



Deluxe Gasoline Golfster

Powerful, quiet, far-ranging Cushman Gasoline Golfster® has become a big favorite with many golfers and courses. Sculptured modern styling makes this gasoline car an attractive, comfortable addition to your course; roomy, smooth and dependable, this gasoline Golfster has unlimited range with 4½ gallon fuel tank.

Champion Electric

The golf car others have been copying for years—the most popular single car on the nation's courses. New contour seats, with sports car style upholstery — improved electric controls — many other advance-design features make this electric car more wanted than ever.



Shown with optional canopy top.

new this year!

CUSHMAN *Scotsman*

BOLD NEW ECONOMY GOLF CAR!

\$495* incl. electric starter.

Here at last is a bold new gasoline-powered golf car that's within the reach of many individual golfers as well as smaller courses. The Cushman Scotsman has many features found only in expensive gasoline cars—a real deluxe floating ride on big soft tires and foam seat. There's plenty of famous Cushman power and virtually no engine noise. Unlimited range, too, with this newest of all Cushman Golf Cars. Easy electric start makes this the handiest low-cost car on the market.

The Cushman Scotsman is designed by America's most experienced golf car manufacturer for more pleasure at the lowest possible cost!

*FOB Factory, less battery.

SEE THEM ALL AT YOUR CUSHMAN DEALER'S! Or write for complete information!

CUSHMAN "the big name in little wheels" **MOTORS**

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Carl K. Smith

Drainage was urgently needed

Smith Subdues Mountain of Woe at Lakeview Club

Getting Morgantown course to breathe again called for opening up the pores on, below and above the surface

When Carl K. Smith came to Lakeview CC in Morgantown, W. Va. as supt. in 1957 he had several elements, none of them exactly promising, with which to contend. For one thing, the course, located on a mountainside, amounts to a bi-level exercise in turf maintenance since the lowland holes are at an elevation of about 900 feet and those on the upper deck extend as high as 1400 feet. This, in itself, probably calls for a man of two faces. There are three distinct types of soil covering the Lakeview landscape and underlying it all and, in a few cases not too far down, is solid West Virginia rock. The fourth green at the Morgantown layout, for instance, is cushioned on a mixture of clay, sand and humus that is only about four feet above the rock pile.

A competent supt. can, of course, live with these things. That is especially true if, as in the case of Carl Smith, he had been working with similar soil and turf only about 80 or 90 miles away in his native Pennsylvania for about 20 or 25 years. But throw in acre after acre of crabgrass that confronted Smith when he came to Lakeview, almost as much poa annua, and both air and ground drainage systems (or more properly, lack of them) that were almost completely congested, and you can see where a fellow might become discouraged.

Hired in A Hurry

Smith had worked for more than 20 years for the Mellon Enterprises, near Pittsburgh, the last six of them in the horticulture department, when he took the Lakeview job. His impression when he was being interviewed was that the course offered more than just an ordinary challenge, if you don't mind that over-worked word. His enthusiasm for attack-



CLIMB HILL AFTER HILL AFTER HILL



... and eases you over fairways with smooth-flowing power. It's the G-N 1140, the battery your electric cars need to go places—quietly, quickly, economically, dependably.

Why pay more for a lesser product? Get the G-N 1140 from the people who best know how to build golf car batteries.

It's the battery that GIVES YOU:

- Rugged industrial type plates.
- Years of plate protection from double thick separators of glass and rubber.
- Flip top vent caps for quick maintenance checks.
- Hi-impact container—exclusive G-N design.

For more information write

The Originators of the Golf Car Battery



AUTOMOTIVE BATTERY DIVISION

GOULD-NATIONAL BATTERIES, INC. / St. Paul 1, Minnesota



Smith-made lake at Lakeview is located in center of course. It has one million gallon capacity, is used for ice skating in the wintertime.



Comfortable, 40-unit lodge at Morgantown golf and resort location is open all year. Skiing is popular during the cold months. Below is approach to the clubhouse.



ing it without any further delay apparently was so contagious that the late Ward Christopher, owner of the Morgantown club, hired him on the spot.

"Six months later, Carl recalls with a smile, "I wished Mr. Christopher hadn't been quite so hasty. The longer I was around Lakeview, the more headaches I discovered."

