GREENKEEPERS who now are relieved of the heavy pressure of spring, summer and autumn programs, are studying costs.

Seldom is there a course maintenance budget that allows much leeway with money allotted for expected work. There always are uncertainties of weather, pests and diseases to threaten wreckage of budget plans. Furthermore there is the disturbing realization of almost every experienced greenkeeper that if he has ideal growing conditions one season and manages to operate under his budget, the saving will be lopped off the following year's budget. Then, the next year conditions may be adverse.

Such financial history of greenkeeping operations is discouraging to the man who hopes to get his course maintenance budgeting and accounting on something like a scientific basis.

The experienced greenkeeper has seen $5,000 annual maintenance charges for 18-hole courses in which there are plain evidences of inefficient spending. He has seen, too, 18-hole courses where $35,000 a year has been spent thriftily. Therefore, the greenkeeper who is a good business executive as well as a competent operating man, has learned to regard figures as having dangerous possibilities of leading thought astray.

All Kinds of Systems

One of the most successful veteran greenkeepers has said that figures are no good to him unless they tell a story. His records coordinate costs, working conditions, and results so closely that he can tell exactly what happened on any detail of work at his course for years back.

Others have far more extensive accounting systems at their courses, but don't know the actual detailed cost of their work. The systems are kept too casually. The men put down estimated divisions of labor, or guesses of time. The day is accounted for but nobody knows how much each job cost. Consequently, there is not much chance for the greenkeeper to work out efficient labor management methods.

It is true that the matter of labor management does not loom large at all clubs. At a small club where the maintenance staff consists of the greenkeeper and a few men, labor management usually consists of the greenkeeper working harder than any of his men and setting the pace for them. At larger clubs, the greenkeeper can't be everywhere at once, hence an accurate statement of costs of work details is second in importance to knowledge of results achieved.

Even at the small clubs, though, unless the greenkeeper knows quite precisely what each detail of work costs him, he's liable to run into trouble. Guessing $50 off the correct figure may get the small course fellow into as much grief as the man at the big course experiences when his estimates are several hundred dollars out of line.

Greenkeepers and veteran green-chairmen at the larger clubs counsel their friends at smaller clubs against getting too deeply into course accounting details. Systems can be too involved to be maintained, they point out.

At greenkeeping short courses during

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**TIME CARD—SAN FRANCISCO GOLF CLUB**

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<tr>
<th>DATE</th>
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<th>WED.</th>
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<th>FRI.</th>
<th>SAT.</th>
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<th>TOTAL HOURS</th>
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This card records only the time required to finish a given job—does not detail what work was done by greensman.
the past several years numerous greenkeepers have exchanged data and ideas on their course maintenance work and costs sheets with the result that ingenious and simple systems, adequate for the cases involved, have been devised.

Purchase accounting of equipment and supplies at the smaller clubs seldom is the cause of trouble. The greenkeeper makes out the order in duplicate, with the club office or the greenkeeper himself retaining the carbon for checking against delivery and price of the purchase. At larger clubs, where the large amount of accounting requires the services of a bookkeeper, it has not been unusual to have controversies between the greenkeeper and bookkeeper until satisfactory procedure has been determined. The greenkeeper, working on a tight budget, may require fungicides or repair parts speedily. He telephones the supplier to rush the material, and in the rush and worry of the emergency may neglect supplying the club's accounting office with a memo of the purchase.

Needs Must Be Handled Speedily

The bill comes in the first of the following month and a jawing match may be staged, unless the bookkeeper is aware of the extenuating circumstances under which the greenkeeper performed. The other side of such cases is requiring from the greenkeeper memos of requirements on which competitive bids are to be secured, requisitions checked and approved, and other details handled. While this procedure is being followed the time for handling the emergency may have elapsed and costly damage suffered by the course.

Brae Burn CC, West Newton, Mass., has what many believe to be the ideal complete course accounting system.

Major Costs Listed

There are seven principal divisions of Brae Burn's costs. The divisions and subdivisions on which costs are determined monthly—and compared with the budget figures—are:

**Labor**

1. Care—golf-grounds; golf-equipment; house grounds—parking space; tennis courts; trees; drainage; water supply; bridges, fences, walls, etc.
2. Miscellaneous—crab grass, clearing, etc.
3. Construction—golf; house grounds; tennis courts; drainage; water supply; bridges, fences, walls, etc.
4. Police.
5. Supervision.

