

of the members of golf clubs were in military service in the Great War.

No one informed on the development of golf in the United States will any more seriously propose as an argument for the retention of this tax that golf is the game of the rich and the leisure class.

Taxing Sunshine

I believe there are comparatively few men who take up golf with any idea of ever attaining any great degree of expertness in the game. The abiding features of golf for most men are the friendly association with other men, getting out into the country, walking on stretches of green, growing grass, watching the trees bud and leaf in the spring and take on autumnal colorings in the Fall, seeing the birds and the squirrels in the trees, enjoying nature's sun-ray treatment, breathing the fresh air, etc. The Master Nazarene said "render unto Caesar that which is Caesar's." But this tax seems to go much further; it seems to be a tax on the enjoyment of God's gift of sunshine, fresh air and green grass.

It is our belief that, while this tax on dues and fees may have been justified as a war measure, as a permanent measure it is illogical in principle, inconsistent and unequitable, and we believe that the Government should, if not encourage, at least remove the penalty of this tax from the health-promoting outdoor recreation of golf.

This letter is written in compliance with a resolution unanimously adopted on December 10, 1929, at the annual stockholders' meeting of Golden Valley Golf Club, which is composed of four hundred and twenty-five substantial citizens of Minneapolis and vicinity. We earnestly urge you to use your good efforts toward the removal of this tax, and I shall greatly appreciate an expression of your attitude in the matter so that I can report back to our members.

A couple of other letters chosen from among the number of copies that thoughtfully have been sent to GOLFDOM show that there is something being done to remove from the congressional mind the impression that golfers are gentlemen who are so rich that they don't give a damn about taxes. This apparent opinion is somewhat in conflict with the observations about the wealthy man and his taxes which any congressman can make at any time:

In one of these letters Jasper T. Crawford, acting secretary of the Liverpool (N. Y.) G. & C. C., writes his district's representative and Senators Copeland and Wagner:

At a recent meeting of the Liverpool G. & C. C. I was directed to write you the sentiment of our members toward the present ten per cent tax on club dues.

We believe that the tax was designed to apply on luxuries. It was aimed at clubs whose membership could presumably easily pay the tax. In our case this principle does not apply.

Our club is organized to let in members of moderate means. With a great number of our members it is a health project. This tax is a real consideration with us.

You will be doing a real service for a great number of your constituency if you can help us toward more economical golf by getting rid of this tax.

Dr. W. Frank Beck, who built a fee course at Altoona, Pa., to provide practically public golf to his community, wrote Representative J. Banks Kurtz, saying:

I understand that before long an effort will be made to have the federal tax of 10 per cent removed from golf clubs.

The question of removing it came up some three or four years ago and was defeated for the only reason that it was a rich man's game. I would like to state that there is no game that is growing so fast among the common people of our country as golf. During the last two years I have played on courses from Atlantic City to California and I am now safe in saying that there are one thousand people in very moderate circumstances playing golf to every one person who is wealthy.

In your own district I built a golf course at my own expense so that the working people and the people of moderate means would have a chance to play golf at a very reasonable price, and I know a great many people all over the United States who are doing the same thing. I believe if the individuals are taking this interest in golf it is the duty of the government to give all the aid possible for the development and growth of this wonderful game.

When the bill comes before Congress will you please do all you possibly can to have the tax removed?

"A putting green is the area within 20 yards of the hole not including bunkers. If there are no bunkers such a green would measure 11,310 square feet. No putting sward should ever be larger, and not more than one on a course has any excuse for being so large."—*From the Green Section Bulletin.*

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How Water Helps Better Turf Campaign

By D. T. COULL

IRRIGATION is one of the largest items in the expenditure of a golf course on the Pacific Coast today. This being so, it may not be out of place to inquire into the uses of irrigation. The average golfer who takes an interest in his course, says, during the hot summer months, "Now, boys, give her lots of water," the idea no doubt being that grass will come more easily through soil softened by water than through hard soil. This is, of course, true, but it is not the whole story.

It cannot be emphasized sufficiently that the true function of water applied to the soil is to dissolve plant foods and thus make them available to the plant in a form which it can use. Plant foods contained in the soil cannot be assimilated by the plant until they are dissolved. The growth of a plant, insofar as that is controlled by man, is limited by two factors; first, the food necessary to its growth, and second, the means by which that food is made available to the plant.

