of competent investigation determining true value. On buying seed, Quaill remarked:

Grass seed is another item which can run up costs very fast. Cheap grass seed is cheap grass seed is cheap grass seed and nothing else. Good seed is good seed and a lot more. It is insurance that it will grow and produce a good turf. Why buy a seed with a germination percentage of 60% for \$30 per hundred when you can buy an 80% seed for \$35 per hundred and get better results? Buy your seed on the basis of a guaranteed analysis and from a reputable seed house and you will have the satisfaction of knowing you are getting seed true to name and of the best quality.

One of the handicaps to economical maintenance is the pressure brought to bear on buying from members. He told of a case where 10 members of a club said they must have business from the watering system being installed or they would resign. The directors weakened and difference in delivery dates, character of pipe, checking up on orders and deliveries continually tied up the job and ran up expense. Extension of the installation next season was handled on a competitive bid basis. No member resigned and the club was saved considerable money.

Effects of staff reductions which do away with the niceties in course maintenance that identify a first-class course were pointed out. Results of pay cuts reducing efficiency and spirit of the staff also were mentioned as something green-keepers must carefully guard against. He advocated changing tasks of men so they would retain interest and strongly advocated having all greensmen play golf. He said his own chairman gave him a valuable policy tip in labor management by remarking that when the greenkeeper was doing manual work it meant some one of the staff had been improperly trained or was loafing.

Quaill strongly emphasized the peril of procrastination in golf course work. In laying down his conclusion of making certain that enforced economies were not penny-wise and pound-foolish cases, he expressed himself thusly:

At this time practically every club in the country is retrenching and thinking out the financial problems which are confronting them. Now is the time for the greenkeeper to get his words in and tell where he thinks it best to start the economy program. Tell your chairman what you think and show him that you are not sitting back and letting them work out your problems. Tell him your ideas and I'll bet he will approve a bunch of them and give you credit for being wide awake and on the job.

## Present Day Qualifications of the Greenkeeper

By O. B. FITTS

Greenkeeper, Columbia Country Club, Chevy Chase, Md.

VARIOUS educational campaigns of the past few years, said Mr. Fitts, have resulted in greenkeepers assuming responsibilities which formerly were on the shoulders of the green-chairman, golf architect, construction engineer and other experts and specialists. In other years, the greenkeeper was a sort of foreman, carrying out all but the merest of routine work on orders of the green-chairman.

These educational campaigns, however, have awakened the greenkeepers to the necessity of keeping abreast of the times, of gaining all possible knowledge of the many intricate phases of golf construction and maintenance, of becoming in fact earnest students of their profession. Changing standards, improved types of equipment, new turf diseases and pests have added to the greenkeeper's responsibilities and have given him an incentive to anticipate the future through study.

## Take On Alteration Work

The speaker referred to the greenkeeper's part in course alteration programs, saying:

During the five years that I was with the U. S. G. A. Green Section I visited many

golf courses. At many of these I found some change or alteration either in progress or under contemplation for the golf course. In most of these cases, especially if the alteration was to be of any consequence, the services of an architect had been or was to be secured for planning the work, and in some instances a construction engineer was also called into service. All of which was, in most cases in those days, the wisest thing for the club to do, for the average greenkeeper had not gone in for that type of work and was not qualified to handle it.

The story is different today, however, for the successful greenkeeper has made a study of the architectural and constructional phases of golf course work during the more recent years and has demonstrated his ability to execute any alteration of the course in a manner that satisfies the whims of the golfer and at the same time simplifies maintenance problems more than the work of some one who is not as familiar with local conditions. This knowledge and ability has made it possible for the greenkeeper to demand a better salary and at the same time effect a saving for his club.

Fitts outlined the intricate knowledge a greenkeeper must have to undertake alteration work. He must be a golfer so that the holes he designs are fair and sporting for expert, average and dub golfers alike. He must know landscaping, so the final result will be pleasant. He must remember the factors which make for economical maintenance. He must understand soils and drainage and irrigation, and must be familiar with various types of grasses, so that playable turf grows on his fairways and greens.

## Becomes Purchasing Agent

The rise of the greenkeeper as a purchasing agent was next discussed, Fitts saving:

One of the greatest responsibilities which the rise in the standard of greenkeeping has placed in the care of the greenkeeper is that of purchasing equipment and supplies for the golf course. Not so many years ago practically everything for the golf course was purchased through the secretary of the club at the request of the green-chairman. All advertising matter was sent to these officials, and when a salesman visited a club he called on these officials. The result was that the greenkeeper knew what he was getting to use on the golf course or to work with only when the delivery man arrived with it. The greenkeeper has probably always had the privilege of asking for what he wanted or needed, but that was about the extent of his privilege and in many cases he never exercised this privilege, because the acknowledged subordinate standard of his position placed him in a constant state of intimidation. There were exceptions to this rule, of course, but there were fewer exceptions to than adherents to the rule.

It would be difficult to picture the successful greenkeeper of today having to stand back and wait for his chairman to decide what he needed or what he should use on the golf course. Whom does the supply and equipment salesman call on today? Whom does he have to convince of the value and practicability of his product before he may hope to make a sale? Who decides on the kind of seed, fertilizer, etc., to use, and who makes the investigations as to price and quality? Who chooses the equipment needed for the work on the golf course? The answer to these questions is, in most cases at least, the greenkeeper. "Why the greenkeeper?" you may ask. Because it is he who has made the most thorough study of the needs on the golf course and it is he who has familiarized himself with the practical particulars of these products to such an extent as to enable him to make a more intelligent selection than the average green-committee chairman is able to do.

The greenkeeper must be a good sales-

man, too. He must sell himself to his chairman, convincing that superior that he is capable of handling every phase of greenkeeping to the best advantage of the club. He must sell the importance of the greens job to the membership as a whole, not only because such effort will prevent his being fired and a new man given his job, but also because the members' attention should be called to the excellent playing conditions they enjoy through his efforts.

The greensman must also sell himself to his laborers by setting up a fair but strict set of working rules. He must insist on his authority being respected and tolerate no insubordination. He should recognize the varying amount of efficiency in a group of workers and so apportion the work and pay that each man is most advantageously employed. Selling the grounds crew on the fairness of their working conditions makes them satisfied and interested.

## Must Rebound from Set-Backs

A greenkeeper sometimes has to take a licking, said Fitts, and accept it only as a matter of past consequence from which to begin all over.

When a set of beautiful greens, the result of diligent and tireless effort, succumb to the ravages of disease and insect pests and to the uncontrollable conditions of nature. one must possess more than mere courage in order to pitch in again and go through all the tedious and patience-wrecking course of treatment necessary to bring them back to their former state of excellence. One must have that necessary desire to conquer, and an unfailing love for the beauty and fineness of quality which he expects to restore to his disease-ridden and insect-infested turf. The successful greenkeeper has trained himself in these qualifications and, though he may be somewhat down-hearted at times, he never quits.

The speaker closed his remarks by cautioning his listeners against the theory that the greenkeeper has progressed beyond where expert assistance is not frequently needed.

It is my sincere belief that the present high standard of greenkeeping would never have been achieved except through the cooperation of men who are specialists in their respective fields. I also believe, just as sincerely, that we must have the cooperation of green-committee men, golf course architects, construction engineers. scientists, and trained investigators if we expect to progress. We have learned the very important lesson of how to cooperate with these men to get the greatest benefit of their knowledge. And having learned this lesson we must never under-estimate their indispensability to our future success.