

machine by the truck which hauled them from the factory. The backfilling was done by two men with one horse and a slush-board scraper. No trenches were left open more than a few hours. We tried cutting the sod ahead of the machine with a sod cutter, expecting to relay it on the backfill, but gave it up in favor of seeding.

Since the machine mixed top soil with sub-soil, no effort was made to force all the soil back into the trenches. The surplus was hauled away and used to back up some bunkers. Of course the trenches settled over winter, and in early March some good top soil was hauled in and used as a top-dressing on the grass in the trenches to level them with the sides of the trench. By the first of July the grass over the new tile lines was almost as thick as on the old fairway.

The spring of this year (1923) was very wet, and since the first of July it has rained every three or four days, yet not once has play been held up because of soggy grounds. Play started three weeks earlier in the spring than ever before and a month earlier than usual.

Now that the job is all complete everyone thinks that it was a great improvement, but many misgivings were expressed when the big excavator was tearing into the fairways. The work was completed enough under the estimate to build a new green and plant it with creeping bent runners, so there were no assessments last year for new construction.

There are two lessons to be learned from the experience of the Columbus Country Club. The big lesson was that it would have paid a handsome dividend to have had an accurate map made of the grounds on which all underground improvements could have been plotted. Such a map would have saved several greenkeepers from installing tile lines which practically duplicated drainage. The second lesson is that installing a drainage system in fall is cheaper, more accurate, and gives better results immediately than does tile installed while the ground is wet in the spring.

In another issue of *THE BULLETIN* some of the points in the design of golf course drainage will be discussed and illustrated. The design of the drainage system is of the utmost importance if the system is to be lasting and to avoid constant attention to keep it in perfect working order.

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## How I Build a Golf Course; with Some Remarks on Golf Architecture

*By A. GREENE BUTCHER, Golf Architect*

There has recently appeared an article which reflects on my reputation as a golf architect, and I therefore request that you publish in your valuable journal my reply, as it bears on golf architecture in general.

My captious critic says my golf architecture resembles the Munyon system of medicines. Let me explain what he means. Dr. Munyon, the celebrated physician, publishes a list of symptoms and for every set of symptoms there is an appropriate medicine, each designated by a number. Thus for "pain in the back and sides," take No. 6; for "coated tongue and bad breath," No. 11; and so on. One misguided patient had symptoms that called for No. 13. The No. 13 was all gone, so he took a dose each of No. 6 and No. 7, with very unfortunate results. But this can by no means be considered an indictment of Dr. Munyon's system.

Now it is perfectly true that I have a set of 20 models for putting greens, many of my own design. Each of these is known by a number, and it is this very superficial resemblance that leads my cavalier to compare my method with that of Dr. Munyon. He even implies that I got

confused with the symptoms—no, I mean topography—and put No. 8 model where No. 11 would have been more appropriate, etc. He also says that I use my models so much that he can name the architect as soon as he sees one green, implying, of course, that I have no originality. My models, however, I regard as so perfect that I rarely depart from them in the least.

Permit me to explain in some detail my methods and I am sure every golfer will see that they merit only praise. Incidentally the explanation of the motives and the principles which influence my art will, I am sure, show the shallowness of my censor's inanities.

Naturally, in laying out a hole, I begin with the tee. This I always make rectangular and elevated. Of course, such a tee looks artificial and unattractive, costs something to build, makes it hard to grow and maintain turf on the top, and requires that it be mowed by hand instead of by the tractor. But this type of tee has long been the custom, and without these rectangular tees few men would realize that they were on a golf course. Besides, a certain amount of sacredness attaches to custom and tradition, and my reputation is such that I can not afford to be called an iconoclast. Therefore, I stick to the tried and true square tee of the fathers of golf architecture.

Having located the tee site, I next decide on the type of hole to use. In this case my artistic instinct decides for a mashie hole of 130 yards. When I build a mashie hole I am always in a quandary whether to use Model 5 or 8, both of them equally superb. These two models of holes are now so well known that players assure me that when they come across one it is like meeting an old friend from home. Is not that a triumph that any architect may well be proud of?

