

Is It, or Isn't It
A GCSA Record?

2,611 Attend Cleveland Convention



Bob Shields (l), new GCSA president, cuts the ribbon that opens the 1965 GCSA convention. He gets assistance from Stan Frederiksen, industrial relations rep (center) and Dave Moote of Canada, retiring president.

Attendance at the annual GCSA international turf show fell short of shattering the record established in 1964 in Philadelphia, but the turnout for the Cleveland convention, held in early February, came close to what had been anticipated. A total of 2,611 persons, including supts., their wives and course distributor and manufacturing reps, came to the Ohio city for the 36th gathering of the greenmasters. The crowd at Philadelphia exceeded 2,700.

(However, members of the Cleveland GCSA, who had charge of arrangements for this year's show, point out that approximately 150 turf students were included in the head count at the Philadelphia convention, making the 1964 attendance figure somewhat unrepresentative. Students weren't included in the Cleveland tally.)

The Cleveland weatherman was most cooperative. He provided balmy, 60-degree temperatures for the visitors on at

least two days and refused to show them a cold front during the week they were in the city. A "let's go out and play golf" feeling prevailed, but the conscientious supts. resisted temptation and dutifully appeared at the education sessions. Attendance at the final gathering on Friday morning, at least, almost equalled that of opening day.

L. R. (Bob) Shields, Jr., who has been at Woodmont CC, Rockville, Md., for the last 13 years was elected president of the GCSA. Edward (Ted) Roberts of Fairmount CC, Chatham, N. J., is vp, and John Spodnik, supt. at Westfield CC, LeRoy, O. is secretary-treasurer.

New directors are James W. Brandt, Danville (Ill.) CC, Richard McLaughlin, Wayzata (Minn.) CC and Tom Leonard, River Oaks, Houston. Holdover directors are William Riley, Essex Fells (N.J.) CC, and Walter Boysen, Sequoyah CC, Oakland, Calif., and Spodnik.

By **JOE DOAN**

First Session

Club Manager Says He Envis Turfmen

Leonard Strong, retired Saucon Valley supt., who served as the GCSA's 17th president, was the chairman of the opening education program session. **Rev. Raymond Lewis** of the Old Stone Church gave the invocation. **Mayor Ralph Locher**, who during the week couldn't get the City of Cleveland maintenance department to heed his orders and had to waive several employees off the payroll, must have taken some consolation in the fact that the golf maintenance men were willing listeners. In his welcoming speech, he described the great construction activity that has been going on in Cleveland in recent years, and called attention to the city's reputation as one of the country's leading sports, cultural and scientific centers.

Other Speakers

Other speakers at the Monday morning meeting were **Ben Chlevin**, GCSA executive director, who gave the response; **Mal McLaren**, veteran Canterbury Club supt. and conference co-chairman; **James J. Tukesbrey**, manager of Cleveland's Oakwood Club and CMAA delegate to the turf show; and **Dr. Floyd Corbin**, lecturer and author, who was imported from Los Angeles to deliver what has come to be accepted as a kind of keynote speech for the conference. This one is always entrusted to professionals and usually is laced with sufficient fuming and thunder to get and keep the supts. stirred up for the 25 or 30 speakers who are to follow. Dr. Corbin, though, may have crossed up the convention managers. He spoke on relaxation.

Mal Digs Up Figures

In reviewing the history of the 39-year old GCSA, Mal McLaren made passing reference to the organization's financial status in 1932. Dues income amounted to less than \$2,200, and the show that year grossed \$800. But the payroll barely ex-

ceeded \$1,200 and total outlay for the year was less than \$2,000, so the supts. ended up with money in the bank. Only in that era the banks were failing. The federal head tax for the entire organization for the year 1932 amounted to eight cents. That still had better not get back to Washington.

From 1932 through 1945, the GCSA did little more than mark time. But by 1949 it had grown to the point where it was bold enough to take its annual turf show into the Los Angeles Coliseum. It broke even in that venture. In 1953, McLaren said, the greenmasters' group was being urged to build a skyscraper and there was talk of raising \$1 million for research. But nobody panicked, and the GCSA went on growing steadily if not spectacularly. Today, the organization claims more than 2,000 members.

Supts. Have It Easy?

Jim Tukesbrey's theme followed this line: "Why do you fellows grumble about being supts? You should get into club management and you'd really run into some king size headaches, complete with filter tips." Here is what a manager does, said Tukesbrey: He runs a hotel, restaurant, night club and stages 30 or 40 parties a year. He supervises a huge housekeeping job. He is usually responsible for the swimming pool and tennis court and, at many clubs, for bowling, squash, curling, skiing and handball facilities. He often runs a playground for kids and what many members won't concede, a day camp.

What does he hear all day? "The food is lousy and overpriced," and "The drinks are watered." Members who have just perpetrated a lousy round don't take their sorrows to the pro or supt. They usually look up the club manager. "Half of the time," Tukesbrey sighed, "it isn't safe for a manager to step into a room where darts are being played."

To convince the supts. they are better off to stay down in the maintenance building, the Oakwood Club manager cited these statistics: The manager handles an average of from 60 to 120 employees and is responsible for a payroll of \$300,000 or more a year; He oversees



Len Hazlett, Sr., and his sons, Len, Jr. (1) and Ron, are a well known Cleveland area father and son trio. Len, Sr. is at Beechmont, Len, Jr. is at the CC of Cleveland, and Ron is at Avon Oaks.

the serving of from 50,000 to 75,000 meals annually; His office processes 100,000 members' checks a year and may send out as many as 5,000 or 6,000 statements. Somebody once figured out that a manager may make as many as 2,000 contacts with employees and members on a busy day, so he prays to keep complaints to well under one per cent.