Good Soil Needs Little Water

Maximum growth will occur when the greatest possible amount of plant food is dissolved in the soil moisture and conveyed to the growing parts of the plant. In the case of a rich soil a comparatively small amount of water will provide as much food as a large amount on a poorer soil. When a soil is rich in plant food, a limited amount of moisture may keep a growing plant healthy by dissolving only enough food for that purpose. On the other hand, the use of heavy irrigation on a poor soil in the attempt to produce satisfactory growth may also be the means of making the soil still poorer by causing what food there is to be leached away.

Water is not a substitute for food

to a plant any more than it is to a human being. However, there may be plant food in water even before it is applied to the plant. For example, it is always observed that rainfall will produce bright green grass and freshen up other crops and plants, while an equal amount of irrigation water will not be so productive of picturesque results. But one must remember that rain on its journey through the atmosphere collects many impurities which are splendid plant foods. The same rain water collected in a reservoir and kept for some time before being used would not do as much good as it would by falling naturally on the crop. Probably rain water in storage loses some of its good qualities either to the air as gas or to the floor of the reservoir as sediment. But this does not get away from the fact that water primarily is a conveyor of plant food.

Economy Necessary

Since irrigation by artificial means is so expensive, it is the duty of every greenkeeper to economize in the use of water while at the same time giving his greens, tees, and fairways enough to insure satisfactory turf. One practical method of economy is in use on every golf course; this is allowing cut grass to remain on the course and spreading grass cut from greens on thin portions of the fairway. Cut grass forms a very satisfactory mulch in that it prevents evaporation to a very great extent.

It may be mentioned here that this practice results in a great saving of plant food. The roots of growing grass assimilate the available plant food dissolved in the soil water. This food is passed to the leaves and when they are cut, successive irrigations wash the food

Pacific coast greenkeepers have to be "up" on watering for that vital phase of the work of many of them constitutes a major item of maintenance expense. The accompanying article by D. T. Coull, taken from their fine "family" paper gives a helpful summary of the function of water in soil.

off the leaves and return it to the soil where it is once more available to the roots of the grass in its best form. Heavy waterings, however, are liable to wash this food away to where it would do no good to the grass.

On a young course where a satisfactory fairway turf has not yet been developed, it generally is necessary to apply more water than will be needed when the turf is older. This is for the double purpose of promoting the growth of young grass and of taking the hard, pavement-like feel away from the ground. Soft ground prevents undue distance being obtained by a rolling ball, to say nothing of making things easier on the clubs, wrists, and tempers of the innumerable golfers who delight in taking turf with every shot, whether there is real turf or bare ground.

Greens' Irrigation

In regard to the irrigation of greens, so many factors crop up that every golf course must be a law unto itself. The age of the green, the state of its turf, the kind of soil on which it is built, the likelihood of weeds, and last, but not least, the wishes of the players—all these have an influence on the method and amount of greens irrigation. To take up the points in turn, young greens like young fairways will require water to be applied more frequently than older greens, other conditions being equal. This is for the sake of softness of the surface and consequent prevention of excessive run of the ball and for giving the young grass a better chance to spread. The kind of soil will have its influence since a top soil containing plenty of humus will naturally absorb and retain more water than one of a more impervious nature. Excessive watering causes many weeds, notably holcus.

The last limiting factor in greens irrigation deserves a paragraph to itself. The universal demand of golfers is a green that will stop a ball while being true and reasonably fast. It is conceded (by greenkeepers) that the majority of golfers play a ball on to a green in any old fashion and expect it to stick where it lands. To accommodate this type of player the green would have to be kept soggy. Still, it is possible to have a green which is reasonably dry and which will stop a hopelessly played ball and be true and fast enough to satisfy most of the players. This can be done by working into the soil, both during construction and subsequent top dressings, large amounts of sand and granulated charcoal. By sand is meant good

coarse sand such as is used for plastering, and which, of course, has been properly washed beforehand to take out any traces of alkali. The fine sand which is ordinarily used for traps and tees is useless for this kind of top dressing because it packs and makes layers, whereas the coarse sand will work its way downwards, cutting through the top inch or two of soil and making the green more porous and healthier. The sand and charcoal, by opening up the soil and allowing air to get to the roots may also be a means of lessening the danger of brown patch. This last statement, however, is by no means guaranteed by the writer.

