and we have a wire screening at the end to stop the long boys. We also built a green about 150 yds. out which is flashed up with a couple of traps. It is only for a target and not for putting but it is much better than just having a sign. We also have large sign markers for 100, 150, 175, and 200 yds. The players do want to know the yardage from middle for practice tee to the marker.

"We were bothered quite a bit by players who want to hit a half a dozen balls before teeing off. The human tendency is to act a little bit like an old-time cop around a fruit stand. We got around that by having a "Warm Up Box" of 12 practice balls for 25¢. No more free samples!

"Our driving range is close to 20 years old and it is profitable for the pro. The exact figures I do not know as he works it as a partnership with the man who runs it for him. They have some sort of a deal on lost balls, new balls, etc.

"We do not run it at night. We feel that business is for the driving ranges in the neighborhood. Ours is open from 8:30 in the morning till 7 at night. I doubt seriously if it could be operated at a profit at night; at least the professional doesn't want it. The regular man couldn't put in the hours and another man would not pay. Like all clubs, we have a few members who would like to stay until 1 in the morning."

Give Officials Summary of Turf Meeting Ideas

BY GEORGE L. LANPHEAR Supt., Riviera Country Club, Los Angeles, Calif. THERE HAVE BEEN TIMES when by apparent official reluctance to O.K. what the supts. know are good for the courses. Such cases certainly don't mean

that the officials are any less eager than the supts. to have the courses in fine condition. What the instances often do mean, I believe, is that the supts. haven't clearly explained the ideas to their officials.

Part of our job is to keep our officials acquainted with the new ideas that we pick up in our frequent association with other supts. and from speakers at golfturf conferences.

Last year my club sent me across the country to the GCSA convention at Miami. I, like the rest of you responsible for course maintenance, wanted to make this investment of club money and my time show as big returns as any other money that possibly could be spent on our course.

Report On GCSA Trip

So, just as you, I kept looking for what I could make pay returns at our course. And when I got back I reported in writing to our club. Maybe you'll get some ideas from my report which follows:

"The knowledge and experience I gathered are divided into three categories:

- 1. Educational lectures and discussions,
- Equipment show of all up to date golf course maintenance materials, and
- 3. Personal observation of Golf Courses visited throughout the Miami territory.

"The three day educational lectures covered a number of subjects: varying from improving the personal characteristics of the supt. the improved course from the player's standpoint, to the most exacting job of turf methods and techniques.

"I am convinced that I accomplished many things during the week and I am positive I have not only improved my own knowledge, but have gained valuable information that will benefit Riviera financially and no doubt give our club a higher rating in the golf club maintenance field.

"The subjects that seemed most valuable to me were on better turf management. This was presented by three outstanding golf course superintendents of America, and many fine and enlightening subjects were discussed.

"In the discussion of tees, I have found that by altering my seed mixture for tees, especially those shaded by trees such as we have at Riviera, I will be able to keep better turf without adding any additional cost to maintenance.

"On the subject of greens I have been convinced that my present program is on solid ground, but have found a few helpful hints that I hope will improve the surface of our Seaside bent turf. Seaside, a creeping bent, has been the characteristics of developing a thatch condition and we, for many years, worked our greens by brushing, combing, and topdressing and have been able to control this situation. A new machine has been developed to help control this thatch called the Verti-Cut, working on the principle of renovation only not nearly as severe as other treatments.

"When Beryl Taylor, Supt. of Iowa State College GC, explained his method of topdressing and the reason for his procedures, I believe I established in my mind some methods that will give me better results from my topdressing program. He said that topdressing must come in contact with the soil, if it does not, we form a pocket that causes a decaying condition which is more harmful than good. Thus I have found a reason why the topdressing must be worked into the grass until it actually contacts the other soils. By working this soil down we also improve the immediate playing condition of the greens, which has been the cause of complaints in the past by our members.

"The subject of 'Water, Weeds and Waste' by Dr. James R. Watson, was very interesting to us here in Southern Calif.

"We realize that by light, frequent watering we create a shallow root system in our turf; one that is easily damaged by traffic and bad weather conditions. Thin turf, therefore, crabgrass, poa annua, and other weeds have a chance to become established and crowd out the existing desirable grasses.

