The GOLF COURSE

The Cost of Construction and Maintenance of a Good Golf Course

By LEONARD MACOMBER

HOW many people realize what it means to build and maintain an up-to-date golf course? Only a few "outsiders" appreciate the amount of work involved and the cost of arranging the holes, clearing the ground, preparing the soil, producing a good golfing turf, and the annual upkeep expense.

To give any hard and fast rules on the cost and maintenance of a course is impossible, because conditions, situations, etc., vary in each case. However, it is possible to give an idea of the cost of the average modern course and point out the principal items of expense.

Generally speaking one has always to figure on a good course costing on an average of at least one thousand dollars a hole, or ten thousand dollars for a nine-hole course and twenty thousand dollars for an eighteen-hole course. This does not include the cost of the land, but just the clearing, preparation of the soil, fertilizing, seeding, construction, water system, labor and material.

During the past four or five years, there were a great many new courses constructed, and at Detroit over sixty thousand dollars was spent on an eighteen-hole course—at Cleveland over seventy-five thousand was spent—and one golf course recently added to the New York district will cost, when completed, close to a million dollars.

In building a new course—first of all it is most important to secure the services of a really competent golf architect, who is qualified to pass on the site selected and lay out the holes to the best advantage. Often it is necessary

to have topographical plans made of the ground to work out the drainage problems as well as help in mapping out the course. The modern method is also to make working models of the greens, showing every undulation and the proper trapping to protect the green. It is preferable to guard the greens properly when they are built, for the method will insure a more natural appearance of the plan, but it is always good judgment to wait until the course has been played over for a few months before attempting any other trappings except, of course, when artificial hazards are obviously needed. This latter suggestion is made insomuch as no architect or construction expert can tell in advance just what the run of the ball will be, this depending entirely upon the condition of the turf and the peculiar slope of the land.

The complete cost of the architectural work, if a really capable architect is employed, may involve an expense of a thousand dollars or even more for an eighteen-hole proposition. To try and save a few dollars in this work is foolish and uneconomical in the end, when one considers what the total investment of a golf and country club proposition represents. There is no reason why the golf architect should not be paid as much as the clubhouse architect-but how often do we hear of professionals who call themselves golf architects laying out courses for a fee of a few dollars, ruining a piece of property and slaughtering the golf possibilities.

The next expense is in the clearing and cleaning up of the ground, and this work varies, so it is impossible to give any definite figures. The same remarks apply to the drainage expense.

The construction of the putting

greens, tees, mounds, bunkers, hazards, etc., generally make up the principal labor expense, but if the work of digging pits, traps, etc., is mapped out properly, so that material is supplied close at hand for any grading, there is a considerable The average plateau green saving. which requires considerable building-up costs three hundred to four hundred dollars-that is, just the gradingwhile the average tee figures about \$35 to \$40. Of course, this depends upon the distance required to haul the soil, and the nature of same-whether heavy, medium or light-and also the local labor conditions.

To build natural level greens on well drained soils the cost of preparing the surface is small, but where it is necessary to put in sub-drainage, removing and replacing top-soil, the cost runs up very fast. There is really no limit to what can be spent in designing, constructing and trapping putting greens.

We next have the water system to install, and for an eighteen-hole course the galvanized wrought iron pipes alone cost in the neighborhood of two thousand dollars, and then comes the laying expense and often the cost of a pump and pumphouse. Frequently the pipes used for this purpose are inadequate to carry the required water supply and great care should be taken to guard against this common mistake.

The seed and fertilizer requirements for an eighteen-hole golf course can be figured as follows:

The course is plowed from start to finish, and we will say the total playing distance is 6,400 yards, so that every 80 yards in length is an approximate acre. This means that there are eighty acres of playing ground in an eighteenhole course, but as there is an acre of "rough" in front of each tee, or about twenty acres in an eighteen-hole course, it leaves about sixty acres of important ground to carry a good golfing turf.

Artificial fertilizer generally costs about \$15 per acre to apply and the important parts—viz.: the "lies" and "approaches" should be well manured. Materials such as lime, manure and humus are required in building proper putting greens, but the quantity necessary depends largely on local conditions. Generally speaking five to ten tons of humus should be used in the construction of each green, and this material is also recommended as a top dressing.

If a good golfing turf is required inside of twelve months, the seed should be sown at the rate of at least eight bushels or two hundred pounds per acre and for fifty or sixty acres, four to five hundred bushels of fair green seed will be required. At about \$7 per bushel. this comes to \$3,000 to \$3,500. In seeding the putting greens, figure on two ounces of seed per square yard, four to five bushels of seed to each green will be needed, or eighty to a hundred bushels for all greens, costing about \$8.00 per bushel and making the total cost of all seed required figure from \$3,500 to \$4,500. On some courses as much as \$7,500 worth of seed has been sown and results were well worth the extra expenditure. It is never advisable to economize on quantity of seed.

In renovating existing turf, half the above rates are usually necessary.

The average up-keep expense of a modern eighteen-hole golf course is close to \$10,000 per annum. Some clubs can keep their course in fairly good condition for perhaps \$7,000 or \$8,000 per annum, but most of the prominent clubs spend upwards of \$12,000 every year.