New England Seeks Course Maintenance Costs

IT seems that the job of getting figures for a study of course maintenance costs is as tough a problem as that of establishing some sort of a standard of maintenance expense. We recall the efforts of the Cleveland and Chicago district golf associations to dig up necessary data, with the earnest laborers finally throwing in the sponge. Now the Golf Service Bureau of New England is striving to get maintenance cost information.

This association's current bulletin says:

Our questionnaire on the costs of maintenance of golf courses brought answers from twenty-five courses.

These answers show up two things plainly:

1—That only a few greens chairmen talk the same language because different reports and different information is desired by them.

2—That the labor costs on eighteen-hole courses vary greatly.

So I am going to ask each club to send me—

(1) WITHOUT any figures, the form of report that is given the green chairmen to tell him what his costs are, and,

(2) I very much desire the following costs for 1929 on golf maintenance:

(a) Total cost of labor on the golf course (without salary of greenkeeper)\$.....

(b) Total cost of merchandise for golf course only (seeds, fertilizer, loam, gas, oil, chemicals, etc.)\$.....

(c) Total cost of repairs to machinery used on golf course.....\$.....

(d) Total cost of replacement of golf course machinery.....\$.....

Leach Answers Some Greenkeeping Queries

Poa Annua Control

Sir: What is the latest information on the control of *Poa annua* by means of lead arsenate? Last spring, early, we applied lead arsenate to a green heavily infested with *Poa annua*, but cannot see that it reduced the weed to any great extent.

I. I. (N. Y.).

Answer

The question of controlling *Poa annua* by means of lead arsenate has agitated the greenkeeping profession ever since I announced the results of my experiments with lead arsenate in 1926. We do know that lead arsenate has not consistently controlled *Poa annua* as it has controlled chickweed.

When a chemical will control a given weed in one instance and fail to do so in another, it is fairly obvious that some angle of the problem is not entirely understood. Consequently, some greenkeepers are unwittingly applying the lead under conditions propitious for *Poa annua* control while others are unintentionally doing the exact opposite.

Under the circumstances, I have studied this question for the past three years, have inspected numerous greens all over the east and have closely questioned greenkeepers wherever good or bad *Poa annua* control resulted following the applications of lead arsenate.

I have come to the conclusion that the time of application of the chemical is the governing factor in obtaining success or failure. I make this assertion because, as is generally known, *Poa annua* makes its rankest growth in the cool months of the spring and fall and disappears from the green during the hot summer months except in shaded areas. In other words, *Poa annua* is an annual, and the seed, which ripens in latest spring, lays over in the soil until the cool fall months render the soil suitable for the seed to germinate.

In view of these conditions, and where it is desired to keep *Poa annua* out of a given green, I would apply 5 pounds of lead arsenate in the late summer or early

fall just before the cool nights cause *Poa annua* to begin to germinate. The exact time can best be determined by the greenkeeper, who is familiar with his local conditions and climate.

On the contrary, it would seem advisable for those wishing to control worms, grubs or chickweed on *Poa annua* greens to avoid the application of the arsenate during this period of germination and to rather apply the lead arsenate when the *Poa annua* is in full and lusty growth.

In other words, lead arsenate does not seem to affect *Poa annua* grass, but does seem to check the germination of the seed.

B. R. Leach.

Spring Arsenating

Sir: I recently read an article in regard to "forking" the ground of greens before applying arsenate of lead in the spring. Do you consider this important? And if so, would not the spike roller be better?

The grubs were very bad the past season, as were also angle worms later.

Have arsenated greens this fall. What time and what quantity of lead would be best for spring treatment?

W. Q. (Ohio).

Answer

Sir: With regard to forking or spike rolling the ground in connection with the application of lead arsenate, would say that I think the spike roller would be the best. It is not necessary or desirable to work the lead into the soil to a greater depth than one inch, and a shallow spike roller would in all probability be of considerable assistance in the case of heavy, tight clay soils.