Occidental Yoga

Dr. Floyd Corbin stated that until he was blinded in an automobile accident several years ago, he didn't know how to relax. While convalescing from the accident, he came to the conclusion that most people were in the same fix and he decided to do something about it. Out of this grew the conviction that it takes nothing more than an occasional pause to get regenerated. So, he developed several physical exercises that are designed to slow a person down long enough to get mentally recharged.

These consist of sitting down and writing "Joy" with the nose; reaching out with the arms and hands, then drawing them in and uttering a loud "Boom" in the process; deep breathing; and just sitting back for two or three minutes and contemplating nature. Somebody in the audience referred to Dr. Corbin's exercises as "Occidental yoga," an apt description.

"Tension," said Corbin, who has written five books on relaxation, "is pressure that is exerted against energy, or enhances it.

There is nothing to worry about if you get butterflies in your stomach when things go wrong," he added. "The thing to do is strive for enough control of yourself to make them fly in formation."

Second Session

GCSA 'Little Theater' Rolls Them in the Aisles

Robert M. Williams, supt. of Bob O'Link CC, Highland Park, Ill., directed the Monday afternoon education session. His speakers' lineup included **Robert C. Irwin**, general sales manager of Ford's Tractor and Implement Div.; **Stephen L. Frazier**, who recently resigned as supt. at Woodland CC, Carmel, Ind., to set up his own irrigation and turf consulting business; **Major Fred Bove**, Southern California GCSA official and supt. at Brentwood CC in Los Angeles; and **Tom Mascaro**, president of West Point (Pa.) Products Corp.

Producer, Director, Arranger **James L. Holmes**, Midwest agronomist for the USGA, presented a one-act skit that was written and rehearsed in less than three hours and got rave acclaim from persons in the audience who fancy themselves drama critics. The title of the production was "How A Supt. Looks to the Members." **Tom Leonard**, supt. at River Oaks, Houston, played the role of a hapless greenmaster who tried to explain his completely defenseless position to a committee made up of grim **Paul Weiss**, supt. at Lehigh CC, Allentown, Pa., implacable **Sherwood Moore**, Winged Foot's well known turfmaster, and **Tom Sams** of the Audubon Club in Louisville, who might have forgiven Leonard for his shortcomings if he had just been a little more yielding in dealing with the imaginary club's women players. **Dave Miller** of Saucon Valley, Bethlehem, Pa., portrayed Leonard's replacement when the committee decided to gang mow its inept supt.

New Thoughts on Old Theme

Ford Motor's Bob Irwin presented some new thoughts on self-selling to the supts.,

who have been urged by their national organization for the last decade or so to stop playing it shy and let members know how important they and their jobs are. What has to be taken into account, said Irwin, is that not more than two or three per cent of the members know what is going on in the maintenance department, not because they are indifferent but because they aren't informed. Which brings up the question: "Who is to inform them?" Nobody but the supt. himself unless he has available the services of a publicity man who will do the job for him.

What should go into a self publicity program? Irwin outlined these factors: Periodic status reports; Year-end reviews; Proposals for improving the golf course; and Reports on local, sectional and national meetings.

The Ford sales executive concluded his remarks by saying that jobs like products don't sell themselves; they have to be constantly promoted. It is imperative that a supt. think of his position as one that has to be continuously sold because of the annual turnover in club officials.

How to Use An Education

Steve Frazier, who got a degree in Botany from Butler University, studied turf management at Purdue and was taught to apply his scientific knowledge to course maintenance by Carl Bretzlaff at Meridian Hills in Indianapolis, discussed the integration of education with practical turf work. His remarks were mainly addressed to younger supts. They were advised to correlate as much as possible their experiences on the new job with the fundamentals they had been taught in an effort to get a complete grasp of the many ramifications of turf management.

"One of the best things a young man entering turf work can do," Frazier said, "is to study the man who has been around a while. Don't be too proud to ask him questions even if they cover things that you feel you should understand, but don't. If you make some mistakes, don't try to hide them. If you can't figure out why you failed, seek the advice of a person you are reasonably sure can give you some clues. Education ends when you start sweeping your failures under the rug."



Leonard Strong (l.), who has missed very few of the 36 GCSA conventions, shares a joke with James B. Moncrief of the USGA green section.

Addressing older supts., Frazier had this to say: "Take it easy on the young fellows who are breaking in. Sometimes they get a little overbearing, but this comes with youth. You have to remember that today's youngsters are raised in the most accelerated age mankind ever has known. They are conditioned to want more at 25 than you perhaps did at 35 or 40. You have to bear with them until they start to decelerate and get their feet on the ground."

Name on Scorecard to Start

Speaking on public relations, Fred Bove accused the supt. of being something of a "loner" who has stood aloof too long from the pro, manager, architects and others, and has hurt himself in doing so. "It's time," said Bove, "that we start to project ourselves. We can do it by not pushing too hard or stepping on any toes."

One of the first things the supt. can do in his public relations buildup, Bove continued, is to get his name on the club scorecard. Another is to get within camera range when the TV people are filming a match at his club, and be ready to talk to the announcer if called upon to do so. A weekly, or at least, monthly meeting with the pro and club manager are not only desirable, but should be a *must*, the Brentwood greenmaster added.

To back up his claim that turfmen can
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Starting at seven o'clock are these fathers or sons: Harold Stodola, Bill Ward, Norm Westfall, Art Snyder, Jim Snyder, E. G. Jacob and Ray H. Gerber. All look young enough to be sons.

