

Course Design for Cheaper Mowing

By ALFRED H. TULL

WE all hope that private golf clubs will expand after the war, and this happy state of affairs is more likely to be our lot if annual dues can be kept down to reasonable figures.

In the future, when new golf courses are built, advantage will have to be taken of new and cheaper methods of construction in order to lower the required capital investment, the mortgage or other funded indebtedness, and the annual interest charge which must necessarily be paid out of the club's income from dues. Design will have to be modified to bring about a greater use of large power equipment and a consequent saving in manpower, and the cost of course up-keep.

On a completely equipped course, the cost of the required machinery can be amortized over a ten-year period through the saving of less than one workman's labor during the summer months.

The cost of mowing turf accounts for by far the greater part of the cost of maintaining any golf course. Anything that reduces mowing expense lowers the total cost of course maintenance. The surest way to attain this saving is to utilize power mowing to the utmost. This means that not only must power machinery replace hand mowers, but the largest possible area of turf must be cut by the larger machines, leaving as little as possible to be cut by the smaller powered units.

Every golf course architect needs first-hand experience in course mowing in order to avoid those details of design which bring about the necessity of mowing, or scything, by hand.

Many clubs have reduced their budget by the removal of unnecessary sand-traps. A further great reduction can be made by so contouring the grassed banks and slopes outside of the sanded area that they can be cut with gang-mowers, or at worst, with rotary-type power mower. In many instances, sand-traps near the greens can be replaced with turfed hol-

lows and mounds contoured for gang-mowing. This type of bunkering serves to make a pitch shot mandatory, provides additional variety in play, and is considerably cheaper to maintain than sanded areas.

Open ditches through the playing area are another source of unnecessary hand work. Replacing them with tile-drains pays big dividends in saved labor, and speeded-up play. Where open streams or ponds are desirable as water hazards their banks can be so contoured that gang-mowers may be run close to the water's edge, reducing scythe work to a minimum. In fact, the odd corners and ribbons of turf adjacent to the water can be cut with a light rotary-type power mower in half the time it would take to trim these areas by hand.

In most cases, tees can be designed in such a manner that a five-gang fairway mower can be run over them leaving a minimum of edging and banks to be cut with a rotary power mower. The small teeing space actually in play can be re-mowed to a lower cut with a regular power mower.

There has been much discussion and controversy over the merits of power greens mowing, but it is a foregone conclusion that, more and more, some type of power greens will come into general acceptance and golf course architects will have to get away from the boldly contoured greens of the past. They can, and must, design greens that please and satisfy the players and that still can be mowed by power without "scalping."

Today, banks of greens and tees undoubtedly require too much hand-mowing. In the past, many greens were elevated for visibility, and left with steep banks which have had to be mowed or scythed by hand. They have been headaches to greenkeepers ever since. Present construction methods have so cut the cost of earth-moving that there is no longer excuse for not building up and

pulling out the slopes around the greens and tees to the point where they can be cut with gang-mowers.

The placement of bunkering and water-hazards around greens should be made with the over-all width of fairway mowers in mind, since borders and strips of fairway too narrow for the passage of such mowers must necessarily be mowed with smaller time-consuming machines.

Years ago, good "rough" usually consisted of hard fescue, "broom sedge" or other bunch grasses, and was mowed with a sickle-bar about twice a year. It was high enough, and sparse enough, to give a "cuppy" lie, penalizing players who strayed from the fairway, and it made for accurate shooting.

In an effort to cut the cost of rough mowing, and the time required, sickle-bar mowers have been replaced by fairway mowers on many courses. The standard fairway mower cuts bunch grasses too low, injuring the crowns, with the result that the turf-making species such as Kentucky bluegrass, have taken over. As this occurred, players complained of losing balls in the rough, and the mowers had to be set even lower, until they reached the height of cut which is about right for maximum turf production. As a result, the cost of mowing rough is rapidly approaching the cost of mowing fairways on these courses. Too often the rough presents a better lie than the fairway, and there is no longer any incentive to accurate play through the fair-
green.

No one wants to go back to slow sickle-bar mowing, and it is not necessary, since good bunch grass rough can be kept mowed at the proper height with fairway mowers that have been properly adapted for the purpose, or by the use of the new airport-type gang-mowers developed for the army. Hard fescue kept mowed to about three inches will not hide the ball, and will make it necessary to reach in the bag for a short iron, instead of a brassie. Unfortunately, although it is possible to transform bunch grass plantings to closely knit turf by closer mowing it is not feasible to reverse the process, or at least it cannot be done without a long period in which the rough would be unplayable. After the war, it might be possible to kill the present rough with sodium arsenite and re-seed to hard fescue. In new construction, at least, we can look forward to good "cuppy" rough, mowed economically with the new type mowers.

Mowing equipment can be divided into seven classes, according to its intended use: tractor-drawn fairway gang-mowers for fairways, tractor-drawn airport-type gang-mowers for rough, reel-type power mowers for tees, aprons and odd corners of closely cut, rotary-type mowers for

steep areas of rough or bunkering, power greens mowers for the putting surfaces, hand mowers for various uses, and scythes or sickles for trimming. Sickle-bar tractors are not on this list, as they can be economically used only on outlying areas which need trimming once or twice a year. Future golf course design should almost eliminate from this list the hand mowers, scythes and sickles, and reduce the use of power mowers, except on greens, to a minimum, and increase the proportion of the turfed area that can be mowed with gang-mowers.

It is axiomatic that the lowest mowing cost per acre results from the use of the largest possible unit of mowing equipment. Where power mowers are used on banks and fairways, where hand mowers are used for trimming and greens mowing, or scythes and sickles are in frequent use, it is certain that more thought given to the details of design could have materially reduced mowing costs.

Today, the golf course architect should so design his course that, without sacrificing the quality of his work from the player's point of view he can provide for the greatest possible use of the larger mowing units.

PGA Meet at Moraine, Dayton, July 9-15

★ MORAINE CC, DAYTON, O., will be venue of the 29th national championship of the PGA. The event will be held the week of July 9.

Moraine has an interesting testing course, which probably will measure about 7,000 yards for the pros' title event. It's a well conditioned course, and will be groomed to pro specifications for the championship.

The club has a small and very attractive clubhouse. Prominent Dayton industrialists, many of them National Cash Register officials, constitute the club's membership. The club is putting up \$20,000 for the event. This guarantee covers prize money, expense of those who get through sectional qualifying rounds for the tournament, and the PGA headquarters share.

Dayton's previous major golf event was in the 1931 Western Open, won by Dudley.

Club Buys Hospital Insurance for Help

★ Eric C. Koch, executive mgr., North Hills GC, Douglaston, N. Y., advises the club's Board of Governors has adopted a plan to protect regular employees of the club against hospitalization expenses. Every regular employee after three months' employment will be protected at the club's expense by hospital insurance.