rows can easily be located by the mounds of earth thrown up by the grubs during the night following a heavy sprinkling the evening before. Carbon bisulfid injures vegetation when applied directly to it, a funnel should therefore be used, inserting it into the hole before pouring in the required amount of liquid bisulfid, or an oil can having a long spout is convenient. Approximately one teaspoonful of the liquid per burrow gives satisfactory results.

It should be said that some slight injury may result to the tender grass of putting greens even where these precautions are taken.

The opening of the burrow should be plugged with soil after making the application to prevent the escape of the fumes. Care should be exercised in the handling and use of carbon bisulfid for it is inflammable, and the fumes, when mixed with air, explosive. There should be no fire of any kind near when handling the liquid.

A chemical compound having similar properties but which is not explosive is paradichlorobenzine. This substance is not a liquid but a powder which when placed in the ground, gives off a heavy, poisonous gas which penetrates the soil. It has proved quite effective as a remedy for the peach-tree borer but its virtues as a remedy for other subterranean insects are as yet largely undetermined. It volatilizes much more slowly than does carbon bisulfid and probably would not be very effective except during the warmer season of the year. In case green keepers desire to experiment with this substance it may be placed in the soil among the burrows of the insects in quantities not to exceed ¼ ounce, here and there over a limited area. It will be most necessary to experiment cautiously with the chemical as it has shown a rather high toxicity toward some forms of vegetation and may be found to injure the sod too severely to be of any great service on the greens.

The grubs of the green June-beetle frequently come out of their burrows during violent showers and have the curious habit of crawling over the ground upon their backs. It is said that this habit has been utilized in destroying them by thoroughly drenching the ground with water from a hose and gathering the grubs as they appear above ground. This is a simple method and one well worth trying, although I can not personally vouch for its effectiveness.

Dear Bill Letter I

Richland Center, New York,
April 2, 1921.

Dear Bill:

So you're going to build a golf course and are so befuddled by all the experts you want my advice. I'm sorry for you, old man, because I'm afraid you won't have the courage to reason your own way out and you'll be like the vacillating old party who insisted on having but one bath room in his house so his indecision wouldn't trouble him in an emergency—if he had more than one he was afraid he'd be unable to decide which was nearest. You'll be apt to shut your eyes and draw cuts to decide which expert is expert.

Don't you know that a self-styled expert is commonly an ordinary guy away from home?

There was no use writing me that long letter about Wheezums System, Breezums Specifications and Boogulums Methods for as soon as I saw you were contemplating a course I knew they were all on your back.

Forget it, Bill, and get down to brass tacks. Your club is just starting and you want to get results with the least amount of time and money. You don't want to wish an assessment on your members before they start playing golf. They'll get an assessment soon enough—just as soon as they build a club house twice as big as there is any need for and fix it up regardless and sell $3.00 worth of food for $2.00. It's coming, but let some one else hand it to the members. It's up to you to give them a dollar's worth of golf course for every dollar you spend.

Now forget the methods, specifications and systems and go to see some of the best courses in the country and find out what system was used. You'll find that plain common sense and good drainage has produced the kind of results you want. If you are short on common sense, add a little more drainage.

If you let any one spend your good money hauling expensive cinders or other stuff to make a foundation for your greens you should go to the Probate Judge to be examined. He'll tell you that viewed scientifically you're about four years old.

Get a couple of teams, a few wops, plenty of good top soil, some well rotted manure or mushroom soil and some draintile and go at it and you'll have a green if you watch the drainage.

You say your estimate calls for the expenditure of $75,000 outside of the water system. Where is it going?

If Dr. Harban can build a green at Columbia for $492.60, why not you? Eighteen greens at $500 each is $9,000 according to my arithmetic and let us add fifty per cent to make it strong so we'll say $13,500. Where's the rest of the $75,000 going?