Golfdom Luncheon

The Graffis brothers, Joe, Sr. and Herb, and the Junior member of the organization, Joe II, again were hosts to fathers, sons and sons-in-law at a luncheon during the convention. It was the eighth consecutive year that the Graffis menage popped for the biscuits and Bourbon without wishing any speeches on their guests, 90 of whom put in an appearance.



Clarence Wolfram, Sr. is seen with Mine Host, Joe Graffis, Sr. (above). Warming the settee (at left) are Marion and Chester Mendenhall and the Weldins, Paul, Sr. and Paul, Jr.

win wider acceptance if they want it, Bove told how the Southern California GCSA staged a tournament last fall that still is the talk of the lower West Coast golf community. "I've had a hundred compliments on the way we ran that affair," said the retired Marine major. "Several club officials have asked me why we waited so long to get something like it started. We've already been asked by six clubs to hold the 1965 S.C.GCSA tournament at their course. That proves that people want to recognize us. So, the proposition is: 'Do we want to go to the trouble of being recognized?'"

Satire and Beauty

One of the best productions of the convention was offered by Tom Mascaro, who used his faithful projector in presenting one of his distinctive illustrated speeches. Mascaro was in a fine satirical mood as he led off with a series of slides that must have been assembled in Appalachia. Tornado-torn buildings, lean-tos and outhouses were suggested as models for clubhouses and outbuildings that are to be constructed in the future. Prototypes of home-made, steam operated equipment were shown along with several turf-tearing methods that are guaranteed to cut down on mowing. Mascaro then got in a plug for the GCSA pension plan by showing his collection of tombstones and graveyards.

But in a more serious and less grisly vein, the West Point executive switched to a "Courses Can Be Beautiful" theme. Formal and semi-formal gardens that have been planted at various courses throughout the country, the use of exotic plants, colorful landscaping and the beautifying of swimming pool areas were offered as examples of the artistry that can be introduced at a club. Mascaro's final suggestion: "Dig into local history and see if you can't come up with something that is worthy of an historical marker on your course. You'll get many miles of publicity out of it."

Break Other Leg

In the GCSA's "Little Theater" production, Tom Leonard, who had fallen off a horse only a short time before con-

vention week and broken a leg, insisted on going on. Before the skit was over, the make-believe committee that had summoned Tom to explain why the cutworms, nematodes, red thread, gophers, etc., had crowded the players off the course, broke, in effect, Leonard's other leg.

You can imagine a bungler like Tom, who adopted the name of "Clem" for the drama, explaining an endless series of blunders to a cold, uncompromising committeeman such as Paul Weiss. The latter's whip snapped, cracked and popped as he excoriated poor Clem. The audience hissed. But Clem was sacked and a new breed of supt., Dave Miller, who has a scientific explanation for everything, was hired to replace him. But don't be too sure that was a happy ending. Next year at Kansas City, you may find poor Dave sweating it out in Paul's sauna.



With Mal McLaren (2nd from left) are an unidentified green chairman from a Cleveland area club, Dave Loeser, Frank Wuliger and John Dunlop.

Third Session — I

Agronomists Report on Turf Studies

The third education assembly, held on Tuesday afternoon, was split into two sections. Research reports on cool season grasses were given at one, and the other was devoted to new developments in warm season turf.

Bill Daniel of Purdue University was the moderator of the cool season session. His speakers included Eliot C. Roberts,



John McNamara, Chartiers CC, Crafton, Pa., Carroll Hitchcock, Woodholme CC, Pikesville, Md. and Paul Weiss, Lehigh CC, Allentown, Pa., didn't seem to be worrying about pythium when this photo was taken.

an agronomist from Iowa State University; **Richard R. Davis** of the Ohio agricultural experiment station; and **James B. Beard**, assistant professor of agronomy at Michigan State University.

James B. Moncrief, USGA green section agronomist, presided at the warm season assembly. He presented **Granville C. Horn**, turf research specialist at the University of Florida; **William B. Gilbert** of the University of North Carolina's turf research staff; and **Ray A. Keen**, professor of ornamental horticulture at Kansas State University, and an officer in the Central Plains turf foundation.

Ohio Governor Speaks

Ohio governor, **Jim Rhodes**, appeared briefly at both sessions. A onetime caddie and now a devoted golfer who would play every day if he could slip out a side door at the statehouse, the governor titillated the two audiences with several good golf yarns. Then, he told the Northern supts. that they would win the full appreciation of their members if they were to take just one vacation between Aug. 1 and Sept. 1. For Southern greenmasters, he recommended a January sabbatical, although he conceded he never could figure out where people from the South go when they take wintertime leaves.

Turfgrass Response

Eliot C. Roberts, the scholarly Iowa State agronomist, gave an excellent description of the work in turfgrass responses that his school has been carrying

on for the last two or three years. The project is based on the quality, color, density, vigor and bud count of various grasses in light of the weather conditions in which they grow, and the various irrigation, fertilizer and pre-emergence herbicide applications with which they are treated.

Improves in Hot Weather

The quality of bluegrasses, according to the Iowa State findings, improves in hot weather, is relatively stable with Astoria, but drops off in Pennlawn red fescue plantings. Color qualities of the latter two follow the same general pattern between June and August.

Bud yield, upon which Roberts places great import, increases sharply in Astoria during hot weather, is cut in half in Pennlawn and remains about the same through June, July and Aug. where the bluegrasses are involved. Astoria and Pennlawn simply don't tolerate dry conditions during the warm months, although the bluegrasses seem to hold their own in semi-arid weather.

Other findings: Toronto bents apparently do best under both low and high nitrogen feedings in comparison with Metropolitan and Washington strains, but response among the three is exactly reversed when pre-emergence herbicide is applied. Both of these tests are based on bud count.

