

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.

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-

taining another unless information is available as to the items of cost making up the total.

The Green Section can perform no better service for the greenkeeper who is harassed and annoyed by such comparisons than by pointing out to club officials and trustees the unfairness and injustice of comparisons of total cost.

The cost of maintaining a course can naturally be broken down into various parts or items of cost. For example, the cost of water, seed, fertilizer, new machinery, repairs, and the like. It is easy enough to show the detailed cost of materials, supplies, machinery, and equipment if an inventory is taken and depreciation is set up as in any ordinary business, and this should be done on every course. At the end of each year an inventory of all materials and supplies on hand should be taken, all machinery and equipment should be valued, all depreciation should be figured, and the detailed inventory and figures should be kept as carefully as the same figures would be kept in any business.

The difficulty of keeping costs of maintenance arises in the segregation or allocation of labor costs, and it is believed that it is not practicable to set up any standard system of accounting that can be followed generally by greenkeepers.

In the first place, greenkeepers may be classed as farmers rather than as accountants or factory managers. The ordinary factory manager lives in an atmosphere of accounting. He is making the same thing day after day and utilizing his labor in the same way day after day, and with a reasonable system and adequate training there is no reason why he can not do his part in the maintenance of a cost system. It must be remembered also that even in a well-organized factory a cost system is frequently too complicated and too expensive to operate to be of any value, and it seldom happens that a cost system is installed that does not require simplification and revision as the result of experience in its operation. The point is that those who talk about standardized accounting for golf courses are men who have had their training and experience in factory operations and who have had adequate accounting staffs to work out and follow through the details. The ordinary greenkeeper has had no such experience. He is a farmer or a kind of farmer and he is a farmer in his actions and movements and also in his thought. It is possible to measure out grain and feed to stock and to test, weigh, and measure milk in a stable conducted by an agricultural college or a Government experiment station, and the resulting figures are always interesting and valuable, but the ordinary farmer, whose troubles now exceed those of Job, would feel that he was truly afflicted if he had to turn in a time ticket for every labor operation on the farm.

The ordinary greenkeeper feels the same way about it, and his employes know as much about keeping a record of the time devoted to the various phases of the work as they do about the botanical names of the grasses they walk over every day.

Some greenkeepers, for example, who are very particular, give the job of changing the cups and the markers on the tees to one man. Others permit that work to be done by the men who cut the greens. Every greenkeeper has his own way of doing his work, and he thinks that way is better than any other. He thinks he is right and knows perfectly well that everyone else is wrong, and it would be just as

easy to make water flow uphill as to make an ordinary greenkeeper do his work and handle his labor in some other way than his own. A standardization of accounting for the purpose of showing detailed costs would be of just as little value for purposes of comparison as total costs, for the reason that no two greenkeepers would do the work in the same way or keep the costs in the same way.

It should be fairly easy for any greenkeeper to keep a separate account of the labor cost of new work or major changes and repairs, but it will never be possible to induce or require greenkeepers to keep separate and show accurately the cost of watering, cutting greens, cutting tees, cutting fairways, mowing the rough, trimming up traps and bunkers, and the hundred and one items of the work.

This is not intended to be an argument against any effort to standardize greenkeeping accounting, but rather to suggest that the classification of accounts and the method of collecting the information and keeping the accounts must be so simple as to be understandable and workable.

As above indicated, the cost of materials, supplies, machinery, and equipment can easily be segregated. The cost of new work and major repairs can be segregated. The difficulty comes in the segregation of labor costs.

In some way, either through actual costs or estimated charges for the work the cost of doing work on clubhouse grounds should be separated from the greenkeeping costs and if this cannot be done by keeping an accurate account of time and materials used on clubhouse grounds, it should be done by a reasonable estimate and a charge for the work, and the cost or charge, however estimated, should go against the clubhouse and not account maintenance of the course.

It should also be possible to keep a separate account with fair accuracy of the extra costs due to tournaments. The difficulty with the position of the greenkeeper is that the clubhouse is always a voracious consumer of revenue, and there is always a louder howl against economy in clubhouse operation or a restriction of clubhouse activities than there is an insistence upon the adherence to an acceptable standard of maintenance of a golf course. When the deficit appears at the end of the year in large red figures, no one takes the time or trouble to analyze clubhouse costs or to plan economies in that direction. The first figure selected for pruning in setting up the next year's budget is always the golf course maintenance, and at that time the greenkeeper and the green committee are confronted with the statement that it cost only so and so to maintain such and such a course.

