

Sodding at Inverness

W. J. ROCKEFELLER

The method of cutting, handling and laying sod at Inverness differs so radically from that followed by Dr. Harban at Columbia as described in the March number of *THE BULLETIN* that it may be of interest to describe our method and to mention some of the points of difference. We do not claim ours is the better method, or that we get better results, because there is little room for improvement on anything passed as acceptable at Columbia.

It should be mentioned first that ours is a sandy loam soil, with no stones, and it is naturally easier to handle our sod than if the soil were of clay. Since our course was started, every green has been moved two or three times, and in every case the method of resodding used was the same.

If we were to move a green, we should use no particularly fancy system or specification, but would see that the new green was so located as to have good drainage, and, if necessary, we should put in enough soft tile to give drainage. We should then build up the green with at least 12 inches of good top soil, enriched by mixing in some fertilizer—mushroom soil or good compost. When the green was laid up, we should prefer to let it settle as long as possible—certainly not less than a week. Our next step would be to rake it over and bring it to the desired grade and contour, which would be followed by rolling with a heavy hand roller. When it was ready for the turf, we should go over it again with the rakes to remove any depressions and to get the grade and contours exact. This would be done at the last moment while the turf was being cut.

We wish to describe our method so exactly that it can be tried out by anyone who is interested, but we fear our description will be tedious and more or less like what might be expected from a patent lawyer.

The first step in taking up turf is to block out the job and decide which way the turf had best be cut, and this depends on the best place to work the team. Let us assume we decide that our team can be handled best on a line running north and south. We then cut lines across our green, three feet apart, from north to south. This is done by laying boards across the green end to end, and cutting along the edges, and by using an ordinary edger. We now have our green sliced, so to speak, into strips three feet wide running north and south.

The next step is to set up the rig for cutting. This consists of an ordinary horse-drawn sod cutter, a woven wire cable or rope about 100 feet long, a block (pulley) through which the cable or rope may pass, a clevis to fasten the block to the plank next mentioned, a plank 2 by 10 inches, into the back of which notches 12 inches between centers are cut to hold the clevis, and finally a couple of stakes or pieces of iron pipe, or something of the sort, to drive into the ground to hold the plank in place.

We have sliced our green into three-foot strips running north and south, so we must cut our sod from east to west. The next thing we do is to fix the plank—say, 6 to 8 feet off our green to the west, laying the plank on a north and south line. The pieces of iron pipe or stakes are driven into the ground through two notches, one in each end of the plank.

The clevis is now put on in say the last notch on the north end of the plank, the block is fastened on, the rope or cable is rove through the block,

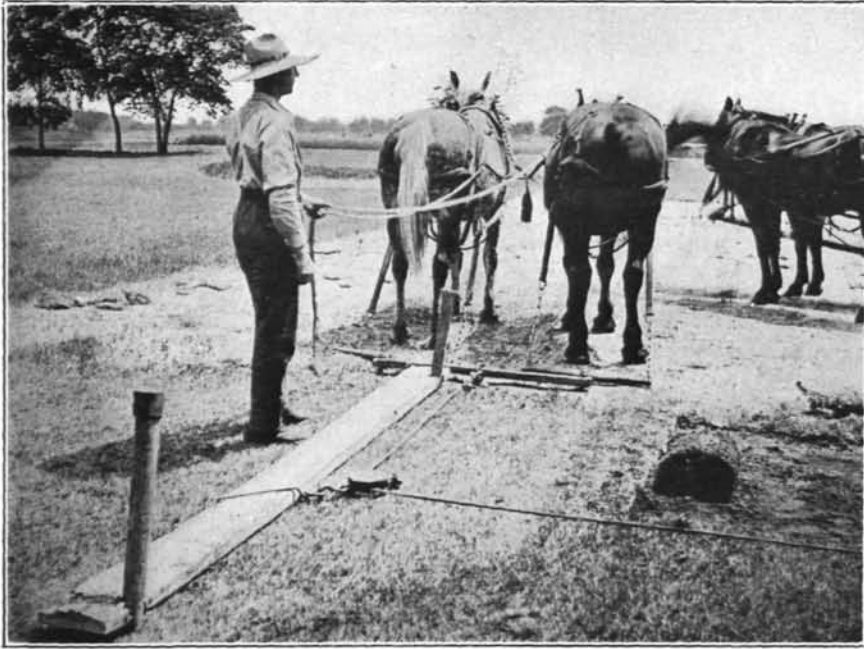


Fig. 1. Showing the method of attaching the cable to the plank, the team pulling at a right angle to the line of cutting.

one end is fastened to the sod cutter, and the other to the team, and we are ready for business.

The long cable lets us work our team off the green. The plank is set 6 to 8 feet off the green to give room to work and room for the sod cutter to run off the green. The long cable also gives a low, flat, even pull on the sod cutter; and inasmuch as the notches in the board are at fixed distances apart, it follows that the strips of sod will be of even width. If bunkers or traps are in the way, the cable can be as long as is necessary to get a good place where the team can work without damage.

We go to all this preliminary trouble to be sure our sod cutter will work on a perfectly straight line, and so our pieces of sod will be exactly the same width and all three feet long, and so all lines will be true and angles square. Some little sense and practice is required to handle the team, and some one must ride the sod cutter to weight it down.

As soon as the first strip is cut, the sods are rolled compactly and slid say 6 inches off the line on which they were cut so they will be out of the way of the next cut. This operation is followed until we have the whole green cut and the sod piled in rows.

The photographs which accompany this article were taken when the Green Committee of Detroit District Golf Association visited Inverness with the Detroit greenkeepers.