For midiron holes I have three regular models, Numbers 2, 7 and 16. The last model has a long oblique mound at each front corner and a ridge all around the back. Players tell me they like this model as the ball can't possibly get off the green. Besides, they say that every now and then the mounds convert a poor shot into a good one, deflecting the ball toward the hole. Much of my success I ascribe to a keen realization of the mental processes of the dubb golfer, and I pay little heed to the claque of high-brow critics of golf architecture. On one course which I designed I made all the greens bowl-shaped. It is very popular, because if a ball is on the green at all it is near the hole—that is, if the hole is in the center, where it should be.

Now and then I build a green on an entirely novel plan. One of these has four quadrants each on a different level, like the 14th on the Ardnamurchan course. Some scurrilous critic has called this piece of art a Sears-Roebuck green, saying it must have been bought ready-made and the parts misplaced in putting it down. Such criticisms deserve scorn. They are like the ignoramus who thought Turner's famous picture, "Fire at Sea," was meant to represent a tortoise-shell cat having a fit in a bowl of tomato soup.

One of my architectural triumphs is the half-globe type of green, fashioned after the 15th at Finnan Haddie, but improved by me by making the surface extremely convex. It is very amusing to watch the golfers putt on this green. If the putt is short, the ball rolls back to the bottom; if a little too vigorous, then the ball rolls down the other side of the mound. In 1921 only three players made the 7th in par at Bally Hoo, built on this model. Some players took as many as twenty putts. During the past season some very unsportsmanlike golfers have used flat-sided

golf balls to play this hole. The United States Golf Association should pass a stringent rule absolutely forbidding the use of any but a perfectly spherical ball. As it is, my masterpiece is made a sort of laughing stock.

Of all my courses I regard Haggis-by-the-Sea as the best and most varied. On this course I employed all of the construction devices which have made me notorious, besides using an idea that I felt sure would be popular. The commonest failing of all golfers is slicing. Therefore I built all the bunkers to penalize hooks and pulls, none to bother slices or shies. As I anticipated, all the slicers are boosters for the course, but the other fellows call it a "slice course." I always try to provide the greatest good to the greatest number of players, and to this I ascribe the large measure of my success.

I am also noted for my ability to make holes deceptive, one of the highest phases of the art, in my judgment. I like to make the easy way appear difficult and the difficult way seem easy. In this art blind or concealed bunkers are very effective. The player thinks he has made a fine shot—but finds his ball in a bunker. Blind greens are also very effective. Some pinheaded critic has said that such construction fools only the man new to the course—which indeed may be true; but it makes that fellow remember the course even if he does curse the architect. After all, there is not much difference between fame and infamy; the idea is, to be remembered. My traducer also intimates that no sane golfer will play one of my courses a second time—but who ever heard of a sane golfer?

I have acquired no little fame from my construction of bunkers, which I always build twice as deep as does any other architect. I like them about ten feet deep, with vertical banks. It is highly entertaining to watch the desperate golfer strive to get his ball out of one of these abysses. Unfortunately such performances can not be witnessed by ladies, as the language used by the golfer would shock them immeasurably. This type of bunker will always determine whether or not a man has the proper playing temperament. One of the kind who has not the right temperament said he took eleven strokes "in that — — bunker." The dashes are unprintable.

These brief comments will, I am sure, show to the sagacious that the strictures of my self-appointed critic are both fatuous and imbecile, not to say asinine. Artists, among whom are to be included the golf architects, are born, not made, and I regard it as presumptuous and insolent for any mere golfer to criticize their work. Any restrictions on the genius of artists are bound to lead to a made-in-the-factory type of golf courses. I am sure this danger will be appreciated by all true lovers of the sport.

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### Fertilizing Value of Waste Product from Cotton Mills

Mr. C. G. Holland, of the Danville Golf Club, Danville, Virginia, writes as follows:

"I am sending you under separate cover a sample of material we are planning to use extensively at the Danville Golf Club, Danville, Va. We can secure an abundance of this material from the local cotton mills at the expense of hauling it. It is what is known at our local cotton mills as 'picker seed,' and is a waste product derived from the cleaning of raw cotton before it is combed and spun. It consists principally of dirty cotton fiber, immature fibers, and all of the trash that comes out of a bale of cotton, being almost pure vegetable matter. We put it in a pile and wet it as thoroughly as we can with a hose. As you can imagine,