Describes Fertilizer Studies

Dick Davis, who has carried on extensive fertilizer studies at the Ohio experiment station for the last eight years, described the results of experimental feedings of Common Kentucky and Merion with ammonia nitrate, sludge and urea-form. In all applications of these nutrients, lime, phosphate and potash have been kept at what are accepted as adequate and equal levels. Response was judged on clipping yield, per cent of N in clippings, weed content of plots and color.

Results were shown through a series of charts based on April-August performance. Generally, ammonia nitrate gives a high initial yield, drops off toward July 1 and then slowly picks up to reach a secondary high in mid-August. Sludge starts at a comparatively medium rate,



Here's a man in the lion's den. It's Clem (otherwise Tom Leonard) attempting to explain things he doesn't understand to Paul Weiss, Sherwood Moore and Tom Sams.

reaches its peak around July 1 and then slowly tapers off. Ureaform, slowest starting of the three, climbs steadily to a mid-July peak and then falls off slowly.

Davis conceded that there is some difference of opinion on the results of various applications. He noted that the curves on all the fertilizer release or availability charts tend to reach pretty much of a common level in August in the treatment of both Common Kentucky and Merion. This was also generally borne out in cases where three split applications totalling six pounds of both ammonia nitrate and sludge, and one application totalling five pounds of ureaform, were made.

Winter Injury Factors

Jim Beard of Michigan State discussed the causative factors in winter injury. He described several experiments in which both bents and bluegrasses were frozen at from plus 30 degrees to minus 10, and concluded there is no absolute temperature at which it can be said any variety of either type of turf is killed. Factors such as the hardiness of the turf, rate of freeze, rate of thaw and post-thaw treatment have to be considered in trying to determine what are critical temperatures for the different varieties.

Among the bents, the Toronto varieties, Penncross and Seaside seem to be well inured to low temperatures, but Astoria suffers quite extensively when the ther-

момeter drops below zero. Of the bluegrasses, Merion and Newport, according to Michigan State tests, hold up best in extreme cold weather.

Desiccation, low-temperature fungi, permanent snow cover, heaving and oxygen suffocation, Beard said, are the most common causes of winter damage. But it shouldn't be overlooked that a great deal of injury is caused by the following: Increased hydration level due to poor soil drainage; too heavy late fall fertilization; potassium deficiency; winter traffic; late fall cut below 1½ inches; a bad thatch condition; and probably premature spring fertilization.

Third Session II

Florida Researchers Investigate Nematodes

Speaking on the subject of nematode investigation at the South-Southwest section of the turf research program, Granville C. Horn said that little was known about nematodes until about 15 years ago when it was found that the parasites have an extremely destructive effect on grass roots. Three products derived from ethylene, heptachlor and dichloropropene were used in early control tests made at Mayfair CC in Sanford, Fla., and from

these Nemagon and Fumazon, both effective nematocides have been developed.

It was first thought that only Bermudas and St. Augustine were damaged by nematodes, but by 1955 it was found that they also infest bents and bluegrass, causing as much damage to Northern courses as those in the South. Samples taken at Florida courses have shown that as many as 25 million ring nematodes may infect less than five pounds of soil. In one study of a Florida green it was found that 95 per cent of the samples harbored nematodes, and 65 per cent of these were heavily infested.

In the last five years, the University of Florida has intensified its efforts to eradicate nematodes. At the moment, five major control projects are being carried on. The parasites feed on one another to some extent and soil protozoa also help to keep the nematode population in check. Where Nemagon has been used effectively, nematodes have been largely wiped out and turf roots have rapidly regained strength.

Describes Bermuda Studies

W. B. Gilbert reported on a Bermuda winter hardiness study that has been carried on at North Carolina State University for the last two years, and was prompted by the deep freeze that struck the Mid- and Deep South in 1962-63. Observations have been concentrated on temperature conditions, hydration, fertilization and management practices.

It is thought that exposed Bermuda can safely withstand temperatures as low as 5 degrees F. Where greens have been covered with straw, turf has not been seriously injured at as low as minus 20. The hydration level in both cases, however, must be in the medium range. It has been observed that when plant tissue is saturated, mere freezing temperatures can have an explosively harmful effect. The different types of Bermudas can be quite seriously injured by desiccation.

Nitrogen Imbalance Effect

A nitrogen imbalance, Gilbert pointed out, has about the same effect on Bermudagrass as it does on cool season turf. Best results are obtained if fall fertilization is carried out about three weeks be-



Elwin Deal, University of Maryland agronomist (r), is shown with two Mid-Atlantic supts. who are not identified.

fore courses are overseeded in late Sept. or early October. Ample potash should be applied to give turf the hardiness it needs to carry it through the winter. Phosphorus studies, as yet, aren't complete.

Aprons Hold Up

As for management, the N.C.S. turf researcher said that there isn't any doubt that Bermuda aprons survive freezing conditions much better than the putting surfaces. This, of course, is due to the insulation and deeper root structure that is built up from a cut that is consistently $\frac{1}{4}$ to $\frac{1}{2}$ -inch higher on the aprons throughout the year.

Fourth Session

Irrigation Program Runs Into Overtime

Roy W. Nelson, supt. of Ravisloe CC, Homewood, Ill., was the chairman of this program in which all facets of irrigation were covered. His roster of speakers included John F. Schrunk, an irrigation consultant; Harry J. McSloy, supt. of Wilmington (Del.) CC; Donald E. Wright, supt. at Camargo CC in Cincinnati; Tom Topp of Bellevue CC, Syracuse, N. Y.; Walter Boysen, supt. at Sequoyah CC in Oakland, Calif.; and Ralph E. Engel, Rutgers University agronomist.

