



40 YEARS AGO

60 years' sprinkler know-how

From the early 1900s to the present day, Buckner Industries has been a leader in the field of golf course irrigation.

By BILL TANLER

Herb Clark, head of the engineering department for Buckner Industries, has lived through two revolutions since joining the Fresno, California, manufacturer of sprinkler systems. The first, Clark recalls, was the development of the hoseless quick coupling system in the early 1930s that made it possible to water a golf course without using hoses. The second was the perfection of reliable automated irrigation systems that have come into their own in the 1960s.

Both of these major changes in the art of growing grass and keeping it green were followed by rapid growth at Buckner. In 1930 when Clark first went to work there, just before the quick coupler

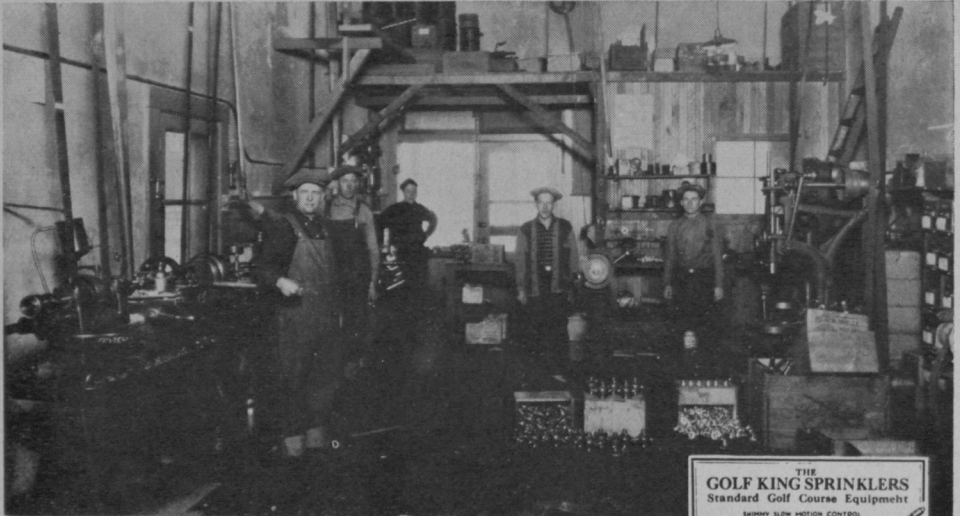
was to become popular, the company had six employees. Clark became the seventh. At that time the shop had a dirt floor, a single five-horse motor and a line-shaft drive to power the few production machines available to turn out half a dozen models of sprinklers.

The second big expansion for Buckner depended largely on what Clark has called the second revolution—the turn to automation. Since becoming established in 1961 in a new plant—40,000 square feet under one roof—production has tripled. Unlike the earlier Buckner shop, the modern plant today is fully air conditioned and automatic equipment is capable of producing 400 different items in

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Since Buckner became established in its new plant in 1961, production has tripled.



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approximately 5,000 variations. Buckner claims distribution in 49 different countries and now has fully owned subsidiaries in Africa, Switzerland, Australia and Mexico. Approximately 350 people are employed by Buckner Industries, about 200 of them in the Fresno plant.

That there was a Buckner Sprinkler at all and that the plant was established in Fresno was largely an accident of the Sante Fe railroad. W. A. Buckner was a trainmaster stationed in Albuquerque, New Mexico, by profession. He was also a part-time inventor when not occupied by the Sante Fe.

Early in the 1900s, Buckner was transferred to Fresno, located in an interior valley well known for hot summer tem-

How Buckner shop looked in 20s, above. Shown at right is ad for "slow motion" sprinkler Buckner ran with GOLFDOM during 1927.

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peratures. With air conditioning still somewhere in the future, Buckner is said to have spent the hot summer evenings sitting outside on his front porch, which gave him time to experiment with the mechanics of the water sprinklers being used in and around Fresno. Buckner's front porch research project was to design a sprinkler that would turn slower for controlled watering.



The 40,000 sq. ft. test area behind plant is valuable aid to Buckner's operation.

"Buckner's discovery of a slow-turning sprinkler took sprinklers out of the novelty class," Clark says. "Buckner began making sprinklers in his garage and actually produced a hoseless sprinkler system installed at Pebble Beach in 1912."

Buckner continued to manufacture sprinklers in his garage until the early 1920s when he teamed up with Michigan-born Harry E. Cleason to open Buckner's first shop. Buckner was the developer. Cleason, who is retired and still lives in Fresno, knew the foundry and machine shop end of the business. The shop, Clark notes, was in the back of Mootz Shoe Shop. One of the first employees, John Royer, began working for the pioneer irrigation systems company in 1924. Today Royer is still with Buckner as head of the company's research department.

"Royer," Clark says, "deserves credit for thinking through more new developments in sprinkler equipment than anyone else in the industry."

Buckner remained active with the company until his death in 1953. In 1959 James R. Coson bought out the interests in the company held originally by W. A. Buckner and Cleason and took over active management as president of the company.

Automation, of course, became the key to progress in the 1960s. "Water was becoming more expensive and critically scarce," Coson observes. "With rising production costs, labor costs and land costs, it had become necessary to automate wherever possible both in industry and in agriculture."

"There is probably better communication in the golf industry than any other I know of," Clark adds. "When one golf course comes up with some new innovation, it doesn't take long before the superintendents at other clubs know about it, too. The first automated system was installed at the nine hole course at Sea Island, Georgia, in the middle of the 1950s and when the system worked, the idea of automation spread rapidly."

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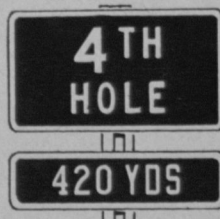
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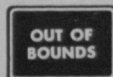


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idea of automation spread rapidly.

In the more than 50 years since W. A. Buckner first began producing sprinkling equipment the number of models has increased greatly, but the goal, Clark explains, is to simplify the equipment. Although the systems are becoming increasingly sophisticated, the key, Clark believes, is still simplification. "Just as it was with the products first developed by Buckner." The future, Clark believes, will be devoted largely to making the automated systems more foolproof. The simpler the equipment, the fewer chances there are for mechanical troubles.

In this age of automated systems, what has Buckner learned about keeping a system operating? The first thing we recommend," Rossiter says, "is that clubs deal with recognized contractors who are familiar with the methods and operation of automated systems. Secondly, they

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should work through reliable distributors. And the course superintendent has to practice good preventive maintenance."

Clark adds, "One of the problems we have found is that there is too little planning. We think it takes two or three months of study to plan a good system for a specific golf course. The course superintendent should be involved in the planning, too, as there should be a clear idea of just what the system is supposed to accomplish. Then, of course, there is the problem of installation. Too many clubs are too quick to award the job to the lowest bidder without making sure the contractor knows his job, or has had the right experience."

The problem of an automated system probably never crossed W. A. Buckner's mind when the major problem was simply designing a slowly moving sprinkler. But who in 1912 would have imagined it would be possible for a course superintendent to water an 18-hole golf course without leaving his desk? ●

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