ECONOMICAL golf maintenance is a business and a greenkeeper must have a sound knowledge of this very intricate work in order to obtain the best results, at a reasonable maintenance cost.

He must look upon his work as something that demands constant application of thought and effort to enable him to skilfully manage labor and determine the various phases of course maintenance cost and its problems.

No two courses are alike in construction, soil, turf conditions, labor supply, location with respect to supplies of materials,—or what is most important, the demand of the members as to the condition in which the course should be kept.

Some courses may have a great number of traps and bunkers while others may have natural hazards, sand wastes and woodland comprising Nature's own hazards, with streams running throughout the course. One may be on clay, another on sand, one may require a great deal of drainage from time to time while another may not require any. One course may irrigate its fairways, tees and greens from natural streams; another may require deep wells and lakes that require a costly pumping system, plus labor and power cost.

One course may be on good soil and have available top soil to dress greens, tees and fairways, while another being on very poor soil, will require years to condition before a good playable turf can be obtained.

There are so many uncontrollable factors in course maintenance that it is hard to set any standard. It is like the game itself which is always fighting the player and usually wins. The forces of Nature are always giving resolute combat to the greenkeeper. What are beautiful greens today are unsightly tomorrow.

**Economy Starts with Construction**

The most important of all the foregoing suggestions is the ultimate economy in getting the best advice in the building of any new course, as this is the basis of future cost of upkeep. Yet it is a matter which is most frequently disregarded. It is in the very beginning that club upkeep cost becomes an expense. The very day construction work is begun and the wrong kind of work attaches itself, then a double expense is contracted. There is not only the primary cost of construction, but frequently the additional expenditure of doing away with unnecessary objects. On any course, it is just as expensive to fill up a bunker as to make one.

The excuse that most clubs make for not getting the best advice is that they cannot afford it. The poorer the club is however, the more important it is that they should not waste their small funds in spending money the wrong way.

**The Architect and the Construction Committee**

Golf clubs, generally speaking, start from rather modest beginnings and eventually grow into institutions that receive and expend considerable sums of money each year. As the business end of the club develops, it becomes more and more necessary that the money be spent on a pre-arranged plan based on the requirements of the work to be done. Therefore the plan for all clubs in the process of organization is to nominate a committee which shall select a golf architect who understands the fundamentals of golf course designing, construction and turf problems. Does he know the ideals of the game? Does he know construction and also the maintenance of what he has produced?

Good courses advance the game while a poor course invites ridicule from critics and never creates enthusiasm in the club.

When the committee has decided upon the architect, they should hold a conference and talk over the situation in general. The club committee should discuss with the architect at that time all their ideas on the subject and offer suggestions. If they are good ones, no competent architect will hesitate to incorporate them in his layout.

Clubs may very properly disagree with what the architect thinks is best. The committee should have perfect freedom to discuss with him the plans of future upkeep cost, and the possibility of maintaining the course by power machinery so as to reduce hand labor. This is the big item of upkeep.

It must be remembered, however, that in nearly every
club, a large proportion of the members are inclined to object to all the difficult features on the course. But if the architect is sound, these same objectors will be the very ones to “point with pride” afterwards.

Consequently the architect must exercise tact and persuasiveness to convince the committee that his ideas are reasonable and that they will prove satisfactory.

I can assure you that golf course architecture is a question of study and education just as much as law, medicine or any other scientific profession and is not simply a question of muscle or physical skill as some still believe.

The club should not expect the architect to submit plans and specifications and then not supervise the work, because in nine cases out of ten, the men engaged to build the course do not or cannot interpret the ideas of the architect’s plans. It is practically impossible to put on paper or incorporate in a model, some of the ideas that fit in well with the general landscape. Many must be worked out on the ground or in the progress of the construction.

Begin at the bottom and build up. That will be the key to what it will cost to maintain courses in the future. Too many courses have been built in the past from the top down and have gone through constant remodeling and reconstruction.

However, no two courses are alike. Consequently every golf course has particular features which may be easily destroyed if an attempt is made to introduce imitations of some other course.

Draining an Established Course

By William Philipson, Willowdale Country Club, Williamsville, N. Y.

Cut sod 14 inches wide and any length easy to handle. Lay sod to left of drain about 15 inches from edge, then remove top soil 9 to 12 inches and lay this between sod and edge of drain.

Now remove sub soil to the required depth and put this on the opposite side of drain.

Lay tile carefully and cover joints with old grain bags cut in strips, back fill on tile with 7 to 9 inches of top soil and finish fill with sub soil.

A good method to prevent settlement is to run the wide wheel of the tractor lengthwise of the drain, refill the drain with sub soil and repeat rolling with tractor. This will then allow enough depth for the last few inches of top soil.

When replacing sod finish 1 to 2 inches above grade. Now use the tractor for final rolling.

We have a heavy clay sub soil, and we find that putting the top soil over tile results in better drainage. During the last two years over 20,000 feet of tile have been placed successfully as above.