

think my greenkeeper liked this idea at first, but now I am quite sure that if he went to another club he would immediately adopt the system. It is valuable in that it causes him to definitely plan his work several days in advance. (You know how much more definite any idea becomes when you reduce it to writing.) It also gives the whole committee an opportunity to better understand the problems of the greenkeeper. Perhaps its greatest value, though, will come by comparing one year with another. If something happens to a green the records will show just what treatment it has received and the trouble can be better analyzed.

It is not always easy to get a successful greenkeeper to really study the articles written in THE BULLETIN and the scientific ideas advanced. In order to get this point over I have from time to time caused extracts to be copied, mostly from THE BULLETIN, and now have a loose leaf book of 52 pages, a copy of which has been given to the greenkeeper and another to his assistant. He is instructed in writing that he must do nothing on the golf course contrary to the method prescribed in this book, unless and until he has first given the prescribed method a thorough trial and even then he is not to disregard the advice given without consultation with the chairman of the green committee.

We had a man build a few greens for us last year who had experience and was familiar with Washington bent grass. In watching the work as it progressed, it was noticed that he did not pay much attention to watering the green before planting the stolons and then he used about two and one-half yards of soil to cover the stolons. There was a prolonged drouth following the planting of the green and in order to get sufficient water to keep it damp he again ignored the teachings of our little bible by sprinkling instead of keeping the soil moist with mist.

I called his attention to these things and I suspect he would like to have asked me just how many greens I had built and how many years of experience I had had that I should presume to give him instructions. Nevertheless, I was persistent and on the next green constructed I insisted that he follow the book. The result was almost immediate, and while I did not expect him to come forward and admit it, nevertheless he said enough to show that with all his experience he learned a good lesson and that he now has a more wholesome respect for the teachings of the Green Section than he had before.

I repeat that in my humble opinion the best greenkeeper and the best posted green chairman in the United States of America can be benefited by consulting, or, if you choose, exchanging ideas with the United States Golf Association Green Section.

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## How Glen View Waters Fairways

By Ed. Haupt, Greenkeeper

Our water mains are of cast iron pipe, from 2 inches to 6 inches in diameter, operating at a pressure varying from 65 to 75 pounds. These pipes are laid at the edge of the rough, just off the fairways, with outlets rising to the surface at intervals of 125 feet. These risers are of 2-inch pipe reduced to a 1-inch hose nipple. All hose in use is of the 1-inch size.

We use sprinklers, 7/16-inch nozzle, 1-inch hose, having a capac-

ity of 30 gallons per minute. This sprinkler covers a circle whose diameter ranges from 120 to 130 feet. Ten of these sprinklers, weighing 10 pounds each, operating from 20 to 90 minutes, depending of course on the condition of the soil, are sufficient to keep the fairways in perfect playing condition. By mounting a box on an automobile chassis, to move hose and sprinklers from place to place, I have sped up the work so that the time wasted in the operation is practically negligible.

The sprinklers used on putting greens are of similar make but smaller in size and cover an entire green at one setting. This permits the man to assist in watering the fairways after the tees have been watered and the greens sprinklers set. Two men working shifts of 12 hours each take care of this work. These men are taught to determine the condition of the soil by the way it feels under foot. Of course the night man works at a considerable disadvantage but the day man is in a position to check up on his work and retouch the places he has missed the night before. Sometimes it is necessary to operate the sprinklers on three or four fairways in order to bring the course in proper condition.

To the uninitiated greenkeeper fairway watering presents quite a problem, but by keeping these points in mind most of the difficulties will be smoothed out. First of all, over-sprinkling slows up play, hinders mowing of the course, and the general mud and mess do not present an attractive picture to the member's eye; but at the same time after a rain, one should never wait until the ground becomes dry and parched before watering. A little attention, wisely administered from day to day will go a long ways toward cutting down the operating cost of watering the fairways.

I believe our system is one of the finest in the country, not only from the standpoint of cost of operation, but the results we have secured have been but little short of perfect.

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## Standardized Accounting

By William J. Rockefeller, Inverness Club, Toledo, Ohio

A greenkeeper is frequently troubled by statements that the annual cost of maintaining such and such a course is only so much, and whenever such a statement is made the only answer available to the greenkeeper is by way of questions as to the items covered by the cost put forward as invidious comparison. The greenkeeper knows that the work, etc., entering into the total cost of maintaining courses is never the same, and that the total figures are utterly without value as comparatives.

One greenkeeper may be required to take care of extensive and elaborate grounds around a clubhouse and the cost of such care may be included in his total figures. Another may have little or nothing to do in that respect. One greenkeeper may have roads around a clubhouse or through the property to maintain, and another may have nothing of the sort. The standard of maintenance varies from excellent down through ordinary and indifferent to bad. The length of the season of course is a factor. It ought to be apparent to anyone who will think for a moment that the total cost or expense of maintaining one golf course can not fairly be compared with the total cost of main-