## Drainage, Watering, Landscaping High Spots of Good Job

## By J. O. CAMPBELL Wethersfield (Conn.) C. C.

A GREAT deal of the progress I have made in the last four years has been due to help I have received from articles in GOLFDOM and the National Greenkeeper, as well as from my own study and experimenting.

In looking back over my work on our course, I have made several changes. I have turned swamps into dry fairways by drainage. This reduces maintenance costs to a considerable extent. When fairways are wet, it is impossible to draw fairway mowers over them; the grass gets such a start that it is necessary to use rough cutters ahead of the fairway units, piling up costs tremendously as the fairway mowers cut a 14 ft. swath, while the rough cutter cuts a 7 ft. swath, using about three times as much labor to cut swampy fairways as is necessary on a well-drained dry fairway. I think this one item of expense carried over a period of a few years is much greater than the cost of drainage.

Another item that is very expensive is watering greens. We have a system whereby we use the traveling sprinkler. This takes one man about an hour, starting about 8 p. m. He places the sprinklers on the greens where they are left to run until 8 a. m. The first thing the men do in the morning is remove the sprinklers and roll the hose. I find by using this system our sprinklers also help to eliminate brown patch. I have watched closely for the last two years and have never been able to find brown patch where my sprinklers were covering the greens.

Uses "Section Boss" System

I am using one man to each three greens, tees and traps. By making each man responsible for his own portion of the course, one has a chance to check up on the quality of the work of each man. One man cares for the grounds around the clubhouse, one looks after the mowing of the fairways and one does odd jobs, repair work, care of nursery and assists me in my experimental work.

Another way I lower expense is to eliminate chickweed, crab grass and worms by the use of arsenate of lead with a power sprayer. About every six weeks I mix a solution of 6 lbs. of sulphate of ammonia and 4 lbs. of arsenate of lead with 100 gal. of water, spraying my greens and far out on the mounds thoroughly. This saves hand weeding and the use of worm eradicators. I've found all "worm eradication" to be only a temporary remedy for Mr. Worm.

Studies Landscaping

I have spent a great deal of time studying the planting of trees and shrubbery. Since coming to Wethersfield in 1928 I have planted about 200 trees and have only lost four. Late in the fall I locate the trees I want to transplant the following spring. I prune them carefully, but do not cut the tops. Early in the spring before they start to grow, I take them up with as much soil and mulch as possible and transplant. This soil I've found to be more satisfactory than commercial fertilizers. Almost any tree if properly pruned and cared for will produce a nice tree for club grounds.

I am using more organic fertilizers and less chemicals.

In February, 1929, I helped organize the Connecticutt State Greenkeepers' association. We started with seven members and now have 27 of the 56 greenkeepers in the state. I think we have made good progress in a little over a year. We meet once a month, discuss anything of interest. We have had speakers from fertilizer, seed and equipment houses, and I believe most of the boys feel they are getting their money's worth.

No hard and fast rule can be given for specified quantities of any fertilizer to be used, as the soil, climatic conditions, the season of the year, and the state of the turf, are the leading factors. As much damage can be done to the turf of a golf green by overfeeding, as well as by underfeeding. Always err on the right side; a little and often during the growing season is the safest rule.