

cutters for the purpose, and fill in with good clean turf taken from the turf nursery.

Clover is the most troublesome and difficult plant to get rid of. On newly sown greens the seedlings should be taken out by hand, but on established greens where it is intermingled with the grass plants, the only remedy is to apply highly nitrogenous fertilizer so as to help strengthen the grasses and have them get the best of the clover in time.

### Long Holes

AS a rule, a championship course possesses several three-shot holes, and the bunkering of such a hole is the great consideration, for hazards must be placed to make it impossible for the green to be reached with any sort of a third after either the drive or the second shot has been badly hit. These three-shot holes are necessary to provide variety, but there seems no reason for the building of a hole of over 550 yards in length.

To be sure, a hole is just as long as it plays, and unusual turf conditions must be considered, but in considering the length of holes generally, and analyzing them, we must assume that the conditions are normal.

A glance over the plans of the seven championship courses of Great Britain reveals the fact that not one of them possesses a single hole which measures 550 yards, the longest being the seventeenth at Westward Ho! which is 542 yards. St. Andrews' possesses two holes of over 500 yards—the fifth of 553 yards and the fourteenth of 516 yards. The twelfth at Prestwick measures 508 yards, and the sixteenth at Holylake 510 yards. There is not a single hole which measures 500 yards at either Muirfield or Deal.

As a word of warning to constructors of courses, let one suggest that in building their three-shotters they do not figure on length alone, but rather have always in mind the lay of the land and

thoughts of bunkering schemes, which will give the shots their true values.

### The Importance of Good Seed

THE suspension of field operations will provide an opportunity for looking closely into the question of the seed supply. Prominence has been given lately to the labor problem and the supply of manures, but little has been said about seed. Efficient labor and the use of suitable fertilizers will avail only so far as they are supported by a wise selection of seed. Unless this be pure, robust, and fertile, it does not matter much how much money is spent in labor and manures.

In the February *Journal* of the Board of Agriculture, Professor Biffen, of Cambridge, gives the results of a three years' inquiry into grass, clover, and mangold seed, but the principles apply to all kinds of seeds. The verdict on 676 samples examined was that "though seeds of the highest quality can be purchased, much of the seed offered for sale is of indifferent quality, while some of it is excessively bad." If the facts presented are typical, there is no need to look beyond the seed supply for an explanation of the poor returns yielded by large areas of both arable and grass land, and judging from the facts disclosed by Professor Biffen the supply of cheap seed is unlikely to diminish so long as farmers put price before merit.

The great defect of the seed trade is the method of distribution. Seed is sold in every market town in the country by tradesmen who have no special knowledge of the business and who probably know little concerning the origin or character of the seed they retail. The growing, harvesting and dressing of seed are skilled operations of the first importance; but if the buyer is to avail himself of the advantages offered by the exercise of such skill, he must procure his seed from trustworthy sources and have some sort of guarantee that the ar-

ticle is of the quality represented. The question of price should hold a secondary position. Guaranteed seeds of high germination are the best investment of the kind that farmers can make. Mr. Biffen tells of a sample of red clover seed which had so low a percentage of real value that a seed-rate amounting to over a ton per acre would have been necessary to secure sufficient clover seeds to provide a full plant—2,240 lb., as compared with the normal 10 lb. to 20 lb.

Deficiency in yield is not the only consequence of indifference as to the character of the seed sown. Foreign admixtures are not always harmless; weed seeds are often plentiful, and by introducing the seeds of docks, plantains, and such like—not to mention the parasitical dodder and other pests in imported seeds—the farmer nullifies the results of his weeding operations as effectively as he discounts the advantages of efficient tillage and judicious manuring by sowing seed of poor quality.

EDITOR'S NOTE.—The above article from the "London Times" contains much food for thought and should be carefully digested by Green Committeemen and others who have the responsibility of purchasing seed for Golf Courses, private estates, etc. It is a fact that seed purchased from a concern of known experience and reputation is actually cheaper than a poor grade which is much cheaper per bushel. High-grade seed contains practically no chaff and its cost represents actual seed. There is a great deal of fraud in the seed business, and it behooves one to go carefully and be sure what one is buying. The very best is by far the cheapest in the long run.

### Generous Teeing Grounds

**L**ARGE teeing-grounds are constructed not only to fit the play to the wind or general conditions, but to save the turf as well. If the plates are moved frequently, back and forward and from side to side, the badly worn spots which we see only too often would not be made. Move the plates every day, and the turf will not suffer in the least. It is not to the liking of

everyone to have to play from a skinned teeing ground; indeed, comparatively few like it, and usually these are the poor players. The man who hits correctly wants to feel the club bite the turf a bit, and when he is forced to pick his ball cleanly, his stroke has lost its sting.

### Public Courses

**T**HERE is scarcely a city of any consequence which has not provided a municipal golf course for the public or given the matter serious consideration.

Wherever these courses have been built the people have shown their appreciation by taxing the courses to capacity.

The absolute necessity of a municipal golf course is recognized by cities which are particularly desirous of the patronage of tourists. The majority of those who travel for pleasure play golf and though they may visit a city which does not provide golf for them, they will not tarry there long.

Then arises the question of whether an absolutely free course be built for the residents, or a semi-public course, operated by a city, over which visitors may play upon payment of a fee.

In some sections where the visitations of tourists are frequent, the latter development would seem to have first consideration, but in view of the unmistakably healthy growth of golf, the eventual solution carries with it the answer of "Both."

As it costs no more to construct any course along modern lines, there is no reason why public links should not be quite as up-to-date as any other, yet it must be remembered that those who frequent free courses are not so prone to observe the strict ethics of the game as others, and consequently in planning free courses, dangerous parallel fairways and blind shots of every description should be avoided. Such features should not exist on any course, but particularly on one given over to the public.