

economy, more power, and greater durability. Many were afraid that a diesel engine would put too much weight on the green. We responded by designing the Greens King IV Diesel which has the same cutting quality as our gas models in a lightweight design to minimize compaction on greens."

Once the need for a new product is established, Jacobsen's Engineering Department uses its CAD/CAM system to speed the development process. The CAD/CAM system allows the engineers to look at several different designs at once to select the best design for both function and reliability.

The Engineering Department typically builds several test models, or prototypes, before releasing a new product for production. The most important test of a product comes when the prototype is put into the hands of an end user under actual field conditions.

"This field testing gives us valuable feedback on the prototype so we can make any other necessary product changes before introducing the product to the public," comments Saiia.

Jacobsen's emphasis on new product development has been recognized by the Governor of Wisconsin. This year, Jacobsen received the Governor's "New Product Award" for its 5/7 Ram-Lift Ranger and the HR-15. The award was given for new product innovation and its effect on Wisconsin's economic climate.

### Customer Service & Education

Jacobsen is genuinely concerned about the customer even long after the sale is made. A Customer Service Department provides training for customers as well as distributors. Several sessions are held in Racine throughout the fall and winter months to train customers and offer tips on how to care for equipment.

In addition, Jacobsen service personnel travel all over the country for field service training sessions.

Training sessions are held for dealers and distributors also. These sessions cover equipment set-up, maintenance procedures, engine teardown and troubleshooting.

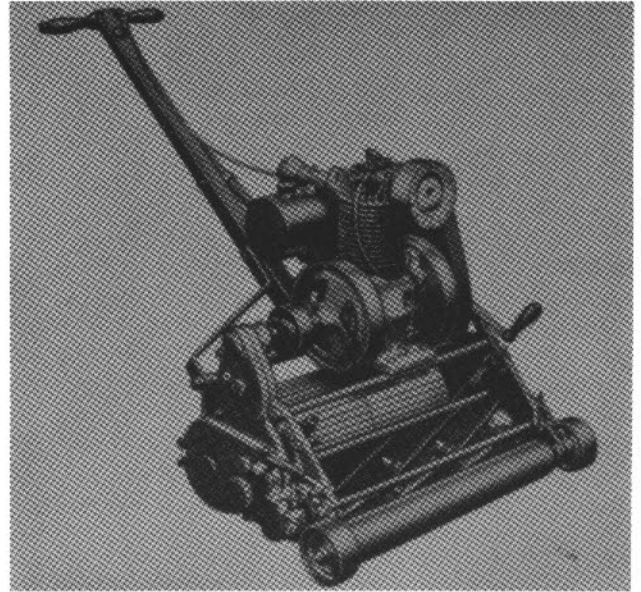
John A. Oldenburg, Manager of Customer Service, believes that the greatest need for continuing education in turf equipment is in the area of preventative maintenance.

"Our ultimate goal is to have satisfied customers," comments Oldenburg. "We're trying to get a better level of maintenance on our products so our customers can protect their investments."

Oldenburg believes that training is a continuous process, as new people are constantly entering the turf maintenance field, and products change. He also gets a chance to receive valuable feedback from both customers and technical personnel on the products.

"The training sessions are a 2-way street of communication," observes Oldenburg. "We learn from our customers by hearing about special needs, suggestions for future product development, or new service techniques."

According to Oldenburg, Jacobsen has always stood



Jacobsen introduced the industry's first power greensmower in 1924.



The first all-hydraulic riding triplex greensmower was introduced in 1969—Jacobsen's Greens King.

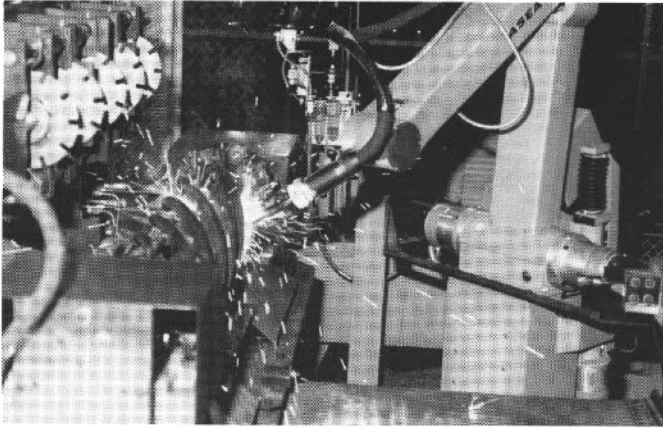
behind its products, and listened to the needs of the customer before and after the sale, and service training is one way to keep both the customer and distributor informed.

