Thomas on design

Continued from page 14

a trick taught him by Willie Tuckie Jr., concerning laying out a golf course on a contour map. In Thomas' words: "Your map is, of course, contoured to scale, and you cut out of blotting paper miniature fairways, making them also to the same scale as the map; it is easy to place them on your contour map with thumb tacks, first having your map on a board. You will find that by hinging these little fairways at or about the 200-yard mark, you can make them follow the contours on the map as doglegs or straight holes.

"You can play with them just as if they were picture puzzle units; and by making them of different lengths, all to scale, with their width corresponding to that of fairways from 65 to 80 yards wide, the one shotters unhinged and the three-shot holes hinged twice, you will find them of the utmost help."

Read this and you have to love Thomas. Was he prophetic? Hear this: "It is most important for the future of golf in this country that every aid should be given to the building and upkeep of municipal courses, because such will eventually become of the greatest value to the game, and from them we may expect to produce many of our future great players."

Was he a rule-breaker? "To my mind, if you have five one-shotters [par-3s on one course] not too many. Certainly, a fine test of this type is superior to a poor two-shooter, and, in addition, they usually surpass the two-shotters in character, because ground for them is easily found, and they may be made with less trouble and expense.

"Furthermore, by saving ground in the use of one shotters, it is easier to secure better two shotters on the balance of a course, and in badly broken country they help the problem of plan."

Was he walled in by tradition or prejudice? "It is possible to make a very short nine-hole approach and pitch course, where the holes will average around 30 yards, all of which will require most skillful playing to secure the average par of 3; and I know of several layouts of this character in crowded districts, which are very interesting and attractive. It would seem that such short pitch-and-approach courses could be easily installed at many clubs, at hotels, and even for private grounds, and give the utmost pleasure, as well as fine practice, for the short game."

Was he humble? Speaking of the concentration of municipal golfers ("There was no nonsense as 'Please move your shadow off the line of my putt,' or 'Stand still, caddie, while I play this shot'), he said: "I admired those golfers; I realized they were far above me as sportsmen and golfers.

Here are some thoughts on:

- Nature vs. man: "...the truly ideal course must have natural hazards on a large scale for superlative golf. The puny strivings of the architect do not quench our thirst for the ultimate..."

- Walking: "Broadly speaking, where is necessary to climb more than two finish away from the setting sun. By not-

- The sun: "The tract to be purchased..."
Water research shows positive results for courses

Continued from page 67

Of 906 database entries for surface water, nitrate was found in 706 instances, an average concentration of 0.5 ppm. Further, in ground-water monitoring for pesticides, Cohen said researchers found 160 detections in 12,214 data entries. "The typical detection limit," he said, is 1 part per billion (ppb), while some detection limits were at 1/10th ppb. Nine of the detections exceeded fenamiphos/fenamiphos sulfoxide (found in course studies would indicate a significantly reduced impact relative to agriculture.).

The average concentration was 0.02 percent. Nineteen of the detections exceeded MCLs or HALs five times, or 0.02 percent. Nineteen of the entries (0.7 percent) exceeded aquatic MACs (Maximum Allowable Concentrations for aquatic organisms). The average concentration was 0.07 to 6.8 ppb, Cohen said, depending on how non-detections were counted.

The most frequently detected chemicals in ground water were 2,4-D, "One could infer that similar golf course studies would indicate a significantly reduced impact relative to agriculture." Cohen intends to make his recommendations to the GCSSA and publish his findings in a peer-reviewed journal as well as in the GCSSA's *Golf Course Management.*