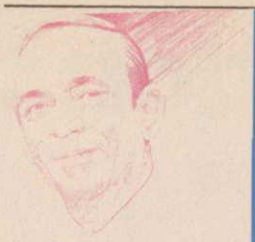

BOB RICKEY

INSIDE THE INDUSTRY

Golf's insiders have watched with unusual empathy the traumatic experiences that several golf ball manufacturers have undergone in the past year or so. Except for tee-off and the final putt on the 18th green, both likely checkpoints, these companies' well-known, well-publicized staffs of professional golfers have refused to use their respective company's product. Two of the companies, both major brand names, have told their wayward players to use their golf balls at all times. Their demand for compliance is based on the old-fashioned rule that says, if one is paid by a company, one owes that company loyalty, including using and endorsing that company's products exclusively.

In both cases, the companies have been patiently trying to convince the holdouts that their respective balls perform as well as any. One even modified the construction of its ball to meet the player's demands and conducted testing sessions, pitting their product against the competition's and proving both equal. Neither action could dent the player's armor of belief that determines confidence in equipment. Such an impasse usually leads to the ultimatum, "Play it or else."

In an industry as competitive as golf, you normally do not feel sympathy for a competitor with problems; rather, you try to take advantage of the situation to increase your share of the market. The only exception is that I have shared the experience and I will never forget it, although the perspective of many years has dulled its edge.

MacGregor's Tourney golf ball, prior to World War II, had been made for them by the Worthington Ball Company. The product was a fine one and was very acceptable to the MacGregor professional staff, which included Ben Hogan, Byron Nelson and Jimmy Demaret, who completely dominated tournament golf at that time.

Forseeing the post war sales explosion in golf, MacGregor's management decided the company would be missing a major opportunity if it did not make its own golf ball. So, a ball manufacturing plant was established. After several trying years of learning how to make this strange new product, during which time the company looked the other way if the staff used competing balls, MacGregor felt it had a product the staff could use with confidence. The staff was encouraged to use the ball exclusively. As time went on, they all complied, with one exception: Ben Hogan, who at that time was the finest player in golf.

After repeated appeals had failed, it was decided to ask Hogan to stop by the Cincinnati headquarters for several days to participate in a series of tests which management felt certain would convince him that the Tourney was equal to or better than all others. Ben agreed to stop enroute to the U.S. Open.

Every known test was performed both in the laboratory and in actual play. The final and most dramatic test was having Hogan witness an automatic driving machine that hit every make of ball hundreds of times, proving that the MacGregor ball would go as far and perform as consistently as any other ball when hit by a machine.

The president of MacGregor held a several-hour session to review in detail all of the tests Hogan had seen, ending the marathon pitch with the results of the driving machine test. Finally, he asked Hogan, who throughout the three days had hardly uttered more than a grunt, for his opinion. "I think," said Hogan, "you ought to enter the machine in the U.S. Open next week."

The sequel to the story was that a short time later, Hogan, with the help of a handful of Texas millionaires, founded his own company.

Because the incident happened a

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DR. FRED V. GRAU

ANSWERS TO TURF QUESTIONS

HE GAVE HIS ALL

On Monday evening, March 4, a telephone call from Al Radko told me of the passing of Fred H. Williams.

He was a quiet man, small in stature, but terribly intense and efficient. Few people in turf today would be able to place him, yet his work affected golf and turf around the world. He was dearly beloved by those with whom he closely worked.

In July, 1931, when I joined the United States Golf Assn. Green Section, Fred Williams was there in the office in the temporary war buildings keeping the books, filing and doing flawless typing for Dr. John Monteith, who headed the section. Fred did a great deal of work for me while I edited copy and wrote articles for the USGA Green Section Bulletin. I had never known anyone who could type as fast and as error-free. Nor has there been anyone like him since then.

It wasn't until August, 1945, that Fred and I met again. The USGA had asked me to become director of the Green Section. For sheer secretarial proficiency, the next eight years were a delight. After a long trip I would dictate my reports to him. Scorning the stenographer's notebook, he took dictation directly on the typewriter.