This meeting went the equivalent of 14 innings. It was obvious that the education committee was wringing the last molecule of water out of what is recognized as an extremely important subject.



There isn't any doubt that this is front cover material. These women, all supts.' wives, are shown at one of the luncheons the always thoughtful GCSA planned for them during convention week.

But it shouldn't be forgotten that an education session, like a green, should be built with an eye toward runoff. However, the day was partially saved by Tom Topp, who told an amusing tale of his six-month search for a contractor who had agreed to supply a trenching machine for an irrigation installation, and then went into hiding, and by Don Wright, who gave a masterful description of how to install an automatic system.

Faced with Water Crisis

John Schrunk, who must have chosen his occupation with his tongue in his cheek considering his name, declared that if Americans don't soon wake up they are going to be faced with a critical nationwide water shortage. The Western half of the country, he said, already is imperiled and a kind of creeping drought is moving eastward. Shrunk, who has served as an irrigation consultant in the Middle East and is well familiar with the distress that lack of adequate water supplies can cause, pointed out that a fumbling bureaucracy is partly to blame for our threatened water crisis. No government bureau actually has control over conservation, he said, although several federal agencies are involved in it.

"Our water problems stem from at least four factors," Schrunk explained. "There is a deep water shortage in addition to a ground water shortage. Salt

water seepage threatens our coastal water supplies, and inland, pollution in heavy population areas, causes many problems. If we don't find ways to save water by controlling evaporation, sealing against seepage and generally conserving this great natural resource, we are going to see the day when water will be rationed."

Recommends Use of Probe

In discussing good watering practices, Harry McSloy pointed out that perhaps the best test of irrigation methods is the probe. If a rod used in probing penetrates easily to a depth of six inches, there is a correct amount of moisture in the soil. If it falls short, compaction can be suspected. If the probe goes much deeper than six inches, a tract is over-watered.

McSloy said that tees are more apt to become compacted than any other course area. To keep them in reasonably good shape, he recommended that they be aerified at least once a year and probed every week. Rainfall usually is adequate to take care of fairway irrigation except in the warm months when wilt threatens. Localized dry spots, however, should be treated the same as tees. In summary, the Wilmington greenmaster said a constant study of root health should be made because it is "what's down under that counts."

Star of the Program?

When Camargo's automatic irrigation



Surrounded by charming women at a GCSA luncheon are Earl F. Yesberger (seated) and Bill Fannin. The ladies (from left) are: Mrs. William Fannin, Mrs. Ralph Locher, wife of Cleveland's mayor, Mrs. Walter Ward, Mrs. Yesberger and Mrs. Charles Winch.



Here is a happy band of relaxed greenmasters at the Hospitality Hour, held on Feb. 7 . . .



. . . and this group of golf writers seems to be taking all things in stride at the GCSA press luncheon.

system was put in a little more than a year ago, Don Wright, supt. of the Cincinnati club, took approximately 1,500 photos of the installation. He is donating 150 of these to the GCSA library. The 25 or so slides that Wright showed on the education program were exceptional examples of photographic art. In addition, Wright is an accomplished enough speaker to give travelog appeal to a workaday project such as an irrigation installation.

\$10,000 Saved

He estimated that his club saved more than \$10,000 in a year's time in labor and water in switching from manual to automatic irrigation. More than five miles of pipe, 50 miles of wire and 400 sprinkler heads went into the Camargo system. There is an 80-foot separation between heads, which run exactly down the center of the 33-yard wide fairways at Wright's club. Five pop-up heads, uniformly spaced, cover each green.

Wright supervised the irrigation construction project, but he entrusted the electrical installation to the best engineer he could hire. He advised supts. who are planning going over to automatic systems to do likewise, pointing out that this amounts to long range economy. Camargo's water system operates off two booster pumps and is controlled through a 12-switch panel.

Appearing along with Wright on the automatic irrigation panel were Walter Boysen, who described Western irrigation methods, and Tom Topp, who started out to tell how watering is carried on in the East, but got wrapped up in a humorous but woeful tale of an outside contractor who wasn't able to find Topp's Bellevue course for six months. "Maybe the poor guy did get lost," Tom remarked. "We're pretty far out in the country."

Sold on Automatic

At Sequoyah CC, Boysen applies from $\frac{3}{4}$ to 2-inches of water a week, operating his system daily for as much as 12 hours. He advised against installing more than from three to five heads on a single control valve, and suggested that each side-hill outlet should be hooked up to its own separate valve. Poor results are obtained in installing automatic systems,



Kansas City delegation used heart to remind GCSA members they'd be in KC on Valentine's Day in 1966.

Boysen said, if care isn't taken in the vertical placement of heads, keeping them below the ground surface to avoid damage. Good drainage also should be insured in the immediate areas surrounding sprinklers.

Of special interest to the audience were Boysen's remarks on using the irrigation system to apply fertilizer. He advised against it, saying that it is only about 60 per cent efficient. In many instances, fertilizer is stacked up in one spot while another may not be touched.

The Sequoyah greenmaster concluded his remarks by saying, "You'll never go back to manual watering after you have installed an automatic system. You may be discouraged at first with the new system, but allow for an 18-month breaking-in period and your troubles will be behind you."

Get A Firm Contract

When Tom Topp finally got his automatic system installed, he was well pleased with the way it operated. Money was saved on both water and labor, and it was only necessary to set the controls every two weeks and let the system carry on thereafter. Bellevue's system is geared to give a $\frac{1}{2}$ inch per hour precipitation rate and operates 40-night hours each week.

