

Keeping Our Fairways Green

By E. W. VAN GORDER, Course Superintendent
Castlewood Country Club
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ALTHOUGH the Castlewood Country Club's golf course is but a year old, and the entire eighteen holes have been in play only since July 1st, it has attracted much attention throughout the state. This has been due to the happy combination of a wonderful natural setting, Cocoos bent greens, a complete hoseless watering system, and, especially, the services of the well known architect, William P. Bell of Pasadena.

Castlewood is located thirty miles east of Oakland on what was formerly the estate of the late Phoebe A. Hearst. The land on which the course is situated comprises oak covered hills which give it a very sporty nature. The layout has been cleverly designed to avoid excessive climbing—a climb on No. 3 handles the first nine, and one on No. 10, the second nine. Numbers 17 and 18 are down hill, and make an easy finish for the tired golfer.

The course abounds in natural hazards, necessitating few traps. Irregular lines and rough grass along the borders lend to these a natural appearance.

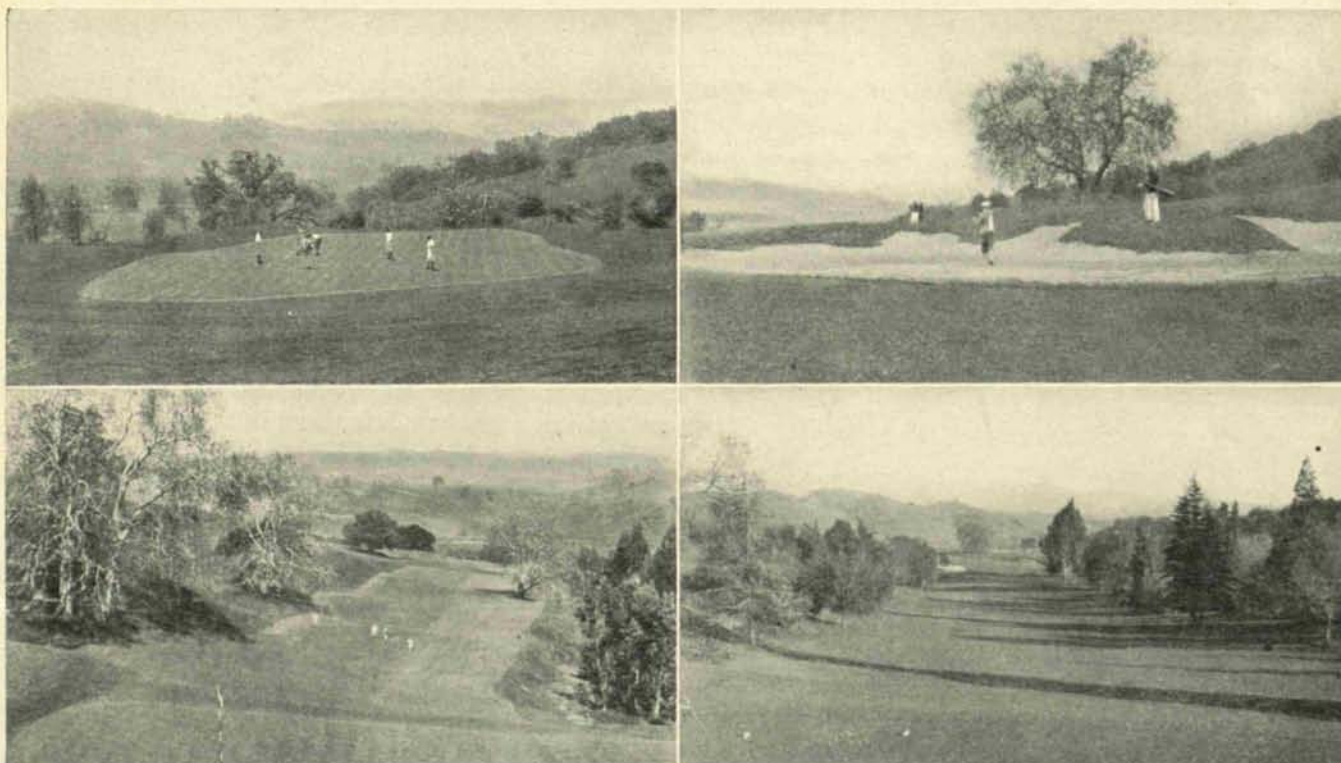
Water Pumping System

Turning to the problems of maintenance, the big question on California courses is water. We are at an ad-

vantage in this respect as we have free access to 90 million gallons a year which will be sufficient for our requirements. The water is delivered to the lower part of the property to be boosted 360 feet where it is picked up by a second pump and carried up 280 feet farther to two 100,000 gallon tanks. We have two pumps below which can be operated separately or together. At present we use only one. The motor is 100 H. P. with a pumping capacity of about 500 gallons per minute. The upper plant consists of a 100 H. P. motor and a 2-stage pump of 750 gallon capacity. All pumps are automatically operated by float switches. Our total reservoir capacity is 242,000 gallons which is about half a night's consumption during hot weather.