As regards the amount of arsenate to apply to the greens this spring, I would be governed by the amount applied last fall and also as to whether the fall application seemed to check the grubs and worms. In cases of severe grub and worm infestation, it is best to apply 5 pounds per 1,000 square feet of turf at once and in one application. This dose will usually check the trouble with the possible exception of



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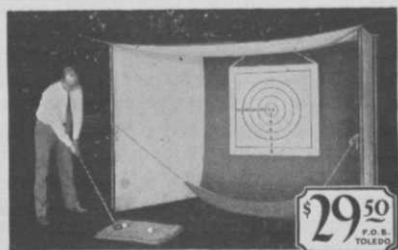
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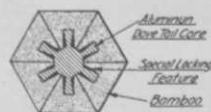
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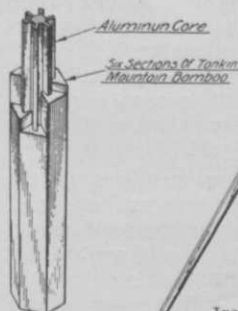
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20 Sigourney St., Hartford, Conn.

very heavy soil types. In handling heavy soil types where quick action is desired, it is often found desirable to apply another 5 pounds with the next top-dressing. However, this is very rarely necessary except with very stubborn, sticky clays.

As a general rule, it is safe to say that in applying lead arsenate keep on putting it on until you attain the desired control and then stop until subsequent trouble develops. Fortunately, the chemical is virtually foolproof, and heavy doses do not affect the turf one way or the other.

B. R. Leach.

What Makes Greenkeeper Listen

Can you explain to me the apparent reluctance of greenkeepers to accept suggestions? As a relatively new green-committee member, I find that our greenkeeper is a good listener, but also good at doing his own way. In justice to him, however, I am compelled to admit that the course is O. K. considering the amount of money we are able to expend in its upkeep.

Answer

Greenkeepers are human beings just like all the rest of the world, and it has been my experience that the bulk of the world turns a deaf ear to advice and suggestions, so that in this respect greenkeepers are entirely normal. Furthermore, it is a fairly safe bet that your greenkeeper had the same suggestions you are now making put to him while he was engaged in trying to kick the slats out of his cradle. Ninety-nine and five-tenths per cent of all golf course suggestions were old when Heck was a pup. They appear new and bright to *you* because you are new at the turf game. If your course is looking O. K., there is every probability that your greenkeeper knows his business and is a safe man to tie to. Under the circumstances, I would sit tight and stick to golf.

As one of the *newer* members of the green-committee fraternity, you are naturally desirous of making yourself useful to your club, but are in all probability somewhat uncertain as to how constructive action may be taken. In this respect I can probably furnish you a suggestion based on a varied experience with the average golf club. Would suggest that you look into the subject of your greenkeeper's salary and determine whether his pay is commensurate with his services and compatible with the wages of greenkeepers in your section. If you find that your green-

keeper is not receiving adequate compensation, make it your business to see that this condition is corrected. In doing so you will benefit the greenkeeper, but aside from that you will be doing your club the most important of services. Nothing in club management pays any better than paying the greenkeeper well. For every extra dollar the seasoned greenkeeper receives in his pay envelope the club will receive \$10 in return in the shape of economy and keen service. I have no patience with the present system which necessitates a greenkeeper hunting up a new job each time he feels that his salary is inadequate. The club with a good greenkeeper should take care to pay him *more* than he can get elsewhere, thereby making him a club fixture and insuring peace of mind for the green-committee.

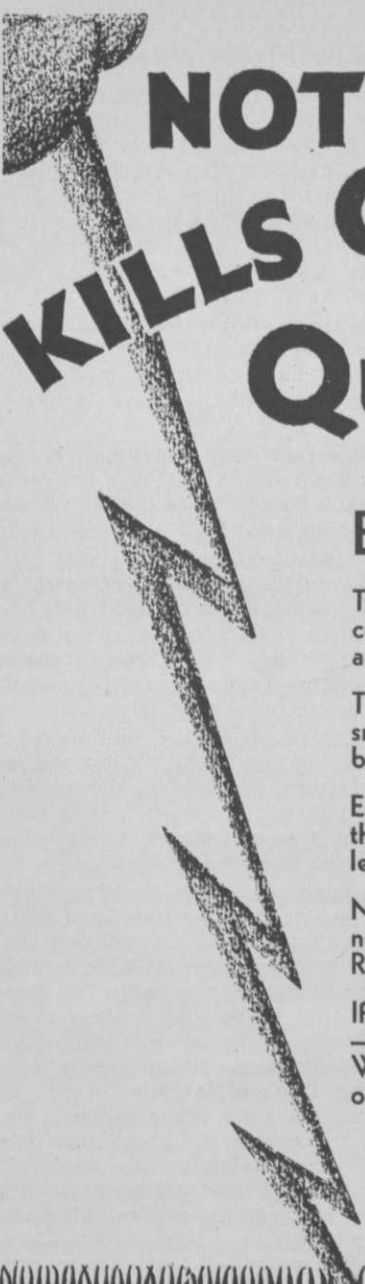
B. R. Leach.

