### Suggests Unemployed Be Used Building Muni Courses By Fillmore Harty

**COMBINING** the words "golf" and "unemployment" may seem strange and yet with the proper study of both it will be found that the two can work hand in hand in a most homogeneous fashion.

This article is not written with the thought of the large city but more with the thought of the small community with a population of not more than 25,000. It is true that unemployment in the small city is not as acute, in most instances, in proportion as that of the large metropolis, but political exacutives will verify the statement that while the situation is not as large it is just as annoying and dis-Taxpayers of the community, tasteful. with incomes cannot afford increased taxes, doles or donations to relieve the situation because of reduced incomes forced on them.

How then can this situation be relieved? Would it not be better to create work which in time every community will need? Would it not be better to construct these needed improvements now while labor and material costs are low?

In the majority of small communities, municipally owned and operated golf courses are not numerous. Many have courses but as a general rule they are flat, uninteresting and monotonous. With the increased interest in playing golf there should be far better courses. Why is it not a timely suggestion for these smaller cities to remodel and rebuild these poor courses? Why is it not a timely suggestion to build new courses on available land?

Perhaps if the executive heads of the cities were to understand more clearly the financial return of properly conducted golf courses, they would connect the building of them more closely with their unemployment problem.

The writer has made considerable study of public and private courses both in times of prosperity and depression. With the depression came the loss of many private club members because of financial difficulties, but the play on public courses increased. As an example, a large public course in the Detroit district decided to reduce the daily fee from \$1.50 to \$1.00, which, they thought, was a ratio of reduction in accordance with depressional



Every golf course official will find "The Putting Green" valuable. Contains 40 illustrated pages on grasses, construction, planting and care of greens. Here are a few comments from many received daily:

Very concise and clear. Will big help to us at Cazebe a novia. -Collin Armstrong, N. Y. Syracuse, N. Clearest and most understand-able booklet I've read on this subject. -P. O. Daudt, St. Charles, Mo. Very comprehensive in every detail. -George S. Pierce, Waterbury, Vt. Full of good suggestions and practical information. -J. M. Adkison, Tulsa, Okla. Ask The finest thing I have ever for seen. -Albert L. Shinger, Lansing, Mich. your copy The best book of its kind I have ever read. -John E. Barlow Xenia, Ohio. Your book is like your seed, always reliable. --Wm. E. Conkel, Pres. Perkins, Ill. COMPANY OHIO SEEDS

#### GOLFDOM

standards. As a result, the business has so increased that it has been necessary to increase the size of clubhouse accommodations and increase the number of persons employed. The amount of fees now collected and the amount of money now spent by players for food and golf supplies is by a large percentage greater than during the so-called times of prosperity.

This condition is to be found in the majority of instances. Of course, there are some courses that have not had a good financial return, but this is almost invariably due to poor management, refusal to meet present day spending demands, and most important, poor and unkept courses. Also the clubhouse must be sufficient to take care of the golfers' needs.

To attract the patronage of the public golfer it has been found absolutely necessary to have adequate and pleasant clubhouse facilities, a well designed and well maintained course and courteous service. When a golf project has these three requisites then it will prosper. A properly conducted course will net a return of from 5 per cent to 20 per cent.

The greatest amount of unemployment is to be found among the unskilled labor class. It is from this class of labor that course construction draws. Wages of these men have decreased materially and because of their eagerness to obtain employment more work will be accomplished. The only skilled men required are the architects and construction foremen. Tractors, power shovels, discs, etc., are the only equipment needed, all of which are a part of every city's equipment. Materials such as fertilizers, shrubs, grass, seeds, etc., have decreased in cost. With the decrease in cost of labor and materials it is now possible to construct a course of championship caliber for about the same cost formerly expended for an inferior one during the times of prosperity. Clubhouse construction costs are also lower, usually about 20 per cent.

Golf will always be a game for the masses. Attendance records show the number of players are increasing yearly.

Cities should have as a matter of pride of ownership at least one course of championship caliber. They should have a clubhouse that is well planned and attractive. It should have spacious lounges large locker rooms and well serviced restaurants. And wherever a layout is in accord with the above requirements it is prospering.

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## **ROYER** FOUNDRY & MACHINE CO.

158 Pringle Street (Kingston Station) WILKES-BARRE, PA.

# Basic Factors to Be Followed When Constructing Course

By J. M. RETTIG Superintendent, Elmhurst (III.) G. C.

N GOLF course construction, it is necessary to thoroughly clear the ground, to

remove trees that interfere with course design, heavy brush and rocks, and to have your fairways in shape for grading. Only then are you ready to prepare the soil for seed and seeding. In connection with such preparation the fairways should be most completely free from anything which will interfere with the playing of shots. Another point often not considered is the fact that land adjacent to the fairways should, where possible, be prepared to some extent, so that the golfer may recover from wild shots which land outside the fairway. A strip about 50 ft. wide will care for these shots. Grading should next Requests for elementary and practical information on golf course construction methods are received frequently by GOLFDOM.

