

# The Continental glass center ball goes where you aim it ...consistently.

## Here's the inside story.

The REAL GLASS CENTER ball is encased in two hemispherical shells, of lively synthetic elastomers, bonded to form a center more resilient than ever before possible. The precision, two-stage winding; the thin, but tough, cover; and the gleaming white urethane enamel combine to make the Continental ball the most consistent you've ever used. *Try it.*



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# HERE'S WHY YOU SHOULD ADD MARS' ONE-MAN GOLF CARS TO YOUR FLEET...



You're missing out on some easy revenue if you don't have Mars one-man golf cars available for rental. Singles, threesomes, and fivesomes are a source of income which you might now be losing.

Mars "BUZZ-A-ROUND" one-man golf cars rent profitably for half of what you have to charge for a 2-man car. Makes it easier for the odd man to justify riding instead of hitch-hiking.

Mars "BUZZ-A-ROUND" electric car big battery capacity provides a full 36 holes on one charging under normal conditions. Put that income in the old till every day!

8 years' research and 6 years' service on the nation's courses have produced the '68 "BUZZ-A-ROUND". Rugged, lightweight...and engineered for long, trouble-free service.

Leasing programs available in some areas. Write for complete descriptive literature.



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For more information circle number 268 on card

## Graffis

Continued from page 10

succeeded John West last fall.

New department heads at Nakoma GC, Madison, Wis., this year... Jerry O'Donnall succeeded Peter Miller as superintendent when Miller went to Firestone... O'Donnall and Miller both were star students of Professor Jim Love at U of Wisconsin... Ted Cappas is the new manager... Allan Mitchell is in his fifth year as pro... Richard Lussier of Granby, Mass., formerly superintendent, Chicopee (Mass.) CC, now owns Mill Valley Golf Links in Belchertown, Mass... The club previously was called College CC, then Jabish Brook CC... Lussier bought the nine-hole club with 175 acres at a foreclosure sale... Leo Johnson, Sioux City, Ia., is building a nine-hole course with residential sites adjacent, two miles north of Sioux City... He owns the Sun Valley CC in Sioux City... About 35 years ago Johnson started in golf working on the Sioux City CC course... Then he became superintendent... Ten years ago he went into business for himself designing and building courses and has produced a lot of good ones.

Floyd Farley is designing muni 18 for Edmond, Okla., near Oklahoma City... Tim Berg now pro at new Emerald Valley GC, Crews-well, Ore... He was assistant to Wendell Wood at Eugene (Ore.) CC... Rolling Hills high school at Cambridge, O., to build a six-hole course by the school for use by high school golf team and, week-ends, by others... Andy Evancho, Cambridge CC superintendent, helping school's golf coach Chad Moore and its maintenance supervisor Lewis Supperier to build the course.

Golf courses are figuring in corporation planning to give esthetic value and recreational utility to property left in unsightly and unusable condition by their operations... Among companies considering courses are Truax-Traer Coal Co. on strip mine property in Illinois and several companies that have mined phosphate in Florida and left the mined areas ugly

Continued on page 64

# SCORE AGAINST TURF GRASS FUNGUS...



## WITH NEW LAWN FUNGICIDE BY **AGRICO**

Grass-killing fungus, such as copper spot, dollar spot, brown patch, leaf spot and snow mold is no match for AGRICO LAWN FUNGICIDE—and it's turf-safe, too. Proved most effective by independent university tests.

Small wonder two out of three professional turf men prefer AGRICO.

**AGRICO**® Country Club Fertilizers ...  
at the roots of the best turf in America!

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TIPS FROM A SUPERINTENDENT

#2 IN A SERIES

# Progress report on the beautiful new Playboy Club-Hotel Course in Lake Geneva, Wisconsin

BY ART MUELLER,  
Superintendent (formerly superintendent at  
Tam O'Shanter Country Club, Niles, Ill.)



The official groundbreaking ceremony took place in August of 1966, complete with Hugh Hefner and his Bunnies. The grubbing and staking began in September. By October of 1967, one year later, we were turning green and getting in shape for our projected June, 1968, opening day. By this time we had moved perhaps a million yards of material.