I had a good staff at Beltsville—Ferguson, Radko and Wilson—and he took care of everyone. When old records or pictures were needed, Fred knew where to find them.

It was a pleasure to arrange a good salary increase for him. But did the extra money do anything for him personally? No. He saw to it that the kids in his neighborhood had balls, bats, gloves and other sports equipment. In his spare time, he coached sandlot teams and basketball. His energy seemed endless.

Fred H. Williams gave of himself to the extent that, at the end, he had given his all. On a bus ride downtown to cash a check, his heart gave out, and he went to his reward. What an example he had set for the rest of us. Loyal and unselfish, he found joy in giving. He gave love to the ultimate degree: he gave himself to help others.

Q–*What are the reasons for the high prices of turfgrass seed? The prices we have to pay are ridiculous. Can you give us some explanation?*
(New Jersey)

A—There are several reasons for high seed prices and, to some extent, they are interdependent and interlocking. Problems to be overcome in seed fields in the Pacific Northwest include: 1) blind seed nematode; 2) ergot; 3) grass seed nematode; 4) silvertop (a mite), and 5) many kinds of weeds. If these are not controlled, the yields of seed drop to an unprofitable level and quality is poor. For years, open field burning has been the answer to most of these problems. Now, the growers are forced to halt burning and find other means of getting rid of the straw and controlling pests. Production costs go up. In addition to production problems, there is the world situation. With wheat prices high, it is more profitable to grow wheat than grass seed—and a lot less trouble and expense. Foreign production of turf and forage seeds dropped because of droughts, tornadoes and other natural causes. United States produced seeds were bought heavily overseas and the dollar devaluation helped. Don't look for any dramatic relief in the near future. Prices will stay high as long as grain needs compete in world markets for turf seeds.

Q–*We've heard about activated charcoal being used in planting grass seed. How does it work and is it applicable to turfgrass plantings?* *(Minnesota)*

A—The principal use of activated charcoal is not in turfgrass (sod) establishment, but in the planting of grass seed for seed production. The special planter plants the seed in a row with a thin narrow band of finely-pulverized activated charcoal directly over the seed. Then the entire field is sprayed with a pre-emergence herbicide for weed control. The charcoal deactivates the chemical herbicide so that the grass seed can come up without injury and with only a minor weed population, which can be easily and quickly rogued. The rest of the field is free of weeds, thus ensuring a high-quality crop.

Q–*We seem to be having more and more trouble with our fairway turf. Is there any possibility that some of the turf diseases could be introduced in the seed we plant? Are soil-borne diseases important?* *(Michigan)*

A—There is strong evidence that some turf diseases are introduced with seed. We've known for a long time that the soil is loaded with organisms, some harmful, some beneficial (penicillin). I'd suggest that you discuss this with your state experiment station pathologist, who is a much better authority than I.

Q–*Our climate is sub-tropical with fairly high humidity and good summer rainfall. Our winters are comparatively frost free. We seek advice concerning the most suitable grass(es) for our club. One suggestion has been Tifdwarf. We welcome advice on other grasses that might be suitable. Also, do you know of any publication that might be of assistance in our project?*
(Brisbane, Australia)

A—Our state-side publications on turf would most likely be of marginal value to you. You may find that com-

