Gathers - wet or dry - grass clippings, leaves, rocks, bottles, papers, dead branches, cans and other unsightly debris.

#### POWER AERATORS

- Designed to aerate deep and clean under any ground conditions.
- Relieves compaction
- Renovates and removes Thatch
- Prepares Seedbed
- Smooths rough areas Drains low areas

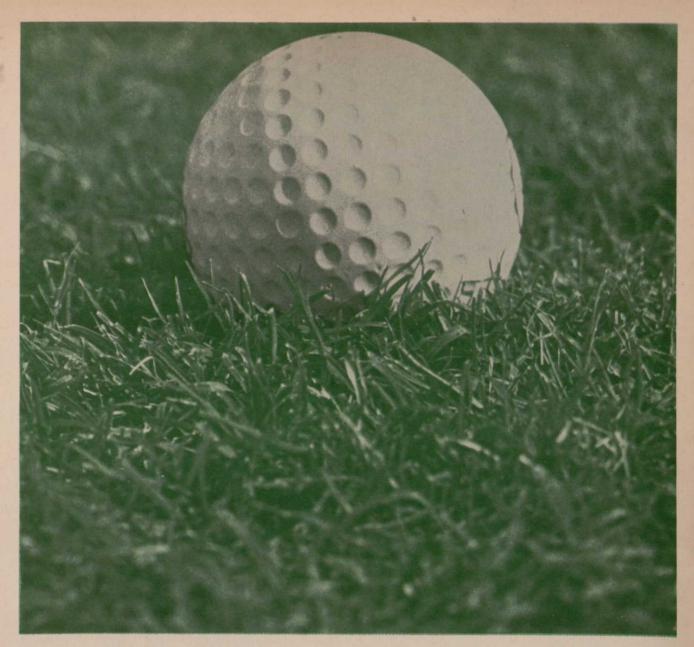
REDUCE MAINTENANCE COSTS All are "One Man Operated".



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Chicago, III. 60641

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### A durable green fairway is par for the course

with Armour Vertagreen Tournament Fertilizers.

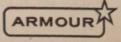


Expect a dense green fairway when you nourish your turf with Armour's Tournament—a fertilizer formulated especially for fairway turf.

Vertagreen Tournament's richer balance of root-growing nutrients feeds grass roots more of what they need to grow long and strong ...roots which nourish a thick, green, healthy turf...roots that help your turf green-up faster in the spring and stand up under heavy play.

Look to Armour's *Professional Turf* Program to keep your whole course in championship condition. Armour has a complete line of fertilizers and turf protection products—all backed by reliable Armour research and the services of your experienced Armour representative.

Armour Agricultural Chemical Company



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#### ONE APPLICATION of SOLEXTO, two gallons to the

acre (1-to-200 solution), grub-proofs the turf for at least ten years. Moles, too, are kept out by elimination of their food.

#### WHOLE SEASON CONTROL WITH ONE SPRAYING:

Solexto diluted 1 to 400 and sprayed on two to four acres gives seasonlong control of beetles, ants, crickets, chinchbugs, cut worms, rose chafers, chiggers, fleas, ticks, mosquitoes and many other pests.

#### **ECONOMICAL COVERAGE:** Because such high dilutions are possible, extensive coverage is very eco-

nomical. Labor can also be saved by using E.W.T. Selective Weed Killer in the same solution for general spraying of turf.

#### Write to the C.B. Dolge Company,

Westport, Connecticut for information about other insecticides; also inquire about weed killers, golf ball cleaner, mole and gopher killer.



For more information circle number 191 on card

#### Graffis

Continued from page 69

Mass. died recently in a nursing home . . . Ted was in his 60s . . . He is survived by a son and two sisters . . . Swanson retired several years ago because of poor health, eye trouble and nerves . . . You'd be surprised to know how many top superintendents suffer from ulcers and other nerve-tearing afflictions . . . They've got jobs of nerve strain from nature and golfers.

Course near Flagstaff, Ariz., originally known as Northernaire CC, then Oakwood CC, taken over by new company headed by E.L. Robson of Phoenix and will have course modernized and put into top condition by Art Snyder, Jr. . . . Homesites and winter sports also in Pinewood plans . . . Gaylord Currie, on Jules Platte's pro staff at Paradise Valley CC in winter will be Pinewood pro in summer . . . Harold Thomas, pro at Greenville (N.C.) G&CC for 22 years resigned and bought Brook Valley CC at Greenville . . . He will operate Brook Valley and serve as its pro . . . Thomas C. Unger is now manager, Westwood CC, New Castle, Ind.

National chain of golf courses headed by Honolulu attorney William W. Saunders, and with Alexander C. Waterhouse as senior vice president, now are principal owners and operators of nine golf clubs on the mainland . . . Sonoma (Calif.) National was bought by Saunders' father, Dr. Cecil A. Saunders, a former Honolulu physician . . . Saunders family owned interests in the Colwood National and Meriwether National courses at Portland, Ore., which with Sonoma, were elements of the national golf managment organized and formed in 1956.