The Club-Hotel complex includes 300 rooms, a variety of restaurants and bars (a la Playboy Club), two 18-hole golf courses (one designed by Jack Nicklaus and Pete Dye, the other by Robert Bruce Harris), two swimming pools (indoor and outdoor), stables, skiing, skeet and trapshooting and a landing strip for private aircraft. All in all, some 900 acres.

We have six ponds or lakes, including a 20-acre lake. These are stocked with trout and large-mouth bass. These lakes supply the water for our sprinkling system.

Because of the stony subsoil, we chose cast iron pipe for all our water mains. We felt that its strength, plus its ability to take the ground heaving during frost, made it a must for our courses.

The grasses we have are a combination. C15 Toronto for the greens, and what will be creeping bent on the fairways. Right now, we're using a combination of blue, fescue and bent until the ground is conditioned. For the roughs, we're using rye, fescue and blue, but by opening day, it will be mainly blue and fescue.

The countryside here at Lake Geneva is absolutely ideal for a golf course. Hilly, woody terrain with a small river, spring-fed lakes and a natural amphitheater at the eighteenth green. Our first course was designed to take advantage of the actual lay of the land.

This barn lies behind the 10th green, just off the 11th tee. Management may leave it up to retain rural flavor.



This 8-inch cast iron pipe main supplies all the water for the course. Extending from the pumphouse beyond the bridge, it connects to the 6- and 4-inch cast iron tributaries.

No gimmicks of any kind. This is definitely a championship course, and management plans national tournaments here. You'll be seeing a Playboy Open on network TV someday! Our second course will open in June, 1969.

I don't think there's any question that we'll be ready for opening day next June, as long as the weather holds as nicely as it has. One thing my friends ask me all the time: Will the caddies be Bunnies? All I can tell them is, come on up next June and find out for yourself!

This series is sponsored by the  
**Cast Iron Pipe Research Association**

Cast iron pipe is preferred for the irrigation systems of golf courses throughout the country. Its superior strength, corrosion-resistance, quick-handling push-on joints and easy tapping, plus its recognized long life, have made it by far the smartest investment your club can make. For helpful tips on golf course irrigation, send for our free fact-filled 20-page booklet.



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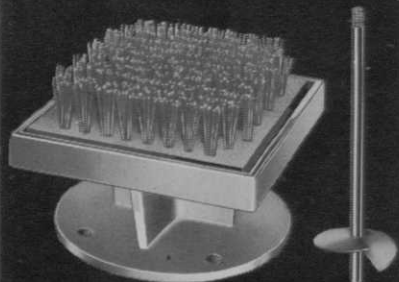
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*Bolt it Down  
or Anchor it in  
the Ground*  
**STANDARD'S NEW  
SPIKE  
KLEENER**

Rustproof cast aluminum base (notice the easy-to-clean design) can be bolted to a deck; or, using the turf-auger, it can be firmly anchored to the ground . . . set anywhere you want, moved when you want. Makes it practical to install on tees! Replaceable brush is of super-stiff, long-wearing bristles deeply imbedded in a solid plastic plate.



**STANDARD MFG. CO.**  
Cedar Falls, Iowa 50613



# Letters to the editor

Dear Sir:

The article in the April issue of *GOLFDOM* by Roger Ganem entitled "The Importance of the Shaft" is very informative. The basic premise "to get the clubhead in the proper hitting position precisely at the instant of impact . . ." is the fundamental criteria for a good match between shaft and clubhead for a particular golfer. However, the article also suggests that aluminum shafts are not as fast as steel, which is not as well considered as the rest of the article.

The optimum shaft provides the greatest momentum at impact in addition to being in the proper position. Certainly the shaft should be straight at impact, which means the clubhead is at its maximum speed. But to do this, the spring-like nature of the shaft which causes the clubhead to accelerate to a peak velocity, must be timed to the individual's swing speed rather than "as fast as possible." The time required for a shaft and clubhead to recover from a position of greatest bend to the straight position should relate to the time required by the golfer in accelerating the club through the downswing to impact with the ball. It is a safe bet that many golfers do not pick the proper head weight and shaft flex to match their particular swing pattern without sound professional help. This problem is amplified with the lighter weight shaft which changes the apparent stiffness, since the club weight is reduced. Consequently, an aluminum shafted club may require two or more additional points of swingweight added to the clubhead to develop the best results.

