

EXPERTS NEEDED

Neglecting to Employ Qualified Architects Has Cost Thousands in Muni Course Building

THE MORE I KNOW of golf and golf courses the more convinced I am of its influence on the health, the happiness and, owing to its effect on mental as well as physical fitness, the prosperity of the community.

One of the many advantages of capitalism is that under this system the luxuries of the rich today become the necessities of the poor tomorrow. This has been proved in regard to most things which at one time were the monopoly of the rich such as tea, coffee, sugar, automobiles, electric light, telephones, radios and even silk stockings, but golf and golf courses have fallen far behind other luxuries in this respect.

In olden days golf was the sport of kings, the Royal and Ancient game, but in Scotland in my youth, owing to the lessen-

One of the last articles written by the late Dr. Alister Mackenzie, internationally famed golf architect, is of timely interest because of extensive use of relief funds in municipal golf course construction.

Dr. Mackenzie points out the great opportunity before municipal golf courses that are expertly designed and constructed.

If his message were heeded by those responsible for the considerable amount of municipal course construction now being planned, use of public funds for such work would have highest, practical justification.

thority rarely appreciate the value of a golf course not only for its health-giving properties but also in providing wide open spaces free from buildings which are a permanent asset as the lungs of the city and in the second place they fail to realize



Dr. Mackenzie insisted his architecture appear to have been created by nature. This 180-yard 11th hole of the Valley Club, Santa Barbara, Cal., illustrates the finality of his work.

ing in cost of clubs and balls, it became so popular that it was well within the reach of the artisan.

At the Braid Hills municipal course in Edinburgh and on many other municipal courses golf could be played for as little as three pence a round, and at St. Andrews the rate-payers and their families enjoy the game free of all cost.

In the United States often those in au-

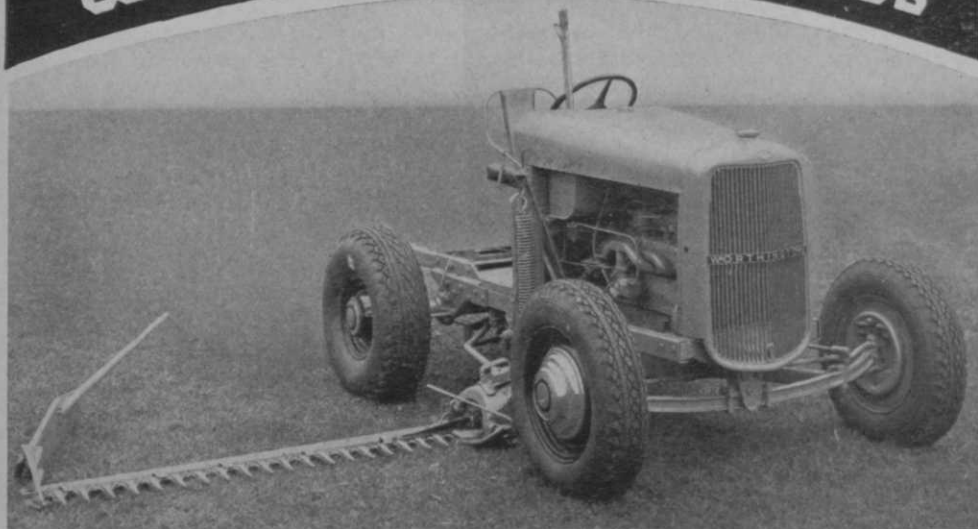
that a golf course which is well designed and constructed, invariably pays, and is not such a burden to the community in the form of taxes.

The natural conditions of soil and climate in America are not so suitable for providing golf courses at a low cost as in the home of golf, Scotland.

The chief cause of the comparatively high cost of golf, however, in the United

BY ALISTER MACKENZIE

Worthington Mowers



When not in use cutting down cutting costs, the sickle bar folds up. Or by loosening three cotter pin bolts it can be removed altogether. Tractor in either case is then free for all kinds of hauling jobs.