"By infrequent watering and deep penetration we develop a strong root system, one that can resist the increase of undesirable plants. By checking our sprinklers for the amount of water they distribute per hour we can determine the amount of time it takes a given sprinkler to deposit an inch of water on the area that it covers. In Southern California during the summer months with soil conditions similar to Riviera, turf should have an inch of water... which will penetrate approximately one foot per week to develop the desirable turf for golfing on fairways.

"Greens and tees must be watered on a different program to reach the results we desire. I prefer to water my tees and greens fairly heavily one night a week preferably on Sunday night. Play is usually light on Monday. By this heavy watering we encourage a deep root system and by capillary action help to leach away undersirable salts that accumulate in the top few inches of the soil.

"Equipment show and maintenance materials. — We were able to witness and discuss every type of turf maintenance equipment with the owner and manufacturer personally.

"After a thorough discussion with these companies I feel confident that as long as I have been at Riviera, I have recommended the purchase of equipment that is the best that money can buy regardless of type or cost. By close compari-

HAIL THE HALLS



On the right is D. Lester Hall, noted for his job of selecting and developing U-3 Bermuda. Hall's job with this strain of Bermuda has resulted in supply of highly satisfactory tee grass in northern section of Bermudagrass belt.

At the right is Lester's son Dan, supt. at Peachtree, Atlanta, and a great credit to his father's cheerful, practical training.

Fred Grau took this picture at the Southern turfgrass conference.

son between many types of equipment I am satisfied we have made very few mistakes in our purchases of equipment.

"Personal observation of Miami golf courses: — I had the opportunity of visiting the following clubs: La Gorce, Miami Shores, Indian Creek, Plantation, Riviera of Miami, and Miami CC with Mr. Lawrence, prominent golf architect of Florida and Dr. Hallowell, of Pennsylvania State College.

"Some of their architectural characteristics have advantages over those used here in California, and some of ours seem to be better than what they have.

"Due to their heavy rainfall, (72 in. of rain in 1953), I believe they have better drainage design than we do. All of the greens that I saw on the 7 courses I visited seemed to stress surface drainage in at least 2 directions, with as small an amount of water as possible being deposited on the front of the green. Their soil has very fine drainage qualities, but the surface drainage is what impressed me most.

"Their Bermuda grasses are far superior to any of ours, and I believe the turf on the fairways and tees was superior to what we have.

"I still believe our bent greens on the whole are somewhat better than the Gene Tift and Tifton 57 Bermudas of Florida. The bents of California are of a much



FOUR GREEN, 3080 YARD COURSE, HAS NINE GOOD HOLES

On small acreage on the estate of a Chicago businessman this 9 hole course was designed and built by architect C. D. Wagstaff.

The course, well and economically maintained, has been the site of many a merry golf party for the beloved host and his pals.

finer texture and seem to be a little more dense. Our greatest problem is to whip the grain that develops in our Seaside bents.

"Although the turf on the tees of Florida is superior to ours, I believe our architectural design of tees is far more practical for better turf management.

"The greatest lesson I learned on these golf course tours was the neatness and cleanliness of all the golf courses. Possibly some of us superintendents of Southern California are neglectful of these small items and the golfers of Southern California are also much more careless and thoughtless of the upkeep of their respective courses."

Renovate City's Bermuda Greens with Sweeper

Glen Byrd, supt., Miami Shores (Fla.) CC, comes up with a novel idea for renovating bermuda grass greens to prevent matting and graining.

Byrd says:

"I would like to submit something that we, here at Miami Shores, feel is a revolutionary and economical method of maintaining our greens.

"The application of this idea is primarily adapted for usage on southern municipal courses where bermuda grass is found on the greens, and where it is possible to borrow certain pieces of equipment assigned to departments other than the golf course.

"As you know the aeration of greens is a necessary operation periodically to prevent matting and graining of the greens. What we do here at Miami Shores Country Club is to borrow from our Department of Streets a trailer type street sweeper and brush up the greens so that our power mowers may cut as closely to the root as possible. We then aerate and top-dress each green. The use of the sweeper permits us to maintain our 18 greens in this manner, over a period of two days, eliminating the necessity for closing down at least nine holes for a period of a week or two as was the practice when day labor was necessary to brush and cut the greens.

"In opposition to what one might think, the sweeper does no harm whatsoever to the greens even though it is a bulky piece of equipment."