Training doesn't stop with customers and distributors. A College Student Seminar is held once a year at the Racine headquarters. College students who are studying Turfgrass Maintenance and Management or related fields fly in from all over the country to attend the week-long seminar.

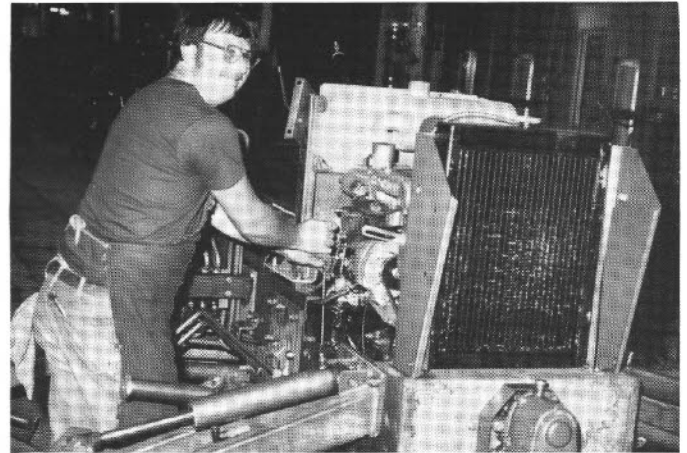
Thirty-eight students attended this year's seminar, which included a field day for hands-on operation of turf maintenance equipment, lectures on turf maintenance and management, equipment maintenance workshops, panel discussions with turf maintenance experts, and a tour of the Jacobsen manufacturing plant.

"The seminar gives students very practical insight on

# JACOBSEN®



Modern manufacturing machinery such as this robot welder help Jacobsen to pass cost savings on to its customers. The robot welder is capable of making 660 welds in a single hour.



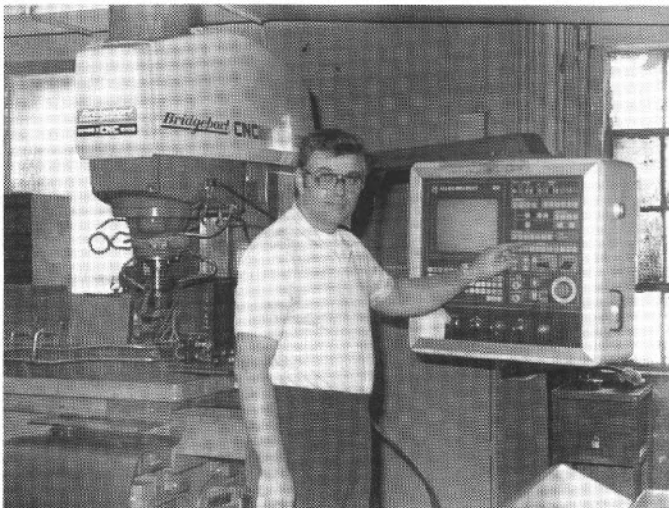
Jacobsen workers are concerned with producing quality products. Here a worker assembles an HF-15.



Jacobsen uses a lazer cutter to cut sheet metal parts. The lazer cutter operates off programs developed by the company's CAD/CAM system, and provides fast, simple, uniform cutting for such parts as couplings, necks, fenders, and other sheet metal parts.



An HF-5 5-gang fairway mower is examined and evaluated after extensive field testing.



This modern blade manufacturing cell mills hardened blades after they are bent. A computer monitor allows programming for movement of the table and speed of operation.



