

How False Economy Steals Maintenance Money

By T. H. RIGGS-MILLER

A WAVE OF economy has swept golf clubs and has taken a strangle hold on some budgets. There are clubs running courses on half of last year's budget, and at least one has a tentative budget of only one-third of its last year's. Most of these drastic reductions are caused by threat of dwindled memberships which has not materialized to the serious degree widely expected at the start of this season. In order to combat the loss of income, exclusive clubs have thrown open their doors to paying guests, even on Saturdays and Sundays. Salaries and wages, caddie fees and food have all felt the axe.

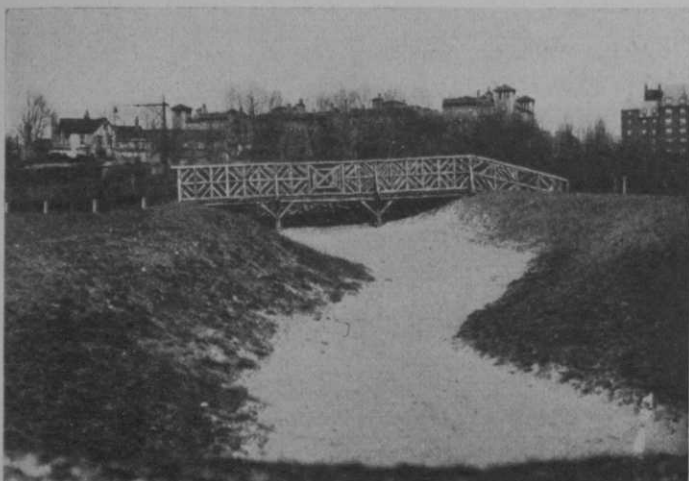
Public courses, including the municipally owned, have not escaped the heavy foot of hard times. Their best patrons are availing themselves of the private club's inducements to play for green-fees very little more than charged by daily-fee courses.

In talking to the green-chairman of one of the best known and popular clubs on Long Island, whose annual expenditures heretofore were around the \$40,000 mark, I was informed that "the club could only spend \$12,000 this year; no fertilization,

limited irrigation, less wages, less men. Where we will be at the end of two years I don't know, but this is the absolute limit of available funds." This course fortunately has a brainy greenkeeper who will stretch this \$12,000 until it feels half as big again.

Room for Economy.

There happens to be another course adjacent to this one, which is almost perfection itself. On account of its wonderful condition the membership is full, no decrease in patronage has been felt, other than in the restaurant. This club is one of the \$45,000 upkeep class, and with the exception of an all round cut in wages, representing a saving of perhaps \$5,000 to \$6,000, nothing has been done. They have 15 men, all the fertilizer, irrigation and seed the greenkeeper desires. The greenkeeper at this course is conservative, conscientious and painstaking,—one of the old school, so to speak. His course reflects the good things it has to eat and drink, and the numerous hands that attend its wants. The greenkeeper, strange to say, has a horror of the machine age, and outside of the fairway mower tractors, will not consider any other motorized unit. The



Before:

The bridge over this trap, although artistic, did not overcome expensive hand mowing of the banks. By using the fill from the outside bank and grading it, a rolling result was obtained

thought of cutting his greens with a power-mower is nothing less than sacrilegious. Even an acre and a half of lawn around the club-house which has taken four men, 3 to 4 hours several times a week for the last 7 or 8 years, is still mowed by the conservative hand-machine method.

There is a difference of opinion on the practicability of power green mowers, but all must admit that it is no longer economical to cut large areas of turf, such as lawns, tees and approaches, by hand when any one of a number of power mowers on the market can mow the same area in a fraction of the time and cost. I am not an advocate of less man power on a golf course, because the keeping of 120 to 150 acres of grass land, plus the refinements that have been demanded by golfers during the past 5 years, with a limited gang of men, is a far greater task than is generally supposed. And in justice to the vast majority of greenkeepers, it is astonishing to visit golf course after golf course and see the wonderful results obtained by them, with limited budgets, equipment and men at their disposal.

There are so many phases and shades of economy that these greenkeepers are forced to practice in the maintenance of their golf courses, that it is hard to lay down any specific rules which will cover all of them. It will be understood, however, that any reference to economy must necessarily apply to metropolitan courses, which have, or have had, large memberships, and not to golf courses in small towns, described in GOLFDOM from time to time, which are maintained by three men and the dog for a dime a day.

The determining factors in the cost of maintenance are fundamental. The one that will be referred to here is little understood by green-chairmen or even professionals, and is totally ignored by playing members. For the same reason also, maintenance costs on different courses can never be uniform. This fundamental factor, which as will be seen plays havoc with maintenance costs, is the manner in which the mounds and banks of greens, tees, etc., were finished off during construction.

Construction Governs Costs.