The statement that "Aluminum . . . does not return the club to its usual position as fast" is simply not accurate. It is possible to design an aluminum shaft to be dynamically interchangeable with any steel shaft

*Continued on page 18*

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# Last year there were 5 great golf balls.

Last year, only a handful of balls had the compression, balance, click and liveliness that makes a ball "great."

But they were great only until you hit your first poor shot. Until you skulled them.

Then, they were just high-priced shag balls.

The Golden Ram is a new, great ball. With a high rebound center. Pure rubber windings. And an exclusive thin Ramlon® cover.

New Ramlon® is the strongest cover material ever used.

It's molded into the windings by an exclusive new process. The result is pure quality. A great ball with satisfying click and distance. It simply won't cut.

It's a great ball.



## Now there are 6.

### Our Golden Ram clubs with aluminum shafts are great, too.

They're the best way to get the most out of our new ball.

It's because we used our heads. Our clubheads.

We took some of the weight saved with the new aluminum shafts, and put it into our clubheads.

It lets you generate more head speed. And power.

Two great things happen:

You get more distance.

And you hit straighter (because there's less "twist" from the heavier clubhead).

Golden Ram clubs also feature a double-contoured sole. And an extra large flange.

Compare the quality of the Golden Ram ball and clubs with other pro exclusives. Compare the price, too.

Then you'll know why they're so great.



**RAM**

GOLF CORP.®  
MELROSE PARK, ILLINOIS

Sold exclusively through pro shops.

## Letters to the editor

Continued from page 16

design. Furthermore, the aluminum shaft can be produced with truly consistent flexibility over the length of the taper.

The statement is made that "To be good, a golf shaft must return as fast as possible." If this were true, every golfer would use an extra-stiff shaft. The time of recovery is referred to as a coefficient of restitution. This term infers that, as a coefficient, it must be related as a ratio

to some standard value. To the best of my knowledge, there is not a time period of recovery and amount of deflection for a golf shaft that is accepted as a standard value. Finally, when the shaft is mounted in a club, the club should oscillate at the designed rate and a faster (or stiffer) shaft will require greater weight in the clubhead to maintain the desired oscillating frequency of the clubhead. The rate of recovery of a shaft is directly related to its natural oscillating frequency and this value is easily measured on a

vibration testing machine. Some day perhaps, shafts or preferably golf clubs will be rated by resonant oscillating frequency and weight, which would be more appropriate in fitting a golfer. Our tests indicate that the aluminum is not slower than steel, and it can be produced to a particular value desired by the club designer.

The fundamental advantage of aluminum is that the lighter weight and thicker wall can be used to much greater advantage in designing separately for longitudinal flex characteristics, light weight, and for the torsional rigidity desired. By choosing aluminum, the designer avoids a major limitation inherent with the thin-walled steel shaft. A thin-walled shaft of any metal will tend to become elliptical during bending. As a shaft ovals in bending, the stiffness diminishes. Consequently, for a given diameter in the handle of a shaft, there is a minimum wall thickness necessary to keep the shaft round and preserve stiffness.

Since the modulus of elasticity and density are nearly identical for stainless and the common steels, stainless steel shafts have the same geometric problem that has limited further weight reduction in steel shafts. The aluminum golf shafts currently available have much thicker walls and do not approach a critical wall-to-diameter ratio, so the club designer has much more freedom in designing lighter weight shafts. He can increase torsional stiffness, for better control, and still maintain a particular longitudinal flex contour. It is true that the thicker walled aluminum shaft soaks up more shock than steel, but this does not have any effect on the performance of the shaft.

We are convinced that there is no material, including stainless steel, better suited to the manufacture of golf shafts than the aluminum alloys properly processed for high strength. The technical information is available to support this conclusion, and the high strength aluminum alloys certainly would be appropriate to fundamental improvements in shaft and club design suggested in Mr. Ganem's article.

