

carburetors of motors clean and well adjusted. Every knock and rattle should be promptly taken out, every worn or broken part should be promptly replaced. This is essential work and can not be neglected without inevitable waste and damage. Why use a fertilizer spreader which has been allowed to rust so that instead of doing crisp work it drags and bungles the job? A pinch of dry graphite between the slides would probably reduce the operating power by half and improve the results proportionately. Why keep on using a putting green roller that has picked up moist worm casts which have rusted on and made the surface of the roller bumpy? Such a roller is on the way to ruin; and so are the putting greens which are in charge of a man who permits such conditions.

Why push valuable equipment into a heap in a shed to rust and dry out through the winter when with a little labor those same tools can be cleaned up, the metal parts oiled, and the woodwork painted so that in the spring the workmen will have bright, clean, keen tools with which to work, and be benefited by the good influence which tools in good condition inevitably produce?

I sometimes think that next to a good greenkeeper, the best single individual employee a golf club can have is a man who has the knack of keeping tools well repaired and well sharpened and who loves to do that work. In practical experience, it has been found of great advantage to arrange the working time of such a man so that when the workmen deliver their implements at the end of the day he can spend some time in going over them and bringing them all up to the standard of good working efficiency. Two or three hours per day spent by one efficient man in this way tells through all the work of all the men all the time.

The loss to golf clubs resulting from neglect of tools and machinery, with attendant labor discontent and necessity of renewing equipment too often, is really serious. Having in mind conditions I have seen when nosing around in greenkeepers' sheds and watching men at work outside, I can not believe that this loss averages less than two or three per cent of the budgets. This means a clear waste of \$500 or \$600 per year to clubs having green budgets of \$20,000. I believe that in some clubs the loss approaches five per cent, or \$1,000 per year. These figures look large on paper; but let the man who doubts get into direct contact with the workmen and machinery and expense bills of several clubs, comparing the poorly managed ones with the well-managed ones, and he will soon become convinced that a substantial and avoidable waste is going on all the time.

The whole matter comes to this, that it is not enough for us to realize in a vague and general way that tools and machinery should be kept sharpened and oiled and in good repair. We must get down to actual daily conditions and see to it that everything is actually right all the time; and therein lies a pressing duty upon all green committees and greenkeepers.

Golf Turf in Britain

By C. V. Piper

The beauty of British grass turf is proverbial. Rural England is a lovely country, which has often been likened to a great park—a large greensward with noble trees and scattered groves. This is the impression that Britain makes on the minds of most travelers, and with them we agree. On the whole, the grass turf of Britain is far more beautiful than that of the United States. There is a notable absence of areas of land

covered with coarse grasses and weeds, the unkempt sort of places so familiar to us.

When, however, one studies the turf critically, there are other things to be said. On pasture lands, parks, lawns, etc., where the turf is kept short, the dominant grasses are English common bent and red fescue, or in the highlands often sheep's fescue. The two former grasses get along well together on all kinds of soils, in marked contrast to their behavior in this country. The English common bent is a different grass from Rhode Island bent and apparently is not introduced into the United States. On the heavier acid soils of Britain, in old grass turf the bent tends to be dominant, but there is always more or less fescue. On the lighter, sandy soils there is a larger proportion of fescue, but rarely more than half of the total grass. Other turf plants that in places at least are common include crested dog's-tail, sweet vernal, white clover, and very often *weeds*.

The natural grasslands nearly anywhere in Britain will, if mowed, make good, playable golf turf. In fact, on many courses, both seashore and inland, the turf is purely natural in the sense that the land was not plowed nor sown to produce the grass. It is probably on account of this fact that relatively little study has been given to the growing of superior turf in Britain. Broadly speaking, the turf is that which nature provides, not only without aid, but in some cases at least, in spite of poor greenkeeping.

The pure or nearly pure fescue turf, of which so much has been written, does not exist except naturally in highland areas or on some of the newly built courses on sandy land. Some of the latter have very excellent young turf, which with intelligent care can doubtless be thus kept indefinitely.