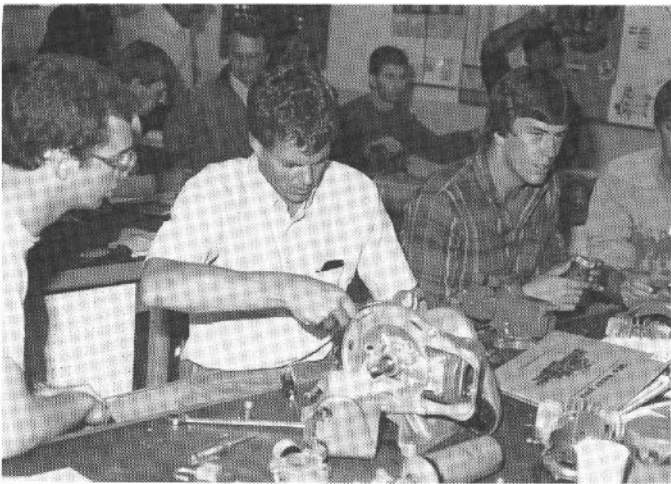
Jacobsen Distributors play a vital role in linking the company to the customer. Wisconsin Turf, one of Jacobsen's Wisconsin-based Distributorships, recently held an Open House at the Americana Resort in Lake Geneva, WI. The Open House gave the customers a chance to see and learn about new equipment.



Jacobsen's annual College Student Seminar gives students a chance to gain practical knowledge in the turf maintenance field.



A panel of turf maintenance and management experts spoke with students at this year's College Student Seminar.



One of the many workshops at the College Student Seminar deals with small engine maintenance.



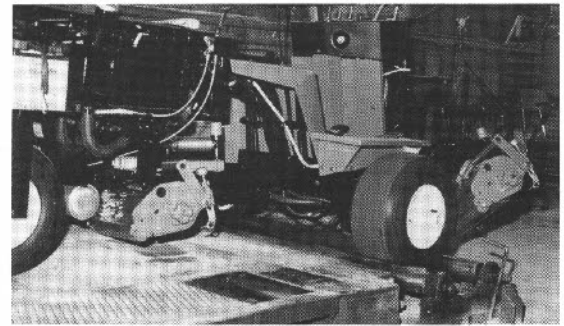
Jacobsen stocks over 25,000 parts at its Racine plant.



Another truckload of Jacobsen products pulls out from the Racine plant.



A hydraulic hose pressure testing center checks hydraulic hoses before they are installed in Jacobsen products.



This shaker tester shakes machines vigorously to make sure they are assembled solidly.

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# JACOBSEN®

what is needed to maintain and manage a golf course or other turf areas," states Oldenburg. "It also gives them practical knowledge about the careers they want to pursue."

James Byrnes, Advertising Manager, sees the seminar as a chance for students to get educated on new products so they can carry that knowledge into their profession.

"Most of the students will be using these same types of products in their professions," comments Byrnes. "We want them to have an opportunity to learn as much as possible about the machines, so when they get out in the field, they're prepared."

Jacobsen relies on many turf experts from Wisconsin to serve on panels and speak to students. These experts give students valuable information on what the profession is really like.

"The turf experts give students a great deal of information that you just can't get out of a textbook," adds Byrnes.

## Distributor Network

Jacobsen distributors play a vital role in the company's success.

Ned Brinkman, Vice President of Sales, comments: "We want our customers to be satisfied, but we don't often get a chance to talk with them face to face. This is where our distributors and salesmen come into play. They represent Jacobsen."

Jacobsen distributors are true professionals for turf products. The average Jacobsen distributor has over 30 years of association with Jacobsen products. Some were even around when the 4-Acre Mower was introduced in 1921.

"Our distributors are able to offer the most in professional service to the customer," adds Brinkman. "This makes the customer's job much easier in choosing the right equipment, getting parts, obtaining professional services, or getting questions answered."