Mike Ferguson  
Easton Aluminum Tube  
Van Nuys, California



## GOLFTILE Interlocking Rubber Flooring

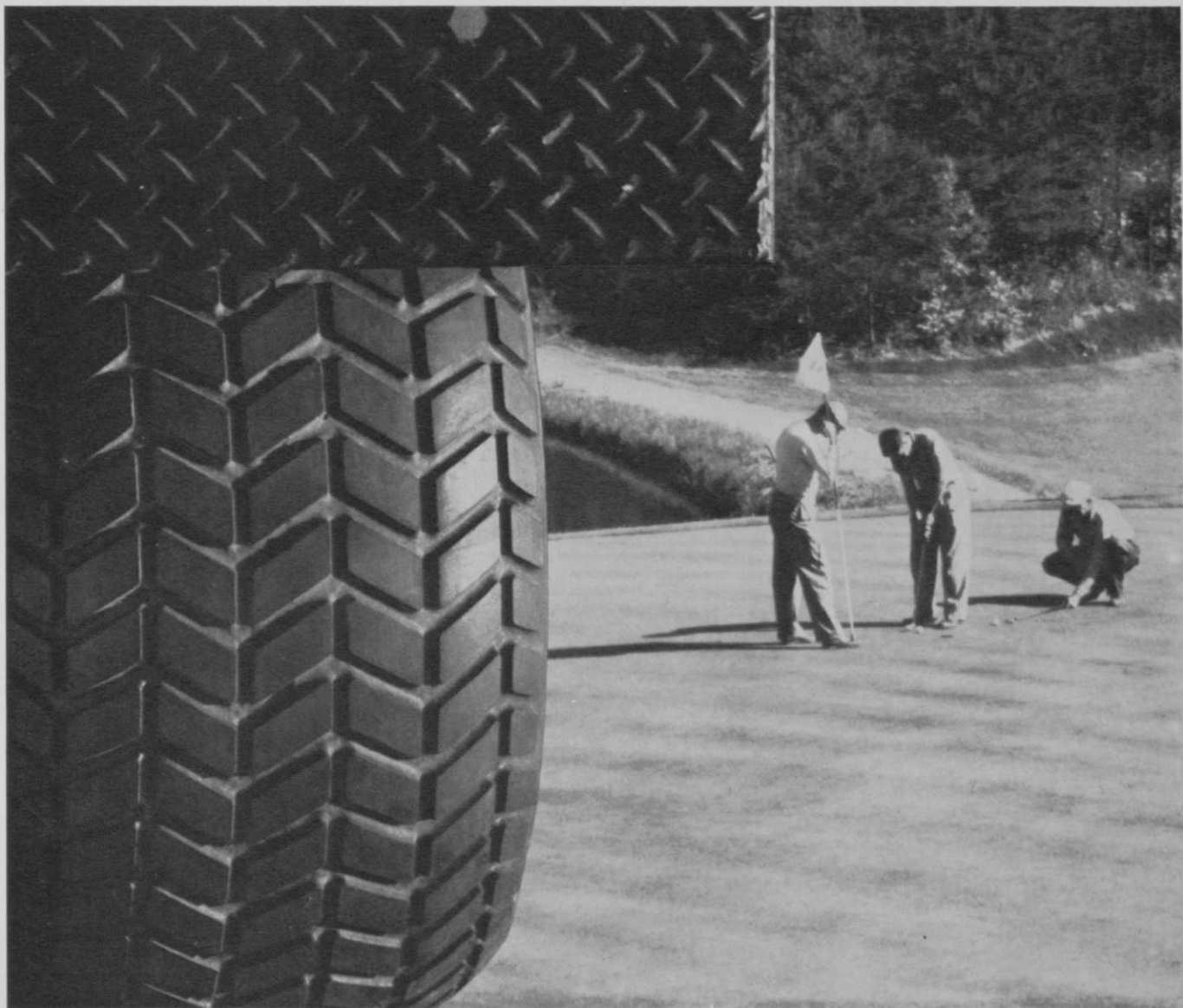
Stays beautiful under heaviest spike traffic... won't mar, scratch, chip or dent. Prevents slipping and sliding. Eliminates clatter. For locker rooms, lounges and pro shops. Golftile is 1/2 inch thick rubber tile. Exclusive interlocking design makes it easy to install over wood or concrete, without mastic. Attractive marbled colors. Guaranteed 5 years prorata. Write for **Free Sample**.



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For more information circle number 257 on card





# A Terra-Tire is easier on turf than a golfer's shoe

A Terra-Tire on a golf car exerts only about eight pounds of pressure per square inch on the fairway. Walking pressure, under the heel of a golf shoe, can be as much as 24 pounds per square inch.