Lay-out of Pipes and Connections

The water pressure on the fairways ranges from 90 pounds to 160 pounds. The mains measure 4 and 5 inches with branches to the fairways of 2 inch pipe. Control valves on these branches, where they leave the mains, handle from 3 to 6 sprinklers. A fairway will have an average of 45 to 55 sprinkler connections. These are placed 70 feet apart in triangular formation to insure coverage. We are using Buckner Golf King No. 5 on



Upper left, Number 2 green at Castlewood; upper right, irregular lines and rough grass lend a natural appearance; lower left, looking down to third tee on Number 3, a difficult Par 4; lower right, Number 1 fairway, a perfect picture in the lengthening shadows of afternoon. (A. D. Mills photographs)

the fairways. We have about 150 fairway sprinklers, and while we could do with less, they have paid for themselves by reducing labor and trouble to a minimum. They are easy to handle, each man carrying about 40 in a wheelbarrow. The remainder are left to be used on fairways on steeper parts of the course, eliminating the necessity of moving them with the team. Two men take care of the 15 fairways, watering them every other night. During hot weather I have a man spend part of the day giving additional water to poor places.

I find it much more satisfactory to have the green-men water their own 3 greens. The greens are watered approximately three hours each night except Saturdays and Mondays. Two Golf Kings No. 2 per green handle the greens and tees.

At the present time we are operating with 15 men with the extra time watering bringing the payroll to the equivalent of 18 men. I will be able to eliminate 3 men and much of the overtime during the winter months.

Cocoos Bent Makes Good Putting Surface

Cocoos bent has proven very satisfactory in maintaining a true putting surface and in keeping out weeds and wild grasses. Daily close cutting and occasional top-dressing is all that is required to prevent them from matting. Uniform color is assured by light applications of commercial fertilizer. Weeding has become a matter of looking out for a few stray watercress plants which seem to be the only contamination of the silt loam we use for top-dressing.

Each man cares for 3 greens and tees. One man is kept busy with a Toro power mower, cutting the banks which are very large. We have two such mowers to allow for sharpening and repairs. However, one man can satisfactorily handle the 18 greens and 21 tees, except during the fastest growing weather.

Our problems are those of the average California course, and a well organized crew is an important factor in meeting them.

Planting Bent on Fairways

By HENRY A. MILLER, Greenkeeper
Barrington Hills Country Club, Barrington Hills, Illinois

FOR the last three years I have been planting Washington strain bent on different spots on our fairways, and from the experience we are having with it, it seems to be worth the trouble and time it takes to plant it. The spots that were planted three years ago have developed into quite a large area, and it surely makes a fine fairway from the appearance of the spots we have.

My chairman, Mr. Hart, and I often stopped and looked at spots on hills, hillsides or places where it was difficult to grow grass without being washed out, burnt out or frozen out, and figured how we would grow grass in such places without sodding it with turf. We decided to try bent out of our nursery and see what it would do.

We found after a year the wonderful results we got

after planting some on different places on the course. When it was put there it was there to stay. It seems to do as well on gravel as on good soil. We always plant it in the fall of the year and depend on rains for the start.

Anybody Can Plant Bent This Simple Way

We plant it thus: cut pieces of bent sod into small pieces, say three inches square, loosen up the soil or gravel with a hoe or rake, lay pieces on this gravel or soil about a foot apart and cover with black dirt, enough to hold it in place, and to hold moisture. Then forget about it.

We also replace our divot cuts in fairways in the same manner by digging the divot hole a little deeper, dropping a piece of bent in it, stepping it down a little and covering it with black dirt. In this way we get bent scattered all over the fairways, and in a dry spell those bent spots are always green whereas the other grass is brown. It is the quickest way to get rid of a bad spot on the fairways, or anywhere, that I know of.



Number 1 Hole at Barrington Hills, showing excellent bunkering

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