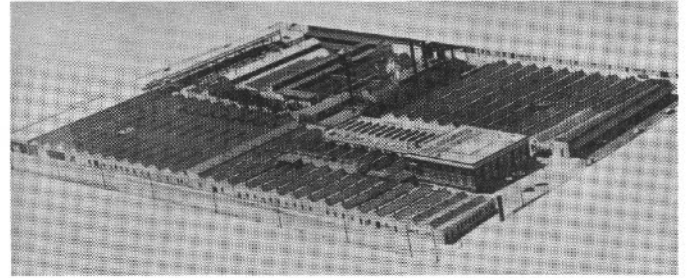
The distributors carry large inventories of both products and parts, so that customers can get what they need when they need it. Large, modern service areas help to keep customers' equipment running properly with minimal downtime.

Jacobsen's parts distribution system is among the most advanced in the industry. It's called REACT (remote entry and customer order tracking), and it helps to get needed parts into the hands of the customer as fast as possible.

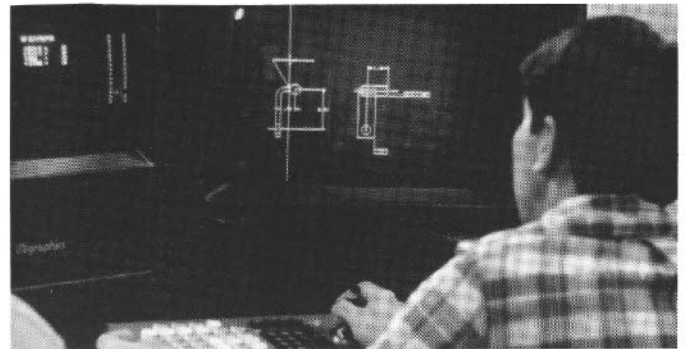
Each Jacobsen distributor has a mini-computer programmed to place parts orders directly into the main computer at Racine. The distributor can also use the system to place orders for finished goods. The REACT system improves turn-around time and gives the customer options for mode of transportation and release time.

"This is the most economical way to get our parts delivered," says Jerry Betker, General Parts Manager.

Jacobsen has nearly 25,000 different parts in its system. In addition, distributors carry a \$20-million field inventory in replaceable parts. If a distributor is out of a particular part, the customer rarely has to wait more than 24 hours



Jacobsen's main plant and headquarters in Racine has 490,000 square feet. The company has been a part of the Racine community since 1920.



Jacobsen's CAD/CAM system speeds the development of new products.

for the part to be delivered from the factory.

Another program for helping customers get parts is the "Trader Jake" program. The "Trader Jake" program utilizes the same computer used for the REACT system. It allows the distributor to appeal to all other Jacobsen distributors for an out-dated, rare or hard-to-find part.

"The Trader Jake system works very well," comments Betker. "We look at it as one more way we can help to satisfy our customers."

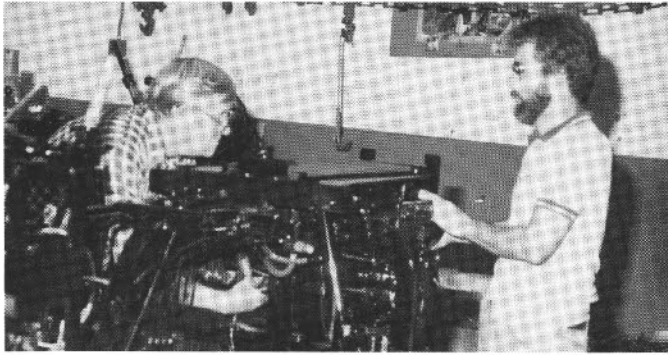
## Future of Turf Maintenance

The turf maintenance industry is constantly changing. New products are introduced. New methods of maintaining turf are tried. And new companies are getting into the business.

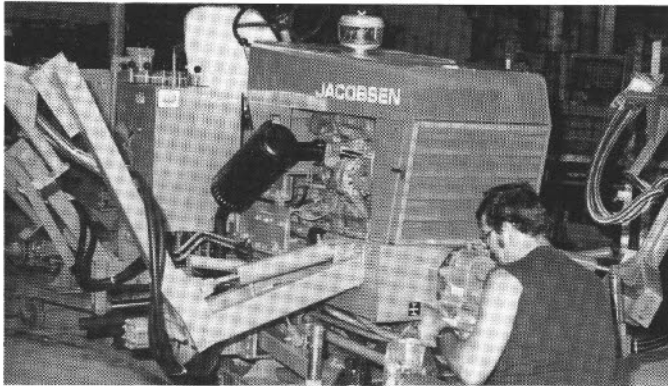
Thomas M. Carter, Vice President of Marketing and New Product Development for Jacobsen, points out the present trend toward producing more finely-manicured turf on golf courses.

