



The eighteenth green and the clubhouse of Inverness.

Thirty Years in Greenkeeping —Its Lessons and Rewards

By WM. J. ROCKEFELLER

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THIRTY years greenkeeping at Inverness has taught me that experience is worth a library full of books, as valuable as the printed experiences of others are.

Climatic conditions and soils vary so widely. There are a thousand and one localized problems in greenkeeping. A greenkeeper may go along for a long period and even reach the point where he thinks he is so good that he brags about his greens and then—the debacle! Almost overnight comes the epidemic. Putting greens seem to be the most sensitive thing in the world. They are all very delicately reared and subject to sudden and violent disease.

Now I am not out to say anything in this "speech" about any particular "breed of grass." I have so many friends (I hope) in the grass family that I don't want to antagonize one of them. Believe me, all good, refined, upstanding grasses, of whatever name, are the friends of the

greenkeeper who has the common sense to keep on good terms with them. Those two words "common sense" are indispensable and no amount of anything else, even university diplomas, can "go over the top" without common sense up in the old dome.

As I look back over the years, I take pride in a number of my "students." They graduated with honors and went forth to "green fields and pastures new." I think particularly of Joe Mayo, who was with me a long time and has achieved real distinction at Pebble Beach, California. He exemplifies just what I have been trying to convey.

Develops Men and Course

Through the years it has been a genuine happiness to me to see the development in men and the course at Inverness. We have tried to make the course steadily better in all rational ways. Golf course construction can be abnormal and crucifying. Not so Inverness.



There is plenty of evidence of careful planning in the architecture of this recently rebuilt 13th green at Inverness.

As an illustration of a green so situated naturally, and protected that its sporting qualities are as they should be without being unfair, I submit the picture of the Eighteenth green at Inverness.

While the men that I have employed to do the actual labor have always been the best I could get, everything in the way of new construction has been done under my personal supervision. It is very difficult to get men who can visualize a completed green from blueprints. I have often had to do a "sample part" of the work myself and then watch closely all shaping of a green to make sure that it fulfilled my ideas. While there are many opportunities to give variety to green construction, especially if as many natural locations exist as at Inverness, there are certain fundamental principles that must be adhered to.

I have always avoided trickiness in construction. High humps upon a green that deflect a finely pitched shot into a pit nearby is very unfair and hence bad construction. As a basic principle, all greens should hold a properly played shot, especially one that is *up*, for the old saying "never up, never in," must not be discouraged. A green that begins to slope down-hill so that a player dare not hit his approach shot boldly for fear that after it has passed the hole a few feet, it is going to speed up through gravity by reason of a down slope and end up in tall grass at the back of the green is bad construction, particularly on 460 or 470-yard holes.

There are no such greens at Inverness.

During recent years I have relocated and so rebuilt No. 2 (this year) and No. 13 (in 1928), and made fundamental changes in the pits guarding Seventeen and Two. I hope and believe that all of these will be appreciated next year, when our visitors come to the National Open. Many of them were here in 1920 and, no doubt, will not these changes, which show the way a good American course grows.

Some Physical Properties of the Soil

By J. S. JOFFE

(Rutgers University Short Course)

PHYSICALLY considering, a soil is a mass of solid particles differing in their size, shape and nature. Assuming the particles to be spheres, we may see how the arrangement of those and their size will influence the pore space in the soil. The larger the particles the less pore space and vice versa. Sandy soils may have 20% pore space and gravelly soils may have even as low as 10% pore space. Most cultivated soils range between 35 and 50% of pore space. The proportion of interspace in a soil determines both the volume of air it will hold and the amount of water it is capable of taking in. The size of the pore space determines the rapidity with which the water will flow through the soil.