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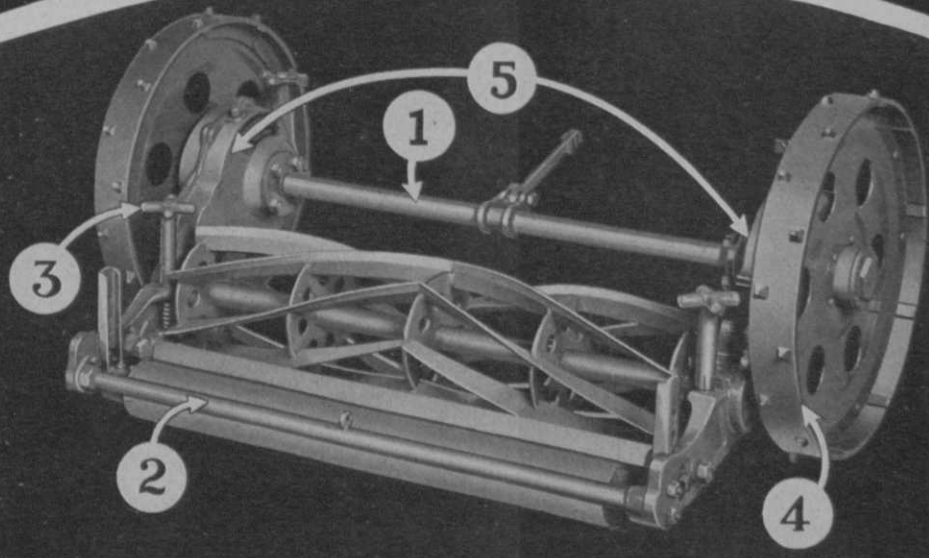
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One of the late Dr. Mackenzie's prides: the 160-yard fifteenth at the Leads (England) municipal course.

States is due to the fact that the municipalities that intend constructing a course rarely realize that the construction of a golf course is an extremely difficult art and if it is to attain its acme of popularity at a low cost of maintenance and construction it must be designed by an expert.

Build Right for Profit.

Records show that a first class golf architect designs a golf course at half the cost of construction charges and at a saving of at least 50 per cent in maintenance charges under figures of an inferior architect. Moreover the course is twice as popular if computed in terms of green fees. This estimate of course is based on similar conditions of accessibility, nature of terrain and so on.

With the exception of cities like San Francisco and Sacramento that are blessed with Park Commissions and city managers of exceptional ability cities are inclined to figure that if they get 9 or 18 holes of golf course they have handled the job properly. There never has and never will be an outstanding municipal golf course constructed on these lines. The false economy of saving one or two thousand dollars in expert advice frequently leads to the loss of hundreds of thousands of dollars in increased cost of construction and maintenance and in decreased popularity as estimated in terms of green fees.

This may appear to be an exaggerated statement but I do not think that it is. I have in mind two public golf courses in

the same city. One of them is less accessible and more unsuitable ground for golf than the other, but designed by an expert whereas the other was designed by a man of extremely limited architectural experience. The one designed by a first class architect has not cost half as much to construct and maintain and yet it gets \$50,000 a year more in green fees than the other. Multiply this by the life of a golf course which may be 20 to 100 years (the old St. Andrews course, which is a municipal course, is over 300 years old) and the loss for the lack of expert advice may conceivably run into a million dollars or more.

There are a few general principles which apply to public courses even more than to private ones. It is of even greater importance than usual that the soil, climate used for irrigation be carefully matic conditions and the nature of the studied so as to select the most suitable seed and fertilizers to provide turf of hard wearing qualities.

A Civic Jewel.

Beauty is of paramount importance. A municipal course designed by an architect who is an artist in constructing hillocks, hollows, sand bunkers and the grouping of trees of a natural appearance is almost invariably the beauty spot of the city. The most important thing of all in the designing and maintenance of a municipal course is the realization by everyone concerned that golf is played for fun, and that unless

It takes a course in the pink—



—to keep play up *at its peak*

Here is a list of the supplies and equipment you'll need to get and keep your course in the pink of condition . . . Check it!

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a golf course provides the maximum amount of pleasure for everyone, including the beginner who rarely gets a ball off the ground, it is not a complete success.

There should be no long grass or other hazard on a public course necessitating the annoyance and irritation of searching for lost balls, and there should be a minimum of sand bunkers.