"It's not just the greens anymore," comments Carter. "Many golf course superintendents are using triplexes and lightweight 5-gang mowers on their fairways for higher quality cutting, and Jacobsen is leading the industry in developing new products to meet that trend."

Carter also points out that there has been an increase in demand for rotary and flail-type mowers for parks, schools and other large turf areas. Jacobsen has responded with a full line of rotary mowers along with a new line of unique fine-cut flails. The new fine-cut flails combine a high-quality cut with quiet operation, even discharge of clippings along the entire mowing width and



A Greens King IV triplex greensmower is carefully assembled at the Racine plant.



An HF-15 Fairway mower nears completion.

less chance of thrown debris.

Carter also sees a trend toward diesel engines to keep mowing costs down.

"Diesel engines offer more power, durability and fuel economy to the customer," comments Carter.

Diesel engines are already incorporated into many of Jacobsen's turf machines. Their latest diesel entry is the new Greens King IV Diesel, which is the industry's first diesel-powered triplex greensmower.

"Jacobsen is committed to leading the way in product innovation and development to meet the demands for precision-quality turf," adds Carter.

Brinkman agrees, and adds that Jacobsen must also continue to be price competitive in an industry that is attracting more competitors each year.

Brinkman believes that Jacobsen's emphasis on engineering and research and development gives Jacobsen a competitive edge.

"Technology has moved faster than ever in the past five years," comments Brinkman. "Products are always changing, and companies without solid engineering and research departments are going to get lost in the marketplace among their competitors."

### Modern Manufacturing

Jacobsen's manufacturing methods are also a sample of industry leadership. Although the Racine plant is not new from the outside, the inside is very modern.

New laser cutting machines provide faster, more efficient cutting of steel plates. Robotic technology is used

for welding to increase productivity and accuracy. Numerically-controlled machining centers provide precise multiple duplication of a part.

Such modern manufacturing methods save the company in manufacturing costs. These savings can then be passed on to the customer. Jacobsen has always put the customer first, ever since the introduction of the 4-Acre Mower in 1921. Now, over 65 years later, Jacobsen continues to listen to the needs of the customer and respond to those needs.

Many familiar products roll off the line at Jacobsen's Racine plant every day being shipped off to care for some of the finest turf in the world. . . . much of it right here in Wisconsin.

Just some of those Wisconsin-built products include:

- Greens King IV family (triplex greensmowers)
- Turfcats II series (out-front implement system machines)
- HF-5 (self-contained 5-gang mower)
- HF-15 (self-contained 7-gang reel mower)
- 5/7 Ram-Lift (ranger mower)
- HR-15 (self-contained rotary mower)
- Turf Groomer™ (greens conditioner)
- Trim King (triplex)
- Turf King (triplex)
- TF-60 (triplex)
- Walking Greens Mower
- C-118 (out-front implement system machine)
- DW220 (diesel-powered system machine)

### Jacobsen and Wisconsin

Wisconsin has been home to Jacobsen since the company's origin. Jacobsen is committed to improving Wisconsin industry and economy. As an example of that commitment, Jacobsen is investing hundreds of thousands of dollars each year in upgrading and modernizing its facilities.

President John R. Dwyer, Jr. is happy with the relationship between Jacobsen and Wisconsin.

"We have a long, successful history in Wisconsin, and we hope to stay right here in Racine for a long time to come."