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GRAU *from page 13*

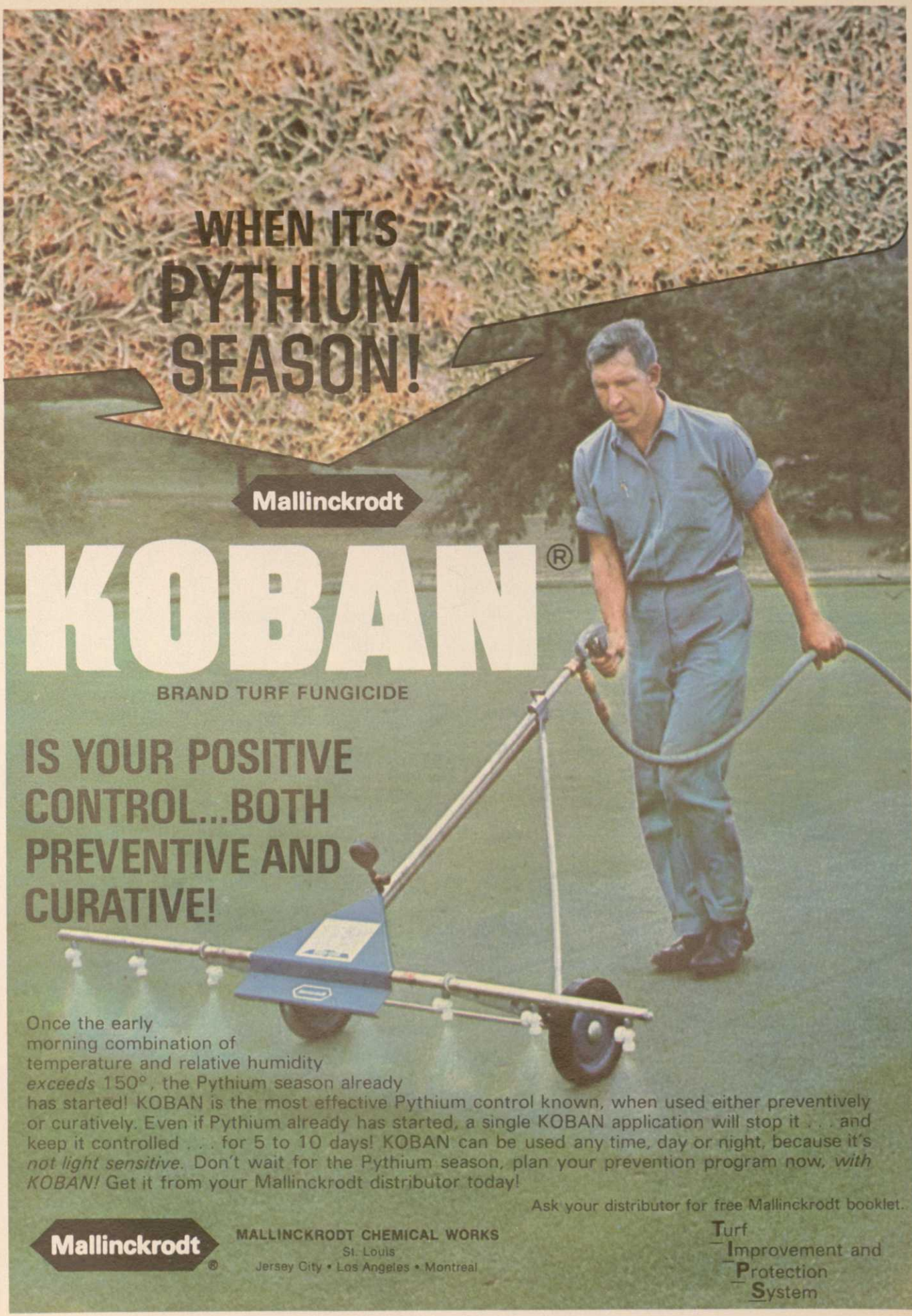
munication with Hugh Whiting of International Turf, Inc., of Indio, Calif., could be of considerable value. He used to be golf course manager at the Royal Canberra Club in Australia. Few men have the chance to know grasses in both countries. I have learned that the Tifdwarf, which showed great promise in Hawaii, has begun to lose favor. To date we have not learned the reasons. I have learned from Whiting that some of your native grasses show great promise and I would advise a thorough investigation of these resources before you attempt to import United States grasses, which could be a difficult and expensive process at best. Your request shall be kept in mind for future reference.

Q–*"Is there anyone who makes good use of the trees that obstruct the building of fairways, tees and greens?" This question was quoted to me in a letter, referring to my earlier editoral deploring the wasteful, ruthless "burn and bury" technique used when trees are cleared for golf course construction. (Ohio)*

A—"Yes, the Hamilton County Park District does." This from Mart Kavanaugh, head professional at Miami Whitewater Forest GC, 8801 Mt. Hope Road, Harrison, Ohio 45030. Kavanaugh goes on to say, "The park district motto is "to enhance the quality of the environment, to preserve the natural resources of the district and provide leisure time opportunities in the out-of-doors for the present and future generations.

