bers of their professional trade group. This tells me that about five of six clubs possibly are getting by on substandard grounds management. Fortunately for golf, there are supts. who have continued to educate themselves, and clubs that have wanted increasingly better playing conditions. Therefore progress continues and at the same time the gap between supts. widens.

Maintenance Objectives

Efficiency implies the accomplishment of an objective with minimum waste. Practically every club has a different objective when it comes to a standard of course maintenance. So we have many variations of standards. In illustration we can compare a well groomed private club and an austerity minded municipal course as two extremes. Most of the refined operations of trimming and grooming at the private club are desired and necessary. But most of these same practices would be totally extravagant if applied to the public course. It doesn't need bentgrass tees and fairways. It doesn't need collars around the greens, edged traps, fresh sand annually and so forth. The time required for mowing a green at a club desiring top putting surfaces is bound to be greater than the time allowed for the same operation at a profit minded public course where standards are relatively low. In most mowing operations speed reduces quality, as we all know.

Fortunately, in large metropolitan areas, we usually find a few clubs desiring similar standards of maintenance. They provide an opportunity for discussion of many common factors, yet they cover quite a spread of overall aims with variable pocketbooks to pay the bills. So in discussion of efficiency of maintenance we have to adjust the shoe to fit the foot.

Informal Type Studies

Time and motion studies on golf courses must of a necessity be pretty much informal. These have to be made by observations by the supt., keeping of minimum records and by making pilot studies from time to time by both the supt. and perhaps the various golf assns. Course time and motion studies can't be compared to those of factories.

"Job Analysis" is more appropriate than "Time and Motion Study." On golf courses we must correlate efficiency with money available, the supt., amount of play, club objectives, the grounds staff, weather, unusual conditions of soil, drainage and possibly a few other factors.

The supt. should be aware of these factors and direct his attentions to continued observation. I have tried to develop an approach so that whenever I observe our men working, I ask myself this question, "Is there a better way to do this job without sacrificing quality?" A supt. must look at all the details and movements of his men fertilizing a green, for instance, and then try to eliminate wasteful effort. This is just another reason why we tell supts. to get out of their overalls and become worthy of the title as well as the salaries they aspire to.

Interference in Maintenance

Efficiency in maintenance involves the factor of player interference to the workmen as well as workmen interference to the players. Neither one is desirable. The subject covers a wide range of discussion. Interference with the workmen has become a nightmare to most supts. Considering daylong play, how long can we allow for the overall cutting of the greens? How early can we and should we start the crew? How much equipment do we need? We can only answer these questions by being on the job, alert to the situation, and making a practical analysis.

If mowing greens ahead of players (and they have to be mowed at least six times a

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USGA Lists Course "Sins Most Frequently Committed"

A six page pamphlet recently released by the USGA to its member clubs listed the "sins most frequently committed" on a golf course. These include:

1. Littering with soft drink bottles, glasses and paper cups;
2. Climbing out of bunkers from the high side;
3. Failure to replace divots;
4. Failure to repair ball marks;
5. Turf scuffing caused by dragging feet and twisting on the green;
6. Leaning on a putter while standing on the green;
7. Using a putter to scoop the ball out of a hole;
8. Jabbing the putting surface with a flagstick or carelessly replacing the pin;
9. Deliberately hacking up the green;
10. Careless use of golf cars.