The accompanying tips from J. M. Rettig, veteran constructor and greenkeeper, will be of especial help at the smaller town golf clubs, where experienced first-hand aid may not be available.

occupy your attention. Plans for all of the grading should be ready and passed upon, so that the working crews may proceed from one end of your course to the other in

# Now Is the Time to Plan for Rich-Velvety Greens Next Year....



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Why not send for one or more Larks to try this fall? Give them every test you can think of. Then you'll be able to settle your sprinkling problems before the spring rush begins!

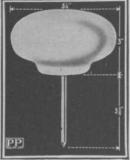
The price of the Lark is \$15, anywhere in the U. S. (slightly higher in Canada and abroad). If you are not completely satisfied, return within 10 days and your money will be promptly refunded.



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PORCELAIN PRODUCTS, Inc. Findlay, Ohio



Prepares Top Dressing for Fairways and Putting Greens, satisfactorily and economically. Mixes and screens with one operation.

Furnished with or without power, as ordered. \$190.00 without power—\$295.00 with power, either electric motor or gasoline engine.

Send for circulars.

THE SILVER MFG. CO. 707 South Ellsworth Avenue SALEM, OHIO a sweeping advance. It should not be a question of going from No. 1 to No. 2 and so on. It should rather be a program that takes in the construction of adjacent greens, fairways and hazards, and moves steadily across the property. In doing this see that a loop of nine holes may be played before the balance are ready.

Pipe line for water should be placed with the grading advance, and any planting of trees or shrubs be done after completion of the water lines when water is obtainable. All grading which includes the making of tees, fairway rolls, hazards, greens and necessary drainage, must be entirely finished before seeding any unit.

Roads for service through the grounds are very important, and these and foot bridges, and any other bridges must be built. Those used during construction should be planned to serve when the course is in play.

#### Install Hazards Early

In years past many hazards were made after the fairway was in grass, the theory being that they were often misplaced otherwise, and that the course should be tried before their final positions were chosen. Nowadays, it is found more desirable, for many reasons, to do grading, including trapping, before seeding. First; it is a finished and not a patched job and the drainage is more easily mapped as a whole, if done at one time. Sand may be placed on the ground as the hazards are built, as it is not necessary to bring it in afterwards. Most important of all, the new fairways will not be cut up, bruised and soiled by tramping of teams and the dragging of implements across them if hazards are made before seeding.

If alternate tees have been provided, and optional hazards with open fairways for the short player arranged, hazards will seldom be wrongly placed. It is much easier to fill up a hazard, or part of a hazard, and call it ground under repair, than to construct new hazards. When you come to seeding your course you have a lot of different varieties of grass seed to select from and by considering soil and climatic conditions and the recommendations of an established and responsible golf seed house you can not go wrong.

In preparing seed bed for fairways after the ground is ploughed use a spike harrow and roller, or drag many times until there is a fine mellow layer at least two or three inches deep. Make sure there are no hol-

54

lows or sharp ridges, as these would interfere with mowing after the grass is up.

#### Fairway and Green Sowing

Best results in grass seed sowing are obtained by using the wheelbarrow type of seeder, sowing half of the seed lengthwise of the fairway and then sowing the other half crossways of the fairway. After this is done, use a very light smoothing harrow with the teeth slanting well backward, then finish off with a light roller.

In preparing the seed bed for greens. the top six inches of a putting green surface should be composed of a good sandy loam, and at least two inches of this top should be put through a dirt shredder or a half-inch mesh screen so as to eliminate all rocks or roots. Thus it is possible to obtain a very smooth finished surface. The preparation of a putting green seed bed is the same whether seed is to be sown or bent stolons to be planted. If seed is to be sown, it should be raked in very lightly and then rolled with light roller. It is then ready for watering. which should be done with a fine nozzle hand sprinkler, until the grass is well established.

When the grass is about three weeks old, it is time to topdress. If soil conditions are average for the central states take fertilizer spreader and give the green (if average size) about 30 lbs. of lime. Then mix a topdressing of one-third loam, one-third sand, one-third peat. This can be applied about one-quarter of an inch every two weeks until a very even putting surface has been established. This mixture not only trues up the putting surface, but it absorbs water readily and will not bake, thereby making an ideal surface to hold a pitch shot.

#### Preserve Your Topsoil

In moving earth, extreme care must be used to finish the green with topsoil, not sub-soil, even if you are going to add other soil to secure a proper seed bed. This also applies to tees. Tees will cause trouble if the lines which orient them to the player do not point in the direction of the tee shot. Before tees were made part of the fairway, and when their shapes were square and not suited to the surrounding terrain, it was the custom to place them by the use of a large "T" square, so that their straight sidelines pointed properly.



# Real Experting Is Thrifty Idea for Beginning Courses

### By DR. ALISTER MACKENZIE

**E E** 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. 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.

**P** RESENT-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.

#### TELLS OF DRAINAGE AID

Massillon, O.—How the alloying of copper and molybdenum to Toncan pure iron has provided rust-resisting qualities heretofore thought impossible, is interestingly described and illustrated in the Toncan Culvert Handbook. This 56 page booklet contains much valuable data pertaining to the use of Toncan Iron Corrugated Culverts for golf courses, storm sewers, and the proper draining of athletic fields, etc. The booklet is free on request, directed to the Toncan Culvert Mfgs. Assn.

