

to walk over in going from tees to greens or greens to tees should be seeded at the same time as are the fairways, otherwise the players will have to walk in mud during wet spells. Sheep's fescue and Canada bluegrass appear to be the best species for the rough. In case the land has been broken during the construction work, it is advisable to add some redtop to the sheep's fescue or Canada bluegrass, as the case may be, in order to get a covering quickly on the bare places.

A Rapid Renovation of Putting Greens

By ALMON BROOKS WILDER

On our northern Michigan course, where the soil is very sandy, it was decided to introduce water and to renovate the greens. These greens had irregular turf with a poor growth of redtop, Kentucky bluegrass, and a few scattered bunches of red fescue. In previous years the unwatered greens had been mowed and rolled regularly and had been seeded occasionally on top of the turf, the seeding probably being of no benefit. Also, to overcome the roughness of the greens, there had been frequent top-dressing with finely screened sandy loam. By the time the work of renovating the greens was begun there must have been over an inch of this good top soil directly on top of the original sand soil.

Late in May a water system was installed. The old turf of the greens was thoroughly scarified with a spiked roller (a 10-inch log full of spikes protruding 1½ inches), first thoroughly soaking the turf so as to provide for good penetration of the spikes. Redtop was then seeded broadcast at the very heavy rate of 25 pounds to 1,000 square feet, and a thin coating of sandy loam mixed with pulverized sheep manure was applied, and the greens were then again heavily watered. The watering was continued every day except when it rained, and in about a week's time the redtop had sprouted, and it grew rapidly. Every fortnight during June and July the greens were reseeded, but much less heavily, and more sandy loam was applied. Sheep manure was omitted after the second treatment, as it was found that it burned the young grass considerably.

By July 1 there was a very heavy stand of fine young grass which had apparently crowded out the old stiff grass, the greens having a soft, velvety surface very pretty to see and perfectly accurate for putting. Once the grass was well under way, say by June 12, biweekly mowings had been commenced, and after July 1, when the greens began to be used regularly, they were mowed daily.

The loam used for top-dressing had enough clay so that it tended to cake a little with the frequent watering and drying. To overcome this, several times during the summer finely screened beach sand was used as a top-dressing. The greens continued in perfect condition throughout the summer, being beyond criticism, neither too fast nor too slow, and of perfect surface.

It is clearly recognized that these greens are not in permanent condition. The expedient was adopted simply to save time. Our present intention is to plant these greens with creeping bent stolons, letting the bent gradually run the redtop out. It is, however, gratifying to know that perfect greens of this emergency type may be grown any spring if the per-

manent turf for any reason is in poor condition. It is indeed barely possible that on this northern course with light sandy soil and long hard winters it may prove better to renew the greens each spring in the way described, much as the greens are replanted each fall on many of the sandy courses in Florida.

A surprising and puzzling thing was that by fall volunteer white clover, not present in the old greens or fairways, began to appear in the greens to a considerable extent and by frost time was abundant. Five years earlier there had been considerable white clover in the fairways and a little in the greens. This had become less and less until, at the time the new work on the greens was begun, it has almost entirely disappeared. Did the constant watering cause old and long-dormant seed to sprout?

Construction of Tees.—There is a serious question as to whether players should be “coddled” by having perfectly flat tees prepared for them. This is often expensive and usually unnatural in appearance. Is it not better and more economical to select a fairly large and level area and keep that reasonably smooth by top-dressing and rolling and have ample spaces between tee markers and leave each player select a fit place to drive from? Is that not better than smaller but unnatural-looking tees? A large tee is to be preferred to a series of small ones, though it is good practice to keep a set of tees in reserve for tournaments where the length of hole permits the construction of a large tee for ordinary play a little short of the greatest length of the hole.

Instructive Golf Holes II

No. 10, Pine Valley Golf Club, Clementon, N. J. 134 yards.

The hole here illustrated and described is one that is designed to inspire fear in the heart of the player on the tee. The wide expanses of sand bunkers almost completely surrounding the green make the latter appear a small target. In reality the green is unusually large for a hole of this length, measuring as it does 6,500 square feet, approximately 70 feet wide and 95 feet deep. The tee is perhaps 15 feet higher than the green, the land in the middle between the two about 15 feet lower than the green and covered with rough grass that does not look inviting. The “mental hazard” of this hole is exceptionally great, even if the green is unusually large.