Promotes Pros Theory of Golf Stroke

SIMPLIFYING THE GOLF STROKE. By Phillips B. Thompson. Published by Laurence Gomme, Fifth ave. and 41, New York. One dollar.

THIS brief presentation of the theory of instruction advocated by Ernest Jones, pro at Women's National G. & T. C., is something that deserves pro boosting, for while they may disagree with the Jones theory (if the hands function properly the rest of the factors in the stroke will care for themselves) no pro can help but give three cheers when one of his comrade's ideas so work on a pupil that the pupil spends his good dough in evangelical work.

Basically, no matter how sound a golf instruction theory may be, plenty of pro personal supervision of the student is required and the reader of these instruction books is quickly made to realize this necessity by the authors. For that reason we have harbored a pet hunch that it wouldn't be a bad idea for pros to have the golf instruction books on display in their shops and loan them to their members. It seems to us that it would be a good lesson sales propaganda. This little book, the classic by Bob MacDonald, John Hackbarth's book, Whitlach's recently revised volume and Sol Metzger's little book on putting, to mention a few of the late golf books, would make a good nucleus of such a library. If any of the boys try the stunt, GOLF-DOM would like to hear how it works out in boosting instruction income.



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Each tiny particle of NuREXFORM is from two to three times more powerful and potent than ordinary lead arsenate.

Nothing kills insects more quickly. A grub or worm need only assimilate but one tiny particle of NuREXFORM, and its destructive work ceases forever.

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cleaning golf balls?*

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of the past---sure, it re-
moves dirt and stain but
also the paint---and it is
one of the most expen-
sive items on the course
budget---

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**LEWIS BALL WASHERS
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South's Midget Courses Boom New Player Interest

By AL HAMMOND

ALL through the south, as far down as
Miami, there has suddenly blossomed
an infinite number of "junior" golf courses.
These are known generally as the Tom
Thumb courses, and people have taken to
them like wildfire. There are obstacles of
every form. The course routing and greens
require the finest putting touch.

The amazing feature about these little
putting courses is that 75 per cent of the
players are nongolfers, that is, they have
never actually played any golf on an ordi-
nary course.

There is a very small admission charge.
You select your putter, and, in a foursome
or however you may choose to play, begin
to battle against that invisible enemy, Par.

Not only do these courses get play dur-
ing the day, but they are used considerably
at night. Flood lights are spread over the
layout, which makes it seem as if you were
playing in the daytime. Beautiful palm
trees and the brilliant tropical moon
magnify the charm of night play.

In the writer's observation and study of
these junior courses, he has found one re-
markable feature, which is the tremendous
amount of interest that these courses have
created and the enthusiasm the players
display on the courses.

Many women play these courses. They
are to be seen in their gayly colored sport
clothes blending with the tropical settings.
There is one other angle of these midget
golf courses that has to be taken into con-
sideration. It is the real effect these
courses have on the regular nine and
eighteen-hole layouts. Many people who
would never think of investing money in
a set of golf clubs and other golfing ma-
terial, taking a course of lessons from the
club "pro" or even joining the local golf
club have stepped out and now classify
themselves as genuine golfers, although
the only club they use is a putter, which
they grip like a baseball bat. The market
development results of these Tom Thumb
courses remain to be seen, and golfers
sincerely hope that our synthetic golfing
brothers and sisters will soon add to their
putters, join the local golf club, take some
lessons from their club "pro," and with
their honest-to-goodness set of clubs con-
tinue to chase the elusive pill on a real
golf course.