"I must say that the park district fully lives up to this motto. Just in golf course construction alone I think you will be happy to know that the district has never in its over 30 years of existence purposefully buried any useful tree. For years, useful timber, which must and only must be removed, has been cut for firewood and sold for various prices over the years. The current price is $45 per dump truckload, delivered. The park district truly protects the natural resources. In the construction of golf courses, the natural terrain, land and trees are retained as naturally as possible."

We at GOLFDOM say "thank you," Mr. Kavanaugh, for adhering to your policy and for telling us about your conservation practices. □



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DR. JAMES B. BEARD

TURFGRASS RESEARCH REVIEW

TAILOR CONTROLS TO SPECIFIC FAIRY RING FUNGUS

***Influence of the nitrogen fertility level on* Tricholoma *fairy ring development in Merion Kentucky bluegrass* (Poa pratensis *L.*).** *J. B. Beard, J. M. Vargas Jr. and P. E. Rieke. 1973. Agronomy Journal. 65:994-995. (from the Department of Crop and Soil Sciences, Michigan State University, East Lansing, Mich. 48824).*

This paper reported the influence of nitrogen fertilization rates on the incidence of *Tricholoma* fairy ring. The experiments were conducted on a mature, high quality Merion Kentucky bluegrass turf that had been established in May of 1962. The area was mowed twice weekly at 1.2 inches with clippings returned. Irrigation was applied as needed to prevent wilt. In September of 1962 and 1963, 2, 4-D was applied for broadleaf weed control. No other herbicide or fungicide applications were made. Chlordane applications were made in the spring of 1963 and 1966. Soil on the experimental site was a sandy loam having a pH of 7.1. The soil phosphorus and potassium levels at the time of establishment were medium and high, respectively.

Differential nitrogen fertility levels were established in the spring of 1967. They were 0, 4, 8, 12 and 16 pounds of nitrogen per 1,000 square feet per year. Each of the nitrogen treatments were split into four equal applications made on May 10, June 20, August 1 and September 10 of each year. The plot size was three by 30 feet in a randomized block design of three replications.

Differential concentrations of fairy ring first started to appear in the fall of 1968, 1.5 years after initiation of the nitrogen treatments. There were no fairy rings visually evident on the plots prior to this period. Plots receiving zero and four pounds of nitrogen per 1,000 square feet per year had no fairy rings. An average of three fairy rings per plot occurred on those receiving eight pounds of nitrogen, whereas five and six rings per plot occurred at the 12 and 16 pound nitrogen rates, respectively.

The fungal organism causing these fairy rings was identified as *Tricholoma sordidum* Fr. The rings varied from 10 to 18 inches in diameter in the fall of 1968 and expanded to between 18 and 30 inches in diameter during the 1969 growing season. Characteristics associated with the rings included (a) an inner zone of stimulated grass with the shoots being darker green and taller than the adjacent unaffected area; (b) a middle zone of stunted grass plants, and (c) an outer zone of stimulated shoot growth. There were some brown mushrooms associated with the rings. They were generally located in the inner zone of stimulation. Followup field surveys revealed that *Tricholoma sordidum* is one of the most common fairy ring producing organisms occurring in Michigan turfs, including golf courses.

Soil pH determinations made on plots receiving various nitrogen treatments indicated that this is not a key factor in the initiation of this fairy ring. Similarly, potassium fertility levels of 0, 2, 4, 6 and 8 pounds of K per 1,000 square feet per year applied in four equal applications had no effect on the incidence of *Tricholoma* fairy ring. Thus, nitrogen was concluded to be the main factor.

Comments: To the average golfer, all fairy rings appear alike: they occur in dark green circles ranging in diameter from two to 15 feet with the center zone sometimes being dead and/or with mushrooms occurring in association with the band of dark green, stimulated grass.

Actually, there are more than 45 known fungi species that can cause the general fairy ring symptoms. These fairy ring symptoms can be divided into three groups. In one group the grass in a distinct portion of the ring is either completely killed or badly thinned. A second group is characterized by rings that appear only as dark green bands having stimulated grass growth due to increased nitrogen availability. There is also a third group of fungi, which can be isolated, but cause no visible symptoms on turfgrass areas.

