Real Experting Is Thrifty Idea for Beginning Courses

By DR. ALISTER MACKENZIE

EXPERIENCE has taught me it is in the best interests of clubs that an architect should devote all his time and thought to the design, strategy and sculpturing of the course and leave irrigation, drainage, the details of devising labor-saving devices, and other problems to people who are better qualified than himself.

Nevertheless an architect should have enough knowledge of all these special subjects to be able to advise clubs as to how they should get the best and cheapest results.

Many committees raise the objection: "Why should we pay any other fees except the architect? Why should we pay a contractor, a soil technologist, a botanist, a geologist, an irrigation or drainage engineer?"

The answer is: Because in this way you will get by far the best value at the lowest cost. You may be paying more for mental labor, but you are lessening manual labor, your chief expense.

Why should a club worry about the cost of specialists if, owing to their advice, the total cost is half of what it would have been without them? As a general rule the more a club pays for mental labor the less the total cost will be.

One of the dangers from seeking advice from a builder of golf courses who offers to do the work for a small fee is that he may attempt to supplement his income by secret commissions. In cases of this kind the club members are only too frequently being robbed, both in regard to price and quality of the goods. The International Society of Golf Architects prohibits its members receiving or giving commissions.

The only real safeguard a club has for getting a course constructed cheaply and well is in the reputation of the architect. Cheap advice or work on a contract basis usually leads to disaster. Designing golf courses is an art and like other forms of art requires education, experience and a flair for this particular subject.

If it is desired to design a palatial mansion, public building or attractive hotel, it is usual to choose a first class architect who, after making the plans, advises on the best specialists in the stone, brick, concrete, iron, woodwork, interior decorations, plumbing, furniture, landscape gardens, etc.

Similarly, in regard to golf courses, we find we obtain the best and cheapest results by not only insuring that finality is obtained in the routing and designing of our courses, but also in advising our clients as to the best specialists in the construction and contour work, drainage and irrigation engineers, soil technologists, and botanists to guide us in the choice of pure seeds, etc.

Look Before Leaping.

Cypress Point was made on the above scientific principles. It was not a question of luck or sowing a mixture of various seeds in the hope that one or more would suit the particular soil conditions. As an example of the time and thought given to the work, Mr. Robert Hunter, (who was then my Californian partner) after consultation with me, drew up ten pages of typewritten memoranda in regard to methods of carrying out the work.

The following are extracts of the memoranda:

"Obtain reports from the following experts of the University of California:

Professor Shaw—Soil map of property.

Professor Kennedy—Study of grasses and weeds.

Professor Weir—Map for necessary drainage.

Professor Bard—Report on soils requiring nutrition and the treatment of soils under trees.

Lay out turf plots and test out following grasses: German mixed bent, *Poa trivialis*, bluegrass, redtop, red fescue, sheeps fescue, Metropolitan bent, *Agrostis maritima*, yarrow, *Tritineum repens*, *Cynosurus cristatus*, *Festuca duriuscula*, *Agrostis canina capillaris*, and native bents selected by Kennedy.

One plot of fine sand fertilized chemically.

One of sand covered with an inch of clay.

One of sand and loam harrowed-in three inches.

One of sand mixed with compost and loam treated with arsenate of lead.

Before construction work commenced we discussed the advisability of steaming the soil to obtain a clean seed bed. We sent samples of all the seeds to three universities to check their purity and germination.

Science Pays.

It is owing to scientific methods of this kind that in California we have succeeded in obtaining perfect greens and fairways free from weeds, daisies, and clover,

Before work commences, we try to impress on the construction company the importance of highly paid and highly skilled men with a maximum of equipment.

The kind of man we require is one who is continually using his wits to make the best use of the natural features and to construct artificial features indistinguishable from natural ones.

In attempting to employ highly paid men we are frequently hampered by members of a committee. Usually those members who in the first instance were opposed to employing a first class architect will contend we are paying more than usual union or district rates and it is difficult to persuade them that we will get better and cheaper results by these means.

Reward Brainy Laborers.

At times they even insist on reducing the men's wages. This is fatal, the men take no more interest in the work. You have lost their brains and only have the use of their hands. On the other hand it is a good plan to commence by giving low wages but to tell the men that as they become more skillful their wages will be increased. A policy of this kind acts as a stimulus and the men are constantly striving to give more and better work. In actual practice experience has taught us that a few extra cents paid in wages is worth dollars in additional production.

Our experience with both British and American workmen reveals them as very fine fellows who appreciate encouragement and above all appreciate being taken into one's confidence. There is nothing that makes them take such a keen interest in their work as explaining to them why you want the work done in what at first sight appears to them to be an unusual kind of way.

The best workmen take a pride in doing what they have been taught is a good workmanlike job. Their natural tendency is to make everything neat and tidy in regular circles or in straight lines and angles. One of the most difficult things to contend with is to break them of this and get them to follow the irregular curves of nature.

It is only men of great intelligence who can be trained to do difficult work like the sculpturing of a golf course.

The same principles apply in the construction of a golf course that govern any other well run business. The superintendents and men are encouraged to be continually devising means to get the work done in the most economical manner.

Caterpillars Great Aids.

Experience is continually teaching us cheaper and better methods of doing construction work. It is needless to say that the contouring of the greens, tees, hillocks, hollows, bunkers, etc. can all be done with tractors and scrapers cheaper than hand labor or even horses and scrapers, but we have recently found that small tree roots and rocks weighing up to a ton or more can be removed by the Caterpillar tractor and bulldozer.

The use of explosives should be reduced to a minimum by covering up the larger roots and rocks with soil and seed. This is not only the cheapest method of disposing of roots and rocks but has the advantage of making undulating fairways resembling real links land.

We have also found by experience that explosives smash up the rock into sharp fragments. After the course is soiled and seeded these sharp fragments work their way through to the surface, whereas a rounded rock never does.

PRESENT-DAY golfers demand better fairways. There usually is plenty of grass on our fairways, but how often we see it undernourished. Greens are topdressed and fed regularly, but fairways are more or less neglected.

Club officials would do well to appropriate a sum of money each year for fertilizing fairways on established courses where the turf is thin. Topdressing with compost would be too costly unless the club owned land not in use where one could get good topsoil for the purpose of topdressing fairways. Where turf is thin and undernourished, weeds and clover take possession and fertilizing is needed.