On the other hand the course should be full of interesting features such as closely mown hillocks, hollows and swales creating fascinating strategic problems and making every hole of such a character that there is such infinite variety stimulating players to improve their games. Then the charm of the course grows and grows and grows so that golf never becomes stale.

The Old Course at St. Andrews in Scotland is an ideal public course in this respect. There is a constant stream of men, women and children playing on it all the year round from sunrise to sunset and yet it is such an excellent test of golf for a good player that Bobby Jones says he gets more pleasure in playing it than in a hundred other courses.

The course I made for Bobby Jones, the Augusta National, is similar to St. Andrews. There are only 22 sand traps on it. It is easy for the man who is content with fives and sixes and an occasional par, but it is extremely difficult for the golfer who is striving for sub-par figures. It is a private club but it would have made an ideal public golf course.

There is an old adage, "Penny wise and pound foolish," which applies as much to the laying-out and designing of golf courses as to anything else, but it requires men of vision to realize this. Records show it however, and history has proved it. Beauty and finality must be provided for at the beginning, or the life of the course will be that of a cripple struggling along on crutches.

WILLIAM MILLER, a director of Teachers, the Scotch liquor people, recently visited Chicago and told the folks among other things:

"The American's drink is about 50 per cent larger than the 'spot' consumed by the Englishman.

"Scotch liquor should be consumed with the liquor and the soda about 50-50.

"Cost of retail liquor licenses in Scotland is 50 per cent of the assessed value of the property."

Experienced Manager Needed at Fee Courses

HERE IS AN example of how willingness to work isn't all that's needed in keeping a fee course going these days. A certain group of rich golf enthusiasts during the boom days built a fine daily fee plant. None of them ever paid much attention to the plant. They hired and fired managers frequently but refused to give any of the managers they hired the benefit of their extensive and successful business experience. The last manager advised them to cut the prices as a last resort.

"O.K.," said one of the rich owners, "get out the announcements to your mailing list."

"But I haven't got a mailing list. Very few of the people who come here ever give their names and addresses," replied the manager.

The part-owner shook his head in discouragement. "What about all the automobiles that have been parked around here? You could have taken their numbers, checked up on them and compiled a great mailing list."

That compilation of mailing lists from automobile licenses and other sources is one of the first things an experienced operator does and certainly should be one of the plant's assets that owners should investigate, but it's amazing how many of the courses haven't such lists. Some of them say there's no use, they haven't the money to work the list.

That's only one small but significant instance of an expensive lack of experience in the fee course business.

SOILS DIFFER widely. It has been shown that bent grasses grow best in some soils if they are decidedly acid, whereas in other soils the best growth may occur when they are alkaline. Therefore it is impossible to state that soils for golf course turf should be within certain prescribed limits of acidity.—John Monteith, Jr.

DURING construction or reconstruction of a golf course, it is best to do all possible carting of materials in dry weather or after the ground is frozen. Carts should stay as much as possible in the same tracks, thus doing the minimum of damage to turf. Sometimes it pays to remove the turf during carting and relay it after the work is finished.

5 SCHOOLS OFFER TURF COURSES

*Penn State, Wisconsin, Iowa,
Minnesota & Rutgers Set Dates*

SUGGESTIONS TO GREEN-CHAIRMAN

At this time of year there is not much work needed on the golf course. Your greenkeeper can easily take a week attending one of the turf short courses announced below. He will be immeasurably benefited by the first-hand knowledge of latest maintenance practices and he will have the opportunity to work out practical problems in conference with other greensmen who will be attending the courses.

Your club can make no smarter move than to pay whatever it costs to send its greenkeeper to one of these conferences. The expense is not great; probably \$25 will cover everything. The investment will be returned amply in better maintenance and greater course economy.

Incidentally, you Mr. Green-Chairman, yourself, can profitably attend a short course. You'll get a better picture of what greenkeeping is all about, and you'll be in better position to fill your chairmanship.

Penn State Turf Conference Will Meet Feb. 20-24

EVERYONE in Pennsylvania and neighboring states interested in turf culture is invited by J. W. White of Penn State College School of Agriculture to attend the seventh annual conference of golf course superintendents, to be held Feb. 20-24. The conference was arranged by a joint committee of greenkeepers and representatives of the college, and will be held on the college grounds.