The high level portion of the course was in comparatively good shape, but the lower nine, literally strangled by solid rings of trees, presented many acres of threadbare fairways and greens that had a habit of turning temperamental and bowing out in the July and August heat.

Starts to Pickup

In the late winter of 1957, Smith put his 10-man maintenance crew on a crash program knocking down timber. To give you an idea of how densely packed the trees were, the Lakeview lumberjacks concentrated on channels about 200-feet wide and approximately that deep and in many instances felled as many as 50 trees in a single channel. By the first of June they had chopped down and hauled away several thousand trees, most of them oaks.

When air started to filter in from Cheat Lake on the west, and from the

Who's got a new name?
Who's got new management?
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PGA Golf Equipment Co.—offering the only
line of golf equipment bearing your PGA trademark.


A lot of new things are happening at your PGA Golf Equipment Co. (formerly National PGA Distributors, Inc.)

We've got a bright, aggressive new management team. Men who gained their experience with the finest names in golf equipment. Their immediate objective is to further improve all the products that bear the PGA name—to make them unmistakably the finest available to the American golfer. You will be hearing a lot more about this.

We intend to work even more closely with the professionals who are serving on your PGA Emblem Specifications Committee. The combination of their recommendations and our manufacturing know-how will make every piece of PGA-labeled equipment something every PGA member will be proud to sell . . . and use.

And *your* suggestions are welcome. Now, more than ever, we are your company. Our only business is serving golf professionals. The PGA label on a piece of equipment means that it is available *only* in the shops of golf professionals.

During the next year, a greatly expanded advertising program will start directing golfers to your shop for the excellent merchandise that carries your PGA label. This advertising to golfers will also do a hard-hitting job of promoting you, the golf professional, as the man best qualified to recommend and sell golf equipment.

We look forward with you to making 1963 a fine year for the game of golf . . . and in turn a fine year for all of us in the business of golf. Your PGA Golf Equipment Co., subsidiary of  Victor Comptometer Corporation.

PGA
GOLF EQUIPMENT CO.

other quadrants, there was a quite noticeable pickup in the condition of the Lakeview course. However, the club was enjoined from cutting timber on property adjoining its 14th green and to this day a 24-inch fan, mounted on a 20-foot post, has to be used to induce airflow. The turf on No. 14 was replaced in 1958 with a mixture of Penncross, C-7 and Nimisilla which finally started to come into its own just last summer.

"No. 14," says the Morgantown greenmaster, "always has been our problem child. The fan has helped, of course, but this green certainly points up the fact that you can't grow good turf without proper air drainage." Greens on the high level part of the Lakeview course always have held up better than those in the valley because of the circulation factor.

Opening the air channels was the first stage of the rehabilitation program at Lakeview. Leaves had never been cleaned up in the fall before 1958 with the result that a heavy and highly acid organic layer overlaid the soil. This slowed down the reaction of fertilizers that were applied and gave rise to a serious insect and fungicide situation. Crabgrass and poa annua thrived. To counteract these effects, Smith had the lower course aerified eight times in the first two years he was at the club. Today, the leaves are collected and composted with a mixture of sand, lime and nitrogen and used as topdressing after being cured for three years.

Works on Drainage Systems

With the air circulation improved and steps taken to neutralize Lakeview's soil, Smith next turned to correcting the course's ground drainage system. At a club where the gradient between the high and low holes is extremely steep, numerous washouts occur if measures aren't taken to properly channel the flow of water from the high elevations to the lower levels. When the course was constructed in 1954, several ditches two feet deep and about that wide were dug to handle the overflow from the high side, but these proved to be impractical because too often they became clogged. In the spring, fairways usually became oversaturated when water spread beyond the channels, with the result that play was somewhat curtailed in April and May.

The Morgantown supt. corrected this by the simple process of filling in most of the ditches and substituting 15 diversionary channels with very flat beds. He reasoned that even if leaves and other



Beam ceilings, beautifully furnished lounges, excellent food make Lakeview clubhouse the coziest kind of a retreat.

debris collect in the beds they won't impede the flow of water. The water that comes down from the hillsides is impounded in a lake that is located in the center of the Lakeview estate. To build it, Smith's crew had to remove a grove of trees that produced about 3,000 board feet of lumber. The lake is 16 feet deep, covers an acre of ground and holds about 1,000,000 gallons of water. The cost of building it amounted to about \$2,800.