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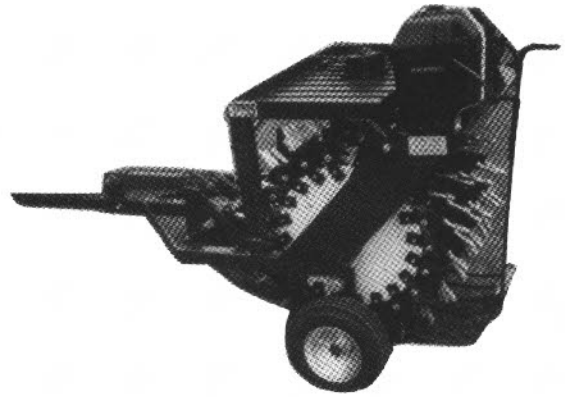
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100	0.15	18.0
140	0.10	0.2

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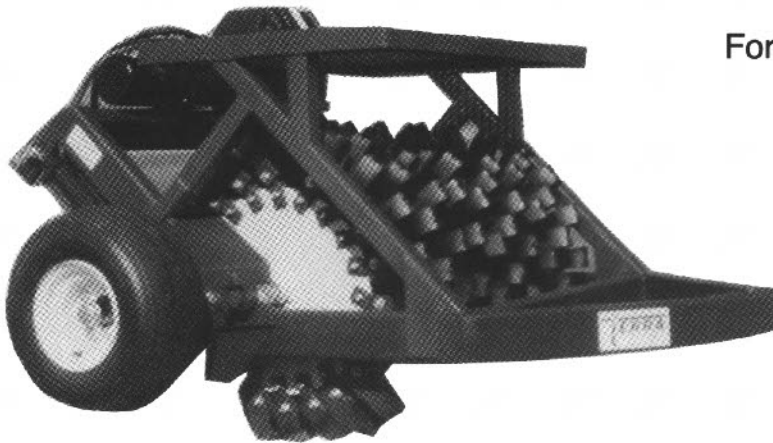
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## MY FAVORITE SPOT

By Monroe S. Miller

It's a sign of the times, I guess — there just isn't time to think anymore. Or, maybe it is a case of most of us not feeling comfortable taking the time to think, and nothing but think, anymore. Someone might think us lazy. We wouldn't want to be accused of daydreaming, on the job. But even if the latter is true, there still are too few hours in the day and too many demands on our time. Family requirements, endless questions from employees and constant contact with members seem to consume every waking minute, for some of us at least. We don't take time for ourselves, our thoughts or simply a few minutes to relax alone.

The 20th Century, I am convinced, is determined to shorten the distance between thought and word and thought and deed. The fear I have is that, in too short a time, the world will be governed by acts based on no thinking whatsoever. No time, you know. It is already happening and is illustrated by the speed by which computers handle transactions, by quartz watches (no need for learning how to tell time), velcro straps on shoes (no need for youngsters to think about how to tie), electronic payment of bills (no time to decide to "sit" on one for a few days), and the cordless telephone (you lose the thinking time you used to have walking to the phone — no time to think up an excuse not to help your neighbor of 10 years ago move his furniture on a hot July afternoon).

How often do Golf Course Superintendents close the door to their office, to be alone, just to think? Very seldom, I suspect. The phone rings and thought is interrupted. A knock at the door and thought is interrupted. It seems hopeless, doesn't it? Pascal was right: "The troubles of life come upon us because we refuse to sit quietly for a while in our own rooms." I have a solution for you, one that has worked for me for a long time. It gives me time to think and reflect and plan.

I propose that every Golf Course Manager choose a favorite spot. I have

one and it has given me untold hours of thought, of pleasure, of inspiration and of reflection. Selection must be made carefully. It needs to be a truly special place, one that offers comfort. It should be a spot that you think about occasionally and want to return to often. It should be a beautiful spot, ineffably sublime, and one that is refreshing and new. It should be a place that distinctively changes with the seasons and enhances the pleasures of them.

This place should never be very far away from you or your golf course, and I believe it should, in fact, be on the golf course. It should offer some privacy and therefore some comfort of being alone. A shade tree nearby helps. The spot should be away from everyone — no jangling telephones, no traffic, no noise, no people. I don't necessarily think it should be cut off from the rest of the world, but it should get you alone and give you a setting in which to think, uninterrupted.