When two rings come in contact with each other, fungus activity ceases causing that portion of both rings to be dissipated visually and resulting in the appearance of half moon or scallop-ring effects. The ring advances outward at a rate ranging from several inches to two feet per year. The rate of advance varies with the specific species involved and with the existing soil, atmospheric and environmental conditions.

Those types of fairy ring that cause a distinct band of dead grass are objectionable on greens, fairways and tees. The cause of death varies with the particular species involved and can be due to (a) a lack of moisture, (b) parasitism by the causal organism or (c) to the release of toxic gases by the causal organism. Usually the zones of dead grass are characterized by symptoms similar to those for localized dry spots. They are extremely dry and very difficult to rewet, even when there is an abundance of soil moisture in adjacent areas. Basically their behavior is hydrophobic or water repellent.

The second group of fairy rings, characterized by a dark green band of stimulated shoot growth, may not be particularly objectionable on fairways and tees, but can create serious problems on greens where the stimulated zone of grass growth can affect ball roll during putting, even when the greens are mowed daily.

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BEARD *from page 17*

Fairy rings are frequently associated with decomposing organic or woody materials. Results of the study described in this article indicate the importance of the nitrogen nutritional level on fairy ring development in Kentucky bluegrass. Higher nitrogen fertilization rates stimulate the development of certain fairy rings species, *Tricholoma* fairy ring in this case. Earlier recommendations concerning fairy ring problems have suggested the use of nitrogen fertilizer to mask the dark ring of stimulated grass growth. While this may be a possibility for certain species that are not affected by nitrogen fertility levels, this practice should be avoided for some species, such as *Tricholoma*.

The obvious conclusion is that there are a great diversity of organisms that can be associated with fairy ring activity. Thus, the cultural practices and chemical controls of fairy ring should not be applied uniformly to all fairy rings, but rather to the particular species involved.

If fairy ring occurs and becomes objectionable on greens, there are two alternative maintenance procedures. One involves removal by digging out and replacing the mycelium contaminated soil. The affected areas should be removed to a depth of 12 to 18 inches and for a distance of 18 to 24 inches outside of the infected area. When removing the soil, it is important that none is allowed to drop on adjacent, unaffected turfgrass areas. Replacement of the soil should be done from a source that is known to be free of fairy rings.

A second procedure for the elimination of fairy rings on greens involves fumigation of the infected area for a distance of 18 to 24 inches beyond the outer edge of the ring. Prior to fumigation with such materials as methyl bromide or formaldehyde, the sod should be stripped from the area and the soil cultivated by spading or deep cultivation through coring. Again, it is important that none of the infected soil spill on adjacent, unaffected areas. Both methods involve kill and reestablishment of the infected turfgrass area. These are two of the more positive approaches to control of undesirable fairy rings.

Another less expensive and time consuming approach on fairways and tees is through saturating the rings with

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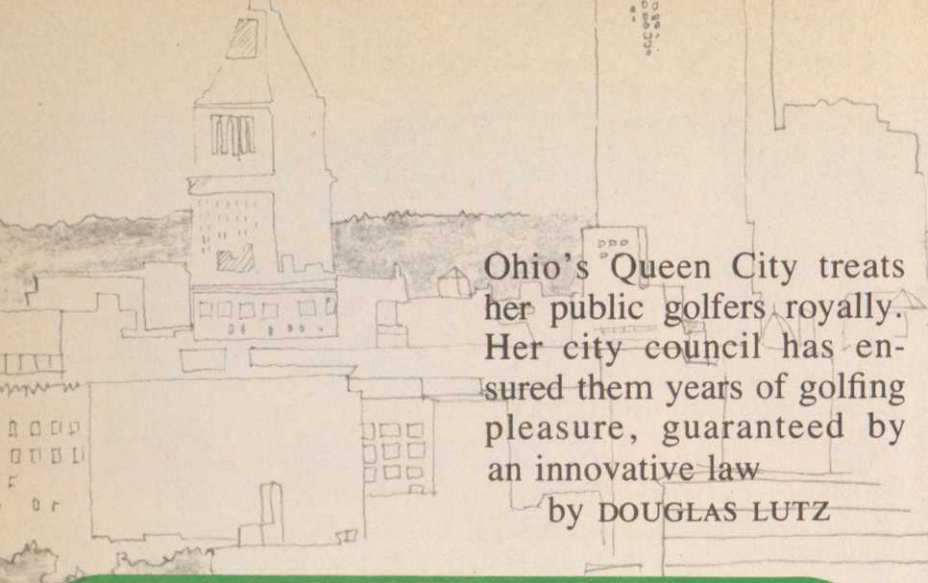