One of the surprises in studying British putting greens was the rarity of velvet bent and of creeping bent. Only four small patches of the former were seen. Creeping bent plants were observed on some of the greens on three courses. Apparently South German bent seed has never been much used in Britain, otherwise the scarcity of the splendid strains of velvet bent and creeping bent which come from the Rhineland seed would seem impossible.

In general, greenkeeping in Britain seems to consist mainly of mowing and watering. Occasionally a top-dressing or a little fertilizer may be used; but on many courses the greens are starved and the turf so thin that the soil can be seen through the grass. This starving is done on the theory that it makes the grass tough and deep-rooted and also that it discourages the weeds, especially *Poa annua*. In May, however, this latter grass formed a solid blanket on most of the putting greens, even where the base of the turf was bent and fescue. Pearlwort is an exceedingly common weed on the putting greens, as a rule making up 10 per cent of the turf, and occasionally as much as 50 per cent. It seems not to be so obnoxious in Britain as in America, though it can scarcely be deemed a desirable turf.

Nowhere was a putting green seen as good as the better greens in America seeded to German bent, let alone those developed by the vegetative method. This is certainly not due to the conditions, as they seem to be much more favorable than are American conditions. Rather it seems to result from the fact that playable turf is easily secured and, in consequence, there has been no urge to secure the best possible. It may, indeed, be a debatable question whether British golf clubs should spend more money to secure ideal turf, or rest content with such turf as Nature and present greenkeeping methods produce.

On many courses the putting green turf contrasts most unfavorably

with the fairway turf. The latter is often extremely good, but the greens are usually very weedy. This points to something being wrong in the greenkeeping methods. The commonest weeds are *Poa annua* and pearlwort; but white clover, hop clover, chickweed, etc., are far from rare. Systematic weeding scarcely exists in British greenkeeping except for such taprooted weeds as starweed and plantain.

The golf leaders of Britain are deeply interested in the subject of turf and keen for the best information. Their courtesy was very marked and is deeply appreciated. As an earnest of their interest, it is worth noting that a meeting was held during the amateur tournament at St. Andrews looking forward to the establishment of an organization in Britain somewhat similar to our Green Section. Some of the American results will doubtless prove at least of suggestive value.

It would perhaps be unsafe to use American methods in Britain without first testing them on a small scale. Because certain things give good results in America is no criterion that they would be equally satisfactory elsewhere.

What One District Greenkeepers' Association Is Accomplishing

By John Morley, President, Cleveland District Greenkeepers' Association

The Cleveland District Greenkeepers' Association was formed in the spring of this year as the outcome of a suggestion made by a greenkeeper in attendance at a meeting of the Cleveland District Golf Association on March 29, 1924. This suggestion was to the effect that vastly greater benefit would result to the greenkeepers from gatherings of this nature if it could be arranged so that the meetings could be held upon the golf courses themselves rather than in hotels or similar meeting places.

The course of the Youngstown Country Club was selected for the first meeting of the association. This meeting was held May 12. Notwithstanding a cold rain the morning of the meeting, there were forty greenkeepers or chairmen of green committees present. We were favored with a talk by Prof. Lyman Carrier at this meeting, on the subject of grasses, particularly as regards the names of the various grasses occurring on golf courses. Our last meeting was held at the Congress Lake Country Club, on August 4. At that meeting we had two of the leading makes of tractors working side by side, which gave us opportunity for a comparative study of the merits of both machines.

Our officers consist of a president and a secretary. Our meetings are held under the supervision of the District Green Section, in that the chairman of the District Green Section is asked to preside at each of our meetings. We assemble at the club selected for the meeting, at about 10.30 in the morning. A preliminary meeting is held in the club house. After that a lunch is furnished by the entertaining club, and then the members gather on the course to discuss the subjects of soil, grasses, fertilizers, etc., and to inspect working equipment.

There is much to be gained by having such an association in connection with a District Golf Association. Through these joint meetings of greenkeepers and chairmen of green committees, a brotherly spirit is imbued and a closer understanding reached. From an educational standpoint it is believed that gatherings of this sort are one of the best movements that the Green Section has fostered. They not only furnish the young greenkeeper with valuable information of a practical nature, but the older ones