In preparing to make an installation, Topp said that several things should be

taken into consideration. Course topography should be carefully plotted so that natural obstacles can be avoided or minimized. The entire irrigation route should be staked out in advance to speed up the building of the system once it is undertaken. Every effort should be made to avoid widespread damage to turf. There should be as much pipe prefabrication as possible and great care should be taken to select the proper sprinkler heads. Finally, and Topp emphasized this with some irony, if the installation work is to be contracted, the club and supt. should insist on an iron-clad agreement with the outside company.

And, speaking of irony, when the contractor finally located the Bellevue course and brought his equipment in, the ditching machine dug up no more than ten feet of turf when it broke down.

No Watering Formula

The final speaker on the irrigation program was Ralph Engel, an 18-year veteran of the Rutgers University agronomy staff and one of the most knowledgeable turfmen in the country. He spoke on watering as it is related to soil, climate and management.

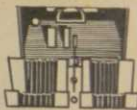
Engel emphasized that watering isn't done by the book or formula. There are so many variations in the moisture needs of turf, roots and soil that the watering process has to be continually studied. Its keynote should always be flexibility of application. In the final analysis, Engel said, watering comes down to the need for preserving life, and for providing a coolant when temperatures are extremely high. If a supt. grasps these two essentials, he is well on his way to understanding the whole purpose of watering.

Besides flexibility, the Rutgers professor listed several other things that should be kept in mind when a system is installed and actual application of water is undertaken. These are: A need for uniformity in distribution; the ability to slow down the application rate and even cut back on the size of droplets, if necessary; protection against uneven runoff; the application of correct quantities at all times; and ability to coordinate the watering system with rainfall. (Turn to page 112)

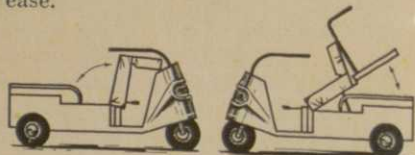
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GCSA CONVENTION

(Continued from page 86)

Fifth Session

Education Discussed by Young Supts.

The Thursday afternoon program saw three of the younger supts., **Frank Dobie** of the Sharon Club, Cleveland, **Tom Burrows** of Glencoe (Ill.) GC, and **Richard C. Blake** of Mt. Pleasant CC, Boylston, Mass., speaking on the transition from classroom to actually working on and supervising the maintenance of a course. They were introduced by **Charles G. Wilson**, sales manager and chief agronomist for the Milwaukee Sewerage Commission.

Wilson also was the moderator of a "Quiz the Experts" panel. The panel was composed of these supts.: **Carl Bretzlaff**, Meridian Hills, Indianapolis; **Colin Smith**, Shaker Heights, Cleveland; **James E.**

Thomas, Army-Navy Club, Arlington, Va.; and **Leonard Strong**, retired, Saucon Valley, Bethlehem, Pa.; and the following agronomists: **James R. Watson**, Toro Manufacturing Co.; **Bill Bengeyfield**, USGA green section; and **O. J. Noer** and **Fred V. Grau**, both of whom are now serving as turf consultants.

Gets A Second Education

Frank Dobie said that a young fellow just out of school gets something of a jolt when he leaves the cloistered life and starts running headlong into obstacles such as restrictive budgets, demanding members and personnel problems he never realized existed. If the schools have failings, Dobie stated, it is in not sufficiently emphasizing these facts of life. He conceded, however, that turf schools have to be like other institutions of learning in that they can only teach the technical aspects of a profession, and must leave the practical solutions to the education a man gets after he takes a job.

One of the big advantages the young man out of turf school has, Dobie said,

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is that he usually can find an older supt. to whom he can turn when he runs into situations that are just a little beyond his scope. However, he shouldn't make the mistake of thinking that the experienced man can or is willing to carry him forever. He should look upon this assistance as being no more than a fill-in until he learns to find the answers himself.

It All Fits In

Addressing his remarks to the young turf students in the audience, Tom Burrows said that several subjects that are offered in agronomy schools don't seem to make much sense while they are being studied, but a student eventually learns that they fit into the big pattern. "Turf management curriculums are well designed," Burrows stated, "because educators are practical and wise enough to seek the advice of men in the field in setting them up. A course isn't thrown at you just to round out your schedule. Everything you are taught is important, as you ultimately discover."

After leaving school, Burrows said, a young supt. should think of setting up

some kind of a continuing education program for himself. This consists of keeping abreast of the newest developments in turf management, reading books and technical articles and attending monthly meetings of his local GCSA group. "Above all," Tom concluded, "learn to play golf. There is nothing more ridiculous for a person who is around a golf course at least 325 days a year than not to know something about the mechanics and strategy of the game. It is impossible for him to be a well rounded supt. without this knowledge."

Goes Beyond Technical Knowledge

Dick Blake, who received his turf education at the U. of Massachusetts and Rutgers, after serving with the Marines during the Korean war, said that mere technical knowledge is no longer adequate in course maintenance work. He pointed out that studies have shown that a supervisor spends one-third of his time communicating with people who work under or around him. So, that calls for the supt's devoting a good amount of time to developing the knack of reasoning logically, and then being able to express himself

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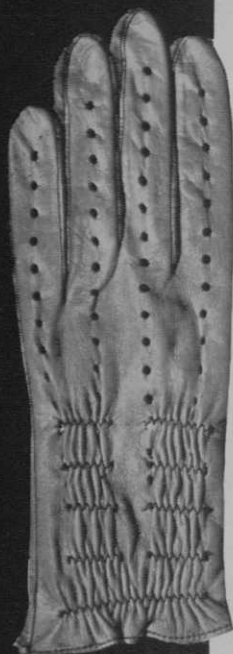
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so that the people with whom he deals understand him.

