

Putting Green Drainage

By J. G. KANTER

WE frequently find, in going over the putting greens of many courses, that comparatively very little attention is paid to artificial drainage. Time and money is uselessly spent in a fruitless attempt to improve the turf on a poorly drained green.

As soon as the surface becomes mossy it seems to be a signal in general for a Spring or Fall liming, and, of course, seeding, to rejuvenate the bare spots. Lime undoubtedly assists in neutralizing the soil, but if the drainage is poor, one can only hope for a temporary improvement. Therefore, the only positive method by which permanent results can be obtained is artificial drainage.

Of the different drainage systems in vogue, we believe the herring-bone method will give the best results.

If it is desirable to save the existing turf, it is advisable to perforate same with a perforating roller or tamper, and apply one-quarter ounce of hydrated or air-slacked lime to the square foot and water in. This should be done four or five days previous to the removal of the turf.

Remove the turf in the manner described in the June issue of THE GOLF COURSE, and pile carefully in a shady place. All the top soil should be carefully removed and piled some distance from the putting green, so the subsoil will not be incorporated therein.

Next remove as much of the subsoil so as to obtain a depth of two feet at the upper end and three feet at the

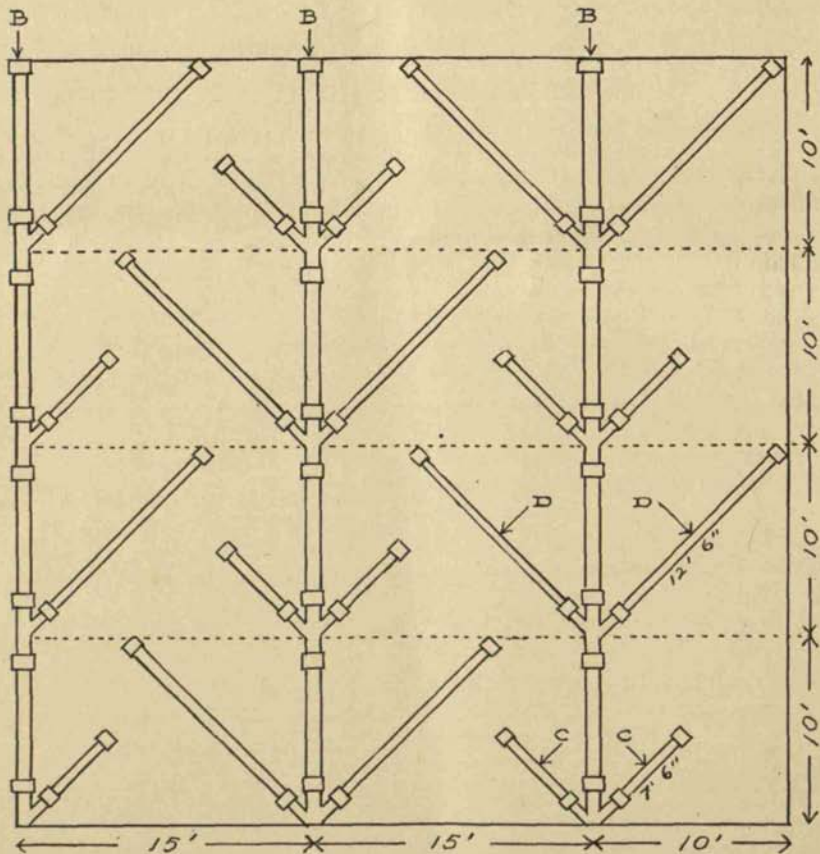


FIGURE 1—Sample Plan of Drainpipe Arrangement

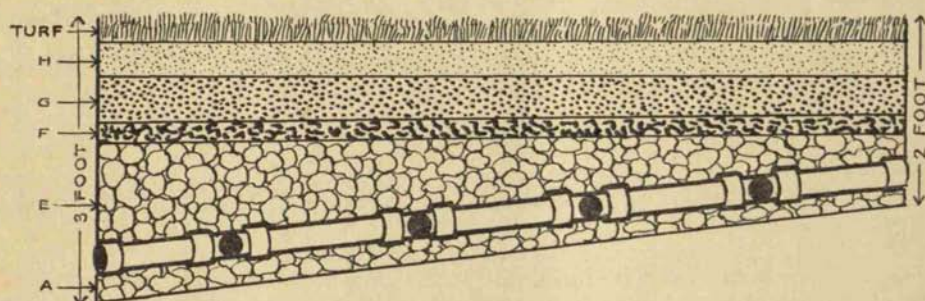


FIGURE 2—Section Through a Main

lower end, that is, three feet at the end toward which the water is to flow.

Cover the bottom with a layer of three-inch stones (as in A, Fig. 2), and ram down hard, as the foundation of the drains.

Procure a sufficient number of four-inch porous tile for the main drains. Lay the first main ten feet from the right or left-hand side of the putting green and running from end to end, in the same direction as the pitch. The balance of the mains are to be laid fifteen feet apart (as in B of Fig. 1).

For subsidiaries, use three-inch porous tiles, starting from the deepest end of the main drain, which has been laid ten feet from the water edge. For the first subsidiaries, lay two seven-foot and one-half foot lengths branching into the main (as per C of Fig. 1), connecting same with a three by four-inch 45° connector (with collars). Ten feet from the connector on the same main, lay two twelve and one-half foot sections (as at D of Fig. 1), and proceed to lay and connect to the main drains the seven and half-foot and the twelve and half-foot lengths alternately, giving the subsidiaries a 45° angle to the main. Care must be taken to give them a slight pitch toward the mains to avoid arresting the flow of water.

Porous tile usually comes eighteen inches long and has no collars, therefore, in the vicinity of trees or shrubs, it is advisable to set such joints in cement to prevent the roots from entering and choking the drains. Otherwise just butt the ends together.

Along both sides of the drains place a run of four-inch stone to hold the drains in place. Cover the opening with several four or five-inch stones to prevent clogging, but so as to give access to the water.

Cover the tile with a layer of three-inch stones and ram down, being careful not to break the pipe, then fill same up to a level (as in E, Fig. 2), and ram down, after which a two-inch covering of clinkers, cinders or gravel (as per F of Fig. 2). Water and ram down hard. Next fill in six inches of subsoil (as per G in Fig. 2) and ram down and roll with a two hundred or three hundred-pound roller, after which make the desired undulations and cover with a four-inch coat of topsoil (as per H of Fig. 2). Then replace the turf. If this is properly done, the green will be ready for play in a very short time.

Many of the articles we publish from time to time are at the request of some reader. We hope that should there be any subject in our field that could be taken up with profit to the other Green Committees, our readers will feel free to tell us about it. Many Committees have discovered new kinks in overcoming difficulties and we would be very glad, through the medium of "THE GOLF COURSE," to bring them before the golfing world.