Less pressure means less turf damage.

Extra-wide Terra-Tire won't sink into the ground, won't cause ruts or ridges.

What it *will* do is give sure-footed traction and rock-steady stability on slopes.

And Terra-Tire has such low rolling resistance, compared to conventional profile tires, you can usually get nine *extra* holes or more on a battery charge.

No wonder that leading public and private courses use Terra-Tire-equipped golf cars—for better turf protection and outstanding performance.

Terra-Tire is available in traction (shown here) and rib treads.

For all the facts, please write: Manufacturers Sales Dept., The Goodyear Tire & Rubber Company, Akron, Ohio 44316.

**GOODYEAR**

Terra-Tire—T.M. The Goodyear Tire & Rubber Company, Akron, Ohio

For more information circle number 144 on card

# Answers to turf questions

by Fred V. Grau



**E**xcess water. The widespread heavy rains dramatically have emphasized the advantages of good drainage: 1) surface, to get excess water away quickly; 2) internal, to allow excess water to move downward to pull air into the pores as it moves; 3) sub-surface, to remove the gravitational water that drains thru the turf and the soil.

Flooding damage has been heavy in many areas. This phase of damage to golf courses received pictorial publicity at the last Mid-Atlantic Turfgrass Conference in Baltimore. Repairs mean hard work over long days. We need to devote more attention to "upstream" areas where run-off can be reduced by the judicious use of vegetation, catch basins, recharge sumps and similar. Golf courses often are the victims of "progress" (shopping centers with acres of non-absorbent pavement, house roofs, etc.). Water control goes far beyond the line fence.

After heavy spring rains comes summer heat. Soft succulent grass (and *Poa* encouraged by the moisture) may suffer severely unless irrigation systems are used judiciously to "taper off" the moisture and to bring the turf to a firmness with just enough water for growth and sufficient greenness.

This is a question directed to our readers because this writer is ignorant of the answer.

*Q.—How many golf courses lie within, and participate in, local or regional watershed districts or programs?*

*A.—Perhaps our readers will supply some answers.*

*Q.—Our bermudagrasses were so slow to grow this spring (cold, wet) that, in order to have some color and body to the fairway and to turf, we spiked and overseeded at a good rate (60 lbs./acre) with a mixture of Highland and Astoria colonial bentgrass seed. Not knowing*

*when the soil would be firm enough again for our fertilizer spreader, we elected to go along with a slow-release nitrogen for sustained color and growth. There has been criticism on several points. In your opinion did we pursue a wise course? Will our bermuda suffer from the overseeding?*

(Virginia)

*A.—From what I've seen, and from what you have told me, I would give you firm moral support for your program. There is no "credibility gap." The main point is, were your members pleased with the results? Don't worry about the bermuda—it will muddle through when hot weather comes. If it doesn't, repeat your overseeding and fertilizing this fall for brilliant results.*

*Q.—We have a fairway on which we can't seem to maintain a decent turf. Either it is too wet, or too dry, or it is loaded with crabgrass. We've decided to aerate heavily in late August, incorporate seedbed fertilizer and limestone, and seed to Kentucky 31 fescue at 300 lbs./acre. We have this question. Should we add some bluegrass? If so, which one and how much?*

(Maryland)

*A.—This has been the subject of research at Beltsville for more than 10 years. Dr. Felix V. Juska tells me (and I take visitors to see his plots) that the straight fescue without bluegrass consistently has been better than the mixture. For you I'd say skip the bluegrass—for now.*

At Gate of Heaven Cemetery near Cincinnati the combination of tall fescue and bluegrass has been outstanding, but the fescue is not Kentucky 31; the bluegrasses are Merion and Delta. For now, go straight with 31, and keep the N up to about five lbs. with slow-release. □



More than 500 professional turfmen attended the 38th Annual Michigan Turfgrass Conference held at Michigan State University. They heard reports on late research developments and recommendations. Pictured are (l to r) Dr. James Beard, MSU turfgrass researcher, Mr. John King, coordinator of the two-year technical training program in turfgrass management at MSU, Dr. James Watson of Toro, Mr. Norm Kramer, superintendent at Point O' Woods Country Club, Benton Harbor, Michigan, and Mr. Bill Lyons, owner of Lyons Golf, Canal Fulton, Ohio.