Ohio's Queen City treats her public golfers royally. Her city council has ensured them years of golfing pleasure, guaranteed by an innovative law

by DOUGLAS LUTZ

CINCINNATI: GOLF'S MODEL CITY

Last month, GOLFDOM *reported extensively on the results of a study made by the National Golf Foundation (see p. 21, May issue). The study revealed that the public course player was receiving short shrift. Although he makes up 84 per cent of this nation's 11 million golfers, only 56 per cent of the total number of courses in the United States cater to him. The study further suggested that improvements in the facilities of existing municipal and public courses might increase their capacity to handle his growing numbers.*

This growth was recognized as significant five years ago by Cincinnati's recreation commission and an enlightened city council. The plan under which Cincinnati now operates its municipal courses is innovative and worthy of imitation by other municipalities. Certainly, it is a testimony to the growing importance of the public course golfer.

Five years ago this month, in a unique approach worthy of consideration and imitation by other municipal systems, Cincinnati instituted a special Municipal Golf Activities Fund. City of Cincinnati Ordinance No. 156 was passed by the council on April 23, 1969, and became operational two months later on June 1. This basically simple document climaxed a 20-year struggle by the recreation commission on behalf of the measure.

Procedures for the effective operation of the ordinance are complex and involve many more details than those outlined in this single, historic document. Its essence, its outstanding feature, is simplicity itself. The percentage of available funds that can accrue directly to the benefit of the golfing community is the key to the success of Cincinnati's plan. Unlike other municipalities, where all revenues from golf go into a general recreation or park fund to be used by all departments to the everlasting neglect of the courses, Cincinnati's fund gives up only 15 per cent of its revenues to the general fund. All other receipts accrued from golf activities go toward improving course conditions and, more importantly, toward defraying expansion costs.

The incredibly ambitious Ten Year Golf Development Program that triggered the final decision to create the special fund reads like a municipal operator's fondest dream. Robert Strauss, supervisor of golf and play fields for Cincinnati's Public Recreation Commission, assembled a proposal encompassing long-range expansion and immediate improvement.

In addition to the far reaching intentions stated in the second "whereas" paragraph of the ordinance, each of the four regulation layouts in existence at the time were singled out for specific alterations and improvements. Routine maintenance and repair programs would, of course, continue as scheduled. Under no circumstances, however, could existing budgets have supported the new expansion programs.

Avon Fields, a par 66, 5,031-yard layout that compensates for its short length by having exceptionally hilly terrain, came in for some serious face lifting. Five tees were to be enlarged, the parking lot resurfaced with blacktop, the fairway watering system replaced, ski and sled slopes installed and some of the more severe ravines subjected to near leveling. Two fairways were slated for regrading as well. Prior to the submission of these major upgrading plans, Avon Fields had undergone some renovation through the civic-minded contribution of fill, top soil and seeding by a local company, Richter Equipment. At that rate, the Queen City's golfing subjects could become spoiled! Doubtless, even these improvements would not have taken place if the city had been the check-writer.

Another of Cincinnati's fine courses, the Hilmer J. Neumann Memorial 18, more like a plush country club than a city facility, was slated for rebuilding of its 15th green and tee. Originally installed for $922,000, Neumann's beautifully rolling 6,210 yards of watered fairways and new modern clubhouse were to be paid for by the golfers themselves.

The unique Will R. Reeves Memorial course, ranging 6,395 yards over flat terrain at the end of Lunken Airport, the city's old municipal field, was also in for some revamping. Installation of a new fairway watering system was envisioned. Golf driving