

been in. We have had, however, more or less serious attacks of the small brown-patch, but in no case so severe as not to be controllable by calomel, or to affect materially the putting surface. We found the Metropolitan greens to be slower in forming a dense turf to hold a pitch shot. We found also that it took the turf considerably longer to knit into a compact mass. However, at the present time, after a scant two years, this fine, thick sod is coming, and the entire surface of the greens is completely covered. For reasons not determined, we have greater quantities of annual bluegrass (*Poa annua*) in these Metropolitan greens. This is the one thing so far which seems to have us beaten. At a very considerable expense we have cleaned these greens completely several times but the only result has been to leave holes in our bent for a few weeks until they filled up. At the end of two months the annual bluegrass was back with us again. As a putting surface the chief defect we find with it is the difficulty of cutting it close enough. We confess that at the present time we are simply accepting annual bluegrass as an evil that can not be avoided.

On the 16th hole, planted with the Ekwanok strain, the bent has spread in some places 15 or 20 feet through the bluegrass on the apron of the green and is today thriving. No application of mercury has ever been made to this apron. It has had sulphate of ammonia occasionally, as have all our approach areas, given as a matter of routine to stimulate the grass and discourage clover.

(The 1928 United States Women's National Championship was played on the Cascades course.—EDITORS.)

Care of Seeded Greens at Youngstown, Ohio

By John Morley

At the Youngstown Country Club all of the putting greens are seeded. The turf on 8 of the greens is about 90 per cent bent. The remaining greens are about 25 per cent bent and 75 per cent annual bluegrass (*Poa annua*). These greens are from 8 to 17 years old. The course is open for play all year, and hence we have not found it necessary to maintain temporary greens. The greens are top-dressed with compost in the fall, immediately after Labor Day, and two of the greens are covered with granulated tobacco. The compost is prepared from sods, sand, and stable manure and is not used until it is two years old. It is applied at the rate of about one ton to 5,000 square feet, the greens averaging from 7,500 to 10,000 square feet in size.

Our subsoil is mostly silt; the topsoil is made from compost. In order to prevent the formation of hardpan near the surface we have found it advisable to water the greens heavily every third day so as to allow the water to penetrate the subsoil. This watering is done in the morning.

The turf is poled every morning before it is cut. The greens are mowed every day except Sundays. They are weeded by women, whom we keep employed throughout the season on this and other work. The cups are moved twice a week. As fertilizer we use sulphate of ammonia and activated sludge. This past season we have used organic mercury compounds in brown-patch control. During the dormant season we avoid the use of much fertilizer high in nitrogen content. In the spring the greens are gone over once with long wooden rollers.