My favorite spot is a beauty. It is on top of a hill on the east end of the golf course, the highest point of the property and one of the highest spots in the city. I feel fortunate that the founders of our Club had the wisdom to choose this place for a golf course and thereby preserve this little corner of the world and its beauty for a long time. It was, some 60 years ago, "way out of town." Today we seem to be right in the middle of Madison. But from my favorite spot you would not believe this. It's a place of great beauty and gives me a wonderful place from which to think, alone and by myself.

Many centuries ago — about 20,000 years ago, in fact — a huge and vast continental glacier invaded Wisconsin from the north and buried the Madison area beneath almost a thousand feet of ice. While it advanced it smoothed off hills and became heavily laden with massive amounts of soil and rock and gravel. When it melted, the ice deposited this debris to dam valleys and form lakes. Lake Mendota was created this way, as was the isthmus

that the capitol and downtown Madison now occupy. My golf course is on the shores of Lake Mendota, and it was that same glacier that created the beautiful landscape my golf course is in. I sort of feel like Senator Moses E. Clapp when he said, years ago, "It is hard to speak of the beauties of Madison without being charged with exaggeration. No city I have ever seen compares with it. Forest growths abound everywhere; trees crown the hills, line the water courses and border the roads." That is about how I feel about my golf course and the surrounding land that I see from my favorite spot. And when I am relaxed at the spot I can fancy, along the shore of Lake Mendota, near Dr. Cookson's house and on our golf course, the flash of Indian moccasins and see the bark wickiups of the Sac Indians among the oak and maple trees. Although their paths have vanished, the burial and effigy mounds have not and their presence is still felt by me. I know they believed this spot of mine was something special, too. The simplicity and intense sincerity of beauty and nature that I see and feel from here makes the tale of these Indian ancestors live on. This dreaming is part of the mood my spot creates.

And often I have wondered if Henry Wadsworth Longfellow reflected from my favorite spot when he wrote, in 1875, this poem, the most famous written about Madison:

*The Four lakes of Madison  
Four limpid lakes, four Naiades  
Or sylvan deities are these,  
In flowing robes of azure dressed;  
Four lovely handmaids that uphold  
Their shining mirrors rimmed with  
gold,*

*To the fair city of the west.*

*By day the coursers of the sun  
Drink of these waters as they run  
Their swift diurnal round on high;  
By night the constellations glow  
Far down the hollow deeps below,  
And glimmer in another sky.*

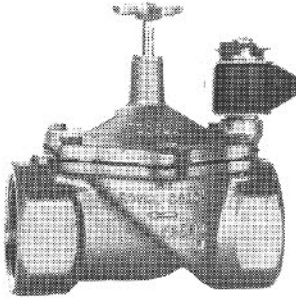
*Fair lakes serene and full of light,  
Fair town arrayed in robes of white,  
Her visionary ye appear!*

*All like a floating landscape seems  
In cloudland or the land of dreams,  
Bathed in a golden atmosphere.*

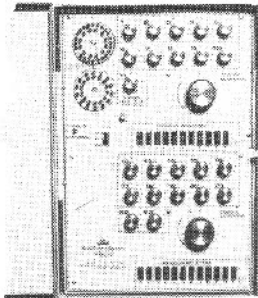
It may well be that many of you already have a special place on your golf course and have experienced the wonders it offers with its solitude. If you haven't, look around. Upland or marsh, a golf course is an easy place to find a beautiful and favorite spot.

# IRRIGATION EQUIPMENT

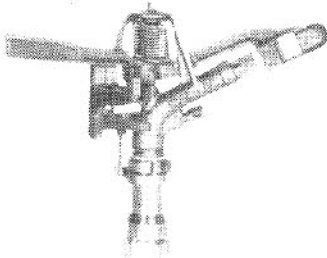
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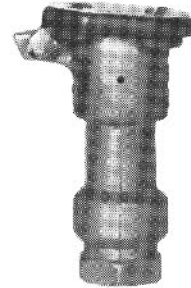


