

Fairway Watering

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Tam O'Shanter Golf Course, Canton, Ohio

FAIRWAY watering, while a comparatively new development, is gaining adherents rapidly among all classes of golfers, and golf course maintenance standards will soon demand recognition of its advantages.

Fairway watering, first developed as a necessity in arid or semi-arid regions in California, has spread eastward so rapidly that the majority of the newer courses are making provisions for it in original construction and many old courses are adding equipment to care for their fairways.

There have been two major systems of piping developed to care for fairway watering, the first, the hoseless, very nearly automatic system, and second, the manual or hose system. There have been variations of these two worked out but the basic principle of each is unchanged. The recent development of the snap valve has made the hoseless system preferable, due to less labor cost and higher efficiency.

Tam O'Shanter Golf Course at Canton installed the manual system for watering its fairways; first, as a matter of experiment and second, because of the many gravel hills over the property. The pumping unit was designed to supply 300 gallons per minute under a minimum pressure of 40 pounds at any fairway outlet. Outlets were spaced every 100-125 feet along the edge of the fairway and sprinklers were to be served by 1 inch or 1½ inch hose.

The Main was laid paralleling the holes and short leads were taken from it. Pipe sizes were computed to allow the minimum pressure where there was any question of pressure sufficiency. Main sizes were calculated on the same basis and the hydraulic gradient determined. Pipes were laid in a 24-inch ditch and sumps connected to the drainage system.

System Cost Only \$2000

It is estimated that this extension, the fairway outlets, increased pump capacity and pres-

sure tank cost only \$2000 in addition to the usual pumping system. This is exceptionally low and is caused by the layout, a long narrow piece with parallel holes, making it only necessary to add outlets from the main line to water fairways. This system has been in operation for one year and the results have been so gratifying that the owners have decided to install a fairway watering system on the second 18 holes, which will be completed in 1929.

The accompanying drawing shows the plan for the watering system on the No. 2 Course. This is a combination of the two systems, the hose and the hoseless systems. Notice particularly that the hoseless system will be installed at points receiving the heaviest play, that is, landing areas and approaches. The balance of the fairway area will receive the same system as was installed on the No. 1 course.

It is of prime importance that these landing areas and approaches be kept in the finest possible condition and they are the first areas to receive attention in any watering system. It is, therefore, entirely logical that these areas should have the most efficient plan and the one with the lowest labor cost, for the balance of the fairway area may be neglected until times of extreme drought.

Minimum pressures of 60 pounds will be maintained at all outlets, due to the lesser length and roll of the ground. In the main, pressures will vary from 115 to 80 pounds and the system will provide for 300 g. p. m.

A word in regard to the pump used might not be out of place. As there was no water supply available other than a drilled well, a 10-inch well was sunk to a depth of 90 feet. In the casing were installed runners for a centrifugal pump and a vertical lift centrifugal pump with an initial lift of 60 feet was installed. The 10-inch well has been tested to

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Greenkeepers' Golf Show

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NOTICE
All greenkeepers who cannot attend the Golf Show are requested to drop a postcard to the exhibitors at their factory address and new catalogs describing their products will be mailed free of charge.

Mr. A. H. Roper, and if possible, the following representatives of this company will also be in attendance: Mr. John B. Pol from the factory and Mr. Louis Bailly-Blanchard from the New York office.

J. OLIVER JOHNSON, INC.
Chicago, Illinois

BOOTH NO. 11—BALL ROOM
J. OLIVER Johnson, Inc., will not attempt to exhibit their entire line of golf equipment but will have an attractive booth and will distribute to greenkeepers, chairmen, golf club officials and others interested a copy of their new catalogue, entitled, "Seeds of Success." This new 1929 catalogue illustrates and describes about everything needed in the equipment of a golf course and will be of great interest to those who have maintenance problems to solve.

The exhibit will be in charge of Mr. H. S. Bailey, manager of the golf department, who is very well known and very well liked in the golf field.

TORO ASSOCIATES

BOOTH NO. 4—BALL ROOM

TORO Associates, as the name applies, will exhibit Toro mowing machinery and a large line of accessories and golf course equipment which they handle in various parts of the country. Following is the personnel of Toro dealers who will be at the Golf Show.

From Cleveland there will be: Mr. A. E. Flack, Mr. H. J. Streich, and Mr. John Alves.

From the Friend Mfg. Company: Mr. W. C. Tyson.

From Indianapolis: Mr. B. K. Cohee.

From Detroit: Mr. F. J. Feldman and Mr. W. E. Blankinship.

From Rochester: Mr. O. W. Bentley and Mr. E. T. Leake.

From Philadelphia: Mr. L. T. Gustin.

From New York Toro Co.: Mr. W. E. Lafkin.

From New England Toro Co.: Mr. O. O. Clapper.

Messrs. Flack & Streich will introduce at the show, a Dunham Turf-AIR-ator, their Cleveline Sprinkler barrel, Steel Flag Pole, Putter Hole Cup and Hole Cutter. In addition to their line, a Golf Wheelbarrow.

Mr. Gustin will display the full Economy sprinkler line, a champion Sod Cutter, Fletcher Steel Products and an Invisible Hose Reel.

Mr. Tyson will exhibit a Friend Model K Golf Spray.

GREENKEEPING YESTERDAY AND TODAY

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I have endeavored to lay before you our methods of the past and present regarding greenkeeping. What the future has in store for us, I do not know.

But I am inclined to believe, with so many new courses being constructed with the intention of further progress, the greenkeeper, who is aiming to give the services that will be demanded, will be compelled to be well versed in botany, and plant pathology. While we all realize that the best education he may get is from practical knowledge, yet I am of the opinion that knowledge along theoretical lines helps.

In the many callings of life, there are many vocations where one can, by perseverance, industry and skill, reach the top of the ladder of fame, but greenkeeping is one a few where it is impossible to reach it, for nature, Mother Earth, will not let him. She will only allow him to go so far and no further.

She is looking forward to the protection of future generations, and when we endeavor to try and get ahead of Nature, she penalizes us by producing insects, bugs and various fungus diseases in order to check us.

Greenkeeping really belongs to the Arts and Sciences; for Art creates what Science discovers.

FAIRWAY WATERING

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400 g. p. m. and has not been lowered an inch so the capacity is ample.

The vertical lift centrifugal pump is noiseless, a valuable feature in installations near club houses, and has practically no vibration. The pump is direct connected to a pressure storage tank and with flap valves, automatic pressure regulators and various safety devices, it makes a fairly fool-proof installation.

Radwaner Guarantees Seed

All the grass seeds which sell for golf courses are sold by the I. L. Radwaner Seed Co., seed merchants, 115 Broad St., New York, under the guarantee that after the merchandise is received by the ultimate user, he is to sample each lot of seed they send and mail a 4 oz. package to the U. S. Dept. of Agriculture at Washington, D. C., for testing purposes. Within a few days the department will notify the sender of the sample what the exact purity and true variety of the article is. If the goods they ship out are not in everyway as represented, they are at once to be returned at their expense before they are being used.

Through this method this company wants to assure the public that they will buy their Bent Grasses, their Fescues, and their ingredients with a positive guarantee by a test of the official Government agency, which is made free of charge, that the seed which will be planted on the golf course is absolutely as required by the party ordering same.

Of course the Radwaner Co. would be willing to furnish private laboratory tests with each lot of seed they ship, but advise their buyers to mail their samples to Government or State Agricultural stations in order to be quite sure that what they intended planting is the article bargained for.