In order to make the point clear, let us first examine the major item of labor cost in the maintenance of a golf course, i.e., grass cutting. This includes the cutting of greens, tees, fairway, rough, banks of greens, bunkers and mounds as well as lawns, practice putting greens, etc. It will be conceded that if less labor and time are consumed in performing this task, that the cost will be less. Therefore, it can easily be seen that if a course is built on level or gently rolling ground that the cost of mowing is not as great as on a course built on very hilly ground, where the greenkeeper is forced to use horses and in some cases cut whole hillsides with hand machines or scythes. These are but physical differences in the terrain, which show that the cost of cutting a given area is in direct proportion to the amount that can be cut by tractor mowers. In other words, the more of a golf course that can be cut by a tractor mower, the less the cost will be,—and the reverse—the more hand mowing that is done, the greater the cost.

After:

Bank can now be cut by a tractor mower. Alteration of the back of this green, together with two other traps of same size, cutting and laying of sod complete, cost less than \$200

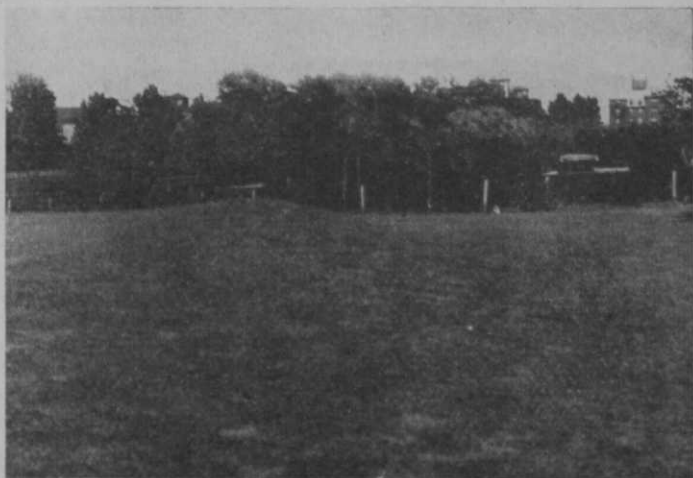


TABLE SHOWING COMPARATIVE COST OF HAND MOWING VS. POWER MOWING

Course Number	Year Built	Cost of Hand Mowing Banks and Mounds, per Season	Est. Cost of Grading Banks and Mounds During Constr.	Est. Cost of Grading Banks and Mounds Now	Gross Cost of Cutting Banks & Mounds by Hand Since Constr.	Est. Cost of Cutting Same Area for Same Period by Tractor Mower	Actual Cost to Club Since Course Was Built
1	1921	\$2,000	\$2,000	\$3,500	\$22,000 (11 years)	\$3,300	\$18,700
2	1923	1,700	1,500	2,600	15,300 (9 years)	2,295	13,005
3	1924	2,700	4,500	6,500	21,600 (8 years)	3,240	18,360
4	1927	1,200	1,000	1,800	5,800 (5 years)	870	4,930
5	1929	1,900	1,500	2,500	5,700 (3 years)	855	4,845
6	1929	2,700	3,000	4,000	8,100 (3 years)	1,215	6,885

It seems reasonable to suppose then, that during the construction of a golf course all the grading would be done in a way that would enable a tractor mower to cut the maximum possible area, even to include tees, and reduce to a minimum any hand mowing. Strange to say, the fundamental error of constructing straight sided banks on greens, tees and bunkers, that have to be cut all by hand, is the rule rather than the exception. The common causes for this costly mistake can be ascribed to ignorance on the part of the constructor, lack of supervision by the architect, lack of interest in subsequent maintenance or a desire to finish the work as cheaply as possible. Considerable extra fill is required in order to give the proper slope to banks, mounds, etc., more especially when the height of the bank exceeds 4 feet. How dearly members of golf courses pay for this omission can only be realized from a study of figures gathered by a number of interested greenkeepers who have inherited this type of course, is shown in the accompanying table.

Maintenance Costs High.

In the matter of mowing banks by hand, we find that in half the cases quoted, the yearly maintenance costs exceed the construction costs. Even if they were done now, it would still pay for itself in from 18 months to 3 years. The outstanding surprise of the analysis is the cost of hand mowing large areas over a period of years. In the case of Course No. 1, a net saving of \$18,700 could have been made in 11 years. If this sum were in the club's treasury now, it would certainly be welcome.

It seems that most clubs get off on the wrong foot. How much inexperienced construction men, in spite of all precautions, have cost experimenting with the club's money, only the original construction com-

mittee knows. The first thing that this committee finds out, is that the estimate is ruinously wrong. I have seen an estimate of \$90,000 accepted by a construction committee, from an architect that did not consider a topographical map and soil survey necessary. When the construction was nearly complete, it was found that a topographical map had to be made, in order to formulate a drainage scheme, made necessary by the tenacious clay soil, which a soil survey would have disclosed in the first place. Tree removal, irrigation, erosion control were all underestimated, to the extent of \$60,000, thus making the actual cost \$150,000. Even when this amount was spent, the course could not be rated as first-class.