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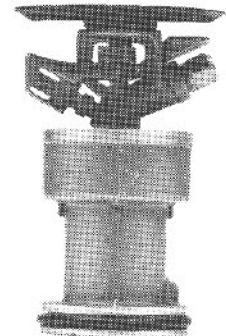
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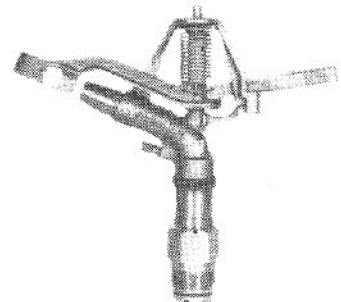
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(Continued from page 1)

tribution made a difference?' In Jim Love's case, the answer is an unequivocal yes. You have touched the lives of more students in a very positive way than any one else I know. In fact, "Love's advisees" have to be among the most vocal cheerleaders we have for any individual and any department on our campus."

Dr. Champ Tanner and his wife Katie were in attendance. Dr. Tanner, currently chairman of the Soil Science Department, was Jim's masters degree major professor. He recounted some of the humorous things in Jim's years in the Department and told of the world's largest liming study undertaken by Love many years ago. He spoke with deep respect for Jim's unselfish commitment to teaching, a trait not very common in a major university noted for its research capabilities.

Mike Lee was a part of the program and expressed thoughts felt by many students over the years. Mike's remarks are included elsewhere in this journal.

Peter Miller, in Madison from the Columbus, Ohio area, gave a presentation of slides taken decades ago at places ranging from the 1967 GCSAA Conference which Jim attended with several of his students to scenes from many of Wisconsin's golf courses.

Following cocktails, dinner, a toast, introductions and remarks came the highlight of the evening. Jim was given a matted and framed version of the program for the evening. He and his lovely wife Nancy then had Hawaiian leis placed about them as they were given a two-week vacation in the paradise of Hawaii!

It was a magical night, one that his former students and friends won't forget and hopefully one that Jim and Nancy will remember for a long time, too.



Steve Ludwikoski provided music for the evening on Nakoma's baby grand piano, . .



which was enjoyed by everyone, including Katie Tanner and Leo Walsh.



Jim was given a framed copy of the program.

One of Jim's first turf students was Peter Miller, formerly Golf Course Superintendent at Nakoma and Firestone Country Clubs. Pete took honors for the oldest former student in attendance!



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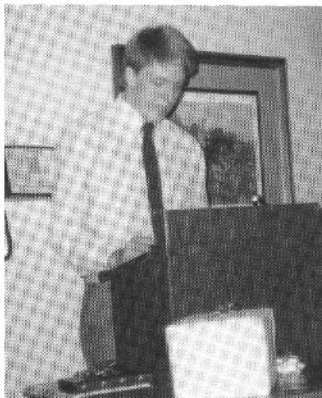
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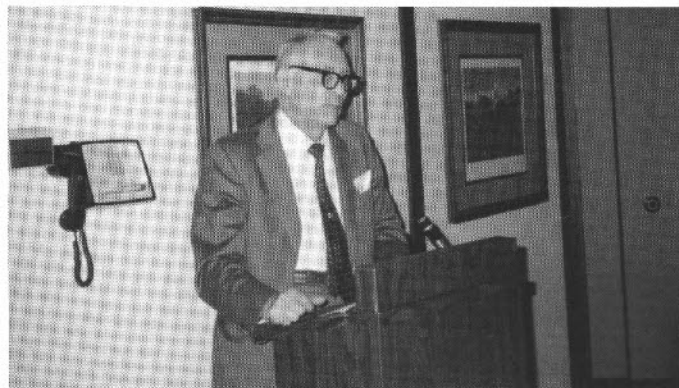
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Mike Lee,



Dr. Leo Walsh,



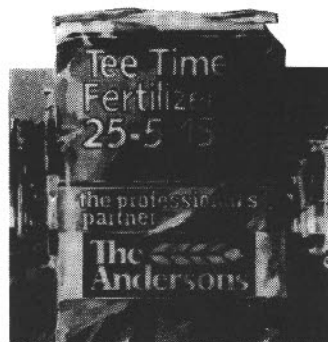
and Dr. Champ Tanner were speakers on the program.

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