ble to power-machine application, eliminate labor and obsolete methods of operation.

With mowing units power driven, all areas should be designed and constructed to better accommodate the wheel base and size of units so employed. Backs of greens, tee areas and entire trap areas should be tied off and blended so that no sharp angles are in evidence and contours are such that gang units and acre mowers can be operated.

We find in a great number of instances the original greens construction was conducted without the proper knowledge of turf requirements. Frequently we have observed tractors and teams, in the process of greens construction, invariably haul their material through the entrance of the proposed green for the entire grading specifications, and, by virtue of this routing of materials, so pack and puddle the approach and immediate green entrance that the effect was retroactive as to turf condition for many seasons, and this especially true in those particular greens where tile had been eliminated.

Where and how to get material for greens construction is in itself an interesting study. Frequently soil is moved from areas that should never be touched. It may cost more in maintenance to correct than was involved in the original cost of the completed green. Therefore, one can readily see that cost of maintenance is definitely related to construction methods and must be religiously considered, not only in the process of design, but in its execution.

An inquisitive golfer at one time questioned the old green-keeper as to how he succeeded in having such fine turf, and the old gentleman replied, "You sows 'em; you hose 'em, and you mows 'em." This an-

grass and economy would be somewhat effected.

As my good friend, John Morley, president of the National Greenkeepers association, once said, "I have not reseeded any part of my course for fifteen years; I simply use the proper fertility when the occasion demands," and there are few who will not admit that the Youngstown C. C. is one of the finest conditioned courses in these United States.

## What About the Rough?

Tradition, to my mind, has distorted many elements in golf, both from the motive of design and construction, not to mention maintenance and the actual playing of the game.

Many foreign courses that were originally cared for by the nearest thing to "perpetual motion" (i. e., in relation to golf maintenance) we have found—SHEEP—had the minimum of long grass areas, which we term rough. Some of these particular courses were just one great pasture area, and we have records which disclose the fact that many golfers have played the entire season without suffering the loss of their ball. Try and do that even for a round on some of our modern creations.

Therefore, why not consider the elimination of rough, and plant as much of the course as possible in fairway mixture?

Somewhere in the remote period of golf operation someone elected to have money by simply cutting a so-called specific "fairway area," where the sheep got the gate and the horse-drawn mower got the call. I know, because I drove one of these old outfits on John D. Rockefeller's Forest Hill Estate at Cleveland in 1904.

When the power mower came into use they continued to follow the old tradition and cut out a fairway, and all else was rough, and the poorer the player, the rougher the going. Economy may have subscribed itself to the motive, but did anyone ever meet Miss False Economy? Then let me state, by actual experience and cost data, we have made it possible to "meet up" with this Miss False Economy, and henceforth we are going to champion the cause of—Eliminate the Rough!

This may be frowned upon by some socalled experts, but cost of maintenance never comes from their pockets. The job is their interest. Were they to operate courses of their own where their personal pocket-book were involved, they might learn the many vicissitudes of their prospective client.

A professional golf architect can, through the process of strategic design, employ proper trapping, and the use of interesting natural hazards subject the player to consider shot placement to better conquer a properly conceived and alluring golf design. The good player is not unduly concerned over a lie in the rough, and frequently he is so far off the tee with his initial shot that the following one is of little consequence.

Therefore, why subject the tyro golfer, who tops or slices his ball a few yards off the tee, with a lost ball or the slowing up of play while hunting the elusive spheroid, when, in the main, there is no possibility of negotiating a second shot to the green? A lost ball, a discontented golfer. A discontented golfer hurries from the club, while a contented one lingers to tell his friends about the par he got, or plays the whole round at the lunch or dinner table, and, too, it usually takes a contented golfer to become a good listener.

But the important consideration—the loss of money through an otherwise unthought of medium.

Every rough is a potential "weed nursery." The pollen (the mass of microspores in seed plants, usually a fine yellow dust) is usually tracked or blown on fairways, tees and greens, and, due to abnormal degree of fertility of these particular areas, germinate rapidly.

Then comes the expensive weeding process. It frequently costs some clubs from two to three thousand dollars per year to eliminate weeds in their greens. Enough weed pollen will blow in from areas off the course without encouraging the condition within the confines of your own property. Then, too, when you tramp weed seeds into your greens on spiked shoes you

are planting in the most efficient manner.

By eliminating the rough you will have better turf on tees, greens and fairways, as weeds are parasites, and absorb plant foods like gluttons, and eventually starve out the grass. Therefore, you will not only have the cost of weeding, but the cost of fertilizer to re-establish the grass, and, too, the expense of the seed, stolons and planting. This does not cover the interference of play and general dissatisfaction.

The additional cost of fairway mowing for the entire course is not of such proportions as one might assume at first blush. In actual mowing time, it is of such little consequence that we will not bother going into this detail. However, the beautiful effect of the entire course so conditioned more than compensates for the minimum additional time involved.

And, by the way, if you ever have the opportunity to play Lakeside C. C. at Los Angeles, friend Max Behr's excellent creation, you will find an ideal course and one of great caliber. Mr. Behr eliminated the rough on the entire course, and during the invitational professional tournament but one player, Joe Martin, pro, of the Virginia C. C. at Long Beach, succeeded in breaking par. The greens were the finest I ever putted on, so the pros had no alibi. The design called for skilled placement shots, and the course proved very baffling enigma.

Maintenance on many courses is treated more or less in a perfunctory sort of way, especially in relation to cost. The thought of economy should permeate the minds of the operators from the beginning.

In perusing the above, one can readily appreciate that apart from the mechanical feature of laying out a definite number of holes of an approximated standardized length, golf architecture involves many other considerations which are highly essential to economy.

## Jack Dillon Recovering from Boston Operation

Jack Dillon, popular pro supply dealer, with headquarters in Chicago, went through a serious operation successfully at Massachusetts Eye and Ear Infirmary, Boston, December 2. Jack has been one sick hombre since the middle of October, but now he's on the mend, for which his playmates and customers in the central territory prayerfully say "Allah be praised."