The Boyleston greenmaster also said that record keeping has taken an increasing amount of his time year after year, and that his club expects him to be completely aware of the cost and performance of the supplies and equipment he uses in maintaining his course so that he knows his way around when it comes to purchasing. "A young fellow who feels that mere knowledge of turf is enough to take care of him in our business," Blake said in conclusion, "is in for a rude awakening. He is going to find that there are hundreds of things with which he has to be familiar if he is going to run such a big operation as a golf course."

Gets GCSA Scholarship

Following Blake's speech, Albert B. Frank, a student at Ohio State University, was presented a scholarship certificate by Charlie Wilson, on the behalf of the national GCSA. Frank, who will get his degree this spring in plant physiology has compiled an outstanding record as an

undergraduate student. He plans to do research work in thatch control upon entering graduate school.

What the Panelists Said

Here are some of the panelists' answers to questions asked of them by the audience:

Jim Watson — Golfers have little conception of the enormous damage that can be done to grass if a course is opened too early in the spring. Compaction, too, can be severe if the ground is too wet.

Carl Bretzlaff — If water is visible and the grass looks spongy, greens simply aren't ready for play in the spring. If members insist on it, the supt. should request an additional budget appropriation to repair the damage that will be caused.

O. J. Noer — Automatic sprinkling systems are fine for greens provided valves can be regulated for hand watering.

Leonard Strong — Depressions and knolls are factors that have to be considered when automatic installations are made.



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Bill Bengueyfield — The best selling point for an automatic system is that it gives ten minutes when you want ten minutes. You can't regulate a night watering man. He may give you 40 minutes when you want only ten.

Colin Smith — I know of several cases where architects have condemned properties as possible course sites. But sometimes the owner is determined to build a course, regardless of the adverse recommendation.

Watson — If bentgrass is strong enough, it can withstand pre-emergence chemical applications. But, in effect, it's a race against time. Bent probably should be at least a year old before it is treated with pre-emergence products.

Fred Grau — No research man is yet willing to say that 18 fairways will escape unscathed when pre-emergence chemicals are used. Some are bound to show some injury, undoubtedly because the turf on them isn't hardy enough to withstand treatment.

Charlie Wilson — There may be a future for bluegrass and fescue fairways, but only where the supt. knows how to water them. Bluegrass may hold up all right, but I'm dubious about the fescue.

Noer — To convert to bent fairways in the Northeast, the pH level should be close to 6.5. Lime may be applied to bring it up. We seem to be going overboard on soil tests. Many supts. are getting their courses aerated by the soil testers. As I see it, soil tests should be developed for all elements and not just a few.

Watson — Dew is a fungi source and should be washed off. (This was in reply to a supt. who said that he read in a USDA Yearbook that dew delays the onset of transpiration, and should be allowed to burn off.)

Grau — Fertilizer tests made in non-irrigated soil may not be foolproof. There has to be enough water to activate microorganisms or all fertilizers won't show optimum release performance.

Noer — Regardless of what test charts show, the function of fertilizer is to grow grass. What may be overlooked in these tests is that different fertilizers don't react uniformly in all types of soil.

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Sixth Session

Trees, Electrons and Work Saving Ideas

Tom Leonard, still taking bows for his performance in the Tuesday matinee, conducted the final education program. He introduced the following speakers: **Geoffrey S. Cornish**, the Fiddler's Green architect, who spoke on course design; **Roger J. Thomas**, Jacobsen Manufacturing Co. sales manager, whose topic was "Work Smarter — It's Easier;" **C. Richard Skogley**, associate professor of agronomy at the U. of Rhode Island, who discussed winter play; **Arthur C. Drysdale**, horticulturist for Sheridan Nurseries, Toronto, Ont., who gave a fine speech on tree selection; and **Edward C. Nohava**, supt. at Southview CC, West St. Paul, Minn., who told the greenmasters how to make their job easier by putting electronics to work. **John J. Spodnik**, supt. at Westfield CC, LeRoy, O. and conference co-chairman, summarized the education program.

Tees Being Overbuilt

After giving a brief and interesting summary of early course architecture, in which nature was given pretty much of a free hand and did a commendable job, Geoffrey Cornish described some of the things he thinks should be incorporated in or left out in the design of a golf layout. He has some reservations about the size of present day tees, some of which encompass more than 6,000 square feet. "The back tee areas are seldom used," said Cornish, "even in tournaments. There often is a waste of space here. In most present day building jobs, we are usually struggling to find enough room in which to fit a course, yet many of us have a weakness for overextended tees. I'd rather see part of this space put into traps and greens."

Of tree planting, vitally important in the strategic concept of a golf layout, Cornish had this to say: "It is always function first, and form second. Trees should be used as fairway cutoffs, not barriers. Greens should be surrounded by trees to give the player proper depth

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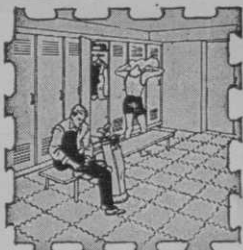
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perception. Trees, however, should be set back at least 65 feet from greens, or maintenance problems are going to be encountered. There probably is a tendency to overplant trees on new courses to fill in that early, barren look."

Other Cornish observations: Slopes around lakes should be at least one to six feet to permit easy mowing of the surrounding turf; Flare out car path terminals in a bell shape to give more exit area — it's easier on the surrounding grass; Study

the old Scot traps if you're going to build bunkers. Nature shaped the sand pits on the highland and lowland layouts and was at its architectural best in handling these assignments.