Some subjects to be discussed and the speakers are:

"The Present Status of Disease Control," by H. W. Thurston; "Some Effects of Arsenic and Mercury on Soil," by J. W. White; "Use of Organic Matter, Sand and Soil in Seed Bed and Compost Preparation," by F. G. Merkle; "Identification of Plant materials by the Use of a Key," by G. H. Bowen; "Breeding Work with Bent and Blue Grass at Penna. Exp. Station (Measuring Turf Quality)," by H. B. Musser; "Fertilizer Demonstrations in Philadelphia Area," by C. K. Hollowell.

"Control of Sod Web Worms, Cut Worms, Earth Worms and Ants," by E. A. Richmond; "Experimental Work on Chinch Bug Control in New York State," by G. F. MacLeod; "Control of White Grubs and Japanese Beetle," by E. A. Richmond; "Nutrition of Higher Plants," by H. W.

Popp; "Influence of Soil Fertility upon Plant Populations," by F. V. Grau; "Some Limitations of Quick Tests for Determining Soil Deficiencies," by F. G. Merkle.

The annual turf conference dinner will be held at 6:30 p. m. on Feb. 21, with prominent speakers on the program.

No registration is necessary for attendance at the Penn State conference. All interested are invited to plan to be there.

U of Wisconsin Plans to Hold Two-Day Greens Course

WORD comes from James G. Moore, chairman of the department of horticulture, College of Agriculture, University of Wisconsin, that the institution will offer a two-day course in greenkeeping in conjunction with a meeting of the Wisconsin Greenkeepers association on March 7 and 8. Moore will be in charge of the course.

Two-Day Greenkeepers Short Course at Iowa State

FOURTH annual greenkeepers short course at Iowa State college will be offered this year on Monday and Tuesday, March 4 and 5. Nationally known authorities on turf culture including Kenneth Welton and O. J. Noer will be on the program. Other speakers will deal with various phases of practical green-

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keeping. This year some laboratory work will be presented under the direction of college staff members.

Attendance and interest at past short courses have invariably been good, and ordinarily 80 or more greenkeepers have been present. Visitors have been attracted from all adjoining states. A cordial welcome is extended to golf professionals and greenkeepers both within and outside of Iowa, and to park and estate superintendents or any others interested in turf growing and maintenance.

Those desiring additional information and the program of the short course should send requests to Prof. B. S. Pickett, Head, Department of Horticulture, Agricultural hall, Iowa State college, Ames, Iowa.

New Jersey to Hold Turf Course at Rutgers This Month

SEVENTH annual short course in turf management will be held this month at the College of Agriculture, Rutgers University, New Brunswick, N. J., during the five days from Feb. 18 to 22. The usual lectures, discussions and laboratory demonstrations will constitute the course and such subjects as soils, fertilizers, drainage, turf pests, seeds and methods of management will be covered.

The course will be under the direction of Dr. Howard B. Sprague and he will be assisted by eleven other instructors of the college, including J. G. Lipman, E. E. Evalul, J. S. Joffe and E. R. Gross.

Greenkeepers, members of green-committees, landscape architects, estate managers and others interested in turf management may take the course upon payment of the registration fee of \$10, plus \$1.00 for outlines of lectures, payable upon registration. Application should be sent at once to F. C. Helyar, director of resident instruction, College of Agriculture, New Brunswick.

University of Minnesota Offers Five-Day Turf Course

UNIVERSITY of Minnesota will offer a five-day short course for greenkeepers starting March 4 and full information on it may be obtained by writing W. R. Smith, director of intramural athletics, Univ. of Minnesota, Minneapolis. Last year over 50 greenkeepers of the Northwest attended the course and a like number are expected for this season's.

It Pays to Know Your Golf Course Areas

YOU'RE going to topdress your fairways. Do you know how many acres of surface they represent?

Your greens need an arsenate of lead dose at the rate of 2 lbs. per 1,000 sq. ft. How many square feet of turf are there in your 18 greens and the practice green?

Your sandtraps need new sand. How many cubic yards of sand are you going to use if you put a two-inch layer of new sand in every trap?