Keeps Seepage Rate Down

Soil tests taken before the lake was located indicated that the site bed contains about 70 per cent sand and 30 per cent clay, ideal for water storage. In building the breastwork, Smith was careful to keep roots, large stones and other debris out of the mixture that went into it, and his workmen took great pains to compact the dirt walls in shallow layers to cut down on erosion and seepage. The reasoning here was very sound. As far as can be determined, the seepage rate is actually less than the evaporation rate.

Water from the lake is fed into Lakeview's irrigation system that covers the course. Four turbine centrifuge pumps, two of 15 hp and two of 25 hp, circulate the water through the sprinkler complex which has more than 250 snap valves. Smith shoots for the equivalent of one inch of rain throughout the playing season. When the course's water supply source runs low, it is supplemented by nearby Cheat Lake, a large, artificial body of water built by the West Virginia Power Co. in 1926.

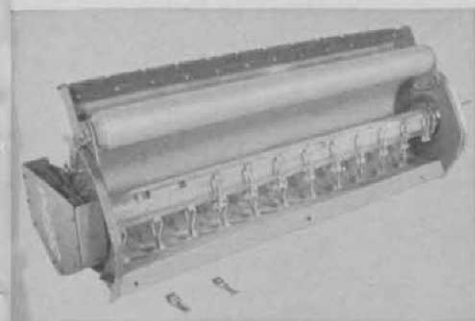
(Continued on page 94)



Mow fast and flail-safe

High-capacity Ford Flail Mower

Speed all mowing assignments with a high-capacity Ford Flail Mower. Free-swinging blades cut parallel to the ground, mow fast and clean in grass, heavy growth, even tall weeds. They distribute the cut material to prevent bunching or windrowing.




Service blades faster and easier. As the blades are strung on three retaining rods, and not individually bolted, it is a fast, easy one-man job to remove, sharpen, and replace them.

Flail-safe mower design makes this rig ideal for use in populated areas. Triple-hinged blades retract when striking an obstruction, then quickly return to cutting position.

Match your mowing needs exactly with five-, six-, or seven-foot Flail Mowers. Five- and seven-foot models offset to let you mow next to curbs, trees, and other obstacles.

For high-capacity mowing at its best, team the Ford Flail Mower with a Ford LCG (low-center-of-gravity) tractor.

Ask your Ford dealer for a demonstration of the Ford Flail Mower.

PRODUCTS OF  MOTOR COMPANY

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FOR 101 INDUSTRIAL JOBS

On the Professional Side



A Northwestern University advertising professor, who has written a book on merchandising and advertising for the small retailer, declares there hasn't been much improvement in the last 15 years or so in the way in which merchandise is displayed in smaller stores. By implication, this can be construed to take in pro shops.

Flat table top displays, says the professor, take up too much space and should be done away with. Because they occupy so much space, they foul up

Professor Frowns on Use of Display Tables

traffic. Considering their inherent visibility properties which, at best, are only fair and the fact that so many of them often are cluttered up, they probably don't produce enough sales to justify their being used in a store or shop.

The professor doesn't suggest it, but if flat display tables have to be used, perhaps it would be wise to mount them on

some kind of swivel arrangement so that they can be tilted at various angles. Space would be saved and visibility would be improved. Of course, there is no guarantee that careless customers wouldn't have them just as cluttered as before, and there is a chance with a tilted table that merchandise occasionally would get brushed off on the floor. The latter probably could be avoided if the table wasn't tilted at too steep an angle.

Better Lighting Needed

The professor goes on to point out that another failure of the small retailer is that he depends too much on the general lighting of his store. Overhead fixtures may give him generally good or adequate lighting, but he should supplement it with back fillers, spots and other arrangements that add interest and dramatic impact. In the case of the pro operator, this may be doubly important since it is generally accepted that he can't resort to any kind of pressure selling, such as the ordinary retailer can, and has to depend to a great extent on the impression that his displays make.