Another bugaboo for the construction committee is that when the grass does not germinate as well as expected, advice is sought from various "grass-uplifters," whose business is to tell "how to grow bigger and better grass." They lull the committee into "kicklessness" by assuring them that it takes three to five years to produce turf.*

Assuming that a golf course has started construction; after a period ranging from 6 months to 2 years, the committee at last is told the course is finished. But spending the members' money is not finished. To their astonishment sand for bunkers, maintenance equipment and other essentials were not included in the estimate at all, much less suitable service buildings to house the equipment, fertilizer, seed, compost, etc. One of the successful moulders of golf courses,—a man who has built a great number of well finished courses and who knows costs backwards, having spent over \$2,000,000 of somebody else's money during the last 20 years, insists that

*See article by Riggs Miller in August 1931 "Golfdom."

golf club officials like to be fooled, and said to me, "In order to get a job I dare not give the true cost, because I have lost too many good jobs by doing so."

Need Veterans for Pro-Greenkeeping.

No less than 6 of the well-known metropolitan golf clubs have sought economy by dispensing with their greenkeepers and placing the pro in charge. How well this experiment will work out I don't know, but it is interesting to hear what a very prominent Eastern pro has to say. To use his own words; "How long does it take the average professional to learn to play golf well enough to teach it? Not in three months, or by taking short courses of a week at a time, or a lifetime watching another play. It can be done only by years of practice and experience. Very few pros are fitted by training to be pro-greenkeepers. If a pro is really on the job, he can find enough to do in his own bailiwick without looking for troubles outside. Besides, when a course needs him most, he is too busy teaching, playing or looking after his own business, to give it the personal attention it requires. He therefore is forced to depend on his foreman to cope with the situation."

As in the building of a golf course, it takes years of time and has cost clubs thousands and thousands of dollars for experiments and mistakes the greenkeepers have made, before arriving at their present state of efficiency. Dame Experience, greenkeepers know, has led them into many a pitfall before her rigorous lessons have been learned. The tuition fee has been heavy on the clubs, and it is hard to realize that there are clubs willing to go through all this again, which must be done before anyone can master the art of greenkeeping. When the pro follows the thorny path, then the club risks paying again. Professor Dickinson, of the Massachusetts State College remarked that "the knowledge necessary to a good greenkeeper equals an average college course"; so, if the pro must depend upon his foreman to see him through, the club is still the loser by paying too dearly for inferior supervision.

The paramount question is, then: Can real economy be effected without detriment to the golf course?

Real economy must be fundamental. Such things as neglecting to cut a rough, failing to fertilize (when an 18-hole course can buy a season's fertilizer for less than

\$400), not watering sufficiently, not using tee towels, not raking bunkers, or (like one green-chairman I know) spending \$4.00 in phone calls to save a cent a pound on 200 pounds of grass seed, are as foolish as they are unsound.

A golf course is built for the pleasure of its members. By omitting any or all of the ordinary refinements, punishment is substituted for pleasure: for instance, cuppy lies on the fairway caused by lack of fertilizer. Through want of food the grass has lost the recuperative ability to spread itself and cover these spots. No greater displeasure awaits the golfer than to find himself in high rough after having played an otherwise nice shot. Equally disconcerting are deep footprints in bunkers. Therefore, in any economic program all these things must be included, but be done in a quicker and less costly way.

Spend to Save.

It might sound paradoxical, but nevertheless it is a fact, that in order to save, one must spend. This truth is more potential when applied to labor-saving devices on a golf course. This fact was brought home to me very forcibly the other day when visiting a brother greenkeeper, who took charge of a course this spring. Last year the maintenance cost \$12,500. The first thing he did on taking the course over, was to ask for and get \$1,500 worth of new equipment and \$500 worth of fertilizer, seed and fungicides, etc. He has remodeled 4 holes in their entirety; has built 4 new tees on other holes, and his program calls for 4 more tees, which total 12 new ones. Notwithstanding these expenditures he will finish the year, by spending less than \$11,000, \$1,500 less than pure maintenance cost last year. I consider it a fine showing to absorb the cost of machinery and fertilizer in one year. But when, besides this, he maintains the course in first-class condition, transforms 4 mediocre holes into 4 fine golf holes that would grace any course in the country, and builds 8 extra tees, not one of which is less than 3,000 sq. ft. (50 ft. by 60 ft.), the performance is remarkable.

By coordinating the present decline in the cost of labor, supplies, etc., the added efficiency of power equipment, more especially where greens are cut by power-mowers, and by increasing the area to be cut by tractor mowers, surprising results can be accomplished by the greenkeeper in the way of low costs, without sacrificing the essentials.