**Equipment**

Outside Repairs to Equipment

Supplies

Golf; house grounds; tennis courts; trees; drainage; water supply; bridges, fences, etc.

**Materials in Construction and Outside**

Labor

Golf; house grounds; tennis courts; drainage; water supply; bridges, fences, etc.

**Water**

Food to Employees of Grounds Committee

The Greenkeeper's Log is a basic feature of the Brae Burn system. Each sheet of the log has the names of the greensmen in columnar listing at the left. To the right are seven columns—one for each day of the week. Each daily column is subdivided by headings as follows: **Greens—Fairways, Tees, Traps**—Rough—Tennis—Other Work—House Grounds—Total. At the close of day each employee must enter the number of hours he worked under the respective subdivision after his name.

Weather and temperature extremes are written in alongside the day at the top of each column. At the right of the sheet is a column for describing “other work,” and for a recap by subdivisions of hours and amount paid for the work.

The time card method of accounting, requiring each greensman to record the time and nature of his work on an individual card, is used by many clubs. An

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<th>Green No.</th>
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<th>Day</th>
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<th>Fairways</th>
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**REMARKS**

Many clubs keep monthly record sheets for each green. These are especially valuable for comparisons and for keeping accurate record of where money is going.
example of the type of card employed is shown by the San Francisco GC card reproduced herewith.

There are arguments for both the log and the card methods. Theoretically the log method giving the complete picture of man and time operations on one page would seem to be the easiest way of visualizing the performance.

Other records to cover special circumstances find valuable use in course maintenance. The San Francisco GC in making an intense, comparative study of green maintenance practice, used the record form shown with this article.

Strangely enough, one of the fundamental records is lacking at the majority of American courses. That record is an exact map of the course with areas of greens, tees, fairways, roughs and traps indicated; location, size and kind of piping and plumbing fixtures; location, size, and kind of drainage, bridges, shelters and major planting, tree location and other data.

Map-making, so far as it can be done by the greenkeeper, is a good use of time during an open winter.

**Protect Shrubs With Frames Made from Fruit Crates**

During the early stages of growth of many small shrubs and bulb flowers, a substantial protective framework of some kind around them is often a necessity. It may take a bit of work and expense in some cases to procure stock out of which to make them, but generally you can find something such as old empty grapefruit crates as shown in the picture. Carefully knock them apart. The ends and center portion of such crates form a strong tongue and grooved square frame, quite large enough. Simply rip the long side strips into sticks some 1 1/4" or 1 1/2" wide, sharpen one end and tack to one or more of the square frames.

Push the pointed sticks firmly down into the ground; nails from the crating can be used to apply the side or anchoring sticks. In this manner quite a number of such guards can be quickly and easily put together with but little or no expense.

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**Says Course Architecture Requires Blender's Skill**

JUST what is meant when we speak of golf course architecture? Does it mean beautifying the course, changing rotation of holes, or just what? William Langford, well-known course architect, makes the following competent observation of what golf architecture embraces:

Golf architecture is the science of coordinating the basic requirements of the game of golf with the infinite variations of irregular, complicated surfaces. It is the art of developing endless, interesting golf problems naturally and with due regard to the great variation in golfing ability.

A good golf course should not only be an exacting test for scratch players but, also, an enjoyable, playable, and ever interesting recreation field for the poorest golfers who use it. It should not so much penalize misplays as it should tempt all players to perform more daringly and, by so leading them on, make them better.

The course should be fitted to the terrain, thus calling for a minimum of expensive, artificial construction. Man-made features should be as few as possible and built to conform with and blend into the landscape. So built, these features will enhance the natural beauty of the layout and can be more cheaply maintained.

A golf course is not a formal garden. Build and keep it as natural as possible. Golf is not a standardized indoor game—it belongs to the wide wind-swept outdoors and its almost exasperating variety gives it invaluable piquancy. Bold, rugged hazards and ever changing, ever challenging natural problems have made and will keep it the eternally elusive objective of sport-loving mankind.