Cut Down on Trimming

Roger Thomas, the onetime Jacobsen troubleshooter who has graduated to a sales manager position with that firm, emphasized that trimming, much of which is done by hand, is the unseen embezzler that dips into the budget appropriation and often manages to bankrupt it.

How is it possible to cut back on the funds that this largely unnecessary operation steals off with each year? Primarily by bringing the ground level flush to such as sidewalks and roadways, and by not allowing turf to grow in places where it is out of bounds. Here are some recommendations that Thomas made:

Set out shrubs from buildings and put them in large beds so that it is easy to trim around them; Blacktop under fences and around posts so that vegetation doesn't encroach in these areas; Spray retaining walls to keep weeds out; Get rid of fruit trees, if possible — they attract vandals and dirty up the course at harvest time; Don't use logs as parking lot stops because they are dirt catchers.

Thomas also made another suggestion that the supt. undoubtedly will have to explain to his members so that they won't think the blood that flows to his brain has been shut off: "After floodwater has receded, turn on the sprinklers. The reason: It unclogs the irrigation system."

Against Winter Play

Dick Skogley, who teaches turf man-

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agement at Rhode Island University, repeated some of the things that had been said earlier about winter and early spring play, but he added this thought: In most cases when golfers want to rush the season, alternate freezing and thawing is going on. Necessary soil granulation is taking place then and if it is disrupted, serious compaction problems that may persist through the season, can be induced.

Turf, Skogley continued, is particularly vulnerable when it is coming out of the dormant stage. Grass blades are more easily bruised at this time than any other. Turf attrition can be extensive in the transition period between winter and spring because the grass is struggling at this moment for a firm foothold, and it needs this traffic-free interval in which to become solidly re-established. Probably most important, it shouldn't be forgotten that the turf has undergone some degree of winter damage and it needs a warming period in which to recuperate without being subjected to heavy traffic.

Use Wider Variety

Arthur C. Drysdale, the Canadian horticulturist, used slides almost exclusively in describing the panoply of firs and pines and deciduous trees that are available for golf course planting. He noted in passing that supts. and others connected with club tree planting programs generally don't use too much imagination in their selec-

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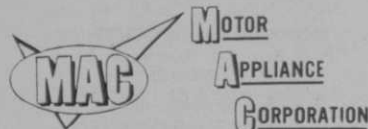
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Hold Public Course Seminar at GCSA Convention

A public course seminar, conducted by Rex McMorris, executive director of the National Golf Foundation, was held in conjunction with the GCSA convention.

Speakers included Joe Duich of Pennsylvania State University, William Gallagan, Glen Ellyn, Ill., village administrator, Herb Davis, Omaha, Neb., golf course owner, R. E. Watson, Benjamin Lewis Co., Chicago, and Bill Lyons, owner of a course in Canal Fulton, O.

An article covering the seminar will appear in the April issue of *Golfdom*.

tions, mainly because they restrict themselves to too few varieties.

From the evergreen family, Drysdale recommended these species: Silver fir in preference to blue spruce; common cedar for hedges; junipers for the clubhouse area; Norway and Serbian spruce; Austrian and Ponderosa pine; and possibly the Don redwood, a deciduous evergreen originally imported from China, which is fast growing but nevertheless hardy.

Drysdale suggested that supts. might be better off to avoid planting these species: White pines, which must be frequently pruned for relatively luxurious growth; Hemlocks in areas north of the Great Lakes; and Douglas fir, fairly susceptible to disease.

Deciduous Tree List

As for deciduous varieties, Drysdale offered a rather bewildering number. He classified them as to species that should be planted on the course, and those that probably should be confined to the clubhouse area. His list of recommended course trees include: Norway maple, of which there are several varieties; Crimson King; Sugar maple, for its beautiful fall coloring; Birch; Purple beech; Gingho, Shademaster and Sunburst locusts, both new species; Pyramidal oak; Laurel and Linden. Not recommended: Silver maple; Horse Chestnut; Sycamore and Weeping Willow.

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the clubhouse grounds, include: Amaranches, which flowers for a short time and is quite disease resistant; Yellow wood, which gives heavy shade; Hawthorn; Russian Olive; Flowering crab; and Weeping mulberry, a vinelike shrub.

Slave to the Electron

The final speaker on the four-day program was Ed Nohava, who was educated to be a radio and TV technician, but succumbed to the lure of turf after moonlighting for a year on a golf course. Appropriately, Ed's thesis was that a supt. is a slave to the electron.

"You can't get through the day," said Nohava, "without depending on that infinitesimal particle of negative electricity to do at least a dozen jobs for you. At the course it works for me in the burglar alarm system, two-way radio, intercom, public address system and even in a Bullhorn. I have a moisture sensor and use an electronic pH meter. Underground pipes are located with a mine detector and out in the garage we have an electronic ignition analyzer and several other gadgets that are electronically activated.

"After work, I use an electronic lure when I go fishing," Nohava continued, "but they almost ruled me off the job when I told them I had an idea for developing an electronic putter. One of these winters I plan to wear electronic underwear that I have had in mind to design for a long time. I'm so completely addicted to the electron that I might as well start wearing it next to my skin."

Mrs. Vare Gets Jones Award

Mrs. Edwin Vare, Jr., Bryn Mawr, Pa., the former Glenna Collett, was named the 1965 winner of the USGA's Bob Jones award. She received the citation at the USGA's annual meeting in New York from Philip H. Strubing, chairman of the Jones award committee. Mrs. Vare won six Women's Amateur championships and twice was the runnerup.

Chicago Lighting Institute, 140 S. Dearborn st., Chicago, will conduct a golf course lighting clinic in its offices on Apr. 12 from 1:30 to 4 p.m. The registration fee is \$3.50.