

A green built and finished as above applies only where the turf is to be laid. When it is to be seeded or vegetatively planted an entirely different seed surface should be laid—which, however, is another story.

Cost

The cost amounted to \$424.75. The rough grading alone cost \$265.00, or nearly two-thirds of the entire expense.

Rough-grading (2 days).....	\$265.00
Mushroom soil	37.50
Sand	11.25
Bone meal	15.00
Labor, including use of our own team.....	96.00
	\$424.75

Rolling the Turf

C. V. PIPER AND R. A. OAKLEY

Ten years ago rolling was used on most golf courses to excess. Perhaps in consequence of bad results that ensued on some courses, the tendency in recent years has been not to use the roller enough. Every northern golf course requires a good rolling early in the spring as soon as the ground is fairly dry and the grass has begun to grow. This is to compact the surface soil, which has become very loose as a result of freezing and thawing, as well as to smooth out the unevenness. The loosening or heaving effect of freezing and thawing is much more pronounced on clayey soils than on sandy soils.

Generally speaking, excess of rolling is practically impossible on sandy or sandy loam soils, provided the rolling be done when the ground is not actually wet. On clay soils and even on clay loams it is possible to compact the soils too much for the best growth of grasses. Particularly is this liable to be the case if the roller is used when the ground is wet.

A safe rule to follow is, never use a roller when the ground is wet. This does not mean use it when the ground is dry. The best time is when the soil is just slightly moist.

Where the fairways are well turfed, damage from rolling, even on clay soils, is rare. It can occur if a heavy roller be used when the ground is wet; but it is doubtful if it ever occurs on sandy soils.

On putting greens nice judgment is necessary, depending on the soil texture, on the degree of moistness, and on the density of the turf. A heavy rolling in spring is nearly always necessary. Thereafter rather frequent light rollings are better than occasional heavy rollings.