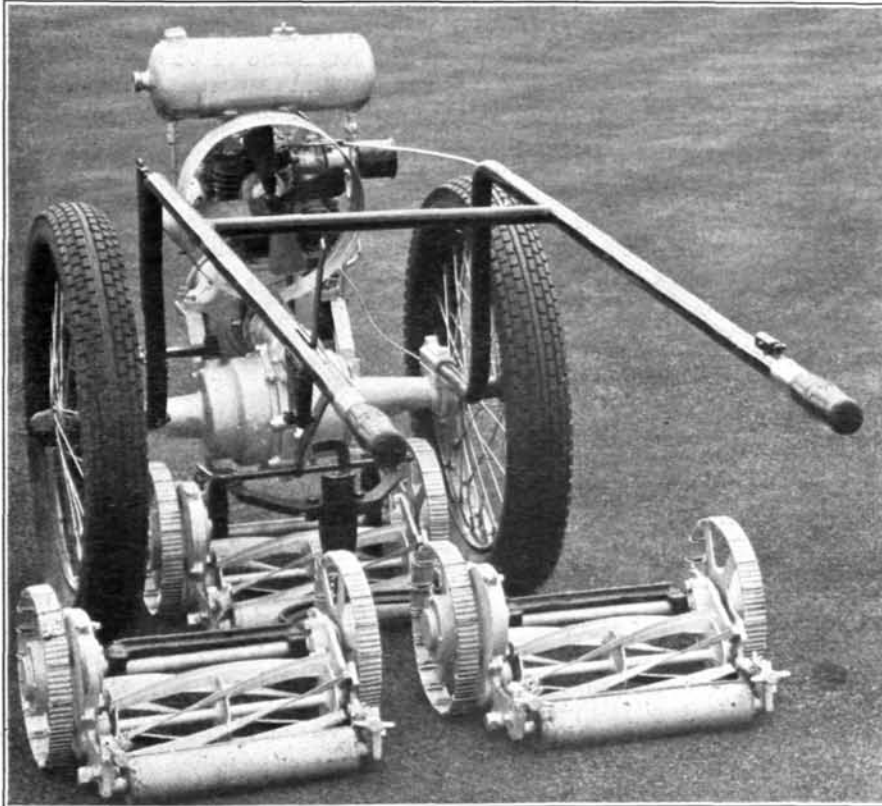
The green committee and the house committee are and should be natural and irreconcilable enemies and the green committee always gets the worst of it. A rough standardization of golf course accounting is possible and will be helpful to green committees in securing something approximating their rights and destroying the value of attempted comparisons of total cost, but it must be remembered that the standardization must be along general and sensible lines and only in such detail as can be followed by the ordinary greenkeeper. If house committees were included in the Eighteenth Amendment and utterly prohibited or abolished, green committees might hope to get some of their rights, but the millennium will be found on

the eighteenth hole when green committees cease to be oppressed and defrauded of their rights by those who want to emphasize clubhouse activities.

NOTE.—This is a subject in which all golf clubs should be vitally interested, and it is the hope of the editors of THE BULLETIN that the preceding article on standardized accounting by Mr. William J. Rockefeller will result in the publication of similar articles giving the experience of other clubs along this line. We want to urge every one who has had any experience with or ideas on this subject, whether favoring or opposing standardized accounting, to send us an article to be published in THE BULLETIN. There is little doubt that a series of articles along this line would give us reading material that would not only be intensely interesting, but extremely valuable. Let us urge you to put your ideas on paper now and mail them to the United States Golf Association Green Section, P. O. Box 313, Pennsylvania Avenue Station, Washington, D. C.

A New Type of Power Putting Green Mower

It is said that the mower illustrated below does no injury whatever to the surface of the green due to a principle involved in the tires which provides for the distribution of pressure over a considerable area. The motor is a complete tractor designed to draw a gang mower having three units. The tractor, in going from one green to



another, which it does on its own power, carries these units on the frame to which they are raised mechanically. This automatically renders the cutting knives inoperative and the use of separate unit carriers unnecessary. The mower is guaranteed to cut an average putting green in from 12 to 15 minutes.