One photograph shows how the team is attached to the plank at right angles to the line of cutting. Another shows the sod cutter hitched to the cable. The rows of cut and rolled sod were removed before this picture was taken. Another photograph shows the plank, clevis, etc. The notches



Fig. 2. Cutting the sod.

in the back edge of the plank which engage the clevis are one foot apart. It will be noticed the team is working at a right angle to the line of cutting.

A third photograph shows how each turf is rolled as soon as cut. There is nothing of any consequence to our method except, we believe, the notched plank and the long, flat cable pull, which let us do the work accurately and avoid trimming.

We are now ready to lay the sod on our new green, and the first step is to lay boards end to end in a true line across the green—it is not yet green, but soon will be. The first line of sod is laid clear across the green against an edge of the boards, using care that the line of the edge of the sod is true and always against the boards. As soon as one line or strip of sod is down, lay a line of boards on it so the men can work without damage to the sod or the prepared surface of the green.

We always carry our sods by hand, as we believe the weight of a barrow load even on the board is not good, and we thus avoid damage from careless handling. There have been times when we felt spry enough to wheel a barrow along a slack wire, but our gray hairs have made us cautious, and we will not trust anyone on a green in process of making. We lay the sod down and unroll and fit the ends together carefully. This is not very difficult, as we were careful to slice our turf at a right angle to line of cutting.

The sod stretches more or less in cutting and rolling, so we take out all the stretch or slack by compressing the edges together; that is, by taking hold of the strip being laid about the middle and pulling or compressing it against the end of the strip already laid. This takes the stretch or lengthwise slack out, and we compress the strips by pulling on



Fig. 3. Rolling each turf separately for safe moving.

them sidewise against sod already laid to take out any such stretch. That operation is just a little difficult to explain in words, but we aim to compact the turf to as near its original state as possible.

We are careful to get all edges flush and even and the surface must also be even. The edges are naturally even and the sod is pretty uniform in thickness. The surface of edges must be kept even. This is done by fitting them so and pushing both edges into place and to the same surface at once. It will not do to attempt to fit the surface of one strip of sod to that of one already in place, as they will never get true. Thus it can be seen we work always to true the outside edge of the strip in place and the inside edge of the strip being laid. The men always work on boards to avoid injury to the surface.

Next we tamp lightly to compace the sods and get to a smooth surface, and sometimes we follow this by rolling. We then topdress and work in the dressing carefully with brooms, mats, or poles, and our green is ready to use. Of course, we should prefer to let the job rest a week or two to give it a chance to knit, but many and many times the play has started on the newly laid turf before the green was completed. Our players have dispositions that are none too sweet, and they do not think loving thoughts when they miss putts on account of the condition of a green, so when we say the greens are ready for play, we mean they afford pretty fair putting—lots worse in the world.

Our No. 9 was built and sodded between July 4 and July 15, 1919, and was in fine shape for the Ohio State Open Tournament in September. Our No. 18 was finished June 29, 1920, and went into the National Open Tournament August 10. If it was not good, at least no complaint was heard from those whose last putts left them outside the money.

We think we can move turf as well in July or August as any other time, but naturally it requires more care. If it is very dry, the turf must be prepared for removal by being soaked with water two or three days and then being allowed to dry out till it can be handled nicely. The ideal time, however, in our experience at this place is May or June.

We do not feel that good results can be obtained in this climate by moving turf late in the fall, as it seems to be "set back" and does not recover so quickly as turf moved in the spring or summer, and though we do not doubt that good results were obtained by winter turfing at Columbia, we should be fearful of results from even late fall turfing on our course, but still the winter is much more severe near Toledo than at Washington, and we have frequent freezing and thawing, which of course is hard on all plant life.

We would not think of chopping our strips of turf into chunks—say a foot square—as we can cut them into even strips 12 by 36 inches. By using an edger and care, we get all edges even and ready to lay. By so cutting the strips, it is not necessary to lay the turves in the order in which they are lifted—ours are interchangeable, all alike.

We do not leave spaces between the strips, and we should be horrified if a space one-eighth to one-quarter of an inch was left any place. We never saw sod buckle, though we have seen it shrink.

We believe it pays in results and saves time and expense to prepare for the job and to work carefully to a surface, and that it is much easier than fussing around later trying to accomplish what might have been done in the first place.

We want to make it plain we do not contend that our method is as good or better than any other. We offer it primarily for comparison.

A Novel Sprinkling Device

We are indebted to Mr. C. H. Moss, chairman of the green committee of the Wawonowin Golf Club, Ishpeming, Mich., for a description of a sprinkling device which he has designed and used with excellent results at Ishpeming. We quote Mr. Moss' letter:

"In the last number of THE BULLETIN we noticed several inquiries as to the best make of sprinkler. I shall endeavor to describe a device made under my direction with which almost any simple sprinkler can be used.

In the making of new greens a real problem is the shifting of the sprinkler; if you get near enough to lift it there remain footprints, and if you drag it even the hose itself will injure the new grass. To solve this problem of shifting we have resorted to the use of carbide cans. Any large round can should answer the purpose, but the carbide can possesses the advantage of being less susceptible to denting on account of its surface being corrugated. The accompanying photographs illustrate the arrangement. Carbide cans are a gift here when empty, and with wooden ends placed in them and centered with a hole that will admit a $\frac{3}{4}$ -inch pipe they can be made into light rollers. Using a simple type of sprinkler, which never clogs or gets out of order, we place a sprinkler each end of a length of pipe, the distance to be determined by the water pressure at the given locality, and by connecting the hose at the middle, we have a double sprinkler supported on rollers 12 inches in diameter. We have a pressure at the golf grounds permitting the sprinklers to be placed 26 feet apart, and thus they