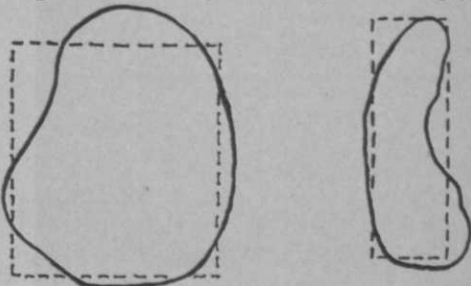
Your tees have a good many weeds in them. If a man can get the worst of them out of a square yard in two minutes, how many hours of labor should you plan on for this work?

These questions are not meant to be a lesson in arithmetic; they are given as examples of the sort of problems every greenkeeper should be prepared to answer accurately at all times. Most greenkeepers have a fairly close idea of the areas covered by tees, fairways, greens and traps, but it would be a lot better if they knew exactly how big these areas are. And during the winter, while other course work is slack, is as good a time as any to

do a little measuring and store away the figures for later reference.

Here are some hints on obtaining reasonable accuracy in measuring course areas. They are taken from a bulletin sent out last fall by the Detroit District Golf Assn. to its member clubs. The association wants the figures so it can make accurate comparisons between the labor costs of different clubs.

Tees, says the bulletin, are easily measured. They are generally square or oblong and it is only necessary to multiply



To estimate size of irregularly shaped greens or traps, visualize a quadrangle of approximately the same area.

the length of each tee by its width to get the square feet.

Traps and greens present a different problem because of their irregular outline;

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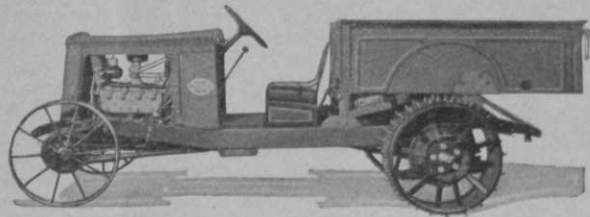
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a simple way to arrive at the square feet is to visualize an approximate square or oblong like the diagrams herewith. The lines represent the outline of a green or trap; the dotted lines represent a square or oblong roughly the same size and easy to measure.

To estimate the area of fairways, refer to the table below, where any combination represents approximately one acre. Determine the average width of the fairway and refer to that width in the table; see how many times the length given will go into the length of the fairway, as marked on the score card, after deducting the rough in front of the tee.

These dimensions equal one acre

Width	Length	Width	Length
70 yds. by	70 yds.	50 yds. by	96 yds.
65 yds. by	75 yds.	45 yds. by	108 yds.
60 yds. by	80 yds.	40 yds. by	120 yds.
55 yds. by	88 yds.		

Example: A fairway with an average width of 40 yds. and 250 yds. long will contain approximately two acres. There are 4,840 sq. yds. in an acre.

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In lots of 11 to 20 . . . \$5.50
Complete tee ensemble—washer, tee stake, towel, waste container, tee data plate . . . \$10.50
Lewis Bag Rack and other equipment.

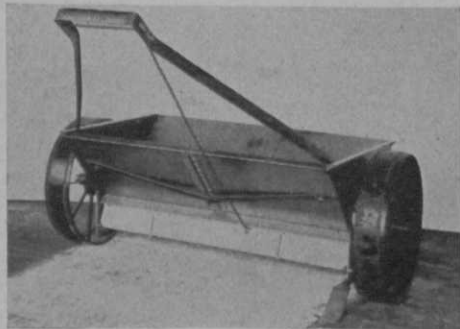


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A MANAGER IN THE Cleveland metropolitan district comments interestingly on liquor prices: "Through experience in this district, which, no doubt, is true elsewhere, I find that the one large fault of club managers, or, should I say 'committees,' is that the clubs are trying to sell liquors in accord with prices and conditions existing in public hotels and cafes and this is impossible. In Ohio sales at private clubs are restricted to members and their guests throughout a seven-month season of activity. Even on good days we have only a limited number of possible customers. Private clubs here in Ohio are selling only the best liquor obtainable and they should be entitled to a better price for their drinks than are publicly operated places where refills are common."

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