Finally, the professor doesn't feel that the average small retailer scores very high in maintaining stock control studies that are, in effect, profitability studies. "Many stores," he says, "put in orders with manufacturers without being really sure that the merchandise they are buying is going to be a good seller or merely a fair one. The retailer's general (and usually vague) impression may be that blue sport shirts sold well in the last year or so and he goes ahead and re-stocks too many of them. What he should know," the professor continues, "is not only how many shirts he has sold but the length of time it has taken to get them off his shelves. The unit-time factor or formula is a very important one. If both elements aren't known, the retailer hasn't established a firm basis for making buying decisions."

NEW ROSEMAN

SHOWN • PROVEN • ACCEPTED

HI-GUT ROUGH MOWER

NOTE THESE OUTSTANDING FEATURES

Thank you, Mr. Superintendent, for your valued comments.

The new Roseman Hi-Cut mower, introduced at our recent series of Roseman Days, has been proclaimed the outstanding rough mower on the market today.

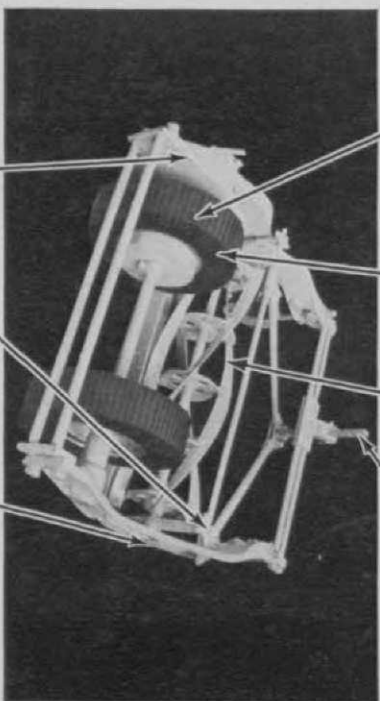
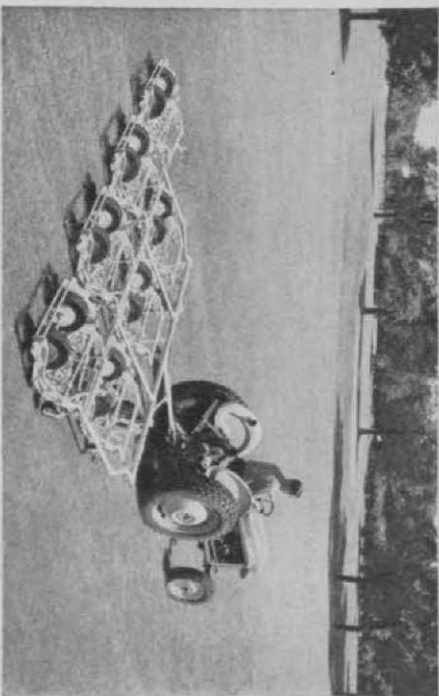
The design and performance characteristics that elicited this opinion were the "high-cutting" feature, the large, rugged, 4-bladed 10" reels, with heavy-duty blades, riveted — not welded; the non-breakable malleable side frames, and the puncture-proof laminated tires, with caterpillar-type luging ability that gave positive, constant cutting action in the toughest, thickest and deepest rough grasses.

It was observed that the Roseman rear-

drive design eliminates bobbing of the cutting reel; allows faster moving speeds with all grass cut to uniform height, and with substantial time and labor savings.

Also the Roseman rear-drive design permitted trimming close to obstructions and over traps, bunkers, shrubbery beds and curbs, with great economies in hand labor.

We are pleased with the wonderful reception you gave the new Roseman Hi-Cut mower designed to mow your rough areas in an improved manner and at far less cost. We invite you to make your next rough mower a Roseman Hi-Cut model.



REAR WHEEL DRIVE
Hug ground for smooth cut. Permits trimming over traps close to trees.

LAMINATED PUNCTURE PROOF TIRES
Trouble free, no bouncing, more traction.

RUGGED, LARGE 10" REEL
Heavy-duty blades, riveted not welded.

HIGH-CUT FEATURE
Quick, simple height change.

NON-BREAKABLE SIDEFAMES
Tough malleable construction

HAND ADJUSTMENT
Simple, no tools required.

