Vegetative Planting
By LYMAN CARRIER

TEN years have passed since the vegetative method of planting creeping bent was originated to meet the emergency then existing from the scarcity of fine turf grass seed. Five years were spent in experimental work and demonstration when only a few greens were planted. But during the past five years there has been a steady increase in the use of this method despite the adverse criticism from some golfers.

It is not the purpose of this article to give the details of planting but rather to call attention to a few common mistakes that are made in the handling of this kind of turf. Most greenkeepers understand planting stolons and those who are unfamiliar with the method can easily get detailed instructions from the commercial growers or from other green keepers who have had experience.

Much fault has been found with creeping bent putting greens which could easily be avoided by those in charge if they only knew how to take care of the turf. First, take the matter of speed of the ball. Simply because there is a thick covering of grass on the ground does not necessarily mean that the greens are slow. Compared with the ordinary seeded greens of German bent the most popular strains of creeping bent turf are very fast. I have heard a chairman of a Green committee give orders to cut the greens closer while at the same time the professional was raving about their being too fast. A slight gradual raising of the cutting bar of the mower is often all that is necessary to satisfy the critical player.

Do Not Cut Too Closely in Late Fall

Another characteristic of creeping bent which does not appear to be well understood is that it stops growing when the nights get cold and frosty in the fall. It is a mistake to keep on cutting creeping bent turf late in the fall at the same height as in the summer. It is not at all uncommon to have the greens so fast late in the season and in the winter that they will not hold a ball. Letting the grass get a little longer as it goes into the winter will make better turf in the spring before warm growing weather comes.

Brush Well Against Grain

Then there is the matter of "grain" in the turf. Practically all of the creeping bents which are planted vegetatively hug the ground naturally and would rather grow down hill than up. This habit of growth, especially on steep, sloping greens makes for fast putting in one direction and slow in the other. Unfortunately the faster direction of the grass is down hill. It is the writer's opinion that steep greens should never be built but, nevertheless, it is often done and sometimes these steep greens are planted with creeping bent. Brushing against the grain before mowing will do much to overcome this fault. Some greenkeepers use a fine toothed rake and others coarse brushes for this purpose. Any tool which will straighten up the ends of the grass stems without tearing into the turf will answer.

Topdressing Often Too Rich

Judicious use of topdressing will do much to overcome the flat or lateral growth of creeping bent. The more stems that are covered with the topdressing the more buds there will be in the turf to grow and the new shoots which come through the dirt will have a more upright habit of growth than will those which develop above the surface of the ground.

Another point about creeping bent is that it does not require an overly rich soil. Excessive use of manure in the construction of greens or too frequent use of rich compost or fertilizers may cause the grass to become coarse in texture. The writer has in mind one of the first courses to plant their greens in Washington strain of bent. For fear of losing their fine stand of grass they topdressed with compost and fertilized with ammonium sulphate about every three weeks the first year. The grass grew so fast it was necessary to cut the greens every day and some of the time twice a day in order to keep them in playable condition. Since that first year they have greatly reduced the amount of plant food given the grass and now they topdress with just ordinary sandy loam topsoil. There has been a remarkable improvement in the texture of the turf because of this change.

Why Washington Bent is Most Popular

Use of an inferior strain of creeping bent has led to many disappointments with vegetatively planted greens. There are two strains which have given the most universal satisfaction. These are the Washington and the Metropolitan. In the use of these names I am referring to the original strains of bent which were distributed by the United States Department of Agriculture prior to 1925.

Turf of the Washington strain of creeping bent comes near to being perfect. Other strains of bent may be finer in texture. Any of them are likely to make

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good turf at certain seasons of the year or under favorable conditions for grass growing. None however, has the ability to grow under such adverse conditions as does the Washington, or to keep in such good condition from one end of the year to the other and from year to year. No other strain has a more attractive color. None is so resistant to the encroachment of weeds and diseases. When it comes to thriving under use and abuse, the Washington is in a class by itself. The use of the Washington strain has pushed the line of successful creeping bent growing far to the south and west of where it was thought possible a few years ago for any creeping bent to survive the heat of the summers. It has been tried in comparison with several other strains at the Missouri Botanical Gardens at St. Louis and by the Kansas Experiment Station at Manhattan, Kansas and in both instances it has proved its superiority over the others. It is doing splendidly at Knoxville, Tennessee, and there appears no valid reason why it should not do well anywhere in the cotton belt if given ordinary care during the summer.

The Metropolitan resembles the Washington in many ways. It is a little lighter in color and finer in texture. There is also more of a tendency to upright growth. On rich lands of the North Central States it makes a wonderful turf. It will not survive heat and drought as well as will the Washington but its fine close texture makes it a favorite where it can be grown.

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The Pro and Con of Stolons and Seed

The question is often asked "What is the future of vegetative planting?" From all indications at the present time this method of planting turf is steadily growing in popularity in the middle west and south of the Ohio River. Most of the new courses in the north and east are using stolons for their greens but there seems to be a falling off in the number of courses that are changing their seeded greens to creeping bent by the vegetative method. While tried out thoroughly, vegetative planting has never become popular on the Pacific Coast. This is largely due to the fact that the eastern strains of bent which have been used for planting are not adapted to an all-the-year-round climate. And then too they have a creeping bent grass out there which comes from seed which makes better turf than any of the strains of creeping which are planted vegetatively.

The demand for stolons for lawns is increasing rapidly. The ease and cheapness of upkeep of this kind of turf appeals to the pocket-book as its attractive appearance does to the eye. Vegetative planting of creeping bent appears to have become established as a permanent factor in the production of fine turf in this country.

Fairway Irrigation
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Putting greens will of course permit of no couplings or sprays being installed in the putting surface. However quick couplings can be placed just outside and the hoseless sprinklers used if desired. This wastes considerable water, which many clubs really like as it provides an excellent collar of turf outside the putting surface. An ideal method for watering the putting greens is to have a duplex valve installed near the green. These boxes are of the concealed type. Then have a 50 or 60 foot length of hose and a slow motion sprinkler on roller stand which will cover an entire green 100 feet in diameter more. Place the sprinkler on the green so that it will cover the entire surface and leave it there until the green is properly watered. Then by pulling the hose the sprinkler will roll off the green without marring it and without the attendant having to walk on the green while it is wet. If the wind is blowing the sprinkler is placed a little off center. This is an ideal way to water greens. Unless a turf collar is desired, then of course the hoseless system is the thing to have.

A hoseless system costs about 25 per cent more than a hose system, figuring cost of hose initially purchased.

Many of the fine old courses constructed before the modern methods of irrigation came into vogue, are now reconstructing and installing the present day methods and it is believed they will suffice for all time to come. There are many capable engineering concerns in all parts of the country who have the data on California installations. Many clubs as well as engineering companies have sent men to the Pacific coast to study the efficiency of California irrigating systems and we have yet to find one of them returning home disappointed.

Mr. Wendell Miller, the drainage expert of Columbus, Ohio, spends every winter out here and last winter he had Mr. Edward Dearie, the secretary of the Chicago District Greenkeepers Association with him. The writer spent some time with these gentlemen and found them very enthusiastic and as a result Mr. Miller has made several installations in Michigan and Eastern territory and advises that he has several contracts coming in for this year's work.

It is well worth the time of any club official or engineering representative who can come to California to spend some time around Los Angeles or San Francisco golf clubs. They will be amazed at the progress made in new methods of watering. There are dozens of the prettiest courses ever seen, which a few years ago were nothing but barren wastes of sand.

While this article was written to feature fairway irrigation, it has been thought proper to amplify it a bit and tell of new methods for watering greens and tees with modern equipment.