

fairways and on the tees. But during the growing season the bent heals itself with truly amazing swiftness.

The tiny runners reach out from every side of the hole in the turf until they meet each other, and in no time it seems the gap has disappeared. This ability to swiftly hide its own wounds is one of the most valuable qualities of the creeping bent grass.

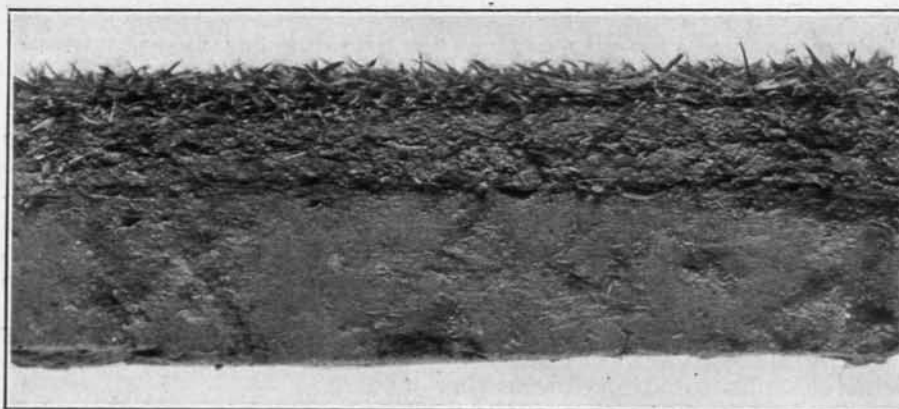
The Putting Surface

By George Cunningham

All good greens have one quality in common, a true "putting surface." Fine greens may be composed of mixed bent, creeping bent, velvet bent, fescue, redtop, Bermuda grass, bluegrass, or various combinations of grasses and other plants such as clover and yarrow and still be excellent if the ball runs true. That the ball shall run truly is always the most important requirement.

A turf of perfectly uniform texture often seems to the inexperienced greenkeeper to have a true "putting surface" when it may in reality have nothing of the kind. This error has led directly to much criticism of creeping bent greens.

Good putting is impossible on an insufficiently topdressed creeping bent green, but as such greens generally present an attractive appearance because of their uniform texture and color, many players have condemned the turf whereas the real cause of trouble was because improper maintenance methods were used.



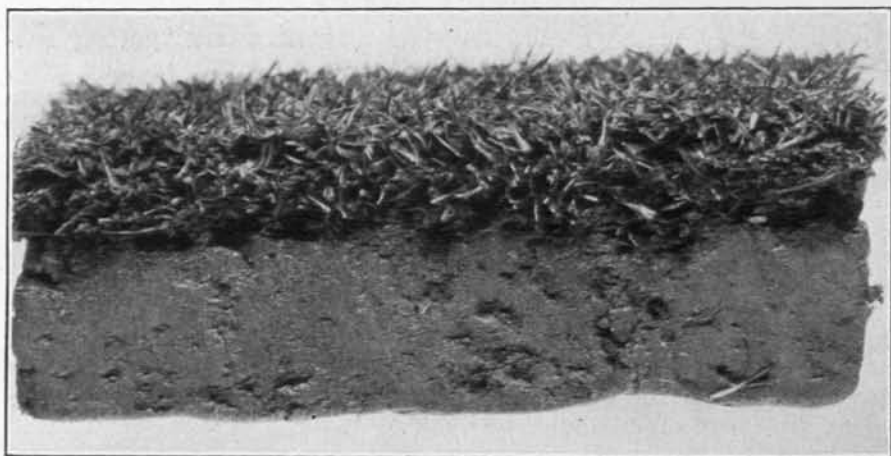
Cross section of properly topdressed creeping bent turf. Note that the surfaces of the soil and turf combine to form the real "putting surface."

A putting green may be compared to a billiard table, the ball depending on the trueness of the slate for its accuracy and on the texture of the cloth for its speed. The slate, or soil surface, must be true or good putting becomes a matter of luck instead of skill, the fact that the cloth, or turf, may be thin is of less importance, but if the turf is so long and matted that the underlying slate, or soil surface, can no longer directly guide the rolling ball the game becomes a farce. On many creeping bent greens the latter condition exists simply because the importance of the true "putting surface" is either not recognized or is thought to depend on the surface of the turf it-

self. Both the underlying soil surface and the surface of the turf combine to form the "putting surface."

Greens of Bermuda grass or creeping bent require frequent topdressing. Greens of mixed bent require somewhat less, and to topdress velvet bent greens as heavily as creeping bent must be topdressed would seriously injure if not entirely smother the turf.

The question of relatively fast or slow greens need not be considered except to the extent of saying that if the turf becomes so long as to check the ball abruptly good putting is impossible.



Cross section of creeping bent turf which has not been topdressed during the season. It is obvious that contact with the soil has been lost and that no real "putting surface" exists.

Newly planted greens require more frequent and heavier topdressings than greens in their second or third year, not because of the need of fertilization but to true up the soil surface. Old greens are generally good ones because of their true soil surface rather than because of the excellence of their turf. Small spots in an otherwise true green can sometimes be brought into proper condition with not more than a pail of topdressing. If a well hit ball bounces along its path there is still work to be done on the soil surface.

On sandy soils the problem is simpler for an occasional rolling will do much to keep the soil surface true but rolling can never be entirely substituted for topdressing.

On nearly every other question of greens maintenance there is a chance for honest difference of opinion, but everywhere the "putting surface" can be made a true one and unless it is true there is just cause for criticism.

Do not forget that the soil surface and turf surface combine to form the "putting surface," and that the soil surface is the more important of the two factors.

"Assuming that proper ground has been selected, the man who can build a golf course and get his results with the least number of artificial hazards and with a minimum of interference with the natural topography and atmosphere of the land, is on safe ground and his work will stand the test of time."