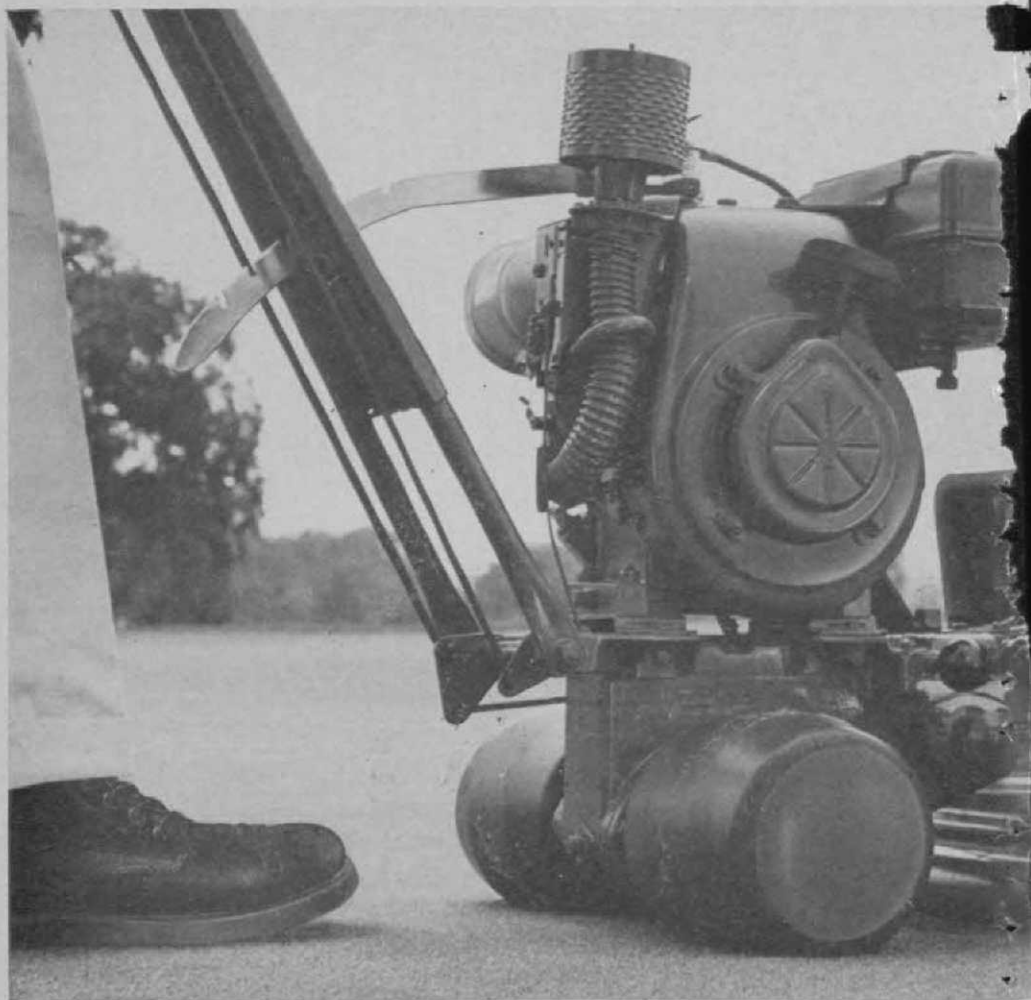
SHARPENING FEATURE
For lapping in reel blades.

MAKE YOUR NEXT GANG ROSEMAN

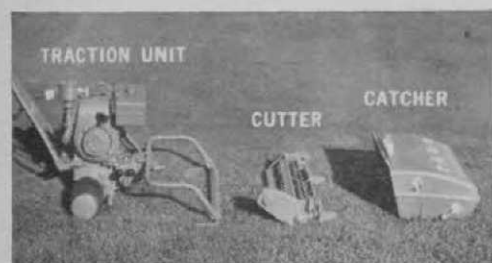


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Toro Greensmaster assures



EXCLUSIVE GREENSMaster DESIGN features a free-floating cutter mounted between traction unit and catcher. Permits constant cutting height for beautiful greens mowing.

Free-floating cutter lays flat on green, unaffected by weight of man or machine... changes reels in minutes without tools.

Get Perfect Putting Greens—no matter who's doing the mowing—with a Toro Greensmaster.

Greensmaster's cutting unit floats freely on the green. Weight of traction unit, catcher and operator's pressure on handle cannot affect the cutting reel.

Engine vibrations are not transferred to the cutting unit... nor is weight of accumulated