the peak water load at any point on the golf course and size the pipes accordingly. Although it is relatively easy to compute water flow in most looped designs and find out the proportion of the water being carried by the various pipes in the loop to one central point, I am sure many of you have seen irrigation designs with so many loops that it is doubtful if Prof. Einstein himself could have made exact hydraulic computations.

In my own work in the design of over 300 course irrigation systems, I have only found it advantageous to use a looped design in about 10 per cent of the projects. The balance was prepared on a "dead-ended" piping design.

Looping a piping system is not wholly wrong, but often it is not necessary. If the amount of money put into the hundreds of extra ft. of pipe, often used in a looped system, were put into one pipe of a larger size it often would be found that the larger pipe provides much more water than the looped system of smaller piping. The thought held by some that a looped system of piping provides constant water pressures is not entirely true. The further we get out on any looped piping system the greater is the pipe friction loss. This, in turn, creates a drop in pressure.

Course layout determines irrigation design. Far-flung courses with great distances between fairways are often best suited for a looped system while groups of parallel fairways rather close to each other are certainly more economically designed for the dead-end system. I have in mind two courses on Long Island, N. Y., one being the Queens Valley CC which has a major looped system and its neighbor, Fresh Meadow CC which has no loops whatsoever. No difference in a practical way can be seen in the results and operation of either system.

13th Jaycee Tournament to Be Played in Tucson, Aug. 18-23

National finals of the 13th International Jaycee Golf championship will be played at El Rio CC, Tucson, Ariz., Aug. 18-23. Approximately 200 players under 18 years of age from the 48 states and Hawaii are expected to qualify for the finals. Past Jaycee tourneys have produced a large number of winners, runners-ups or strong contenders who later turned pro or became top amateurs. They include Al Mengert, Gene Littler, Bud Holser, Doug Sanders, Tommy Jacobs, Phil Rodgers, Allen Geiberger and Jack Nicklaus.

Sponsors besides the Jaycee organization include the Bottlers of Coca Cola, Athletic Institute and National Golf Fdn.