

38,000 Gallons Per Hour



## Flexibility Is Feature of Whitemarsh Watering System

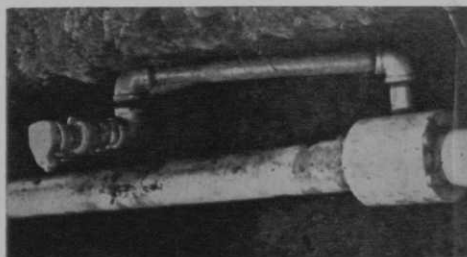
Big things are happening at Whitemarsh Valley CC, exclusive Montgomery County, Pa., golf club, which observed its 50th anniversary last year. The most striking innovation to meet the eye is, of course, the new, ultra-modern clubhouse, built as part of the observance of the club's reaching the 50-year mark.

Of greater interest, perhaps, to supts. is the new irrigation system, completed in 1958, which makes extensive use of Keasbey & Mattison's asbestos-cement irrigation pipe.

Mounting demands on the club's course made it evident that the old system could no longer carry the load. Leaking faucets, broken risers and the loss of the internal diameter of the underground pipe plagued

the club. Travelling sprinklers worked day and night — often interfering with members' games. Pressure was not uniform over the entire course, with the result that some sections were getting almost no water at all.

George Scott, former supt., called in the Toro Company of Philadelphia, and asked it to engineer and lay out a modern, in-



Riser threaded into heavy tap-coupling which is thicker walled than standard in order to receive the metal thread. Quick coupling snap valve caps riser.



Whitemarsh maintenance crew was able to lay up to 1,000 ft. of pipe in eight hours. Operation went on even during the winter.

tegrated underground system geared to the needs of a busy course.

Toro submitted a design that incorporated about 16,000 ft. of asbestos-cement irrigation pipe in 6, 4 and 3 in. diameters. Sprinklers as well as other surface fittings were made by Buckner Mfg. Co., Inc.

### Maximum Flexibility

The design called for maximum flexibility in layout. Asbestos-cement irrigation pipe with K & M's Fluit-Tite coupling allows for deflections up to 5 deg. per joint. This proved to be an important consideration since many of the fairways were dog-legged and in many spots the pipe had to be offset to make a turn or miss an obstacle. On the 11th fairway the line was



Ross Woodward, supt. of Whitemarsh Valley CC, Philadelphia, turns valve sending water into the new irrigation system. In back of Ross, to the left, is George Scott, former supt., who initiated new system. F. J. Morrissey, green chmn., is at right.

slightly "S" shaped.

Important, too, is the fact that the asbestos-cement pipe, having a Williams and Hazen constant "C" of 140 which remains unchanged through its life, resists accumulations of internal deposits which choke off vital water flow.

Working under Ross Woodward, who succeeded Scott, a crew of seven was able to lay up to 1,000 ft. of pipe in eight hours, including trenching, laying, installation of risers and backfilling. The pipe was laid at depths from 30 to 42 ins. A portion of the line, which went under a heavily travelled highway, was encased in 10 in. asbestos-cement pipe. Risers of galvanized iron are threaded directly into the heavy asbestos-cement tap couplings which are thicker walled than standard couplings, enabling them to receive the iron pipe thread.

There are 118 risers supplying water to 12 sprinklers on the fairways (these are attached to quick coupling snap valves), and to 38 snap valves on the greens. The greens are supplied by hoses attached by snap valves to the risers and are watered in two settings. During the watering period, from 8:00 p.m. to 4:00 a.m., the sprinklers on the fairways are alternated to provide uniform coverage.

Water comes from the Wissahickon

Creek, which bi-sects the course, and is fed into the system through two 40-hp Fairbanks-Morse vertical pumps. Both pumps are completely submerged, eliminating need for priming. The pumps deliver over 38,000 gals. of water per hour to sprinklers on the fairways and greens. The flow from the sprinklers on the greens is at the rate of roughly 24,000 gals. per hour. Up to third of a million gals. are fed to the course during the 8-hour watering period.

### Houghton Writes Another "Golf Addicts" Book

"Confessions of A Golf Addict," written and illustrated by the talented George Houghton, No. 1 of the game's artistic enthusiasts, recently has been published in an American edition by Simon and Schuster, 630 Fifth Ave., New York 20. The price is \$3.50.

This edition presents selections from Houghton's various "Golf Addict" books which have outsold any other golf books published in Britain. None of these entertaining essays or their amusing illustrations has been published previously in the United States. There's nobody else like the gifted and observant Houghton writing and picturing golf. This latest of his books will give real enjoyment to the Golfer who reads beyond the sports page.

### USGA Increases Qualifying Sections for Public Links

Forty-six qualifying sections, seven more than last year, have been established for the 34th USGA Amateur Public Links Championship. Sectional qualifying, at 36 holes, will be held between June 18 and 28. The Championship event will be played July 13-18 at Wellshire GC, Denver. A total of 150 players will be eligible to go to Denver and there they will be reduced to 64 qualifiers in a 36-hole medal round. The 64 qualifiers will then battle it out in six rounds of match play to determine the Publinkx champion.

Dan Sikes, Jr., a Florida University law student, who won the 1958 title, and Bob Ludlow, Indianapolis, last year's runnerup, are exempt from sectional qualifying. The winner of the 1959 tournament will be invited to play in the National Amateur.

This is the second time the public course event has been played at Wellshire, having been held there in 1946.