Charlestown (W.Va.) councilman William E. Mohler, in proposing that Edgewood CC nine-hole private course become public pointed out that financing of the purchase of Edgewood, which would be too expensive for the city, actually would be no problem as there are "about seven different agencies in Washington that provide funds for public recreation grants." Come and get it . . . Danny Williams, Jr., now a pro at Mendham (N.J.) G&TC

Continued on page 96

#### INCREASE EARNINGS, SERVICE & SPACE Remodel your present storage space, bring your bag racks up to date WITH NEW Stafford VERTICAL BAG RACKS



U.S. & CANADIAN PATENTS

Your members will like the extra convenience and care. Your pro shop profits from 40% more space these racks make available.

Double unit shown holds 16 bags, size 2' x 4' x 6'-3" high, gives 12" x 12" space for bags. Single unit holds 8, size 1' x 4' x 6'-3" high. Sturdy steel. Bags set solid on tapered shelves.

- Wear and tear of golf bags is completely eliminated
- Damp bags dry faster no mildew
- Provides a neat appearance
- Faster, easier storage
- Easy to install and add more as needed —

Send us your floor measurements, we will plan a layout and quote you — no obligation.

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# Meet the swinging new sales-makers from Reliable of Milwaukee!

Fully Washable **Knit Club Sox** of 100% Creslan acrylic fiber The golf wood protectors with sales personality. Come-onstrong color. A springy, long-lasting fit. Plus the positive washability customers insist on. Club Sox have the style a golfer goes for. The selling action a pro-shop can rely onfrom Reliable. Creslan acrylic is a product of American Cyanamid Company, New York, N.Y.



For new Pro-Shop Catalog of knit golf accessories by Reliable, write Reliable of Milwaukee, Box 1367, Milwaukee, Wisconsin 53201.

# People in the news



Harris

Otte

Lloyd Harris has been advanced to a sales engineer in the industrial machinery area for Armco Steel Corporation, National Supply Division.

A.J. Otte was promoted to a sales engineer also, in the industrial machinery area for Armco Steel Corporation, National Supply Division.

Joe Wampler was recently promoted to general manager of Aqua-Dial, manufacturers of turf irrigation equipment. He has been with the company since 1955



Freiheit

Fred E. Freiheit was named chief engineer for agricultural products at the John Bean Eastern Division of FMC Corporation.

James B. Moore is the new general marketing manager for Certain-teed Products Corp., Pipe Div. He will specialize in planning and programming.

Daniel J. Frese has been promoted to director of national accounts and trade relations for the industrial chemicals division of Mallinckrodt Chemical Works

Fleming-Brown

Grill

D. H. Fleming-Brown has been appointed a technical director for Ransomes Sims & Jefferies Ltd., and will join the executive board shortly.

James T. Grill has joined Sprinkler Irrigation Supply Company as district sales manager for northern Ohio and Indiana.

Albie Pearson, former outfielder for the California Angels, has been named general manager of the Hesperia Golf and Country Club. He will be directing all activities at this (Calif.) club.

# **TESTED BY 100,000 HITS...and still going strong!**

Rubber Adapter sleeve Cat. No. 622

# Flexi, Mat's "ALL NEW RUBBER BASE TURF KING GR

Cat. No. 520-68

> Rubber Adapter Sleeve in position for 61/2" x 22" mat opening

WITH FLEXI-POLYPROPYLENE PLUS-GRASS-The closest thing to REAL TURF!

#### The ideal Golf BRUSH MAT for OUTDOOR and INDOOR use. can be used WITH or WITHOUT ANY GOLF RANGE MATS

- The new TURF KING (T.M.) Green BRUSH MAT is made of FLEXI-POLYPROPYLENE plus-GRASS completely weatherproof for OUTDOOR or INDOOR USE
- Will not rot, expand, or contract with weather changes.
- The new all rubber vacuum cushion base (Pat. Pend.) prevents BRUSH MAT from slipping while in play.
- WILL STAY PUT ON ANY SURFACE OR FLOORING.
- Completely free of metal, wood, wire, or any other abrasive material and will not scratch mar, or damage expensive GYM FLOORING.
- . THE IDEAL BRUSH MAT FOR SCHOOLS AND COLLEGES.
- GUARANTEED not to mar or damage any expensive GOLF CLUBS.
- . The 2" flange around the TURF KING (T.M.) Green BRUSH MAT prevents brush from slipping or moving while in play and PRO-LONGS THE LIFE OF THE GREEN BRUSH MAT
- THE MOST DURABLE AND THE MOST ECO-. NOMICAL GREEN BRUSH MAT THAT HAS YET BEEN PRODUCED!
- Size: 5" x 20" (to fit 5" x 20" mat opening). Also fits 6<sup>1</sup>/<sub>2</sub>" x 22" mat opening when used with rubber adapter sleeve

Flexi-Mat Corporation 1440 WEST 21st PLACE . CHICAGO, ILLINOIS 60608

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80 . GOLFDOM/1968 APRIL