#### **Tennis Court Weed Extermination**

I would like to know of any chemical that will rid a tennis court of weeds and grass. A. F. (Kansas).

#### Answer

A solution of ordinary table salt will clean up weed growth in a clay tennis court. Would use at the rate of 5 pounds of salt to a gallon of water and apply with watering can. Your local golf-course supply dealer could also in all probability supply you with one of the several proprietary mixtures sold for this purpose.

For a grass court, hand weeding is the only effective method.

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## Sthis fall and be free from Putting Green Problems.

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### L. W. Crandall, Burke Chief, Dies at Newark, O.

Newark, O.—L. W. Crandall, president of The Burke Golf Co., died here September 14 from heart trouble provoked by a nervous breakdown he suffered last December. Mr. Crandall was one of the leading



L. M. Crandall, late chief of Burke's.

figures in the golf business, having been treasurer of the club manufacturers' organization and president of the ball manufacturers' association. He also was president of the Dayton (O.) Handle and Golf Co., and vice-president of the Hanna Mfg. Co., Athens, Ga. He had interests in many lines other than sporting goods and the demands his extensive affairs made upon his conscientious and able efforts were responsible for the collapse from which he did not recover.

Mr. Crandall was a native of Henry county, Indiana, and after spending the early part of his business career in the grocery business, engaged in the wood products manufacturing business at Dayton, O. He became interested in the golf business with Wm. Burke at Dayton, O., forming the International Golf Shaft Co. in 1908. This company was directed by him until 1919 when he and associates acquired the controlling interest in the Burke Golf Co. at Newark. His administration of this company's affairs were responsible largely for the prominent position the Burke organization occupies in the golf field today.

Excellent judgment, wholesome character and energy won for Mr. Crandall the

high esteem of his contemporaries. A host of friends in the golf field in the United States and abroad mourn his passing.

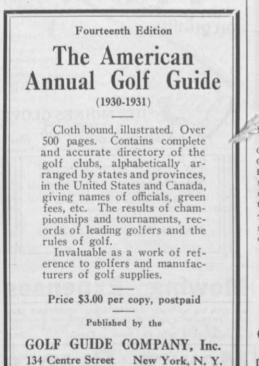
#### PRICES ON R. H. WHEELS AND SPUDS RADICALLY REDUCED

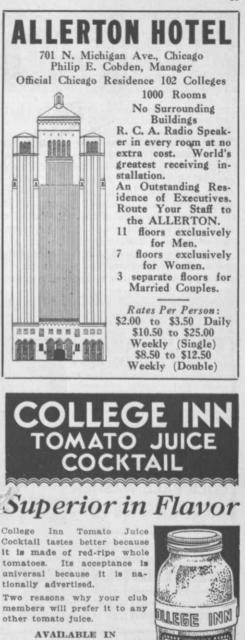
Geneva, Ohio—R. S. Horner, largest manufacturer of golf course tractor wheels and tractor wheel spuds, announces important reductions in prices for both wheels and spuds.

#### NEW U. S. CLUB CLEANING MACHINE

The new "U. S." golf club polisher is built especially for pro shop use. The one horsepower motor (repulsion—induction type) provides a polishing wheel speed of 1750 r.p.m., the right speed for this purpose. The shaft or spindle is 30 inches long, providing a six-inch space between each wheel and the motor—ample for convenience in polishing all parts of the clubs.

Included as standard equipment are a wire brush, a buffing wheel, 15 feet of rubber covered cable, and a stick of polishing compound. The list price complete is \$140. Details can be obtained from the manufacturers, The United States Electrical Tool Co., 2490 West Sixth St., Cincinnati, Ohio.





26-ounce glass shakers packed 12 to the case. 16-ounce glass shakers packed 12 to the case. 4-ounce individual bottles packed 48 to the case.

COLLEGE INN FOOD PRODUCTS CO. [Division of Hotel Sherman Co.] CHICAGO. ILL.



# Brutal Season Emphasizes Care In Grass Selection

By J. F. FOUDER

**T** HE PRESENT season has been one of the most trying that greenkeepers and others responsible for the condition of greens have had to endure. To have a green apparently in fine shape at sundown and then to stand and watch it turn brown the next day in spite of the application of all proven fungicides and copious quantities of water is discouraging.

60

Perhaps you noticed that it was said the green was "apparently" in fine shape. It is not always possible to tell by mere appearances that a green is in fine shape.

Grass, be it one of the bents, Kentucky

blue, or bamboo, reflects in itself something of the growing conditions to which it has been subjected. In this regard it is no different than any other living thing, except that it is perhaps more difficult to properly interpret the conditions reflected. It must be granted that growth conditions do have a marked influence upon grass and that to grow excellent grass requires controlling carefully each one of the growth factors. Allowing any one of the factors to become unfavorable may destroy much of the natural resistance of the grass and then the greenkeeper's troubles begin.

