Fairway Watering

By M. R. Paul, Construction Engineer
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 pressure 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

(Concluded on page 42)
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 Baillie-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
entire line of golf equipment but
will have an attractive booth and
distribute to greenkeepers,
chairmen, golf club officials and

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 mow-
ing machinery and a large line of
accessories and golf course equip-
ment 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.
Cattee.

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 in-
introduce at the show, a Dunham
Turf-AIR-ator, the Cleve-line
Sprinkler barrel, Steel Flag Pole,
Putter Hole Cup and Hole Cutter.
In addition to their line, a Golf
Wheelbarrow.

The vertical lift centrifugal pump
is noiseless, a valuable feature in in-
stallations 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 Washing-
ton, D. C., for testing purposes.

Within a few days the department
will notify the sender of the sample
the exact purity and true va-

rity 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 com-
pany wants to assure the public
that they will buy their Bent
Grasses, their Fescues, and their in-
redients 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 buy-
ers to mail their samples to Govern-
ment or State Agricultural stations
in order to be quite sure that what
they intended planting is the article
bargained for.

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
(Concluded from page 12)
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 con-
structed with the intention of fur-
ther 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 re-
alyze 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.
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 in-
sects, bugs and
various fungus
diseases in order
to check us.

Greenkeeping really belongs to
the Arts and Sci-
ces; for Art
creates what Sci-
ence discovers.

FAIRWAY W ATERING
(Concluded
from page 15)
400 g. p. m. and
has not been low-
ed an inch so
the capacity is
ample.

THANX! P R O M P T  P A Y M E N T
H E L P S  U S G I V E
B E T T E R  S E R V I C E .
M O N E Y  W E L L  S P E N T !