You say you have very little grading and filling to do. Suppose you have five traps or bunkers to a hole or ninety in all. I'll take the contract myself at $100 each and make a margin of profit that would make John D. blue. Where are you going to spend the rest of the money?

If you can't plow, harrow and prepare your fairways for $50 an acre you are a boob. Say thirty acres of fairway would be $1,500. Let's see, so far we've blown in $13,500 for greens $9,000 for traps and bunkers and $1,500 for preparation of fairways or $24,000 all told. Let's add $10,000 for mistakes, guess work and "and so forths" and $5,000 for seed and we are still short of spending $40,000.

William, some smooth chap with a red neck tie will sell you a half interest in the Post Office some day if you fall for this expert system stuff.

I know you'll come back at me with "but how can I do the work?" There is nothing to it, William. Find some first class green keeper who can supervise the work and interpret your golf architect's plans and costs. Get some contractor with the experience in handling labor and that's all. When you get through you'll have a regular golf course and at least $25,000 to $30,000 to hand back to your treasurer to spend on a bigger house than is needed.

Now Bill—listen to me—forget all the stuff you've heard and go at this just as if it was your own business and figure it out for yourself. You've been able so far to support your family and an automobile and keep three jumps ahead of the sheriff and if you don't let yourself get befuddled you can do the job with credit to yourself and your club.

There isn't a man on a Green Committee anywhere who won't let his customers wait while he gives you the benefit of his experiences and all you have to do is to use a reasonable amount of horse sense.

It is wonderful what can be done on a golf course with horse sense, horse manure and drainage.

I don't give a whoop whether you take my advice or not. I am selling hardware for a living, and I'm no expert even when I'm away from home, but I do like to see a man stand on his own feet and figure things out for himself.

With regards to Mary and the kids, I am,

Yours,

CHAUNCEY.

Bingville, April 5, 1921.

Questions and Answers

All questions sent to the Green Committee will be answered as promptly as possible in a letter to the writer. The more interesting of these questions, with concise answers, will appear in this column each month. If your experience leads you to disagree with any answer given in this column, it is your privilege and duty to write to the Green Committee.

1. *How much bent seed should be used per 1,000 square feet in seeding a putting green? A. F. H.*

As seed is one of the smaller items in the establishment of a putting green, liberal seeding is advisable, as any thin or bare spots left are very objectionable. Use five pounds to each 1,000 square feet. This means about 30,000 seeds to a square foot, but it is none too many.

2. *We wish to seed the new fairway this spring to be put in play June, 1922. Will you kindly advise us what seed to use for this purpose. These fairways are on low meadow ground, some of which is on filled ground over a cattail swamp. The fill is only 12 inches deep, and then there is 6 inches of loam on top, which naturally would be more or less damp even through the dry season. The rest of the fairway is low sandy loam back of the ocean dunes. Also kindly let me know how much to plant to an acre or some unit of area. When would be the best month to plant this seed this year to have it ready for next year's play? H. K. G., Rhode Island.*

Seed to redtop and Kentucky bluegrass in the proportion of 1 pound recleaned redtop to 5 pounds Kentucky bluegrass, using 80-100 pounds of seed per acre. It will be well to fertilize the land with the following mixture per acre: 400 pounds acid phosphate, 250 pounds muriate of potash and 250 pounds sulphate of ammonia. The best time to seed in your latitude is September 1. The next best would be as early in spring as possible.

3. *Is there a good humus on the market? G. R. H., Ontario.*

The best humus, if you can secure it, is barnyard manure. With the peats and mucks sold on the market and often called humus, great caution must be observed. The price asked for these materials is very much out of proportion to their value as compared with barnyard manure. In some experiments we conducted a few years ago we reached the conclusion that a ton of barnyard manure, measured by results, was equal to three tons of a certain commercial humus. Some of these commercial forms of humus are toxic. We would not advise the use of any kind of muck or peat unless you find that grass seeds will grow readily if planted in a box-